

SLAC FY08 RF R&D Program with Reduced M&S

- Complete construction and testing of prototype Marx
 - But only do design work on a DFM version
- Try to buy Direct Switch Modulator (275 k\$) from DTI (who ran out of SBIR funds) – use to power SBK
- Continue construction and test a Sheet-Beam Beam Tester and Sheet-Beam Klystron (SBK)
 - But work may be delayed into FY09
 - Do not start a second generation version
- Test 10 MW Toshiba MBK using Marx as planned
 - Complete customized fast interlock and monitoring VME board

FY08 R&D Program with Reduced M&S (Cont)

- Build second 8-cavity distribution system for second FNAL cryomodule
 - But do not build low cost component prototypes
- Assembly and rf process 12 couplers purchased in FY07 and buy, assembly and rf process an additional 8 in FY08
 - But defer buying another 8 couplers requested by FNAL until FY09
 - No R&D on less expensive methods for fabricating couplers
- Finish SC quad testing but do not make support improvements to the prototype linac cavity bpms at ESA

FY08 R&D Priorities with Increased M&S

- Start construction of a DFM version of the Marx
- Do not slow the SBK effort, and start a second generation version if the results of the first version are encouraging
- Process 16 new couplers instead of 8: more efficient to process at full rate once production starts
- Develop lower cost RF distribution components (e.g. Al casting of the VTO parts)
- Develop lower cost coupler assembly techniques using the Klystron Department expertise

R&D in FY09 and Beyond

- Evaluate SBIR-funded Marx Modulators from DTI and ISA
- Continue coupler and rf distribution system development and production for NML and evaluate their performance
- Provide 10 MW power source for NML for 3 cryomodule operation
- Have Marx modulators built in industry
- If continue SBK effort, find vendors to produce these tubes
- Build up to five new rf stations to evaluate industrially built modulators and klystrons – power them with a distributed charging supply