Product Change Notification / CADA-20GQNA115

Date:

11-Aug-2022

Product Category:

EtherCAT, Ethernet Controllers, Ethernet Switches

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4827 Final Notice: Qualification of MTAI as a new assembly site for selected LAN925xx and LAN9353 device families available in 64L QFN (9x9x0.9mm) package.

Affected CPNs:

CADA-20GQNA115_Affected_CPN_08112022.pdf
CADA-20GQNA115_Affected_CPN_08112022.csv

Notification Text:

PCN Status: Final Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.
Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of MTAI as a new assembly site for selected LAN925xx and LAN9353 device families available in 64L QFN (9x9x0.9mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change

Assembly Site	ASE Inc. (ASE)	Microchip Technology Thailand (HQ) (MTAI)
Wire Material	CuPdAu	CuPdAu
Die Attach Material	EN-4900F	3280
Molding Compound Material	G631H	G700LTD
Lead-Frame Material	C194	A194
Lead-Frame Paddle Size	287x287mils	244 x 244mils
Lead Frame Design	Please refer to pre and post change comparison	

Impacts to Data Sheet: None

Change Impact None

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

Change Implementation Status: In Progress

Estimated First Ship Date: September 12, 2022 (2238)

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

Time Table Summary:

	February 2022					**August 2022**				**September 2022**				
Workweek	6	7	8	9	>	32	33	34	35	36	37	38	39	40
Initial PCN Issue Date				x										
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: February 24, 2022: Issued initial notification.
August 11, 2022: Issued final notification. Provided estimated first ship date to be on September 12, 2022.

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

Attachments:

PCN_CADA-20GQNA115_Qual Report.pdf
PCN_CADA-20GQNA115_Pre and Post Change_Summary.pdf

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

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our PCN home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the PCN FAQ section.

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.

CCB 4827
Pre and Post Change Summary
PCN #: CADA-20GQNA115

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SMART | CONNECTED | SECURE

LEAD FRAME COMPARISON

<table>
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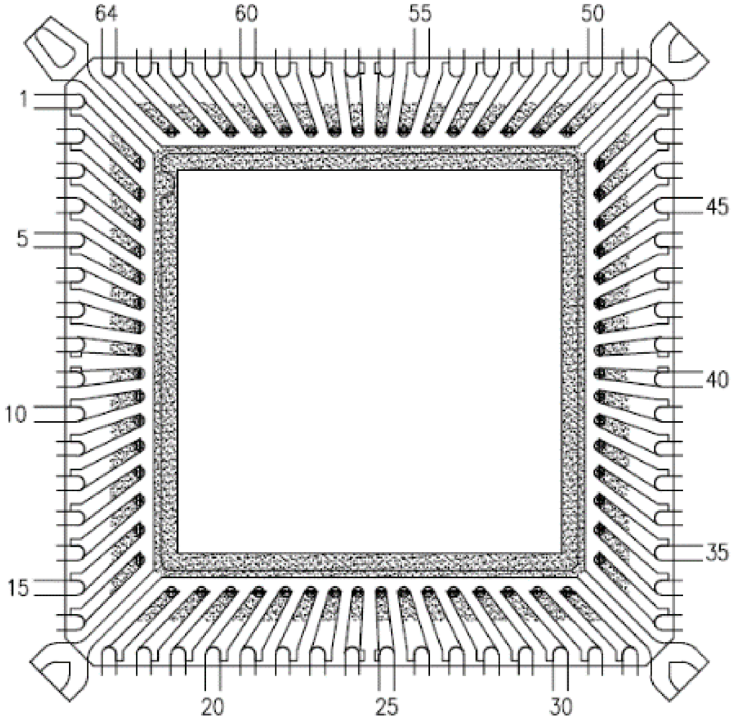
<td>

<table><tr><td>Lead frame Paddle Size</td><td>287x287mils</td></tr></table>
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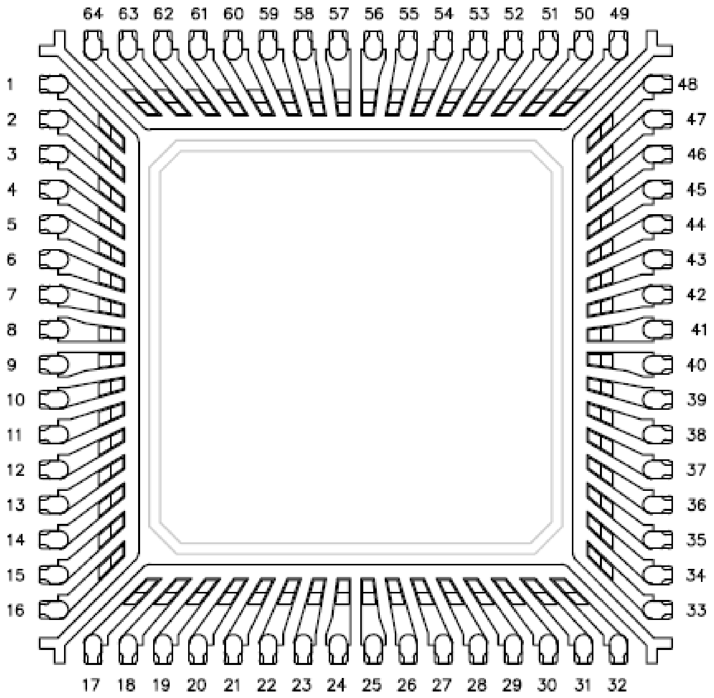
<td>

<table><tr><td>Lead frame Paddle Size</td><td>244 x 244mils</td></tr></table>
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QUALIFICATION REPORT SUMMARY

PCN #: CADA-20GQNA115

Date:
August 4, 2022

Qualification of MTAI as a new assembly site for selected LAN925xx and LAN9353 device families available in 64L QFN (9x9x0.9mm) package

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of MTAI as a new assembly site for selected LAN925xx and LAN9353 device families available in 64L QFN (9x9x0.9mm) package
CN	E000094918
QUAL ID	R2200334
MP CODE	XA8011R4XA0C
Part No.	LAN9252/ML
Bonding No.	BD-000177 Rev.01
CCB#	4827
Package	
Type	64L QFN
Package size	9 x 9 x 0.9 mm
Lead Frame	
Paddle size	244 x 244 mils
Material	A194
Surface	Double ring
Treatment	Roughening
Process	Etched
Lead Lock	No
Part Number	10106416
Material	
Epoxy	3280
Wire	CuPdAu
Mold Compound	G700LTD
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI224902106.000	TC14922238841.100	2209WQR
MTAI224902603.000	TC14922238841.100	22090SC
MTAI224902608.000	TC14922238841.100	220913M

Result ☒ Pass ☐ Fail ☐ ____________________

64L QFN (9x9x0.9 mm) assembled by MTAI 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-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 3)	**Electrical Test:** +25°C and 105°C System: EX_DIGITAL	JESD22-A113	693(0)	693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		693		
	30°C/60%RH Moisture Soak 192 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C and 105°C System: EX_DIGITAL			0/693	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, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +105°C System: EX_DIGITAL		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (> 2.50 grams)		15 (0)	0/15	Pass	
	Bond Shear (>13.00 grams)		15 (0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: EX_DIGITAL		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** PS= 1.2 Volts, PS4= 3.3 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 105°C System: EX_DIGITAL		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 150°C, 500 hrs System: SHEL LAB	JESD22-A103		135		45 units / lot
	Electrical Test: +25°C and 105°C System: EX_DIGITAL		135(0)	0/135	Pass	

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Affected Catalog Part Numbers(CPN)

LAN9250/ML
LAN9252/ML
LAN9353/ML
LAN9250I/ML
LAN9252I/ML
LAN9353I/ML
LAN9250V/ML
LAN9252V/ML
LAN9250TV/ML
LAN9252TV/ML
LAN9250T/ML
LAN9252T/ML
LAN9353T/ML
LAN9250TI/ML
LAN9252TI/ML
LAN9353TI/ML
LAN9253/R4X
LAN9253-I/R4X
LAN9253-V/R4X
LAN9253T-V/R4X
LAN9253T/R4X
LAN9253T-I/R4X