Controlling of ACC1 by SIMCON 3.1

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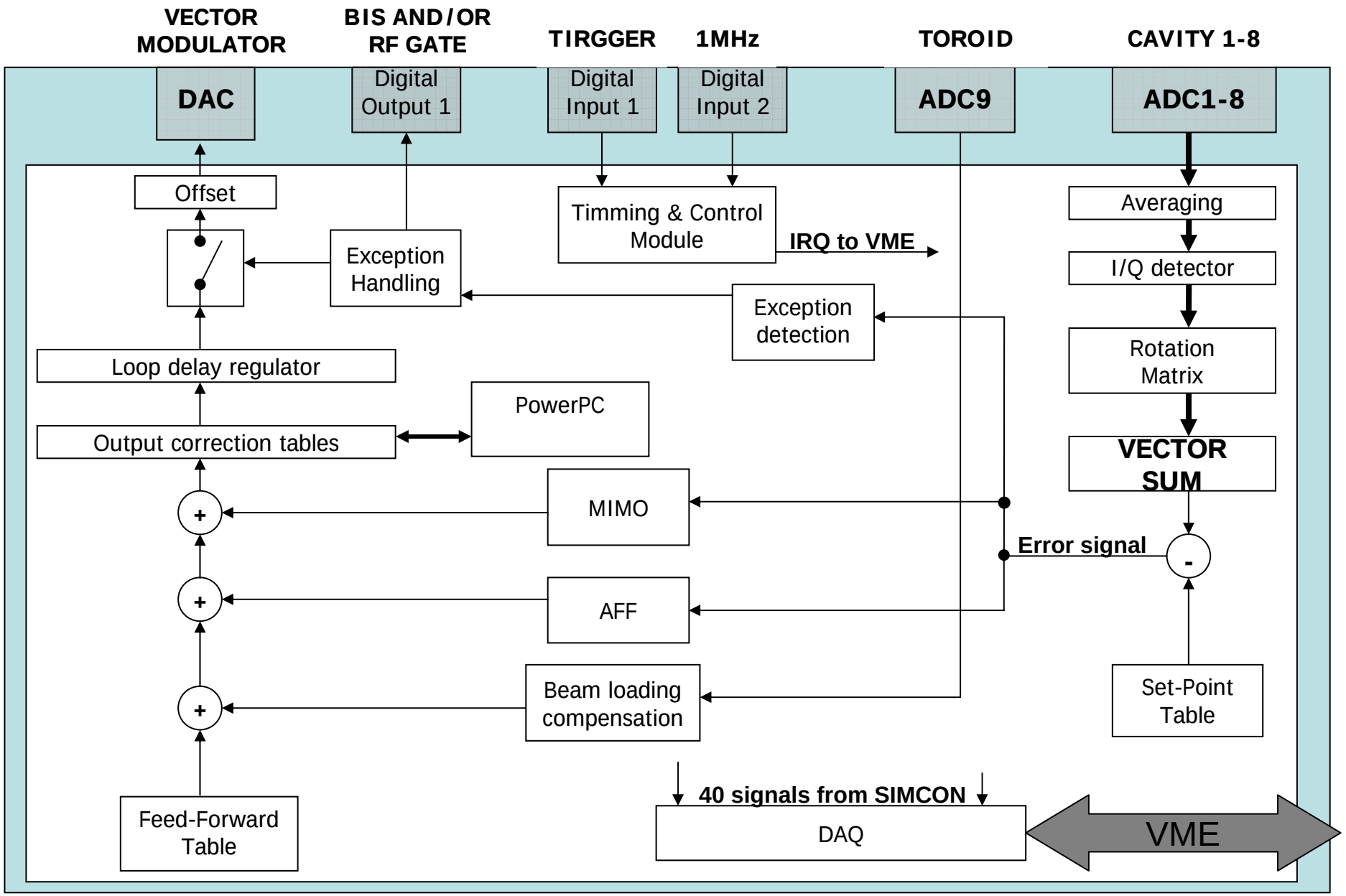
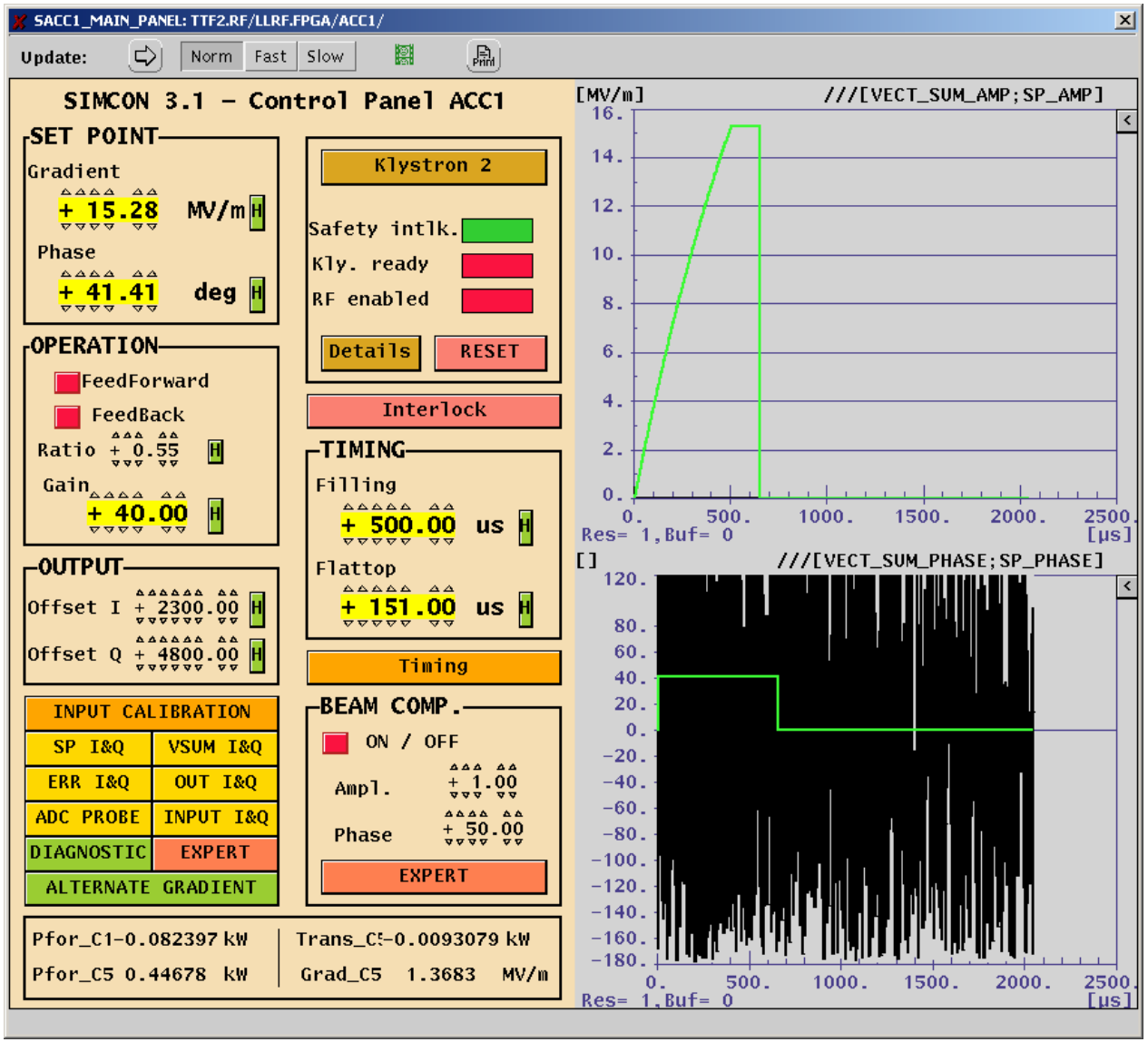
DESY

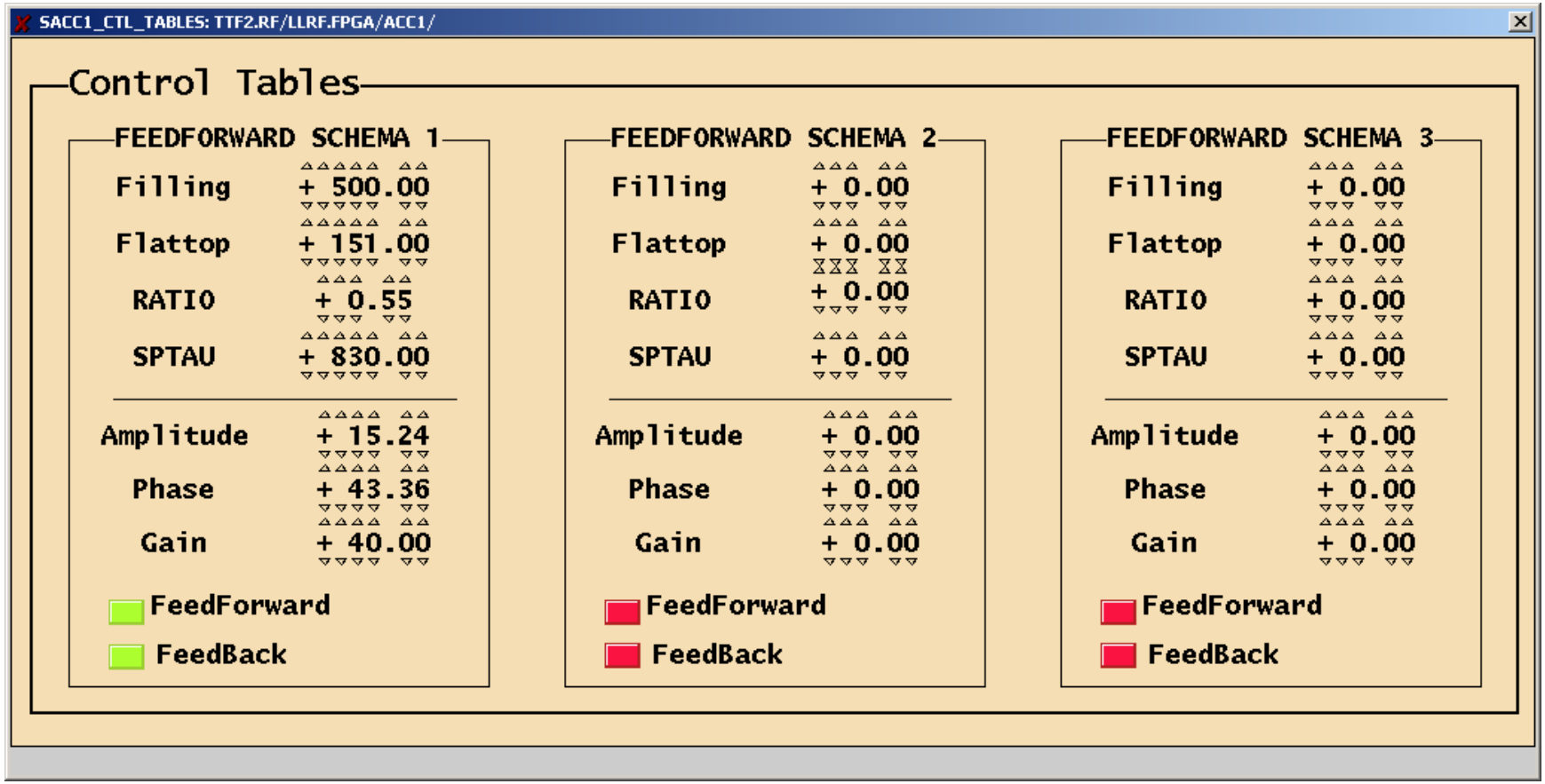
SIMCON 3.1 BOARD – FIRMWARE



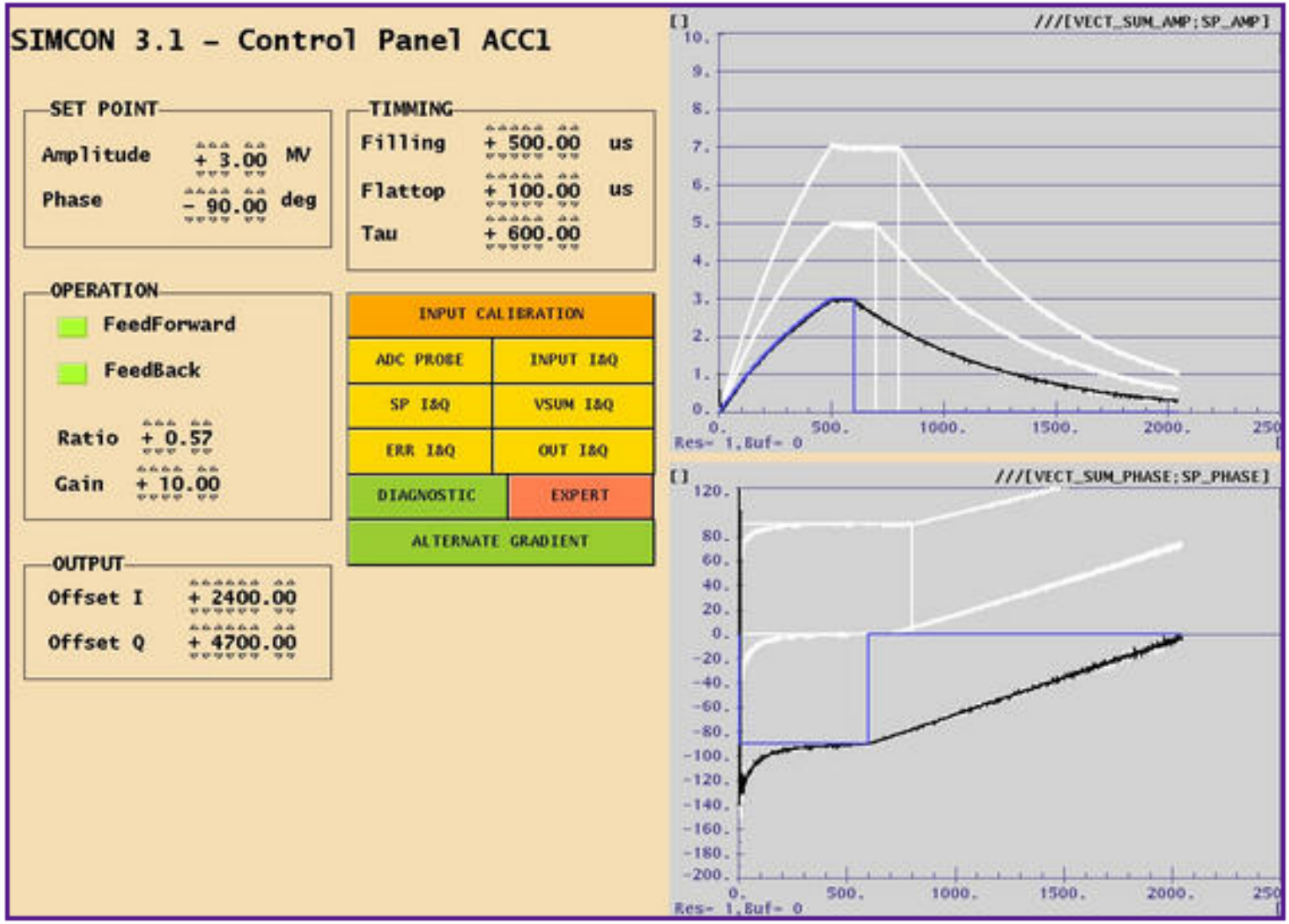
Control panel for SIMCON 3.1@ ACC1



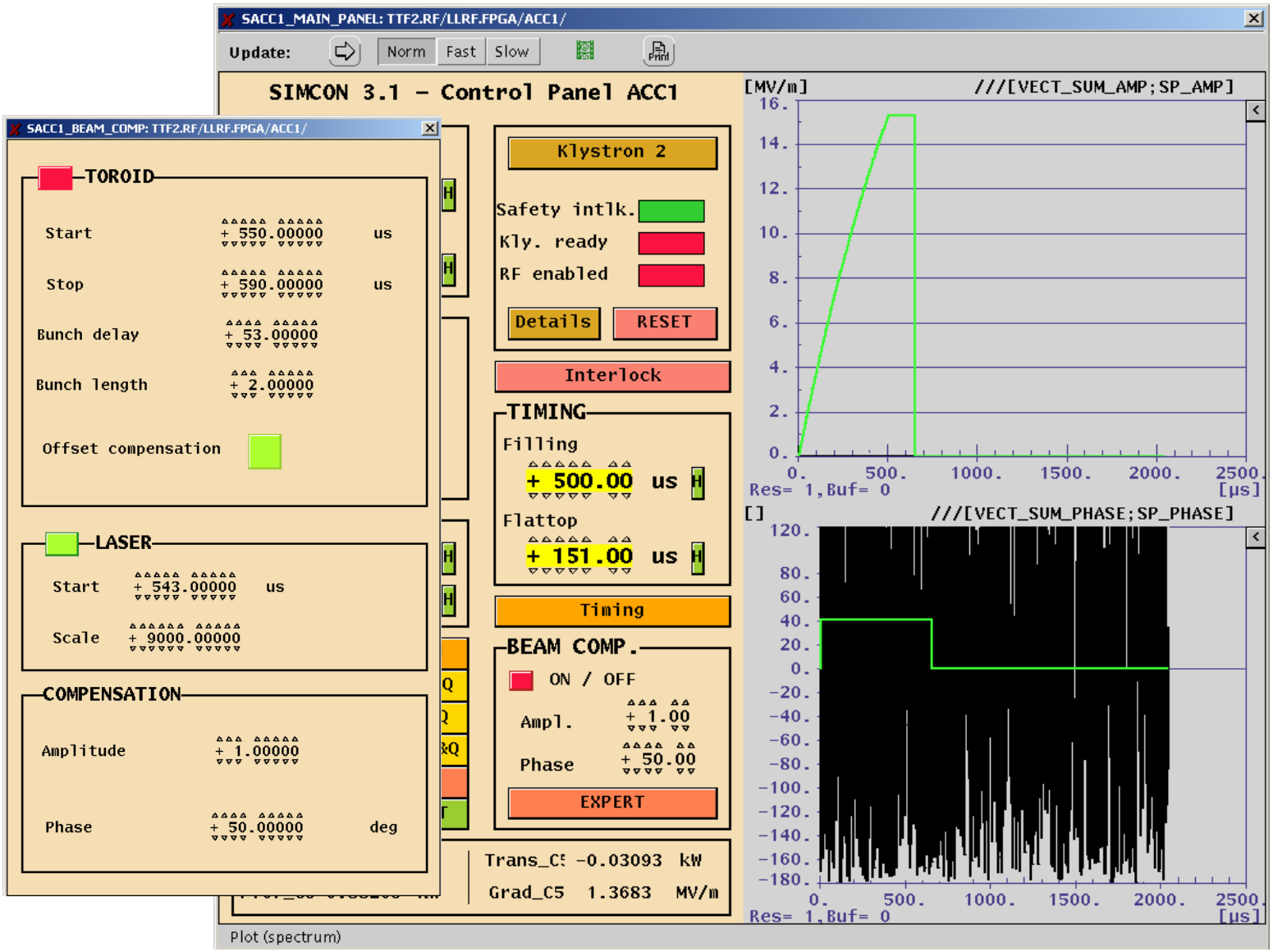
Alternating gradient (1)



Alternating gradient (2)

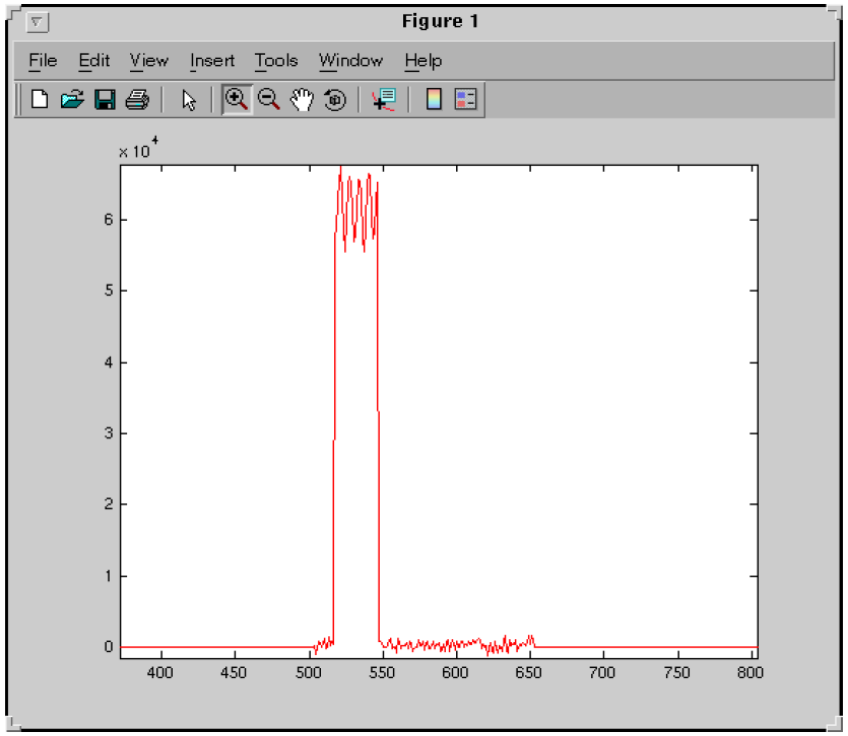


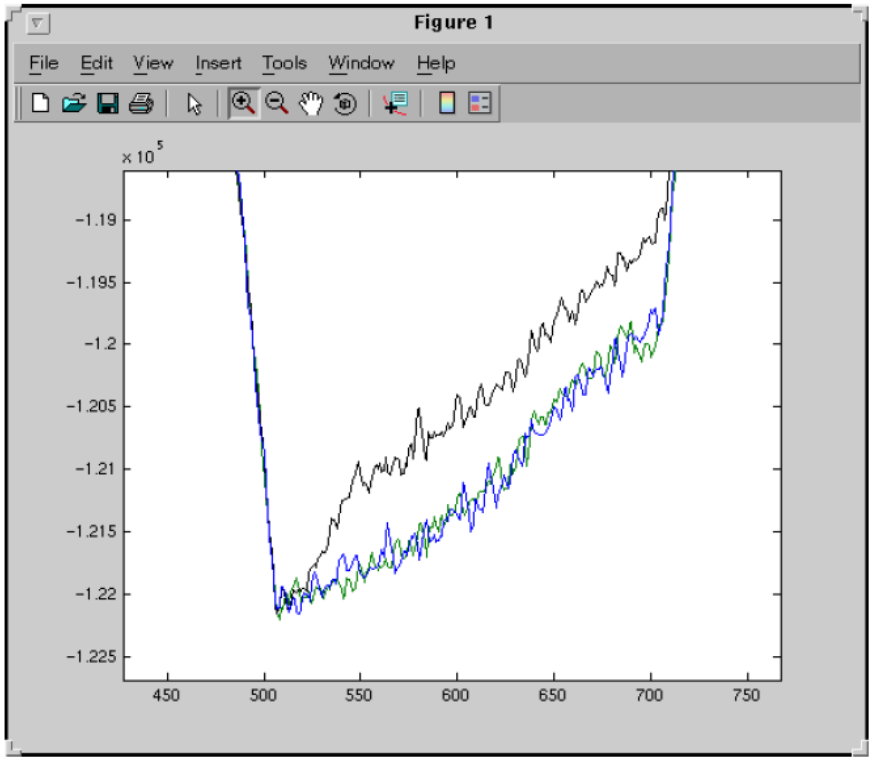
Beam load compensation (1)



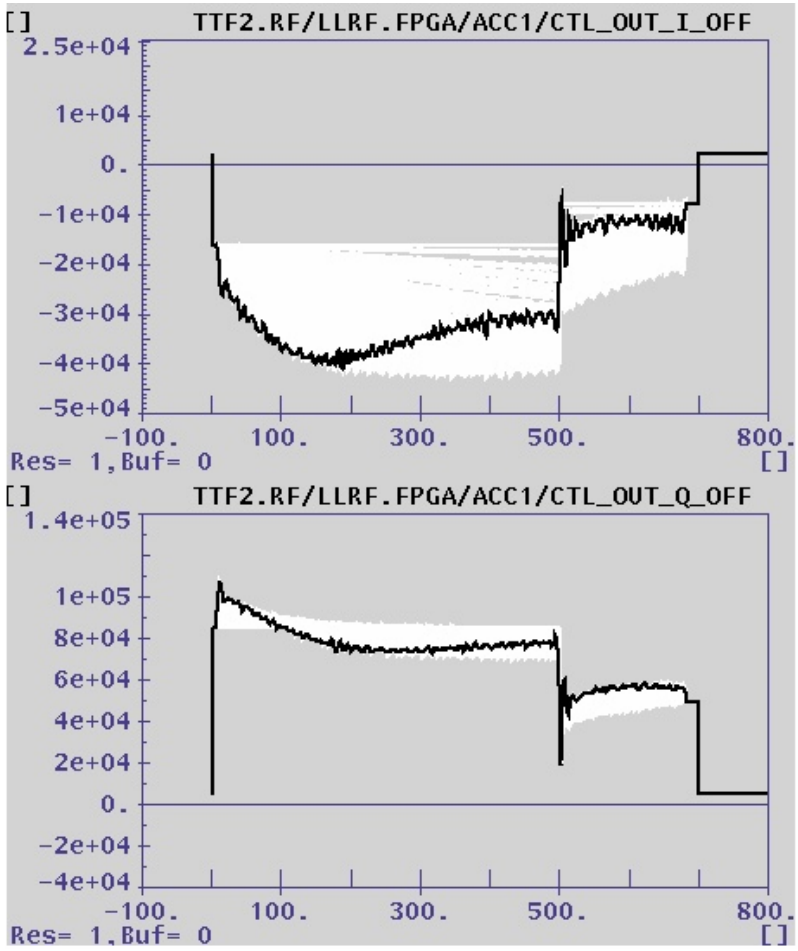
Beam loading compensation (2)

green – without beam
black – 30 bunches
blue – 30 bunches and
beam load compensation

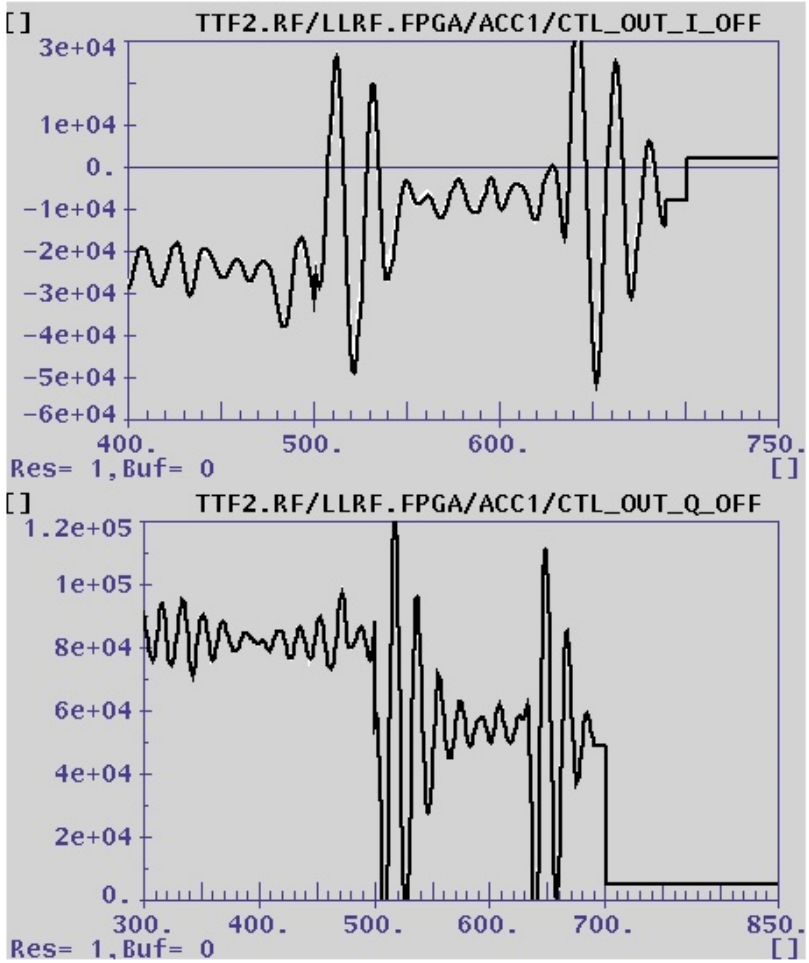




Adaptive Feed Forward

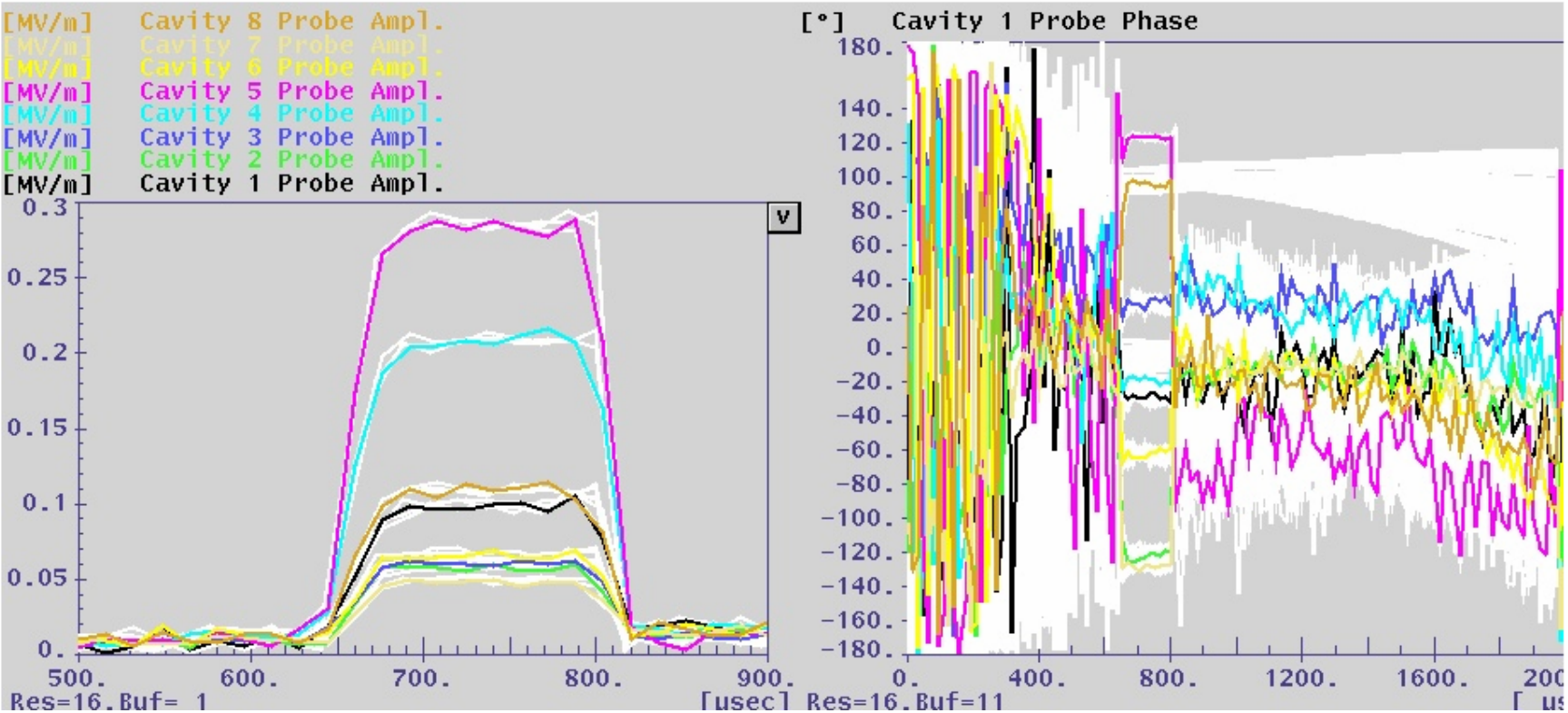


FF tables after 100 iterations

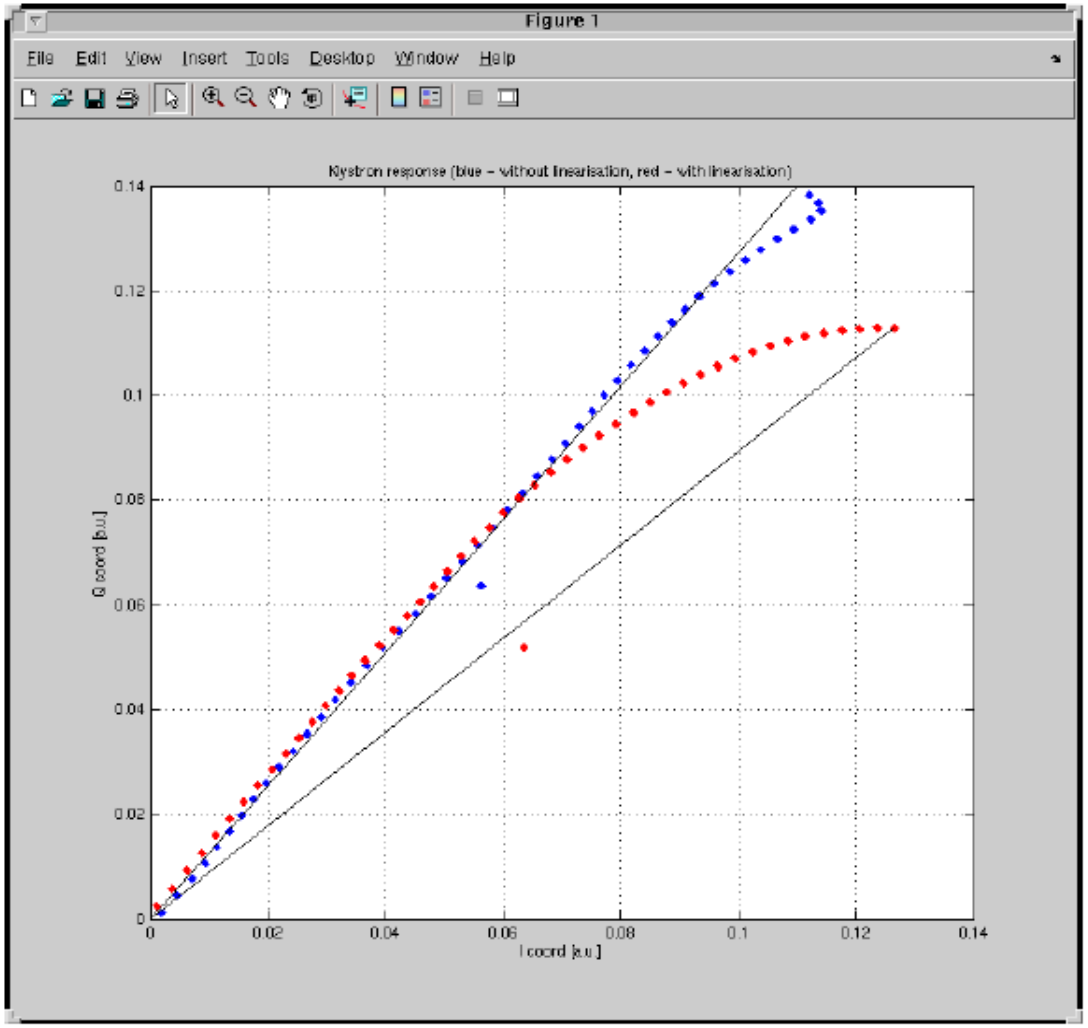


Part of FF tables after 300 iterations

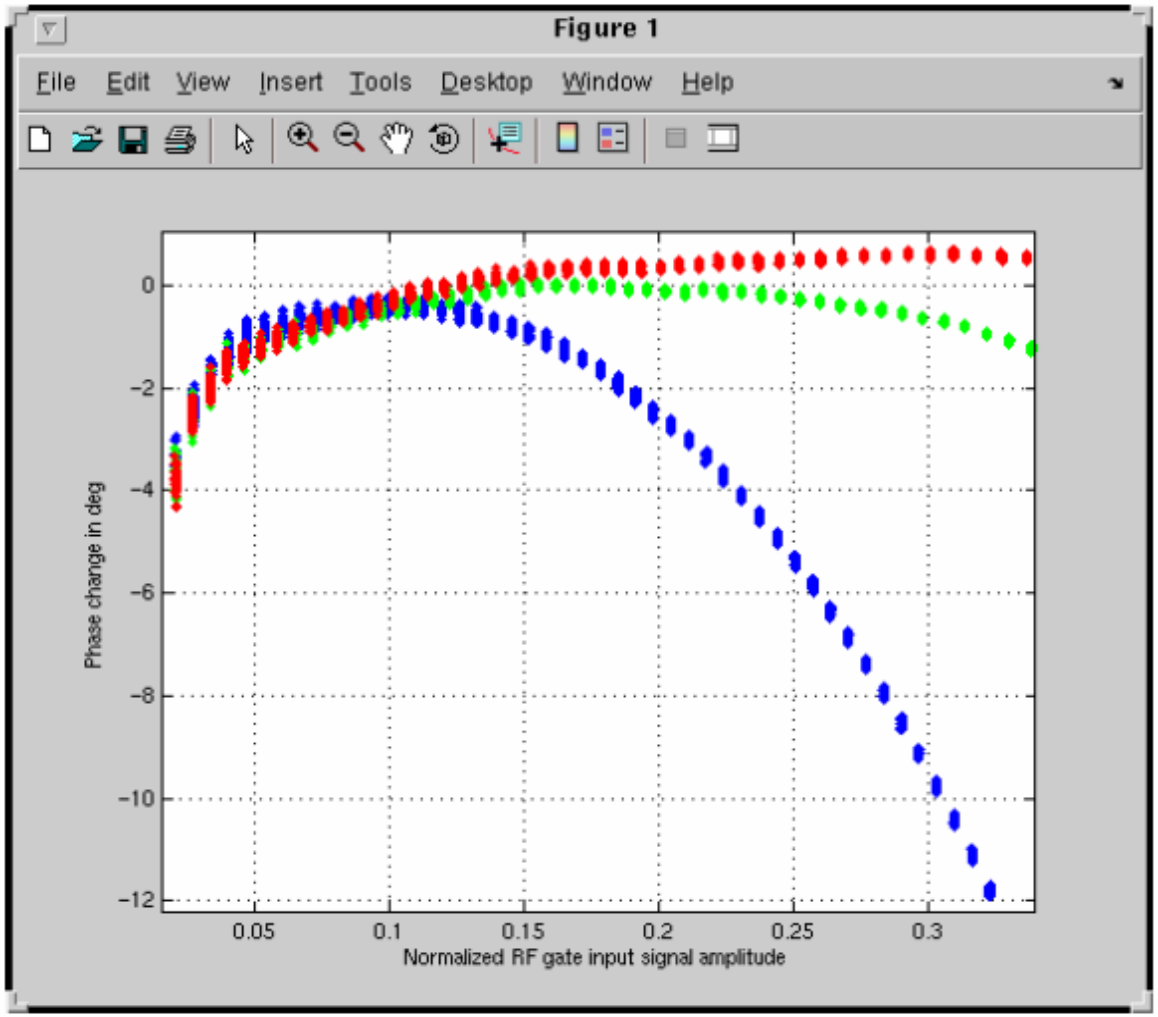
Problems with crosstalks from RF-Gun



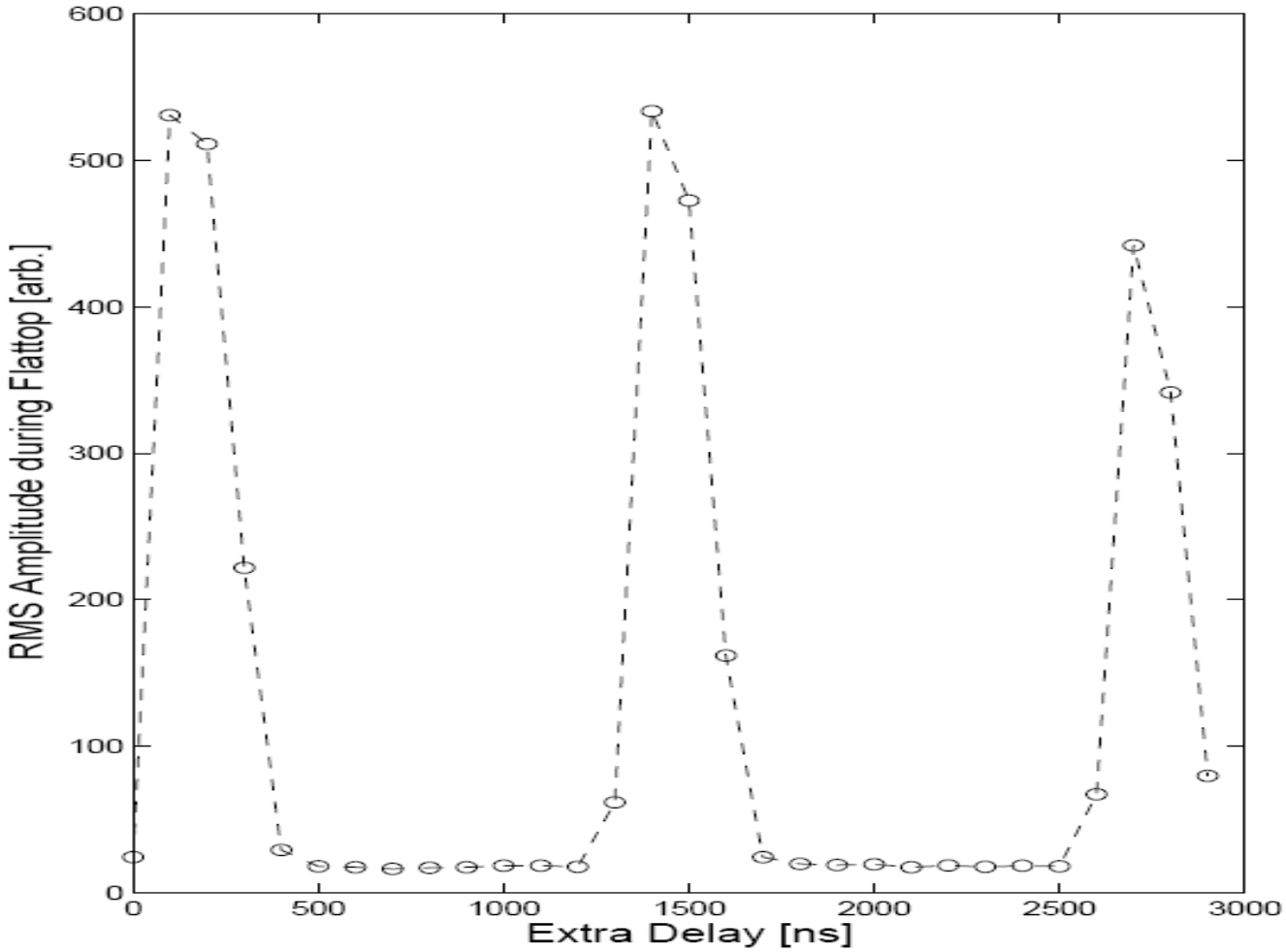
Klystron linearization (1)



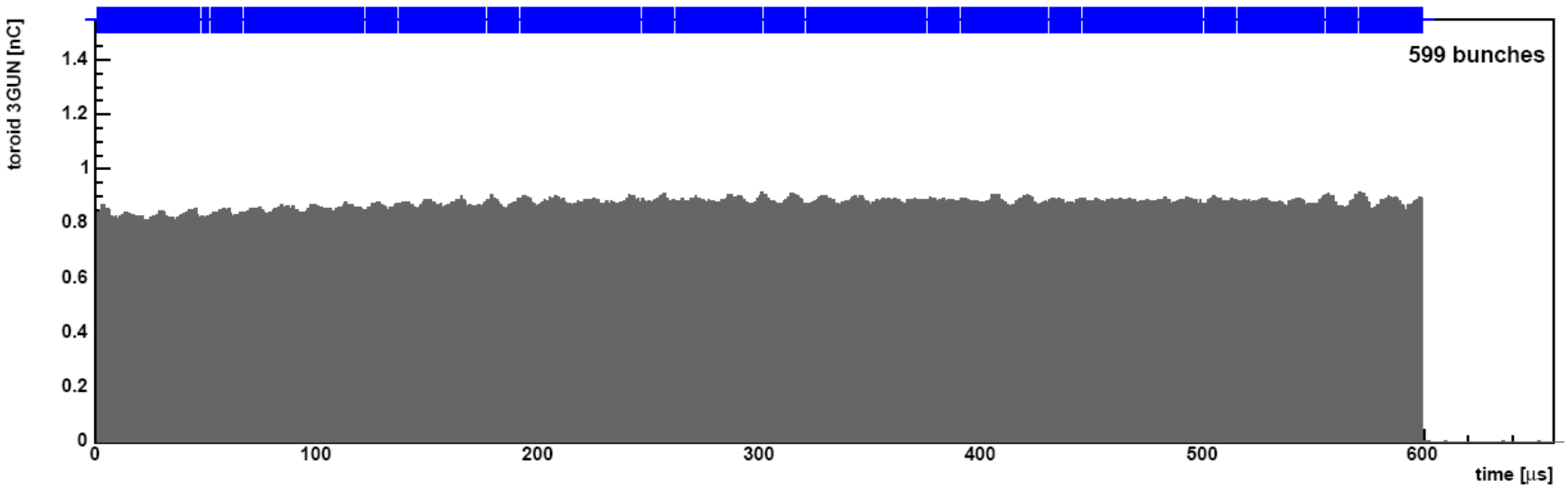
Klystron linearization (2)



Loop delay regulation



600 bunches through ACC1



Plans for LLRF studies in December 2006 and January 2007

- Test of exception handling
- Measurement of beam energy stability in BC2
- AFF in PowerPC
- Generation of output correction tables in PowerPC
- Test of higher IF (9MHz)