

Coherent Diffraction Radiation experiment

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CERN

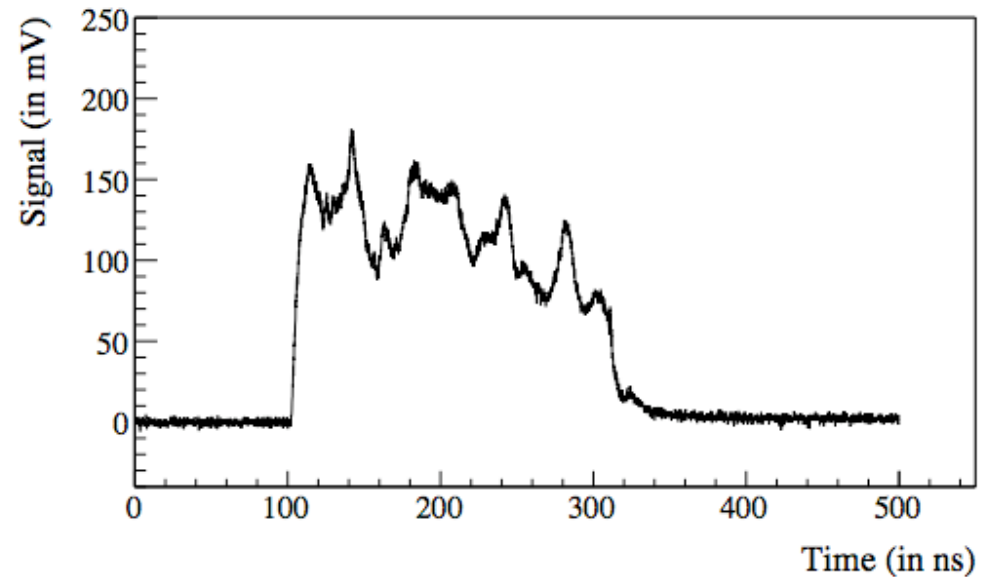
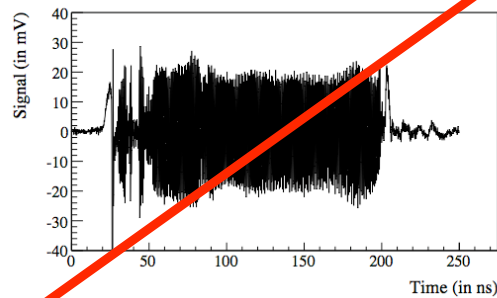
We also would like to acknowledge help of Dr. V. Antonov for target manufacturing and J. Taylor for the workshop efforts

December 11, 2008

Hardware changes since last CTF3 committee meeting:

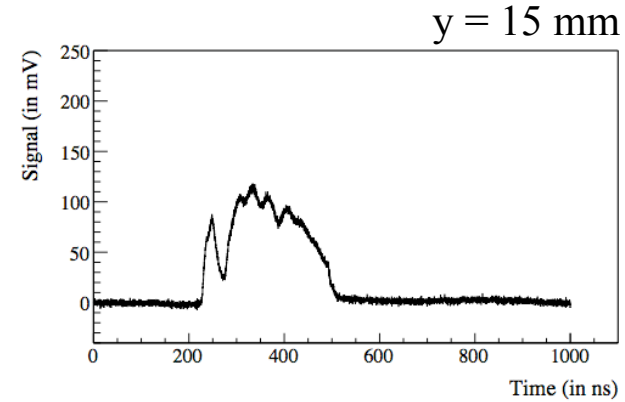
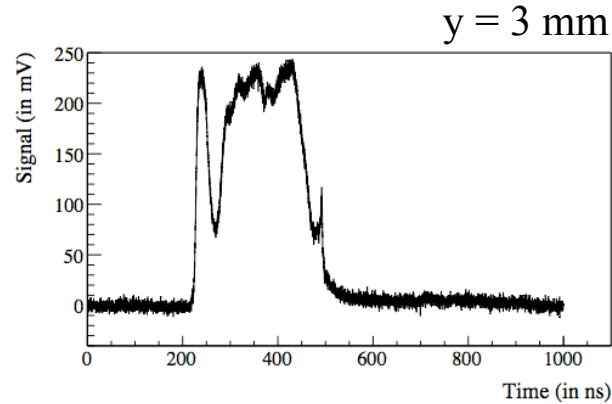
- Exchanged the Schottky barrier diode
→ We are now using a DXP12 (60 - 90 GHz) instead of the DXP19 (40 - 60 GHz)
- Exchanged some cabling to higher quality Heliax RF cables

Good news:

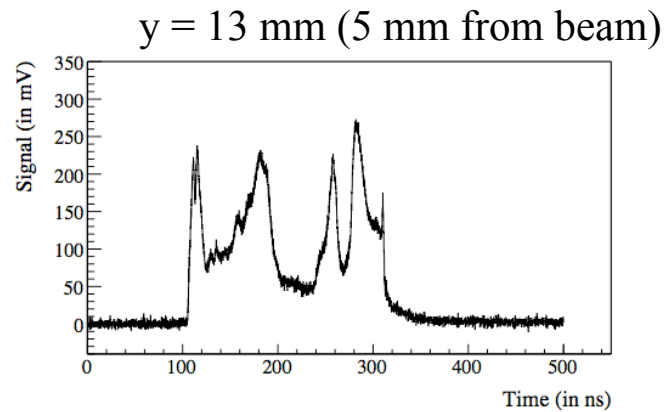


Thu Dec 11 12:47:55 2008

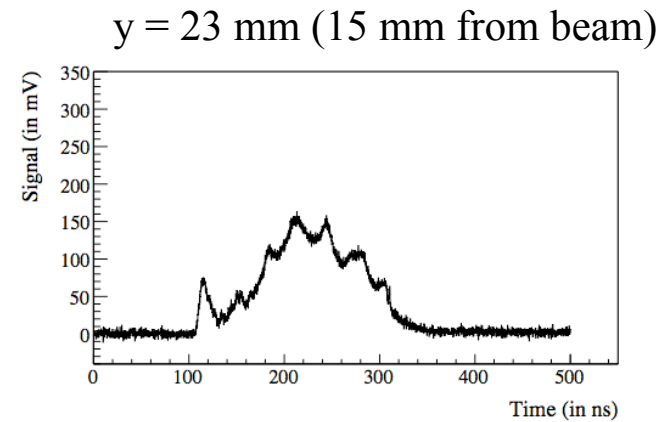
- CSR signal shapes



- CDR signal shapes



Thu Dec 11 13:20:29 2008

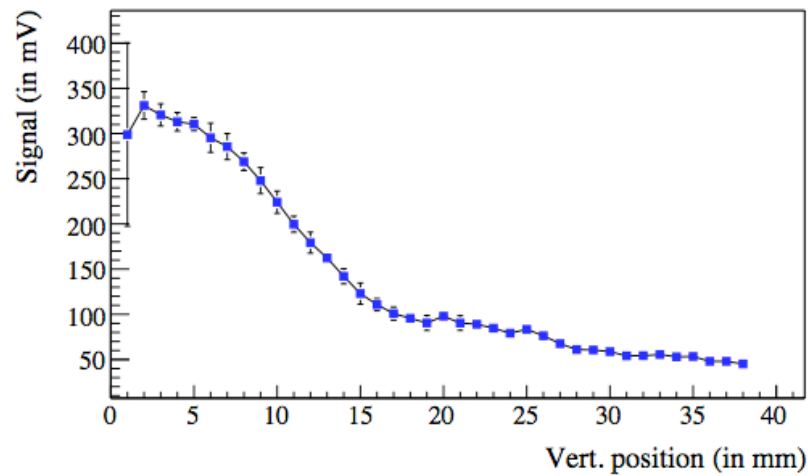


Thu Dec 11 13:21:25 2008

CSR signal dependences:

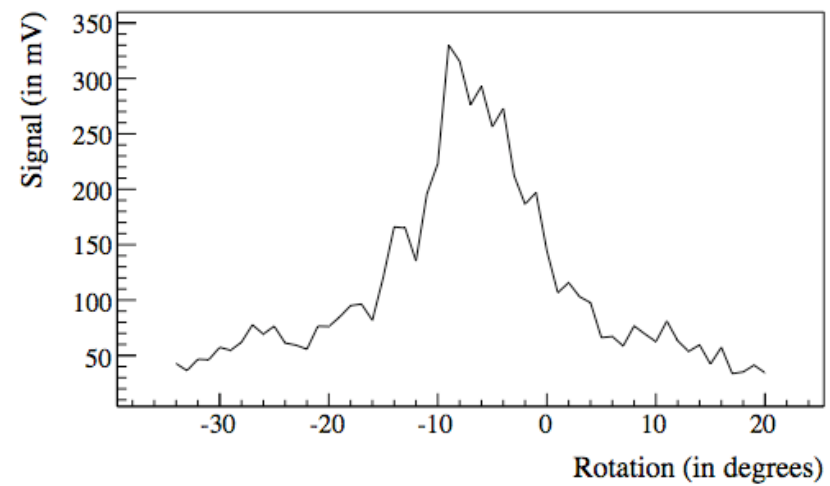
- Checked the signal level depending on the target position and orientation:

CSR position variation (Maximum)



Thu Dec 4 12:51:23 2008

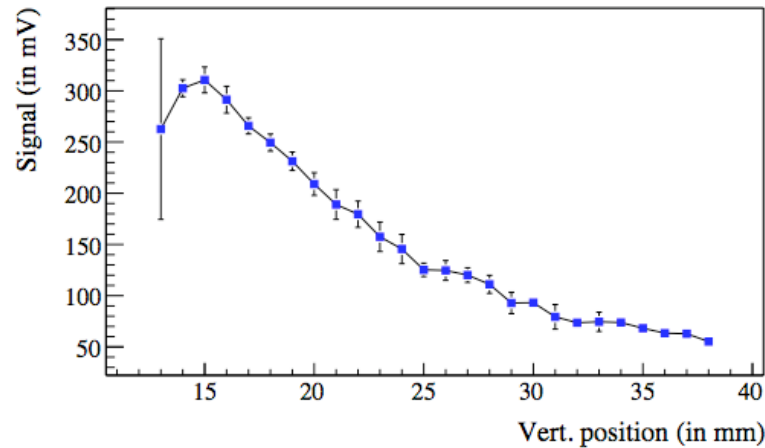
CSR rotation variation (Maximum)



CDR signal dependences:

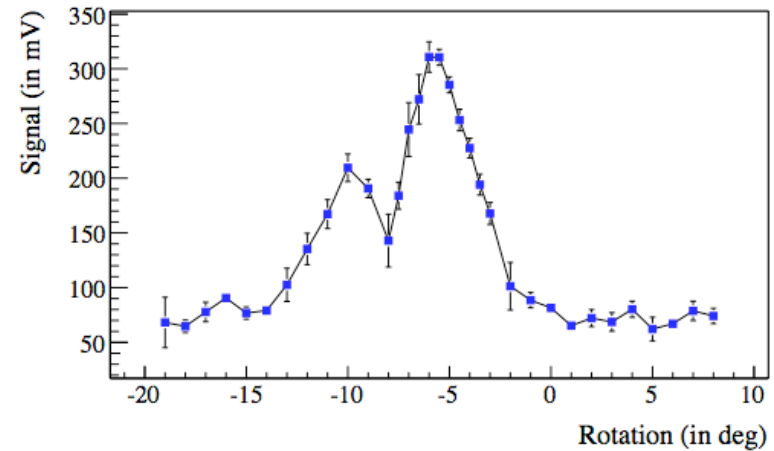
- Checked the signal level depending on the target position and orientation:

CDR position variation (Maximum)



Thu Dec 4 12:53:48 2008

CDR rotation variation (Maximum)



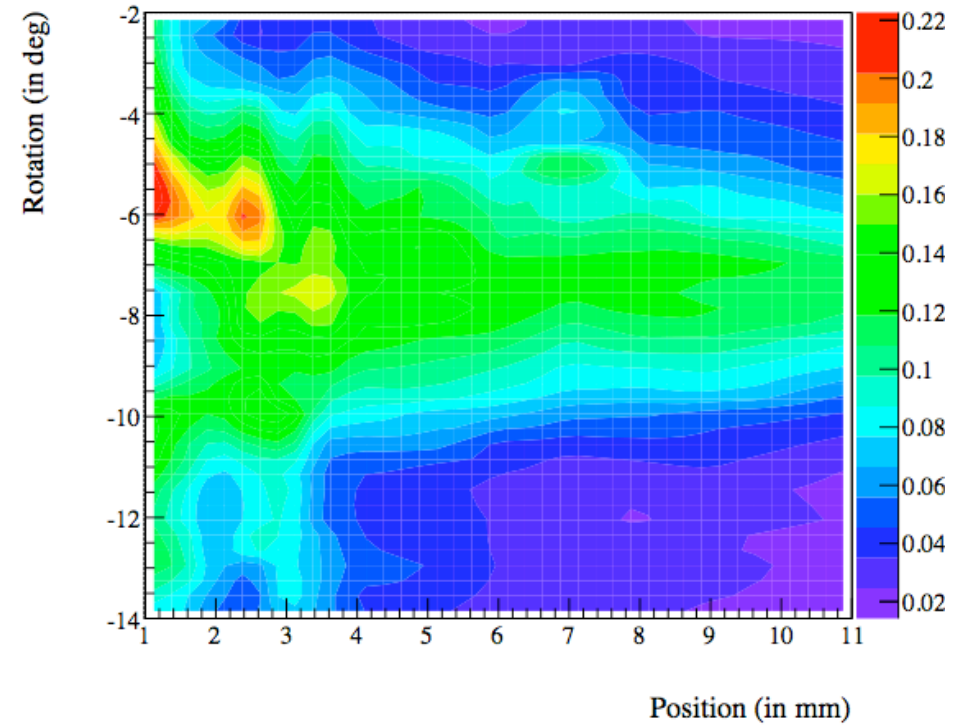
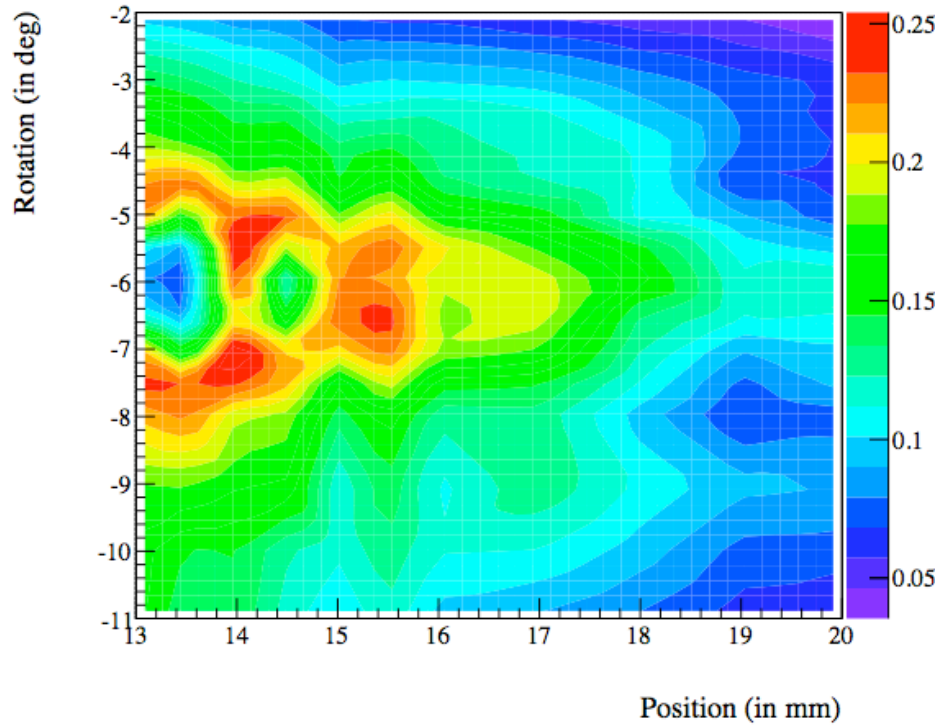
Thu Dec 4 13:01:38 2008

CDR & CSR:

- Performed 2d scans (position and rotation)

CDR 2D scan

CSR 2D scan



Mon Dec 8 14:32:59 2008

Mon Dec 8 23:03:00 2008

December 11, 2008

- After having encountered some problems in the beginning
 - Observed first real signals from CSR and CDR measurements
- Performed some measurements on CSR and CDR
 - consistent with what was expected
- I will be in the UK after Christmas until the end of February
 - Preparation of the interferometer

Summary for 2008:

Good start for the CDR experiment at CTF3 (at last)