

**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			X	1				10/2/07	dE, EP, E6
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		X	X	12					
13				13				13					
14				14				14					
15				15				15					
16				16				16					
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28				28				28					
29				29				29					
30				30				30					
31				31				31					
32				32				32					

**Legend:**

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

T22 13

AE = 2266-8  
E = 2113-6

# INDIANA UNIVERSITY.

DATE: 19/02/03  
 DEVICE TYPE: BB7-1500 DOUBLE SIDED

DEVICE NUMBER: 2113-6  
 THICKNESS: 1473uM

## MEASUREMENT DATA IN AIR:

DEPLETION POINT: 270V  
 OPERATING VOLTAGE: 350V  
 TOTAL IR @ V.OP: 1.24uA  
 TOTAL IR @ V.OP+30V: 1.28uA  
 TOTAL VB @ 10uA: >400V

Channel	IR@V.op	IR@V.op+30V	VB@10uA	Inter cathode resistance @ 0V (Ω)	Inter cathode resistance @ V.op	Inter cathode resistance @ V.op+30V
1	68.3nA	71.5nA	>400V	1.9K	>10M	>10M
2	2.0nA	2.8nA	>400V	1.9K	3.0M	6.4M
3	14.9nA	15.7nA	>400V	1.9K	3.0M	7.1M
4	20.8nA	21.4nA	>400V	2.4K	>10M	>10M
5	2.6nA	2.8nA	>400V	2.4K	>10M	>10M
6	20.5nA	71.4nA	>400V	1.9K	>10M	>10M
7	2.6nA	2.9nA	>400V	2.3K	>10M	>10M
8	72.1nA	72.3nA	>400V	1.9K	>10M	>10M
9	4.7nA	5.0nA	>400V	1.9K	447k	>10M
10	2.5nA	2.8nA	>400V	1.9K	>10M	>10M
11	4.1nA	4.2nA	>400V	1.8K	634k	>10M
12	63.5nA	64.8nA	>400V	1.8K	>10M	>10M
13	4.1nA	4.4nA	>400V	1.8K	>10M	>10M
14	3.0nA	3.2nA	>400V	1.8K	>10M	>10M
15	70.3nA	72.1nA	>400V	1.8K	421k	>10M
16	2.4nA	2.9nA	>400V	1.8K	104k	>10M
17	4.1nA	4.3nA	>400V	1.8K	506k	>10M
18	63.5nA	64.5nA	>400V	1.8K	105k	>10M
19	3.8nA	4.3nA	>400V	1.8K	390k	>10M
20	3.9nA	4.2nA	>400V	1.8K	114k	>10M
21	3.6nA	4.0nA	>400V	1.9K	>10M	>10M
22	3.4nA	4.0nA	>400V	1.9K	201k	>10M
23	14.8nA	15.7nA	>400V	1.8K	>10M	>10M
24	6.7nA	7.1nA	>400V	1.9K	>10M	>10M
25	45.6nA	46.4nA	>400V	1.9K	>10M	>10M
26	6.8nA	7.8nA	>400V	1.5K	>10M	>10M
27	24.7nA	25.0nA	>400V	2.3K	>10M	>10M
28	26.3nA	27.1nA	>400V	2.2K	>10M	>10M
29	4.1nA	4.3nA	>400V	2.2K	>10M	>10M
30	70.5nA	72.1nA	>400V	2.3K	>10M	>10M
31	4.0nA	4.2nA	>400V	2.3K	1.1M	>10M
32	83.5nA	85.7nA	>400V			

# Resolution Plot

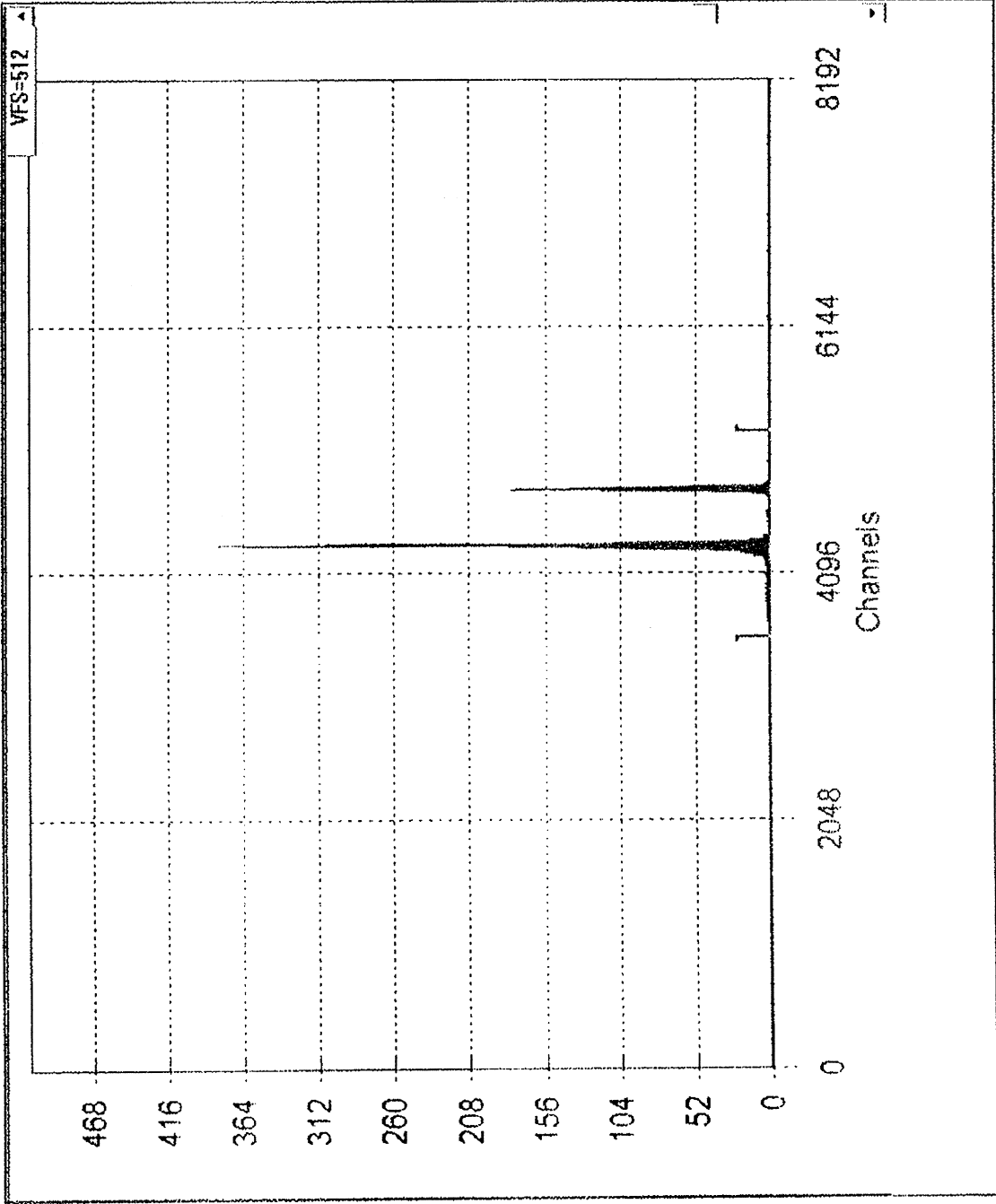
HIRA BB7-1500

Water No. **2113-6**

Thickness: **1473**  $\mu\text{m}$

48.1 KeV  
37.7 KeV  
29.9 KeV

52.1 KeV  
37.8 KeV  
35.8 KeV



Source  
Am 241

Rise Time  
1

Flat Top  
0

MICROPROCESSOR

FEB 2003

QUALITY CONTROL  
QUALITY ENGINEER  
SUSAN HUI

BIAS VOLTS = **350** V      Leakage **1500** nA

Micron Semiconductor  
21/02/2003

# Si-detector Inspection Record

Date: 16/02/2007  
 Time: 10:00pm  
 Inspected detector(s): 01E(2266-8)+E(2113-6)

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	X			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		X	X	12				
13				13				13				
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30				30				30				
31				31				31				
32				32				32				

**Overall detector status:**  
 E1 surface must be drops - does not seem to affect  
 E2 functionality  
 E3 wire bonds fine

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

identical  
before and  
after test  
of 05/13

E front		E back	
<b>Chip 1 or shaper 3</b>		<b>Chip 0 or shaper 2</b>	
15	60mV	chn 0	25mV
14	35	15	15
13	35	14	35
12	35	13	35
11	35	12	35
10	35	11	35
9	35	10	35
8	35	9	35
7	35	8	35
6	35	7	35
5	35	6	35
4	35	5	35
3	35	4	35
2	35	3	35
1	35	2	35
chn 0	35	1	35
<b>Chip 0 or shaper 1</b>		<b>Chip 1 or shaper 1</b>	
15	40	15	30
14	40	14	30
13	40	13	30
12	40	12	30
11	40	11	30
10	40	10	30
9	40	9	30
8	40	8	30
7	40	7	30
6	40	6	30
5	40	5	30
4	40	4	30
3	40	3	30
2	40	2	30
1	40	1	30
chn 0	40	chn 0	30
<b>Chip 0 or shaper 0</b>		<b>Chip 0 or shaper 0</b>	
15	45mV	15	30
14	35	14	30
13	35	13	30
12	35	12	30
11	35	11	30
10	35	10	30
9	35	9	30
8	35	8	30
7	35	7	30
6	35	6	30
5	35	5	30
4	35	4	30
3	35	3	30
2	35	2	30
1	35	1	30
chn 0	35	chn 0	30
Date		Date	
electronics		electronics	
Chip		Chip	
ASIC		ASIC	
10-10-07		10-10-07	
10-11-07		10-11-07	
Noise tests of detector n.:		Noise tests of detector n.:	
in telescope n.:		in telescope n.:	

# Si-detector Inspection Record

Date: 10/5/2007 Time: 9:30 pm Tel n.: 13  
 Inspected detector(s): dE(2266-8) + E<sub>2</sub>(2113-6)  
 What occasion: dE part back in case  
 1st inspector: Vad HENZL  
 2nd inspector: Daniela HENZLOWA

WIREBONDS STATUS												
dE				E-front				E-back				
strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd	strip n.:	1st	2nd	3rd	
1				1	X			1				
2				2				2				
3	~			3	X			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	X	X		12				
13				13				13				
14				14				14				
15				15				15				
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31				31				31				
32				32				32				

**Legend:** X = bond missing / = bond broken ~ = bond damaged  
 ✗ wirebonds crossed

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