

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				9/16/07	dE, Ef, Eb
2				2				2					
3	X			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					

Legend:

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

Tape 3

AE = 2260-7
E = 2085-7b (M)

Detector Profile

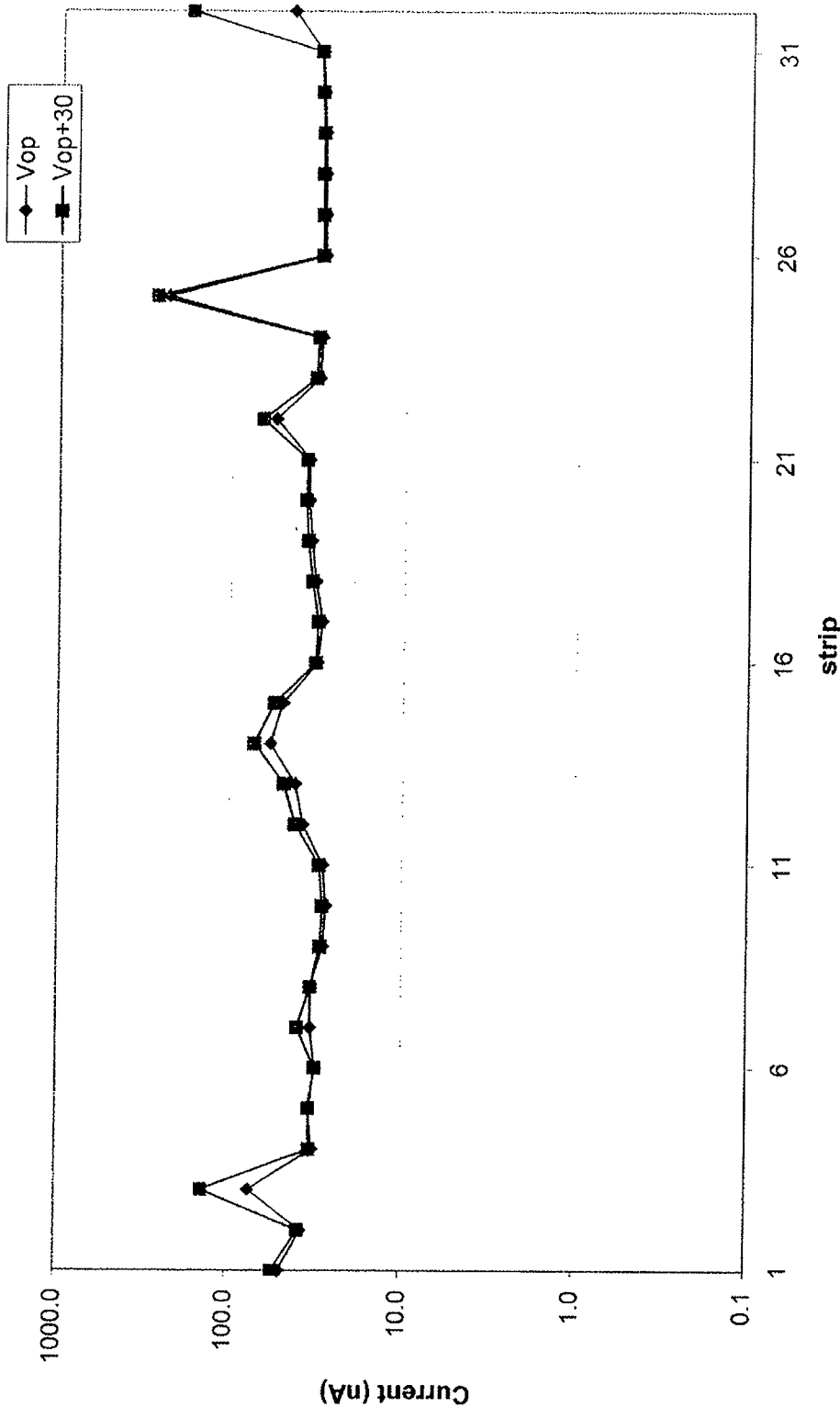
BB7-1500

Wafer No.: 2085-7 b

Thickness: 1488 um Vop.

365 Volts

Front Side Strip Leakage Current



Front Side Data

Strip	Current (nA)	Vop	Vop+30V
1	49.1	54	
2	37.3	38.7	
3	74.6	140	
4	32.3	33.7	
5	34.3	33.9	
6	31.3	31.5	
7	33.6	40	
8	33.7	33.6	
9	28.5	29.6	
10	27.6	28.9	
11	28.9	30.2	
12	37.7	41.8	
13	42	48.4	
14	57.9	72.1	
15	49.4	55.2	
16	31.6	32.3	
17	29.8	31.3	
18	32.5	34.1	
19	34.5	36.2	
20	35.8	37.3	
21	35.8	36.9	
22	55.4	66.2	
23	31.6	32.9	
24	30.6	31.8	
25	234	273.2	
26	29.4	30.6	
27	29.5	30.6	
28	29.7	30.8	
29	30	30.7	
30	30.8	31.3	
31	31.6	31.8	
32	45.9	177.6	
total	1316.7	1687.2	

INDIANA UNIVERSITY

BACK RESISTANCE MEASUREMENT:

DATE: 25/06/03
DEVICE TYPE: HIRA BB7-D/S-1500
DEVICE NUMBER: 2085-7b
THICKNESS: 1488uM
OPERATING VOLTAGE: 365V

CHANNEL	OV	V.OP	V.OP + 30V
1-2	1.8KΩ	>1MΩ	>1MΩ
2-3	1.7KΩ	>1MΩ	>1MΩ
3-4	1.7KΩ	>1MΩ	>1MΩ
4-5	1.7KΩ	>1MΩ	>1MΩ
5-6	1.7KΩ	>1MΩ	>1MΩ
6-7	1.7KΩ	>1MΩ	>1MΩ
7-8	1.7KΩ	>1MΩ	918KΩ
8-9	1.7KΩ	644KΩ	531KΩ
9-10	1.7KΩ	>1MΩ	>1MΩ
10-11	1.7KΩ	>1MΩ	>1MΩ
11-12	2.0KΩ	>1MΩ	>1MΩ
12-13	1.9KΩ	>1MΩ	>1MΩ
13-14	1.8KΩ	>1MΩ	>1MΩ
14-15	1.6KΩ	>1MΩ	>1MΩ
15-16	1.5KΩ	>1MΩ	>1MΩ
16-17	1.5KΩ	884KΩ	>1MΩ
17-18	1.6KΩ	109KΩ	>1MΩ
18-19	1.6KΩ	118KΩ	>1MΩ
19-20	1.6KΩ	>1MΩ	>1MΩ
20-21	1.6KΩ	>1MΩ	>1MΩ
21-22	1.6KΩ	>1MΩ	>1MΩ
22-23	1.6KΩ	>1MΩ	>1MΩ
23-24	1.6KΩ	>1MΩ	>1MΩ
24-25	1.7KΩ	>1MΩ	>1MΩ
25-26	2.0KΩ	>1MΩ	>1MΩ
26-27	1.8KΩ	>1MΩ	>1MΩ
27-28	1.8KΩ	>1MΩ	>1MΩ
28-29	1.7KΩ	>1MΩ	>1MΩ
29-30	1.8KΩ	>1MΩ	>1MΩ
30-31	2.1KΩ	>1MΩ	>1MΩ
31-32	1.7KΩ	>1MΩ	>1MΩ

Resolution Test

HIRA BB7-1500

Wafer No.: 2085-7

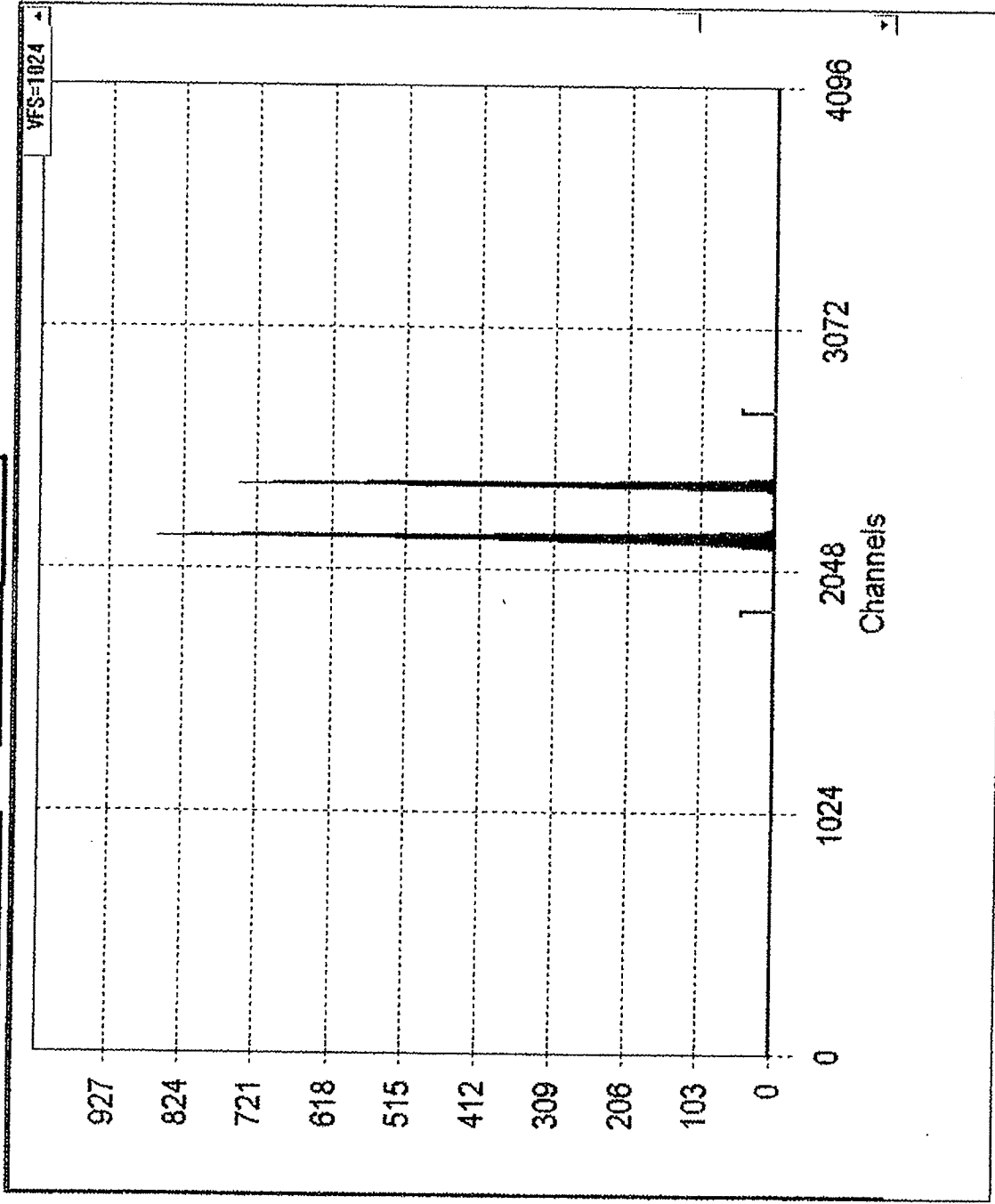
Thickness: 1488 μm

JUNCTION

DET LINE: 50.8 KeV
SYSTEM: 39 KeV
CAL: 32.6 KeV

DHMIC

DET LINE: 52.6 KeV
SYSTEM: 38.6 KeV
CALC: 35.5 KeV



Source: Am 241

Rise Time: 1

Flat Top: 0

BIAS VOLTS = 3.8 V Leakage = 1800 nA

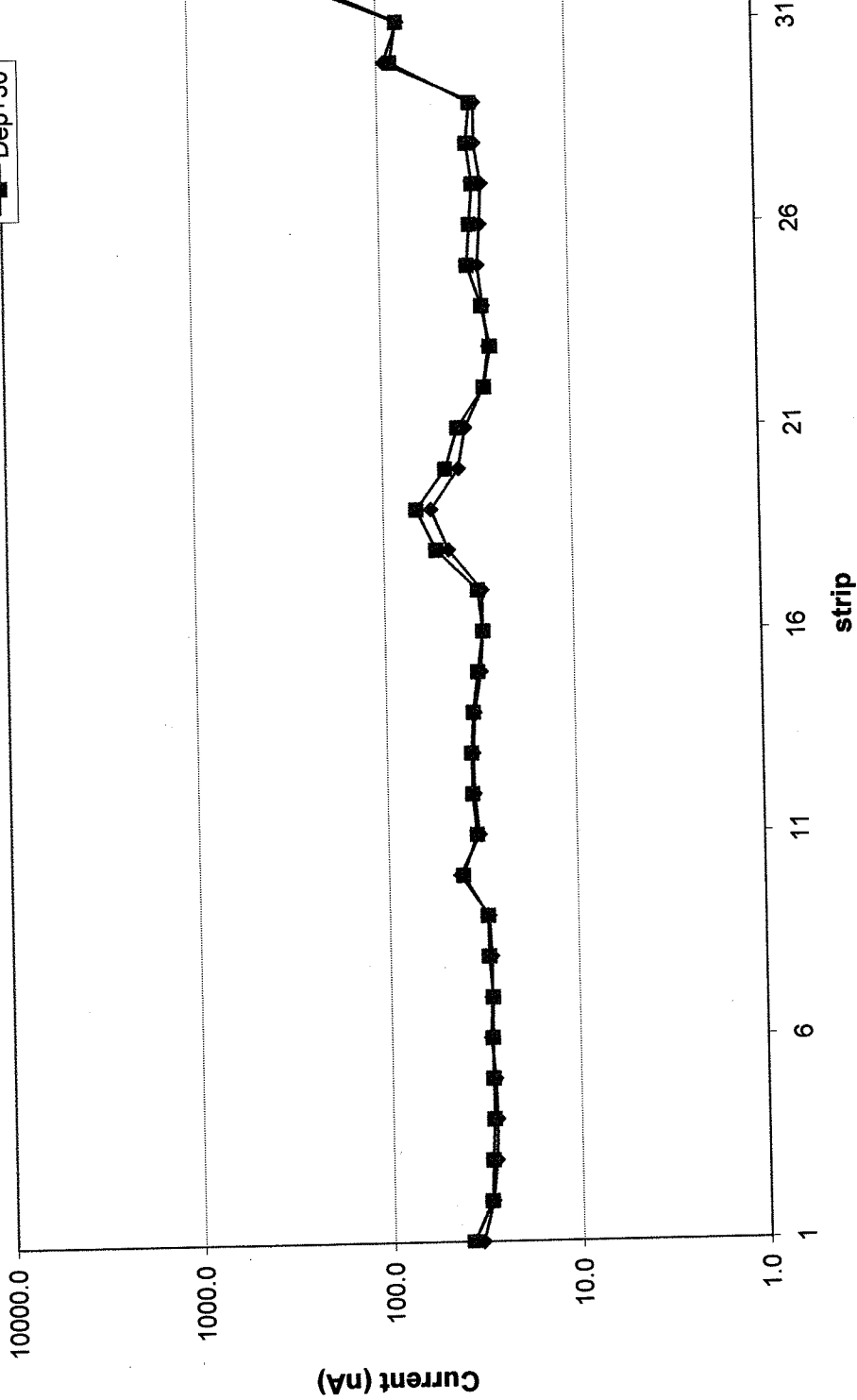
Detector Profile BB7-1500

Wafer No.: 2085-7B

Thickness: 1500 μm Vop. 320 Volts

Front Side Strip Leakage Current

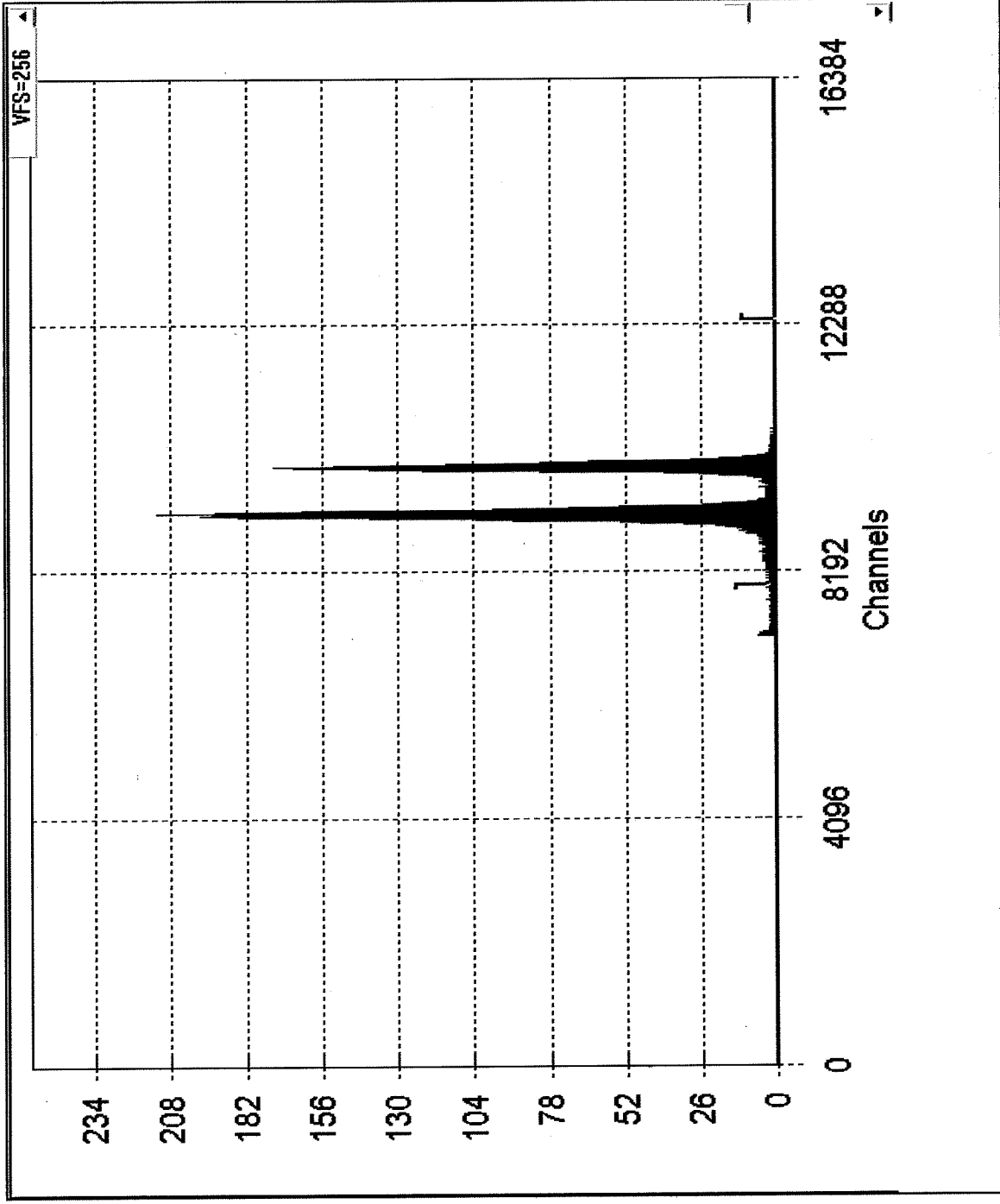
◆ Dep
■ Dep+30



Resolution Plot

HIRA BB7

Wafer No.: **2085-7B** Thickness: **1500 um**



LINE:	KeV
TEM:	KeV
	KeV

IC

LINE:	86.2 KeV
TEM:	65.1 KeV
C:	56.5 KeV

Source
Am 241

Rise Time
1

Flat Top
0

BIAS VOLTS= **400** V Leakage **1795** nA

Micron Semiconductor
30/10/2006

Vacuum 6.4×10^{-7} Torr (72 Hours)

Si-detector Inspection Record

Date: 9/16/07
 Time: 4:00pm
 Inspected detector(s): AT, ECP+G
 1st inspector: Udo HARTL
 2nd inspector: Jerry LEE

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

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

inspectors offer to be pulled down + vacuum inspection

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

indicated
steps before
and after
01533 exp

E front		E back	
Chip 1 or shaper 3		Chip 0 or shaper 2	
15	6	15	~2.0mV
14	6	14	~5.0mV
13	6	13	~10.0mV
12	6	12	~15.0mV
11	6	11	~20.0mV
10	6	10	~25.0mV
9	6	9	~30.0mV
8	6	8	~35.0mV
7	6	7	~40.0mV
6	6	6	~45.0mV
5	6	5	~50.0mV
4	6	4	~55.0mV
3	6	3	~60.0mV
2	6	2	~65.0mV
1	6	1	~70.0mV
chn 0	~25mV	chn 0	~80mV
15	6	15	~3.0
14	6	14	~3.0
13	6	13	~3.0
12	6	12	~3.0
11	6	11	~3.0
10	6	10	~3.0
9	6	9	~3.0
8	6	8	~3.0
7	6	7	~3.0
6	6	6	~3.0
5	6	5	~3.0
4	6	4	~3.0
3	6	3	~3.0
2	6	2	~3.0
1	6	1	~3.0
chn 0	~25mV	chn 0	~100mV
Chip 1 or shaper 1		Chip 0 or shaper 0	
15	3.7	15	~4.0/30
14	3.7	14	~4.0
13	3.7	13	~4.0
12	3.7	12	~4.0
11	3.7	11	~4.0
10	3.7	10	~4.0
9	3.7	9	~4.0
8	3.7	8	~4.0
7	~3.5mV	7	~4.0
6	~4.5mV	6	~4.0
5	~5.5mV	5	~4.0
4	3.7	4	~4.0
3	3.7	3	~4.0
2	3.7	2	~4.0
1	3.7	1	~4.0
chn 0	~5.5	chn 0	~4.0
15	~4.0	15	~4.0
14	~6.0	14	~4.0
13	3.7	13	~4.0
12	3.7	12	~4.0
11	3.7	11	~4.0
10	3.7	10	~4.0
9	3.7	9	~4.0
8	3.7	8	~4.0
7	~8.0mV	7	~4.0
6	3.7	6	~4.0
5	~5.5	5	~4.0
4	3.7	4	~4.0
3	3.7	3	~4.0
2	3.7	2	~4.0
1	3.7	1	~4.0
chn 0	3.7mV	chn 0	3.7mV
electronics	CLASSIC	electronics	CLASSIC
Date	8-30-07	Date	10-10-07
	CHIP		CHIP

Noise tests of detector n.: 2085-76 in telescope n.: 3

Si-detector Inspection Record

Date: 10/5/2007 Time: 2:30pm Tel n.: 3

Inspected detector(s): dE(2260-7) + E_p(208C-7b)

What occasion: dE part back in con

1st inspector: Urad HENZL

2nd inspector: David HARTLANT

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		X	miss	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		X		30				30			
31				31	↓			31			
32				32	↕	GR	X	32			X

Legend: ⊗ strips meter connected / = bond broken ~ = bond damaged
 ↓ strips meter connected ⊗ wirebonds crossed

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