



QUALIFICATION REPORT
RELIABILITY LABORATORY

PCN #: JAON-25CNSA799

Date
September 21, 2015

**Qualification of ASE assembly site as an additional site for
selected products available in 24L QFN (5x5x0.9mm)
package.**

Distribution: **CORPORATE QA/RE**
 CORPORATE PACKAGING
 SUPPLIER ENGINEERING

OBJECTIVE

Qualification of ASE assembly site as an additional site for selected products available in 24L QFN (5x5x0.9mm) package.

PRODUCT INFORMATION

PACKAGE TYPE	72L VQFN (10x10x0.85 mm)
PACKAGE PIN PITCH	0.5mm
PACKAGE CODE	NU
CUP	YES
PROCESS	0.13um

Material used in the Assembly:

LEAD FRAME MATERIAL	Cu (C194-ETCHED- Double ring)
LEAD LOCK	NO
LEADFRAME PART NUMBER	A15112-0
UNITS PER L/F STRIP	80
PAD EXPOSED AREA	6.0X6.0mm
PAD SIZE	6.2 X 6.2mm
DIE ATTACH EPOXY MANUFACTURER	HITACHI
DIE ATTACH EPOXY TYPE	EN-4900F
WIRE TYPE	CuPdAu
WIRE DIAMETER	0.7 mil
MOLDING COMPOUND TYPE	EME-G631H
LEAD FINISHING COMPOSITION	Matte Tin
MARKING	LASER



MICROCHIP

PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.
ASE-161100169.000	P32F22.00
ASE-161200150.000	P32F22.00
ASE-161200151.000	P32F22.00

Result

☒ Pass ☐ Fail ☐ _____

The Mitsui Lead Frame Qual using the 72 VQFN Package assembled by ASEK Pass Reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 3 at 260 °C reflow temperature per IPC/JEDEC J-STD-020D standard.

Prepared By: Peter Boudouris **Date:** September 21, 2015 (Corporate Reliability & FA)

Approved By: Vassilios Danginis **Date:** September 21, 2015 (Corporate Reliability & FA)

RELIABILITY QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 3)	30 °C/ 60%RH	IPC/	376	0/376	Pass	LOT 1
	Moisture Soak 192 hrs.	JEDEC				
	(IPC/JEDEC J-STD-020D)	J-STD-020D	400	0/400	Pass	LOT 2
			400	0/400	PASS	LOT 3

<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 3)	Electrical Test :+25°C	JESD22-A113	376 (0) Lot 1	376	PASS	Good Devices
	SAT			376		
	Bake 125°C, 24 hrs			376		
	30 °C/ 60%RH Moisture Soak 192hrs			376		
	3x Convection-Reflow 265°C max			376		
	SAT			376		
	Electrical Test : +25°C				PASS	

<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 3)	Electrical Test : +25 °C / + 85 °C	JESD22-A113	400 (0) Lot 2	400	PASS	Good Devices
	SAT			400		
	Bake 125°C, 24 hrs			400		
	30 °C/ 60%RH Moisture Soak 192hrs			400		
	3x Convection-Reflow 265°C max			400		
	SAT			400		
	Electrical Test : +25°C			400	PASS	

<u>Precondition</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 3)	Electrical Test : +25 °C / + 85 °C	JESD22-A113	400 (0) Lot 3	400	PASS	Good Devices
	SAT			400		
	Bake 125 °C, 24 hrs			400		
	30 °C/ 60%RH Moisture Soak 192hrs			400		
	3x Convection-Reflow 265 °C max			400		
	SAT			400		
	Electrical Test : +25 °C			400	PASS	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 1000 Cycles Electrical Test: +25°C / + 85°C	JESD22-A104	240 (0)	240 0/240	Pass	
uHAST	Stress Condition: +130°C/85%RH, 96hrs, 192hrs Electrical Test: +25°C / + 85°C	JESD22-A110	240 (0)	240 0/240	Pass	
High Temperatu re Storage Life	Stress Condition: Bake +150°C, 1008hrs Electrical Test : +25°C / + 85°C	JESD22-A103	240 (0)	240 0/240	Pass	

JAON-25CNSA799 - CCB 2511 Final Notice: Qualification of ASE assembly site for selected products available in 24L QFN (5x5x0.9mm) package.

Affected Catalog Part Numbers (CPN)

PCN_JAON-25CNSA799
CATALOG_PART_NBR
SEC1200-CN-02
SEC1200-CN-02NC
SEC1200-CN-02NC-TR
SEC1200-CN-02-TR
SEC1210/PV-URT
SEC1210-A5-02G1
SEC1210-A5-02G1-TR
SEC1210-CN-02
SEC1210-CN-02NC
SEC1210-CN-02NC-TR
SEC1210-CN-02-TR
SEC1210-I/PV-URT
SEC1210I-A5-02G1
SEC1210I-A5-02G1-TR
SEC1210I-CN-02
SEC1210I-CN-02-TR
SEC1210T/PV-URT
SEC1210T-I/PV-URT