

SPIRE-AST-DOC-002338

Title: **Cryo-Harness Mass Breakdown**

CI-No:

Prepared by:	J.Lang / W. Hund <i>J. Lang</i>	Date:	16.05.02
Checked by:	R.Hohn <i>R. Hohn</i>		28.05.02
Product Assurance:	R.Stritter <i>R. Stritter</i>		28.05.02
Configuration Control:	A.von Ivady <i>A. von Ivady</i>		28.05.02
Project Management:	W.Ruehe <i>W. Ruehe</i>		28.05.02

Distribution: See Distribution List (last page)

Copying of this document, and giving it to others and the use or communication of the contents thereof, are forbidden without express authority. Offenders are liable to the payment of damages. All rights are reserved in the event of the grant of a patent or the registration of a utility model or design.

Issue	Date	Sheet	Description of Change	Release
DR	16.05.02	-all-	Initial Issue	

Table of Content

1	Scope	4
2	Documents	5
2.1	Applicable Documents	5
2.2	Reference Documents	5

1 Scope

This Technical Note provides the current calculated Cryo-Harness mass breakdown of wires , cables, connectors , back-shells , interface connector-brackets , routing profiles, thermal bonding and harness attachment hardware of the scientific instrument of HIFI, PACS , SPIRE and the Cryo-Control Harness in each harness segment as they are the SVM internal , the CVV external and CVV internal Cryo-Harness.

The harness wire and cable length have been taken from the CATIA 3D harness routing design. Cable configurations not finally designed yet have been calculated in relation to known one.

Harness materials currently under investigation , as back-shells and special connector contacts have been calculated by the mass of similar elements and will be updated when the hardware is weighed.

The Cryo-harness design is still under investigation, therefore the harness mass will be controlled in detail and suitable mass savings established.

2 Documents

2.1 Applicable Documents

N/A

2.2 Reference Documents

- RD-1 PACS Cryo-Harness Interface Meeting
HP-2-ASED-TN-0111 date: 17./18.04.02
- RD-2 SPIRE Cryo-Harness Interface Meeting
HP-2ASED-TN-0112 date: 18.04.02
- RD-3 HIFI Cryo-Harness Interface Meeting
HP-2-ASED-TN-0144 date: 25.04.02
- RD-4 HIFI LOU Cryo-Harness Interface Meeting
HP-2-ASED-TN-0123 date: 08.05.02
- RD-5 Herschel Cryo-Harness Input to Theraml Analysis
HP-2-ASED-TN-0010 Issue: 1.1

Annex 1: Harness Mass Breakdown

	Harness Mass Breakdown / g			total mass/g
	CVW Internal	CVW External	SVM Internal	
SIH HI-FI LSU Conn.			43,4	43,4
SIH HI-FI LCU Conn.			1077,16	1077,16
SIH HI-FI FCU Conn.			1057,84	1057,84
SIH HI-FI LOU Conn.		1060,97		1060,97
SIH HI-FI FPU Conn.	636,2			
SIH HI-FI SVM-I/F CB Conn.		1360	1580	2940
SIH HI-FI CVV-I/F CB Conn.	1194,5	1580		2774,5
SIH HI-FI Conn. total	1830,7	4000,97	3758,4	8953,87
SIH PACS				
SIH PACS DECMEC1/2 Conn.			1197,42	1197,42
SIH PACS BOLC Conn.			896,62	896,62
SIH PACS BOLA Conn.		518,4		518,4
SIH PACS FPU Conn.	1062,39			1062,39
SIH PACS SVM-I/F CB Conn.		3264	3792	7056
SIH PACS CVV-I/F CB Conn.	2866,8	3792		6658,8
SIH PACS Conn.total	3929,19	7574,4	5886,04	17389,63
SIH SPIRE				
SIH SPIRE FCU Conn.			863,32	863,32
SIH SPIRE DCU Conn.			1787,1	1787,1
SIH SPIRE FPU Conn.	344,72			344,72
SIH SPIRE JFP Conn.	512,84			512,84
SIH SPIRE JFS Conn.	188,42			188,42
SIH SPIRE SVM-I/F CB Conn.		3536	4108	7644
SIH SPIRE CVV-I/F CB Conn.	3105,7	4108		7213,7
SIH SPIRE Conn. total	4151,68	7644	6758,42	18554,1
SIH CONN.TOTAL	9911,57	19219,37	16402,86	44897,6

	Harness Mass Breakdown / g			
	CVV Internal	CVV External	SVM Internal	total mass/g
CCH CCU Conn.			1657,75	1657,75
CCH SENSORS (MDM-Conn.)	1414			1414
CCH SENSORS (NAONIX-Conn + shell)	1390	900		2290
CCH TELESCOP Conn.		603,08		603,08
CCH NED Conn.		415,12		415,12
CCH SVM-I/F CB Conn.		3813,64	4412,25	8225,89
CCH CVV-I/F CB Conn.	1791,75	2370		4161,75
CCH CONN. TOTAL	4595,75	8101,84	6070	18767,59
HI-FI wire & cables	831,9	1487,82	3546,48	5866,2
PACS wire & cables	1919,02	2598,7	8490,92	13008,64
SPIRE wire & cables	2032,06	3146,42	6606,54	11785,02
SIH wire & cables total	4782,98	7232,94	18643,94	30659,86
CCH wire & cables	266,51	1553,81	1983,6	3803,92
Harness Connector Brackets and attachments	3719,5	11867	1575	17161,5
Cryo SIH Harness in total	14694,55	26452,31	35046,8	75557,46
Cryo CCH Harness in total	4862,26	9655,65	8053,6	22571,51
Cryo Harness in total	23276,31	47974,96	44675,4	115926,67

Annex 2: Cryo-Control Harness CCH

HERSCHEL CCH Cryo-Harness mass (SVM int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM internal	total cable weight g
1	A101	HTT	2	1	1	1ST02C28	6,10	CU		0
2	A102	HTT	2	1	1	1ST02C28	6,10	CU		0
3	A103	HTT	2	1	1	1ST02C28	6,10	CU		0
4	A104	HTT	2	1	1	1ST02C28	6,10	CU		0
5	A105	HTT	2	1	1	1ST02C28	6,10	CU		0
6	A106	HTT	2	1	1	1ST02C28	6,10	CU		0
7	A107	HTT	2	1	1	1ST02C28	6,10	CU		0
8	A108	HTT	2	1	1	1ST02C28	6,10	CU		0
9	A109	HTT	2	1	1	1ST02C28	6,10	CU		0
10	A201	OB	2	1	1	1ST02C28	6,10	CU		0
11	A202	OB	2	1	1	1ST02C28	6,10	CU		0
12	A203	OB	2	1	1	1ST02C28	6,10	CU		0
13	A204	OB	2	1	1	1ST02C28	6,10	CU		0
14	A205	OB	2	1	1	1ST02C28	6,10	CU		0
	A206	OB	2	1	1	1ST02C28	6,10	CU		0
15	A421	1st Shield (innermost)	2	1	1	1ST02C28	6,10	CU		0
16	A422	1st Shield (innermost)	2	1	1	1ST02C28	6,10	CU		0
	A701	HOT	2	1	1	1ST02C28	6,10	CU		0
	A702	HOT	2	1	1	1ST02C28	6,10	CU		0
	A703	HOT	2	1	1	1ST02C28	6,10	CU		0
17	H101	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
17	H101	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
18	H102	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
18	H102	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
19	H103	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
20	H104	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
21	H501	GHe S/S external Ventline	2	0	1	1T02C28	2,80			0
21	H501	GHe S/S external Ventline	2	0	1	1T02C28	2,80			0
22	H502	GHe S/S external Ventline	2	0	1	1T02C28	2,80	CU	1800	5,04
	H503	GHe S/S external Ventline	2	0	1	1T02C28	2,80	CU	1800	5,04
23	H701	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
24	H702	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
25	L101	HTT	2	0	1	1T02C28	2,80	CU		0
25	L101	HTT	2	0	1	1T02C28	2,80	CU		0
26	L102	HTT	2	0	1	1T02C28	2,80	CU		0
26	L102	HTT	2	0	1	1T02C28	2,80	CU		0
27	L701	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
27	L701	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
28	L702	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
28	L702	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
29	P101	HTT	4	0	1	1T04C28	6,00	CU	1800	10,8
	P102	HTT	4	0	1	1T04C28	6,00	CU		0
30	P501	GHe S/S external Ventline	4	0	1	1T04C28	6,00	CU	1800	10,8
31	P502	GHe S/S external Ventline	4	0	1	1T04C28	6,00	CU		0
	P701	HOT	4	0	1	1T04C28	6,00	CU	1800	10,8

HERSCHEL CCH Cryo-Harness mass (SVM int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM internal	total cable weight g
32	T101	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
33	T102	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
34	T103	HTT	4	0		1	1T04C28	6,00	CU		0
35	T104	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
36	T105	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
37	T106	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
38	T107	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
39	T111	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
40	T112	HTT	4	0		1	1T04C28	6,00	CU	1800	10,8
	T113	HTT	4	0		1	1T04C28	6,00	CU		0
	T114	HTT	4	0		1	1T04C28	6,00	CU		0
	T115	HTT	4	0		1	1T04C28	6,00	CU		0
	T116	HTT	4	0		1	1T04C28	6,00	CU		0
	T201	OB	4	0		1	1T04C28	6,00	CU		0
	T202	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T203	OB	4	0		1	1T04C28	6,00	CU		0
	T204	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T205	OB	4	0		1	1T04C28	6,00	CU		0
	T206	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T207	OB	4	0		1	1T04C28	6,00	CU		0
	T208	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
41	T211	OB	4	0		1	1T04C28	6,00	CU		0
42	T212	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
43	T213	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
44	T221	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
45	T222	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
46	T223	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
47	T224	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
48	T225	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T226	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T227	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T228	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
49	T231	OB	4	0		1	1T04C28	6,00	CU		0
50	T232	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
51	T233	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T234	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T235	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T236	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
	T237	OB	4	0		1	1T04C28	6,00	CU	1800	10,8
52	T241	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
53	T242	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
54	T243	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
	T244	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
	T245	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
	T246	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
	T247	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
	T248	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
	T249	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
	T250	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
55	T251	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
56	T252	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
57	T253	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
58	T254	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
59	T255	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
60	T256	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
61	T257	SPIRE FPU	4	0		1	1T04C28	6,00	CU		0
62	T258	SPIRE FPU	4	0		1	1T04C28	6,00	CU	1800	10,8
63	T301	Sunshield	4	0		1	1T04C28	6,00	CU		0

HERSCHEL CCH Cryo-Harness mass (SVM int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM internal	total cable weight g
64	T302	Sunshield	4	0	1	1T04C28	6,00	CU		0
65	T303	Sunshield	4	0	1	1T04C28	6,00	CU		0
66	T304	Sunshield	4	0	1	1T04C28	6,00	CU		0
67	T305	Sunshield	4	0	1	1T04C28	6,00	CU		0
68	T306	Sunshield	4	0	1	1T04C28	6,00	CU		0
69	T311	Sunshade	4	0	1	1T04C28	6,00	CU	1800	10,8
70	T312	Sunshade	4	0	1	1T04C28	6,00	CU	1800	10,8
71	T313	Sunshade	4	0	1	1T04C28	6,00	CU	1800	10,8
72	T314	Sunshade	4	0	1	1T04C28	6,00	CU	1800	10,8
	T315	Sunshade	4	0	1	1T04C28	6,00	CU	1800	10,8
	T316	Sunshade	4	0	1	1T04C28	6,00	CU	1800	10,8
	T321	SVM Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
	T322	SVM Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
	T323	SVM Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
	T324	SVM Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
	T331	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T332	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T333	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T334	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T335	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T336	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T337	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T338	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T339	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T341	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T342	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T343	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T344	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T345	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T346	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T347	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T348	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
	T349	Telescope	4	0	1	1T04C28	6,00	CU	1800	10,8
73	T421	1st Shield (innermost)	4	0	1	1T04C28	6,00	CU	1800	10,8
74	T422	1st Shield (innermost)	4	0	1	1T04C28	6,00	CU	1800	10,8
75	T423	1st Shield (innermost)	4	0	1	1T04C28	6,00	CU		0
76	T424	1st Shield (innermost)	4	0	1	1T04C28	6,00	CU	1800	10,8
77							6,00			0
78							6,00			0
79	T441	2nd Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
80	T442	2nd Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
81	T443	2nd Shield	4	0	1	1T04C28	6,00	CU		0
82	T444	2nd Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
83							6,00			0
84							6,00			0
85	T461	3rd Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
86	T462	3rd Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
87	T463	3rd Shield	4	0	1	1T04C28	6,00	CU		0
88	T464	3rd Shield	4	0	1	1T04C28	6,00	CU	1800	10,8
89							6,00			0
90							6,00			0
91	T501	GHe S/S external Ventline	4	0	1	1T04C28	6,00	CU	1800	10,8

HERSCHEL CCH Cryo-Harness mass (SVM int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM internal	total cable weight g
92	T502	GHe S/S external Ventline	4	0	1	1T04C28	6,00	CU		0
93	T503	GHe S/S external Ventline	4	0	1	1T04C28	6,00	CU		0
	T504	GHe S/S external Ventline	4	0	1	1T04C28	6,00	CU	1800	10,8
	T505	GHe S/S external Ventline	4	0	1	1T04C28	6,00	CU	1800	10,8
	T506	GHe S/S	4	0	1	1T04C28	6,00	CU	1800	10,8
94							6,00			0
95							6,00			0
96							6,00			0
97	T651	Cavity	4	0	1	1T04C28	6,00	CU	1800	10,8
98	T652	Cavity	4	0	1	1T04C28	6,00	CU	1800	10,8
99							6,00			0
100	T701	HOT	4	0	1	1T04C28	6,00	CU		0
101	T702	HOT	4	0	1	1T04C28	6,00	CU	1800	10,8
102	T703	HOT	4	0	1	1T04C28	6,00	CU	1800	10,8
	T704	HOT	4	0	1	1T04C28	6,00	CU		0
103	T801	Lower chain	4	0	1	1T04C28	6,00	CU		0
104	T802	Lower chain	4	0	1	1T04C28	6,00	CU		0
105	T803	Lower chain	4	0	1	1T04C28	6,00	CU		0
106	T804	Lower chain	4	0	1	1T04C28	6,00	CU		0
107	T805	Lower chain	4	0	1	1T04C28	6,00	CU		0
108	T806	Lower chain	4	0	1	1T04C28	6,00	CU		0
109	T807	Lower chain	4	0	1	1T04C28	6,00	CU		0
110	T808	Lower chain	4	0	1	1T04C28	6,00	CU		0
111	T851	Upper chain	4	0	1	1T04C28	6,00	CU		0
112	T852	Upper chain	4	0	1	1T04C28	6,00	CU		0
113	T853	Upper chain	4	0	1	1T04C28	6,00	CU		0
114	T854	Upper chain	4	0	1	1T04C28	6,00	CU		0
115	T855	Upper chain	4	0	1	1T04C28	6,00	CU		0
116	T856	Upper chain	4	0	1	1T04C28	6,00	CU		0
117	T857	Upper chain	4	0	1	1T04C28	6,00	CU		0
118	T858	Upper chain	4	0	1	1T04C28	6,00	CU		0
	T861	Upper spatial framework	4	0	1	1T04C28	6,00	CU		0
	T862	Upper spatial framework	4	0	1	1T04C28	6,00	CU	1800	10,8
119	T901	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
120	T902	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
121	T903	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
122	T904	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
123	T905	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
124	T906	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
125	T907	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
126	T908	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
127	T909	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
128	T910	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
129	T911	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
130	T912	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
131							6,00			0
132							6,00			0
133							6,00			0
134							6,00			0
	T921	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8

HERSCHEL CCH Cryo-Harness mass (SVM int.)

Cable_n	Component Name	Location	no_of_wires	no_of_snd's	no_of_cables	cable_type	cable weight g/m	condu.	Harness thh (mm) SVM internal	total cable weight g
	T922	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
	T931	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
	T932	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
	T933	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
	T934	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
	T935	CVV	4	0	1	1T04C28	6,00	CU	1800	10,8
135	V102	HTT	2	0	1	1T02C28	2,80	CU		0
136	V103	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
137	V104	HTT	2	0	1	1T02C28	2,80	CU		0
138	V105	HTT	2	0	1	1T02C28	2,80	CU		0
139	V106	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
140	V501	GHe S/S external Ventline	2	0	1	2			1800	0
141	V503	GHe S/S external Ventline	2	0	1	2			1800	0
142	V504	GHe S/S external Ventline	2	0	1	2			1800	0
143	V505	GHe S/S external Ventline	2	0	1	2			1800	0
144	V701	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
144	V702	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
145	VH102	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
146	VH104	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
147	VH105	HTT	2	0	1	1T02C28	2,80	CU		0
148	VH701	HOT	2	0	1	1T02C28	2,80	CU		0
	VH103	HTT	2	0	1	1T02C28	2,80	CU		0
	VH106	HTT	2	0	1	1T02C28	2,80	CU		0
	VH702	HOT	2	0	1	1T02C28	2,80	CU		0
153	VS102	HTT	2	0	1	1T02C28	2,80	CU		0
154	VS103	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
155	VS104	HTT	2	0	1	1T02C28	2,80	CU		0
156	VS105	HTT	2	0	1	1T02C28	2,80	CU		0
157	VS106	HTT	2	0	1	1T02C28	2,80	CU	1800	5,04
158	VS501	GHe S/S	2	0	1	1T02C28	2,80	CU	1800	5,04
159	VS503	GHe S/S	2	0	1	1T02C28	2,80	CU	1800	5,04
160	VS504	GHe S/S	2	0	1	1T02C28	2,80	CU	1800	5,04
161	VS505	GHe S/S	2	0	1	1T02C28	2,80	CU	1800	5,04
162	VS701	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
	VS702	HOT	2	0	1	1T02C28	2,80	CU	1800	5,04
149	VT102	HTT	4	0	1	1T04C28	6,00	CU		0
150	VT104	HTT	4	0	1	1T04C28	6,00	CU		0
151	VT105	HTT	4	0	1	1T04C28	6,00	CU		0
152	VT701	HOT	4	0	1	1T04C28	6,00	CU		0
	VT103	HTT	4	0	1	1T04C28	6,00	CU		0
	VT106	HTT	4	0	1	1T04C28	6,00	CU		0
	VT702	HOT	4	0	1	1T04C28	6,00	CU		0
163	N601	Cover	50	0	25	1T02C28	6,00	CU	1800	270
164	N602	Cover	50	0	25	1T02C28	6,00	CU	1800	270
165	SI601	Cover		0	1				1800	0
166	SI602	Cover			1				1800	0
167	VG901	CVV			1					0
168	VG902	CVV			1					0
169	H331	Telescope	28	0	18	T2C24	5,20	CU	1800	168,48
										1983,6

HERSCHEL CCH Cryo-Harness mass CVV (ext.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM-CB to CVV I/F Connect. external	total cable weight g
1	A101	HTT	2	1		1	H02138	1,80	SST	2300	4,14
2	A102	HTT	2	1		1	H02138	1,80	SST	2300	4,14
3	A103	HTT	2	1		1	H02138	1,80	SST	2300	4,14
4	A104	HTT	2	1		1	H02138	1,80	SST	1350	2,43
5	A105	HTT	2	1		1	H02138	1,80	SST	1350	2,43
6	A106	HTT	2	1		1	H02138	1,80	SST	1350	2,43
7	A107	HTT	2	1		1	H02138	1,80	SST	1350	2,43
8	A108	HTT	2	1		1	H02138	1,80	SST	1350	2,43
9	A109	HTT	2	1		1	H02138	1,80	SST	1350	2,43
10	A201	OB	2	1		1	H02138	1,80	SST	2300	4,14
11	A202	OB	2	1		1	H02138	1,80	SST	2300	4,14
12	A203	OB	2	1		1	H02138	1,80	SST	2300	4,14
13	A204	OB	2	1		1	H02138	1,80	SST	2300	4,14
14	A205	OB	2	1		1	H02138	1,80	SST	2300	4,14
	A206	OB	2	1		1	H02138	1,80	SST	2300	4,14
15	A421	1st Shield (innermost)	2	1		1	H02138	1,80	SST	1350	2,43
16	A422	1st Shield (innermost)	2	1		1	H02138	1,80	SST	1350	2,43
	A701	HOT	2	1		1	H02138	1,80	SST	1350	2,43
	A702	HOT	2	1		1	H02138	1,80	SST	1350	2,43
	A703	HOT	2	1		1	H02138	1,80	SST	1350	2,43
17	H101	HTT	2	0		1	H02038	0,40	SST	1350	0,54
17	H101	HTT	2	0		1	H02038	0,40	BRASS	1350	0,54
18	H102	HTT	2	0		1	H02038	0,40	SST	1350	0,54
18	H102	HTT	2	0		1	H02038	0,40	BRASS	1350	0,54
19	H103	HTT	2	0		1	H02038	0,40	BRASS	1350	0,54
20	H104	HTT	2	0		1	H02038	0,40	BRASS	1350	0,54
21	H501	GHe S/S external Ventline	2	0		1	H02038	0,40		2500	1
21	H501	GHe S/S external Ventline	2	0		1	H02038	0,40		2500	1
22	H502	GHe S/S external Ventline	2	0		1	H02038	0,40	BRASS	2500	1
	H503	GHe S/S external Ventline	2	0		1	H02038	0,40	BRASS	2500	1
23	H701	HOT	2	0		1	H02038	0,40	BRASS	1350	0,54
24	H702	HOT	2	0		1	H02038	0,40	BRASS	1350	0,54
25	L101	HTT	2	0		1	H02038	0,40	SST	1350	0,54
25	L101	HTT	2	0		1	H02038	0,40	BRASS	1350	0,54
26	L102	HTT	2	0		1	H02038	0,40	SST	1350	0,54
26	L102	HTT	2	0		1	H02038	0,40	BRASS	1350	0,54
27	L701	HOT	2	0		1	H02038	0,40	SST	1350	0,54
27	L701	HOT	2	0		1	H02038	0,40	BRASS	1350	0,54
28	L702	HOT	2	0		1	H02038	0,40	SST	1350	0,54
28	L702	HOT	2	0		1	H02038	0,40	BRASS	1350	0,54
29	P101	HTT	4	0		1	H04038	0,70	SST	1350	0,945
	P102	HTT	4	0		1	H04038	0,70	SST	1350	0,945
30	P501	GHe S/S external Ventline	4	0		1	H04038	0,70	SST	2500	1,75
31	P502	GHe S/S external Ventline	4	0		1	H04038	0,70	SST	2500	1,75
	P701	HOT	4	0		1	H04038	0,70	SST	1350	0,945

HERSCHEL CCH Cryo-Harness mass CVV (ext.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM-CB to CVV I/F Connect. external	total cable weight g
32	T101	HTT	4	0		1	H04038	0,70	SST	1350	0,945
33	T102	HTT	4	0		1	H04038	0,70	SST	1350	0,945
34	T103	HTT	4	0		1	H04038	0,70	SST	1350	0,945
35	T104	HTT	4	0		1	H04038	0,70	SST	1350	0,945
36	T105	HTT	4	0		1	H04038	0,70	SST	1350	0,945
37	T106	HTT	4	0		1	H04038	0,70	SST	1350	0,945
38	T107	HTT	4	0		1	H04038	0,70	SST	1350	0,945
39	T111	HTT	4	0		1	H04038	0,70	SST	1350	0,945
40	T112	HTT	4	0		1	H04038	0,70	SST	1350	0,945
	T113	HTT	4	0		1	H04038	0,70	SST	1350	0,945
	T114	HTT	4	0		1	H04038	0,70	SST	1350	0,945
	T115	HTT	4	0		1	H04038	0,70	SST	1350	0,945
	T116	HTT	4	0		1	H04038	0,70	SST	1350	0,945
	T201	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T202	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T203	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T204	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T205	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T206	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T207	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T208	OB	4	0		1	H04038	0,70	SST	2300	1,61
41	T211	OB	4	0		1	H04038	0,70	SST	2300	1,61
42	T212	OB	4	0		1	H04038	0,70	SST	2300	1,61
43	T213	OB	4	0		1	H04038	0,70	SST	2300	1,61
44	T221	OB	4	0		1	H04038	0,70	SST	2300	1,61
45	T222	OB	4	0		1	H04038	0,70	SST	2300	1,61
46	T223	OB	4	0		1	H04038	0,70	SST	2300	1,61
47	T224	OB	4	0		1	H04038	0,70	SST	2300	1,61
48	T225	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T226	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T227	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T228	OB	4	0		1	H04038	0,70	SST	2300	1,61
49	T231	OB	4	0		1	H04038	0,70	SST	2300	1,61
50	T232	OB	4	0		1	H04038	0,70	SST	2300	1,61
51	T233	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T234	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T235	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T236	OB	4	0		1	H04038	0,70	SST	2300	1,61
	T237	OB	4	0		1	H04038	0,70	SST	2300	1,61
52	T241	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
53	T242	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
54	T243	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
	T244	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
	T245	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
	T246	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
	T247	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
	T248	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
	T249	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
	T250	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
55	T251	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
56	T252	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
57	T253	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
58	T254	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
59	T255	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
60	T256	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
61	T257	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
62	T258	SPIRE FPU	4	0		1	H04038	0,70	SST	2300	1,61
63	T301	Sunshield	4	0		1	H04038	0,70	SST		0

HERSCHEL CCH Cryo-Harness mass CVV (ext.)

Cable n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM-CB to CVV I/F Connect external	total cable weight g
64	T302	Sunshield	4	0		1	H04038	0,70	SST		0
65	T303	Sunshield	4	0		1	H04038	0,70	SST		0
66	T304	Sunshield	4	0		1	H04038	0,70	SST		0
67	T305	Sunshield	4	0		1	H04038	0,70	SST		0
68	T306	Sunshield	4	0		1	H04038	0,70	SST		0
69	T311	Sunshade	4	0		1	H04038	0,70	SST	8100	5,67
70	T312	Sunshade	4	0		1	H04038	0,70	SST	8100	5,67
71	T313	Sunshade	4	0		1	H04038	0,70	SST	8100	5,67
72	T314	Sunshade	4	0		1	H04038	0,70	SST	8100	5,67
	T315	Sunshade	4	0		1	H04038	0,70	SST	8100	5,67
	T316	Sunshade	4	0		1	H04038	0,70	SST	8100	5,67
	T321	SVM Shield	4	0		1	H04038	0,70	SST	1500	1,05
	T322	SVM Shield	4	0		1	H04038	0,70	SST	1500	1,05
	T323	SVM Shield	4	0		1	H04038	0,70	SST	1500	1,05
	T324	SVM Shield	4	0		1	H04038	0,70	SST	1500	1,05
	T331	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T332	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T333	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T334	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T335	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T336	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T337	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T338	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T339	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T341	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T342	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T343	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T344	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T345	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T346	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T347	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T348	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
	T349	Telescope	4	0		1	H04038	0,70	SST	8000	5,6
73	T421	1st Shield (innermost)	4	0		1	H04038	0,70	SST	1350	0,945
74	T422	1st Shield (innermost)	4	0		1	H04038	0,70	SST	1350	0,945
75	T423	1st Shield (innermost)	4	0		1	H04038	0,70	SST	2300	1,61
76	T424	1st Shield (innermost)	4	0		1	H04038	0,70	SST	2300	1,61
77								0,70			0
78								0,70			0
79	T441	2nd Shield	4	0		1	H04038	0,70	SST	1350	0,945
80	T442	2nd Shield	4	0		1	H04038	0,70	SST	1350	0,945
81	T443	2nd Shield	4	0		1	H04038	0,70	SST	2300	1,61
82	T444	2nd Shield	4	0		1	H04038	0,70	SST	2300	1,61
83								0,70			0
84								0,70			0
85	T461	3rd Shield	4	0		1	H04038	0,70	SST	1350	0,945
86	T462	3rd Shield	4	0		1	H04038	0,70	SST	1350	0,945
87	T463	3rd Shield	4	0		1	H04038	0,70	SST	2300	1,61
88	T464	3rd Shield	4	0		1	H04038	0,70	SST	2300	1,61
89								0,70			0
90								0,70			0
91	T501	GHe S/S external Ventline	4	0		1	H04038	0,70	SST	2500	1,75

HERSCHEL CCH Cryo-Harness mass CVV (ext.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM-CB to CVV I/F Connect.external	total cable weight g
92	T502	GHe S/S external Ventline	4	0		1	H04038	0,70	SST	2500	1,75
93	T503	GHe S/S external Ventline	4	0		1	H04038	0,70	SST	2500	1,75
	T504	GHe S/S external Ventline	4	0		1	H04038	0,70	SST	2500	1,75
	T505	GHe S/S external Ventline	4	0		1	H04038	0,70	SST	2500	1,75
	T506	GHe S/S	4	0		1	H04038	0,70	SST	2500	1,75
94								0,70			0
95								0,70			0
96								0,70			0
97	T651	Cavity	4	0		1	H04038	0,70	SST	4000	2,8
98	T652	Cavity	4	0		1	H04038	0,70	SST	4000	2,8
99								0,70			0
100	T701	HOT	4	0		1	H04038	0,70	SST	1350	0,945
101	T702	HOT	4	0		1	H04038	0,70	SST	1350	0,945
102	T703	HOT	4	0		1	H04038	0,70	SST	1350	0,945
	T704	HOT	4	0		1	H04038	0,70	SST	1350	0,945
103	T801	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
104	T802	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
105	T803	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
106	T804	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
107	T805	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
108	T806	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
109	T807	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
110	T808	Lower chain	4	0		1	H04038	0,70	SST	1350	0,945
111	T851	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
112	T852	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
113	T853	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
114	T854	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
115	T855	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
116	T856	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
117	T857	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
118	T858	Upper chain	4	0		1	H04038	0,70	SST	2300	1,61
	T861	Upper spatial framework	4	0		1	H04038	0,70	SST	2300	1,61
	T862	Upper spatial framework	4	0		1	H04038	0,70	SST	2300	1,61
119	T901	CVV	4	0		1	H04038	0,70	SST	2700	1,89
120	T902	CVV	4	0		1	H04038	0,70	SST	2700	1,89
121	T903	CVV	4	0		1	H04038	0,70	SST	2700	1,89
122	T904	CVV	4	0		1	H04038	0,70	SST	2700	1,89
123	T905	CVV	4	0		1	H04038	0,70	SST	2700	1,89
124	T906	CVV	4	0		1	H04038	0,70	SST	2700	1,89
125	T907	CVV	4	0		1	H04038	0,70	SST	2700	1,89
126	T908	CVV	4	0		1	H04038	0,70	SST	2700	1,89
127	T909	CVV	4	0		1	H04038	0,70	SST	2700	1,89
128	T910	CVV	4	0		1	H04038	0,70	SST	2700	1,89
129	T911	CVV	4	0		1	H04038	0,70	SST	2700	1,89
130	T912	CVV	4	0		1	H04038	0,70	SST	2700	1,89
131								0,70			0
132								0,70			0
133								0,70			0
134								0,70			0
	T921	CVV	4	0		1	H04038	0,70	SST	2700	1,89

HERSCHEL CCH Cryo-Harness mass CVV (ext.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM-CB to CVV I/F Connect external	total cable weight g
	T922	CVV	4	0	1	H04038	0,70	SST	2700	1,89
	T931	CVV	4	0	1	H04038	0,70	SST	2700	1,89
	T932	CVV	4	0	1	H04038	0,70	SST	2700	1,89
	T933	CVV	4	0	1	H04038	0,70	SST	2700	1,89
	T934	CVV	4	0	1	H04038	0,70	SST	2700	1,89
	T935	CVV	4	0	1	H04038	0,70	SST	2700	1,89
135	V102	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
136	V103	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
137	V104	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
138	V105	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
139	V106	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
140	V501	GHe S/S external Ventline	2	0	1	2	0,40		2500	1
141	V503	GHe S/S external Ventline	2	0	1	2	0,40		2500	1
142	V504	GHe S/S external Ventline	2	0	1	2	0,40		2500	1
143	V505	GHe S/S external Ventline	2	0	1	2	0,40		2500	1
144	V701	HOT	2	0	1	H02038	0,40	BRASS	1350	0,54
144	V702	HOT	2	0	1	H02038	0,40	BRASS	1350	0,54
145	VH102	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
146	VH104	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
147	VH105	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
148	VH701	HOT	2	0	1	H02038	0,40	BRASS	1350	0,54
	VH103	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
	VH106	HTT	2	0	1	H02038	0,40	BRASS	1350	0,54
	VH702	HOT	2	0	1	H02038	0,40	BRASS	1350	0,54
153	VS102	HTT	2	0	1	H02038	0,40	SST	1350	0,54
154	VS103	HTT	2	0	1	H02038	0,40	SST	1350	0,54
155	VS104	HTT	2	0	1	H02038	0,40	SST	1350	0,54
156	VS105	HTT	2	0	1	H02038	0,40	SST	1350	0,54
157	VS106	HTT	2	0	1	H02038	0,40	SST	1350	0,54
158	VS501	GHe S/S	2	0	1	H02038	0,40	SST	2500	1
159	VS503	GHe S/S	2	0	1	H02038	0,40	SST	2500	1
160	VS504	GHe S/S	2	0	1	H02038	0,40	SST	2500	1
161	VS505	GHe S/S	2	0	1	H02038	0,40	SST	2500	1
162	VS701	HOT	2	0	1	H02038	0,40	SST	1350	0,54
	VS702	HOT	2	0	1	H02038	0,40	SST	1350	0,54
149	VT102	HTT	4	0	1	H04038	0,70	SST	1350	0,945
150	VT104	HTT	4	0	1	H04038	0,70	SST	1350	0,945
151	VT105	HTT	4	0	1	H04038	0,70	SST	1350	0,945
152	VT701	HOT	4	0	1	H04038	0,70	SST	1350	0,945
	VT103	HTT	4	0	1	H04038	0,70	SST	1350	0,945
	VT106	HTT	4	0	1	H04038	0,70	SST	1350	0,945
	VT702	HOT	4	0	1	H04038	0,70	SST	1350	0,945
163	N601	Cover	50	0	25	H02030	1,77	Brass	4000	177
164	N602	Cover	50	0	25	H02030	1,77	Brass	4000	177
165	SI601	Cover		0	1		1,72		4000	6,88
166	SI602	Cover			1		1,72		4000	6,88
167	VG901	CVV			1					5,7
168	VG902	CVV			1					5,7
169	H331	Telescope	28	0	18	T2C24	5,20	CU	8000	748,8
										1553,805

HERSCHELCH Cryo-Harness mass CVV (int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect. Internal	total cable weight g
1	A101	HTT	2	1		1	H02138	1,80	SST	3600	6,48
2	A102	HTT	2	1		1	H02138	1,80	SST	3600	6,48
3	A103	HTT	2	1		1	H02138	1,80	SST	3600	6,48
4	A104	HTT	2	1		1	H02138	1,80	SST	1700	3,06
5	A105	HTT	2	1		1	H02138	1,80	SST	1700	3,06
6	A106	HTT	2	1		1	H02138	1,80	SST	1700	3,06
7	A107	HTT	2	1		1	H02138	1,80	SST	2300	4,14
8	A108	HTT	2	1		1	H02138	1,80	SST	2300	4,14
9	A109	HTT	2	1		1	H02138	1,80	SST	2300	4,14
10	A201	OB	2	1		1	H02138	1,80	SST	2200	3,96
11	A202	OB	2	1		1	H02138	1,80	SST	2200	3,96
12	A203	OB	2	1		1	H02138	1,80	SST	2200	3,96
13	A204	OB	2	1		1	H02138	1,80	SST	2200	3,96
14	A205	OB	2	1		1	H02138	1,80	SST	2200	3,96
	A206	OB	2	1		1	H02138	1,80	SST	2200	3,96
15	A421	1st Shield (innermost)	2	1		1	H02138	1,80	SST	2600	4,68
16	A422	1st Shield (innermost)	2	1		1	H02138	1,80	SST	2600	4,68
	A701	HOT	2	1		1	H02138	1,80	SST	1700	3,06
	A702	HOT	2	1		1	H02138	1,80	SST	1700	3,06
	A703	HOT	2	1		1	H02138	1,80	SST	1700	3,06
17	H101	HTT	2	0		1	H02038	0,40	SST	1700	0,68
17	H101	HTT	2	0		1	H02038	0,40	BRASS	1700	0,68
18	H102	HTT	2	0		1	H02038	0,40	SST	1700	0,68
18	H102	HTT	2	0		1	H02038	0,40	BRASS	1700	0,68
19	H103	HTT	2	0		1	H02038	0,40	BRASS	1700	0,68
20	H104	HTT	2	0		1	H02038	0,40	BRASS	1700	0,68
21	H501	GHe S/S external Ventline	2	0		1	H02038	0,40			0
21	H501	GHe S/S external Ventline	2	0		1	H02038	0,40			0
22	H502	GHe S/S external Ventline	2	0		1	H02038	0,40	BRASS		0
	H503	GHe S/S external Ventline	2	0		1	H02038	0,40	BRASS		0
23	H701	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
24	H702	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
25	L101	HTT	2	0		1	H02038	0,40	SST	3600	1,44
25	L101	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
26	L102	HTT	2	0		1	H02038	0,40	SST	3600	1,44
26	L102	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
27	L701	HOT	2	0		1	H02038	0,40	SST	1700	0,68
27	L701	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
28	L702	HOT	2	0		1	H02038	0,40	SST	1700	0,68
28	L702	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
29	P101	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	P102	HTT	4	0		1	H04038	0,70	SST	3600	2,52
30	P501	GHe S/S external Ventline	4	0		1	H04038	0,70	SST		0
31	P502	GHe S/S external Ventline	4	0		1	H04038	0,70	SST		0
	P701	HOT	4	0		1	H04038	0,70	SST	1600	1,12
32	T101	HTT	4	0		1	H04038	0,70	SST	1700	1,19

HERSCHEL/CCH Cryo-Harness mass CVV (int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CW I/F Connect. Internal	total cable weight g
33	T102	HTT	4	0		1	H04038	0,70	SST	1700	1,19
34	T103	HTT	4	0		1	H04038	0,70	SST	2300	1,61
35	T104	HTT	4	0		1	H04038	0,70	SST	3600	2,52
36	T105	HTT	4	0		1	H04038	0,70	SST	3600	2,52
37	T106	HTT	4	0		1	H04038	0,70	SST	1700	1,19
38	T107	HTT	4	0		1	H04038	0,70	SST	3600	2,52
39	T111	HTT	4	0		1	H04038	0,70	SST	3600	2,52
40	T112	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	T113	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	T114	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	T115	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	T116	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	T201	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T202	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T203	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T204	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T205	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T206	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T207	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T208	OB	4	0		1	H04038	0,70	SST	2200	1,54
41	T211	OB	4	0		1	H04038	0,70	SST	2400	1,68
42	T212	OB	4	0		1	H04038	0,70	SST	2400	1,68
43	T213	OB	4	0		1	H04038	0,70	SST	2400	1,68
44	T221	OB	4	0		1	H04038	0,70	SST	2200	1,54
45	T222	OB	4	0		1	H04038	0,70	SST	2200	1,54
46	T223	OB	4	0		1	H04038	0,70	SST	2200	1,54
47	T224	OB	4	0		1	H04038	0,70	SST	2200	1,54
48	T225	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T226	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T227	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T228	OB	4	0		1	H04038	0,70	SST	2200	1,54
49	T231	OB	4	0		1	H04038	0,70	SST	2200	1,54
50	T232	OB	4	0		1	H04038	0,70	SST	2200	1,54
51	T233	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T234	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T235	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T236	OB	4	0		1	H04038	0,70	SST	2200	1,54
	T237	OB	4	0		1	H04038	0,70	SST	2200	1,54
52	T241	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
53	T242	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
54	T243	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
	T244	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
	T245	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
	T246	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
	T247	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
	T248	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
	T249	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
	T250	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
55	T251	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
56	T252	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
57	T253	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
58	T254	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
59	T255	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
60	T256	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
61	T257	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
62	T258	SPIRE FPU	4	0		1	H04038	0,70	SST	2200	1,54
63	T301	Sunshield	4	0		1	H04038	0,70	SST		0
64	T302	Sunshield	4	0		1	H04038	0,70	SST		0
65	T303	Sunshield	4	0		1	H04038	0,70	SST		0

HERSCHEL/CCH Cryo-Harness mass CVV (int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect. Internal	total cable weight g
66	T304	Sunshield	4	0		1	H04038	0,70	SST		0
67	T305	Sunshield	4	0		1	H04038	0,70	SST		0
68	T306	Sunshield	4	0		1	H04038	0,70	SST		0
69	T311	Sunshade	4	0		1	H04038	0,70	SST		0
70	T312	Sunshade	4	0		1	H04038	0,70	SST		0
71	T313	Sunshade	4	0		1	H04038	0,70	SST		0
72	T314	Sunshade	4	0		1	H04038	0,70	SST		0
	T315	Sunshade	4	0		1	H04038	0,70	SST		0
	T316	Sunshade	4	0		1	H04038	0,70	SST		0
	T321	SVM Shield	4	0		1	H04038	0,70	SST		0
	T322	SVM Shield	4	0		1	H04038	0,70	SST		0
	T323	SVM Shield	4	0		1	H04038	0,70	SST		0
	T324	SVM Shield	4	0		1	H04038	0,70	SST		0
	T331	Telescope	4	0		1	H04038	0,70	SST		0
	T332	Telescope	4	0		1	H04038	0,70	SST		0
	T333	Telescope	4	0		1	H04038	0,70	SST		0
	T334	Telescope	4	0		1	H04038	0,70	SST		0
	T335	Telescope	4	0		1	H04038	0,70	SST		0
	T336	Telescope	4	0		1	H04038	0,70	SST		0
	T337	Telescope	4	0		1	H04038	0,70	SST		0
	T338	Telescope	4	0		1	H04038	0,70	SST		0
	T339	Telescope	4	0		1	H04038	0,70	SST		0
	T341	Telescope	4	0		1	H04038	0,70	SST		0
	T342	Telescope	4	0		1	H04038	0,70	SST		0
	T343	Telescope	4	0		1	H04038	0,70	SST		0
	T344	Telescope	4	0		1	H04038	0,70	SST		0
	T345	Telescope	4	0		1	H04038	0,70	SST		0
	T346	Telescope	4	0		1	H04038	0,70	SST		0
	T347	Telescope	4	0		1	H04038	0,70	SST		0
	T348	Telescope	4	0		1	H04038	0,70	SST		0
	T349	Telescope	4	0		1	H04038	0,70	SST		0
73	T421	1st Shield (innermost)	4	0		1	H04038	0,70	SST	1300	0,91
74	T422	1st Shield (innermost)	4	0		1	H04038	0,70	SST	800	0,56
75	T423	1st Shield (innermost)	4	0		1	H04038	0,70	SST	1600	1,12
76	T424	1st Shield (innermost)	4	0		1	H04038	0,70	SST	1600	1,12
77								0,70			0
78								0,70			0
79	T441	2nd Shield	4	0		1	H04038	0,70	SST	1300	0,91
80	T442	2nd Shield	4	0		1	H04038	0,70	SST	800	0,56
81	T443	2nd Shield	4	0		1	H04038	0,70	SST	1600	1,12
82	T444	2nd Shield	4	0		1	H04038	0,70	SST	1600	1,12
83								0,70			0
84								0,70			0
85	T461	3rd Shield	4	0		1	H04038	0,70	SST	1300	0,91
86	T462	3rd Shield	4	0		1	H04038	0,70	SST	800	0,56
87	T463	3rd Shield	4	0		1	H04038	0,70	SST	1600	1,12
88	T464	3rd Shield	4	0		1	H04038	0,70	SST	1600	1,12
89								0,70			0
90								0,70			0
91	T501	GHe S/S external Ventline	4	0		1	H04038	0,70	SST		0
92	T502	GHe S/S external Ventline	4	0		1	H04038	0,70	SST		0

HERSCHEL CCH Cryo-Harness mass CVV (int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect Internal	total cable weight g
93	T503	GHe S/S external Ventline	4	0		1	H04038	0,70	SST		0
	T504	GHe S/S external Ventline	4	0		1	H04038	0,70	SST		0
	T505	GHe S/S external Ventline	4	0		1	H04038	0,70	SST		0
	T506	GHe S/S	4	0		1	H04038	0,70	SST		0
94								0,70			0
95								0,70			0
96								0,70			0
97	T651	Cavity	4	0		1	H04038	0,70	SST		0
98	T652	Cavity	4	0		1	H04038	0,70	SST		0
99								0,70			0
100	T701	HOT	4	0		1	H04038	0,70	SST	1700	1,19
101	T702	HOT	4	0		1	H04038	0,70	SST	1700	1,19
102	T703	HOT	4	0		1	H04038	0,70	SST	1700	1,19
	T704	HOT	4	0		1	H04038	0,70	SST	1700	1,19
103	T801	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
104	T802	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
105	T803	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
106	T804	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
107	T805	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
108	T806	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
109	T807	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
110	T808	Lower chain	4	0		1	H04038	0,70	SST	700	0,49
111	T851	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
112	T852	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
113	T853	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
114	T854	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
115	T855	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
116	T856	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
117	T857	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
118	T858	Upper chain	4	0		1	H04038	0,70	SST	900	0,63
	T861	Upper spatial framework	4	0		1	H04038	0,70	SST	1100	0,77
	T862	Upper spatial framework	4	0		1	H04038	0,70	SST	1100	0,77
119	T901	CVV	4	0		1	H04038	0,70	SST		0
120	T902	CVV	4	0		1	H04038	0,70	SST		0
121	T903	CVV	4	0		1	H04038	0,70	SST		0
122	T904	CVV	4	0		1	H04038	0,70	SST		0
123	T905	CVV	4	0		1	H04038	0,70	SST		0
124	T906	CVV	4	0		1	H04038	0,70	SST		0
125	T907	CVV	4	0		1	H04038	0,70	SST		0
126	T908	CVV	4	0		1	H04038	0,70	SST		0
127	T909	CVV	4	0		1	H04038	0,70	SST		0
128	T910	CVV	4	0		1	H04038	0,70	SST		0
129	T911	CVV	4	0		1	H04038	0,70	SST		0
130	T912	CVV	4	0		1	H04038	0,70	SST		0
131								0,70			0
132								0,70			0
133								0,70			0
134								0,70			0
	T921	CVV	4	0		1	H04038	0,70	SST		0
	T922	CVV	4	0		1	H04038	0,70	SST		0
	T931	CVV	4	0		1	H04038	0,70	SST		0
	T932	CVV	4	0		1	H04038	0,70	SST		0

HERSCHEL/CCH Cryo-Harness mass CVV (int.)

Cable_n	Component Name	Location	no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect. Internal	total cable weight g
	T933	CVV	4	0		1	H04038	0,70	SST		0
	T934	CVV	4	0		1	H04038	0,70	SST		0
	T935	CVV	4	0		1	H04038	0,70	SST		0
135	V102	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
136	V103	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
137	V104	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
138	V105	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
139	V106	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
140	V501	GHe S/S external Ventline	2	0		1	2	0,40			0
141	V503	GHe S/S external Ventline	2	0		1	2	0,40			0
142	V504	GHe S/S external Ventline	2	0		1	2	0,40			0
143	V505	GHe S/S external Ventline	2	0		1	2	0,40			0
144	V701	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
144	V702	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
145	VH102	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
146	VH104	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
147	VH105	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
148	VH701	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
	VH103	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
	VH106	HTT	2	0		1	H02038	0,40	BRASS	3600	1,44
	VH702	HOT	2	0		1	H02038	0,40	BRASS	1700	0,68
153	VS102	HTT	2	0		1	H02038	0,40	SST	3600	1,44
154	VS103	HTT	2	0		1	H02038	0,40	SST	3600	1,44
155	VS104	HTT	2	0		1	H02038	0,40	SST	3600	1,44
156	VS105	HTT	2	0		1	H02038	0,40	SST	3600	1,44
157	VS106	HTT	2	0		1	H02038	0,40	SST	3600	1,44
158	VS501	GHe S/S	2	0		1	H02038	0,40	SST		0
159	VS503	GHe S/S	2	0		1	H02038	0,40	SST		0
160	VS504	GHe S/S	2	0		1	H02038	0,40	SST		0
161	VS505	GHe S/S	2	0		1	H02038	0,40	SST		0
162	VS701	HOT	2	0		1	H02038	0,40	SST	1700	0,68
	VS702	HOT	2	0		1	H02038	0,40	SST	1700	0,68
149	VT102	HTT	4	0		1	H04038	0,70	SST	3600	2,52
150	VT104	HTT	4	0		1	H04038	0,70	SST	3600	2,52
151	VT105	HTT	4	0		1	H04038	0,70	SST	3600	2,52
152	VT701	HOT	4	0		1	H04038	0,70	SST	1700	1,19
	VT103	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	VT106	HTT	4	0		1	H04038	0,70	SST	3600	2,52
	VT702	HOT	4	0		1	H04038	0,70	SST	1700	1,19
163	N601	Cover	50	0		25	H02030	1,40	Brass		0
164	N602	Cover	50	0		25	H02030	1,40	Brass		0
165	SI601	Cover		0		1					0
166	SI602	Cover				1					0
167	VG901	CVV				1					0
168	VG902	CVV				1					0
169	H331	Telescope	28	0		14	T2C28	2,80	CU		0
											266,51

Annex 3: HIFI Scientific Instrument Harness

Line-No	HIFI SVM-Harness LOU to SVM-CB																Total ;Mass	Bundle dia														
LCU-LOU	qty	Heater-Line	qty	Pwr-Level-Lin	qty	Temp-Sensor	qty	Amplifier line	qty	Amplifier line	qty	Amplifier line	qty	Amplifier line	qty	Multiplier	Multiplier	Shd-jumper	[g]	[mm]												
								Gate/RTN		*.Sense		Drain1-2/Rtn		Drain1-2/Rtn		Bias/Rtn		Bias-Sense	0,1m #24													
1a	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	2	1ST021C28	2	1ST021C28	6,24													
1b	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	2	1ST021C28	2	1ST021C28	6,24													
2a	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
2b	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
3a	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
3b	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
4a	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
4b	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
5a	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
5b	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	3	1ST021C28	3	1ST021C28	7,8													
6a	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	5	1ST021C28	5	1ST021C28	7,54													
6b	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	5	1ST021C28	5	1ST021C28	7,54													
7a	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	5	1ST021C28	5	1ST021C28	7,54													
7b	1	1ST021C28	1	1ST021C28	1	H02-020128CC	1	H02-020128CC	2	H04-02128CC	2	1ST21C20	2	D-436-37+Sleeve	5	1ST021C28	5	1ST021C28	7,54													
8 HTR-A	1	1ST021C28																														
9 HTR-B	1	1ST021C28																														
	16		6,1	14		6,1	14		11,0	14		11,0	28		20,6	28		13,5	28		0,1	48		6,1	48		6,1	105,0				
mass [g]			97,6			85,4			154			154			576,8			378			1,96			292,8		292,8		105,0	2138,4			
mass [g] from CVV external																														795,82		
Total Harness LCU to LOU																														2934,22		

← sum
internal
Harness

HERSCHEL Cryo-Harness Tables HIFI
(external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM-CB internal	total cable weight g	
1	FHFCU11	3	1	1	1	1ST05C28(3)	12,5	CU	1800	22,5	
1	FHFCU11	2					1ST05C28(2)		CU	1800	0
2	FHFCU11	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
2	FHFCU11	2					1ST05C28(2)		CU	1800	0
3	FHFCU11	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
3	FHFCU11	2					1ST05C28(2)		CU	1800	0
4	FHFCU11	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
4	FHFCU11	2					1ST05C28(2)		CU	1800	0
5	FHFCU11	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
5	FHFCU11	2					1ST05C28(2)		CU	1800	0
6	FHFCU11	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
6	FHFCU11	2					1ST05C28(2)		CU	1800	0
7	FHFCU11	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
7	FHFCU11	2					1ST05C28(2)		CU	1800	0
		35	7								
8	FHFCU12	3	1	2	1	1ST04C28(3)	10,4	CU	1800	18,72	
8	FHFCU12	1					1ST04C28(1)		CU	1800	0
9	FHFCU12	2	1			1	1ST03C28(2)	8,3	CU	1800	14,94
9	FHFCU12	1					1ST03C28(1)		CU	1800	0
10	FHFCU12	3	1			1	1ST04C28(3)	10,4	CU	1800	18,72
10	FHFCU12	1					1ST04C28(1)		CU	1800	0
11	FHFCU12	2	1			1	1ST03C28(2)	8,3	CU	1800	14,94
11	FHFCU12	1					1ST03C28(1)		CU	1800	0
		14	4								
15	FHFCU14	3	1	3	1	1ST05C28(3)	12,5	CU	1800	22,5	
15	FHFCU14	1					1ST05C28(1)		CU	1800	0
15	FHFCU14	1					1ST05C28(1)		CU	1800	0
15	FHFCU14	4	1			1	1ST05C28(4)	12,5	CU	1800	22,5
15	FHFCU14	1					1ST05C28(1)		CU	1800	0
15	FHFCU14	4	1			1	1ST04C28	10,4	CU	1800	18,72
16	FHFCU14	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
16	FHFCU14	1					1ST05C28(1)		CU	1800	0
16	FHFCU14	1					1ST05C28(1)		CU	1800	0
16	FHFCU14	4	1			1	1ST05C28(4)	12,5	CU	1800	22,5
16	FHFCU14	1					1ST05C28(1)		CU	1800	0
17	FHFCU14	4	1		1	1ST04C28	10,4	CU	1800	18,72	
		28	6								
22	FHFCUP15	3	1		1	1ST05C28(3)	12,5	CU	1800	22,5	
22	FHFCUP15	1					1ST05C28(1)		CU	1800	0

HERSCHEL Cryo-Harness Tables HIFI
(external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM-CB internal	total cable weight g
22	FHFCUP15	1		4		1ST05C28(1)		CU	1800	0
22	FHFCUP15	4	1		1	1ST05C28(4)	12,5	CU	1800	22,5
22	FHFCUP15	1				1ST05C28(1)		CU	1800	0
22	FHFCUP15	4	1		1	1ST04C28	10,4	CU	1800	18,72
23	FHFCUP15	3	1		1	1ST05C28(3)	12,5	CU	1800	22,5
23	FHFCUP15	1				1ST05C28(1)		CU	1800	0
23	FHFCUP15	1				1ST05C28(1)		CU	1800	0
23	FHFCUP15	4	1		1	1ST05C28(4)	12,5	CU	1800	22,5
23	FHFCUP15	1				1ST05C28(1)		CU	1800	0
23	FHFCUP15	4	1		1	1ST04C28	10,4	CU	1800	18,72
24	FHFCUP15	3	1		1	1ST05C28(3)	12,5	CU	1800	22,5
24	FHFCUP15	1				1ST05C28(1)		CU	1800	0
24	FHFCUP15	1				1ST05C28(1)		CU	1800	0
24	FHFCUP15	4	1		1	1ST05C28(4)	12,5	CU	1800	22,5
24	FHFCUP15	1				1ST05C28(1)		CU	1800	0
24	FHFCUP15	4	1		1	1ST04C28	10,4	CU	1800	18,72
		42	9							
25	FHFCUP16	4	1	5	1	1ST04C28	10,4	CU	1800	18,72
26	FHFCUP16	2	1		1	1ST02C28	6,1	CU	1800	10,98
26	FHFCUP16	4	1		1	1ST04C28	10,4	CU	1800	18,72
26	FHFCUP16	3	1		1	1ST03C28	8,3	CU	1800	14,94
27	FHFCUP16	4	1		1	1ST04C28	10,4	CU	1800	18,72
27	FHFCUP16	4	1		1	1ST04C28	10,4	CU	1800	18,72
28	FHFCUP16	2	1		1	1ST02C28	10,4	CU	1800	18,72
28	FHFCUP16	4	1		1	1ST04C28	10,4	CU	1800	18,72
28	FHFCUP16	4	1		1	1ST04C28	10,4	CU	1800	18,72
29	FHFCUP17	3	1		1	1ST04C28(3)	10,4	CU	1800	18,72
29	FHFCUP17	1				1ST04C28(1)		CU	1800	0
29	FHFCUP17	2	1		1	1ST03C28(2)	8,3	CU	1800	14,94
29	FHFCUP17	1			1ST03C28(1)		CU	1800	0	
		38	11							
1	FHFCU21	3	1	6	1	1ST05C28(3)	12,5	CU	1800	22,5
1	FHFCU21	2				1ST05C28(2)		CU	1800	0
2	FHFCU21	3	1		1	1ST05C28(3)	12,5	CU	1800	22,5
2	FHFCU21	2				1ST05C28(2)		CU	1800	0
3	FHFCU21	3	1		1	1ST05C28(3)	12,5	CU	1800	22,5
3	FHFCU21	2				1ST05C28(2)		CU	1800	0
4	FHFCU21	3	1		1	1ST05C28(3)	12,5	CU	1800	22,5
4	FHFCU21	2				1ST05C28(2)		CU	1800	0

HERSCHEL Cryo-Harness Tables HIFI
(external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM-CB internal	total cable weight g	
5	FHFCU21	3	1		1	1ST05C28(3)	12,5	CU	1800	22,5	
5	FHFCU21	2					1ST05C28(2)		CU	1800	0
6	FHFCU21	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
6	FHFCU21	2					1ST05C28(2)		CU	1800	0
7	FHFCU21	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
7	FHFCU21	2					1ST05C28(2)		CU	1800	0
		35	7								
8	FHFCU22	3	1	7	1	1ST04C28(3)	10,4	CU	1800	18,72	
8	FHFCU22	1					1ST04C28(1)		CU	1800	0
9	FHFCU22	2	1			1	1ST03C28(2)	8,3	CU	1800	14,94
9	FHFCU22	1					1ST03C28(1)		CU	1800	0
10	FHFCU22	3	1			1	1ST04C28(3)	10,4	CU	1800	18,72
10	FHFCU22	1					1ST04C28(1)		CU	1800	0
11	FHFCU22	2	1			1	1ST03C28(2)	8,3	CU	1800	14,94
11	FHFCU22	1					1ST03C28(1)		CU	1800	0
		14	4								
15	FHFCU24	3	1	8	1	1ST05C28(3)	12,5	CU	1800	22,5	
15	FHFCU24	1					1ST05C28(1)		CU	1800	0
15	FHFCU24	1					1ST05C28(1)		CU	1800	0
15	FHFCU24	4	1			1	1ST05C28(4)	12,5	CU	1800	22,5
15	FHFCU24	1					1ST05C28(1)		CU	1800	0
15	FHFCU24	4	1			1	1ST04C28	10,4	CU	1800	18,72
16	FHFCU24	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
16	FHFCU24	1					1ST05C28(1)		CU	1800	0
16	FHFCU24	1					1ST05C28(1)		CU	1800	0
16	FHFCU24	4	1			1	1ST05C28(4)	12,5	CU	1800	22,5
16	FHFCU24	1					1ST05C28(1)		CU	1800	0
17	FHFCU24	4	1			1	1ST04C28	10,4	CU	1800	18,72
		28	6								
22	FHFCUP25	3	1	9	1	1ST05C28(3)	12,5	CU	1800	22,5	
22	FHFCUP25	1					1ST05C28(1)		CU	1800	0
22	FHFCUP25	1					1ST05C28(1)		CU	1800	0
22	FHFCUP25	4	1			1	1ST05C28(4)	12,5	CU	1800	22,5
22	FHFCUP25	1					1ST05C28(1)		CU	1800	0
22	FHFCUP25	4	1			1	1ST04C28	10,4	CU	1800	18,72
23	FHFCUP25	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
23	FHFCUP25	1					1ST05C28(1)		CU	1800	0
23	FHFCUP25	1					1ST05C28(1)		CU	1800	0

HERSCHEL Cryo-Harness Tables HIFI
(external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) SVM-CB internal	total cable weight g	
23	FHFCUP25	4	1	9	1	1ST05C28(4)	12,5	CU	1800	22,5	
23	FHFCUP25	1					1ST05C28(1)		CU	1800	0
23	FHFCUP25	4	1			1	1ST04C28	10,4	CU	1800	18,72
24	FHFCUP25	3	1			1	1ST05C28(3)	12,5	CU	1800	22,5
24	FHFCUP25	1					1ST05C28(1)		CU	1800	0
24	FHFCUP25	1					1ST05C28(1)		CU	1800	0
24	FHFCUP25	4	1			1	1ST05C28(4)	12,5	CU	1800	22,5
24	FHFCUP25	1					1ST05C28(1)		CU	1800	0
24	FHFCUP25	4	1			1	1ST04C28	10,4	CU	1800	18,72
		42	9								
25	FHFCUP26	4	1	10	1	1ST04C28	10,4	CU	1800	18,72	
26	FHFCUP26	2	1			1	1ST02C28	6,1	CU	1800	10,98
26	FHFCUP26	4	1			1	1ST04C28	10,4	CU	1800	18,72
26	FHFCUP26	3	1			1	1ST03C28	8,3	CU	1800	14,94
27	FHFCUP26	4	1			1	1ST04C28	10,4	CU	1800	18,72
27	FHFCUP26	4	1			1	1ST04C28	10,4	CU	1800	18,72
27	FHFCUP26	4	1			1	1ST04C28	10,4	CU	1800	18,72
28	FHFCUP26	2	1			1	1ST02C28	10,4	CU	1800	18,72
28	FHFCUP26	4	1			1	1ST04C28	10,4	CU	1800	18,72
29	FHFCUP27	3	1			1	1ST04C28(3)	10,4	CU	1800	18,72
29	FHFCUP27	1					1ST04C28(1)		CU	1800	0
29	FHFCUP27	2	1			1	1ST03C28(2)	8,3	CU	1800	14,94
29	FHFCUP27	1					1ST03C28(1)		CU	1800	0
		38	11							1468,08	

Cable-ID	SVM Cryo-Harness between LCU and SVM-I/F-CB Plug										Amplifier line		Amplifier line		Amplifier line		Multiplier		Multiplier		Multiplier		Multiplier		Total-cable	Branch dia.			
	qty	Heater-Line	qty	Pwr-Level-Line	qty	Temp-Sensor	qty	Gate/RTN	qty	*..Sense	qty	Drain1-Z/Rtn	qty	Bias	qty	Bias	qty	Bias-Sense	qty	Bias-Sense	mass	[mm]							
1a			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20		1	H02-02130BS										
1b			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20		1	H02-02130BS										
2a			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
2b			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
3a			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
3b			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
4a			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
4b			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
5a			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
5b			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
6a			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
6b			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
7a			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
7b			1	1ST021C28		1	H02-02138SS		1	H02-020138SS		2	H04-020138SS		2	1ST21C20													
8		1	1ST021C28	14		2,8	14		2,5	14		2,5	28		3,8	28		13,5	6		6,19		6		2,5				
9		1	1ST021C28																					12		8,5		12	3,54
		2		2,8																									
mass [g]			5,6			39,2			35			35		106,4		378		37,14		102		15		42,48		795,82			
			[total 1 Ohm]																										
LCU to LOU cable resistance:			[total 1 Ohm]			[total 400 Ohm]			[total 400 Ohm]			[total 400 Ohm]			[total 0,05 Ω]			[total 50 Ohm]		[total 50 Ohm]			[total 400 Ohm]		[total 400 Ohm]				

HERSCHEL Cryo-Harness Tables HIFI
(external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM- CB to CVV I/F Connect.external	total cable weight g	
1	FHFCU11	3	1	1	1	H05138(3)	2,9	SST	3000	8,7	
1	FHFCU11	2					H05138(2)		SST	3000	0
2	FHFCU11	3	1			1	H05138(3)	2,9	SST	3000	8,7
2	FHFCU11	2					H05138(2)		SST	3000	0
3	FHFCU11	3	1			1	H05138(3)	2,9	SST	3000	8,7
3	FHFCU11	2					H05138(2)		SST	3000	0
4	FHFCU11	3	1			1	H05138(3)	2,9	SST	3000	8,7
4	FHFCU11	2					H05138(2)		SST	3000	0
5	FHFCU11	3	1			1	H05138(3)	2,9	SST	3000	8,7
5	FHFCU11	2					H05138(2)		SST	3000	0
6	FHFCU11	3	1			1	H05138(3)	2,9	SST	3000	8,7
6	FHFCU11	2					H05138(2)		SST	3000	0
7	FHFCU11	3	1			1	H05138(3)	2,9	SST	3000	8,7
7	FHFCU11	2					H05138(2)		SST	3000	0
		35	7							0	
										0	
										0	
8	FHFCU12	3	1	2	1	H04138(3)	2,4	BRASS	2650	6,36	
8	FHFCU12	1					H04138(1)		BRASS	2650	0
9	FHFCU12	2	1			1	H03138(2)	2,1	BRASS	2650	5,565
9	FHFCU12	1					H03138(1)		BRASS	2650	0
10	FHFCU12	3	1			1	H04138(3)	2,4	BRASS	2650	6,36
10	FHFCU12	1					H04138(1)		BRASS	2650	0
11	FHFCU12	2	1			1	H03138(2)	2,1	BRASS	2650	5,565
11	FHFCU12	1					H03138(1)		BRASS	2650	0
		14	4							0	
										0	
										0	
15	FHFCU14	3	1	3	1	H05130(3)	6,1	BRASS	2900	17,69	
15	FHFCU14	1					H05130(1)		BRASS	2900	0
15	FHFCU14	1					H05130(1)		BRASS	2900	0
15	FHFCU14	4	1			1	H05130(4)	6,1	BRASS	2900	17,69
15	FHFCU14	1					H05130(1)		BRASS	2900	0
15	FHFCU14	4	1			1	H04138	2,4	SST	2900	6,96
16	FHFCU14	3	1			1	H05130(3)	6,1	BRASS	2900	17,69
16	FHFCU14	1					H05130(1)		BRASS	2900	0
16	FHFCU14	1					H05130(1)		BRASS	2900	0
16	FHFCU14	4	1			1	H05130(4)	6,1	BRASS	2900	17,69
16	FHFCU14	1					H05130(1)		BRASS	2900	0
17	FHFCU14	4	1		1	H04138	2,4	SST	2900	6,96	
		28	6							0	
										0	
										0	
22	FHFCUP15	3	1		1	H05130(3)	6,1	BRASS	2250	13,725	
22	FHFCUP15	1					H05130(1)		BRASS	2250	0

HERSCHEL Cryo-Harness Tables HIFI
(external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM- CB to CVV I/F Connect.external	total cable weight g
22	FHFCUP15	1		4		H05130(1)		BRASS	2250	0
22	FHFCUP15	4	1		1	H05130(4)	6,1	BRASS	2250	13,725
22	FHFCUP15	1				H05130(1)		BRASS	2250	0
22	FHFCUP15	4	1		1	H04138	2,4	SST	2250	5,4
23	FHFCUP15	3	1		1	H05130(3)	6,1	BRASS	2250	13,725
23	FHFCUP15	1				H05130(1)		BRASS	2250	0
23	FHFCUP15	1				H05130(1)		BRASS	2250	0
23	FHFCUP15	4	1		1	H05130(4)	6,1	BRASS	2250	13,725
23	FHFCUP15	1				H05130(1)		BRASS	2250	0
23	FHFCUP15	4	1		1	H04138	2,4	SST	2250	5,4
24	FHFCUP15	3	1		1	H05130(3)	6,1	BRASS	2250	13,725
24	FHFCUP15	1				H05130(1)		BRASS	2250	0
24	FHFCUP15	1				H05130(1)		BRASS	2250	0
24	FHFCUP15	4	1		1	H05130(4)	6,1	BRASS	2250	13,725
24	FHFCUP15	1				H05130(1)		BRASS	2250	0
24	FHFCUP15	4	1		1	H04138	2,4	SST	2250	5,4
										0
		42	9							0
										0
25	FHFCUP16	4	1	5	1	H04138	2,4	SST	2800	6,72
26	FHFCUP16	2	1		1	H02138	1,8	BRASS	2800	5,04
26	FHFCUP16	4	1		1	H04138	2,4	BRASS	2800	6,72
26	FHFCUP16	3	1		1	H03138	2,1	SST	2800	5,88
27	FHFCUP16	4	1		1	H04138	2,4	SST	2800	6,72
27	FHFCUP16	4	1		1	H04138	2,4	SST	2800	6,72
28	FHFCUP16	2	1		1	H02138	1,8	BRASS	2800	5,04
28	FHFCUP16	4	1		1	H04138	2,4	SST	2800	6,72
28	FHFCUP16	4	1		1	H04138	2,4	SST	2800	6,72
29	FHFCUP17	3	1		1	H04138(3)	2,4	BRASS	2800	6,72
29	FHFCUP17	1				H04138(1)		BRASS	2800	0
29	FHFCUP17	2	1		1	H03138(2)	2,1	BRASS	2800	5,88
29	FHFCUP17	1			H03138(1)		BRASS	2800	0	
										0
		38	11							0
										0
1	FHFCU21	3	1	6	1	H05138(3)	2,9	SST	2546	7,3834
1	FHFCU21	2				H05138(2)		SST	2546	0
2	FHFCU21	3	1		1	H05138(3)	2,9	SST	2546	7,3834
2	FHFCU21	2				H05138(2)		SST	2546	0
3	FHFCU21	3	1		1	H05138(3)	2,9	SST	2546	7,3834
3	FHFCU21	2				H05138(2)		SST	2546	0
4	FHFCU21	3	1		1	H05138(3)	2,9	SST	2546	7,3834
4	FHFCU21	2				H05138(2)		SST	2546	0

HERSCHEL Cryo-Harness Tables HIFI
(external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM- CB to CVV I/F Connect.external	total cable weight g	
5	FHFCU21	3	1		1	H05138(3)	2,9	SST	2546	7,3834	
5	FHFCU21	2					H05138(2)		SST	2546	0
6	FHFCU21	3	1			1	H05138(3)	2,9	SST	2546	7,3834
6	FHFCU21	2					H05138(2)		SST	2546	0
7	FHFCU21	3	1			1	H05138(3)	2,9	SST	2546	7,3834
7	FHFCU21	2					H05138(2)		SST	2546	0
											0
		35	7							0	
										0	
8	FHFCU22	3	1	7	1	H04138(3)	2,4	BRASS	2900	6,96	
8	FHFCU22	1					H04138(1)		BRASS	2900	0
9	FHFCU22	2	1			1	H03138(2)	2,4	BRASS	2900	6,96
9	FHFCU22	1					H03138(1)		BRASS	2900	0
10	FHFCU22	3	1			1	H04138(3)	2,4	BRASS	2900	6,96
10	FHFCU22	1					H04138(1)		BRASS	2900	0
11	FHFCU22	2	1			1	H03138(2)	2,1	BRASS	2900	6,09
11	FHFCU22	1				H03138(1)		BRASS	2900	0	
										0	
		14	4							0	
										0	
15	FHFCU24	3	1	8	1	H05130(3)	6,1	BRASS	2650	16,165	
15	FHFCU24	1					H05130(1)		BRASS	2650	0
15	FHFCU24	1					H05130(1)		BRASS	2650	0
15	FHFCU24	4	1			1	H05130(4)	6,1	BRASS	2650	16,165
15	FHFCU24	1					H05130(1)		BRASS	2650	0
15	FHFCU24	4	1			1	H04138	2,4	SST	2650	6,36
16	FHFCU24	3	1			1	H05130(3)	6,1	BRASS	2650	16,165
16	FHFCU24	1					H05130(1)		BRASS	2650	0
16	FHFCU24	1					H05130(1)		BRASS	2650	0
16	FHFCU24	4	1			1	H05130(4)	6,1	BRASS	2650	16,165
16	FHFCU24	1					H05130(1)		BRASS	2650	0
17	FHFCU24	4	1			1	H04138	2,4	SST	2650	6,36
											0
		28	6							0	
										0	
22	FHFCUP25	3	1	9	1	H05130(3)	6,1	BRASS	3000	18,3	
22	FHFCUP25	1					H05130(1)		BRASS	3000	0
22	FHFCUP25	1					H05130(1)		BRASS	3000	0
22	FHFCUP25	4	1			1	H05130(4)	6,1	BRASS	3000	18,3
22	FHFCUP25	1					H05130(1)		BRASS	3000	0
22	FHFCUP25	4	1			1	H04138	2,4	SST	3000	7,2
23	FHFCUP25	3	1			1	H05130(3)	6,1	BRASS	3000	18,3
23	FHFCUP25	1					H05130(1)		BRASS	3000	0
23	FHFCUP25	1					H05130(1)		BRASS	3000	0

HERSCHEL Cryo-Harness Tables HIFI
 (external Harness SVM to CVV-I/F-CB)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVM- CB to CVV I/F Connect.external	total cable weight g	
23	FHFCUP25	4	1		1	H05130(4)	6,1	BRASS	3000	18,3	
23	FHFCUP25	1					H05130(1)		BRASS	3000	0
23	FHFCUP25	4	1			1	H04138	2,4	SST	3000	7,2
24	FHFCUP25	3	1			1	H05130(3)	6,1	BRASS	3000	18,3
24	FHFCUP25	1					H05130(1)		BRASS	3000	0
24	FHFCUP25	1					H05130(1)		BRASS	3000	0
24	FHFCUP25	4	1			1	H05130(4)	6,1	BRASS	3000	18,3
24	FHFCUP25	1					H05130(1)		BRASS	3000	0
24	FHFCUP25	4	1			1	H04138	2,4	SST	3000	7,2
										0	
		42	9							0	
										0	
25	FHFCUP26	4	1	10	1	H04138	2,4	SST	2750	6,6	
26	FHFCUP26	2	1			1	H02138	1,8	BRASS	2750	4,95
26	FHFCUP26	4	1			1	H04138	2,4	BRASS	2750	6,6
26	FHFCUP26	3	1			1	H03138	2,1	SST	2750	5,775
27	FHFCUP26	4	1			1	H04138	2,4	SST	2750	6,6
27	FHFCUP26	4	1			1	H04138	2,4	SST	2750	6,6
27	FHFCUP26	4	1			1	H04138	1,8	SST	2750	4,95
28	FHFCUP26	2	1			1	H02138	2,4	BRASS	2750	6,6
28	FHFCUP26	4	1			1	H04138	2,4	SST	2750	6,6
29	FHFCUP27	3	1			1	H04138(3)	2,4	BRASS	2750	6,6
29	FHFCUP27	1					H04138(1)		BRASS	2750	0
29	FHFCUP27	2	1		1	H03138(2)	2,1	BRASS	2750	5,775	
29	FHFCUP27	1				H03138(1)		BRASS	2750	0	
		38	11							691,9438	

HERSCHEL Cryo-Harness Tables HIFI
(internal Harness CVV-I/F-CB to Optical Bench)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CWV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g	
1	FHFPUP11	3	1	1	1	H05138(3)	2,9	SST	2504	300	2804	8,1316	
1	FHFPUP11	2					H05138(2)		SST	2504	300	2804	0
2	FHFPUP12	3	1			1	H05138(3)	2,9	SST	2504	300	2804	8,1316
2	FHFPUP12	2					H05138(2)		SST	2504	300	2804	0
3	FHFPUP13	3	1			1	H05138(3)	2,9	SST	2504	300	2804	8,1316
3	FHFPUP13	2					H05138(2)		SST	2504	300	2804	0
4	FHFPUP14	3	1			1	H05138(3)	2,9	SST	2504	300	2804	8,1316
4	FHFPUP14	2					H05138(2)		SST	2504	300	2804	0
5	FHFPUP15	3	1			1	H05138(3)	2,9	SST	2504	300	2804	8,1316
5	FHFPUP15	2					H05138(2)		SST	2504	300	2804	0
6	FHFPUP16	3	1			1	H05138(3)	2,9	SST	2504	300	2804	8,1316
6	FHFPUP16	2					H05138(2)		SST	2504	300	2804	0
7	FHFPUP17	3	1			1	H05138(3)	2,9	SST	2504	300	2804	8,1316
7	FHFPUP17	2					H05138(2)		SST	2504	300	2804	0
												0	
		35	7									0	
												0	
8	FHFPUP25	2	1	2	1	H04138(2)	2,4	BRASS	2550	300	2850	6,84	
8	FHFPUP25	2					H04138(2)		BRASS	2550	300	2850	0
9	FHFPUP26	2	1			1	H04138(2)	2,4	BRASS	2550	300	2850	6,84
9	FHFPUP26	2					H04138(2)		BRASS	2550	300	2850	0
10	FHFPUP27	2	1			1	H04138(2)	2,4	BRASS	2550	300	2850	6,84
10	FHFPUP27	2					H04138(2)		BRASS	2550	300	2850	0
11	FHFPUP28	2	1			1	H04138(2)	2,4	BRASS	2550	300	2850	6,84
11	FHFPUP28	2					H04138(2)		BRASS	2550	300	2850	0
12	FHFPUP29	2	1			1	H04138(2)	2,4	BRASS	2550	300	2850	6,84
12	FHFPUP29	2					H04138(2)		BRASS	2550	300	2850	0
												0	
		20	5									0	
												0	
15	FHFPUP39	3	1	3	1	H03138	2,1	SST	2400	300	2700	5,67	
15	FHFPUP39	2	1			1	H04130(2)	5	BRASS	2400	300	2700	13,5
15	FHFPUP39	1					H04130(1)		BRASS	2400	300	2700	0
15	FHFPUP39	1					H04130(1)		BRASS	2400	300	2700	0
16	FHFPUP40	3	1			1	H03138	2,1	SST	2400	300	2700	5,67
16	FHFPUP40	2	1			1	H03130(2)	4,1	BRASS	2400	300	2700	11,07
16	FHFPUP40	1					H03130(1)		BRASS	2400	300	2700	0
17	FHFPUP41	3	1			1	H03138	2,1	SST	2400	300	2700	5,67
17	FHFPUP41	2	1			1	H03130(2)	4,1	BRASS	2400	300	2700	11,07
17	FHFPUP41	1					H03130(1)		BRASS	2400	300	2700	0
18	FHFPUP42	3	1			1	H03138	2,1	SST	2400	300	2700	5,67
18	FHFPUP42	2	1			1	H04130(2)	5	BRASS	2400	300	2700	13,5
18	FHFPUP42	1					H04130(1)		BRASS	2400	300	2700	0
18	FHFPUP42	1					H04130(1)		BRASS	2400	300	2700	0
19	FHFPUP43	3	1			1	H03138	2,1	SST	2400	300	2700	5,67

HERSCHEL Cryo-Harness Tables HIFI
(internal Harness CVV-I/F-CB to Optical Bench)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g	
19	FHFPUP43	2	1		1	H03130(2)	4,1	BRASS	2400	300	2700	11,07	
19	FHFPUP43	1					H03130(1)		BRASS	2400	300	2700	0
20	FHFPUP44	3	1			1	H03138	2,1	SST	2400	300	2700	5,67
20	FHFPUP44	2	1			1	H03130(2)	4,1	BRASS	2400	300	2700	11,07
20	FHFPUP44	1					H03130(1)		BRASS	2400	300	2700	0
21	FHFPUP45	3	1			1	H03138	2,1	SST	2400	300	2700	5,67
21	FHFPUP45	2	1			1	H03130(2)	4,1	BRASS	2400	300	2700	11,07
21	FHFPUP45	1					H03130(1)		BRASS	2400	300	2700	0
												0	
		44	14									0	
												0	
22	FHFPUP53	3	1	4	1	H05130(3)	6,1	BRASS	2450	300	2750	16,775	
22	FHFPUP53	1					H05130(1)		BRASS	2450	300	2750	0
22	FHFPUP53	1					H05130(1)		BRASS	2450	300	2750	0
22	FHFPUP53	4	1			1	H05130(4)	6,1	BRASS	2450	300	2750	16,775
22	FHFPUP53	1					H05130(1)		BRASS	2450	300	2750	0
22	FHFPUP53	4	1			1	H04138	2,4	SST	2450	300	2750	6,6
23	FHFPUP54	3	1			1	H05130(3)	6,1	BRASS	2450	300	2750	16,775
23	FHFPUP54	1					H05130(1)		BRASS	2450	300	2750	0
23	FHFPUP54	1					H05130(1)		BRASS	2450	300	2750	0
23	FHFPUP54	4	1			1	H05130(4)	6,1	BRASS	2450	300	2750	16,775
23	FHFPUP54	1					H05130(1)		BRASS	2450	300	2750	0
23	FHFPUP54	4	1			1	H04138	2,4	SST	2450	300	2750	6,6
24	FHFPUP55	3	1			1	H05130(3)	6,1	BRASS	2450	300	2750	16,775
24	FHFPUP55	1					H05130(1)		BRASS	2450	300	2750	0
24	FHFPUP55	1					H05130(1)		BRASS	2450	300	2750	0
24	FHFPUP55	4	1			1	H05130(4)	6,1	BRASS	2450	300	2750	16,775
24	FHFPUP55	1					H05130(1)		BRASS	2450	300	2750	0
24	FHFPUP55	4	1			1	H04138	2,4	SST	2450	300	2750	6,6
												0	
		42	9									0	
												0	
25	FHFPUP59	4	1	5	1	H04138	2,4	SST	2300	300	2600	6,24	
26	FHFPUP61	2	1			1	H02138	1,8	BRASS	2300	300	2600	4,68
26	FHFPUP61	4	1			1	H04138	2,4	BRASS	2300	300	2600	6,24
26	FHFPUP61	3	1			1	H03138	2,1	SST	2300	300	2600	5,46
27	FHFPUP63	4	1			1	H04138	2,4	SST	2300	300	2600	6,24
27	FHFPUP63	4	1			1	H04138	2,4	SST	2300	300	2600	6,24
28	FHFPUP65	2	1			1	H02138	1,8	BRASS	2300	300	2600	4,68
28	FHFPUP65	2	1			1	H02138	1,8	SST	2300	300	2600	4,68
28	FHFPUP65	4	1			1	H04138	2,4	SST	2300	300	2600	6,24
28	FHFPUP65	2	1			1	H02138	1,8	SST	2300	300	2600	4,68
29	FHFPUP67	2	1			1	H02138	1,8	BRASS	2370	300	2670	4,806

HERSCHEL Cryo-Harness Tables HIFI
(internal Harness CVV-I/F-CB to Optical Bench)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
29	FHFPUP67	2	1		1	H02138	1,8	BRASS	2370	300	2670	4,806
29	FHFPUP67	2	1		1	H02138	1,8	BRASS	2370	300	2670	4,806
29	FHFPUP67	2	1		1	H02138	1,8	BRASS	2370	300	2670	4,806
29	FHFPUP67	2	1		1	H02138	1,8	BRASS	2370	300	2670	4,806
		41	15									0
												0
												0
1	FHFPUP18	3	1		1	H05138(3)	2,9	SST	2400	300	2700	7,83
1	FHFPUP18	2				H05138(2)		SST	2400	300	2700	0
2	FHFPUP19	3	1		1	H05138(3)	2,9	SST	2400	300	2700	7,83
2	FHFPUP19	2				H05138(2)		SST	2400	300	2700	0
3	FHFPUP20	3	1		1	H05138(3)	2,9	SST	2400	300	2700	7,83
3	FHFPUP20	2				H05138(2)		SST	2400	300	2700	0
4	FHFPUP21	3	1		1	H05138(3)	2,9	SST	2400	300	2700	7,83
4	FHFPUP21	2				H05138(2)		SST	2400	300	2700	0
5	FHFPUP22	3	1		1	H05138(3)	2,9	SST	2400	300	2700	7,83
5	FHFPUP22	2				H05138(2)		SST	2400	300	2700	0
6	FHFPUP23	3	1		1	H05138(3)	2,9	SST	2400	300	2700	7,83
6	FHFPUP23	2				H05138(2)		SST	2400	300	2700	0
7	FHFPUP24	3	1		1	H05138(3)	2,9	SST	2400	300	2700	7,83
7	FHFPUP24	2				H05138(2)		SST	2400	300	2700	0
		35	7									0
												0
												0
8	FHFPUP32	2	1		1	H04138(2)	2,4	BRASS	2330	300	2630	6,312
8	FHFPUP32	2				H04138(2)		BRASS	2330	300	2630	0
9	FHFPUP33	2	1		1	H04138(2)	2,4	BRASS	2330	300	2630	6,312
9	FHFPUP33	2				H04138(2)		BRASS	2330	300	2630	0
10	FHFPUP34	2	1		1	H04138(2)	2,4	BRASS	2330	300	2630	6,312
10	FHFPUP34	2				H04138(2)		BRASS	2330	300	2630	0
11	FHFPUP35	2	1		1	H04138(2)	2,4	BRASS	2330	300	2630	6,312
11	FHFPUP35	2				H04138(2)		BRASS	2330	300	2630	0
12	FHFPUP36	2	1		1	H04138(2)	2,4	BRASS	2330	300	2630	6,312
12	FHFPUP36	2				H04138(2)		BRASS	2330	300	2630	0
		20	5									0
												0
												0
15	FHFPUP46	3	1		1	H03138	2,1	SST	2480	300	2780	5,838
15	FHFPUP46	2	1		1	H04130(2)	5	BRASS	2480	300	2780	13,9
15	FHFPUP46	1				H04130(1)		BRASS	2480	300	2780	0
15	FHFPUP46	1				H04130(1)		BRASS	2480	300	2780	0
16	FHFPUP47	3	1		1	H03138	2,1	SST	2480	300	2780	5,838
16	FHFPUP47	2	1		1	H03130(2)	4,1	BRASS	2480	300	2780	11,398
16	FHFPUP47	1				H03130(1)		BRASS	2480	300	2780	0
17	FHFPUP48	3	1		1	H03138	2,1	SST	2480	300	2780	5,838

HERSCHEL Cryo-Harness Tables HIFI
(internal Harness CVV-I/F-CB to Optical Bench)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CW I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
17	FHFPUP48	2	1	8	1	H03130(2)	4,1	BRASS	2480	300	2780	11,398
17	FHFPUP48	1			1	H03130(1)		BRASS	2480	300	2780	0
18	FHFPUP49	3	1		1	H03138	2,1	SST	2480	300	2780	5,838
18	FHFPUP49	2	1		1	H04130(2)	5	BRASS	2480	300	2780	13,9
18	FHFPUP49	1			1	H04130(1)		BRASS	2480	300	2780	0
18	FHFPUP49	1			1	H04130(1)		BRASS	2480	300	2780	0
19	FHFPUP50	3	1		1	H03138	2,1	SST	2480	300	2780	5,838
19	FHFPUP50	2	1		1	H03130(2)	4,1	BRASS	2480	300	2780	11,398
19	FHFPUP50	1			1	H03130(1)		BRASS	2480	300	2780	0
20	FHFPUP51	3	1		1	H03138	2,1	SST	2480	300	2780	5,838
20	FHFPUP51	2	1		1	H03130(2)	4,1	BRASS	2480	300	2780	11,398
20	FHFPUP51	1			1	H03130(1)		BRASS	2480	300	2780	0
21	FHFPUP52	3	1		1	H03138	2,1	SST	2480	300	2780	5,838
21	FHFPUP52	2	1		1	H03130(2)	4,1	BRASS	2480	300	2780	11,398
21	FHFPUP52	1			1	H03130(1)		BRASS	2480	300	2780	0
		44	14									0
												0
22	FHFPUP56	3	1	9	1	H05130(3)	6,1	BRASS	2430	300	2730	16,653
22	FHFPUP56	1			1	H05130(1)		BRASS	2430	300	2730	0
22	FHFPUP56	1			1	H05130(1)		BRASS	2430	300	2730	0
22	FHFPUP56	4	1		1	H05130(4)	6,1	BRASS	2430	300	2730	16,653
22	FHFPUP56	1			1	H05130(1)		BRASS	2430	300	2730	0
22	FHFPUP56	4	1		1	H04138	2,4	SST	2430	300	2730	6,552
23	FHFPUP57	3	1		1	H05130(3)	6,1	BRASS	2430	300	2730	16,653
23	FHFPUP57	1			1	H05130(1)		BRASS	2430	300	2730	0
23	FHFPUP57	1			1	H05130(1)		BRASS	2430	300	2730	0
23	FHFPUP57	4	1		1	H05130(4)	6,1	BRASS	2430	300	2730	16,653
23	FHFPUP57	1			1	H05130(1)		BRASS	2430	300	2730	0
23	FHFPUP57	4	1		1	H04138	2,4	SST	2430	300	2730	6,552
24	FHFPUP58	3	1		1	H05130(3)	6,1	BRASS	2430	300	2730	16,653
24	FHFPUP58	1			1	H05130(1)		BRASS	2430	300	2730	0
24	FHFPUP58	1			1	H05130(1)		BRASS	2430	300	2730	0
24	FHFPUP58	4	1	1	H05130(4)	6,1	BRASS	2430	300	2730	16,653	
24	FHFPUP58	1		1	H05130(1)		BRASS	2430	300	2730	0	
24	FHFPUP58	4	1	1	H04138	2,4	SST	2430	300	2730	6,552	
		42	9									0
												0
25	FHFPUP60	4	1		1	H04138	2,4	SST	2580	300	2880	6,912
26	FHFPUP62	2	1		1	H02138	1,8	BRASS	2580	300	2880	5,184
26	FHFPUP62	4	1		1	H04138	2,4	BRASS	2580	300	2880	6,912
26	FHFPUP62	3	1		1	H03138	2,1	SST	2580	300	2880	6,048

HERSCHEL Cryo-Harness Tables HIFI
 (internal Harness CVV-I/F-CB to Optical Bench)

Cable_n	Location	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
27	FHFPUP64	4	1	10	1	H04138	2,4	SST	2580	300	2880	6,912
27	FHFPUP64	4	1		1	H04138	2,4	SST	2580	300	2880	6,912
27	FHFPUP64	4	1		1	H04138	1,8	SST	2580	300	2880	5,184
28	FHFPUP66	2	1		1	H02138	1,8	BRASS	2580	300	2880	5,184
28	FHFPUP66	2	1		1	H02138	2,4	SST	2580	300	2880	6,912
28	FHFPUP66	2	1		1	H02138	1,8	SST	2580	300	2880	5,184
29	FHFPUP68	2	1		1	H02138	1,8	BRASS	2580	300	2880	5,184
29	FHFPUP68	2	1		1	H02138	1,8	BRASS	2580	300	2880	5,184
29	FHFPUP68	2	1		1	H02138	1,8	BRASS	2580	300	2880	5,184
29	FHFPUP68	2	1		1	H02138	1,8	BRASS	2580	300	2880	5,184
29	FHFPUP68	2	1		1	H02138	1,8	BRASS	2580	300	2880	5,184
		41	15									831,8852

Annex 4: PACS Scientific Instrument Harness

PACS Cryo-Harness mass SVM (int.)

Cab-ID	Unit	Connector	cable qty	cont. Qty	Shd Qty	Cable type	cable type mass [g/m]	diameter of cables [mm]	branch Length [mm]	mass of cables [g]	branch-diameter [mm]	branch mass [g]	Bundle No	Bundle Group No
001	FPFPU	P11	3	3	3	1ST03C28CC	8,30							
001	FPFPU	P11	1	6	1	1ST06C28CC	14,80	3,78	1800	41,58				
002	FPFPU	P10	2	8	2	1ST04C28CC	10,40							
002	FPFPU	P10	3	18	3	1ST06C28CC	14,80	6,28	1800	117,36	7,33	158,94	1	
004	FPFPU	P17	3	9	3	1ST03C28CC	8,30							
004	FPFPU	P17	1	6	1	1ST06C28CC	14,80	3,78	1800	41,58				
005	FPFPU	P18	2	8	2	1ST04C28CC	10,40							
005	FPFPU	P18	3	18	3	1ST06C28CC	14,80	6,28	1800	117,36	7,33	158,94	4	
007	FPFPU	P21	3	9	3	1ST03C28CC	8,30							
007	FPFPU	P21	1	6	1	1ST06C28CC	14,80	3,78	1800	41,58				
008	FPFPU	P20	2	8	2	1ST04C28CC	10,40							
008	FPFPU	P20	3	18	3	1ST06C28CC	14,80	6,28	1800	117,36	7,33	158,94	5	
010	FPFPU	P27	3	9	3	1ST03C28CC	8,30							
010	FPFPU	P27	1	6	1	1ST06C28CC	14,80	3,78	1800	41,58				
011	FPFPU	P28	2	8	2	1ST04C28CC	10,40							
011	FPFPU	P28	3	18	3	1ST06C28CC	14,80	6,28	1800	117,36	7,33	158,94	8	
017-023	FPFPU	P12	7	7	7	TTX-50 #26	18,00							
13a	FPFPU	P12	1	1	1	1SS01C28CC	3,30	6,98	1800	232,74				
024-029	FPFPU	P13	6	6	6	TTX-50 #26	18,00							
030,031,013b	FPFPU	P13	3	3	3	1SS01C28CC	3,30	6,70	1800	212,22				
075	FPFPU	P14	2	10	2	1ST05C28CC	12,50	3,82	1800	45,00	10,40	489,96	2	
032-038	FPFPU	P16	7	7	7	TTX-50 #26	18,00							
014a	FPFPU	P16	1	1	1	1SS01C28CC	3,30	6,98	1800	232,74				
039-043	FPFPU	P15	5	5	5	TTX-50 #26	18,00							
044,045,014b	FPFPU	P15	3	3	3	1SS01C28CC	3,30	6,17	1800	179,82	9,32	412,56	3	
046-052	FPFPU	P22	7	7	7	TTX-50 #26	18,00							
015a	FPFPU	P22	1	1	1	1SS01C28CC	3,30	6,98	1800	232,74				
053-058	FPFPU	P23	6	6	6	TTX-50 #26	18,00							
059,060,15b	FPFPU	P23	3	3	3	1SS01C28CC	3,30	6,70	1800	212,22				
076	FPFPU	P24	2	10	2	1ST05C28CC	12,50							
076	FPFPU	P24	1	1	1	1ST04C28CC	10,40	4,56	1800	63,72	10,70	508,68	6	
061-066,016a	FPFPU	P26	7	7	7	TTX-50 #26	18,00							
067	FPFPU	P26	1	1	1	1SS01C28CC	3,30	6,98	1800	232,74				

PACS Cryo-Harness mass SVM (int.)

Cab-ID	Unit	Connector	cable qty	cont. Qty	Shd Qty	Cable type	cable type mass [g/m]	diameter of cables [mm]	branch Length [mm]	mass of cables [g]	branch-diameter [mm]	branch mass [g]	Bundle No	Bundle Group No
068-072	FPFPU	P25	5	5	5	TTX-50 #26	18,00							
073,074,016b	FPFPU	P25	3	3	3	1SS01C28CC	3,30	6,17	1800	179,82	9,32	412,56	7	
077	FPFPU	P01	1	4	1	H02-020128CC	11,00							
078-081	FPFPU	P01	6	24	6	1ST04C28CC	10,40	6,70	1800	113,40				
087	FPFPU	P03	1	4	1	H02-020128CC	11,00							
088-091	FPFPU	P03	6	24	6	1ST04C28CC	10,40	6,70	1800	113,40				
124	FPFPU	P09	2	8	2	1ST04C28CC	10,40	3,54	1800	37,40	10,12	264,20	19	
082	FPFPU	P02	1	4	1	H02-020128CC	11,00							
083-086	FPFPU	P02	6	24	6	1ST04C28CC	10,40	6,70	1800	113,40				
092	FPFPU	P04	1	4	1	H02-020128CC	11,00							
093-096	FPFPU	P04	6	24	6	1ST04C28CC	10,40	6,70	1800	113,40	9,48	226,80	20	
097	FPFPU	P40	1	6	1	H03-020128CC	15,80							
098	FPFPU	P40	2	8	2	1ST04C28CC	10,40							
099	FPFPU	P40	1	2	1	H01-020128CC	7,00	6,10	1800	78,48				
100,101,104	FPFPU	P41	3	12	3	1ST04C28CC	10,40							
102, 103	FPFPU	P41	2	4	2	1ST02C28CC	6,10	5,25	1800	78,12	8,30	156,60	21	
105	FPFPU	P42	1	6	1	H03-020128CC	15,80							
106	FPFPU	P42	2	8	2	1ST04C28CC	10,40							
107	FPFPU	P42	1	2	1	H01-020128CC	7,00	6,10	1800	78,48				
108,109,112	FPFPU	P43	3	12	3	1ST04C28CC	10,40							
110, 111	FPFPU	P43	2	4	2	1ST02C28CC	6,10	5,25	1800	78,12	8,30	156,60	22	
113-114	FPFPU	P07	2	12	2	H03-020128CC	15,80							
115	FPFPU	P07	1	4	1	1ST04C28CC	10,40							
116, 116a	FPFPU	P07	2	8	2	H02-020128CC	11,00	7,20	1800	111,60				
120, 121	FPFPU	P06	2	8	2	H02-020128CC	11,00							
122	FPFPU	P06	1	4	1	1ST04C28CC	10,40	5,80	1800	58,32	9,23	169,92	18	
117, 118	FPFPU	P05	2	8	2	H02-020128CC	11,00							
119	FPFPU	P05	1	4	1	1ST04C28CC	10,40	5,80	1800	58,32				
123	FPFPU	P08	2	8	2	1ST04C28CC	10,40	3,54	1800	37,44	6,80	95,76	17	
501	FPFPU	P50	4	16	4	H02-020128CC	11,00							
501	FPFPU	P50	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
502	FPFPU	P51	4	16	4	H02-020128CC	11,00							
502	FPFPU	P51	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				

PACS Cryo-Harness mass SVM (int.)

Cab-ID	Unit	Connector	cable qty	cont. Qty	Shd Qty	Cable type	cable type mass [g/m]	diameter of cables [mm]	branch Length [mm]	mass of cables [g]	branch-diameter [mm]	branch mass [g]	Bundle No	Bundle Group No
503	FPFPU	P52	3	18	3	1ST06C28CC	17,00							
504, 505	FPFPU	P52	2	6	2	1ST03C28CC	9,20							
505	FPFPU	P52	1	7	1	1ST07C28CC	19,50	6,82	1800	138,06	16,23	444,78	9	
506	FPFPU	P53	4	16	4	H02-020128CC	11,00							
506	FPFPU	P53	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
507	FPFPU	P54	4	16	4	H02-020128CC	11,00							
507	FPFPU	P54	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
508	FPFPU	P55	3	18	3	1ST06C28CC	17,00							
509, 510	FPFPU	P55	2	6	2	1ST03C28CC	9,20							
510	FPFPU	P55	1	7	1	1ST07C28CC	19,50	6,82	1800	138,06	16,23	444,78	10	
511	FPFPU	P56	4	16	4	H02-020128CC	11,00							
511	FPFPU	P56	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
512	FPFPU	P57	4	16	4	H02-020128CC	11,00							
512	FPFPU	P57	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
513	FPFPU	P58	3	18	3	1ST06C28CC	17,00							
514, 515	FPFPU	P58	2	6	2	1ST03C28CC	9,20							
515	FPFPU	P58	1	7	1	1ST07C28CC	19,50	6,82	1800	138,06	16,23	444,78	11	
516	FPFPU	P59	4	16	4	H02-020128CC	11,00							
516	FPFPU	P59	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
517	FPFPU	P60	4	16	4	H02-020128CC	11,00							
517	FPFPU	P60	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
518	FPFPU	P61	3	18	3	1ST06C28CC	17,00							
519, 520	FPFPU	P61	2	6	2	1ST03C28CC	9,20							
520	FPFPU	P61	1	7	1	1ST07C28CC	19,50	6,82	1800	138,06	16,23	444,78	12	
521	FPFPU	P62	4	16	4	H02-020128CC	11,00							
521	FPFPU	P62	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
522	FPFPU	P63	3	18	3	1ST06C28CC	17,00							
523, 524	FPFPU	P63	2	6	2	1ST03C28CC	9,20							
524	FPFPU	P63	1	7	1	1ST07C28CC	19,50	6,82	1800	138,06	12,45	291,42	13	
525	FPFPU	P64	4	16	4	H02-020128CC	11,00							
525	FPFPU	P64	2	12	2	H03-020128CC	15,80	10,41	1800	153,36				
526	FPFPU	P65	3	18	3	1ST06C28CC	17,00							
527, 528	FPFPU	P65	2	6	2	1ST03C28CC	9,20							

PACS Cryo-Harness mass SVM (int.)

Cab-ID	Unit	Connector	cable qty	cont. Qty	Shd Qty	Cable type	cable type mass [g/m]	diameter of cables [mm]	branch Length [mm]	mass of cables [g]	branch-diameter [mm]	branch mass [g]	Bundle No	Bundle Group No
528	FPFPU	P65	1	7	1	1ST07C28CC	19,50	6,82	1800	138,06	12,45	291,42	14	
601	FPBOLA	P17	3	12	3	H02-020128CC	11,00							
601	FPBOLA	P17	4	24	4	H03-020128CC	15,80	11,05	1800	173,16				
602	FPFPU	P18	4	24	4	H03-020128CC	15,80							
602	FPFPU	P18	2	16	2	H02-020128CC	11,00	10,41	1800	153,36				
603	FPBOLA	P19	3	18	3	1ST06C28CC	17,00							
603a	FPBOLA	P19	1	4	1	H02-020128CC	11,00							
604, 605	FPBOLA	P19	2	6	2	1ST03C28CC	9,20							
605	FPBOLA	P19	1	7	1	1ST07C28CC	19,50	7,76	1800	157,86	17,05	484,38	9a	
606	FPBOLA	P20	3	12	3	H02-020128CC	11,00							
606	FPBOLA	P20	4	24	4	H03-020128CC	15,80	11,05	1800	173,16				
607	FPFPU	P21	4	24	4	H03-020128CC	15,80							
607	FPFPU	P21	2	16	2	H02-020128CC	11,00	10,41	1800	153,36				
608	FPBOLA	P22	3	18	3	1ST06C28CC	17,00							
608a	FPBOLA	P22	1	4	1	H02-020128CC	11,00							
609, 610	FPBOLA	P22	2	6	2	1ST03C28CC	9,20							
610	FPBOLA	P22	1	7	1	1ST07C28CC	19,50	7,76	1800	157,86	17,05	484,38	10a	
611	FPBOLA	P23	3	12	3	H02-020128CC	11,00							
611	FPBOLA	P23	4	24	4	H03-020128CC	15,80	11,05	1800	173,16				
612	FPFPU	P24	4	24	4	H03-020128CC	15,80							
612	FPFPU	P24	2	16	2	H02-020128CC	11,00	10,41	1800	153,36				
613	FPBOLA	P25	3	18	3	1ST06C28CC	17,00							
613a	FPBOLA	P25	1	4	1	H02-020128CC	11,00							
614, 615	FPBOLA	P25	2	6	2	1ST03C28CC	9,20							
615	FPBOLA	P25	1	7	1	1ST07C28CC	19,50	7,76	1800	157,86	17,05	484,38	11a	
616	FPBOLA	P26	3	12	3	H02-020128CC	11,00							
616	FPBOLA	P26	4	24	4	H03-020128CC	15,80	11,05	1800	173,16				
617	FPFPU	P27	4	24	4	H03-020128CC	15,80							
617	FPFPU	P27	2	16	2	H02-020128CC	11,00	10,41	1800	153,36				
618	FPBOLA	P28	3	18	3	1ST06C28CC	17,00							
618a	FPBOLA	P28	1	4	1	H02-020128CC	11,00							
619, 620	FPBOLA	P28	2	6	2	1ST03C28CC	9,20							

PACS Cryo-Harness mass SVM (int.)

Cab-ID	Unit	Connector	cable qty	cont. Qty	Shd Qty	Cable type	cable type mass [g/m]	diameter of cables [mm]	branch Length [mm]	mass of cables [g]	branch-diameter [mm]	branch mass [g]	Bundle No	Bundle Group No
620	FPBOLA	P28	1	7	1	1ST07C28CC	19,50	7,76	1800	157,86	17,05	484,38	12a	
621	FPBOLA	P29	3	12	3	H02-020128CC	11,00							
621	FPBOLA	P29	4	24	4	H03-020128CC	15,80	11,05	1800	173,16				
622	FPBOLA	P30	3	18	3	1ST06C28CC	17,00							
622a	FPBOLA	P30	1	4	1	H02-020128CC	11,00							
623, 624	FPBOLA	P30	2	6	2	1ST03C28CC	9,20							
624	FPBOLA	P30	1	7	1	1ST07C28CC	19,50	7,76	1800	157,86	13,50	331,02	13a	
625	FPBOLA	P31	3	12	3	H02-020128CC	11,00							
625	FPBOLA	P31	4	24	4	H03-020128CC	15,80	11,05	1800	173,16				
626	FPBOLA	P32	3	18	3	1ST06C28CC	17,00							
626a	FPBOLA	P32	1	4	1	H02-020128CC	11,00							
627, 628	FPBOLA	P32	2	6	2	1ST03C28CC	9,20							
628	FPBOLA	P32	1	7	1	1ST07C28CC	19,50	7,76	1800	157,86	13,50	331,02	14a	
										8490,92		8490,92		

HERSCHEL PACS Cryo-Harness mass CVV (ext.)

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVMN-CB to BOLA	Harness lth (mm) from SVM-CB to CVV I/F Connect.external	Harness lth (mm) from BOLA to CVV I/F Connect.external	Harness lth (mm) total	total cable weight g
001	FPFPU	P11	2				H11138(2)		SST		2870		2870	0
001	FPFPU	P11	8	1		1	H11138(8)	4,8	SST		2870		2870	13,776
002	FPFPU	P10	6				H24138(6)		SST		2870		2870	0
002	FPFPU	P10	16	1		1	H24138(16)	7,8	SST		2870		2870	22,386
003	FPFPU	P10	6	1		1	H06138	3,3	SST		2870		2870	9,471
			38	3										0
														0
004	FPFPU	P17	2				H11138(2)		SST		2870		2870	0
004	FPFPU	P17	8	1		1	H11138(8)	4,8	SST		2870		2870	13,776
005	FPFPU	P18	6				H24138(6)		SST		2870		2870	0
005	FPFPU	P18	16	1		1	H24138(16)	7,8	SST		2870		2870	22,386
006	FPFPU	P18	6	1		1	H06138	3,3	SST		2870		2870	9,471
			38	3										0
														0
007	FPFPU	P21	2				H11138(2)		SST		2870		2870	0
007	FPFPU	P21	8	1		1	H11138(8)	4,8	SST		2870		2870	13,776
008	FPFPU	P20	6				H24138(6)		SST		2870		2870	0
008	FPFPU	P20	16	1		1	H24138(16)	7,8	SST		2870		2870	22,386
009	FPFPU	P20	6	1		1	H06138	3,3	SST		2870		2870	9,471
			38	3										0
														0
010	FPFPU	P27	2				H11138(2)		SST		2870		2870	0
010	FPFPU	P27	8	1		1	H11138(8)	4,8	SST		2870		2870	13,776
011	FPFPU	P28	6				H24138(6)		SST		2870		2870	0
011	FPFPU	P28	16	1		1	H24138(16)	7,8	SST		2870		2870	22,386
012	FPFPU	P28	6	1		1	H06138	3,3	SST		2870		2870	9,471
			38	3										0
														0
017	FPFPU	P12	1	2		1	H01238	4,3	SST		3130		3130	13,459
018	FPFPU	P12	1	2		1	H01238	4,3	SST		3130		3130	13,459
019	FPFPU	P12	1	2		1	H01238	4,3	SST		3130		3130	13,459
020	FPFPU	P12	1	2		1	H01238	4,3	SST		3130		3130	13,459
021	FPFPU	P12	1	2		1	H01238	4,3	SST		3130		3130	13,459
022	FPFPU	P12	1	2		1	H01238	4,3	SST		3130		3130	13,459
023	FPFPU	P12	1	2		1	H01238	4,3	SST		3130		3130	13,459
013a	FPFPU	P12	2	1		1	H02138	1,8	SST		2870		2870	5,166
024	FPFPU	P13	1	2		1	H01238	4,3	SST		3130		3130	13,459
025	FPFPU	P13	1	2		1	H01238	4,3	SST		3130		3130	13,459
026	FPFPU	P13	1	2		1	H01238	4,3	SST		3130		3130	13,459
027	FPFPU	P13	1	2		1	H01238	4,3	SST		3130		3130	13,459
028	FPFPU	P13	1	2		1	H01238	4,3	SST		3130		3130	13,459
029	FPFPU	P13	1	2		1	H01238	4,3	SST		3130		3130	13,459
030	FPFPU	P13	2	1		1	H02138	1,8	SST		3130		3130	5,634
031	FPFPU	P13	2	1		1	H02138	1,8	SST		3130		3130	5,634
013b	FPFPU	P13	2	1		1	H02138	1,8	SST		2870		2870	5,166
075	FPFPU	P14	11	1		1	H11138	4,8	SST		2777		2777	13,3296
			32	31										0
														0
032	FPFPU	P16	1	2		1	H01238	4,3	SST		3030		3030	13,029
033	FPFPU	P16	1	2		1	H01238	4,3	SST		3030		3030	13,029
034	FPFPU	P16	1	2		1	H01238	4,3	SST		3030		3030	13,029
035	FPFPU	P16	1	2		1	H01238	4,3	SST		3030		3030	13,029
036	FPFPU	P16	1	2		1	H01238	4,3	SST		3030		3030	13,029
037	FPFPU	P16	1	2		1	H01238	4,3	SST		3030		3030	13,029
014a	FPFPU	P16	2	1		1	H02138	1,8	SST		2870		2870	5,166
038	FPFPU	P15	1	2		1	H01238	4,3	SST		3030		3030	13,029
039	FPFPU	P15	1	2		1	H01238	4,3	SST		3030		3030	13,029
040	FPFPU	P15	1	2		1	H01238	4,3	SST		3030		3030	13,029
041	FPFPU	P15	1	2		1	H01238	4,3	SST		3030		3030	13,029
042	FPFPU	P15	1	2		1	H01238	4,3	SST		3030		3030	13,029
043	FPFPU	P15	1	2		1	H01238	4,3	SST		3030		3030	13,029
044	FPFPU	P15	2	1		1	H02138	1,8	SST		3030		3030	5,454
045	FPFPU	P15	2	1		1	H02138	1,8	SST		3030		3030	5,454
014b	FPFPU	P15	2	1		1	H02138	1,8	SST		2870		2870	5,166
			20	28										0
														0
046	FPFPU	P22	1	2		1	H01238	4,3	SST		2570		2570	11,051
047	FPFPU	P22	1	2		1	H01238	4,3	SST		2570		2570	11,051
048	FPFPU	P22	1	2		1	H01238	4,3	SST		2570		2570	11,051
049	FPFPU	P22	1	2		1	H01238	4,3	SST		2570		2570	11,051
050	FPFPU	P22	1	2		1	H01238	4,3	SST		2570		2570	11,051

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SYMN-CB to BOLA	Harness lth (mm) from SVM-CB to CVV I/F Connect. external	Harness lth (mm) from BOLA to CVV I/F Connect. external	Harness lth (mm) total	total cable weight g	
051	FPFPU	P22	1	2	6	1	H01238	4,3	SST		2570		2570	11,051	
052	FPFPU	P22	1	2		1	H01238	4,3	SST			2570		2570	11,051
015a	FPFPU	P22	2	1		1	H02138	1,8	SST			2870		2870	5,166
063	FPFPU	P23	1	2		1	H01238	4,3	SST			2570		2570	11,051
054	FPFPU	P23	1	2		1	H01238	4,3	SST			2570		2570	11,051
055	FPFPU	P23	1	2		1	H01238	4,3	SST			2570		2570	11,051
056	FPFPU	P23	1	2		1	H01238	4,3	SST			2570		2570	11,051
057	FPFPU	P23	1	2		1	H01238	4,3	SST			2570		2570	11,051
058	FPFPU	P23	1	2		1	H01238	4,3	SST			2570		2570	11,051
059	FPFPU	P23	2	1		1	H02138	1,8	SST			2570		2570	4,626
060	FPFPU	P23	2	1		1	H02138	1,8	SST			2570		2570	4,626
015b	FPFPU	P23	2	1		1	H02138	1,8	SST			2870		2870	5,166
076	FPFPU	P24	11	1		1	H19138(10)	6,3	SST			2500		2500	15,75
076	FPFPU	P24	8			1	H19138(8)	0	SST			2500		2500	0
			40	31											0
															0
061	FPFPU	P26	1	2	7	1	H01238	4,3	SST		2686		2686	11,5498	
062	FPFPU	P26	1	2		1	H01238	4,3	SST			2686		2686	11,5498
063	FPFPU	P26	1	2		1	H01238	4,3	SST			2686		2686	11,5498
064	FPFPU	P26	1	2		1	H01238	4,3	SST			2686		2686	11,5498
065	FPFPU	P26	1	2		1	H01238	4,3	SST			2686		2686	11,5498
066	FPFPU	P26	1	2		1	H01238	4,3	SST			2686		2686	11,5498
067	FPFPU	P26	1	2		1	H01238	4,3	SST			2686		2686	11,5498
016a	FPFPU	P26	2	1		1	H02138	1,8	SST			2870		2870	5,166
068	FPFPU	P25	1	2		1	H01238	4,3	SST			2686		2686	11,5498
069	FPFPU	P25	1	2		1	H01238	4,3	SST			2686		2686	11,5498
070	FPFPU	P25	1	2		1	H01238	4,3	SST			2686		2686	11,5498
071	FPFPU	P25	1	2		1	H01238	4,3	SST			2686		2686	11,5498
072	FPFPU	P25	1	2		1	H01238	4,3	SST			2686		2686	11,5498
073	FPFPU	P25	2	1		1	H02138	1,8	SST			2686		2686	4,8348
074	FPFPU	P25	2	1		1	H02138	1,8	SST			2686		2686	4,8348
016b	FPFPU	P25	2	1		1	H02138	1,8	SST			2670		2870	5,166
			20	28										0	
														0	
077	FPFPU	P01	4	1	19	1	H04130	5	BRASS		3310		3310	16,55	
078	FPFPU	P01	4	1		1	H04138	2,4	SST			3310		3310	7,944
079	FPFPU	P01	4	1		1	H04138	2,4	SST			3310		3310	7,944
080	FPFPU	P01	8	1		1	H08138	3,6	SST			3310		3310	11,916
081	FPFPU	P01	4	1		1	H04138	2,4	SST			3310		3310	7,944
087	FPFPU	P03	4	1		1	H04130	5	BRASS			3362		3362	16,81
088	FPFPU	P03	4	1		1	H04138	2,4	SST			3362		3362	8,0688
089	FPFPU	P03	4	1		1	H04138	2,4	SST			3362		3362	8,0688
090	FPFPU	P03	8	1		1	H08138	3,6	SST			3362		3362	12,1032
091	FPFPU	P03	4	1		1	H04138	2,4	SST			3362		3362	8,0688
124	FPFPU	P09	8	1		1	H08138	3,6	SST			3362		3362	12,1032
			32	5										0	
														0	
082	FPFPU	P02	4	1	20	1	H04130	5	BRASS		3310		3310	16,55	
083	FPFPU	P02	4	1		1	H04138	2,4	SST			3310		3310	7,944
084	FPFPU	P02	4	1		1	H04138	2,4	SST			3310		3310	7,944
085	FPFPU	P02	8	1		1	H08138	3,6	SST			3310		3310	11,916
086	FPFPU	P02	4	1		1	H04138	2,4	SST			3310		3310	7,944
092	FPFPU	P04	4	1		1	H04130	5	BRASS			3310		3310	16,55
093	FPFPU	P04	4	1		1	H04138	2,4	SST			3310		3310	7,944
094	FPFPU	P04	4	1		1	H04138	2,4	SST			3310		3310	7,944
095	FPFPU	P04	8	1		1	H08138	3,6	SST			3310		3310	11,916
086	FPFPU	P04	4	1		1	H04138	2,4	SST			3310		3310	7,944
			28	5										0	
														0	
097	FPFPU	P40	6	1	21	1	H06130	7,4	BRASS		3210		3210	23,754	
098	FPFPU	P40	8	1		1	H08138	3,6	SST			3210		3210	11,556
099	FPFPU	P40	2	1		1	H02130	3,3	BRASS			3210		3210	10,593
100	FPFPU	P41	4	1		1	H06138(4)	3,3	SST			3210		3210	10,593
100	FPFPU	P41	2			1	H06138(2)	0	SST			3210		3210	0
101	FPFPU	P41	4	1		1	H06138(4)	3,3	SST			3210		3210	10,593
101	FPFPU	P41	2			1	H06138(2)	0	SST			3210		3210	0
102	FPFPU	P41	2	1		1	H02138	1,8	SST			3210		3210	5,778
103	FPFPU	P41	2	1		1	H02138	1,8	SST			3210		3210	5,778
104	FPFPU	P41	4	1		1	H04138	2,4	SST			3210		3210	7,704
			16	4										0	
														0	
105	FPFPU	P42	6	1	1	H06130	7,4	BRASS			3210		3210	23,754	
106	FPFPU	P42	8	1	1	H08138	3,6	SST			3210		3210	11,556	

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVMN-CB to BOLA	Harness lth (mm) from SVM-CB to CVV I/F Connect.external	Harness lth (mm) from BOLA to CVV I/F Connect.external	Harness lth (mm) total	total cable weight g	
107	FPFPU	P42	2	1	22	1	H02130	3,3	BRASS		3210		3210	10,593	
108	FPFPU	P43	4	1		1	H06138(4)	3,3	SST		3210		3210	10,593	
108	FPFPU	P43	2			1	H06138(2)	0	SST		3210		3210	0	
109	FPFPU	P43	4	1		1	H06138(4)	3,3	SST		3210		3210	10,593	
109	FPFPU	P43	2			1	H06138(2)	0	SST		3210		3210	0	
110	FPFPU	P43	2	1		1	H02138	1,8	SST		3210		3210	5,778	
111	FPFPU	P43	2	1		1	H02138	1,8	SST		3210		3210	5,778	
112	FPFPU	P43	4	1		1	H04138	2,4	SST		3210		3210	7,704	
															0
			16	4											0
															0
113	FPFPU	P07	4	1		18	1	H08138(4)	3,6	SST		3310		3310	11,916
113	FPFPU	P07	4		1		H08138(4)	0	SST		3310		3310	0	
114	FPFPU	P07	4	1	1		H08138(4)	3,6	SST		3310		3310	11,916	
114	FPFPU	P07	4		1		H08138(4)	0	SST		3310		3310	0	
115	FPFPU	P07	4	1	1		H04138	2,4	SST		3310		3310	7,944	
116	FPFPU	P07	4	1	1		H04130	5	BRASS		3310		3310	16,55	
116a	FPFPU	P07	4	1	1		H04130	5	BRASS		3310		3310	16,55	
120	FPFPU	P06	4	1	1		H04130	5	BRASS		3660		3660	18,3	
121	FPFPU	P06	4	1	1		H04130	5	BRASS		3660		3660	18,3	
122	FPFPU	P06	4	1	1		H04138	2,4	SST		3660		3660	8,784	
															0
			40	8											0
														0	
117	FPFPU	P05	4	1	17	1	H04130	5	BRASS		3660		3660	18,3	
118	FPFPU	P05	4	1		1	H04130	5	BRASS		3660		3660	18,3	
119	FPFPU	P05	4	1		1	H04138	2,4	SST		3660		3660	8,784	
123	FPFPU	P08	8	1		1	H08138	3,6	SST		3660		3660	13,176	
														0	
			20	4										0	
														0	
501	FPFPU	P50	24	2	9	2	H06-02138	5,04	SST			870	870	8,7696	
501	FPFPU	P50	8	1		1	H04-02138	3,8	SST			870	870	3,306	
502	FPFPU	P51	24	2		1	H06-02138	5,04	SST			500	500	2,52	
502	FPFPU	P51	8	1		1	H04-02138	3,8	SST			500	500	1,9	
503	FPFPU	P52	18	1		1	H19138	6,3	SST			770	770	4,851	
504	FPFPU	P52	3	1		1	H03138	2,1	SST			770	770	1,617	
505	FPFPU	P52	10	1	1	H11138	4,6	SST			770	770	3,542		
														0	
			95	9										0	
														0	
506	FPFPU	P53	24	2	10	2	H06-02138	5,04	SST			400	400	4,032	
506	FPFPU	P53	8	1		1	H04-02138	3,8	SST			400	400	1,52	
507	FPFPU	P54	24	2		2	H06-02138	5,04	SST			670	670	6,7536	
507	FPFPU	P54	8	1		1	H04-02138	3,8	SST			670	670	2,546	
508	FPFPU	P55	18	1		1	H19138	6,3	SST			300	300	1,89	
509	FPFPU	P55	3	1		1	H03138	2,1	SST			300	300	0,63	
510	FPFPU	P55	10	1		1	H11138	4,6	SST			300	300	1,38	
															0
			95	9										0	
														0	
511	FPFPU	P56	24	2	11	2	H06-02138	5,04	SST			240	240	2,4192	
511	FPFPU	P56	8	1		1	H04-02138	3,8	SST			240	240	0,912	
512	FPFPU	P57	24	2		1	H06-02138	5,04	SST			380	380	1,9152	
512	FPFPU	P57	8	1		1	H04-02138	3,8	SST			380	380	1,444	
513	FPFPU	P58	18	1		1	H19138	6,3	SST			770	770	4,851	
514	FPFPU	P58	3	1		1	H03138	2,1	SST			770	770	1,617	
515	FPFPU	P58	10	1		1	H11138	4,6	SST			770	770	3,542	
														0	
			95	9										0	
														0	
516	FPFPU	P59	24	2	12	2	H06-02138	5,04	SST			350	350	3,528	
516	FPFPU	P59	8	1		1	H04-02138	3,8	SST			350	350	1,33	
517	FPFPU	P60	24	2		1	H06-02138	5,04	SST			150	150	0,756	
517	FPFPU	P60	8	1		1	H04-02138	3,8	SST			150	150	0,57	
518	FPFPU	P61	18	1		1	H19138	6,3	SST			300	300	1,89	
519	FPFPU	P61	3	1		1	H03138	2,1	SST			300	300	0,63	
520	FPFPU	P61	10	1		1	H11138	4,6	SST			300	300	1,38	
															0
			95	9										0	
														0	
521	FPFPU	P62	24	2	13	1	H06-02138	5,04	SST			160	160	0,8064	
521	FPFPU	P62	8	1		1	H04-02138	3,8	SST			160	160	0,608	
522	FPFPU	P63	18	1		1	H19138	6,3	SST			770	770	4,851	
523	FPFPU	P63	3	1		1	H03138	2,1	SST			770	770	1,617	
524	FPFPU	P63	10	1		1	H11138	4,6	SST			770	770	3,542	
														0	

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SYMN-CB to BOLA	Harness lth (mm) from SYM-CB to CVV I/F Connect.external	Harness lth (mm) from BOLA to CVV I/F Connect.external	Harness lth (mm) total	total cable weight g	
			63	6										0	
														0	
525	FPFPU	P64	24	2	14	1	H06-02138	5,04	SST			770	770	3,8808	
525	FPFPU	P64	8	1		1	H04-02138	3,8	SST			770	770	2,926	
526	FPFPU	P65	18	1		1	H19138	6,3	SST			770	770	4,861	
527	FPFPU	P65	3	1		1	H03138	2,1	SST			770	770	1,617	
528	FPFPU	P65	10	1		1	H11138	4,6	SST			770	770	3,542	
			63	6										0	
														0	
														0	
529	FPFPU	P68	4	1	15	1	H02-02138	2,5	SST		2980		2980	7,45	
530	FPFPU	P68	4	1		1	H02-02138	2,5	SST		2980		2980	7,45	
531	FPFPU	P68	4	1		1	H02-02138	2,5	SST		2980		2980	7,45	
532	FPFPU	P68	4	1		1	H02-02138	2,5	SST		2980		2980	7,45	
533	FPFPU	P68	4	1		1	H02-02138	2,5	SST		2980		2980	7,45	
534	FPFPU	P68	12	1		1	H06-02130	11,7	BRASS		2980		2980	34,866	
541	FPFPU	P66	4	1		1	H02-02138	2,5	SST		2980		2980	7,45	
542	FPFPU	P66	4	1		1	H02-02138	2,5	SST		2980		2980	7,45	
543	FPFPU	P66	4	1		1	H02-02138	2,5	SST		2980		2980	7,45	
544	FPFPU	P66	4	1		1	H06-02130	11,7	BRASS		2980		2980	34,866	
			48	10										0	
														0	
														0	
535	FPFPU	P69	4	1	16	1	H02-02138	2,5	SST		2830		2830	7,075	
536	FPFPU	P69	4	1		1	H02-02138	2,5	SST		2830		2830	7,075	
537	FPFPU	P69	4	1		1	H02-02138	2,5	SST		2830		2830	7,075	
538	FPFPU	P69	4	1		1	H02-02138	2,5	SST		2830		2830	7,075	
539	FPFPU	P69	4	1		1	H02-02138	2,5	SST		2830		2830	7,075	
540	FPFPU	P69	12	1		1	H06-02130	11,7	BRASS		2830		2830	33,111	
545	FPFPU	P67	4	1		1	H02-02138	2,5	SST		2830		2830	7,075	
546	FPFPU	P67	4	1		1	H02-02138	2,5	SST		2830		2830	7,075	
547	FPFPU	P67	4	1		1	H02-02138	2,5	SST		2830		2830	7,075	
548	FPFPU	P67	4	1		1	H06-02130	11,7	BRASS		2830		2830	33,111	
			32	5										0	
														0	
														0	
601	FPBOLA	P17	36	3	9a	3	H06-2138	5,04	SST	3027			3027	45,76824	
602	FPBOLA	P18	24	2		2	H06-2138	5,04	SST	3027				3027	30,51216
602	FPBOLA	P18	8	1		1	H04-2138	3,8	SST	3027				3027	11,5026
603	FPBOLA	P19	18	1		1	H19138	6,3	SST	3027				3027	19,0701
603a	FPBOLA	P19	4	1		1	H02-2130	5,3	BRASS	3027				3027	16,0431
604	FPBOLA	P19	3	1		1	H03138	2,1	SST	3027				3027	6,3567
605	FPBOLA	P19	10	1		1	H11138	4,6	SST	3027				3027	13,9242
			103	10										0	
														0	
														0	
606	FPBOLA	P20	36	3	10a	3	H06-2138	5,04	SST	3027			3027	45,76824	
607	FPBOLA	P21	24	2		2	H06-2138	5,04	SST	3027				3027	30,51216
607	FPBOLA	P21	8	1		1	H04-2138	3,8	SST	3027				3027	11,5026
608	FPBOLA	P22	18	1		1	H19138	6,3	SST	3027				3027	19,0701
608a	FPBOLA	P22	4	1		1	H02-2130	5,3	BRASS	3027				3027	16,0431
609	FPBOLA	P22	3	1		1	H03138	2,1	SST	3027				3027	6,3567
610	FPBOLA	P22	10	1		1	H11138	4,6	SST	3027				3027	13,9242
			103	10										0	
														0	
														0	
611	FPBOLA	P23	36	3	11a	3	H06-2138	5,04	SST	3027			3027	45,76824	
612	FPBOLA	P24	24	2		2	H06-2138	5,04	SST	3027				3027	30,51216
612	FPBOLA	P24	8	1		1	H04-2138	3,8	SST	3027				3027	11,5026
613	FPBOLA	P25	18	1		1	H19138	6,3	SST	3027				3027	19,0701
613a	FPBOLA	P25	4	1		1	H02-2130	5,3	BRASS	3027				3027	16,0431
614	FPBOLA	P25	3	1		1	H03138	2,1	SST	3027				3027	6,3567
615	FPBOLA	P25	10	1		1	H11138	4,6	SST	3027				3027	13,9242
			103	10										0	
														0	
														0	
616	FPBOLA	P26	36	3	12a	3	H06-2138	5,04	SST	3027			3027	45,76824	
617	FPBOLA	P27	24	2		2	H06-2138	5,04	SST	3027				3027	30,51216
617	FPBOLA	P27	8	1		1	H04-2138	3,8	SST	3027				3027	11,5026
618	FPBOLA	P28	18	1		1	H19138	6,3	SST	3027				3027	19,0701
618a	FPBOLA	P28	4	1		1	H02-2130	5,3	BRASS	3027				3027	16,0431
619	FPBOLA	P28	3	1		1	H03138	2,1	SST	3027				3027	6,3567
620	FPBOLA	P28	10	1		1	H11138	4,6	SST	3027				3027	13,9242
			103	10										0	
														0	
														0	
621	FPBOLA	P29	36	3		3	H06-2138	5,04	SST	3027			3027	45,76824	

HERSCHEL PACS Cryo-Harness mass CVV (ext.)

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from SVMN-CB to BOLA	Harness lth (mm) from SVM-CB to CVV I/F Connect.external	Harness lth (mm) from BOLA to CVV I/F Connect.external	Harness lth (mm) total	total cable weight g
622	FPBOLA	P30	18	1	13a	1	H19138	6,3	SST	3027			3027	19,0701
622a	FPBOLA	P30	4	1		1	H02-2130	5,3	BRASS	3027			3027	16,0431
623	FPBOLA	P30	3	1		1	H03138	2,1	SST	3027			3027	6,3567
624	FPBOLA	P30	10	1		1	H11138	4,6	SST	3027			3027	13,9242
			71	7										0
														0
														0
625	FPBOLA	P31	36	3	14a	3	H06-2138	5,04	SST	3027			3027	45,76824
626	FPBOLA	P32	18	1		1	H19138	6,3	SST	3027			3027	19,0701
626a	FPBOLA	P32	4	1		1	H02-2130	5,3	BRASS	3027			3027	16,0431
627	FPBOLA	P32	3	1		1	H03138	2,1	SST	3027			3027	6,3567
628	FPBOLA	P32	10	1		1	H11138	4,6	SST	3027			3027	13,9242
			71	7										
			1002	223										2598,71748

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CW I/F Connect:internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
001	FPPFU	P11	2		1		H11138(2)		SST	3570	300	3870	0
001	FPPFU	P11	8	1		1	H11138(8)	4,8	SST	3570	300	3870	18,576
002	FPPFU	P10	6				H24138(6)		SST	3570	300	3870	0
002	FPPFU	P10	16	1		1	H24138(16)	7,8	SST	3570	300	3870	30,186
003	FPPFU	P10	6	1		1	H06138	3,3	SST	3570	300	3870	12,771
			38	3									0
													0
													0
004	FPPFU	P17	2		4		H11138(2)		SST	3570	300	3870	0
004	FPPFU	P17	8	1		1	H11138(8)	4,8	SST	3570	300	3870	18,576
005	FPPFU	P18	6				H24138(6)		SST	3570	300	3870	0
005	FPPFU	P18	16	1		1	H24138(16)	7,8	SST	3570	300	3870	30,186
006	FPPFU	P18	6	1		1	H06138	3,3	SST	3570	300	3870	12,771
			38	3									0
													0
													0
007	FPPFU	P21	2		5		H11138(2)		SST	3570	300	3870	0
007	FPPFU	P21	8	1		1	H11138(8)	4,8	SST	3570	300	3870	18,576
008	FPPFU	P20	6				H24138(6)		SST	3570	300	3870	0
008	FPPFU	P20	16	1		1	H24138(16)	7,8	SST	3570	300	3870	30,186
009	FPPFU	P20	6	1		1	H06138	3,3	SST	3570	300	3870	12,771
			38	3									0
													0
													0
010	FPPFU	P27	2		8		H11138(2)		SST	3570	300	3870	0
010	FPPFU	P27	8	1		1	H11138(8)	4,8	SST	3570	300	3870	18,576
011	FPPFU	P28	6				H24138(6)		SST	3570	300	3870	0
011	FPPFU	P28	16	1		1	H24138(16)	7,8	SST	3570	300	3870	30,186
012	FPPFU	P28	6	1		1	H06138	3,3	SST	3570	300	3870	12,771
			38	3									0
													0
													0
017	FPPFU	P12	1	2	2	1	H01238	4,3	SST	3370	300	3670	15,781
018	FPPFU	P12	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
019	FPPFU	P12	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
020	FPPFU	P12	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
021	FPPFU	P12	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
022	FPPFU	P12	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
023	FPPFU	P12	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
013a	FPPFU	P12	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
024	FPPFU	P13	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
025	FPPFU	P13	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
026	FPPFU	P13	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
027	FPPFU	P13	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
028	FPPFU	P13	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
029	FPPFU	P13	1	2		1	H01238	4,3	SST	3370	300	3670	15,781
030	FPPFU	P13	2	1		1	H02138	1,8	SST	3370	300	3670	6,606
031	FPPFU	P13	2	1		1	H02138	1,8	SST	3370	300	3670	6,606
013b	FPPFU	P13	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
075	FPPFU	P14	11	1	1	H11138	4,8	SST	3470	300	3770	18,096	
			32	31									0
													0
													0
032	FPPFU	P16	1	2	3	1	H01238	4,3	SST	3270	300	3570	15,351
033	FPPFU	P16	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
034	FPPFU	P16	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
035	FPPFU	P16	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
036	FPPFU	P16	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
037	FPPFU	P16	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
014a	FPPFU	P16	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
038	FPPFU	P15	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
039	FPPFU	P15	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
040	FPPFU	P15	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
041	FPPFU	P15	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
042	FPPFU	P15	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
043	FPPFU	P15	1	2		1	H01238	4,3	SST	3270	300	3570	15,351
044	FPPFU	P15	2	1		1	H02138	1,8	SST	3270	300	3570	6,426
045	FPPFU	P15	2	1		1	H02138	1,8	SST	3270	300	3570	6,426
014b	FPPFU	P15	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
			20	28									
													0
													0

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
046	FPPFU	P22	1	2	6	1	H01238	4,3	SST	1520	300	1820	7,826
047	FPPFU	P22	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
048	FPPFU	P22	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
049	FPPFU	P22	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
050	FPPFU	P22	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
051	FPPFU	P22	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
052	FPPFU	P22	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
015a	FPPFU	P22	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
053	FPPFU	P23	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
054	FPPFU	P23	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
055	FPPFU	P23	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
056	FPPFU	P23	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
057	FPPFU	P23	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
058	FPPFU	P23	1	2		1	H01238	4,3	SST	1520	300	1820	7,826
059	FPPFU	P23	2	1		1	H02138	1,8	SST	1520	300	1820	3,276
060	FPPFU	P23	2	1		1	H02138	1,8	SST	1520	300	1820	3,276
015b	FPPFU	P23	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
076	FPPFU	P24	11	1		1	H19138(10)	6,3	SST	1520	300	1820	11,466
076	FPPFU	P24	8			1	H19138(8)	0	SST	1520	300	1820	0
			40	31									
													0
061	FPPFU	P26	1	2	7	1	H01238	4,3	SST	1363	300	1663	7,1509
062	FPPFU	P26	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
063	FPPFU	P26	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
064	FPPFU	P26	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
065	FPPFU	P26	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
066	FPPFU	P26	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
067	FPPFU	P26	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
016a	FPPFU	P26	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
068	FPPFU	P25	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
069	FPPFU	P25	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
070	FPPFU	P25	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
071	FPPFU	P25	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
072	FPPFU	P25	1	2		1	H01238	4,3	SST	1363	300	1663	7,1509
073	FPPFU	P25	2	1		1	H02138	1,8	SST	1363	300	1663	2,9934
074	FPPFU	P25	2	1		1	H02138	1,8	SST	1363	300	1663	2,9934
016b	FPPFU	P25	2	1		1	H02138	1,8	SST	3570	300	3870	6,966
			20	28									0
													0
													0
077	FPPFU	P01	4	1	19	1	H04130	5	BRASS	1710	300	2010	10,05
078	FPPFU	P01	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
079	FPPFU	P01	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
080	FPPFU	P01	8	1		1	H08138	3,6	SST	1710	300	2010	7,236
081	FPPFU	P01	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
087	FPPFU	P03	4	1		1	H04130	5	BRASS	1300	300	1600	8
088	FPPFU	P03	4	1		1	H04138	2,4	SST	1300	300	1600	3,84
089	FPPFU	P03	4	1		1	H04138	2,4	SST	1300	300	1600	3,84
090	FPPFU	P03	8	1		1	H08138	3,6	SST	1300	300	1600	5,76
091	FPPFU	P03	4	1		1	H04138	2,4	SST	1300	300	1600	3,84
124	FPPFU	P09	8	1		1	H08138	3,6	SST	1300	300	1600	5,76
			32	5									
													0
													0
082	FPPFU	P02	4	1	20	1	H04130	5	BRASS	1710	300	2010	10,05
083	FPPFU	P02	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
084	FPPFU	P02	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
085	FPPFU	P02	8	1		1	H08138	3,6	SST	1710	300	2010	7,236
086	FPPFU	P02	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
092	FPPFU	P04	4	1		1	H04130	5	BRASS	1710	300	2010	10,05
093	FPPFU	P04	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
094	FPPFU	P04	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
095	FPPFU	P04	8	1		1	H08138	3,6	SST	1710	300	2010	7,236
096	FPPFU	P04	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
			28	5									0
													0
													0
097	FPPFU	P40	6	1	21	1	H06130	7,4	BRASS	1450	300	1750	12,95
098	FPPFU	P40	8	1		1	H08138	3,6	SST	1450	300	1750	6,3
099	FPPFU	P40	2	1		1	H02130	3,3	BRASS	1450	300	1750	5,775
100	FPPFU	P41	4	1		1	H06138(4)	3,3	SST	1450	300	1750	5,775
100	FPPFU	P41	2			1	H06138(2)	0	SST	1450	300	1750	0

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV IF Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
101	FPPFU	P41	4	1		1	H06138(4)	3,3	SST	1450	300	1750	5,775
101	FPPFU	P41	2			1	H06138(2)	0	SST	1450	300	1750	0
102	FPPFU	P41	2	1		1	H02138	1,8	SST	1450	300	1750	3,15
103	FPPFU	P41	2	1		1	H02138	1,8	SST	1450	300	1750	3,15
104	FPPFU	P41	4	1		1	H04138	2,4	SST	1450	300	1750	4,2
			16	4									0
													0
105	FPPFU	P42	6	1		1	H06130	7,4	BRASS	1450	300	1750	12,95
106	FPPFU	P42	8	1		1	H08138	3,6	SST	1450	300	1750	6,3
107	FPPFU	P42	2	1		1	H02130	3,3	BRASS	1450	300	1750	5,775
108	FPPFU	P43	4	1		1	H06138(4)	3,3	SST	1450	300	1750	5,775
108	FPPFU	P43	2			1	H06138(2)	0	SST	1450	300	1750	0
109	FPPFU	P43	4	1		1	H06138(4)	3,3	SST	1450	300	1750	5,775
109	FPPFU	P43	2			1	H06138(2)	0	SST	1450	300	1750	0
110	FPPFU	P43	2	1		1	H02138	1,8	SST	1450	300	1750	3,15
111	FPPFU	P43	2	1		1	H02138	1,8	SST	1450	300	1750	3,15
112	FPPFU	P43	4	1		1	H04138	2,4	SST	1450	300	1750	4,2
			16	4									0
													0
113	FPPFU	P07	4	1		1	H08138(4)	3,6	SST	1710	300	2010	7,236
113	FPPFU	P07	4			1	H08138(4)	0	SST	1710	300	2010	0
114	FPPFU	P07	4	1		1	H08138(4)	3,6	SST	1710	300	2010	7,236
114	FPPFU	P07	4			1	H08138(4)	0	SST	1710	300	2010	0
115	FPPFU	P07	4	1		1	H04138	2,4	SST	1710	300	2010	4,824
116	FPPFU	P07	4	1		1	H04130	5	BRASS	1710	300	2010	10,05
116a	FPPFU	P07	4	1		1	H04130	5	BRASS	1710	300	2010	10,05
120	FPPFU	P06	4	1		1	H04130	5	BRASS	1400	300	1700	8,5
121	FPPFU	P06	4	1		1	H04130	5	BRASS	1400	300	1700	8,5
122	FPPFU	P06	4	1		1	H04138	2,4	SST	1400	300	1700	4,08
			40	8									0
													0
117	FPPFU	P05	4	1		1	H04130	5	BRASS	1400	300	1700	8,5
118	FPPFU	P05	4	1		1	H04130	5	BRASS	1400	300	1700	8,5
119	FPPFU	P05	4	1		1	H04138	2,4	SST	1400	300	1700	4,08
123	FPPFU	P08	8	1		1	H08138	3,6	SST	1400	300	1700	6,12
			20	4									0
													0
501	FPPFU	P50	24	2		2	H06-02138	5,04	SST	1930	300	2230	22,4784
501	FPPFU	P50	8	1		1	H04-02138	3,8	SST	1930	300	2230	8,474
502	FPPFU	P51	24	2		1	H06-02138	5,04	SST	1980	300	2280	11,4912
502	FPPFU	P51	8	1		1	H04-02138	3,8	SST	1980	300	2280	8,664
503	FPPFU	P52	18	1		1	H19138	6,3	SST	1831	300	2131	13,4253
504	FPPFU	P52	3	1		1	H03138	2,1	SST	1831	300	2131	4,4751
505	FPPFU	P52	10	1		1	H11138	4,6	SST	1831	300	2131	9,8026
			95	9									0
													0
506	FPPFU	P53	24	2		2	H06-02138	5,04	SST	1950	300	2250	22,68
506	FPPFU	P53	8	1		1	H04-02138	3,8	SST	1950	300	2250	8,55
507	FPPFU	P54	24	2		2	H06-02138	5,04	SST	1511	300	1811	18,25488
507	FPPFU	P54	8	1		1	H04-02138	3,8	SST	1511	300	1811	6,8818
508	FPPFU	P55	18	1		1	H19138	6,3	SST	1840	300	2140	13,482
509	FPPFU	P55	3	1		1	H03138	2,1	SST	1840	300	2140	4,494
510	FPPFU	P55	10	1		1	H11138	4,6	SST	1840	300	2140	9,844
			95	9									0
													0
511	FPPFU	P56	24	2		2	H06-02138	5,04	SST	1740	300	2040	20,5632
511	FPPFU	P56	8	1		1	H04-02138	3,8	SST	1740	300	2040	7,752
512	FPPFU	P57	24	2		1	H06-02138	5,04	SST	1530	300	1830	9,2232
512	FPPFU	P57	8	1		1	H04-02138	3,8	SST	1530	300	1830	6,954
513	FPPFU	P58	18	1		1	H19138	6,3	SST	1831	300	2131	13,4253
514	FPPFU	P58	3	1		1	H03138	2,1	SST	1831	300	2131	4,4751
515	FPPFU	P58	10	1		1	H11138	4,6	SST	1831	300	2131	9,8026
			95	9									0
													0
516	FPPFU	P59	24	2		2	H06-02138	5,04	SST	1430	300	1730	17,4384
516	FPPFU	P59	8	1		1	H04-02138	3,8	SST	1430	300	1730	6,574

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect:internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
517	FPPFU	P60	24	2	12	1	H06-02138	5,04	SST	1580	300	1880	9,4752
517	FPPFU	P60	8	1		1	H04-02138	3,8	SST	1580	300	1880	7,144
518	FPPFU	P61	18	1		1	H19138	6,3	SST	1840	300	2140	13,482
519	FPPFU	P61	3	1		1	H03138	2,1	SST	1840	300	2140	4,494
520	FPPFU	P61	10	1		1	H11138	4,6	SST	1840	300	2140	9,844
			95	9									0
													0
521	FPPFU	P62	24	2	13	1	H06-02138	5,04	SST	1512	300	1812	9,13248
521	FPPFU	P62	8	1		1	H04-02138	3,8	SST	1512	300	1812	6,8856
522	FPPFU	P63	18	1		1	H19138	6,3	SST	1831	300	2131	13,4253
523	FPPFU	P63	3	1		1	H03138	2,1	SST	1831	300	2131	4,4751
524	FPPFU	P63	10	1		1	H11138	4,6	SST	1831	300	2131	9,8026
			63	6									0
													0
525	FPPFU	P64	24	2	14	1	H06-02138	5,04	SST	1511	300	1811	9,12744
525	FPPFU	P64	8	1		1	H04-02138	3,8	SST	1511	300	1811	6,8818
526	FPPFU	P65	18	1		1	H19138	6,3	SST	1831	300	2131	13,4253
527	FPPFU	P65	3	1		1	H03138	2,1	SST	1831	300	2131	4,4751
528	FPPFU	P65	10	1		1	H11138	4,6	SST	1831	300	2131	9,8026
			63	6									0
													0
529	FPPFU	P68	4	1	15	1	H02-02138	2,5	SST	3270	300	3570	8,925
530	FPPFU	P68	4	1		1	H02-02138	2,5	SST	3270	300	3570	8,925
531	FPPFU	P68	4	1		1	H02-02138	2,5	SST	3270	300	3570	8,925
532	FPPFU	P68	4	1		1	H02-02138	2,5	SST	3270	300	3570	8,925
533	FPPFU	P68	4	1		1	H02-02138	2,5	SST	3270	300	3570	8,925
534	FPPFU	P68	12	1		1	H06-02130	11,7	BRASS	3270	300	3570	41,769
541	FPPFU	P66	4	1		1	H02-02138	2,5	SST	3270	300	3570	8,925
542	FPPFU	P66	4	1		1	H02-02138	2,5	SST	3270	300	3570	8,925
543	FPPFU	P66	4	1		1	H02-02138	2,5	SST	3270	300	3570	8,925
544	FPPFU	P66	4	1		1	H06-02130	11,7	BRASS	3270	300	3570	41,769
			48	10									0
													0
535	FPPFU	P69	4	1	16	1	H02-02138	2,5	SST	3420	300	3720	9,3
536	FPPFU	P69	4	1		1	H02-02138	2,5	SST	3420	300	3720	9,3
537	FPPFU	P69	4	1		1	H02-02138	2,5	SST	3420	300	3720	9,3
538	FPPFU	P69	4	1		1	H02-02138	2,5	SST	3420	300	3720	9,3
539	FPPFU	P69	4	1		1	H02-02138	2,5	SST	3420	300	3720	9,3
540	FPPFU	P69	12	1		1	H06-02130	11,7	BRASS	3420	300	3720	43,524
545	FPPFU	P67	4	1		1	H02-02138	2,5	SST	3420	300	3720	9,3
546	FPPFU	P67	4	1		1	H02-02138	2,5	SST	3420	300	3720	9,3
547	FPPFU	P67	4	1		1	H02-02138	2,5	SST	3420	300	3720	9,3
548	FPPFU	P67	4	1		1	H06-02130	11,7	BRASS	3470	300		0
			32	5									0
													0
601	FPBOLA	P17	36	3	9a	3	H06-2138	5,04	SST			0	0
602	FPBOLA	P18	24	2		2	H06-2138	5,04	SST			0	0
602	FPBOLA	P18	8	1		1	H04-2138	3,8	SST			0	0
603	FPBOLA	P19	18	1		1	H19138	6,3	SST			0	0
603a	FPBOLA	P19	4	1		1	H02-2130	5,3	BRASS			0	0
604	FPBOLA	P19	3	1		1	H03138	2,1	SST			0	0
605	FPBOLA	P19	10	1		1	H11138	4,6	SST			0	0
			103	10									0
													0
606	FPBOLA	P20	36	3	10a	3	H06-2138	5,04	SST			0	0
607	FPBOLA	P21	24	2		2	H06-2138	5,04	SST			0	0
607	FPBOLA	P21	8	1		1	H04-2138	3,8	SST			0	0
608	FPBOLA	P22	18	1		1	H19138	6,3	SST			0	0
608a	FPBOLA	P22	4	1		1	H02-2130	5,3	BRASS			0	0
609	FPBOLA	P22	3	1		1	H03138	2,1	SST			0	0
610	FPBOLA	P22	10	1		1	H11138	4,6	SST			0	0
			103	10									0
													0
611	FPBOLA	P23	36	3		3	H06-2138	5,04	SST			0	0
612	FPBOLA	P24	24	2		2	H06-2138	5,04	SST			0	0
612	FPBOLA	P24	8	1		1	H04-2138	3,8	SST			0	0

Cable_ID	Unit	Connector	no_of_wires	no_of_shd's	Bundle_No.	no_of_cables	cable_type	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
613	FPBOLA	P25	18	1	11a	1	H19138	6,3	SST			0	0
613a	FPBOLA	P25	4	1		1	H02-2130	5,3	BRASS			0	0
614	FPBOLA	P25	3	1		1	H03138	2,1	SST			0	0
615	FPBOLA	P25	10	1		1	H11138	4,6	SST			0	0
			103	10								0	0
616	FPBOLA	P26	36	3	12a	3	H06-2138	5,04	SST			0	0
617	FPBOLA	P27	24	2		2	H06-2138	5,04	SST			0	0
617	FPBOLA	P27	8	1		1	H04-2138	3,8	SST			0	0
618	FPBOLA	P28	18	1		1	H19138	6,3	SST			0	0
618a	FPBOLA	P28	4	1		1	H02-2130	5,3	BRASS			0	0
619	FPBOLA	P28	3	1		1	H03138	2,1	SST			0	0
620	FPBOLA	P28	10	1		1	H11138	4,6	SST			0	0
			103	10								0	0
621	FPBOLA	P29	36	3	13a	3	H06-2138	5,04	SST			0	0
622	FPBOLA	P30	18	1		1	H19138	6,3	SST			0	0
622a	FPBOLA	P30	4	1		1	H02-2130	5,3	BRASS			0	0
623	FPBOLA	P30	3	1		1	H03138	2,1	SST			0	0
624	FPBOLA	P30	10	1		1	H11138	4,6	SST			0	0
			71	7								0	0
625	FPBOLA	P31	36	3	14a	3	H06-2138	5,04	SST			0	0
626	FPBOLA	P32	18	1		1	H19138	6,3	SST			0	0
626a	FPBOLA	P32	4	1		1	H02-2130	5,3	BRASS			0	0
627	FPBOLA	P32	3	1		1	H03138	2,1	SST			0	0
628	FPBOLA	P32	10	1		1	H11138	4,6	SST			0	0
			71	7								0	0
			1002	223									1919,0182

Annex 5: SPIRE Scientific Instrument Harness

Cable_I/SD	Location		no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	conductor	Harness lth (mm) SVM internal	total cable weight g
I/S01	DCU	P27	24	12	12	1ST02C28	6,1	CU	1800	131,76
I/S01	DCU	P27	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P28	24	12	12	1ST02C28	6,1	CU	1800	131,76
I/S01	DCU	P28	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P33	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P33	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P33	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P33	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P33	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P33	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P33	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P33	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P33	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P33	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P33	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P33	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P33	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P34	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P34	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P34	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P34	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P34	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P34	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P34	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P34	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S01	DCU	P34	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P34	1	0	1	101C28	1,4	CU	1800	2,52
I/S01	DCU	P34	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P34	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S01	DCU	P34	2	1	1	1ST02C28	6,1	CU	1800	10,98
			110	50						0
										0
										0
I/S02	DCU	P23	24	12	12	1ST02C28	6,1	CU	1800	131,76
I/S02	DCU	P23	1	0	1	101C28	1,4	CU	1800	2,52
I/S02	DCU	P24	24	12	12	1ST02C28	6,1	CU	1800	131,76
I/S02	DCU	P24	1	0	1	101C28	1,4	CU	1800	2,52
I/S02	DCU	P25	24	12	12	1ST02C28	6,1	CU	1800	131,76
I/S02	DCU	P25	1	0	1	101C28	1,4	CU	1800	2,52
I/S02	DCU	P26	24	12	12	1ST02C28	6,1	CU	1800	131,76
I/S02	DCU	P26	1	0	1	101C28	1,4	CU	1800	2,52
			100	48						0
										0
										0
I/S03	DCU	P29	12	6	6	1ST02C28	6,1	CU	1800	65,88
I/S03	DCU	P29	1	0	1	101C28	1,4	CU	1800	2,52
I/S03	DCU	P29	6	3	3	1ST02C28	6,1	CU	1800	32,94
I/S03	DCU	P29	6	3	3	1ST02C28	6,1	CU	1800	32,94
I/S03	DCU	P29	1	0	1	101C28	1,4	CU	1800	2,52
I/S03	DCU	P31	8	4	4	1ST02C28	6,1	CU	1800	43,92

Cable_I/SD	Location		no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	conductor	Harness lth (mm) SVM internal	total cable weight g
I/S03	DCU	P31	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P31	1	0	1	101C28	1,4	CU	1800	2,52
I/S03	DCU	P31	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P31	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S03	DCU	P31	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P31	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P31	1	0	1	101C28	1,4	CU	1800	2,52
I/S03	DCU	P30	12	6	6	1ST02C28	6,1	CU	1800	65,88
I/S03	DCU	P30	1	0	1	101C28	1,4	CU	1800	2,52
I/S03	DCU	P30	6	3	3	1ST02C28	6,1	CU	1800	32,94
I/S03	DCU	P30	6	3	3	1ST02C28	6,1	CU	1800	32,94
I/S03	DCU	P30	1	0	1	101C28	1,4	CU	1800	2,52
I/S03	DCU	P32	8	4	4	1ST02C28	6,1	CU	1800	43,92
I/S03	DCU	P32	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P32	1	0	1	101C28	1,4	CU	1800	2,52
I/S03	DCU	P32	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P32	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S03	DCU	P32	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P32	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S03	DCU	P32	1	0	1	101C28	1,4	CU	1800	2,52
										0
			108	50						0
										0
I/S04	DCU	P20	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S04	DCU	P20	1	0	1	101C28	1,4	CU	1800	2,52
I/S04	DCU	P20	1	0	1	101C28	1,4	CU	1800	2,52
I/S04	DCU	P21	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S04	DCU	P21	1	0	1	101C28	1,4	CU	1800	2,52
I/S04	DCU	P21	1	0	1	101C28	1,4	CU	1800	2,52
I/S04	DCU	P22	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S04	DCU	P22	1	0	1	101C28	1,4	CU	1800	2,52
I/S04	DCU	P22	1	0	1	101C28	1,4	CU	1800	2,52
										0
			102	48						0
										0
I/S05	DCU	P17	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S05	DCU	P17	1	0	1	101C28	1,4	CU	1800	2,52
I/S05	DCU	P17	1	0	1	101C28	1,4	CU	1800	2,52
I/S05	DCU	P18	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S05	DCU	P18	1	0	1	101C28	1,4	CU	1800	2,52
I/S05	DCU	P18	1	0	1	101C28	1,4	CU	1800	2,52
I/S05	DCU	P19	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S05	DCU	P19	1	0	1	101C28	1,4	CU	1800	2,52
I/S05	DCU	P19	1	0	1	101C28	1,4	CU	1800	2,52
										0
			102	48						0
										0
I/S06	DCU	P14	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S06	DCU	P14	1	0	1	101C28	1,4	CU	1800	2,52
I/S06	DCU	P14	1	0	1	101C28	1,4	CU	1800	2,52

Cable_I/SD	Location		no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	conductor	Harness lth (mm) SVM internal	total cable weight g
I/S06	DCU	P15	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S06	DCU	P15	1	0	1	101C28	1,4	CU	1800	2,52
I/S06	DCU	P15	1	0	1	101C28	1,4	CU	1800	2,52
I/S06	DCU	P16	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S06	DCU	P16	1	0	1	101C28	1,4	CU	1800	2,52
I/S06	DCU	P16	1	0	1	101C28	1,4	CU	1800	2,52
			102	48						0
										0
										0
I/S07	DCU	P11	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S07	DCU	P11	1	0	1	101C28	1,4	CU	1800	2,52
I/S07	DCU	P11	1	0	1	101C28	1,4	CU	1800	2,52
I/S07	DCU	P12	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S07	DCU	P12	1	0	1	101C28	1,4	CU	1800	2,52
I/S07	DCU	P12	1	0	1	101C28	1,4	CU	1800	2,52
I/S07	DCU	P13	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S07	DCU	P13	1	0	1	101C28	1,4	CU	1800	2,52
I/S07	DCU	P13	1	0	1	101C28	1,4	CU	1800	2,52
			102	48						0
										0
										0
I/S08	DCU	P08	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S08	DCU	P08	1	0	1	101C28	1,4	CU	1800	2,52
I/S08	DCU	P08	1	0	1	101C28	1,4	CU	1800	2,52
I/S08	DCU	P09	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S08	DCU	P09	1	0	1	101C28	1,4	CU	1800	2,52
I/S08	DCU	P09	1	0	1	101C28	1,4	CU	1800	2,52
I/S08	DCU	P10	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S08	DCU	P10	1	0	1	101C28	1,4	CU	1800	2,52
I/S08	DCU	P10	1	0	1	101C28	1,4	CU	1800	2,52
			102	48						0
										0
										0
I/S09	DCU	P05	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S09	DCU	P05	1	0	1	101C28	1,4	CU	1800	2,52
I/S09	DCU	P05	1	0	1	101C28	1,4	CU	1800	2,52
I/S09	DCU	P06	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S09	DCU	P06	1	0	1	101C28	1,4	CU	1800	2,52
I/S09	DCU	P06	1	0	1	101C28	1,4	CU	1800	2,52
I/S09	DCU	P07	32	16	16	1ST02C28	6,1	CU	1800	175,68
I/S09	DCU	P07	1	0	1	101C28	1,4	CU	1800	2,52
I/S09	DCU	P07	1	0	1	101C28	1,4	CU	1800	2,52
			102	48						0
										0
										0
I/S10	FCU	P11	4	0	1	1T04C28	6	CU	1800	10,8
I/S10	FCU	P11	8	0	2	1T04C28	6	CU	1800	21,6
I/S10	FCU	P11	4	1	1	1ST04C28	11	CU	1800	19,8
I/S10	FCU	P11	4	0	1	1T04C28	6	CU	1800	10,8
I/S10	FCU	P11	4	0	1	1T04C28	6	CU	1800	10,8

Cable_I/SD	Location		no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	conductor	Harness lth (mm) SVM internal	total cable weight g
I/S10	FCU	P23	44	11	11	1ST04C28	11	CU	1800	217,8
I/S10	FCU	P23	1	0	1	101C28	1,4	CU	1800	2,52
I/S10	FCU	P25	12	3	3	1ST04C28	11	CU	1800	59,4
I/S10	Shutter	EGSE	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S10	Shutter	EGSE	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S10	Shutter	EGSE	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S10	Shutter	EGSE	3	1	1	1ST03C28	9,2	CU	1800	16,56
I/S10	Shutter	EGSE	3	1	1	1ST03C28	9,2	CU	1800	16,56
I/S10	Shutter	EGSE	3	1	1	1ST03C28	9,2	CU	1800	16,56
										0
			96	21						0
										0
I/S11	FCU	P21	12	3	3	1ST04C28	10,4	CU	1800	56,16
I/S11	FCU	P19	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S11	FCU	P19	6	2	2	1ST03C28	8,4	CU	1800	30,24
I/S11	FCU	P19	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P19	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P19	4	1	1	1ST04C28	10,4	CU	1800	18,72
I/S11	FCU	P19	4	1	1	1ST04C28	10,4	CU	1800	18,72
I/S11	FCU	P29	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P29	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S11	FCU	P29	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S11	FCU	P29	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P29	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S11	FCU	P29	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P17	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P17	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P17	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S11	FCU	P17	4	2	2	1ST02C28	6,1	CU	1800	21,96
I/S11	FCU	P17	6	3	3	1ST02C28	6,1	CU	1800	32,94
I/S11	FCU	P17	6	3	3	1ST02C28	6,1	CU	1800	32,94
I/S11	FCU	P17	1	0	1	101C28	1,4	CU	1800	2,52
I/S11	FCU	P13	4	1	1	1ST04C28	10,4	CU	1800	18,72
										0
			79	32						0
										0
I/S12	FCU	P12	4	0	1	1T04C28	6	CU	1800	10,8
I/S12	FCU	P12	8	0	2	1T04C28	6	CU	1800	21,6
I/S12	FCU	P12	4	1	1	1ST04C28	10,4	CU	1800	18,72
I/S12	FCU	P12	4	0	1	1T04C28	6	CU	1800	10,8
I/S12	FCU	P12	4	0	1	1T04C28	6	CU	1800	10,8
I/S12	FCU	P24	44	11	11	1ST04C28	10,4	CU	1800	205,92
I/S12	FCU	P24	1	0	1	101C28	1,4	CU	1800	2,52
I/S12	FCU	P26	12	3	3	1ST04C28	10,4	CU	1800	56,16
I/S12	Shutter	EGSE	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S12	Shutter	EGSE	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S12	Shutter	EGSE	2	1	1	1ST02C28	6,1	CU	1800	10,98
I/S12	Shutter	EGSE	3	1	1	1ST03C28	8,4	CU	1800	15,12
I/S12	Shutter	EGSE	3	1	1	1ST03C28	8,4	CU	1800	15,12
I/S12	Shutter	EGSE	3	1	1	1ST03C28	8,4	CU	1800	15,12

Cable_I/SD	Location		no_of_wires	no_of_shd's		no_of_cables	cable_type	cable weight g/m	conductor	Harness lth (mm) SVM internal	total cable weight g
											0
			96	21							0
											0
I/S13	FCU	P22	12	3		3	1ST04C28	10,4	CU	1800	56,16
I/S13	FCU	P20	4	2		2	1ST02C28	6,1	CU	1800	21,96
I/S13	FCU	P20	6	2		2	1ST03C28	8,4	CU	1800	30,24
I/S13	FCU	P20	2	1		1	1ST02C28	8,4	CU	1800	15,12
I/S13	FCU	P20	2	1		1	1ST02C28	6,1	CU	1800	10,98
I/S13	FCU	P20	4	1		1	1ST04C28	10,4	CU	1800	18,72
I/S13	FCU	P20	4	1		1	1ST04C28	10,4	CU	1800	18,72
I/S13	FCU	P30	2	1		1	1ST02C28	6,1	CU	1800	10,98
I/S13	FCU	P29	4	2		2	1ST02C28	6,1	CU	1800	21,96
I/S13	FCU	P29	4	2		2	1ST02C28	6,1	CU	1800	21,96
I/S13	FCU	P29	2	1		1	1ST02C28	6,1	CU	1800	10,98
I/S13	FCU	P29	4	2		2	1ST02C28	6,1	CU	1800	21,96
I/S13	FCU	P30	2	1		1	1ST02C28	6,1	CU	1800	10,98
I/S13	FCU	P18	2	1		1	1ST02C28	6,1	CU	1800	10,98
I/S13	FCU	P18	2	1		1	1ST02C28	6,1	CU	1800	10,98
I/S13	FCU	P18	2	1		1	1ST02C28	6,1	CU	1800	10,98
I/S13	FCU	P18	4	2		2	1ST02C28	6,1	CU	1800	21,96
I/S13	FCU	P18	6	3		3	1ST02C28	6,1	CU	1800	32,94
I/S13	FCU	P18	6	3		3	1ST02C28	6,1	CU	1800	32,94
I/S13	FCU	P18	1	0		1	101C28	1,4	CU	1800	2,52
I/S13	FCU	P14	4	1		1	1ST04C28	10,4	CU	1800	18,72
			79	32							6606,54

HERSCHEL SPIRE Cryo-Harness CVV (ext.)

Cable_I/SD	Location		no_of_wires		no_of_shd's		no_of_cables	cable_type	cable_weight_g/m	conductor	Harness lth (mm) from SVM-CB to CVV I/F Connect. external	Harness lth (mm) total	total cable weight g
I/S01	DCU	P27	24	12			12	H02138	1,8	SST	3000	3000	64,8
I/S01	DCU	P27	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P28	24	12			12	H02138	1,8	SST	3000	3000	64,8
I/S01	DCU	P28	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P33	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
I/S01	DCU	P33	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P33	2	1			1	H02138	1,8	SST	3000	3000	5,4
I/S01	DCU	P33	4	2			2	H02138	1,8	BRASS	3000	3000	10,8
I/S01	DCU	P33	4	2			2	H02138	1,8	SST	3000	3000	10,8
I/S01	DCU	P33	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P33	4	2			2	H02138	1,8	SST	3000	3000	10,8
I/S01	DCU	P33	4	2			2	H02138	1,8	SST	3000	3000	10,8
I/S01	DCU	P33	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P33	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P33	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
I/S01	DCU	P33	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
I/S01	DCU	P33	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
I/S01	DCU	P34	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
I/S01	DCU	P34	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P34	2	1			1	H02138	1,8	SST	3000	3000	5,4
I/S01	DCU	P34	4	2			2	H02138	1,8	SST	3000	3000	10,8
I/S01	DCU	P34	4	2			2	H02138	1,8	SST	3000	3000	10,8
I/S01	DCU	P34	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P34	4	2			2	H02138	1,8	SST	3000	3000	10,8
I/S01	DCU	P34	4	2			2	H02138	1,8	SST	3000	3000	10,8
I/S01	DCU	P34	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P34	1	0			1	H01030	0,7	BRASS	3000	3000	2,1
I/S01	DCU	P34	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
I/S01	DCU	P34	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
I/S01	DCU	P34	2	1			1	H02138	1,8	BRASS	3000	3000	5,4
													0
			110	50									0
													0
I/S02	DCU	P23	24	12			12	H02138	1,8	SST	2902	2902	62,6832
I/S02	DCU	P23	1	0			1	H01030	0,7	BRASS	2902	2902	2,0314
I/S02	DCU	P24	24	12			12	H02138	1,8	SST	2902	2902	62,6832
I/S02	DCU	P24	1	0			1	H01030	0,7	BRASS	2902	2902	2,0314
I/S02	DCU	P25	24	12			12	H02138	1,8	SST	2902	2902	62,6832
I/S02	DCU	P25	1	0			1	H01030	0,7	BRASS	2902	2902	2,0314
I/S02	DCU	P26	24	12			12	H02138	1,8	SST	2902	2902	62,6832
I/S02	DCU	P26	1	0			1	H01030	0,7	BRASS	2902	2902	2,0314
													0
			100	48									0
													0
I/S03	DCU	P29	12	6			6	H02138	1,8	SST	2683	2683	28,9764
I/S03	DCU	P29	1	0			1	H01030	0,7	BRASS	2683	2683	1,8781
I/S03	DCU	P29	6	3			3	H02138	1,8	SST	2683	2683	14,4882
I/S03	DCU	P29	6	3			3	H02138	1,8	BRASS	2683	2683	14,4882
I/S03	DCU	P29	1	0			1	H01030	0,7	BRASS	2683	2683	1,8781
I/S03	DCU	P31	8	4			4	H02138	1,8	SST	2683	2683	19,3176

Cable_I/SD	Location		no_of_wires		no_of_shd's		no_of_cables		cable_type	cable_weight_g/m	conductor	Harness lth (mm) from SVM-CB to CVV I/F Connect.external	Harness lth (mm) total	total cable weight g
I/S03	DCU	P31	4	2		2	H02138	1,8	SST	2683	2683	9,6588		
I/S03	DCU	P31	1	0		1	H01030	0,7	BRASS	2683	2683	1,8781		
I/S03	DCU	P31	4	2		2	H02138	1,8	BRASS	2683	2683	9,6588		
I/S03	DCU	P31	2	1		1	H02138	1,8	BRASS	2683	2683	4,8294		
I/S03	DCU	P31	4	2		2	H02138	1,8	SST	2683	2683	9,6588		
I/S03	DCU	P31	4	2		2	H02138	1,8	SST	2683	2683	9,6588		
I/S03	DCU	P31	1	0		1	H01030	0,7	BRASS	2683	2683	1,8781		
I/S03	DCU	P30	12	6		6	H02138	1,8	SST	2683	2683	28,9764		
I/S03	DCU	P30	1	0		1	H01030	0,7	BRASS	2683	2683	1,8781		
I/S03	DCU	P30	6	3		3	H02138	1,8	SST	2683	2683	14,4882		
I/S03	DCU	P30	6	3		3	H02138	1,8	BRASS	2683	2683	14,4882		
I/S03	DCU	P30	1	0		1	H01030	0,7	BRASS	2683	2683	1,8781		
I/S03	DCU	P32	8	4		4	H02138	1,8	SST	2683	2683	19,3176		
I/S03	DCU	P32	4	2		2	H02138	1,8	SST	2683	2683	9,6588		
I/S03	DCU	P32	1	0		1	H01030	0,7	BRASS	2683	2683	1,8781		
I/S03	DCU	P32	4	2		2	H02138	1,8	BRASS	2683	2683	9,6588		
I/S03	DCU	P32	2	1		1	H02138	1,8	BRASS	2683	2683	4,8294		
I/S03	DCU	P32	4	2		2	H02138	1,8	SST	2683	2683	9,6588		
I/S03	DCU	P32	4	2		2	H02138	1,8	SST	2683	2683	9,6588		
I/S03	DCU	P32	1	0		1	H01030	0,7	BRASS	2683	2683	1,8781		
													0	
			108	50									0	
													0	
I/S04	DCU	P20	32	16		16	H02138	1,8	SST	2580	2580	74,304		
I/S04	DCU	P20	1	0		1	H01030	0,7	BRASS	2580	2580	1,806		
I/S04	DCU	P20	1	0		1	H01030	0,7	BRASS	2580	2580	1,806		
I/S04	DCU	P21	32	16		16	H02138	1,8	SST	2580	2580	74,304		
I/S04	DCU	P21	1	0		1	H01030	0,7	BRASS	2580	2580	1,806		
I/S04	DCU	P21	1	0		1	H01030	0,7	BRASS	2580	2580	1,806		
I/S04	DCU	P22	32	16		16	H02138	1,8	SST	2580	2580	74,304		
I/S04	DCU	P22	1	0		1	H01030	0,7	BRASS	2580	2580	1,806		
I/S04	DCU	P22	1	0		1	H01030	0,7	BRASS	2580	2580	1,806		
													0	
			102	48									0	
													0	
I/S05	DCU	P17	32	16		16	H02138	1,8	SST	2480	2480	71,424		
I/S05	DCU	P17	1	0		1	H01030	0,7	BRASS	2480	2480	1,736		
I/S05	DCU	P17	1	0		1	H01030	0,7	BRASS	2480	2480	1,736		
I/S05	DCU	P18	32	16		16	H02138	1,8	SST	2480	2480	71,424		
I/S05	DCU	P18	1	0		1	H01030	0,7	BRASS	2480	2480	1,736		
I/S05	DCU	P18	1	0		1	H01030	0,7	BRASS	2480	2480	1,736		
I/S05	DCU	P19	32	16		16	H02138	1,8	SST	2480	2480	71,424		
I/S05	DCU	P19	1	0		1	H01030	0,7	BRASS	2480	2480	1,736		
I/S05	DCU	P19	1	0		1	H01030	0,7	BRASS	2480	2480	1,736		
													0	
			102	48									0	
													0	
I/S06	DCU	P14	32	16		16	H02138	1,8	SST	2560	2560	73,728		
I/S06	DCU	P14	1	0		1	H01030	0,7	BRASS	2560	2560	1,792		
I/S06	DCU	P14	1	0		1	H01030	0,7	BRASS	2560	2560	1,792		

Cable_ID	Location		no_of_wires	no_of_shd's	no_of_cables	cable_type	cable weight g/m	conductor	Harness lth (mm) from SVM-CB to CVV I/F Connect. external	Harness lth (mm) total	total cable weight g
I/S06	DCU	P15	32	16	16	H02138	1,8	SST	2560	2560	73,728
I/S06	DCU	P15	1	0	1	H01030	0,7	BRASS	2560	2560	1,792
I/S06	DCU	P15	1	0	1	H01030	0,7	BRASS	2560	2560	1,792
I/S06	DCU	P16	32	16	16	H02138	1,8	SST	2560	2560	73,728
I/S06	DCU	P16	1	0	1	H01030	0,7	BRASS	2560	2560	1,792
I/S06	DCU	P16	1	0	1	H01030	0,7	BRASS	2560	2560	1,792
			102	48							0
											0
											0
I/S07	DCU	P11	32	16	16	H02138	1,8	SST	2466	2466	71,0208
I/S07	DCU	P11	1	0	1	H01030	0,7	BRASS	2466	2466	1,7262
I/S07	DCU	P11	1	0	1	H01030	0,7	BRASS	2466	2466	1,7262
I/S07	DCU	P12	32	16	16	H02138	1,8	SST	2466	2466	71,0208
I/S07	DCU	P12	1	0	1	H01030	0,7	BRASS	2466	2466	1,7262
I/S07	DCU	P12	1	0	1	H01030	0,7	BRASS	2466	2466	1,7262
I/S07	DCU	P13	32	16	16	H02138	1,8	SST	2466	2466	71,0208
I/S07	DCU	P13	1	0	1	H01030	0,7	BRASS	2466	2466	1,7262
I/S07	DCU	P13	1	0	1	H01030	0,7	BRASS	2466	2466	1,7262
			102	48							0
											0
											0
I/S08	DCU	P08	32	16	16	H02138	1,8	SST	2143	2143	61,7184
I/S08	DCU	P08	1	0	1	H01030	0,7	BRASS	2143	2143	1,5001
I/S08	DCU	P08	1	0	1	H01030	0,7	BRASS	2143	2143	1,5001
I/S08	DCU	P09	32	16	16	H02138	1,8	SST	2143	2143	61,7184
I/S08	DCU	P09	1	0	1	H01030	0,7	BRASS	2143	2143	1,5001
I/S08	DCU	P09	1	0	1	H01030	0,7	BRASS	2143	2143	1,5001
I/S08	DCU	P10	32	16	16	H02138	1,8	SST	2143	2143	61,7184
I/S08	DCU	P10	1	0	1	H01030	0,7	BRASS	2143	2143	1,5001
I/S08	DCU	P10	1	0	1	H01030	0,7	BRASS	2143	2143	1,5001
			102	48							0
											0
											0
I/S09	DCU	P05	32	16	16	H02138	1,8	SST	2240	2240	64,512
I/S09	DCU	P05	1	0	1	H01030	0,7	BRASS	2240	2240	1,568
I/S09	DCU	P05	1	0	1	H01030	0,7	BRASS	2240	2240	1,568
I/S09	DCU	P06	32	16	16	H02138	1,8	SST	2240	2240	64,512
I/S09	DCU	P06	1	0	1	H01030	0,7	BRASS	2240	2240	1,568
I/S09	DCU	P06	1	0	1	H01030	0,7	BRASS	2240	2240	1,568
I/S09	DCU	P07	32	16	16	H02138	1,8	SST	2240	2240	64,512
I/S09	DCU	P07	1	0	1	H01030	0,7	BRASS	2240	2240	1,568
I/S09	DCU	P07	1	0	1	H01030	0,7	BRASS	2240	2240	1,568
			102	48							0
											0
											0
I/S10	FCU	P11	4	0	1	H04030	2,7	BRASS	3190	3190	8,613
I/S10	FCU	P11	8	0	2	H04030	2,7	BRASS	3190	3190	17,226
I/S10	FCU	P11	4	1	1	H04138	2,4	BRASS	3190	3190	7,656
I/S10	FCU	P11	4	0	1	H04030	2,7	BRASS	3190	3190	8,613
I/S10	FCU	P11	4	0	1	H04030	2,7	BRASS	3190	3190	8,613

Cable_I/SD	Location		no_of_wires		no_of_shd's	no_of_cables	cable_type	cable_weight_g/m	conductor	Harness lth (mm) from SVM-CB to CVV I/F Connect.external	Harness lth (mm) total	total cable weight g
I/S10	FCU	P23	44	11		11	H04138	2,4	SST	3190	3190	84,216
I/S10	FCU	P23	1	0		1	H01030	0,7	BRASS	3190	3190	2,233
I/S10	FCU	P25	12	3		3	H04138	2,4	SST	3190	3190	22,968
I/S10	Shutter	EGSE	2	1		1	H02138	1,8	SST	3190	3190	5,742
I/S10	Shutter	EGSE	2	1		1	H02138	1,8	SST	3190	3190	5,742
I/S10	Shutter	EGSE	2	1		1	H02138	1,8	SST	3190	3190	5,742
I/S10	Shutter	EGSE	3	1		1	H03138	2,1	SST	3190	3190	6,699
I/S10	Shutter	EGSE	3	1		1	H03130	4,1	BRASS	3190	3190	13,079
I/S10	Shutter	EGSE	3	1		1	H03130	4,1	BRASS	3190	3190	13,079
												0
			96	21								0
												0
I/S11	FCU	P21	12	3		3	H04138	2,4	SST	3360	3360	24,192
I/S11	FCU	P19	4	2		2	H02138	1,8	SST	3360	3360	12,096
I/S11	FCU	P19	6	2		2	H03138	2,1	SST	3360	3360	14,112
I/S11	FCU	P19	2	1		1	H02138	1,8	SST	3360	3360	6,048
I/S11	FCU	P19	2	1		1	H02130	3,3	BRASS	3360	3360	11,088
I/S11	FCU	P19	4	1		1	H04130	5	BRASS	3360	3360	16,8
I/S11	FCU	P19	4	1		1	H04130	5	BRASS	3360	3360	16,8
I/S11	FCU	P29	2	1		1	H02130	3,3	BRASS	3360	3360	11,088
I/S11	FCU	P29	4	2		2	H02130	3,3	BRASS	3360	3360	22,176
I/S11	FCU	P29	4	2		2	H02130	3,3	BRASS	3360	3360	22,176
I/S11	FCU	P29	2	1		1	H02130	3,3	BRASS	3360	3360	11,088
I/S11	FCU	P29	4	2		2	H02130	3,3	BRASS	3360	3360	22,176
I/S11	FCU	P29	2	1		1	H02130	3,3	BRASS	3360	3360	11,088
I/S11	FCU	P17	2	1		1	H02130	3,3	BRASS	3360	3360	11,088
I/S11	FCU	P17	2	1		1	H02130	3,3	BRASS	3360	3360	11,088
I/S11	FCU	P17	2	1		1	H02138	1,8	SST	3360	3360	6,048
I/S11	FCU	P17	4	2		2	H02138	1,8	BRASS	3360	3360	12,096
I/S11	FCU	P17	6	3		3	H02138	1,8	SST	3360	3360	18,144
I/S11	FCU	P17	6	3		3	H02138	1,8	SST	3360	3360	18,144
I/S11	FCU	P17	1	0		1	H01030	0,7	BRASS	3360	3360	2,352
I/S11	FCU	P13	4	1		1	H04130	5	BRASS	3360	3360	16,8
												0
			79	32								0
												0
I/S12	FCU	P12	4	0		1	H04030	2,7	BRASS	3289	3289	8,8803
I/S12	FCU	P12	8	0		2	H04030	2,7	BRASS	3289	3289	17,7606
I/S12	FCU	P12	4	1		1	H04138	2,4	BRASS	3289	3289	7,8936
I/S12	FCU	P12	4	0		1	H04030	2,7	BRASS	3289	3289	8,8803
I/S12	FCU	P12	4	0		1	H04030	2,7	BRASS	3289	3289	8,8803
I/S12	FCU	P24	44	11		11	H04138	2,4	SST	3289	3289	86,8296
I/S12	FCU	P24	1	0		1	H01030	0,7	BRASS	3289	3289	2,3023
I/S12	FCU	P26	12	3		3	H04138	2,4	SST	3289	3289	23,6808
I/S12	Shutter	EGSE	2	1		1	H02138	1,8	SST	3289	3289	5,9202
I/S12	Shutter	EGSE	2	1		1	H02138	1,8	SST	3289	3289	5,9202
I/S12	Shutter	EGSE	2	1		1	H02138	1,8	SST	3289	3289	5,9202
I/S12	Shutter	EGSE	3	1		1	H03138	2,1	SST	3289	3289	6,9069
I/S12	Shutter	EGSE	3	1		1	H03130	4,1	BRASS	3289	3289	13,4849
I/S12	Shutter	EGSE	3	1		1	H03130	4,1	BRASS	3289	3289	13,4849

Cable_I/SD	Location		no_of_wires		no_of_shd's	no_of_cables	cable_type	cable_weight_g/m	conductor	Harness lth (mm) from SVM-CB to CVV I/F Connect.external	Harness lth (mm) total	total cable weight g
												0
			96	21								0
												0
I/S13	FCU	P22	12	3		3	H04138	2,4	SST	3460	3460	24,912
I/S13	FCU	P20	4	2		2	H02138	1,8	SST	3460	3460	12,456
I/S13	FCU	P20	6	2		2	H03138	2,1	SST	3460	3460	14,532
I/S13	FCU	P20	2	1		1	H02138	1,8	SST	3460	3460	6,228
I/S13	FCU	P20	2	1		1	H02130	3,3	BRASS	3460	3460	11,418
I/S13	FCU	P20	4	1		1	H04130	5	BRASS	3460	3460	17,3
I/S13	FCU	P20	4	1		1	H04130	5	BRASS	3460	3460	17,3
I/S13	FCU	P30	2	1		1	H02130	3,3	BRASS	3460	3460	11,418
I/S13	FCU	P29	4	2		2	H02130	3,3	BRASS	3460	3460	22,836
I/S13	FCU	P29	4	2		2	H02130	3,3	BRASS	3460	3460	22,836
I/S13	FCU	P29	2	1		1	H02130	3,3	BRASS	3460	3460	11,418
I/S13	FCU	P29	4	2		2	H02130	3,3	BRASS	3460	3460	22,836
I/S13	FCU	P30	2	1		1	H02130	3,3	BRASS	3460	3460	11,418
I/S13	FCU	P18	2	1		1	H02130	3,3	BRASS	3460	3460	11,418
I/S13	FCU	P18	2	1		1	H02130	3,3	BRASS	3460	3460	11,418
I/S13	FCU	P18	2	1		1	H02138	1,8	SST	3460	3460	6,228
I/S13	FCU	P18	4	2		2	H02138	1,8	BRASS	3460	3460	12,456
I/S13	FCU	P18	6	3		3	H02138	1,8	SST	3460	3460	18,684
I/S13	FCU	P18	6	3		3	H02138	1,8	SST	3460	3460	18,684
I/S13	FCU	P18	1	0		1	H01030	0,7	BRASS	3460	3460	2,422
I/S13	FCU	P14	4	1		1	H04130	5	BRASS	3460	3460	17,3
			79	32								3146,417

HERSCHEL SPIRE Cryo-Harness CVV (int.)

Cable_n	Location		no_of_wires	no_of_shd's	no_of_cable	cable_types	cable weight g/m	condu.	Harness lth (mm) from CWV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
C01	HSJFS	P05	24	3	2	H12-4031	6	SST	1495	300	1795	21,54
C01	HSJFS	P05	12	0	1	H12-4031	6	SST	1495	300	1795	10,77
C01	HSJFS	P06	24	3	2	H12-4031	6	SST	1495	300	1795	21,54
C01	HSJFS	P06	12	0	1	H12-4031	6	SST	1495	300	1795	10,77
C01	HSJFS	P09	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P09	1	0	1	H01030	0,7	BRASS	1495	300	1795	1,2565
C01	HSJFS	P09	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P09	4	2	2	H02138	1,8	SST	1495	300	1795	6,462
C01	HSJFS	P09	4	2	2	H02138	1,8	BRASS	1495	300	1795	6,462
C01	HSJFS	P09	1	0	1	H01030	0,7	BRASS	1495	300	1795	1,2565
C01	HSJFS	P09	4	2	2	H02138	1,8	SST	1495	300	1795	6,462
C01	HSJFS	P09	4	2	2	H02138	1,8	BRASS	1495	300	1795	6,462
C01	HSJFS	P09	1	0	1	H01030	0,7	BRASS	1495	300	1795	1,2565
C01	HSJFS	P09	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P09	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P09	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P10	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P10	1	0	1	H01030	0,7	BRASS	1495	300	1795	1,2565
C01	HSJFS	P10	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P10	4	2	2	H02138	1,8	SST	1495	300	1795	6,462
C01	HSJFS	P10	4	2	2	H02138	1,8	BRASS	1495	300	1795	6,462
C01	HSJFS	P10	1	0	1	H01030	0,7	BRASS	1495	300	1795	1,2565
C01	HSJFS	P10	4	2	2	H02138	1,8	SST	1495	300	1795	6,462
C01	HSJFS	P10	4	2	2	H02138	1,8	BRASS	1495	300	1795	6,462
C01	HSJFS	P10	1	0	1	H01030	0,7	BRASS	1495	300	1795	1,2565
C01	HSJFS	P10	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
C01	HSJFS	P10	2	1	1	H02138	1,8	BRASS	1495	300	1795	3,231
												0
			130	32								0
												0
C02	HSJFS	P07	8	1	1	H12-4031	6	SST	1595	300	1895	11,37
C02	HSJFS	P07	4	0	0	H12-4031	6	SST	1595	300	1895	0
C02	HSJFS	P01	16	3	2	H12-4031	6	SST	1595	300	1895	22,74
C02	HSJFS	P01	8	0	0	H12-4031	6	SST	1595	300	1895	0
C02	HSJFS	P02	24	3	2	H12-4031	6	SST	1595	300	1895	22,74
C02	HSJFS	P02	12	0	1	H12-4031	6	SST	1595	300	1895	11,37
C02	HSJFS	P03	24	3	2	H12-4031	6	SST	1595	300	1895	22,74
C02	HSJFS	P03	12	0	1	H12-4031	6	SST	1595	300	1895	11,37
C02	HSJFS	P04	24	3	2	H12-4031	6	SST	1595	300	1895	22,74
C02	HSJFS	P04	12	0	1	H12-4031	6	SST	1595	300	1895	11,37
												0
												0
												0
C03	HSJFP	P25	12	6	6	H02138	1,8	BRASS	1353	300	1653	17,8524
C03	HSJFP	P25	1	0	1	H01030	0,7	BRASS	1353	300	1653	1,1571
C03	HSJFP	P25	6	3	3	H02138	1,8	SST	1353	300	1653	8,9262
C03	HSJFP	P25	6	3	3	H02138	1,8	BRASS	1353	300	1653	8,9262
C03	HSJFP	P27	8	4	4	H02138	1,8	BRASS	1353	300	1653	11,9016
C03	HSJFP	P27	4	2	2	H02138	1,8	SST	1353	300	1653	5,9508
C03	HSJFP	P27	1	0	1	H01030	0,7	BRASS	1353	300	1653	1,1571
C03	HSJFP	P27	4	2	2	H02138	1,8	BRASS	1353	300	1653	5,9508
C03	HSJFP	P27	2	1	1	H02138	1,8	BRASS	1353	300	1653	2,9754
C03	HSJFP	P27	4	2	2	H02138	1,8	BRASS	1353	300	1653	5,9508
C03	HSJFP	P27	4	2	2	H02138	1,8	SST	1353	300	1653	5,9508
C03	HSJFP	P27	1	0	1	H01030	0,7	BRASS	1353	300	1653	1,1571
C03	HSJFP	P26	12	6	6	H02138	1,8	BRASS	1353	300	1653	17,8524
C03	HSJFP	P26	1	0	1	H01030	0,7	BRASS	1353	300	1653	1,1571
C03	HSJFP	P26	6	3	3	H02138	1,8	SST	1353	300	1653	8,9262

HERSCHEL SPIRE Cryo-Harness CVV (int.)

Cable_n	Location		no_of_wires	no_of_shd's	no_of_cable	cable_types	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
C03	HSJFP	P26	6	3	3	H02138	1,8	BRASS	1353	300	1653	8,9262
C03	HSJFP	P28	8	4	4	H02138	1,8	BRASS	1353	300	1653	11,9016
C03	HSJFP	P28	4	2	2	H02138	1,8	SST	1353	300	1653	5,9508
C03	HSJFP	P28	1	0	1	H01030	0,7	BRASS	1353	300	1653	1,1571
C03	HSJFP	P28	4	2	2	H02138	1,8	BRASS	1353	300	1653	5,9508
C03	HSJFP	P28	2	1	1	H02138	1,8	BRASS	1353	300	1653	2,9754
C03	HSJFP	P28	4	2	2	H02138	1,8	BRASS	1353	300	1653	5,9508
C03	HSJFP	P28	4	2	2	H02138	1,8	SST	1353	300	1653	5,9508
C03	HSJFP	P28	1	0	1	H01030	0,7	BRASS	1353	300	1653	1,1571
												0
												0
												0
C04	HSJFP	P21	24	3	2	H12-4031	6	SST	1370	300	1670	20,04
C04	HSJFP	P21	12	0	1	H12-4031	6	SST	1370	300	1670	10,02
C04	HSJFP	P22	24	3	2	H12-4031	6	SST	1370	300	1670	20,04
C04	HSJFP	P22	12	0	1	H12-4031	6	SST	1370	300	1670	10,02
C04	HSJFP	P23	24	3	2	H12-4031	6	SST	1370	300	1670	20,04
C04	HSJFP	P23	12	0	1	H12-4031	6	SST	1370	300	1670	10,02
C04	HSJFP	P24	24	3	2	H12-4031	6	SST	1370	300	1670	20,04
C04	HSJFP	P24	12	0	1	H12-4031	6	SST	1370	300	1670	10,02
												0
												0
												0
C05	HSJFP	P17	24	3	2	H12-4031	6	SST	1446	300	1746	20,952
C05	HSJFP	P17	12	0	1	H12-4031	6	SST	1446	300	1746	10,476
C05	HSJFP	P18	24	3	2	H12-4031	6	SST	1446	300	1746	20,952
C05	HSJFP	P18	12	0	1	H12-4031	6	SST	1446	300	1746	10,476
C05	HSJFP	P19	24	3	2	H12-4031	6	SST	1446	300	1746	20,952
C05	HSJFP	P19	12	0	1	H12-4031	6	SST	1446	300	1746	10,476
C05	HSJFP	P20	24	3	2	H12-4031	6	SST	1446	300	1746	20,952
C05	HSJFP	P20	12	0	1	H12-4031	6	SST	1446	300	1746	10,476
												0
												0
												0
C06	HSJFP	P13	24	3	2	H12-4031	6	SST	1747	300	2047	24,564
C06	HSJFP	P13	12	0	1	H12-4031	6	SST	1747	300	2047	12,282
C06	HSJFP	P14	24	3	2	H12-4031	6	SST	1747	300	2047	24,564
C06	HSJFP	P14	12	0	1	H12-4031	6	SST	1747	300	2047	12,282
C06	HSJFP	P15	24	3	2	H12-4031	6	SST	1747	300	2047	24,564
C06	HSJFP	P15	12	0	1	H12-4031	6	SST	1747	300	2047	12,282
C06	HSJFP	P16	24	3	2	H12-4031	6	SST	1747	300	2047	24,564
C06	HSJFP	P16	12	0	1	H12-4031	6	SST	1747	300	2047	12,282
												0
												0
												0
C07	HSJFP	P09	24	3	2	H12-4031	6	SST	1861	300	2161	25,932
C07	HSJFP	P09	12	0	1	H12-4031	6	SST	1861	300	2161	12,966
C07	HSJFP	P10	24	3	2	H12-4031	6	SST	1861	300	2161	25,932
C07	HSJFP	P10	12	0	1	H12-4031	6	SST	1861	300	2161	12,966
C07	HSJFP	P11	24	3	2	H12-4031	6	SST	1861	300	2161	25,932
C07	HSJFP	P11	12	0	1	H12-4031	6	SST	1861	300	2161	12,966
C07	HSJFP	P12	24	3	2	H12-4031	6	SST	1861	300	2161	25,932
C07	HSJFP	P12	12	0	1	H12-4031	6	SST	1861	300	2161	12,966
												0
												0
												0
C08	HSJFP	P09	24	3	2	H12-4031	6	SST	2049	300	2349	28,188
C08	HSJFP	P09	12	0	1	H12-4031	6	SST	2049	300	2349	14,094
C08	HSJFP	P10	24	3	2	H12-4031	6	SST	2049	300	2349	28,188

HERSCHEL SPIRE Cryo-Harness CVV (int.)

Cable_n	Location		no_of_wires	no_of_shd's	no_of_cable	cable_types	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
C08	HSJFP	P10	12	0	1	H12-4031	6	SST	2049	300	2349	14,094
C08	HSJFP	P11	24	3	2	H12-4031	6	SST	2049	300	2349	28,188
C08	HSJFP	P11	12	0	1	H12-4031	6	SST	2049	300	2349	14,094
C08	HSJFP	P12	24	3	2	H12-4031	6	SST	2049	300	2349	28,188
C08	HSJFP	P12	12	0	1	H12-4031	6	SST	2049	300	2349	14,094
												0
												0
												0
C09	HSJFP	P09	24	3	2	H12-4031	6	SST	2219	300	2519	30,228
C09	HSJFP	P09	12	0	1	H12-4031	6	SST	2219	300	2519	15,114
C09	HSJFP	P10	24	3	2	H12-4031	6	SST	2219	300	2519	30,228
C09	HSJFP	P10	12	0	1	H12-4031	6	SST	2219	300	2519	15,114
C09	HSJFP	P11	24	3	2	H12-4031	6	SST	2219	300	2519	30,228
C09	HSJFP	P11	12	0	1	H12-4031	6	SST	2219	300	2519	15,114
C09	HSJFP	P12	24	3	2	H12-4031	6	SST	2219	300	2519	30,228
C09	HSJFP	P12	12	0	1	H12-4031	6	SST	2219	300	2519	15,114
												0
			144	12								0
												0
C10	HSFPU	P19	4	0	4	H04030	2,7	BRASS	1530	300	1830	19,764
C10	HSFPU	P19	8	0	2	H04030	2,7	BRASS	1530	300	1830	9,882
C10	HSFPU	P19	20	5	5	H04138	2,4	SST	1530	300	1830	21,96
C10	HSFPU	P21	12	3	3	H04138	2,4	SST	1530	300	1830	13,176
C10	HSFPU	P21	4	0	1	H04030	2,7	BRASS	1530	300	1830	4,941
C10	HSFPU	P21	4	0	1	H04030	2,7	BRASS	1530	300	1830	4,941
C10	HSFPU	P23	24	6	6	H04138	2,4	SST	1530	300	1830	26,352
C10	HSFPU	P23	4	1	1	H04130	2,7	BRASS	1530	300	1830	4,941
C10	HSFPU	P23	2	1	1	H02138	1,8	SST	1530	300	1830	3,294
C10	HSFPU	P17	2	1	1	H02138	1,8	SST	1530	300	1830	3,294
C10	HSFPU	P17	2	1	1	H02138	1,8	SST	1530	300	1830	3,294
C10	HSFPU	P17	3	1	1	H03138	2,1	SST	1530	300	1830	3,843
C10	HSFPU	P17	3	1	1	H03130	4,1	BRASS	1530	300	1830	7,503
C10	HSFPU	P17	3	1	1	H03130	4,1	BRASS	1530	300	1830	7,503
												0
			95	21								0
												0
C11	HSFPU	P25	3	1	1	H03138	2,1	SST	1817	300	2117	4,4457
C11	HSFPU	P25	2	1	1	H02138	1,8	SST	1817	300	2117	3,8106
C11	HSFPU	P25	3	1	1	H03138	2,1	SST	1817	300	2117	4,4457
C11	HSFPU	P25	2	1	1	H02138	1,8	SST	1817	300	2117	3,8106
C11	HSFPU	P25	4	1	1	H04138	2,4	SST	1817	300	2117	5,0808
C11	HSFPU	P25	4	1	1	H04130	5	BRASS	1817	300	2117	10,585
C11	HSFPU	P25	2	1	1	H02138	1,8	SST	1817	300	2117	3,8106
C11	HSFPU	P25	2	1	1	H02130	3,3	BRASS	1817	300	2117	6,9861
C11	HSFPU	P25	4	1	1	H04130	5	BRASS	1817	300	2117	10,585
C11	HSFPU	P25	4	1	1	H04130	5	BRASS	1817	300	2117	10,585
C11	HSFPU	P27	8	2	2	H04138	2,4	SST	1817	300	2117	10,1616
C11	HSFPU	P27	2	1	1	H02130	3,3	BRASS	1817	300	2117	6,9861
C11	HSFPU	P27	4	2	2	H02130	3,3	BRASS	1817	300	2117	13,9722
C11	HSFPU	P27	4	2	2	H02130	3,3	BRASS	1817	300	2117	13,9722
C11	HSFPU	P27	4	2	2	H02130	3,3	BRASS	1817	300	2117	13,9722
C11	HSFPU	P27	4	2	2	H02138	1,8	SST	1817	300	2117	7,6212
C11	HSFPU	P29	2	1	1	H02130	3,3	BRASS	1817	300	2117	6,9861
C11	HSFPU	P29	2	1	1	H02130	3,3	BRASS	1817	300	2117	6,9861
C11	HSFPU	P29	2	1	1	H02138	1,8	BRASS	1817	300	2117	3,8106
C11	HSFPU	P29	2	1	1	H02138	1,8	BRASS	1817	300	2117	3,8106
C11	HSFPU	P29	2	1	1	H02138	1,8	BRASS	1817	300	2117	3,8106
C11	HSFPU	P29	6	3	3	H02138	1,8	SST	1817	300	2117	11,4318
C11	HSFPU	P29	6	3	3	H02138	1,8	SST	1817	300	2117	11,4318

Cable_n	Location		no_of_wires	no_of_shd's	no_of_cable	cable_types	cable weight g/m	condu.	Harness lth (mm) from CVV I/F Connect.internal to Opt. Bench	Harness lth (mm) on Opt. Bench	Harness lth (mm) total	total cable weight g
			78	32								0
												0
												0
C12	HSFPU	P19	4	0	4	H04030	2,7	BRASS	2224	300	2524	27,2592
C12	HSFPU	P19	8	0	2	H04030	2,7	BRASS	2224	300	2524	13,6296
C12	HSFPU	P19	20	5	5	H04138	2,4	SST	2224	300	2524	30,288
C12	HSFPU	P21	12	3	3	H04138	2,4	SST	2224	300	2524	18,1728
C12	HSFPU	P21	4	0	1	H04030	2,7	BRASS	2224	300	2524	6,8148
C12	HSFPU	P21	4	0	1	H04030	2,7	BRASS	2224	300	2524	6,8148
C12	HSFPU	P23	24	6	6	H04138	2,4	SST	2224	300	2524	36,3456
C12	HSFPU	P23	4	1	1	H04130	2,7	BRASS	2224	300	2524	6,8148
C12	HSFPU	P23	2	1	1	H02138	1,8	SST	2224	300	2524	4,5432
C12	HSFPU	P17	2	1	1	H02138	1,8	SST	2224	300	2524	4,5432
C12	HSFPU	P17	2	1	1	H02138	1,8	SST	2224	300	2524	4,5432
C12	HSFPU	P17	3	1	1	H03138	2,1	SST	2224	300	2524	5,3004
C12	HSFPU	P17	3	1	1	H03130	4,1	BRASS	2224	300	2524	10,3484
C12	HSFPU	P17	3	1	1	H03130	4,1	BRASS	2224	300	2524	10,3484
												0
												0
												0
C13	HSFPU	P25	3	1	1	H03138	2,1	SST	1884	300	2184	4,5864
C13	HSFPU	P25	2	1	1	H02138	1,8	SST	1884	300	2184	3,9312
C13	HSFPU	P25	3	1	1	H03138	2,1	SST	1884	300	2184	4,5864
C13	HSFPU	P25	2	1	1	H02138	1,8	SST	1884	300	2184	3,9312
C13	HSFPU	P25	4	1	1	H04138	2,4	SST	1884	300	2184	5,2416
C13	HSFPU	P25	4	1	1	H04130	5	BRASS	1884	300	2184	10,92
C13	HSFPU	P25	2	1	1	H02138	1,8	SST	1884	300	2184	3,9312
C13	HSFPU	P25	2	1	1	H02130	3,3	BRASS	1884	300	2184	7,2072
C13	HSFPU	P25	4	1	1	H04130	5	BRASS	1884	300	2184	10,92
C13	HSFPU	P25	4	1	1	H04130	5	BRASS	1884	300	2184	10,92
C13	HSFPU	P27	8	2	2	H04138	2,4	SST	1884	300	2184	10,4832
C13	HSFPU	P27	2	1	1	H02130	3,3	BRASS	1884	300	2184	7,2072
C13	HSFPU	P27	4	2	2	H02130	3,3	BRASS	1884	300	2184	14,4144
C13	HSFPU	P27	4	2	2	H02130	3,3	BRASS	1884	300	2184	14,4144
C13	HSFPU	P27	4	2	2	H02130	3,3	BRASS	1884	300	2184	14,4144
C13	HSFPU	P27	4	2	2	H02138	1,8	SST	1884	300	2184	7,8624
C13	HSFPU	P29	2	1	1	H02130	3,3	BRASS	1884	300	2184	7,2072
C13	HSFPU	P29	2	1	1	H02130	3,3	BRASS	1884	300	2184	7,2072
C13	HSFPU	P29	2	1	1	H02138	1,8	BRASS	1884	300	2184	3,9312
C13	HSFPU	P29	2	1	1	H02138	1,8	BRASS	1884	300	2184	3,9312
C13	HSFPU	P29	2	1	1	H02138	1,8	BRASS	1884	300	2184	3,9312
C13	HSFPU	P29	6	3	3	H02138	1,8	SST	1884	300	2184	11,7936
C13	HSFPU	P29	6	3	3	H02138	1,8	SST	1884	300	2184	11,7936
												2032,0606

Annex 6: CCH Connectors and Back-shells

CCH Harness Cionnetor Mass

Sltem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
CCH- CCU	SVM (int.)	P01	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P02	1	DDMA-50S-NMB-FO+ Glen 551	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P03	1	DDMA-50S-NMB-FO+ Glen 552	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P04	1	DDMA-50S-NMB-FO+ Glen 553	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P05	1	DDMA-50S-NMB-FO+ Glen 554	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P06	1	DDMA-50S-NMB-FO+ Glen 555	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P07	1	DDMA-50S-NMB-FO+ Glen 556	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P08	1	DDMA-50S-NMB-FO+ Glen 557	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P09	1	DDMA-50S-NMB-FO+ Glen 558	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P10	1	DDMA-50S-NMB-FO+ Glen 559	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P11	1	DDMA-50S-NMB-FO+ Glen 560	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P12	1	DDMA-50S-NMB-FO+ Glen 561	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P13	1	DDMA-50S-NMB-FO+ Glen 562	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P14	1	DDMA-50S-NMB-FO+ Glen 563	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P15	1	DDMA-50S-NMB-FO+ Glen 564	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P16	1	DDMA-50S-NMB-FO+ Glen 565	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P17	1	DDMA-50S-NMB-FO+ Glen 566	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P18	1	DDMA-50S-NMB-FO+ Glen 567	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P19	1	DDMA-50S-NMB-FO+ Glen 568	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P20	1	DDMA-50S-NMB-FO+ Glen 569	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P21	1	DDMA-50S-NMB-FO+ Glen 570	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P22	1	DDMA-50S-NMB-FO+ Glen 571	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P23	1	DDMA-50S-NMB-FO+ Glen 572	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P24	1	DDMA-50S-NMB-FO+ Glen 573	26,31	30	10	66,31
CCH- CCU	SVM (int.)	P25	1	DDMA-50S-NMB-FO+ Glen 574	26,31	30	10	66,31
								1657,75
CCH- SENSOR	CVV (int.)	Pxx	36	MDM9S w Glen 500 T	4,6	4		309,6
CCH- SENSOR	CVV (int.)	Pxx	36	MDM9P w Glen 500 T	4,6	4		309,6
CCH- SENSOR	CVV (int.)	Pxx	9	MDM15S w Glen 500 T	5	5		90
CCH- SENSOR	CVV (int.)	Pxx	9	MDM15P w Glen 500 T	5	5		90
CCH- SENSOR	CVV (int.)	Pxx	22	MDM25S w Glen 500 T	6	6,5		275
CCH- SENSOR	CVV (int.)	Pxx	22	MDM25S w Glen 500 T	6	6,5		275
CCH- SENSOR	CVV (int.)	Pxx	2	MDM37P w Glen 500 T	9,2	7		32,4
CCH- SENSOR	CVV (int.)	Pxx	2	MDM37S w Glen 500 T	9,2	7		32,4
								1414
CCH- SENSOR	CVV (int.)	P/Jxx	16	NANONIX + Sensorgehäase	10			160
CCH- SENSOR	CVV (ext.)	P/Jxx	14	NANONIX + Sensorgehäase	10			140
CCH- SENSOR OB	CVV (int.)	P/Jxx	123	NANONIX + Sensorgehäase	10			1230
CCH- SENSOR	CVV (ext.)	P/Jxx	76	NANONIX + Sensorgehäase	10			760
CCH TELESCOP	CVV (ext.)	P01	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
CCH TELESCOP	CVV (ext.)	P02	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
CCH TELESCOP	CVV (ext.)	P03	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
CCH TELESCOP	CVV (ext.)	P04	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
CCH TELESCOP	CVV (ext.)	P05	1	DBMA-25P-NMB-FO+ Glen 550	15,42	19	5	39,42
CCH TELESCOP	CVV (ext.)	P06	1	DBMA-25P-NMB-FO+ Glen 550	15,42	19	5	39,42
CCH TELESCOP	CVV (ext.)	J01	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
CCH TELESCOP	CVV (ext.)	J02	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
CCH TELESCOP	CVV (ext.)	J03	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
CCH TELESCOP	CVV (ext.)	J04	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
CCH TELESCOP	CVV (ext.)	J05	1	DBMA-25S-NMB-FO+ Glen 550	15,42	19	5	39,42
CCH TELESCOP	CVV (ext.)	J06	1	DBMA-25S-NMB-FO+ Glen 550	15,42	19	5	39,42
								603,08
CCH NED	CVV (ext.)	P01	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
CCH NED	CVV (ext.)	P02	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
CCH NED	CVV (ext.)	P03	1	DBMA-25P-NMB-FO+ Glen 550	15,42	19	5	39,42
CCH NED	CVV (ext.)	P04	1	DBMA-25P-NMB-FO+ Glen 551	15,42	19	5	39,42
CCH NED	CVV (ext.)	J01	1	DDMA-50P-NMB-FO+ Glen 550	22,41	30	10	62,41
CCH NED	CVV (ext.)	J02	1	DDMA-50P-NMB-FO+ Glen 550	22,41	30	10	62,41
CCH NED	CVV (ext.)	J03	1	DBMA-25S-NMB-FO+ Glen 550	15,42	19	5	39,42
CCH NED	CVV (ext.)	J04	1	DBMA-25S-NMB-FO+ Glen 550	15,42	19	5	39,42

CCH Harness Cionnetor Mass

StItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
								415,12
SVM-I/F CB	SVM (int.)	P01	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P02	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P03	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P04	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P05	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P06	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P07	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P08	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P09	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P10	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P11	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P12	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P13	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P14	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P15	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P16	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P17	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P18	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P19	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P20	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P21	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P22	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P23	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P24	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P25	1	MS27484T10-35 S	23	24	3,25	50,25
SVM-I/F CB	SVM (int.)	P26	1	MS27484T10-35 S	23	24	3,25	50,25
SVM-I/F CB	SVM (int.)	P27	1	MS27484T10-35 S	23	24	3,25	50,25
SVM-I/F CB	SVM (int.)	P28	1	MS27484T10-35 S	23	24	3,25	50,25
SVM-I/F CB	SVM (int.)	P29	1	MS27484T10-35 S	23	24	3,25	50,25
SVM-I/F CB	SVM (int.)	P30	1	MS27484T12-35 S	28	28	5,5	61,5
SVM-I/F CB	SVM (int.)	P31	1	MS27484T12-35 S	28	28	5,5	61,5
SVM-I/F CB	SVM (int.)	P32	1	MS27484T12-35 S	28	28	5,5	61,5
SVM-I/F CB	SVM (int.)	P33	1	MS27484T12-35 S	28	28	5,5	61,5
SVM-I/F CB	SVM (int.)	P34	1	MS27484T12-35 S	28	28	5,5	61,5
SVM-I/F CB	SVM (int.)	P35	1	MS27484T12-35 S	28	28	5,5	61,5
								4412,25
SVM-I/F CB	CVV (ext.)	J01	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J02	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J03	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J04	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J05	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J06	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J07	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J08	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J09	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J10	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J11	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J12	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J13	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J14	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J15	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J16	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J17	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J18	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J19	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J20	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J21	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J22	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J23	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J24	1	MP27484T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J25	1	MP27484T10-35 P	20	24	1,56	45,56
SVM-I/F CB	CVV (ext.)	J26	1	MP27484T10-35 P	20	24	1,56	45,56
SVM-I/F CB	CVV (ext.)	J27	1	MP27484T10-35 P	20	24	1,56	45,56
SVM-I/F CB	CVV (ext.)	J28	1	MP27484T10-35 P	20	24	1,56	45,56
SVM-I/F CB	CVV (ext.)	J29	1	MP27484T10-35 P	20	24	1,56	45,56
SVM-I/F CB	CVV (ext.)	J30	1	MP27484T12-35 P	23	28	2,64	53,64
SVM-I/F CB	CVV (ext.)	J31	1	MP27484T12-35 P	23	28	2,64	53,64

CCH Harness Cionnetor Mass

SIItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
SVM-I/F CB	CVV (ext.)	J32	1	MP27484T12-35 P	23	28	2,64	53,64
SVM-I/F CB	CVV (ext.)	J33	1	MP27484T12-35 P	23	28	2,64	53,64
SVM-I/F CB	CVV (ext.)	J34	1	MP27484T12-35 P	23	28	2,64	53,64
SVM-I/F CB	CVV (ext.)	J35	1	MP27484T12-35 P	23	28	2,64	53,64
								3813,64
CVV-I/F CB	CVV (ext.)	P01	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P02	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P03	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P04	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P05	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P06	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P07	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P08	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P09	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P10	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P11	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P12	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P13	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P14	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P15	1	MS27484T22-35 S	63	70	25	158
								2370
CVV-I/F CB	CVV (int.)	J01	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J02	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J03	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J04	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J05	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J06	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J07	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J08	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J09	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J10	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J11	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J12	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J13	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J14	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J15	1	MS27497T22-35 P	107,3	12,15		119,45
								1791,75

Annex 7: HIFI Connectors and Back-shells

HIFI Harness Connector Mass

SlItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
HHLSU	SVM (int.)	112200 P01	1	DEMA-09S-NMB-FO	6,9	13	1,8	21,7
HHLSU	SVM (int.)	112200 P02	1	DEMA-09S-NMB-FO	6,9	13	1,8	21,7
								43,4
HHLCU	SVM (int.)	112100 P01	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P02	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P03	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P04	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P05	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P06	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P07	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P08	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P09	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P10	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P11	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P12	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P13	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P14	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P21	1	DEMA-09S-NMB-FO+Glen 550	6,99	13	1,8	21,79
HHLCU	SVM (int.)	112100 P22	1	DAMA-15S-NMB-FO+Glen 550	10,21	16	3	29,21
HHLCU	SVM (int.)	112100 P23	1	DEMA-09P-NMB-FO+Glen 550	6,08	13	1,8	20,88
HHLCU	SVM (int.)	112100 P24	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P25	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P26	1	DEMA-09P-NMB-FO+Glen 550	6,08	13	1,8	20,88
HHLCU	SVM (int.)	112100 P27	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P28	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P29	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P30	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P31	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P32	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
HHLCU	SVM (int.)	112100 P33	1	DBMA-44P-NMB-FO+ Glen 550	15	19	8,8	42,8
								1077,16
HHFCU	SVM (int.)	112300 P11	1	DBMA-44S-NMB-FO+Glen 550	70	19	8,8	97,8
HHFCU	SVM (int.)	112300 P12	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HHFCU	SVM (int.)	112300 P14	1	DBMA-44P-NMB-FO+ Glen 550	70	19	8,8	97,8
HHFCU	SVM (int.)	112300 P15	1	DCMA-62P-NMB-FO+Glen 550	73	28	12,4	113,4
HHFCU	SVM (int.)	112300 P16	1	DCMA-62S-NMB-FO+Glen 550	75	28	12,4	115,4
HHFCU	SVM (int.)	112300 P17	1	DAMA-15P-NMB-FO+Glen 550	8,39	16	3	27,39
HHFCU	SVM (int.)	112300 P21	1	DBMA-44S-NMB-FO+Glen 550	70	19	8,8	97,8
HHFCU	SVM (int.)	112300 P22	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HHFCU	SVM (int.)	112300 P24	1	DBMA-44P-NMB-FO+ Glen 550	70	19	8,8	97,8
HHFCU	SVM (int.)	112300 P25	1	DCMA-62P-NMB-FO+Glen 550	73	28	12,4	113,4
HHFCU	SVM (int.)	112300 P26	1	DCMA-62S-NMB-FO+Glen 550	75	28	12,4	115,4
HHFCU	SVM (int.)	112300 P27	1	DAMA-15P-NMB-FO+Glen 550	8,39	16	3	27,39
HHFCU	SVM (int.)	112300 P31	1	SMA Male	5			5
HHFCU	SVM (int.)	112300 P32	1	SMA Male	5			5
HHFCU	SVM (int.)	112300 P33	1	SMA Male	5			5
HHFCU	SVM (int.)	112300 P34	1	SMA Male	5			5
HHFCU	SVM (int.)	112300 P41	1	SMA Male	5			5
HHFCU	SVM (int.)	112300 P42	1	SMA Male	5			5
HHFCU	SVM (int.)	112300 P43	1	SMA Male	5			5
HHFCU	SVM (int.)	112300 P44	1	SMA Male	5			5
								1057,84
HHFPU	CVV (int.)	111100 P01	1	Coax Socket tbd	5			5
HHFPU	CVV (int.)	111100 P02	1	Coax Socket tbd	5			5
HHFPU	CVV (int.)	111100 P03	1	Coax Socket tbd	5			5
HHFPU	CVV (int.)	111100 P04	1	Coax Socket tbd	5			5
HHFPU	CVV (int.)	111100 P11	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P12	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P13	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P14	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P15	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P16	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P17	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7

HIFI Harness Connector Mass

Sltem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
HHFPU	CVV (int.)	111100 P18	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P19	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P20	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P21	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P22	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P23	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P24	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P25	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P26	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P27	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P28	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P29	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P32	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P33	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P34	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P35	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P36	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P39	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P40	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P41	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P42	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P43	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P44	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P45	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P46	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P47	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P48	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P49	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P50	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P51	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P52	1	MWDM2L-09S-6C3-630	4,6	5,1		9,7
HHFPU	CVV (int.)	111100 P53	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P54	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P55	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P56	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P57	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P58	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P59	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P60	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P61	1	MWDM2L-21P-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P62	1	MWDM2L-21P-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P63	1	MWDM2L-21P-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P64	1	MWDM2L-21P-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P65	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HHFPU	CVV (int.)	111100 P66	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HHFPU	CVV (int.)	111100 P67	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
HHFPU	CVV (int.)	111100 P68	1	MWDM2L-21S-6C3-630	5,4	10,5		15,9
								636,2
HHLOU	CVV (ext.)	111200 P01	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P02	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P03	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P04	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P05	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P06	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P07	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P08	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P09	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P10	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P11	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P12	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P13	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P14	1	DDMA-50P-NMB-FO	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P15	1	Not known Socket	22,41	30	10	62,41
HHLOU	CVV (ext.)	111200 P16	1	Not known Socket	22,41	30	10	62,41
HHLWU	CVV (ext.)	111400 P01	1	Not known Socket	22,41	30	10	62,41
								1060,97
SVM-I/F CB	SVM (int.)	P01	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P02	1	MS27484T22-35 S	63	70	25	158

HIFI Harness Connector Mass

SItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
SVM-I/F CB	SVM (int.)	P03	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P04	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P05	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P06	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P07	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P08	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P09	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P10	1	MS27484T22-35 S	63	70	25	158
								1580
SVM-I/F CB	CVV (ext.)	J01	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J02	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J03	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J04	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J05	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J06	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J07	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J08	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J09	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J10	1	MS27497T22-35 P	54	70	12	136
								1360
CVV-I/F CB	CVV (ext.)	P01	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P02	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P03	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P04	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P05	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P06	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P07	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P08	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P09	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P10	1	MS27484T22-35 S	63	70	25	158
								1580
CVV-I/F CB	CVV (int.)	J01	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J02	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J03	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J04	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J05	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J06	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J07	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J08	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J09	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J10	1	MS27497T22-35 P	107,3	12,15		119,45
								1194,5

Annex 8: PACS Connectors and Back-shells

PACS Harness Connector Mass

Item	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
HPDECMEC1	SVM (int.)	132100 P15	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC1	SVM (int.)	132100 P53	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC1	SVM (int.)	132100 P64	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC1	SVM (int.)	132100 P78	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC2	SVM (int.)	132200 P15	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC2	SVM (int.)	132200 P53	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC2	SVM (int.)	132200 P64	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC2	SVM (int.)	132200 P78	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HPDECMEC1	SVM (int.)	132100 P11	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC1	SVM (int.)	132100 P12	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC1	SVM (int.)	132100 P55	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC1	SVM (int.)	132100 P57	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC1	SVM (int.)	132100 P66	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC1	SVM (int.)	132100 P68	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC2	SVM (int.)	132200 P11	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC2	SVM (int.)	132200 P12	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC2	SVM (int.)	132200 P55	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC2	SVM (int.)	132200 P57	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC2	SVM (int.)	132200 P66	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC2	SVM (int.)	132200 P68	1	DBMA-25P-NMB-FO	13,38	19	5	37,38
HPDECMEC1	SVM (int.)	132100 P13	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC1	SVM (int.)	132100 P14	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC1	SVM (int.)	132100 P17	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC1	SVM (int.)	132100 P51	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC1	SVM (int.)	132100 P62	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC2	SVM (int.)	132200 P13	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC2	SVM (int.)	132200 P14	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC2	SVM (int.)	132200 P51	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC2	SVM (int.)	132200 P62	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPDECMEC1	SVM (int.)	132100 P16	1	DEMA-09P-NMB-FO	6,08	13	1,8	20,88
HPDECMEC2	SVM (int.)	132200 P16	1	DEMA-09P-NMB-FO	6,08	13	1,8	20,88
								1197,42
HPBOLC	SVM (int.)	132300 P03	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPBOLC	SVM (int.)	132300 P06	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPBOLC	SVM (int.)	132300 P09	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPBOLC	SVM (int.)	132300 P12	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPBOLC	SVM (int.)	132300 P14	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPBOLC	SVM (int.)	132300 P16	1	DCMA-37P-NMB-FO	18,82	28	7,4	54,22
HPBOLC	SVM (int.)	132300 P01	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P02	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P04	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P05	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P07	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P08	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P10	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P11	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P13	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
HPBOLC	SVM (int.)	132300 P15	1	DCMA-37S-NMB-FO	21,73	28	7,4	57,13
								896,62
HPFFPU	CVV (int.)	131100 P08	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HPFFPU	CVV (int.)	131100 P09	1	MWDM2L-09P-6C3-630	4,6	5,1		9,7
HPFFPU	CVV (int.)	131100 P05	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P06	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P11	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P14	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P17	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P21	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P24	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P27	1	MWDM2L-15P-6C3-630	5	7,5		12,5
HPFFPU	CVV (int.)	131100 P40	1	MWDM2L-21P-6C3-630	4,6	10,5		15,1
HPFFPU	CVV (int.)	131100 P41	1	MWDM2L-21P-6C3-630	4,6	10,5		15,1
HPFFPU	CVV (int.)	131100 P42	1	MWDM2L-21P-6C3-630	4,6	10,5		15,1
HPFFPU	CVV (int.)	131100 P43	1	MWDM2L-21P-6C3-630	4,6	10,5		15,1
HPFFPU	CVV (int.)	131100 P12	1	MWDM2L-25P-6C3-630	6,5	10,5		17
HPFFPU	CVV (int.)	131100 P13	1	MWDM2L-25P-6C3-630	6,5	10,5		17
HPFFPU	CVV (int.)	131100 P15	1	MWDM2L-25P-6C3-630	6,5	10,5		17

PACS Harness Connector Mass

SItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
HPFPU	CVV (int.)	131100 P16	1	MWDM2L-25P-6C3-630	6,5	10,5		17
HPFPU	CVV (int.)	131100 P22	1	MWDM2L-25P-6C3-630	6,5	10,5		17
HPFPU	CVV (int.)	131100 P23	1	MWDM2L-25P-6C3-630	6,5	10,5		17
HPFPU	CVV (int.)	131100 P25	1	MWDM2L-25P-6C3-630	6,5	10,5		17
HPFPU	CVV (int.)	131100 P26	1	MWDM2L-25P-6C3-630	6,5	10,5		17
HPFPU	CVV (int.)	131100 P01	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P02	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P03	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P04	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P07	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P10	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P18	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P20	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P28	1	MWDM2L-31P-6C3-630	7,7	17,01		24,71
HPFPU	CVV (int.)	131100 P52	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P55	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P58	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P61	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P63	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P65	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P66	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P67	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P68	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P69	1	MWDM2L-37P-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P50	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P51	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P53	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P54	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P56	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P57	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P59	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P60	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P62	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
HPFPU	CVV (int.)	131100 P64	1	MWDM2L-37S-6C3-630	9,2	17,01		26,21
								1062,39
HPBOLA	CVV (ext.)	131200 P01	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P02	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P04	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P05	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P07	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P08	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P10	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P11	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P13	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P15	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P19	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P22	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P25	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P28	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P30	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P32	1	MWDM2L-37P-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P03	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P06	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P09	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P12	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P14	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P16	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P17	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P18	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P20	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P21	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P23	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P24	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P26	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P27	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P29	1	MWDM2L-37S-6C3-630	9,2	7		16,2
HPBOLA	CVV (ext.)	131200 P31	1	MWDM2L-37S-6C3-630	9,2	7		16,2
								518,4
SVM-I/F CB	SVM (int.)	P01	1	MS27484T22-35 S	63	70	25	158

PACS Harness Connector Mass

Item	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
CVV-I/F CB	CVV (ext.)	P19	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P20	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P21	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P22	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P23	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P24	1	MS27484T22-35 S	63	70	25	158
								3792
CVV-I/F CB	CVV (int.)	J01	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J02	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J03	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J04	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J05	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J06	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J07	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J08	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J09	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J10	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J11	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J12	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J13	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J14	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J15	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J16	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J17	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J18	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J19	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J20	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J21	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J22	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J23	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J24	1	MS27497T22-35 P	107,3	12,15		119,45
								2866,8

Annex 9: SPIRE Connectors and Back-shells

SPIRE Harness Connector Mass

SItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
HSFCU	SVM (int.)	122200 P15	1	DAMA-15P-NMB-FO	8,39	16	3	27,39
HSFCU	SVM (int.)	122200 P21	1	DAMA-15P-NMB-FO+Glen 550	8,39	16	3	27,39
HSFCU	SVM (int.)	122200 P22	1	DAMA-15P-NMB-FO+Glen 550	8,39	16	3	27,39
HSFCU	SVM (int.)	122200 P25	1	DAMA-15P-NMB-FO+Glen 550	8,39	16	3	27,39
HSFCU	SVM (int.)	122200 P26	1	DAMA-15P-NMB-FO+Glen 550	8,39	16	3	27,39
HSFCU	SVM (int.)	122200 P16	1	DAMA-15S-NMB-FO	10,21	16	3	29,21
HSFCU	SVM (int.)	122200 P11	1	DBMA-25P-NMB-FO+ Glen 550	15,42	19	5	39,42
HSFCU	SVM (int.)	122200 P12	1	DBMA-25P-NMB-FO+ Glen 550	15,42	19	5	39,42
HSFCU	SVM (int.)	122200 P17	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
HSFCU	SVM (int.)	122200 P18	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
HSFCU	SVM (int.)	122200 P19	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
HSFCU	SVM (int.)	122200 P20	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
HSFCU	SVM (int.)	122200 P29	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSFCU	SVM (int.)	122200 P30	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSFCU	SVM (int.)	122200 P23	1	DDMA-50P-NMB-FO+ Glen 550	22,41	30	10	62,41
HSFCU	SVM (int.)	122200 P24	1	DDMA-50P-NMB-FO+ Glen 550	22,41	30	10	62,41
HSFCU	SVM (int.)	122200 P13	1	DEMA-09P-NMB-FO+Glen 550	6,08	13	1,8	20,88
HSFCU	SVM (int.)	122200 P14	1	DEMA-09P-NMB-FO+Glen 550	6,08	13	1,8	20,88
HSFCU	SVM (int.)	122200 P90	1	DBMA-25S-NMB-FO+ Glen 550	15,42	19	5	39,42
HSFCU	SVM (int.)	122200 P92	1	DBMA-25S-NMB-FO+ Glen 550	15,42	19	5	39,42
HSFCU	SVM (int.)	122200 P91	1	DEMA-09P-NMB-FO+Glen 550	6,08	13	1,8	20,88
HSFCU	SVM (int.)	122200 P93	1	DEMA-09P-NMB-FO+Glen 550	6,08	13	1,8	20,88
								863,32
HSDCU	SVM (int.)	122300 P31	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
HSDCU	SVM (int.)	122300 P32	1	DCMA-37P-NMB-FO+ Glen 550	18,82	28	7,4	54,22
HSDCU	SVM (int.)	122300 P23	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSDCU	SVM (int.)	122300 P24	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSDCU	SVM (int.)	122300 P25	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSDCU	SVM (int.)	122300 P26	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSDCU	SVM (int.)	122300 P27	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSDCU	SVM (int.)	122300 P28	1	DCMA-37S-NMB-FO+ Glen 550	21,73	28	7,4	57,13
HSDCU	SVM (int.)	122300 P05	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P06	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P07	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P08	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P09	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P10	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P11	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P12	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P13	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P14	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P15	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P16	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P17	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P18	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P19	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P20	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P21	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P22	1	DDMA-50S-NMB-FO+ Glen 550	26,31	30	10	66,31
HSDCU	SVM (int.)	122300 P29	1	DDMA-78P-NMB-FO+Glen 550	25,55	30	15,6	71,15
HSDCU	SVM (int.)	122300 P30	1	DDMA-78S-NMB-FO+Glen 550	25,55	30	15,6	71,15
								1787,1
HSFPU	CVV (int.)	121100 P17	1	MDM21P w Glen 500T	4,6	10,5		15,1
HSFPU	CVV (int.)	121100 P18	1	MDM21P w Glen 500T	4,6	10,5		15,1
HSFPU	CVV (int.)	121100 P19	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P20	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P21	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P22	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P23	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P24	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P25	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P26	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P27	1	MDM37P w Glen 500 T	9,2	17,01		26,21

SPIRE Harness Connector Mass

Stem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
HSFPU	CVV (int.)	121100 P28	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P29	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSFPU	CVV (int.)	121100 P30	1	MDM37P w Glen 500 T	9,2	17,01		26,21
								344,72
HSJFP	CVV (int.)	121210 P01	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P02	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P03	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P04	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P05	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P06	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P07	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P08	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P09	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P10	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P11	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P12	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P13	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P14	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P15	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P16	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P17	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P18	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P19	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P20	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P21	11	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P22	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P23	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P24	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFP	CVV (int.)	121210 P25	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSJFP	CVV (int.)	121210 P26	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSJFP	CVV (int.)	121210 P27	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSJFP	CVV (int.)	121210 P28	1	MDM37P w Glen 500 T	9,2	17,01		26,21
								512,84
HSJFS	CVV (int.)	121220 P01	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P02	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P03	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P04	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P05	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P06	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P07	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P08	1	MDM25S w Glen 500 T	6,5	10,5		17
HSJFS	CVV (int.)	121220 P09	1	MDM37P w Glen 500 T	9,2	17,01		26,21
HSJFS	CVV (int.)	121220 P10	1	MDM37P w Glen 500 T	9,2	17,01		26,21
								188,42
SVM-I/F CB	SVM (int.)	P01	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P02	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P03	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P04	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P05	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P06	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P07	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P08	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P09	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P10	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P11	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P12	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P13	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P14	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P15	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P16	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P17	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P18	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P19	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P20	1	MS27484T22-35 S	63	70	25	158

SPIRE Harness Connector Mass

SItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
SVM-I/F CB	SVM (int.)	P21	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P22	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P23	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P24	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P25	1	MS27484T22-35 S	63	70	25	158
SVM-I/F CB	SVM (int.)	P26	1	MS27484T22-35 S	63	70	25	158
								4108
SVM-I/F CB	CVV (ext.)	J01	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J02	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J03	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J04	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J05	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J06	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J07	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J08	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J09	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J10	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J11	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J12	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J13	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J14	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J15	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J16	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J17	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J18	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J19	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J20	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J21	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J22	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J23	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J24	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J25	1	MS27497T22-35 P	54	70	12	136
SVM-I/F CB	CVV (ext.)	J26	1	MS27497T22-35 P	54	70	12	136
								3536
CVV-I/F CB	CVV (ext.)	P01	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P02	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P03	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P04	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P05	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P06	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P07	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P08	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P09	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P10	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P11	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P12	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P13	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P14	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P15	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P16	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P17	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P18	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P19	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P20	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P21	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P22	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P23	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P24	1	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P25	2	MS27484T22-35 S	63	70	25	158
CVV-I/F CB	CVV (ext.)	P26	3	MS27484T22-35 S	63	70	25	158
								4108
CVV-I/F CB	CVV (int.)	J01	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J02	1	MS27497T22-35 P	107,3	12,15		119,45

SPIRE Harness Connector Mass

SItem	Location	ItemCon	Qty	ConType	Conn.-wght/g	BKS.-wght/g	Cont.-wght/g	total-wght/g
CVV-I/F CB	CVV (int.)	J03	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J04	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J05	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J06	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J07	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J08	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J09	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J10	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J11	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J12	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J13	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J14	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J15	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J16	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J17	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J18	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J19	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J20	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J21	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J22	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J23	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J24	1	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J25	2	MS27497T22-35 P	107,3	12,15		119,45
CVV-I/F CB	CVV (int.)	J26	3	MS27497T22-35 P	107,3	12,15		119,45
								3105,7

Annex 10: Connector-Brackets and Attachments

Doc. No: HP-2-ASED-TN-0054
Issue: DR
Date: 16.05.02

File: hp-2-ased-in-0054

Herschel Cryo-Harness Connector Brackets and Attachments

Segment	Materials	Item-Qty	Item_mass	SVM	SVM	CVV_ext	CVV_ext	CVV-int	CVV-int	Material
SVM			[g] [/m]	Qty	Assembly-mass	Qty	Assembly-mass	Qty	Assembly-mass	Dichte
					[g]		[g]		[g]	
IF Brackets	AlMgSi3, 2 mm	1	300							2,7
IF Brackets	CFRP	1	200			22	4400		0	1,8
M4x8	V2A	6	2			132	1584		0	
M4_washer	V2A	6	0,5			132	396		0	
connector fixation										
M3x12	V2A	4	0,7			88	61,6		0,0	
M3-washer	V2A	4	0,3			88	26,4		0,0	
M3-nut	V2A	4	0,5			88	44,0		0,0	
C-profile (700mm)	CFRP	10	200			10	2000,0			
M4x16	V2A	3	2			30	60,0			
M4_washer	V2A	3	0,5			30	15,0			
C/H-anchor	AlMgSi3	1	2	20	40,0			200	400,0	
M4x8	V2A	1	2	20	40,0			200	400,0	
M4_washer	V2A	1	0,5	20	10,0			200	100,0	
TC-105	Alu	1	1,5	200	300,0	300	450,0	200	300,0	
Adhesive	Ec.57C/Ec2210				50,0		50,0		50,0	
spec.attachments	stand-off	1	10	20	200,0	30	300,0	10	100,0	
Lacing-cord	Dacron-DPTH-22				20,0		100,0		200,0	
Ty-raps	TYZ-23M	1	1,5	130	195,0					
Ty-raps	TYZ-25M	1	2	70	140,0					
Mystic-tape	Kapton	1							50,0	
Alu-tape	PST	1	0,1	200	20,0	300	30,0	200	20,0	
T/C-Bolcks	AlMgSi3	1	175,0					12	2099,5	
Alu-Overshield	AL99		1000,0		500,0		100,0			
Harness Braids	Cu. (Manganin)	75	10,0	6	60,0	75	2250,0			
Total	19546,5				1575,0		11867,0		3719,5	

END OF DOCUMENT

Quantity	Name	Dep./Comp.	Quantity	Name	Dep./Comp.
	Alberti von Mathias Dr.	ED 544	X	Stritter Rene	ED 61
	Barlage Bernhard	ED 62		Tenhaeff Dieter	ED 544
	Bayer Thomas	ED 532		Thörmer Klaus-Horst Dr.	OTN/ED 37
X	Faas Horst	ED 516		Wagner Adalbert	OTN/IP 35
X	Grasl Andreas	OTN/TN 42		Wagner Klaus	ED 541
	Hartmann Hans Dr.	ED 522		Wietbrock, Walter	ED 511
	Hauser Armin	ED 541		Wilz Eberhard	OTN/ED 37
	Hinger Jürgen	ED 541		Wöhler Hans	ED 544
X	Hohn Rüdiger	ED 531		Ziegler Fred	OTN/ED 522
	Hölzle Edgar	ED 516		Zipf Ludwig	EC 32
X	Hund Walter	ED 556			
X	Idler Siegmund	ED 521			
	Ivány von András	EC 32			
	Jahn Gerd Dr.	ED 541			
	Kalde Clemens	ED 513			
X	Kameter Rudolf	OTN/ED 37			
X	Knoblauch August	ED 51			
	Koelle Markus	ED 533			
	Kroeker Jürgen	ED 515			
	Lamprecht Ernst	OTN/TP82	X	Mr. J. J. Juillet	Alcatel
X	Lang Jürgen	ED 556	X	Mr. T. Passvogel	ESTEC
	Langfermann Michael	ED 531	X		MPE
X	Maier Hans-Ulrich	ED 61	X		RAL
	Moritz Konrad Dr.	ED 37	X		SRON
	Peitzker Helmut	ED 37	X	Mr. G. Bottaro	Alenia
	Peltz Heinz-Willi	ED 515			
X	Peters, Gerhard	ED 533			
	Pietroboni Karin	ED 37			
	Puttlitz Joachim	OTN/ED 37			
	Raupp Helmut	ED 543			
	Rebholz Reinhold	ED 531			
	Reuß Friedhelm	ED 7			
X CP	Rühe Wolfgang	ED 3			
	Sachsse Bernt	EC 34			
	Sagner Udo	OTN/TN 42			
X	Schink Dietmar	ED 522			
	Schlosser Christian	OTN/TN 42			
	Schweickert Gunn	ED 544			
X	Steininger Eric	ED 522			

Document No.: HP-2-ASED-TN-0054
Issue: Draft
Date: 16.05.02
Title: Cryo-Harness Mass Breakdown

Book Captain / Author: J. Lang

Legend: RM: Review Member; DDfC: Due Date for Comments; FI: For Info

Internal Distribution:

Name	Sign	RM	DDfC	FI
Alberti, Mathias von Dr.				
Barlage, Bernhard				
Bayer, Thomas				
Faas, Horst	<i>H</i>	X		
Grasl, Andreas; OTN		X		
Hartmann, Hans				
Hauser, Armin				
Hinger, Juergen				
Hoelzle, Edgar				
Hohn, Ruediger				
Huber, Johann				
Hund, Walter	<i>W</i>	X		
Idler, Siegmund				
Ivady, Andras				
Jahn, Gerd Dr.				
Kalde, Clemens				
Kameter, Rudolf; OTN		X		
Knoblauch, August		X		
Koelle, Markus				
Kreeb, Helmut				
Kroeker, Juergen				
Kunz, Oliver				
Lamprecht, Ernst				
Lang, Juergen	<i>J</i>	X		
Langfermann, Michael				
Mack, Paul; OTN				
Maier, Hans-Ulrich		X		
Mauch, Alfred				
Moritz, Konrad Dr.				
Müller, Lutz OTN				
Muhl, Eckhard OTN				
Peitzker, Helmut				
Peltz, Heinz-Willi				
Peters, Gerhard		X		
Puttliz, Joachim; OTN				
Raupp, Helmut				
Rebholz, Reinhold				
Reuss, Friedhelm				

Name	Sign	RM	DDfC	FI
Ruehe, Wolfgang				
Runge, Axel; OTN				
Sachsse, Bernt				
Sagner, Udo				
Schäffler, Johannes OTN				
Schink, Dietmar	<i>S</i>	X		
Schlosser, Christian; OTN				
Schwabbauer, Paul DR.; OTN				
Schweickert, Gunn				
Steining, Eric				
Stritter, Rene		X		
Sutner, Klaus				
Tenhaeff, Dieter				
Thoermer, Klaus-Horst Dr.; OTN				
Wagner, Adalbert				
Wagner, Klaus				
Wietbrock, Walter				
Wilz, Eberhard; OTN				
Woehler, Hans				
Ziegler, Fred; OTN				
Zipf, Ludwig				
Pastorino, Michel; ASPI Resident at FN				
Documentation:				
Grasshoff, Brigitte				
Secretary:				
Pietroboni, Karin				