E9821A-02

# SERVICE NOTE

Supersedes: NONE

# E9821A Digital Signal Processor for E3238S systems (Option 101 - G4 processor card with extended RAM)

**Serial Numbers:** US43140382 - US48221315 — *Option 101 was not available for serial numbers before this range. Serial numbers after this range have the new or modified heat spreader.* 

Capacitors on the E9821A-101 PMC option board could short to the heat spreader (heat-sink) on the option 101 PMC daughter card. Customers will see the following error message indicating the problem "(E9821 MPU) DSP program did not start properly" or "E9821A search DSP reported it did not have any DSP processors The E3238S software requires at least one DSP PMC card installed".

We only recommend making this modification if the customer is getting the above errors.

**Parts Required:** 

P/N Description Qty.

E9821-64101 Heat Spreader Assembly (Modified) 1 per Option 101

**Tool Required:** T10 Torx Driver

#### ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	[X] ON SPECIFIED FAILURE [[]] AGREEABLE TIME	STANDARDS  LABOR: 0.5 Hours	
LOCATION CATEGORY:	[[]] CUSTOMER INSTALLABLE [[]] ON-SITE [X] SERVICE CENTER or FACTORY	SERVICE [[]] RETURN INVENTORY: [[]] SCRAP [[]] SEE TEXT	USED [[]] RETURN PARTS: [[]] SCRAP [[]] SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL: November 1, 2017	
AUTHOR: DMT		PRODUCT LINE: BL	
ADDITIONAL INFORMATION:			

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#### **Situation:**

A short may occur between capacitors on top of Option 101 Processor Card and Heat Spreader. When compressed, one or more of the four tall caps under the heat spreader—located inside the thermal pad cutout—may short to the metal part of the heat spreader.

View showing the caps in the thermal pad cutouts, with the metal part and upper pads removed:

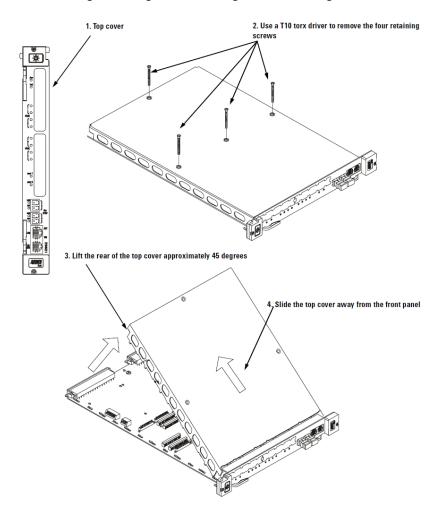


#### **Solution/Action:**

The solution is to replace the heat spreader for each option 101 installed on the E9821A with one that will not allow the capacitors to make electrical contact with the metal heat spreader.

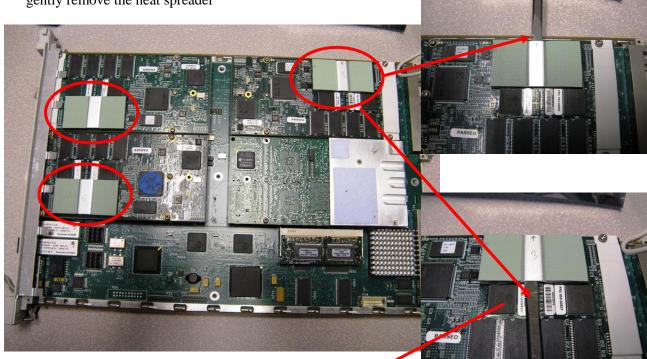
### 1. Remove the E9821A Module's Top Cover:

**CAUTION:** The E9821A module and its plug-in cards are static sensitive. Use the appropriate precautions when removing, handling, and installing to avoid damage



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2. **Remove old heat spreaders:** Use a small plastic prying tool to gently remove the heat spreader





3. **Install new heat spreader:** Gently press the new heat spreader in place. There are no screws that hold the heat spreader on the board or guides for placement of the heat spreader. Simply match the placement of the heat spreader with the pictures below and gently press it in to place. The top cover will hold the heat spreader in place.



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## 4. Re-install the Top Cover:

