

FIELD SERVICE BULLETIN

FSB# 098-41620-008

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2300 Orchard Parkway
 San Jose, CA 95131-1017
 Customer Assistance Center: 1-408-428-7907

System: 560-5153 cards for 56000 Chassis

Product Identity: T1-E1 Card for 56000
Product Codes: 560-5153

Customer Service: 1-888-367-7966 (1-888-FOR-SYMM) Option 1, Option 3, toll-free in the USA
 1-408-428-7907 Option 1, Option 3, worldwide

Possible Failure of 560-5153 Cards Used in 56000 Chassis with -48 Volt Power

The 560-5153 card's front panel (which you push on to insert the card) has a metal mount that is above the 48 volt return trace on the card. Using -48 volts to power the 56000 chassis creates a 48 volt difference between the return trace on the 560-5153 card (-48 volts) and the chassis ground (0 volts). With this difference, if a short between the mount and trace occurs, the L18 inductor will fail. **This problem only presents itself when the chassis ground and the 48 volt return trace are at a different potential.**

For customers using +48 volts as the power, the 48 volt return trace is at the same potential as the chassis ground. Therefore, under normal conditions, even if the mount is shorted to the trace, the short will not affect these users, or any AC power users. In the unlikely event that an external change (such as a lightning strike) causes a difference in potential, if the mount is shorted to the trace, the L18 inductor may fail. However, no cases of failure under these circumstances have occurred in fielded cards.

The fix to prevent this failure involves inserting an insulating material between the mount and the trace per Symmetricom Temporary Deviation Authorization number TTM-TDA00021. This TDA is implemented at a field site and works properly. This rework for the field can be used on all current (Rev A) and previously released cards. To prevent the potential short from occurring in the future, ECO 2181 was written. This ECO creates Rev B cards, with a new etch that re-routes the 48 volt return trace. The TDA and the ECO are equivalent end solutions to the problem, with only the difference being that the TDA covers fielded material and the ECO covers future material. The TDA rework meets all quality guidelines, and is simple to perform.

Rework plans for field sites:

- 1) Field kits with instructions, mylar washers (as insulating material), and ESD straps are available to be sent to single or multiple sites. These kits follow the TDA fix and provide materials to perform the rework.
- 2) Card swaps can occur on a rotating basis. A seed set of cards with the TDA implemented can be sent to a site and the other boards returned for rework. The reworked cards would then be sent to the next site, and so on.

If rework is not a desired option, new Rev B cards may be purchased by the customer, which most likely will be available in the September 2004 timeframe.

If you have further questions, or would like to obtain field kits, please contact technical support.