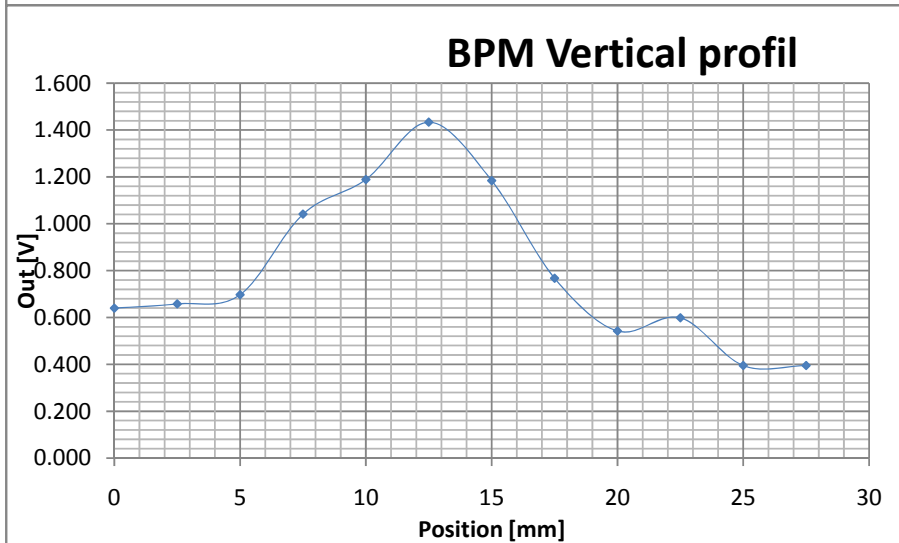BPM test 30 of May to 1 of June
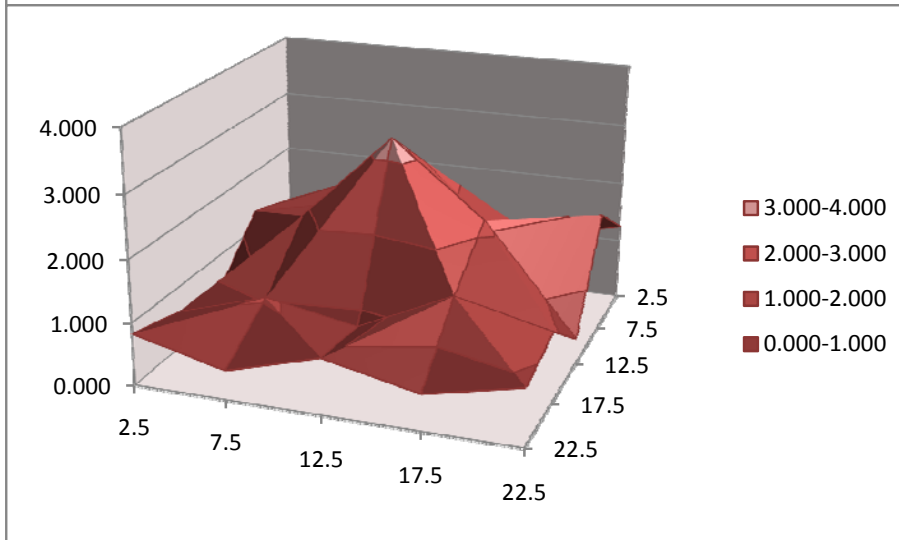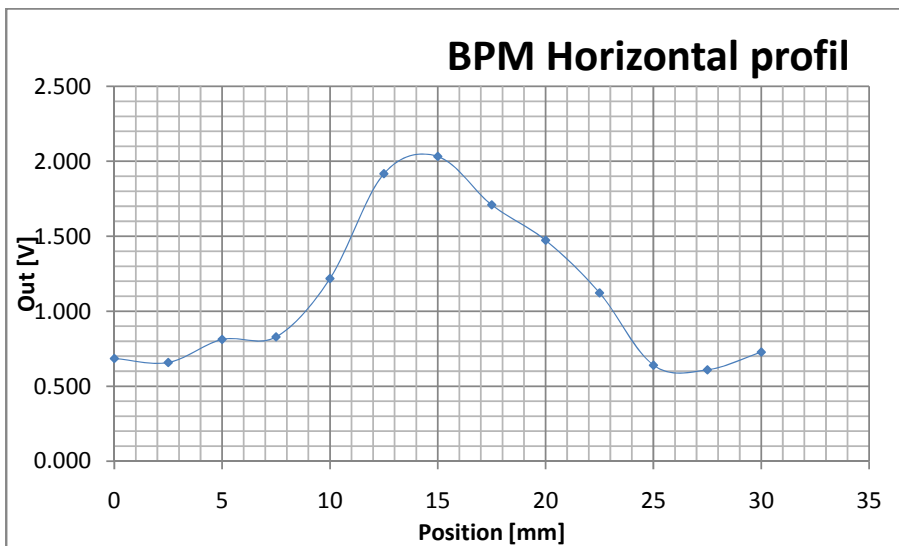
BPM Horizontal profil

BPM Vertical profil

Connnection: Old-BPM-Detector-Gnd Coax – Gnd Coax to BPM-Box
                     All other Pad Connected to the integrators

BPM to PAD (3) Bottom Left Corner (Normally very low beam!)

Connnection: BPM-Detector-Gnd Twist-cable – Gnd Twist-cable to BPM-Box
                     All other Pad connected to the GND

BPM to PAD V2(41)   (Normally very low beam!)

Acquisition Time Profile

Connnection: BPM-Detector-Gnd Twist-cable – Gnd Twist-cable to BPM-Box
                    All other Pad to the GND
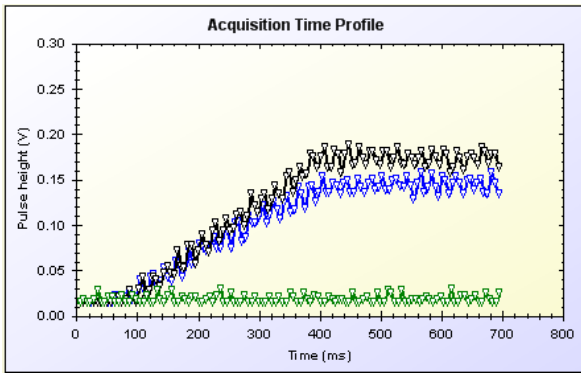BPM to PAD 13(32) (Center of the Beam)

Acquisition Time Profile
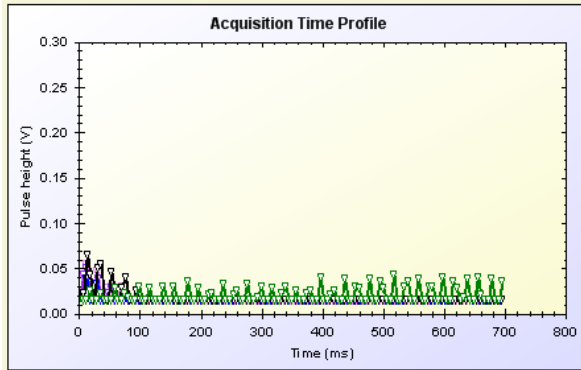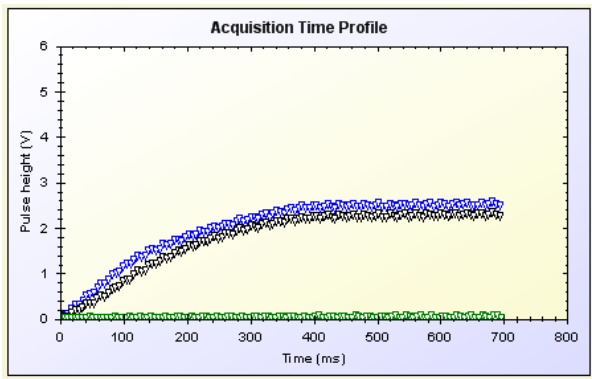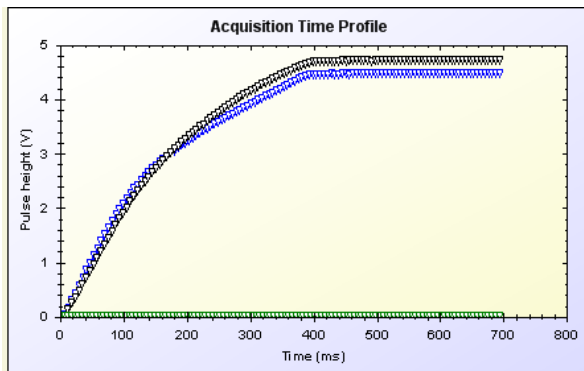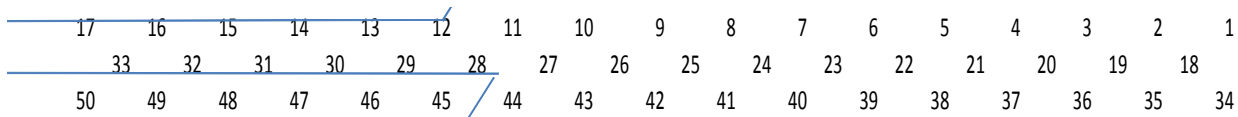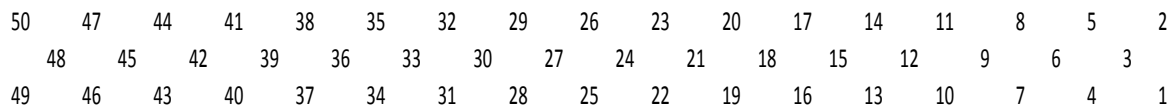
Connnection: Old-BPM-Detector-Gnd Coax – Gnd Coax to BPM-Box
                    All other Pad Connected to the integrators
BPM to PAD (15) Central PAD   (Center of the Beam)

Conclusions :
Work well ! The probleme was the connectors ! The conectors where I use to find the PAD and the connector pin where mark 1 to 17 form the right to the left on the firs row and 18 to 33 and 34 to 50 for the last row, and it was the email I send to you and you say it was OK. This was done several weeks ago !

17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18
	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34

Now when I did the test the connector on the flat cable was different !!!

50	47	44	41	38	35	32	29	26	23	20	17	14	11	8	5	2
48	45	42	39	36	33	30	27	24	21	18	15	12	9	6	3
49	46	43	40	37	34	31	28	25	22	19	16	13	10	7	4	1

Then I tested the pixel on the center it was not in the beam !!!!

The profiles on the top of the document was donne without to gound all the channels where not used during the measurment → Big noise and crostalk >= 0.8 to 1 V but to difficult to have do measurment of all the 50 channels !

The Last four graphics, you can see the intregration for one channel at the time, for :
        Old BPM :   Central PAD, one PAD on thge bottom left side.

New BPM :   Central PAD, Central Vertical Strip and the first strip on the left.
There I grounded all the channels was not connected to the intgrator to reduce the noise and the crosstalk.
Need well shielding around the connector inside the beam area to reduce a litle bit the noise.

Pad New BPM   = 21.2 mm2 Out integrator 2.6 V   = 122.9 mV/mm2
Pad Old BPM   = 64 mm2   Out integrator 4.8 V   = 75.0 mV/mm2
Pad New BPM / Pad Old BPM 164 %

M. Glaser 1/6/2009