

LD2502 Q3 Report - Multiple Mode Excitation System for Processing Multicell SRF Cavities

• Progress

- SDRs arrived
 - Software development beginning to measure RF signals accurately
- LLRF team upgraded an existing CEBAF LLRF system to excite and control multiple RF frequencies, testing soon
- LLRF interface chassis made to go between SDR and cavity

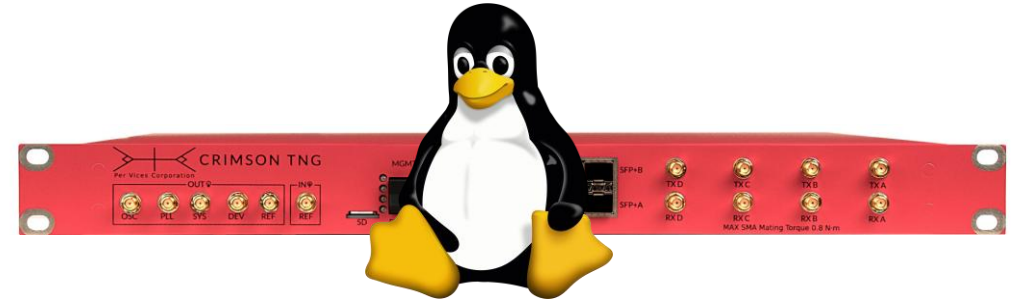
• Next Steps

- Software development to use SDR to measure cavity signals (LabVIEW)
- Demonstrate multi-mode stimulus on a cavity in the VTA, late May
- Explore

• Issues

- Extended CEBAF startup diverted time from key RF engineers, hopefully improving
- Crimson TNG only has Linux support, may be used for other testing in year 2 but not main development
- USRP-X410 has export restrictions, working with the Security Office for plan to secure hardware and software, still moving forward cautiously

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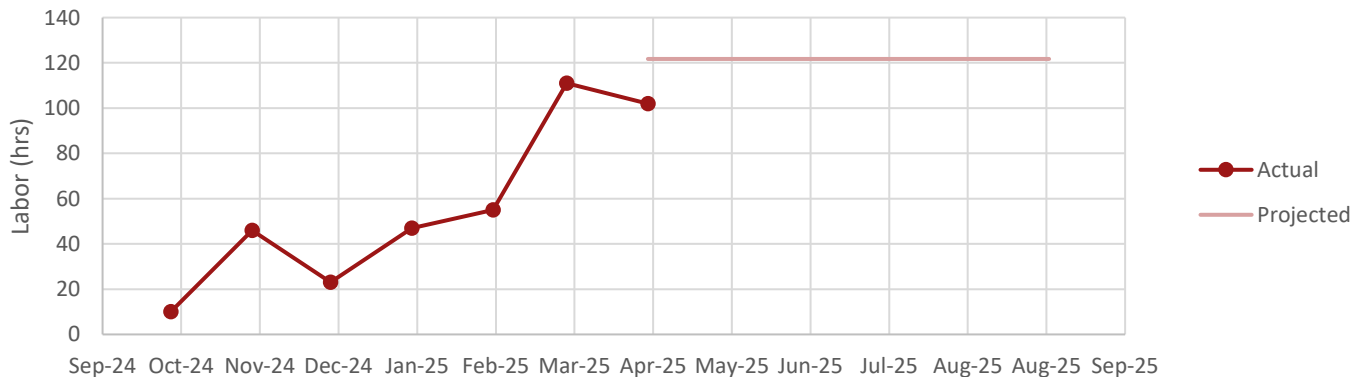


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Financial Report

- Plenty of spending on hardware for SDRs and other RF test equipment
- Labor has been slower than expected
 - Obligations with other work for all involved
- Plan for more labor going forward as more people brought on for software and cavity testing
- Expecting ~\$30k unspent budget

RF System LDRD Labor Per Month



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FY25 Budget: \$237.7 Loaded K\$

