

LLRF readiness checklist for 9mA Studies (draft)

1. ACC456 SimconDSP systems installed and tested
2. ACC456 SimconDSP system operational in closed loop mode with RF power
3. ACC456 SimconDSP operation checked end-to-end via doocs screens
4. Integrity of RF probe and drive signals verified end-to-end for all stations
5. MPS interlock functionality verified at ACC1, ACC23, ACC456
6. RF inhibit from LLRF system to RF amplifiers verified at ACC1, ACC23, ACC456
7. Beam loading compensation functions tested in ACC456 SimconDSPs
8. Beam loading compensation functions tested in ACC23 and ACC456 DSP systems
9. Piezo tuner controllers installed and tested
10. Piezo LFD compensation checked end-to-end via doocs screens and with RF power
11. DAC operational and new channels installed and data streams verified
12. New DAQ and monitoring tools checked out

Studies outline for week of August 24th (draft)

Monday

- SimconDSP system end-to-end checkout of functionality, DOOCS interface, etc
- Parallel work at ACC2/3, DSP system functionality test (BLC, "Slope").

Tuesday

- Continue SimconDSP system end-to-end checkout of functionality, DOOCS interface, etc

Wednesday

- Verify MPS interlock functionality; commission/test piezo control; DAC check-out

Thursday

- Turn on all RF systems, set up operation with long RF pulses.
- Cavity filling optimization by phase modulation

Friday

- System characterization with RF (measure noise levels, regulator gain optimization,...)
- Forward / reflected power signal calibration

Saturday [contingency]

Sunday [contingency]