Agilent Technologies

PCN: A04-072-48475419-0A

Product Change Notice

Issue Date: 24-08-2004

Change Type:
Change from Gold bonding platform to Aluminum Bonding platform.

Parts Affected:

TABLE A
The product families comprising the HCMS-291X/ HCMS-292X/ HCMS-391X will be converted first. DEC 2004.

HCMS-2911
HCMS-2912
HCMS-2913
HCMS-2913-FGA00
HCMS-2914
HCMS-2915
HCMS-2921
HCMS-2922
HCMS-2923
HCMS-2924
HCMS-2925
QCMS-2928
QCMS-2929
HCMS-3911
HCMS-3912
HCMS-3913
HCMS-3914
HCMS-3916

TABLE B
The HCMS-297X / HCMS-397X family of products will follow later JAN 2005.

HCMS-2971
HCMS-2972
HCMS-2973
HCMS-2974
HCMS-2975
HCMS-2975-H1000
HCMS-3971
HCMS-3972
HCMS-3973
HCMS-3974
HCMS-3976
HCMS-3977

Description and Extent of Change:
Agilent is migrating to the Aluminum Bonding platform, which uses PC Board types that are more easily sourced. This change involves:

1. New PCB Supplier
2. Aluminum Bondable PCB instead of Gold Bondable PCB
3. Aluminum Bonding wires instead of Gold

Reasons for Change:

Aluminum Bonding has become the industry standard in LED packaging. Gold bondable PCB suppliers have become scarce, while lead times are usually long. Aluminum Bondable PCBs on the other hand are more easily sourced with shorter lead times. This change is expected to strengthen Agilent position to give supply assurances to its customers and meet their delivery expectations, while maintaining its quality standard.

Effect of Change on Fit, Form, Function, Quality, or Reliability:

There is no change to the Fit, Form and Function of the parts built with Aluminum bonding, except that the Aluminum wire used will be visible as having a different color from Gold when viewed under magnification. Product quality is assured as the above products would have been qualified using. Agilent's stringent qualification procedures.

Effective Date of Change:
Finished Goods with Aluminum bonded wires are expected to be shipped out to customers as early as by Dec 2004. The transition will be in phases by product group.

The product families comprising the HCMS-291X/ HCMS-292X/ HCMS-391X will be converted first (refer to table A)
The HCMS-297X / HCMS-397X family of products will follow later (refer to table B).

Qualification Data:
Qualification data for HCMS-291X / HCMS-292X / HCMS-391X is in the attached table. (refer to table C). For HCMS-297X / HCMS-397X family of device, qualification data will be available by end of January 2005.Aluminium bonded samples will also be available upon request.

These changes have been reviewed and approved by Agilent Technologies engineers and managers per Agilent Technologies procedure: Change Control and Customer Notification, A-5962-6052-80.

Please contact your Agilent field sales engineer or Contact Center (http://www.agilent.com/view/contactus) for any questions or support requirements. Please return any response as soon as possible, but not to exceed 30 days.

TABLE C

Reliability Test Result (HCMS-291X) :

Control lots : Existing product (gold bonding)
Evaluation lots: New product (aluminium bonding)

	Test	Stress Condition	S/size	Test Point	Result
1.	TMCL	-55/100°C, 15 min dwell, 5 min transfer	76	5x, 20x, 100x, 200x, 500x, 1000x	No failure observed
2.	HTOL	T_a=85°C, V_{cc}=5.5V	16	24, 168, 500,1000hrs	No failure observed
3.	WHTOL	85°C/85%RH, V_{cc}=5.5V	16	24, 168, 500,1000hrs	No failure observed
4.	LTOL	-40°C, V_{cc}=5.5V	16	24, 168, 500,1000hrs	No failure observed
5.	HTSL	T_a=100°C	22	24, 168, 500,1000hrs	No failure observed
6.	LTSL	T_a=-55°C	22	24, 168, 500,1000hrs	No failure observed
7.	WHTSL	85°C/85%RH	22	24, 168, 500,1000hrs	No failure observed
8.	Mechanical shock	5 blows each X1, X2, Y1, Y2, Z1 and Z2 axis at 1500G, 0.5msec	22	30 blows total	No failure observed
9.	Random Vibration	10 to 2000 H at $0.04G^2$/Hz or 6G rms, 15 minutes/axis	22	45 minutes total	No failure observed
10.	Resistance to solder heat	Solder dip at 260°C for 10 sec	22	1x	No failure observed