

SPIRE-ALC-COM-001494

From: Bernard.Collaudin@space.alcatel.fr
Sent: 13 January 2003 16:30
To: R. Katterloher; J.A.Long@rl.ac.uk; HIFI-Prof@sron.nl
Cc: Glenn.Lund@space.alcatel.fr; Guy.Doubrovik@space.alcatel.fr;
 Pierre.Lodereau@space.alcatel.fr; Philippe.Clavel@space.alcatel.fr; PACS_Project_Office;
 Otto Bauer; Gerald.Crone@esa.int; Astrid Heske; Roland Graue; Dirk Kampf; Josef Schubert
Subject: Réf. : PACS FPU vibration loads

Mr Katterloher,

The Random vibration qualification levels of the FPU as given in ESA mail from 20/12 (received on 23/12 here) are correct and will be the one proposed in IID-A.3.1

Here is the part of the table we intend to update in IID-A

	Random vibration test	F1	F2	Slope / Level	Unit
>----- g RMS ----->					
	Qualification levels for Herschel	(Hz)	(Hz)		
>----- (calc) ----->					
		20	100	3	dB/Oct
>----- 3.79 ----->					
		100	150	0.05	g2/Hz
>----- ----->					

			150	300	0.02	g ² /Hz
		Normal to fixation plane	300	2000	-5	dB/Oct
			20	100	3	dB/Oct
2.81						
			100	150	0.02	g ² /Hz
			150	300	0.0125	g ² /Hz
HPLM	FPU	Other axes	300	2000	-5	dB/Oct

>-----|

Qualification Duration: 2 min. per axis.
Acceptance levels are to be derived by dividing the qualification
levels by a factor 1.5625 .
Acceptance duration is 1 min. per axis.
Qualification factor 1.5625 (TBC)

section Random Vibration Tests 9.5.3.4
table Random Vibration for Herschel, Qualification test levels
9.5.3-6:

"R. Katterloher" <rok@mpe.mpg.de> on 13/01/2003 15:42:31

Pour : "Bernard Collaudin" <bernard.collaudin@space.alcatel.fr>
cc : "PACS_Project_Office" <pacs@mpe.mpg.de>
 "Otto Bauer" <ohb@mpe-garching.mpg.de>
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 "Dirk Kampf" <kd@kayser-threde.de>
 "Josef Schubert" <schubert@mpe.mpg.de> (ccc : Bernard
 Collaudin/ALCATEL-SPACE)
Objet : PACS FPU vibration loads

Dear Bernard,

Tomorrow, 14 January 2003, PACS will start as scheduled with the FPU STM
vibration test with qualification load levels at ambient temperature. The
test runs will be performed on the basis of the new (partly reduced) random
vibration levels as specified in the email of Astrid Heske, dated 20
December 2002.

As the formal close-out by Alcatel with a CR to IID-A, agreement and
approval by the relevant party, could not yet be done, I advise the
manufacturer of the PACS FPU to perform the vibration of the STM with the
random values and notch levels against interface loads as given in the
respective ESA-email of 20 December. The application of notches will be
handled according to H-P-PACS-RFW-0002.

I suppose Project will give full agreement to our proposal.
Best regards,
Reinhard

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