

LAT EMI Issues and Resolution

Issue: Lack of dedicated EMI/ EMC personnel

Resolution: GPO has offered the services of F. Blanchette

- Will be at SLAC every other week for the near future
- Assisted by L. Lee
- Work closely with D. Nelson
- Involve all necessary LAT personnel

LAT EMI Issues and Resolution

Issue: Lack of LAT subsystem/component EMI requirements

Resolution: Develop subsystem EMI requirements

- EMI/ EMC database development: in process
- Utilize database information to flow down LAT instrument level (443-RQMT-0005) requirements to the subsystems
- Develop LAT physical implementation grounding diagram

LAT EMI Issues and Resolution

DATE	SOURCE	COMPONENT TYPE	NUMBER	LOCATION	MATERIAL	DIMENSIONS
day data is entered	person document, revision # etc.	box cable connector etc.		inside EMI shield outside EMI shield inside the SIU on the SIU etc. or maybe you can relate the component location to a grid	aluminum titanium graphite epoxy etc.	(inches) l x w l x w x h for cable the length etc.

THICKNESS	SHIELDING	TYPE	NUMBER	FASTENERS	
	EFFECTIVENESS			SPACING	TORQUE
(inches)	(dB)			(inches)	(ft-lbs)
	will be filled in after material and thickness info have been gathered	screw bolt etc.		distance center to center or edge to edge, whatever the standard is	

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WIRE								
SIGNAL TYPE	NUMBER	SIZE (AWG)	TWISTED (twists/ft)	SHIELD	SE (dB)	SIGNAL LEVEL (volts or amps)	RISETIME (nsec)	WAVE SHAPE
power				individual wires	will be filled in			DC
LVDS				overbraid and	based on			pulse
etc.				% coverage	shielding			triangular
				no overbraid	configuration			sinewave
				etc.				etc.

LAT EMI Issues and Resolution

Issue: Lack of coordination w.r.t. potential EMI issues

Resolution: Assess, track, and resolve EMI issues

- Develop a list of issues and status
- When a potential EMI issue is identified, must be brought to the attention of the project for consideration and if appropriate for inclusion in the issues list
- Work issues with appropriate project personnel
- Update weekly and distribute