



Product Change Notices

PCN No.: 20240102

Date: 01/22/2024

Subject: Apply Cu bonding wire on AME's DFN 2x2x0.75mm package products

This is to inform you that Cu bonding wire will be applied to all the AME's DFN 2x2x0.75mm package products stated in table 1 with below conditions:

1. AME to ensure "Electrical Characteristic" with Cu bonding wire packaged as table 1 is 100% meet compliance of AME specifications.
2. AME had qualified this new material package with reliability test.
3. The Part Number of each product is unchanged, but identification by using D/C and marking rule are available.

Table 1

DFN-6D(2x2x0.75mm) 、 DFN-8D(2x2x0.75mm)
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List of Affected Part Numbers:

AME P/N	Package Type
AME8901A-BVYADJ	DFN-6D(2x2x0.75mm)

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: Eric Chen – Manager, Quality & Reliability Dept.

Email: eric_chen@ame.com.tw

Phone: +886.2.2627.8687 # 3111

Reason of Change:

Adding Cu bonding wire is to ensure the sufficient material source from supplier.

Qual/Rel Report:

Test Item	Method	Description	Result
MSL	IPC/JEDEC J-STD-020F	85/85 168hrs, IR-reflow 3 cycles Peak Temp.= 260°C	MSL1
HTS	JESD22-A103E	150°C, 1000hrs	Pass
THT (85/85)	JESD22-A101D	85°C, 85% RH, 1000hrs, without bias	Pass
PCT	JESD22-A102E	121°C, 100% RH, 2atm, 168hrs	Pass
TCT	JESD22-A104F	-65°C ~ 150°C, 500 cycles, DWELL=15min	Pass
Solderability	J-STD-002E	Steam again 8hrs, 245°C, 5s	Pass
IR-reflow	JESD22-A113I	See IR reflow Profile, Perform 3 cycles test	Pass



AME Cu Wire Reliability Report

Packages related to this PCN were shown below :

DFN-6(2x2x0.75mm) 、 DFN-8(2x2x0.75mm)

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



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I、Package Reliability Test Result

II、IR-reflow Test Result

**I、Package Reliability Test Result:**

Test Item	Test Condition	Sample Size / Failures	Result
MSL	85/85 168hrs IR-reflow 3 cycles Peak Temp.= 260°C IPC/JEDEC J-STD-020F	22 pcs / 0 pcs	Level 1
HTS	Precondition ^{NOTE 1} Temp.=150°C Duration=1000hrs Unbiased, Read at 1000hrs	77 pcs / 0 pcs	Pass
THT	Precondition ^{NOTE 1} Temp.=85°C, R.H.=85% Duration=1000hrs Unbiased, Read at 1000hrs	77 pcs / 0 pcs	Pass
PCT	Precondition ^{NOTE 1} Temp.=121°C, R.H.=100% 15PSIG, Unbiased Duration=168hrs Read at 168hrs	77 pcs / 0 pcs	Pass
TCT	Precondition ^{NOTE 1} -65°C ~ 150°C 500 cycles Unbiased, Read at 500 cycles	77 pcs / 0 pcs	Pass
Solderability	Temp.=245°C Duration=5sec	5 pcs / 0 pcs	Pass

NOTE 1: 85/85 168hrs + IR-reflow 3 cycles with Peak Temp.= 260°C

IV、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 ($T_{s_{max}}$ to T_p)	3°C/second max.
Preheat	
- Temperature Min ($T_{s_{min}}$)	150°C
- Temperature Max ($T_{s_{max}}$)	200°C
- Time ($t_{s_{min}}$ to $t_{s_{max}}$)	60~120 seconds
Time maintained above	
- Temperature (T_L)	217°C
- Time (t_L)	60~150 seconds
Peak/Classification Temperature (T_p)	260°C
Time within 5°C of actual Peak Temperature (t_p)	20~40 seconds
Ramp-Down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

