



Comprehensive LPRM Testing for Metal Whisker Burning and Signal Integrity Problems

AMS offers comprehensive LPRM testing services for metal whisker burn using the CHAR Cable Characterization System. By integrating Multiplexers with multiple AMS CHAR systems, LPRM IV testing can be performed on nearly 80 detectors at a time while also providing complete electrical characterization of each detector through performance of TDR, IR, and DC Resistance measurements. This automated service significantly reduces LPRM testing time, allowing all detectors to be tested in approximately one shift.

As a supplement to our high-speed LPRM testing program, AMS offers Enhanced LPRM (EEL) IV Testing for improved metal whisker remediation. Excessive spiking and bypassed detectors due to metal whiskers is a common failure mechanism in LPRMs. The AMS EEL system allows up to 60mA of current to flow to the detector during an IV curve spiking event for improved metal whisker burn. If a poor IV curve is observed during high-speed LPRM testing using the CHAR system, AMS will then follow-up with the EEL test system to help heal the detector. The EEL test system can also be used to target bypassed or malfunctioning detectors.

Features of High-Speed LPRM Testing Services with CHAR Systems and Multiplexers

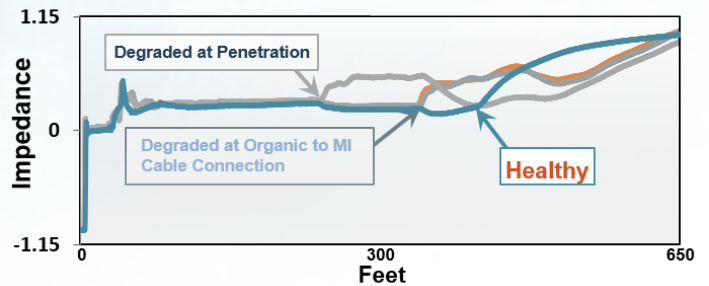
- Connect to nearly 80 detectors at a time
- Perform comprehensive electrical characterization (TDR, IR, DC resistance)
- Reduces test time to approximately one shift

Features of Enhanced LPRM Testing Services

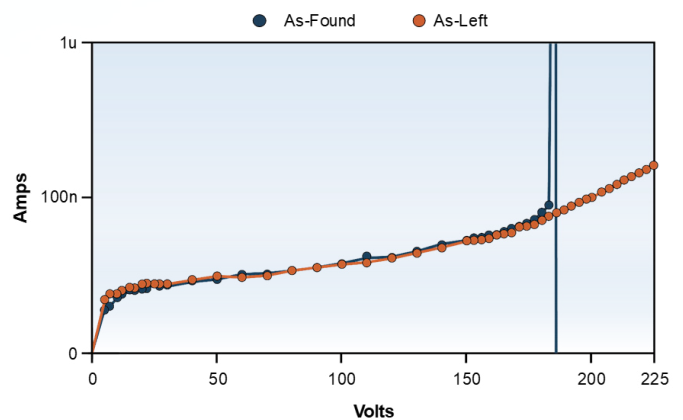
- Heal bypassed and spiking detectors
- Configurable current limit from 5-60 mA
- High frequency data sampling to better observe spiking events
- Continuous voltage ramp



CHAR System Plus Multiplexer for High-Speed LPRM Testing



Example Data Showing Healthy and Degraded TDR Traces For LPRMs



Example CHAR System IV Data Showing Spiking from Metal Whisker Growth Before and After EEL-1 Repair



Enhanced LPRM Test System (EEL-1)

10CFR50 Appendix B Program

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