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SPIRE CQM Build Standard		

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Date	Issue	Sheet	Change	Reason for change
13/11/2003	0.1D	All		First draft
11/03/2004	1.0	FPU JFETS	300 mk Straps Identified Internal harnesses identified Thermometer numbers provided BDA thermometers removed from list Thermometer numbers provided	Configuration as for cold thermal verification 1
11/03/2004	2.0D	All	Columns for cold vibration added	Configuration for cold vibration

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM				
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery	
Structure	Optical Bench Panel	Optical bench panel	5264-302-4	MSSL	STM	STM	STM	STM			
	Photometer Cover	Photometer Cover Wall	5264-302-6	MSSL	STM	STM	STM	STM			
		Photometer cover lid	5264-302-10	MSSL	STM	STM	STM	STM			
		Photometer Seal- Top	5264-302-7	MSSL	STM	STM	STM	STM			
		Photometer Seal- Bottom	5264-302-8	MSSL	STM	STM	STM	STM			
	Spectrometer Cover	Spectrometer Cover Wall	5264-303-1	MSSL	STM	STM	STM	STM			
		Spectrometer Cover Lid	5264-303-2	MSSL	STM	STM	STM	STM			
		Spectrometer seals top	5264-303-4	MSSL	STM	STM	STM	STM			
		Spectrometer seals bottom	5264-303-5	MSSL	STM	STM	STM	STM			
	FPU Supports	A Frames	5264-302-1	MSSL	STM	STM	STM	STM			
		Fixed Mount Cone	5264-302-5	MSSL	STM	STM	STM	STM			
		A Frame Support Plates and brackets (both sides)		5264-302-14	MSSL	STM	STM	STM	STM		
				5264-302-15	MSSL	STM	STM	STM	STM		
			5264-302-26	MSSL	STM	STM	STM	STM			
		Insulating Bush	5264-302-2	MSSL	STM	STM	STM	STM			
		Special Washer	5264-302-3	MSSL	STM	STM	STM	STM			
		Dowel retaining Plate	5264-302-39	MSSL	STM	STM	STM	STM			
		Tubular Dowels (8mm)	5264-302-40	MSSL	STM	STM	STM	STM			
		Dowel - 'A' Frame support	5264-302-41	MSSL	STM	STM	STM	STM			
		Dowel - 'A' Frame Top	5264-302-42	MSSL	STM	STM	STM	STM			
	Special Washer - A Frame Brackets	5264-302-43	MSSL	STM	STM	STM	STM				
	Photometer Box	Photometer detector box		5264-306-1	MSSL	STM	STM	STM	STM		
				5264-306-2	MSSL	STM	STM	STM	STM		
			5264-306-3	MSSL	STM	STM	STM	STM			
BDA Adapter Plate			5264-911	MSSL	STM	STM	STM	STM			
Dichroic rings				5264-310-1	MSSL	STM	STM	STM	STM		
				5264-310-2	MSSL	STM	STM	STM	STM		
			5264-310-3	MSSL	STM	STM	STM	STM			
			5264-311-1	MSSL	STM	STM	STM	STM			
			5264-311-2	MSSL	STM	STM	STM	STM	STM		
Detector Box support Cone			5264-312	MSSL	STM	STM	STM	STM	STM		
Photometer Detector Box A frames supports(2 per set)			5234-313	MSSL	STM	STM	STM	STM	STM		
Washer			5264-313-1	MSSL	STM	STM	STM	STM	STM		
Bushes			5264-313-2	MSSL	STM	STM	STM	STM	STM		

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			EQM Delivery
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	
Spectrometer Box	Spectrometer detector box		5264-307-1	MSSL	STM	STM	STM	STM		
		Filter mount	5264-307-2	MSSL	STM	STM	STM	STM		
		Spectrometer Detector Box supports(3 per set)	5264-307-4	MSSL	STM	STM	STM	STM		
		BDA Adapter Plate	5264-911	MSSL	STM	STM	STM	STM		
		Bushes	5264-307-5	MSSL	STM	STM	STM	STM		
SCAL		Scal Box	5264-314-1	MSSL	STM	STM	STM	STM		
		SCAI Cover	5264-314-2	MSSL	STM	STM	STM	STM		
		SCAL Exit Baffle Ring	5264-314-3	MSSL	STM	STM	STM	STM		
		SCAL Baffle Clamp	5264-314-4	MSSL	STM	STM	STM	STM		
Mirror Mounts		Secondary optical Bench	5264-305-12	MSSL	STM	STM	STM	STM		
		Support PM6	5264-305-13	MSSL	STM	STM	STM	STM		
		PM6 Support Spare	5264-305-19	MSSL	STM	STM	STM	STM		
		Support PM8	5264-305-14	MSSL	STM	STM	STM	STM		
		PM10 Support	5264-305-17	MSSL	STM	STM	STM	STM		
		Support SM6	5264-305-2	MSSL	STM	STM	STM	STM		
		sm6 Support Spare	5264-305-18	MSSL	STM	STM	STM	STM		
		Support SM7	5264-305-3	MSSL	STM	STM	STM	STM		
		Bulkhead SM6 and SM7	5264-305-15	MSSL	STM	STM	STM	STM		
		Support SM8a	5264-305-4	MSSL	STM	STM	STM	STM		
		Support SM9-10a	5264-305-6	MSSL	STM	STM	STM	STM		
		Support SM9-10b	5264-305-7	MSSL	STM	STM	STM	STM		
		Support SM11a	5264-305-8	MSSL	STM	STM	STM	STM		
		Support SM11b	5264-305-9	MSSL	STM	STM	STM	STM		
	Support SM12a	5264-305-10	MSSL	STM	STM	STM	STM			
	Support SM12b	5264-305-11	MSSL	STM	STM	STM	STM			
Other Optics		SFIL2 Cold Stop	5264-305-22	MSSL	STM	STM	STM	STM		
		Photometer Cold Stop Clamp PFIL3	5264-306-4	MSSL	STM	STM	STM	STM		
		Photometer Cold Stop PFIL3	5264-306-5	MSSL	STM	STM	STM	STM		
		CFIL1 Baffle Mount	5264-304-6	MSSL	STM	STM	STM	STM		
		CFIL1 Baffle Clamp Ring	5264-304-7	MSSL	STM	STM	STM	STM		
		PFIL2 Mount Back Plate	5264-302-12	MSSL	STM	STM	STM	STM		
		PFIL2 Mount CLamp plate	5264-302-17	MSSL	STM	STM	STM	STM		
		Filter Mounts - SFIL2	5264-305-20	MSSL	STM	STM	STM	STM		
		Filter Mount - SFIL2 clamp ring	5264-305-21	MSSL	STM	STM	STM	STM		
		SFIL2 dowels	5264-305-27	MSSL	STM	STM	STM	STM		
		SBS 1and 2 Filter mount (2 per set)	5264-305-23	MSSL	STM	STM	STM	STM		
		SBS 1and 2 Filter Clamp	5264-305-24	MSSL	STM	STM	STM	STM		
		Clamp Plate SFIL -3	5264-307-3	MSSL	STM	STM	STM	STM		

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			EQM Delivery	
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2		
Optics	Mirrors	CM3		LAM	STM	STM	CQM	CQM			
		CM5		LAM	STM	STM	STM	STM			
		PM6		LAM	STM	STM	STM	STM			
		PM7		LAM	STM	STM	STM	STM			
		PM8		LAM	STM	STM	STM	STM			
		PM9		LAM	STM	STM	STM	STM			
		PM10		LAM	STM	STM	STM	STM			
		PM11		LAM	STM	STM	STM	STM			
		SM6		LAM	STM	STM	STM	STM			
		SM7		LAM	STM	STM	STM	STM	STM		
		SM8A		LAM	STM	STM	STM	STM	STM		
		SM9A		LAM	STM	STM	STM	STM	STM		
		SM10A		LAM	STM	STM	STM	STM	STM		
		SM11A		LAM	STM	STM	STM	STM	STM		
		SM12A		LAM	STM	STM	STM	STM	STM		
		SM8B		LAM	STM	STM	STM	STM	STM		
		SM9B		LAM	STM	STM	STM	STM	STM		
		SM10B		LAM	STM	STM	STM	STM	STM		
		SM11B		LAM	STM	STM	STM	STM	STM		
		SM12B		LAM	STM	STM	STM	STM	STM		
		SCCA1		LAM							
		SCCA2		LAM		STM	STM	STM	STM		
		Sccb1		LAM		STM	STM	STM	STM		
	Sccb2		LAM		STM	STM	STM	STM			
	Filters	CFIL1			UWC			CQM	CQM		
		PFIL-2			UWC			CQM	CQM		
		PFIL-3			UWC			CQM	CQM		
		PDIC-1			UWC			CQM	CQM		
		PDIC-2			UWC			CQM	CQM		
		PFIL-4S			UWC						
		PFIL-5S			UWC						
		PFIL-4M			UWC						
		PFIL-5M			UWC						
PFIL-4L				UWC							
PFIL-5L				UWC							
PFIL-6L				UWC							
SBS1				UWC			CQM	CQM			
SBS2				UWC			CQM	CQM			
SFIL2				UWC			CQM	CQM			
SFIL3S				UWC			CQM	CQM			
SFIL3L			UWC			CQM	CQM				
SFIL4S			UWC								
SFIL5S			UWC								
SFIL6S			UWC								
SFIL4L			UWC								
SFIL5L			UWC								
SFIL6L			UWC								

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery
Beam steering mirror				ATC	STM	STM	STM	STM		
3He Cooler				SBT	STM	STM	CQM	CQM		
300 mK thermal straps and supports		Bus Bar Upper	5264-306-7	MSSL	STM		CQM (99.99%)	CQM (99.99%)		
		Busbar Lower	5264-306-8	MSSL	STM		CQM (99.99%)	CQM (99.99%)		
		BDA-Busbar Flange	5264-306-9	MSSL	STM		CQM	CQM		
		Bus Connector PLW	5264-306-10	MSSL	STM		CQM	CQM		
		Bus Junction ans PMW Connector	5264-306-11	MSSL	STM		CQM	CQM		
		Bus Junction Clamp Plate	5264-306-12	MSSL	STM		CQM	CQM		
		Light Trap to Bus Junction	5264-306-13	MSSL	STM		CQM	CQM		
		Bus Connector PSW	5264-306-14	MSSL	STM		CQM	CQM		
		BDA-Busbar Flange	5264-306-15	MSSL	STM		CQM	CQM		
		PLW Bus Strap	5264-306-16	MSSL	STM		CQM (99.99%)	CQM (99.99%)		
		PMW Bus Strap	5264-306-17	MSSL	STM		CQM (99.99%)	CQM (99.99%)		
		PSW Bus Strap	5264-306-18	MSSL	STM		CQM (99.99%)	CQM (99.99%)		
		End stop Photometer Light Trap	5264-306-19	MSSL	STM		CQM	CQM		
		Light Trap Feed Through - Photometer	5264-306-20	MSSL	STM		CQM	CQM		
		Stop Bush -Bus Bar Mountings	5264-306-21	MSSL	STM		CQM	CQM		
		Light Trap Feedthrough spect.	5264-307-6	MSSL	STM		CQM	CQM		
		Light Baffle Junction	5264-307-7	MSSL	STM		CQM	CQM		
		SSW Spect. BDA to light trap strap	5264-307-8	MSSL	STM		CQM	CQM		
		SLW Spect. BDA to Light Trap Strap	5264-307-9	MSSL	STM		CQM	CQM		
		BDA Cold Interface Spectrometer	5264-307-10	MSSL	STM		CQM	CQM		
	Bush inner Spectrometer light trap	5264-307-11	MSSL	STM		CQM	CQM			
	Bush outer Spectrometer light trap	5264-307-12	MSSL	STM		CQM	CQM			
	Cold Strap Support	5264-307-13	MSSL	STM		CQM	CQM			
	Photometer Baffle	LTS CQM2 311	UWC			CQM	CQM			
	Spectrometer Baffle	LTS CQM2 411	UWC			CQM	CQM			
L0 Thermal Straps		Detector Box I/F		MSSL			RAL-GSE	CQM		
		Cooler Pump I/F		MSSL			RAL-GSE	CQM		
		Cooler Evap I/F		MSSL			RAL-GSE	CQM		
300 mK Thermal control system										

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery
BDA	Photometer LW array			JPL	STM-004		CQM	CQM		
	Photometer MW array			JPL	STM-502	OGSE	STM-502 (Not Connected)	Accelerometer		
	Photometer SW array			JPL	STM-503		STM-503 (Not Connected)	STM-503		
	Spectrometer SW array			JPL	STM-504		STM-504 (Not Connected)	Accelerometer		
	Spectrometer LW array			JPL	STM-505		STM-505 (Not Connected)	STM-505		
SMEC				LAM	STM - no harness	OGSE	STM	STM		
PCAL				UWC			CQM	CQM		
SCAL				UWC			CQM	CQM		
FPU RF Filters	Box	RFI Filter Bracket Corner Bracket	A2/5264/302-27	MSSL	STM	STM	STM	STM		
		Tempory RFI Bracket	A2/5264/302-28	MSSL	STM	STM	STM	STM		
		RFI Filter Frame Edge Bracket	A2/5264/302-29	MSSL	STM	STM	STM	STM		
	RF Filter Modules	RF-1	10209780-1	JPL			CQM	CQM		
		RF-2	10209780-2	JPL			CQM	CQM		
		RF-3	10209780-3	JPL			CQM	CQM		
		RF-4	10209780-4	JPL			CQM	CQM		
		RF-5	10209780-5	JPL			CQM	CQM		
		RF-6	10209780-6	JPL			CQM	CQM		
		RF-7	10209780-7	JPL			CQM	CQM		
		RF-8	10209780-8	JPL			CQM	CQM		
		RF-9	10209780-9	JPL			CQM	CQM		
		RF-10	10209780-10	JPL			CQM	CQM		
		RF-11	10209780-11	JPL			CQM	CQM		
		RF-12	10209780-12	JPL			CQM	CQM		

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery
FPU internal harnesses		F1 PSW BDA J01 to HSJFP J29		Tekdata			FS	FS		
		F2 PSW BDA J02 to HSJFP J30		Tekdata			FS	FS		
		F3 PSW BDA J03 to HSJFP J31		Tekdata			FS	FS		
		F4 PSW BDA J04 to HSJFP J32		Tekdata			FS	FS		
		F5 PSW BDA J05 to HSJFP J33		Tekdata			FS	FS		
		F6 PSW BDA J06 to HSJFP J34		Tekdata			FS	FS		
		F7 PLW BDA J01 to HSJFP J35		Tekdata			FS	FS		
		F8 PLW BDA J02 to HSJFP J36		Tekdata			FS	FS		
		F9 PMW BDA J01 to HSJFP J37		Tekdata			FS	FS		
		F10 PMW BDA J02 to HSJFP to J38		Tekdata			FS	FS		
		F11 PMW BDA J03 to HSJFP to J39		Tekdata			FS	FS		
		F12 PMW BDA J04 to HSJFP to J40		Tekdata			FS	FS		
		F13 SSW BDA J05 to HSJFS J11		Tekdata			FS	FS		
		F14 SSW BDA J06 to HSJFS J12		Tekdata			FS	FS		
		F15 SLW BDA J01 to HSJFS J13 (plus PTC Cold harnessing – F28)		Tekdata			FS	FS		
		F16 COOLER-P to FPU J19A		Tekdata			FS	FS		
		F17 COOLER-R to FPU J20A		Tekdata			FS	FS		
		F18 SCaI-P to FPU J21A		Tekdata			FS	FS		
		F19 SCaI-R to FPU J22A		Tekdata			FS	FS		
		F20 THERM-P to FPU J23A		Tekdata			FS	FS		
		F21 THERM-R from FPU J24A		Tekdata			FS	FS		
		F22 BSM-P to FPU J25A		Tekdata			FS	FS		
		F23 BSM-R to FPU J26A		Tekdata			FS	FS		
		F24 SMEC Launch (Prime) connected to FPU J27A		Tekdata			FS	FS		
		F25 SMEC Control (Prime) connected to FPU J29A		Tekdata			FS	FS		
		F26 SMEC Launch (Red.) connected to FPU J28A		Tekdata			FS	FS		
		F27 SMEC Control (Red.) connected to FPU J30A		Tekdata			FS	FS		

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery
Thermometers	Level 1	T_SOB_1	HSFPU Harness Filter Bracket	RAL			CQM X24423	CQM X24423		
		T_SOB_2	HSFPU Optical Bench	RAL		GSE				
		T_SUB_1	M3,5,7 Optical Sub Bench	RAL			CQM X24416	CQM X24416		
		T_SUB_2	M3,5,7 Optical Sub Bench	RAL						
		T_BAF_1	Input Baffle	RAL			CQM X24421	CQM X24421		
		T_BAF_2	Input Baffle	RAL						
		T_BSMS_1	BSM/SOB I/F(SOB side)	RAL			CQM X24461	CQM X24461		
		T_BSMS_2	BSM/SOB I/F(SOB side)	RAL						
		T_SCST_1	SCAL Structure	UWC			CQM X28261	CQM X28261		
		T_SCST_2	SCAL Structure	UWC						
		T_CPHP_1	Cooler Pump	LAM			CQM X14909	CQM X14909		
		T_CPHP_2	Cooler Pump	LAM						
		T_CEV_1	Cooler Evap	LAM			CQM X16965	CQM X16965		
		T_CEV_2	Cooler Evap	LAM						
		T_CPHS_1	Cooler Pump Heat Switch	LAM			CQM X15986	CQM X15986		
		T_CPHS_2	Cooler Pump Heat Switch	LAM						
		T_CEHS_1	Cooler Evap Heat Switch	LAM			CQM X15984	CQM X15984		
		T_CEHS_2	Cooler Evap Heat Switch	LAM						
		T_CSHT_1	Cooler Shunt	LAM			CQM X25347	CQM X25347		
		T_CSHT_2	Cooler Shunt	LAM						
		T_SCL4_1	SCAL 4%	UWC			CQM X14039	CQM X14039		
		T_SCL4_2	SCAL 4%	UWC						
		T_SCL2_1	SCAL 2%	UWC			CQM X14025	CQM X14025		
		T_SCL2_2	SCAL 2%	UWC						
T_BSM_1	BSM	ATC			CQM X24393	CQM X24393				
T_BSM_2	BSM	ATC								
T_FTS_1	SMEC	RAL			CQM TVO-0016	CQM TVO-0016				
T_FTS_2	SMEC	RAL								
T_FTS_3	SMEC/SOB I/F	RAL			CQM TVO-0017	CQM TVO-0017				
T_FTS_4	SMEC/SOB I/F	RAL								

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery
		FPU +X A-Frame Interface		RAL			GSE X24415			
		FPU -X A-Frame Interface		RAL			GSE X24453			
		SOB Cone Interface		RAL			GSE TVO-0013			
		SOB L1 Strap Interface		RAL			GSE TVO-0014			
		SOB Cooler Interface		RAL			GSE TVO-0015			
		L1 photo connector bracket		RAL			GSE TVO-0012			
	Level 0	T_PL0_1 Phot L0 Encl Strap IF		RAL			CQM X24455	CQM X24455		
		T_PL0_2 Phot L0 Encl		RAL		GSE				
		T_SL0_1 Spec L0 Encl Strap IF		RAL			CQM X24454	CQM X24454		
		T_SL0_2 Spec L0 Encl		RAL		GSE				
		T_PL0_3Photometer Level 0 Enclosure		RAL			GSE X24426			
		T_SL0_3Spectrometer Level 0 Enclosure		RAL			GSE X24420			

JFET Units

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery
HSJFP										
	JFET Structure			RAL			CQM/FS	CQM/FS		
	JFET Modules	JFET Module 1		JPL			STM	STM		
		JFET Module 2		JPL			CQM	CQM		
		JFET Module 3		JPL			CQM	CQM		
		JFET Module 4		JPL			CQM	CQM		
		JFET Module 5		JPL			CQM	CQM		
		JFET Module 6		JPL			CQM	CQM		
		JFET Module 7		JPL			CQM	CQM		
				JPL						
	JFET box RF filter modules			JPL			CQM/FS	CQM/FS		
	JFET Backharness			JPL			CQM/FS	CQM/FS		
	JFET/FPU Harness			JPL			PLW - CQM All others GSE	PLW - CQM All others GSE		
		Thermometer		RAL			GSE TVO-0010			
HSJFS										
	JFET Structure			RAL			CQM/FS	CQM/FS		
	JFET Modules	JFET Module 1		JPL			STM	STM		
		JFET Module 2		JPL			STM	STM		
	JFET box RF filter modules			JPL			TBD	TBD		
	JFET Backharness			JPL			CQM	CQM		
	JFET/FPU Harness			JPL						
		Thermometer		RAL			GSE TVO-0011			

Warm Electronics

Subsystem	Unit	Item	Drawing/Reference	Supplier	SM	AM	CQM			
					Warm Vibration	Optical Alignment	Cold Thermal Verification 1	Cold Vibration	Cold Thermal Verification 2	EQM Delivery
DRCU	Power Bench			SAP			QM1	N/A		
	DCU			SAP			QM1	N/A		
	FCU			SAP			QM1	N/A		
DPU				IFSI			AVM	N/A		