



**Pulse Current Injection (PCI) Acceptance
Test of Seven ETS-Lindgren Filters**

11EME2045TR


May 23, 2011

Contract: P000142847


- References:**
- A) 11EME2000TD, "Electromagnetic Effects (EME) Testing at the Little Mountain Test Facility (LMTF)."
 - B) EMP-SOP-1050 (PRIME-55120), "Standard Operating Procedure and Maintenance Manual for EMC/EMP and Ordnance Test System at SVIC."
 - C) MIL-STD-188-125-1, "High-Altitude Electromagnetic Pulse (HEMP) Protection for Ground-Based C⁴I Facilities Performing Critical, Time-Urgent Missions, Part 1 - Fixed Facilities."
 - D) MIL-STD-188-125-2, "High-Altitude Electromagnetic Pulse (HEMP) Protection for Ground-Based C⁴I Facilities Performing Critical, Time-Urgent Missions, Part 2 - Transportable Systems."
 - E) 11EME2045, LMTF Project Request.
 - F) OO-ALC Form 0-310, Test Directive Changes.

1. The pulse current injection (PCI) acceptance test of seven ETS-Lindgren filters was tested in accordance to the referenced documents on May 17 through 26, 2011 at the Little Mountain Test Facility (LMTF), Ogden, Utah. The seven filters under test are as follows:
 - P/N: LRX-1250-EMP-S2, S/N: 00132953
 - P/N: LRX-1400-EMP-S2, S/N: 00132945
 - P/N: LRX-2030-EMP, S/N: 00132955
 - P/N: LRX-2060-EMP, S/N: 00132954
 - P/N: LRX-2100-EMP, S/N: 00132957
 - P/N: LTC-2640-EMP-600Z, S/N: 00132629
 - P/N: LTC-2640-EMP-2053, S/N: 00132534
2. Each filter was tested to both Mil-Std-188-125-1 and Mil-Std-188-125-2, appendix B acceptance requirements. As the pulse injection levels varied per fixed and portable facilities, various levels we injected into each filter. Each filter was tested with both the short (E1) and intermediate (E2) pulse. All of the power line filters met both standards residual requirements for both E1 and E2. The telephone and signal filters meet the high voltage E1 requirements ($\geq 90V$) and depending on the drive level, will meet the low voltage E1 requirements ($< 90V$) of the mil-standard. The telephone and signal filters meet the E2 requirements.
3. The tabulated data, test plots, test log, equipment list, and pictures are included as attachments to this document. All data is on file at LMTF.

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