Product Change Notices

PCN No.: 20160701

Date: July 18, 2016

Subject: **Add assembly and test house GTK as another source for AME package PQFP-44, the product including AME7106ACKWZ and AME7107ACKWZ.**

This is to inform you that GTK assembly and test house will be added as another source for the AME package PQFP-44 with below conditions:

1. AME had qualified a new material packages with reliability test.
2. The Part Number of each product is unchanged, but identification via D/C is available.

This notification is for your information and concurrence.

If you require AME Qual/Rel data or samples to qualify this change, please contact AME, Inc. directly or through AME's authorized Sales Representative or Distributor.

Please note this PCN will be effective 30 days after the issuing date automatically if we do not receive any response, comment or questions from you.

If you have any questions concerning this change, please contact:

PCN Originator:

Name: Jerry Su–Manager, Engineering Department
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Phone: +886.2.2627.8687 # 2110

The expected 1st affected shipment date is August 18 2016

Reason of Change:
Add another assembly test house to increase AME Assembly and test capacity.

Qual/REL Report:

Reliability Report
for
GTK package PQFP-44

Prepared by Eric Chen, Manager of Quality & Reliability Dept.

Conclusion:

The GTK PQFP-44 series product has successfully met AME's reliability standard that is required on all AME, Inc products.

Furthermore, QRA Dept. of AME, Inc monitors the reliability continuously to make sure that all PQFP-44 series product will still meet AME's reliability standard in the future.

Table of Contents:

Test Item	Test Condition	Sample Size / Failures	Result
MSL	85/85 168 hours IR-reflow 3 cycles Peak Temp.= 260℃ IPC/JEDEC J-STD-020D	45 pcs / 0 pcs	Level 3
HTS	Precondition NOTE 1 Temp.=150℃ Duration=500 hours Unbiased, Read at 1000 hours	45 pcs / 0 pcs	Pass
PCT	Precondition NOTE 1 Temp.=121℃, R.H.=100% 15PSIG, Unbiased Duration=168 hours Read at 168 hours	45 pcs / 0 pcs	Pass
TCT	Precondition NOTE 1 -65℃ ~ 150℃ 500 cycles Unbiased, Read at 500 cycles	45 pcs / 0 pcs	Pass
Solderability	Temp.=260℃ (lead-free) Duration=5sec	15 pcs / 0 pcs	Pass

NOTE 1: 85/85 168 hours + IR-reflow 3 cycles with Peak Temp.= 260℃

Ⅱ、IR-reflow Test Result:

Test Item	Test Condition	Sample Size / Failures	Result
IR-reflow	See IR reflow Profile Perform 3 cycles test	22 pcs / 0 pcs	Pass

IR reflow Profile:

Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (Ts_{max} to Tp)	3℃/second max.
Preheat - Temperature Min (Ts_{min}) - Temperature Max (Ts_{max}) - Time (ts_{min} to ts_{max})	 150℃ 200℃ 60~180 seconds
Time maintained above - Temperature (T_L) - Time (t_L)	 217℃ 60~150 seconds
Peak/Classification Temperature (Tp)	260℃
Time within 5℃ of actual Peak Temperature (tp)	20~40 seconds
Ramp-Down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.