



CRaTER Pre-Environmental Review
(I-PER)

Project and Independent Review Activity
R. Foster

September 10-11, 2007

Cosmic RAY Telescope for the Effects of Radiation



IRT Request for Action Status

All IRT RFAs issued to the CRaTER Team have been closed

Requests For Action from I-PDR

- PDR-0001 Peer Reviews ([jpg](#)) - CLOSED
- PDR-0002 Detector Performance over Temperature ([jpg](#)) - CLOSED
- PDR-0003 Measurable Thermal Parameters ([jpg](#)) - CLOSED
- PDR-0004 Redundancy analysis ([jpg](#)) -CLOSED
- PDR-0005 Finite Element Model Analysis ([jpg](#)) - CLOSED

Request For Action from I-CDR

- CDR-0001 Detector Risk Mitigation ([jpg](#)) - CLOSED
- CDR-0002 EMC Testing ([jpg](#)) - CLOSED
- CDR-0003 Structural Analysis of Detector Assembly ([jpg](#))
- CDR-0004 Electrical Isolation of Telescope ([jpg](#)) - CLOSED
- CDR-0005 Circuit Analysis ([jpg](#)) - CLOSED
- CDR-0006 FPGA Independent Design Review ([jpg](#)) - CLOSED
- CDR-0007 Blocked Pressure Port Instrument Risk ([jpg](#)) - CLOSED
- CDR-0008 Documentation of Failures and Anomalies ([jpg](#)) -CLOSED
- CDR-0009 Thermal Requirements ([jpg](#)) - CLOSED



Peer Reviews

- Mechanical Peer Review 5/5/06 at MIT

Environ Test Of Engineering Detectors	Mechanical Peer 01	Al Pillsbury	Albert Lin	Closed
Develop Shock Test Levels	Mechanical Peer 02	Al Pillsbury	Matt Smith	Closed
Install A Filter At Purge Inlet	Mechanical Peer 03	Al Pillsbury	Matt Smith	Closed
Establish Purge Pressure And Flow Rate	Mechanical Peer 04	Al Pillsbury	R. Goeke	Closed
Establish Max Thermal Resistance@ Telescope	Mechanical Peer 05	Al Pillsbury	R. Goeke	Closed
Vibration Test The Telescope Electrical Isolation	Mechanical Peer 06	Al Pillsbury	Albert Lin	Closed
Determine Expected Bolt Loads	Mechanical Peer 07	Al Pillsbury	Matt Smith	Closed
Verify Modal Analysis By Rerunning Model	Mechanical Peer 08	Al Pillsbury	Matt Smith	Closed
Merge Telescope And Chassis Fem To Find Loads	Mechanical Peer 09	Al Pillsbury	Matt Smith	Closed
Determine Heater Configuration Before Cdr	Mechanical Peer 10	Al Pillsbury	Matt Smith	Closed
Increase Screws In Purge Gas Cover For Emi	Mechanical Peer 11	Al Pillsbury	Albert Lin	Closed
Use EU Unit To Establish RF Isolation	Mechanical Peer 12	Al Pillsbury	Bob Goeke	Closed
Determine Minimum Visible Light Attenuation	Mechanical Peer 13	Al Pillsbury	Justin Kasper	Closed
Use Fem To Analyze Electronic Housing Flatness	Mechanical Peer 14	Al Pillsbury	Matt Smith	Closed
Resolve PCB Stress Limitations	Mechanical Peer 15	Al Pillsbury	Matt Smith	Closed
Look At Alternate Methods Of Securing Tep	Mechanical Peer 16	Al Pillsbury	Albert Lin	Closed
Complete Selection Of Spring Parameters	Mechanical Peer 17	Al Pillsbury	Albert Lin	Closed



- Electrical Peer review 5/22/06 at NASA-GSFC

FPGA Output Staggering	Electrical Peer 01	Jose Florez	Dorothy Gordon	Closed
Signal Integrity Analysis	Electrical Peer 02	Jose Florez	Dorothy Gordon	Closed
Radiation Performance of Electronic Parts	Electrical Peer 03	Jose Florez	Bob Goeke	Closed
Independent Review of FPGA Design	Electrical Peer 04	Jose Florez	Dorothy Gordon	Closed
SSO (Simultaneous Switching Outputs)	Electrical Peer 05	Tom Winkert	Dorothy Gordon	Closed
HCS to ACS Compatibility	Electrical Peer 06	Tom Winkert	Dorothy Gordon	Closed
Actel I/O Editor	Electrical Peer 07	Tom Winkert	Dorothy Gordon	Closed
Actel Timing Analysis	Electrical Peer 08	Tom Winkert	Dorothy Gordon	Closed
Async Reset 1	Electrical Peer 09	Tom Winkert	Dorothy Gordon	Closed
Programming Adapter	Electrical Peer 10	Tom Winkert	Dorothy Gordon	Closed
Bus Ordering	Electrical Peer 11	Tom Winkert	Dorothy Gordon	Closed
EMI Filter	Electrical Peer 12	Jack Shue	Dorothy Gordon	Closed
Under-Powered Converters	Electrical Peer 13	Jack Shue	Dorothy Gordon	Closed
Common Mode Chokes	Electrical Peer 14	Jack Shue	Dorothy Gordon	Closed
Only 1 VCC Pin +5V Power Input On J1 Connector	Electrical Peer 15	Terry Smith	Bob Goeke	Closed

- SOC SIS Peer Review schedule is currently being negotiated