

WIREBONDS STATUS

dE				E-front				E-back				Last checked	
strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd	date	detector
1				1				1				10/1/07	dE, Ef, Eb
2				2				2					
3				3				3					
4				4				4					
5				5				5					
6				6				6					
7				7				7					
8				8				8					
9				9				9			/		
10				10				10	/				
11				11				11	/				
12				12				12	/	/	/		
13				13				13	/	/			
14				14				14	/	/	/		
15				15				15	/	/	/		
16				16				16	/				
17	~	~	~	17				17			/		
18	~	~	~	18				18	/		/		
19	~	~	~	19				19	/	/	/		
20	~	~	~	20				20			/		
21				21				21	/	/			
22	~			22				22	/	/			
23				23				23		/			
24				24				24	/				
25				25	~	~	~	25	/				
26				26				26		/			
27	~	~	~	27				27	/	/			
28	~	~		28				28					
29				29				29					
30				30				30					
31				31				31					
32				32	GR	X	X	32					

* no signal on shaper (broken all wirebonds??)

Legend:

X = bond missing / = bond broken ~ = bond damaged

T27

ΔE = 2260-5
E = 2025-14

(H)

Detector Profile

BB7-1500

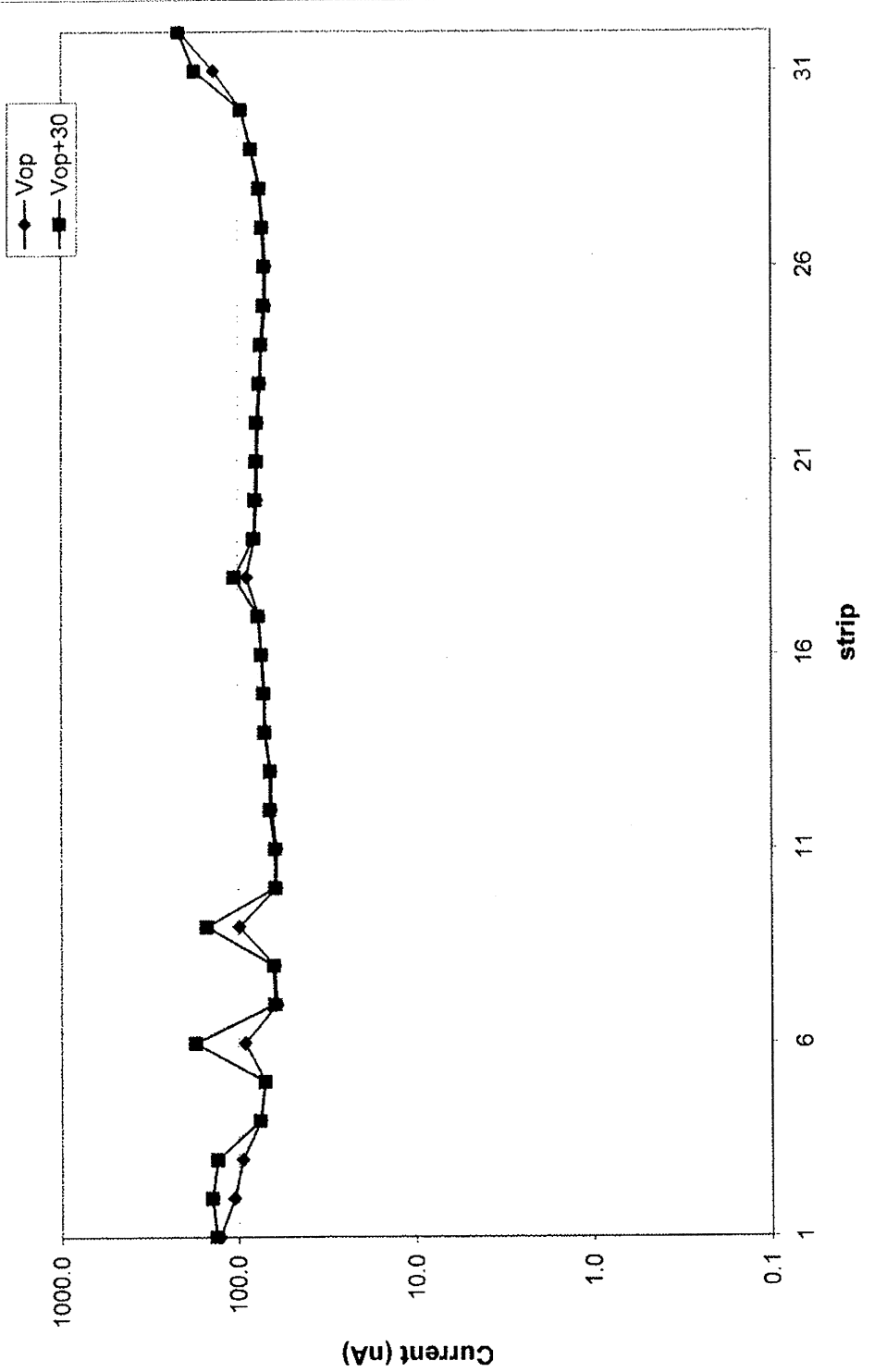
Wafer No.: **2085-14**

Thickness: **1474** μm Vop. **280** Volts

Front Side Data

Strip	Current(nA)	Vop	Vop+30
1	126.7	132.31	
2	105.31	139.57	
3	94.05	130.41	
4	74.63	75.32	
5	70.3	70.5	
6	91.18	172.71	
7	60.05	61.92	
8	62.02	62.74	
9	97.92	149.51	
10	60.81	61.59	
11	60.37	61.65	
12	64.55	65.87	
13	64.82	65.7	
14	70.15	70.3	
15	70.44	71.2	
16	72.76	73.35	
17	75.84	76.42	
18	88.95	104.05	
19	80.16	80.57	
20	77.63	79.2	
21	77.14	78	
22	76.22	77.37	
23	73.73	74.89	
24	72.89	73.27	
25	69.46	70.94	
26	69.03	70.72	
27	71.45	72.44	
28	74.38	75.22	
29	82.96	83.7	
30	94.95	95.28	
31	135.48	173.89	
32	211.8	216.1	
total	2578.1	2966.71	

Front Side Strip Leakage Current



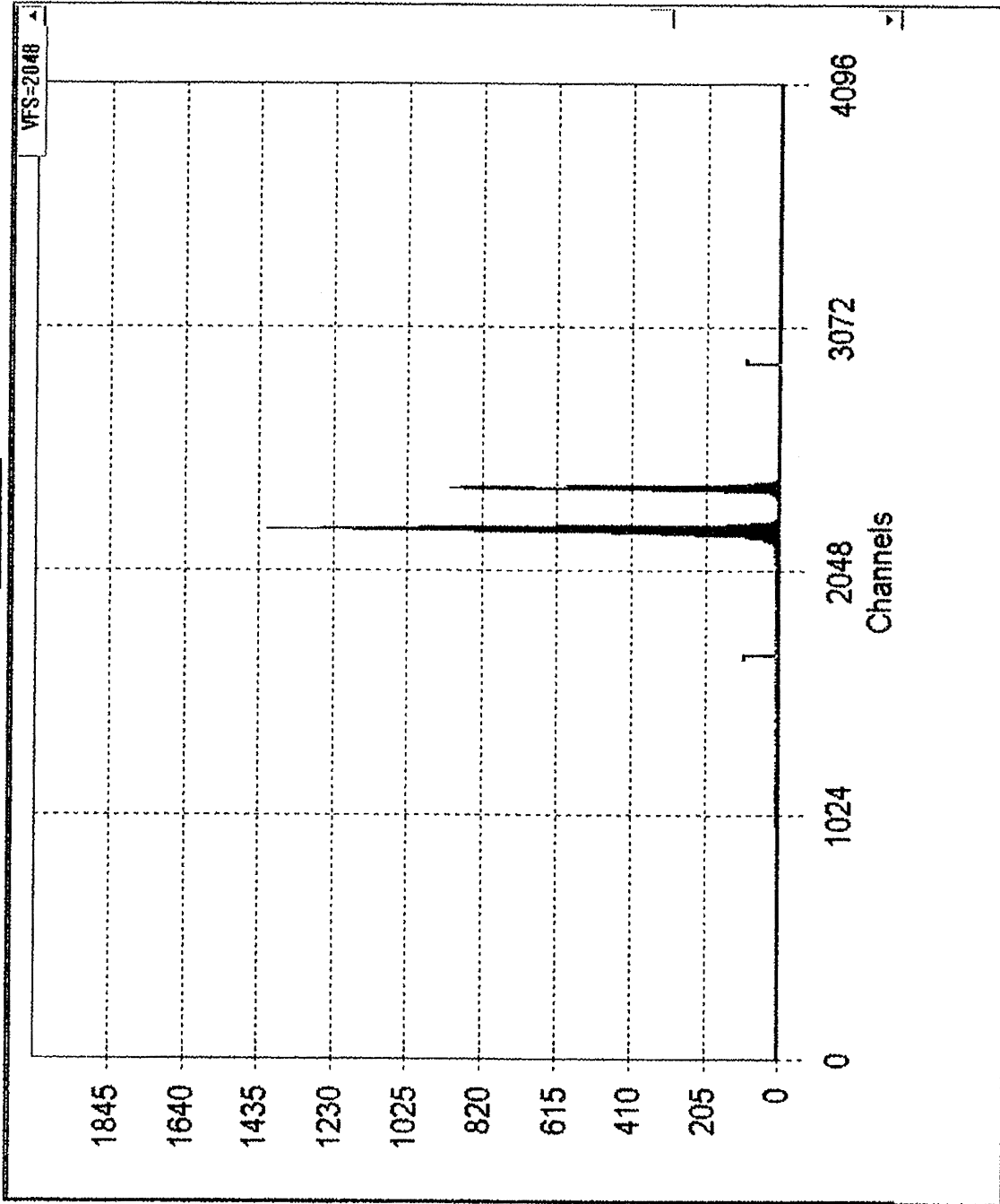
HIGH LEAKAGE CURRENT RESULT DUE TO HIGHER ROOM TEMPERATURE AND HUMIDITY. (See Alpha resolution for current result in vacuum.)
 ROOM TEMPERATURE = 25°C
 HUMIDITY = 55%

Resolution Mod

HIRA BB7-1500

Wafer No.: 2085-14

Thickness: 1474 μ m



CTION
LINE: 51 KeV
TEM: 39 KeV
: 32.9 KeV

MIC

LINE: 51.7 KeV
TEM: 38.9 KeV
C: 34.1 KeV

Source
Am 241

Rise Time
1

Flat Top
0

BIAS VOLTS= 310 V Leakage 2134 nA

INDIANA UNIVERSITY

BACK RESISTANCE MEASUREMENT:

DATE: 14/07/03
DEVICE TYPE: HIRA BB7-D/S-1500
DEVICE NUMBER: 2085-14
THICKNESS: 1474 μ M
OPERATING VOLTAGE: 280V

CHANNEL	OV	V.OP	V.OP + 30V
1-2	1.9K Ω	108K Ω	>1M Ω
2-3	2.4K Ω	185K Ω	>2M Ω
3-4	2.5K Ω	>1M Ω	>2M Ω
4-5	2.5K Ω	>1M Ω	>2M Ω
5-6	2.4K Ω	>1M Ω	>2M Ω
6-7	2.4K Ω	>1M Ω	>2M Ω
7-8	2.4K Ω	>1M Ω	>2M Ω
8-9	2.4K Ω	>1M Ω	>2M Ω
9-10	2.4K Ω	>1M Ω	>2M Ω
10-11	2.4K Ω	>1M Ω	>2M Ω
11-12	2.3K Ω	>1M Ω	>2M Ω
12-13	2.4K Ω	>1M Ω	>2M Ω
13-14	2.5K Ω	>1M Ω	>2M Ω
14-15	2.5K Ω	>1M Ω	>2M Ω
15-16	2.5K Ω	198K Ω	>2M Ω
16-17	2.5K Ω	>1M Ω	>2M Ω
17-18	2.5K Ω	128K Ω	>2M Ω
18-19	2.5K Ω	168K Ω	>2M Ω
19-20	2.5K Ω	>1M Ω	>2M Ω
20-21	2.4K Ω	>1M Ω	>2M Ω
21-22	2.4K Ω	>1M Ω	>2M Ω
22-23	2.3K Ω	>1M Ω	>2M Ω
23-24	2.4K Ω	>1M Ω	>2M Ω
24-25	2.5K Ω	>1M Ω	>2M Ω
25-26	2.5K Ω	>1M Ω	>2M Ω
26-27	2.5K Ω	>1M Ω	>2M Ω
27-28	2.5K Ω	>1M Ω	>2M Ω
28-29	2.5K Ω	>1M Ω	>2M Ω
29-30	2.6K Ω	>1M Ω	>2M Ω
30-31	2.5K Ω	>1M Ω	>2M Ω
31-32	2.4K Ω	217K Ω	>2M Ω

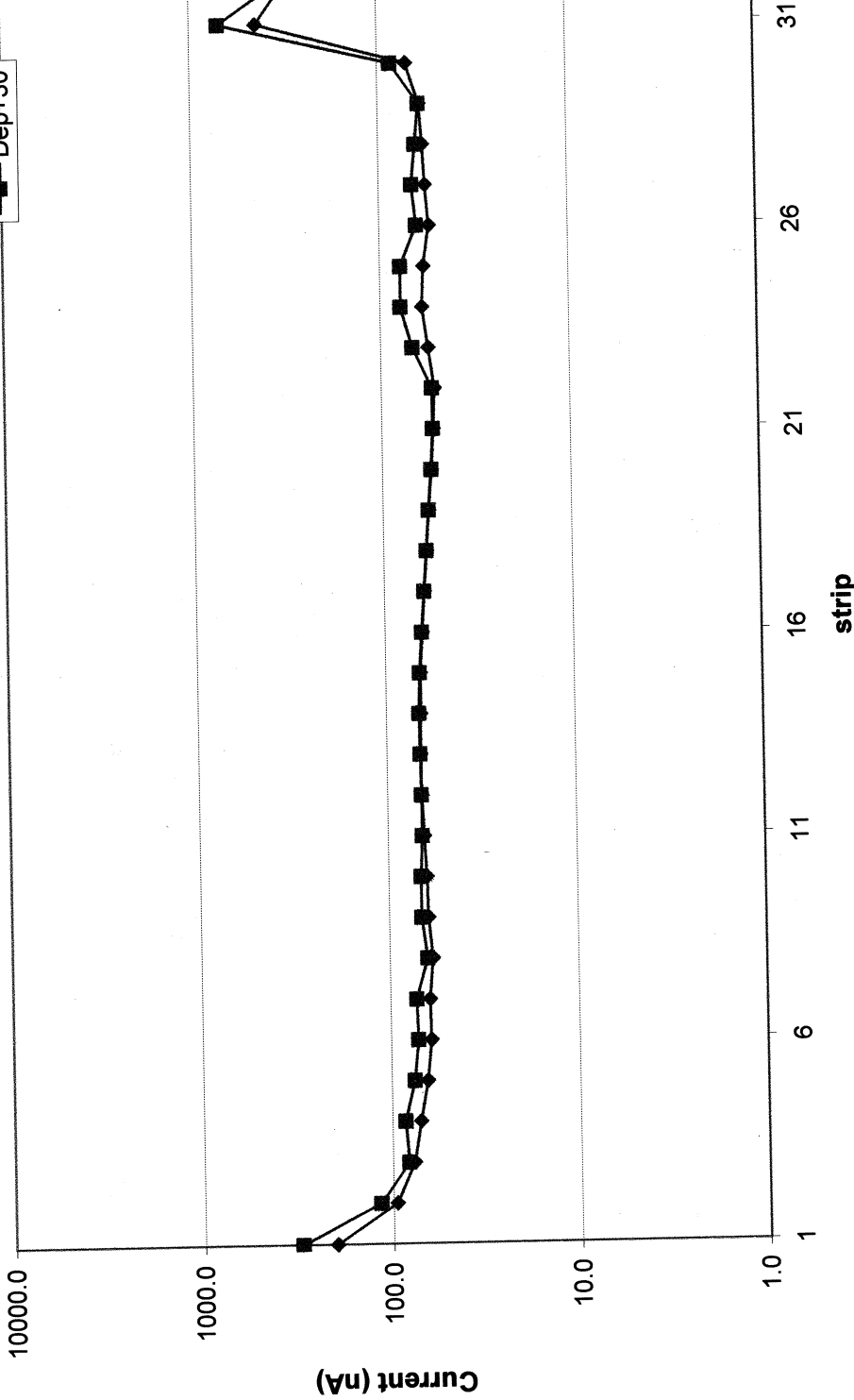
Detector Profile BB7-1500

Wafer No.: 2085-14

Thickness: 1452 μm Vop. 320 Volts

Front Side Strip Leakage Current

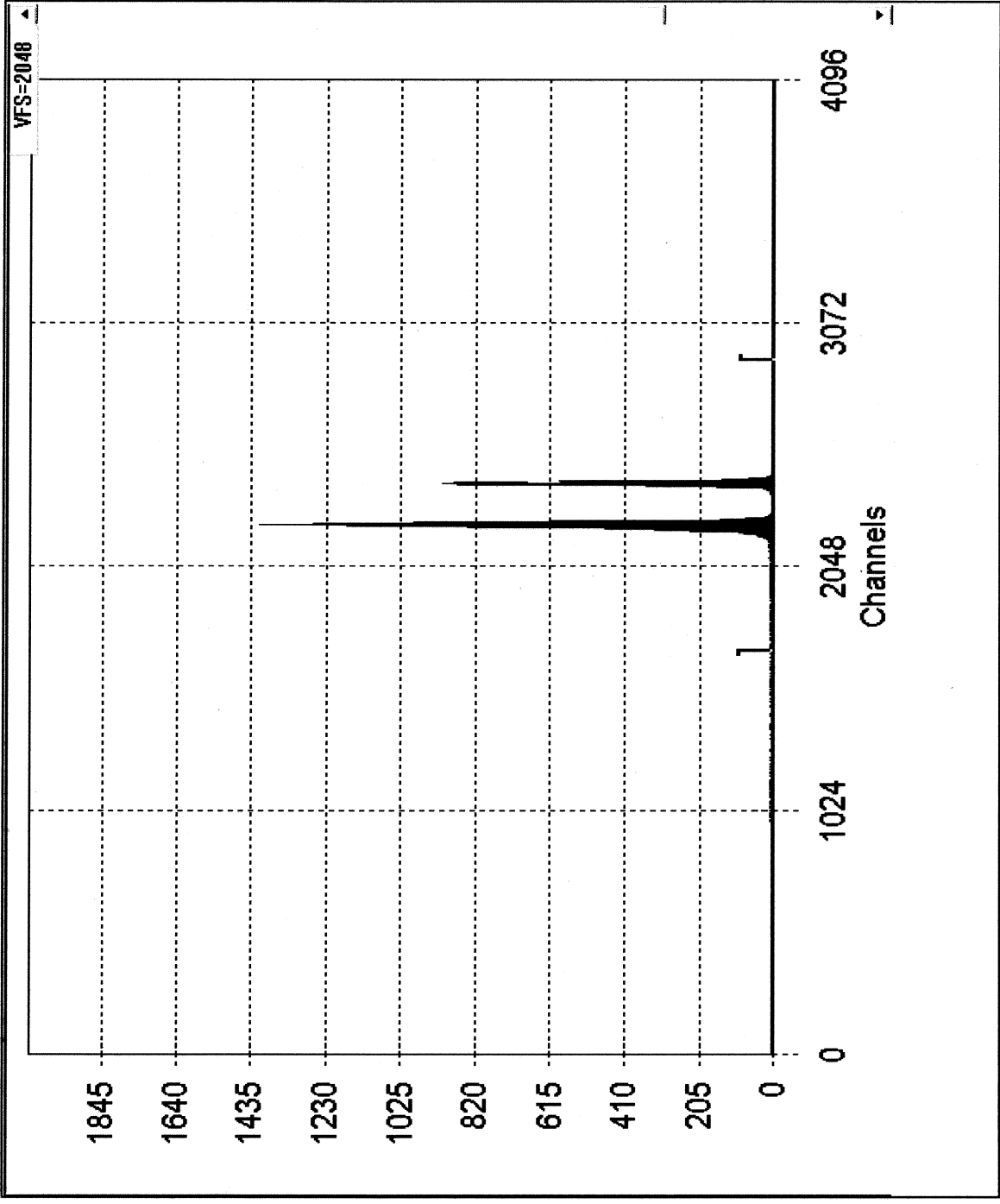
◆ Dep
■ Dep+30



Resolution Plot

HIRA BB7-1500

Wafer No.: **2085-14A** Thickness: **1474 um**



SECTION

LINE: KeV
TEM: KeV
C: KeV

FILE

LINE: **98.4** KeV
TEM: **67.1** KeV
C: **71.9** KeV

Source
Am 241

Rise Time
1

Flat Top
0

BIAS VOLTS= **350** V Leakage **2900** nA

Micron Semiconductor
30/10/2006

Si-detector Inspection Record

Date: 10/1/2007

Time: 7:00pm

Tel n.: 7

Inspected detector(s): ~~DE(200704)~~+E(208F14)

DE taken out to be used in Tel. 15

1st inspector: Vlad HENZL

2nd inspector: Jovanka HENZLOVA

WIREBONDS STATUS

DE				E-front				E-back			
strip n.: 1st 2nd 3rd				strip n.: 1st 2nd 3rd				strip n.: 1st 2nd 3rd			
1				1				1			
2				2				2			
3				3				3			
4				4				4			
5				5				5			
6				6				6			
7				7				7			
8				8				8			
9				9				9			
10				10				10			
11				11				11			
12				12				12			
13				13				13			
14				14				14			
15				15				15			
16				16				16			
17	~	~	~	17				17			
18	~	~	~	18				18			
19	~	~	~	19				19			
20	~	~	~	20				20			
21				21				21			
22			~	22				22			
23				23				23			
24				24				24			
25				25	~	~	~	25	~	~	~
26				26				26			
27	~	~	~	27				27			
28	~	~	~	28				28			
29				29				29			
30				30				30			
31				31	↕			31			
32				32	↕			32			

Legend: ↕ strips inter-connected
 X = bond missing / = bond broken ~ = bond damaged

Overall detector status:
 (e.g. dusty surface, scratches, dirty frame and/or cable, status of telescope can ...)

E front		E back				
Chip 1 or shaper 3	15	15	15			
	14	14	14			
	13	13	13			
	Chip 0 or shaper 2	15	15	15		
		14	14	14		
		13	13	13		
		Chip 1 or shaper 1	15	15	15	
			14	14	14	
			13	13	13	
			Chip 0 or shaper 0	15	15	15
				14	14	14
				13	13	13
				12	12	12
				11	11	11
				10	10	10
				9	9	9
				8	8	8
				7	7	7
				6	6	6
				5	5	5
				4	4	4
				3	3	3
				2	2	2
				1	1	1
				chn 0	chn 0	chn 0
				electronics	electronics	electronics
				9-11-07	9-11-07	9-11-07

Noise tests of detector n.: 2085-14 in telescope n.: 7

Si-detector Inspection Record

Date: 9/18/08 Time: 3:00 pm Tel n.: 7

Inspected detector(s): F5

Detector number(s): 2085-14

What occasion: F removed to be substituted by new F detector

1st inspector: Mike Long

2nd inspector: Alister Smedley & Vladimir Herzl

WIREBONDS STATUS											
DE				E-front				E-back			
strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd
1				1				1			
2				2				2			
3				3				3			
4				4				4			
5				5				5			
6				6				6			
7				7				7			
8				8				8			
9				9				9			
10				10				10			
11				11				11			
12				12				12			
13				13				13			
14				14				14			
15				15				15			
16				16				16			
17				17				17			
18				18				18			
19				19				19			
20				20				20			
21				21				21			
22				22				22			
23				23				23			
24				24				24			
25				25				25			
26				26				26			
27				27				27			
28				28				28			
29				29				29			
30				30				30			
31				31				31			
32				32				32			

Legend:
 X = bond missing / = bond broken ~ = bond damaged

Overall detector status:
 (e.g. dusty surface, scratches, dirty frame and/or cable, status of telescope can ...)

x pad EF 6 appears damaged

Overall detector status:
 (e.g. dusty surface, scratches, dirty frame and/or cable, status of telescope can ...)
 all bonds on EF+EB seem to be OK

Legend:
 X = bond missing / = bond broken ~ = bond damaged

WIREBONDS STATUS												
DE				E-front				E-back				
strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd	
1				1				1				
2				2				2				
3				3				3				
4				4				4				
5				5				5				
6				6*				6				
7				7				7				
8				8				8				
9				9				9				
10				10				10				
11				11				11				
12				12				12				
13				13				13				
14				14				14				
15				15				15				
16				16				16				
17				17				17				
18				18				18				
19				19				19				
20				20				20				
21				21				21				
22				22				22				
23				23				23				
24				24				24				
25				25				25				
26				26				26				
27				27				27				
28				28				28				
29				29				29				
30				30				30				
31				31				31				
32				32				32				

Date: 09/23/08 Time: 2:40p Tel n.: 7
 Inspected detector(s): F
 Detector number(s): 25 72-4
 What occasion: Mounting new F for testing
 1st inspector: Atsuya Saketani
 2nd inspector: Vlad Hanzel