



Product Change Notification - BCDM000040 - JAON-11SIPZ900

Date:

19 Dec 2018

Product Category:

Linear Regulators

Affected CPNs:**Notification subject:**

CCB 1737.04 Final Notice: Release to production of listed Micrel Regulator product type manufactured with the BCDM process technology to Microchip Fab.

Notification text:**PCN Status:**

Final Notification

Note: This final PCN only pertains to the products listed in this PCN. Additional final PCNs may be issued for this combination of product type and process technology.

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:

Release to production of listed Micrel Regulator product type manufactured with the BCDM process technology to Microchip Fab.

NOTE: Please review the FAQ linked [here](#) for additional information about this change.

Pre Change:

Fabricated at Micrel fabrication site (San Jose, CA, USA) using 6 inch wafers.

Post Change:

Fabricated at Microchip fabrication site using 8 inch wafers.

Pre and Post Change Summary:

	Pre Change	Post Change
Fab Site	Micrel fabrication site (San Jose, CA, USA)	Microchip fabrication site
Wafer Size	6 inch wafers	8 inch wafers

Impacts to Data Sheet:

None



Reason for Change:

To improve productivity with the closure of the Micrel fab as part of the integration of Micrel and Microchip.

Change Implementation Status:

In Progress

Estimated First Ship Date:

As identified for each CPN listed in the attached parts list.

Summary Time Table of notable events to date:

	September 2015					->	April 2016					->	December 2018				January 2019				
Workweek	36	37	38	39	40		14	15	16	17		49	50	51	52	1	2	3	4	5	
Initial PCN Issue Date <u>CYER-31JLEX869</u>	X																				
Qual Report Available <u>JAON-11SIPZ900</u>							X														
Final PCN Issue Date JAON-11SIPZ900-BCDM000040														X							
Estimated First Ship Date	As listed in the attached parts list.																				

Markings to Distinguish Revised from Unrevised Devices:

Traceability code and shipping label see [FAQ](#).

Revision History:

September 1, 2015: Issued initial notification as PCN number [CYER-31JLEX869](#).

April 14, 2016: Issued intermediate notification as PCN number [JAON-11SIPZ900](#). Attached the Qualification Report. Revised the estimated first ship date (EFSD) to inform that the EFSD will be revealed in the final PCN.

December 19, 2018: Issued final notification as PCN number JAON-11SIPZ900-BCDM000040 for listed Micrel's Regulator products manufactured with the BCDM process technology. Provided estimated first ship date (EFSD) for each CPN listed in the attached parts list.

The change described in this PCN does not alter Micrel's or Microchip's current regulatory



compliance regarding the material content of the applicable products.

Attachment(s):

[PCN JAON-11SIPZ900-BCDM000040 Affected CPN.pdf](#)

[PCN JAON-11SIPZ900-BCDM000040 Qual Report.pdf](#)

[PCN JAON-11SIPZ900-BCDM000040 Affected CPN.xls](#)

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.



MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-11SIPZ900-BCDM000040

Date

March 24, 2016

**Qualification of Microchip 8 inch Fabrication site for Micrel products
manufactured with the BCDM Process Technology.**

PART NUMBER / MASK	PACKAGE TYPE	ASSEMBLY LOCATION	WAFER SIZE	PROCESS NAME
MIC29302WU / 20801	TO263-5L	GTBF,CHINA	8"	BCDM

DIE QUALIFICATION RESULTS

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	168 HR Rej/ss	1000 HR Rej/ss	COMMENTS
HTOL High Temperature Operating Life Test	JESD22, Method 108	1543P	V21618566.000MQB	0/77	0/77	
	TA= + 125°C	1543P	V21618566.100MQA	0/77	0/77	
	VCC = +26V	1543P	V21618566.111MQA	0/77	0/77	

ELECTROSTATIC DISCHARGE

TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
ESD-HBM Human Body Model ATE Test @ Room +25C	R= 1500 Ohms C= 100 pF 1X +/- Voltage	1543P	V21618566.000MQB	+/-500V	0/3	Note: ESD ratings are device specific. All Products qualified on the 8" Micrel process technologies will have the same or better ESD and Latch-up performance as the 6" San Jose Products.
ESD-CDM Charged Device Model ATE Test @ Room +25C	JESD22-C101 1X +/- Voltage	1543P	V21618566.000MQB	+/-1500V	0/3	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
LATCH-UP	JESD-78 TA = +25°C	1543P	V21618566.000MQB	I/O LU O/V LU	0/6 0/6	LU Same as 6" process

PACKAGE QUALIFICATION RESULTS						
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	Rej/ss	COMMENTS	
Level 3 Pre-conditioning Flow	JESD22-A113	1543P	V21618566.000MQB	0/321		
		1543P	V21618566.100MQA	0/143		
		1543P	V21618566.111MQA	0/143		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS	
PRESSURE POT With Level 3 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A102 Ta = +121°C/100%RH 15 PSIG	1543P	V21618566.000MQB	0/45		
		1543P	V21618566.100MQA	0/45		
		1543P	V21618566.111MQA	0/45		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS	
HAST With Level 3 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A110 (BIASED) Ta= +130°C/85%RH VCC = +26V	1543P	V21618566.000MQB	0/45		
		1543P	V21618566.100MQA	0/45		
		1543P	V21618566.111MQA	0/45		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 CY Rej/ss	COMMENTS	
TEMP CYCLE With Level 3 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A104 Ta = -65°C / +150°C	1543P	V21618566.000MQB	0/45		
		1543P	V21618566.100MQA	0/45		
		1543P	V21618566.111MQA	0/45		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	1000 HR Rej/ss	COMMENTS	
HTSL High Temperature Storage Life Tpeak + 260°C 3X Reflow	JESD22-A103 Ta = +150°C	1543P	V21618566.000MQB	0/76		
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 HR Rej/ss	1000 HR Rej/ss	COMMENTS
HTSL High Temperature Storage Life Tpeak + 260°C 3X Reflow	JESD22-A103 Ta = +175°C	1543P	V21618566.000MQB	0/76	0/76	
FLAMMABILITY	UL-94V-0 Certified	All mold compounds used by Micrel meet this standard. See the UL website on-line list of material flammability certifications. Micrel requires a Certificate of Compliance from the assembly house and we verify the certifications on the web.				

Affected Catalog Part Numbers (CPN)

MIC5158YN

MIC5158YM

MIC5158YM-TR

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Affected Catalog Part Numbers (CPN)

PCN_JAON-11SIPZ900-BCDM000040	
CATALOG_PART_NBR	Estimated First Ship Date (EFSD)
MIC5158YN	January 19, 2019
MIC5158YM	January 02, 2019
MIC5158YM-TR	January 19, 2019