



# Initial Product/Process Change Notification

Document #: IPCN24632X

Issue Date: 11 May 2022

<b>Title of Change:</b>	Consumer CIS AR1335 transfer from TSMC Fab12 to Fab14
<b>Proposed First Ship date:</b>	01 Aug 2023 or earlier if approved by customer
<b>Contact Information:</b>	Contact your local onsemi Sales Office or <a href="mailto:Mike.Webster@onsemi.com">Mike.Webster@onsemi.com</a>
<b>PCN Samples Contact:</b>	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
<b>Type of Notification:</b>	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact < <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> >
<b>Marking of Parts/ Traceability of Change:</b>	Date Code
<b>Change Category:</b>	Wafer Fab Change
<b>Change Sub-Category(s):</b>	Manufacturing Site Addition

**Sites Affected:**

onsemi Sites	External Foundry/Subcon Sites
None	TSMC Semiconductor, Taiwan

**Description and Purpose:**

The proposed change is to transfer all front side CMOS manufacturing of the AR1335 from TSMC Fab 12 to TSMC Fab 14. The current manufacturing wafer process flow is for front side processing to occur in FAB 12 and then backside processing to occur in Fab 14, with wafers shipping to Fab 14 after completing in Fab 12. In an effort to expand manufacturing capacity at TSMC, we will qualify material to run front-side MFG entirely at the Fab 14 facility. These two facilities use identical manufacturing equipment, processes, and maintenance plans. They are located on separate TSMC sites in Taiwan.

There will be no change to form, fit or function of the product.

	Before Change Description	After Change Description
Front-End MFG Site	TSMC Fab 12	TSMC Fab 14

There are no product material changes as a result of this change.

There is no product marking change as a result of this change.



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## Reliability Data Summary:

QV DEVICE NAME : AR1335CSC11SMKA0-CP

PACKAGE : iBGA

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta= <u>125</u> °C Tj, 100 % max rated Vcc	1008 hrs
ELFR	AEC Q100-008	Ta= <u>125</u> °C	24 hrs
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C	
HTSL	JESD22-A103	Ta= <u>150</u> °C	1008 hrs
TC	JESD22-A104	Ta= <u>-55</u> °C to <u>+125</u> °C	1000 cyc
HAST	JESD22-A110	110°C, 85% RH, with bias	264 hrs
uHAST	JESD22-A118	110°C, 85% RH, unbiased	264 hrs
WBS	AEC Q100-001 AEC Q003	CPK >1.67	
WBP	MIL-STD883 Method 2011 AEC Q003	CPK >1.67, 0 Fails after TC (test #A4)	
HBM	AEC Q100-002	0 Fails; 2KV HBM	
CDM	AEC Q100-011	0 Fails: 750V for corner pins, 500V all other pins	
LU	AEC Q100-004	0 Fails	
ED	AEC Q100-009 AEC Q003	Elect. Distribution: (Test @ C/ R/ H)	

Data will be available after AEC-Q100 Qualification; provided in Final PCN.

Estimated date for qualification completion: 31 March 2023

## Electrical Characteristics Summary:

Electrical characteristics will be available after correlation between sites; provided in Final PCN.

## List of Affected Parts:

**Note:** Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
AR1335CSSM32SMD20	AR1335CSC11SMKA0-CP
AR1335CSC11SMKA0-CP	AR1335CSC11SMKA0-CP
AR1335CSC32SMD20	AR1335CSC11SMKA0-CP
AR1335CSC11SMKA0-CP2	AR1335CSC11SMKA0-CP
AR1335CSC32SMD20-RC1	AR1335CSC11SMKA0-CP
AR1335CSSM11SMKA0-CP1	AR1335CSC11SMKA0-CP

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**Appendix A: Changed Products**

**PCN#: IPCN24632X**  
**Issue Date: May 10, 2022**

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
AR1335CSSC11SMKA0-CP2		AR1335CSSC11SMKA0-CP	NA	