

SPIRE-ALC-COM-001500

From: Bernard.Collaudin@space.alcatel.fr
Sent: 14 January 2003 18:25
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



pic03509.pcx



pic13056.pcx



pic03590.pcx

OK, sorry, the Decreasing slope should be corrected to -7dB/oct between 300 and 2000Hz for all directions, as pointed out by Astrid & Pierre, and corrected in the table below.

----- Envoyé par Bernard Collaudin/ALCATEL-SPACE le 14/01/2003 17:37 -----

Astrid.Heske@esa.int on 14/01/2003 14:52:38

Pour : Bernard.Collaudin@space.alcatel.fr
cc : rok@mpg.de (ccc : Bernard Collaudin/ALCATEL-SPACE)
Objet : Re: Réf. : PACS FPU vibration loads

Astrid Heske@ESA
01/14/2003 02:52 PM

Bernard,

In the last row of the table in your mail the slope is quoted as -5 dB/Oct. The MoM of the meeting 16 Dec and the mail from 20 Dec state: -7 dB/Oct. I assume the -5 is a typo?

I agreed with PACS that they go ahead with the -7dB/Oct.

HPLM	FPU	Other axes	300	2000	-7	dB/Oct
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Best regards,

Astrid

----- Envoyé par Bernard Collaudin/ALCATEL-SPACE le 14/01/2003

17:36 -----

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Bernard Collaudin

(Embedded image moved to file: pic13056.pcx)

13/01/2003 17:29

(Embedded image moved to file: pic03590.pcx)

Pour : "R. Katterloher" <rok@mpe.mpg.de>
 J.A.Long@rl.ac.uk
 HIFI-Prof@sron.nl

cc : Glenn Lund/ALCATEL-SPACE@ALCATEL-SPACE
 Guy Doubrovik/ALCATEL-SPACE@ALCATEL-SPACE
 Pierre Lodereau/ALCATEL-SPACE@ALCATEL-SPACE
 Philippe Clavel/ALCATEL-SPACE@ALCATEL-SPACE
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 "Otto Bauer" <ohb@mpe-garching.mpg.de>
 Gerald.Crone@esa.int
 "Astrid Heske" <aheske@estec.esa.nl>
 "Roland Graue" <rg@kayser-threde.de>
 "Dirk Kampf" <kd@kayser-threde.de>
 "Josef Schubert" <schubert@mpe.mpg.de>

Objet : 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	g ² /Hz
			150	300	0.02	g ² /Hz
		Normal to fixation plane	300	2000	-7	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	-7	dB/Oct
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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:

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