



**Pulse Current Injection (PCI)
Acceptance Test of Nine ETS-Lindgren
Prototype Power Filters**

13EME2149TR-1

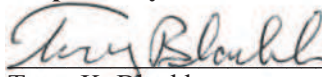
June 17, 2013

Contract: PO00156856

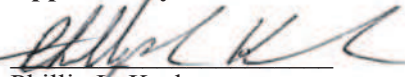
- References:**
- A) 11EME2000TD, "Electromagnetic Effects (EME) Testing at the Little Mountain Test Facility (LMTF)."
 - B) D2-28528-1, "Little Mountain Test Facility (LMTF) Standard Operating Procedure (SOP) and Maintenance Manual for the Electromagnetic Effect (EME) Labs."
 - C) MIL-STD-188-125-1, "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) 13EME2149, LMTF Project Request, dated 2/13/2013.
 - F) Form 0-310, Test Directive Changes, dated 2/13/2013.

1. The Pulse Current Injection (PCI) acceptance test of the nine ETS-Lindgren prototype power filters was tested in accordance to the referenced documents between January 16 and May 30, 2013 at the Little Mountain Test Facility (LMTF), Ogden, Utah. The nine filters under test, (and the Transient Protection Devices they were tested with) are as follows:
 - P/N: HEMP-2010 (V321DA40, V151DA40, V320E40)
 - P/N: HEMP-2030 (V321DA40, V151DA40, V320E40)
 - P/N: HEMP-2060 (V321BA60, V320E60, V275E60, V320D80LE)
 - P/N: HEMP-2100 (V321BA60, V320E60, V275E60, V320D80LE)
 - P/N: HEMP-4250 (V321BA60, V320E60, V275E60, V320D80LE)
 - P/N: HEMP-1x400 (V321BA60, V320E60, V275E60, V320D80LE)
 - P/N: HEMP-1x600 (V321BA60, V320E60, V275E60, V320D80LE)
 - P/N: HEMP-1x800 (V321BA60, V320E60, V275E60)
 - P/N: HEMP-1x1200 (V321BA60, V320E60, V275E60, V320D80LE, B80K275)
2. The HEMP-2010 (10A) and HEMP-2013 (30A) filters were also tested with the two sections tied together (at the input and at the output) in a parallel configuration.
3. Each filter was tested to Mil-Std-188-125-1 Appendix B acceptance requirements. The filters were tested with both the short (E1) and intermediate (E2) pulse. All filters tested met the standard's criteria for E2 pulses as well as residual requirements for E1, in all tested configurations. Mil-Std-188-125-2, E1 drive levels are smaller than Mil-Std-188-125-1 and therefore all filters meets Mil-Std-188-125-2 as well. Reference Table 1 for detailed residual responses.
4. 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.

Prepared by:


Terry K. Blackburn
LMTF
801-315-2520

Approved by:


Phillip L. Kesler
LMTF
801-315-2398