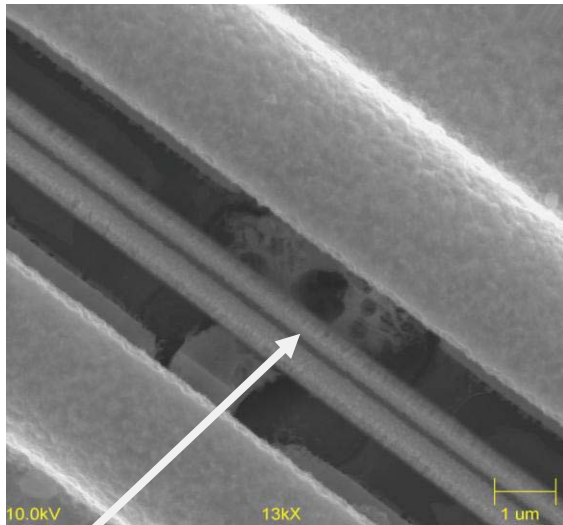




October 2009 • Volume 1 • Issue 5

A Look at Failure: ESD Damage



ESD crater and melted material in the gate area in a GaAs substrate.

Xilinx FPGA News

Xilinx recently announced that they will discontinue some radiation-tolerant XQR2V6000 and XQ2V6000 parts made primarily with plastic and military packages. http://www.xilinx.com/support/documentation/customer_notices/xcn09021.pdf
Contact Ramin Roosta 818-354-7385

Procuring EEE Parts to the SMD

Recent audits of various manufacturers revealed many of their customers building space related equipment procure parts to a source control drawing rather than to an SMD because of minor variations from the SMD. Experienced parts specialists advise seriously considering the advantage of procuring parts to the standard SMD rather than creating custom drawings that could inadvertently leave out crucial tests. Contact Shri Agarwal 818-354-5598.

Counterfeit Parts – Be Aware



The “Z” in the part number on the space level LM124 100 k-rad in gull wing package **above** indicates “gull wing” shaped leads. An observant inspector noted the part was side brazed dip, not gull wing. The marks are not manufacturer’s date code, assembly identification code is incorrect, and the parts were not serialized.

Who’s Who in Hybrids: SatCon, Spectrum Microwave and Microsemi

Mergers and acquisitions can be so confusing and disruptive, that it is difficult to know which products are being manufactured at Class K space level. SatCon Technology was a hybrid microcircuit manufacturer located in Marlborough, Mass. This was a QML facility certified by DSCC for Class-K space level hybrids. The product line included power, analog, RF, and custom hybrid devices. The facility had thin film manufacturing capability. In late 2008, Spectrum Microwave Inc., a provider of RF and Microwave components and systems purchased it. The Marlborough facility continues to build the SatCon line of hybrid products. Their last DSCC MIL-PRF-38534 audit was held in Sept., 2009. In the spring of

2009, Microsemi Corp. announced they acquired Spectrum's power products line. This includes adjustable linear regulators, ultra low dropout regulators (LDO's), and point of load (POL) regulators. The Spectrum Microwave Marlborough facility will continue to concentrate on their RF and custom line of hybrid microcircuits and their thin film processing capability. The technology for production of the power devices will be transferred to the Microsemi facility in Danvers, Mass., which is scheduled for their initial Class-K audit this month. For details contact Gary Bivins 818-393-1888

Actel – QML-V Certification Update

As part of the process of issuing QML-V Certification for Actel, DSCC has conducted a recent audit of Kyocera, a sub-contractor of Actel. Audits of additional Actel sub-contractors are planned for the near future. Contact Ramin Roosta 818-354-7385.

More Sources for MIL-PRF-19500 Product

More diode sources means the space community would not have to endure excessive (i.e., 80-week) lead times. Aeroflex-Metelics, Sensitron, Solid State Devices (SSDI), Optek, ST Micro, ON Semiconductor, Semicoa Semiconductor, Radiation Assured Devices (RAD) are all pursuing certifications for JANTX and higher level product that will be welcome additions to the QML. Contact Shri Agarwal 818-354-5598

Recent DSCC Audits supported for NASA by JPL Specialists

- Spectrum Microwave (formerly SatCon Technology)

GIDEP D6W-A-09-02 Suspect Counterfeit: High Accuracy, Low Dropout Regulator

Parts marked ADP3339AKC-2.5 purchased from an unauthorized source are suspected to be counterfeit. Contact: Kathy Whittington 818-354-8749.

GIDEP H6-P-09-02 Tin Whisker Growth on Tin-Plated D-sub Connector Shells

Commercial connectors for non-flight lab use. Contact: Pat Dillon 818-354-8122.

GIDEP A3S-A-09-01 Suspect Counterfeit, TI TPS62110RSA Adjustable 1.5-A, 17-V VIN Step-Down Converter

These parts were procured from an independent distributor. Contact: Kathy Whittington 818-354-8749.

Upcoming Meetings:

- JAXA 22nd Microelectronics Workshop Tsukuba, Japan Oct. 15-16

Contacts

NEPAG

<http://atpo.jpl.nasa.gov/nepag/index.html>

Shri Agarwal 818-354-5598

Shri.g.agarwal@jpl.nasa.gov

Lori Risse 818-354-5131

Lori.a.risse@jpl.nasa.gov

ATPO <http://atpo.jpl.nasa.gov>

Chuck Barnes 818-354-4467

Charles.e.barnes@jpl.nasa.gov

Section 514 <http://parts.jpl.nasa.gov>

Rob Menke 818-393-7780

Robert.j.menke@jpl.nasa.gov

Previous Issues:

JPL :<http://atpo/nepag/index.html>

Other NASA centers:

<http://nepp.nasa.gov/index.cfm/12753>