QUALIFICATION REPORT SUMMARY

PCN #: CAAN-02GZFV618

Date:
June 03, 2024

Qualification of UID as an additional assembly site for AT88SC0808CRF-MVA1, AT88RF04C-MVA1 and AT88SC6416CRF-MVA1 catalog part numbers (CPN) available in SCNC (18.1x8.6x0.58mm) package.

Purpose: **Qualification of UID as an additional assembly site for AT88SC0808CRF-MVA1, AT88RF04C-MVA1 and AT88SC6416CRF-MVA1 catalog part numbers (CPN) available in SCNC (18.1x8.6x0.58mm) package.**

CCB No.: **6563**

I. Summary

This report summarizes the passing qualification stresses performed on the AT88SC6416CRF-MVA1 / 0L-SCNC 18.1x8.6x0.58mm RFID Tag. These assembly lots were processed through the entire production package assembly process and qualified to the package qualification plan determined in reference to Microchip qualification specification QCI-39000.

II. Conclusion

The passing qualification stress results presented in this report releases the identified device families available in RFID Tag package of UID assembly.

III. Description of Package and Die Used in Qualification

Assembly Site	UTAC Indonesia (UID)
Reliability Site	MCSO
CPN	AT88SC6416CRF-MVA1
MPN	56903SHBBC02
Package Pin Count	0 (RF tag)
Package Group	SCNC (HBB)
Package Size	18.1x8.6x0.58mm
Lead plating	NiAu
Die Attach	Non-conductive
Wire	Au

IV. Lot Information

Lot	Assembly Lot	MES Lot Number Fab Wafer Lot & Wafer ID#	Qualification Stress
1	LT25C2403000010	UID-245000001.000 MCSO524211507.200 #03	Temp Cycle, UHST, HTSL
2	LT25C2403000011	UID-245000002.000 MCSO524211507.200 #03, 04	Temp Cycle, UHST, HTSL
3	LT25C2403000012	UID-245000003.000 MCSO524211507.200 #04	Temp Cycle, UHST, HTSL

V. Stress Results

	HTSL	TCT	Unbiased HAST
Test Method	JESD22-A103	JESD22-A104	JESD22-A118
Test Condition	$85^{O}C$ 168 hours	$-25^{O}C$ / $+85^{O}C$ Air to Air 200 Cycles	$+110^{O}C$ / 85% RH 264 hours
Sample Requirement: 77 each lot / 3 lots			
Sample Size	84, 87, 87	87, 85, 85	87, 85, 86
Results (Fail / Pass)	Pass (0/258)	Pass (0/257)	Pass (0/258)

a. Electrical test pre / post at +25°C.
b. HTSL = High Temperature Storage Life
c. TCT = Temperature Cycling Test
d. UHST = Unbiased Highly Accelerated Test

VI. Bond Strength Assembly Data

	WIRE PULL	BALL TO PAD SHEAR
Test Method	Mil Std 883-2011	JESD22-B116 / AEC-Q100
Test Criteria	> 4 grams	> 25 grams
Sample Size	30 / lot / 3 lots	30 / lot / 3 lots
Average	9.84 9.83 9.97	43.34 43.41 43.59
Fail / Pass	Pass (0 / 90)	Pass (0 / 90)

- Pull Mode: B