

# SLAC Test Box - Design and Instrumentation

## CERN SR1 Setup

### Requirements

Number of Local Supports to accommodate	One Stave + One Ring
Maximum Dew Point	-60 C
Light tightness	any?
Electrical feed-through to connect two LS at the same time	Two independent or one with internal split box
Cooling feed-through for cold CO2 (-35C) hoses	One in, one out
Environmental sensors w/ interlock	Humidity, Temperature, pressure
LS Interlocks	<a href="#">Interlock</a>

### Instruments

Description	Scope	Make	
Infrared camera	Thermal QC	FLIR	We expect to measure the sensor temperature in the range of -35 to RT. The operating environment is ~ -10 C
Radioactive Source	Electrical QC	SLAC	Define type and Intensity. We need envelope of containment box and requirement for the handling and operation
Laser Interferometer	Mechanical QC	STIL	Optical Pen - STIL OP10000 + CCS PRIMA <a href="http://point.stil-sensors.com/?lang=EN">http://point.stil-sensors.com/?lang=EN</a>

QC test (Validation and or Verification)...this link eventually to the QA/QC documents and the requirements document

Thermal performances	Thermal Figure of Merit; Temperature uniformity on Module or Heater	
Thermo-mechanical Deformation	Deformation of the LS under the effect of the cooling	
Electrical I	Power Distribution	
Electrical II	data transmission	
Electrical III	1. of dead channels	