

## Initial Product/Process Change Notification

Document #:IPCN24011X Issue Date:11 Jun 2021

Title of Change:	Addition of PTI manufa	Addition of PTI manufacturing site for AR1335 CSP imagers			
Proposed First Ship date:	11 Dec 2021 or earlier	11 Dec 2021 or earlier if approved by customer			
Contact Information:	Contact your local ON Semiconductor Sales Office or <a href="mailto:Geethakrishnan.Narasimhan@onsemi.com">Geethakrishnan.Narasimhan@onsemi.com</a>				
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or < PCN.samples@onsemi.com>.  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.				
Type of Notification:	advance notification al change details and dev The completed qualific Product/Process Chang Product/Process Chang	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 < PCN.Support@onsemi.com>			
Marking of Parts/ Traceability of Change:	Date Code Nov 2021				
Change Category:	Assembly Change	Assembly Change			
Change Sub-Category(s):	Manufacturing Site Add	Manufacturing Site Addition			
Sites Affected:					
ON Semiconductor Sites		External Foundry/Subcon Sites			
None		Kunshan Huatian			
		Powertech Technology Inc., Taiwan			

### **Description and Purpose:**

In order to support higher demand, PTI is being qualified and added as an additional manufacturing site for AR1335 CSP products. The current manufacturing site i.e. HTKS, will continue to support CSP demand. KYEC will continue to be the site for final test. This notification communicates our intent to qualify additional capacity for our AR1335 CSP product. A summary of key differences between the process flow at the two sites is shown below.

A qualification plan is also included in the table below. Electrical parametric comparison between the two sites will be included in the final notification document.

	Before Change Description (HuaTian)	After Change Description (PTI + Huatian)	
Assembly Site	Huatian	PTI	
Glass Supplier	Corning	Schott AF32 ECO	
Dielectric Layer	JSR-5100	CVD Oxide	
TSV Etch	2 Step	1 Step	
DAM Material Supplier	WLP5635	DF3570PE	

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

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#### **Qualification Plan:**

QV DEVICE NAME: AR1335CSSC11SMKA0-CR

PACKAGE TYPE: AR1335 CSP

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta= 105°C, 100 % max rated Vcc	1008 hrs
PC	J-STD-020	30°C/60%RH for 96hrs + 3X IR Reflow @ 245C	=
TC	JESD22-A104	-55°C - 125°C	500 cycles
THB	JEITA ED4701-100	60°C/90% RH with max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
SD	J-STD-002	Solderability	-
SBS	AEC-Q100-010	Solder Ball Shear	-
PD	JESD22 B100,B108	Physical Dimension: Critical Cpk>1.33	-
НВМ	JESD22-A114	Electrostatic Discharge, Human Body Model	HBM 2KV
CDM	JESD22-C101	Electrostatic Discharge, Charge Device Model:	CDM 500V
LU	JESD78	Latch-up	-

Estimated date for qualification completion: 31 August 2021

### **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		
AR1335CSSM11SMKA0-CP1	AR1335CSSC11SMKA0-CR		
AR1335CSSM11SMKA0-CP	AR1335CSSC11SMKA0-CR		
AR1335CSSC11SMKA0-CR1	AR1335CSSC11SMKA0-CR		
AR1335CSSC11SMKA0-CR	AR1335CSSC11SMKA0-CR		
AR1335CSSC11SMKA0-CP2	AR1335CSSC11SMKA0-CR		
AR1335CSSC11SMKA0-CP1	AR1335CSSC11SMKA0-CR		
AR1335CSSC11SMKAO-CP	AR1335CSSC11SMKAO-CR		

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# **Appendix A: Changed Products**

PCN#: IPCN24011X

**Issue Date: Jun 10, 2021** 

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
AR1335CSSC11SMKA0-CP2		AR1335CSSC11SMKA0-CR	NA	
AR1335CSSC11SMKA0-CP1		AR1335CSSC11SMKA0-CR	NA	