



CENTRE NATIONAL D'ETUDES SPATIALES

INTEGRAL SPECTROMETER



SPI-MU-0-1062V3-CNES

Issue : 5

Revision : 0

Date : 28/02/02

Page No. : ANX12-1

ANNEX 12

AFEE FLIGHT MODEL DETECTOR ARRAY



CENTRE NATIONAL D'ETUDES SPATIALES

INTEGRAL SPECTROMETER



SPI-MU-0-1062V3-CNES

Issue : 5

Revision : 0

Date : 28/02/02

Page No. : ANX12-2



Spectrometer INTEGRAL



Ref: SPI-RE-421-4261-CESR

Ed. 1

Rev. 1

Date: 27/11/01

Page: i

FLIGHT MODEL DETECTOR ARRAY DETECTORS POSITION, DIMENSIONS AND WEIGHT

Prepared by:	Signature:
Philippe PAUL	
Accepted by:	Signature:
Approved and Application authorized by:	

Number of pages: 7

Secretariat of origin: CESR - Pascale Ramon

Host system: PC Pentium III 600

Host software:

Word Processing	Drawings
Word 97	/

C.E.S.R.	EXTERNAL DISTRIBUTION										
Jean P. Mandrou P. Roques J.P. Skinner G. Vedrenne G.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">André Y. Clair M.A.</td> <td style="width: 30%; border-left: 1px solid black; padding-left: 10px;">CNES</td> </tr> <tr> <td>Cordier B. Schanne S.</td> <td style="border-left: 1px solid black; padding-left: 10px;">CEA</td> </tr> <tr> <td>Lichti G. Schönfelder V. Von Kienlin A. Wunderer C.</td> <td style="border-left: 1px solid black; padding-left: 10px;">MPE</td> </tr> <tr> <td>Teegarden B. Shrader C. Weidenspointner G.</td> <td style="border-left: 1px solid black; padding-left: 10px;">GSFC</td> </tr> <tr> <td colspan="2" style="text-align: center; padding-top: 10px;"><i>N. MILHET CNES (Project Doc.)</i></td> </tr> </table>	André Y. Clair M.A.	CNES	Cordier B. Schanne S.	CEA	Lichti G. Schönfelder V. Von Kienlin A. Wunderer C.	MPE	Teegarden B. Shrader C. Weidenspointner G.	GSFC	<i>N. MILHET CNES (Project Doc.)</i>	
André Y. Clair M.A.	CNES										
Cordier B. Schanne S.	CEA										
Lichti G. Schönfelder V. Von Kienlin A. Wunderer C.	MPE										
Teegarden B. Shrader C. Weidenspointner G.	GSFC										
<i>N. MILHET CNES (Project Doc.)</i>											



CENTRE NATIONAL D'ETUDES SPATIALES

INTEGRAL SPECTROMETER



SPI-MU-0-1062V3-CNES
Issue : 5
Revision : 0
Date : 28/02/02
Page No. : ANX12-4



**Spectrometer
INTEGRAL**



Ref: SPI-RE-421-4261-CESR
Ed. 1
Rev. 1
Date: 27/11/01

Page: iii

- TABLE OF CONTENTS -

1. INTRODUCTION.....	1
2. FLIGHT MODEL DETECTOR POSITIONS ON THE DETECTION ARRAY.....	2
3. DETECTORS AND GERMANIUM CRYSTALS WEIGHT.....	3
4. GERMANIUM CRYSTAL DIMENSIONS	3



CENTRE NATIONAL D'ETUDES SPATIALES

INTEGRAL SPECTROMETER



SPI-MU-0-1062V3-CNES

Issue : 5

Revision : 0

Date : 28/02/02

Page No. : ANX12-5



**Spectrometer
INTEGRAL**



Ref: SPI-RE-421-4261-CESR

Ed. 1

Rev. 1

Date: 27/11/01

Page: 1

1. INTRODUCTION

This document presents the position of the FM detectors on the detection array ; it also gives their weight and the dimension of each germanium crystals.



CENTRE NATIONAL D'ETUDES SPATIALES

INTEGRAL SPECTROMETER



SPI-MU-0-1062V3-CNES
Issue : 5
Revision : 0
Date : 28/02/02
Page No. : ANX12-6



Spectrometer
INTEGRAL

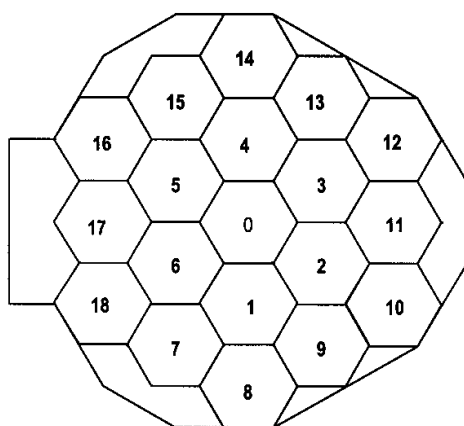


Ref: SPI-RE-421-4261-CESR
Ed. 1
Rev. 1
Date: 27/11/01

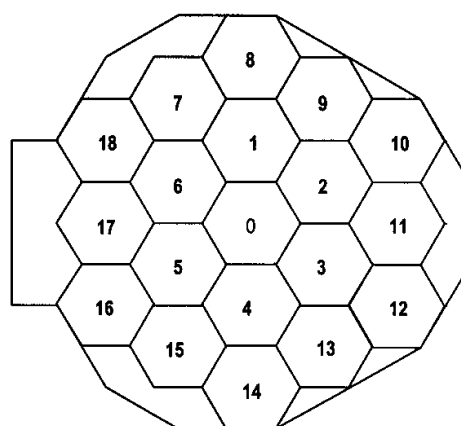
Page: 2

2. FLIGHT MODEL DETECTOR POSITIONS ON THE DETECTION ARRAY

Detectors positions



Top PA 1 array view



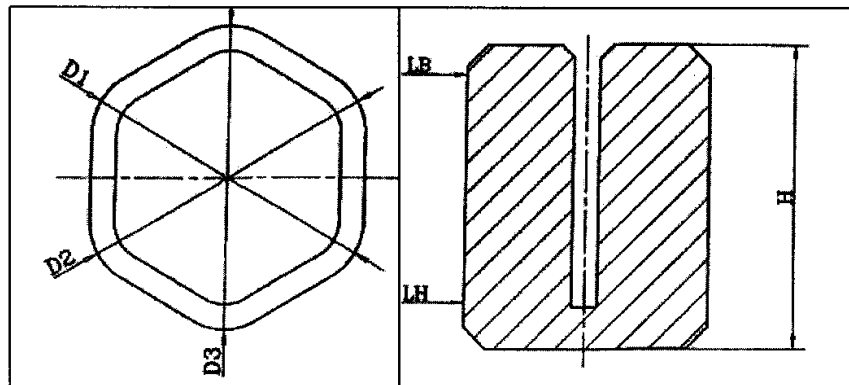
Underside PA 1 array view

Array position	Detector number	PA1 number	PA2 number	Cryostat output
0	FM 20	R20	1101	0
1	FM 21	R21	1082	1
2	FM 23	R22	1083	2
3	FM 24	R23	1084	3
4	FM 25	R41	1085	4
5	FM 26	R25	1086	5
6	FM 28	R42	1087	6
7	FM 30	R39	1088	7
8	FM 31	R28	1102	8
9	FM 33	R29	1090	9
10	FM 34	R30	1091	10
11	FM 36	R31	1092	11
12	FM 37	R32	1093	12
13	FM 38	R33	1094	13
14	FM 39	R34	1096	14
15	FM 29	R43	1097	15
16	D 08	R44	1098	16
17	D 12	R37	1104	17
18	FM 45	R40	1100	18

3. DETECTORS AND GERMANIUM CRYSTALS WEIGHT

Array position	Detector number	DETECTOR Weight (g)	CRYSTAL Weight (g)
0	FM 20	1124,40	944,9
1	FM 21	1136,30	959,0
2	FM 23	1137,30	959,6
3	FM 24	1134,10	958,0
4	FM 25	1141,50	965,8
5	FM 26	1141,30	965,1
6	FM 28	1144,47	960,4
7	FM 30	1118,00	939,9
8	FM 31	1135,70	956,2
9	FM 33	1132,70	956,3
10	FM 34	1135,00	956,0
11	FM 36	1132,40	956,3
12	FM 37	1095,20	916,1
13	FM 38	1107,60	928,5
14	FM 39	1135,20	956,6
15	FM 29	1133,10	953,4
16	EM 08 c	1161,00	930,0
17	EM 12	1159,00	950,0
18	FM 45	1135,00	955,2

4. GERMANIUM CRYSTAL DIMENSIONS





CENTRE NATIONAL D'ETUDES SPATIALES

INTEGRAL SPECTROMETER



SPI-MU-0-1062V3-CNES

Issue : 5

Revision : 0

Date : 28/02/02

Page No. : ANX12-8

Ref: SPI-RE-421-4261-CESR
Ed. 1
Rev. 1
Date: 27/11/01 Page: 4



Spectrometer INTEGRAL



Array position	Detector number	D1 (mm)	D2 (mm)	D3 (mm)	LB1 (mm)	LB2 (mm)	LB3 (mm)	LH1 (mm)	LH2 (mm)	LH3 (mm)	H (mm)
0	FM 20	60,69	60,70	60,65	56,08	56,02	55,98	56,09	56,09	55,99	69,62
1	FM 21	60,80	60,80	60,70	56,15	56,08	56,10	56,20	56,06	56,10	69,70
2	FM 23	60,70	60,66	60,72	56,10	56,08	55,95	56,10	56,05	56,02	69,76
3	FM 24	60,65	60,70	60,72	56,10	56,00	55,96	56,11	56,00	56,10	69,55
4	FM 25	60,67	60,70	60,77	56,07	56,07	56,06	56,06	56,00	56,08	69,58
5	FM 26	60,75	60,80	60,74	56,13	56,06	56,10	56,10	56,05	56,10	69,75
6	FM 28	60,77	60,78	60,77	56,00	56,04	56,06	55,97	56,04	56,06	69,94
7	FM 30	60,68	60,74	60,70	56,02	56,03	56,05	56,02	56,03	56,06	69,45
8	FM 31	60,77	60,73	60,76	56,02	56,07	56,01	56,08	56,07	56,05	69,26
9	FM 33	60,82	60,83	60,85	55,95	56,13	55,90	56,00	56,18	56,03	69,13
10	FM 34	60,77	60,70	60,73	56,04	56,06	56,02	56,06	56,06	56,10	69,22
11	FM 36	60,77	60,85	60,77	56,03	56,12	56,09	56,03	56,17	56,10	69,30
12	FM 37	60,84	60,80	60,80	55,96	56,04	56,07	55,98	56,00	56,05	69,28
13	FM 38	60,75	60,72	60,70	56,06	55,98	56,10	56,05	56,06	56,10	69,40
14	FM 39	60,66	60,70	60,68	56,20	56,04	56,05	56,20	56,03	56,05	69,43
15	FM 29	60,84	60,84	60,81	56,03	55,96	55,92	56,05	56,00	55,95	69,15
16	EM 08 c	60,41	60,37	60,38	55,65	55,57	55,55	55,62	55,65	55,60	69,45
17	EM 12	60,72	60,75	60,75	56,02	56,00	56,08	56,03	56,02	56,04	69,75
18	FM 45	60,77	60,73	60,70	56,07	56,01	56,01	56,08	56,06	56,03	69,44