

Product Change Notification - BCDSI00026 - JAON-24FRFP480

Date: 01 Feb 2018
Product Category: Power MOSFET Drivers
Notification subject: CCB 1737.01 Final Notice: Release to production of listed Micrel MOSFET Driver product type manufactured with the BCDSI 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 the attachments found in the attachments field below labeled as PCN_#_Affected_CPN.

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

Description of Change:
 Release to production of listed Micrel MOSFET Driver product type manufactured with the BCDSI 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					->	March 2016					->	February 2018				March 2018				
Workweek	36	37	38	39	40		09	10	11	12	13		05	06	07	08	09	10	11	12	13
Initial PCN Issue Date	X																				

CYER-31JLEX869																									
Qual Report Available JAON-24FRFP480							X																		
Final PCN Issue Date JAON-24FRFP480-BCDSI00026													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](#).

March 3, 2016: Issued intermediate notification as PCN number [JAON-24FRFP480](#). Attached the Qualification Report. Revised the estimated first ship date (EFSD) to inform that the EFSD will be revealed in the final PCN.

June 20, 2016: Updated the qualification report to add the note on the ESD ratings.

February 1, 2018: Issued final notification as PCN number [JAON-24FRFP480-BCDSI00026](#) for listed Micrel's MOSFET Driver products manufactured with the BCDSI 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-24FRFP480-BCDSI00026_Qual_Report.pdf](#)
- [PCN_JAON-24FRFP480-BCDSI00026_Affected_CPN.pdf](#)
- [PCN_JAON-24FRFP480-BCDSI00026_Affected_CPN.xls](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-24FRFP480-BCDSI00026

Date
January 22, 2016

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

PART NUMBER	PACKAGE TYPE	ASSEMBLY LOCATION	Wafer Size	PROCESS NAME
MIC2199YML	DFN44-12L	UNISEM IPOH MALAYSIA	8"	BCDSI

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	1540	V416.201815.210MQA	0/77	0/77	
	TA= + 125°C	1541	V416.201815.200MQA	0/77	0/77	
	VCC = +16V	1542	V416.201815.3000MQA	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	1540	V416.201815.210MQA	+/-2000V	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	1540	V416.201815.210MQA	+/-1500V	0/3	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	STRESS	RESULT Rej/ss	COMMENTS
LATCH-UP	JESD-78 TA = +25°C	1540	V416.201815.210MQA	I/O LU O/V LU	0/6 0/6	

PACKAGE QUALIFICATION RESULTS					
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	Rej/ss	COMMENTS
Level 1 Pre-conditioning Flow	JESD22-A113	1540	V416.201815.210MQA	0/323	
		1541	V416.201815.200MQA	0/143	
		1542	V416.201815.3000MQA	0/145	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS
PRESSURE POT With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A102 Ta = +121°C/100%RH 15 PSIG	1540	V416.201815.210MQA	0/45	
		1541	V416.201815.200MQA	0/45	
		1542	V416.201815.3000MQA	0/45	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	96 HR Rej/ss	COMMENTS
HAST With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A110 (BIASED) Ta = +130°C/85%RH	1540	V416.201815.210MQA	0/45	
		1541	V416.201815.200MQA	0/45	
		1542	V416.201815.3000MQA	0/45	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	500 CY Rej/ss	COMMENTS
TEMP CYCLE With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A104 Ta = -65°C / +150°C	1540	V416.201815.210MQA	0/45	
		1541	V416.201815.200MQA	0/45	
		1542	V416.201815.3000MQA	0/45	
TEST DESCRIPTION	METHOD/CONDITIONS	DATE CODE	LOT ID.	1000 HR Rej/ss	COMMENTS
HTSL High Temperature Storage Life With Level 1 Pre-conditioning Tpeak + 260°C 3X Reflow	JESD22-A103 Ta = +150°C	1540	V416.201815.210MQA	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.			

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Affected Catalog Part Numbers (CPN)

PCN_JAON-24FRFP480-BCDSI00026	
CATALOG_PART_NBR	Estimated First Ship Date (EFSD)
MIC4127YMME	March 14, 2018
MIC4128YMME	March 14, 2018
MIC4126YME	March 14, 2018
MIC4127YME	February 14, 2018
MIC4128YME	March 14, 2018
MIC4127YMME-TR	March 14, 2018
MIC4128YMME-TR	February 14, 2018
MIC4126YME-TR	March 14, 2018
MIC4127YME-TR	February 14, 2018
MIC4128YME-TR	March 14, 2018
MIC4127YML-TR	March 14, 2018
MIC4128YML-TR	March 14, 2018
MIC5011YM	March 14, 2018
MIC5013YM	March 14, 2018
MIC5011YN	March 14, 2018
MIC5013YN	March 14, 2018
MIC5011YM-TR	March 14, 2018
MIC5013YM-TR	March 14, 2018