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				9/22/07	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				32					

+ shorted to GR

Legend:

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

Tab 5

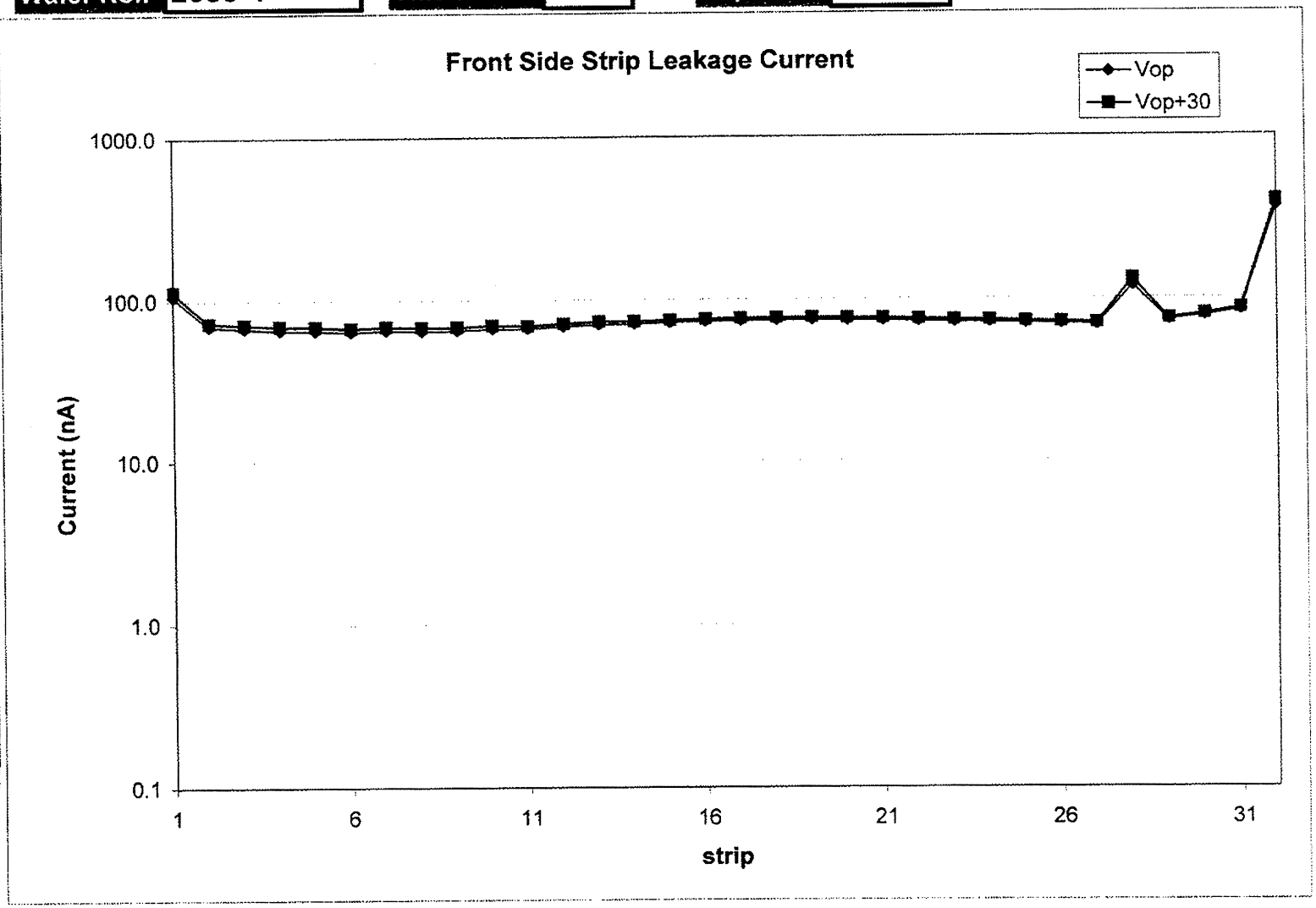
ΔE = 2086-7
E = 2087-4

Detector Profile BB7-1500

Front Side Data

Wafer No.: 2085-4 **Thickness:** 1499 um **Vop.** 280 Volts

Strip	Current(nA) Dep	Dep+30
1	105.95	113.29
2	68.61	72.21
3	66.61	70.27
4	64.64	68.72
5	64.11	68.16
6	63	66.44
7	64.32	67.75
8	63.82	67.06
9	64.16	67.23
10	65.73	68.84
11	65.4	68.27
12	67.58	70.51
13	69.45	72.41
14	69.98	72.78
15	71.17	73.94
16	72.13	74.83
17	73.17	75.88
18	73.29	76.01
19	73.74	76.4
20	73.17	75.74
21	73.14	75.6
22	72.03	74.43
23	71.13	73.46
24	70.7	72.99
25	69.57	71.75
26	68.91	70.92
27	67.95	69.93
28	117.81	128.79
29	72.14	74.22
30	76.71	78.99
31	83.2	85.71
32	361.3	393.1
total	2604.6	2736.63



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%

Micron Semiconductor

15/07/03

Resolution Plot

HIRA BB7-1500

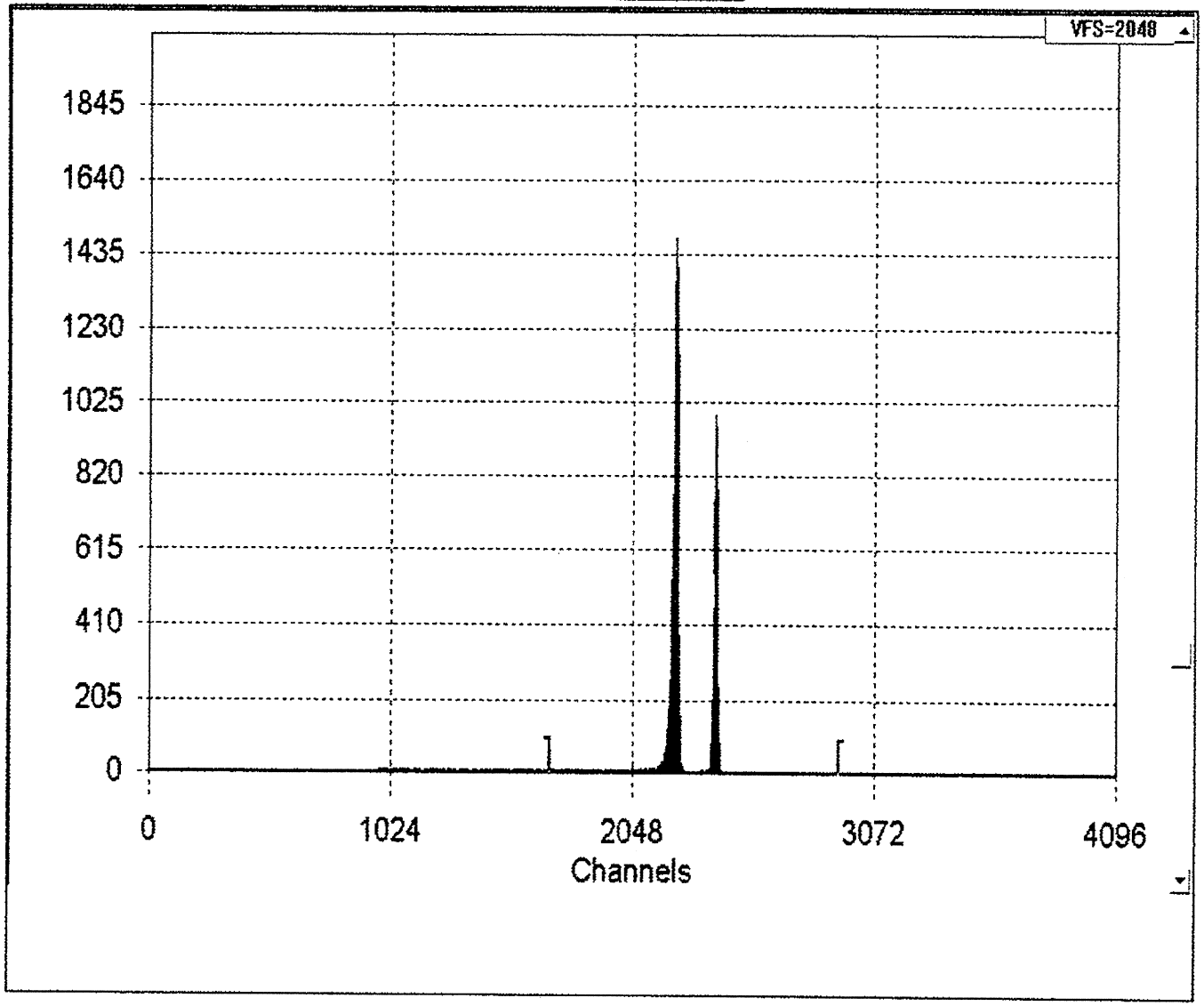
Wafer No.: 2085-4 **Thickness:** 1499 um

UNCTION

DET LINE:	51.1	KeV
SYSTEM:	39	KeV
CAL:	33	KeV

OHMIC

DET LINE:	51.6	KeV
SYSTEM:	38.8	KeV
CALC:	33.9	KeV



Source Am 241

Rise Time 1

Flat Top 0

BIAS VOLTS= 310 V **Leakage** 1950 nA

Micron Semiconductor
11/07/2003

INDIANA UNIVERSITY
BACK RESISTANCE MEASUREMENT:

DATE: 14/07/03
DEVICE TYPE: HIRA BB7-D/S-1500
DEVICE NUMBER: 2085-4
THICKNESS: 1499uM
OPERATING VOLTAGE: 280V

CHANNEL	OV	V.OP	V.OP + 30V
1-2	1.9KΩ	114KΩ	>1MΩ
2-3	2.4KΩ	>1MΩ	>2MΩ
3-4	2.5KΩ	>1MΩ	>2MΩ
4-5	2.5KΩ	>1MΩ	>2MΩ
5-6	2.4KΩ	>1MΩ	>1MΩ
6-7	2.4KΩ	178KΩ	>1MΩ
7-8	2.4KΩ	132KΩ	>1MΩ
8-9	2.4KΩ	117KΩ	>1MΩ
9-10	2.4KΩ	104KΩ	>1MΩ
10-11	2.4KΩ	795KΩ	>1MΩ
11-12	2.3KΩ	165KΩ	>1MΩ
12-13	2.4KΩ	131KΩ	>1MΩ
13-14	2.5KΩ	146KΩ	>1MΩ
14-15	2.5KΩ	>1MΩ	>2MΩ
15-16	2.5KΩ	>1MΩ	>2MΩ
16-17	2.5KΩ	>1MΩ	>2MΩ
17-18	2.5KΩ	>1MΩ	>2MΩ
18-19	2.5KΩ	190KΩ	>1MΩ
19-20	2.5KΩ	196KΩ	>1MΩ
20-21	2.4KΩ	>1MΩ	>2MΩ
21-22	2.4KΩ	>1MΩ	>2MΩ
22-23	2.3KΩ	>1MΩ	>2MΩ
23-24	2.4KΩ	>1MΩ	>2MΩ
24-25	2.5KΩ	>1MΩ	>2MΩ
25-26	2.5KΩ	>1MΩ	>2MΩ
26-27	2.5KΩ	>1MΩ	>2MΩ
27-28	2.5KΩ	>1MΩ	>2MΩ
28-29	2.5KΩ	>1MΩ	>2MΩ
29-30	2.6KΩ	175KΩ	>1MΩ
30-31	2.5KΩ	189KΩ	>1MΩ
31-32	2.4KΩ	142KΩ	>1MΩ

Si-detector Inspection Record

Date: 9/22/07 **Time:** 21:30

Tel n.: 5 **Inspected detector(s):** dE + E(f+b)

1st inspector: Vlad HENZL

2nd inspector: Andy ROGERS

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:

+ shorted to GE (smashed)

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

*garbage underneath wirebonds, dusty

dE dimple between strip 16/17 (in interstrip gap)

dE * subtle discoloration on 9 and 29/30 (stress residue?)

Eb - all wirebonds seem OK

Noise tests of detector n.: 2085-4 in telescope n.: 5

			8-31-07	10-31-07								
	Date											
	electronics		CLASIC	CHIP								
E back	**Chip 0 or shaper 0**	chn 0	4 mV	~320 mV								
		1	4	72								
		2	15 mV	72								
		3	15 mV	70								
		4	~20 mV	60								
		5	15	56								
		6	10	70/95								
		7	12	56								
		8	5	56								
		9	5	54								
		10	5	~80								
		11	5	~90								
		12	5	~80								
		13	5	53								
		14	8 mV	53								
		15	~70 mV	54								
	Chip 1 or shaper 1	chn 0	~200 mV	~80								
		1	4	85								
		2	4	75								
		3	4	70								
		4	~30/50	60								
		5	15/30	54								
		6	~8 mV	65/80								
		7	~20/30	55/70								
		8	4	60/75								
		9	4	55								
		10	4	~70								
		11	4	~140								
		12	4	~65								
		13	4	51								
		14	~15/30	51								
		15	4	~340 mV								
E front	**Chip 0 or shaper 2**	chn 0	~8 mV	~135 mV								
		1	5	35								
		2	8	35								
		3	80/200	35								
		4	5	35								
		5	5	35								
		6	5	~500 mV								
		7	5	35								
		8	5	35								
		9	80/200	35								
		10	5	35								
		11	5	35								
		12	5	~560 mV								
		13	5	35								
		14	5	35								
		15	25/50	35								
	Chip 1 or shaper 3	chn 0	35/50	35								
		1	80/200	35								
		2	80/200	35								
		3	5	35								
		4	5	35								
		5	80/200	35								
		6	5	~320 mV								
		7	5	35								
		8	5	35								
		9	90/200	35								
		10	5	~250 mV								
		11	5	35								
		12	5	35								
		13	5	~300 mV								
		14	5	~260 mV								
		15	5	~150 mV								

often lost part of 01533cup

Si-detector Inspection Record

Date: 10/12/2007 **Time:** 8:00 pm **Tel n.:** 5

Inspected detector(s): dE + E

Detector number(s): 2086-7

What occasion : renaëry dE

1st inspector: Vlad HENZL

2nd inspector: Daniela HENZLOVA

WIREBONDS STATUS

dE					E-front					E-back			
strip n.:	1st	2nd	3rd		strip n.:	1st	2nd	3rd		strip n.:	1st	2nd	3rd
1			~~X~~		1					1			
2			~		2					2			
3					3		~			3			
4					4					4			
5	~		~		5					5			
6					6					6			
7	~	~	~		7					7			
8	~	~~X~~	~		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~~ wirebonds crossed

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

Overall detector status:

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

dE surface foggy

Si-detector Inspection Record

Date: 5/8/2007 **Time:** 8:30 am **Tel n.:** 5

Inspected detector(s): dE+EF

Detector number(s): 20867 + 2085-4

What occasion : installing dE

1st inspector: Vlad HENZL

2nd inspector: Daniela 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	~	~	X		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 ...)

dE+EF surface cleaned with dry N2

dE surface dusty; wirebonds soldered to pads

Wirebonds on strips 29 and 30 on dE raised, were shorted to GD; while doing this 3rd bond on strip 30 came off