Product Change Notification - LIAL-28CQHS251

Date:

04 Jun 2020

Product Category:

Simple and Complex Programmable Logic; 8-bit Microcontrollers; Capacitive Touch Sensors

Affected CPNs:

Notification subject:

CCB 4248 Final Notice: Qualification of ASSH as a new assembly site for selected Atmel products available in 20L SOIC (.300in) package.

Notification text:

PCN Status:

Final notification.

PCN Type:

Manufacturing Change

Microchip Parts Affected:

Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:

Qualification of ASSH as a new assembly site for selected Atmel products available in 20L SOIC (.300in) package.

Pre Change:

Assembled at LPI using Au or CuPdAu wire, CRM-1033BF die attach and G600 molding compound material

Post Change:

Assembled at ASSH using CuPdAu wire, EN-4900G die attach and CEL9240 molding compound material

Pre and Post Change Summary:

	Pre Change		Post Change
Assembly Site	Lingsen Precision Industries, LTD. (LPI)		ASE-Shanghai (ASSH)
Wire material	Au Note1	CuPdAu Note2	CuPdAu
Die attach material	CRM-1033BF		EN-4900G
Molding compound material	G600		CEL9240
Lead frame material	C194		C194

Note 1: Applicable for device families ATF16V8xx and AT42QT2120xx

Note 2: Applicable for device families ATTINY43xx, AT89Sxx, AT89LPxx, and ATTINY26xx

Impacts to Data Sheet:
None

Change Impact:
None

Reason for Change:
To improve on-time delivery performance by qualifying ASSH as a new assembly site

Change Implementation Status:
In Progress

Estimated First Ship Date:
July 4, 2020 (date code: 2027)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	June 2020				July 2020				
Workweek	23	24	25	26	27	28	29	30	31
Qual Report Availability	X								
Final PCN Issue Date	X								
Estimated Implementation Date					X				

Method to Identify Change:
Traceability code

Qualification Report:
Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:
June 4, 2020: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on July 4, 2020.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s):
PCN LIAL-28CQHS251_QUAL REPORT.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

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If you wish to change your PCN profile, including opt out, please go to the PCN home page select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

ATF16V8C-7SU
ATF16V8CZ-15SU
ATF16V8B-15SU
ATF16V8BQL-15SU
ATF16V8B-15SU-T
ATTINY43U-SU
ATTINY43U-SUR
ATTINY4313-SU
ATTINY4313-SUR
AT42QT2120-SU
AT42QT2120-SUR
AT89S4051-24SU
AT89S2051-24SU
AT89S4051-24SUR
AT89LP4052-20SU
AT89LP2052-20SU
AT89LP4052-20SUR
ATTINY26L-8SURA2

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN#: LIAL-28CQHS251

Date

May 14, 2020

Qualification of ASSH as a new assembly site for selected Atmel products available in 20L SOIC (.300in) package.

Purpose: Qualification of ASSH as a new assembly site for selected Atmel products available in 20L SOIC (.300in) package.

CCB: 4248

Document control #: ML0520200045

ASSEMBLY MATERIALS INFORMATION

1. ASSEMBLY HOUSES : ASESH, Shanghai

2. LEADFRAME : C194

3. DIE ATTACH : EN4900G

4. MOLD COMPOUND : CEL9240

5. WIRE : PdCu

Qualification Vehicle Information

Device Type	TINY861	TINY861A	TINY44A
Product	MICROCONTROLLER	MICROCONTROLLER	MICROCONTROLLER
Pin Count	20	20	14
BPO	76um	76um	65μm

PACKAGE RELIABILITY

Baseline Electrical Parameters Per Device Specification

- **Data Retention Bake**
  - Ta: 150°C
  - Test Intervals: 168, 500, 1000 hrs.

DEVICE TYPE	LOT NUMBER	DATE CODE	RETENTION 168 HRS	RETENTION 500 HRS	RETENTION 1000HRS
TINY44A	HP2594X-2	1235	0/1000	0/100	0/1000
TINY861	2W1017A	1233	0/500	0/500	0/500
TINY861	2W1018A	1233	0/500	0/500	0/500
TINY861	2U4463A	1233	0/500	0/500	0/500
TINY861A	2W1657A	1233	0/1000	0/100	0/1000
TINY861A	2W2742A	1233	0/1000	0/100	0/1000
TINY861A	2W2741A	1233	0/1000	0/100	0/1000

- **Autoclave**
  - Condition: 121°C, 100% RH, 2ATM
  - Test Intervals: 168 hrs.

DEVICE TYPE	LOT NUMBER	DATE CODE	AUTOCLAVE 168HRS
TINY44A	HP2594X-2	1235	0/80
TINY861	2W1017A	1233	0/80
TINY861	2W1018A	1233	0/80
TINY861	2U4463A	1233	0/80
TINY861A	2W1657A	1233	0/80
TINY861A	2W2742A	1233	0/80
TINY861A	2W2741A	1233	0/80

Temperature Cycle

- Conditions: -65°C/+150°C
- Preconditioning: Yes
- Test Intervals: 200 and 1000 cycles

DEVICE TYPE	LOT NUMBER	DATE CODE	200 TEMP CYCLE (-65°C TO +150°C)	1000 TEMP CYCLE (-65°C TO +150°C)
TINY44A	HP2594X-2	1235	0/1000	0/1000
TINY861	2W1017A	1233	0/500	0/500
TINY861	2W1018A	1233	0/500	0/500
TINY861	2U4463A	1233	0/500	0/500
TINY861A	2W1657A	1233	0/1000	0/1000
TINY861A	2W2742A	1233	0/1000	0/1000
TINY861A	2W2741A	1233	0/1000	0/1000

- **HAST**
  - Conditions: Ta: 131°C, 85% RH
  - Vcc: 3.6V
  - Mode: Static Standby
  - Preconditioning: Yes
  - Test Intervals: 100 hrs.

DEVICE TYPE	LOT NUMBER	DATE CODE	HAST 96HRS
TINY861	2W1017A	1233	0/80
TINY861	2W1018A	1233	0/80
TINY861	2U4463A	1233	0/80
TINY861A	2W1657A	1233	0/80
TINY861A	2W2742A	1233	0/80
TINY861A	2W2741A	1233	0/80

- **MSL**
  - MSL1 per J-STD-20D (0/22)