

Instrumentation for various operational modes

Mode		Intensity	Measurements	
			Delivery Ring	M4 Line
Commissioning	Single turn protons to M4DA for M4 line commissioning	170W 5E10 protons every 10 sec 2 turns/5-10 Booster bunches	BPMs (2.5 MHz TBT, CO) (53 MHz TBT) IC DCCT	MWs (scanner cap switched) ICs BLMs
	Resonant Extraction to M4DA	4 × 1.0E12 protons to Delivery Ring every 30 sec M4 Intensity: 3E6 to 40E6	BPMs (2.5 MHz TBT, CO) DCCT BLMs Schottkys	MWs (normal scanner cap) ICs BLMs
Normal Running	Normal 8 kW proton beam to Mu2e target	8 × 1.0E12 protons to Delivery Ring every 1.33 sec	BPMs (2.5 MHz TBT, CO) DCCT BLMs Schottkys	MWs (normal scanner cap) ICs BLMs

Mu2e KPPs

From Mu2e Project
Execution Plan
Mu2e-doc-1172

Table 2.1 Key Performance Parameters

Parameters	Threshold Performance	Objective Performance
Accelerator	<p>Accelerator components are acceptance tested at nominal voltages and currents. Components necessary for single-turn extraction installed.</p> <p>Shielding designed for 1.5 kW operation delivered to Fermilab and ready for installation.</p> <p>All target station components are complete, delivered to Fermilab and tested. Heat and Radiation Shield is installed in Production Solenoid. Other components are ready to be installed after field mapping.</p>	<p>Protons are delivered to the diagnostic absorber in the M4 beamline.</p> <p>Shielding designed for 8 kW operation delivered to Fermilab and ready for installation.</p>
Superconducting Solenoid	The Production, Transport and Detector Solenoids have been cooled and powered to the settings necessary to take physics data.	The Production, Transport and Detector Solenoids have been cooled and powered to their nominal field settings.
Detector Components	Cosmic ray tracks are observed in the Tracker, Calorimeter and a subset of the Cosmic Ray Veto and acquired by the Data Acquisition System after they are installed in the garage position behind the DS. The balance of the CRV counters are at Fermilab and ready for installation.	The cosmic ray data in the detectors is acquired by the Data Acquisition System, reconstructed in the online processors, visualized in the event display and stored on disk.