



Final Product/Process Change Notification

Document #:FPCN22952XB

Issue Date:17 Nov 2021

Title of Change:	Reconstruction wafer production site change from Kingpak to THELT for AR0233 based image sensors.
Proposed First Ship date:	24 Feb 2022 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Geethakrishnan.Narasimhan@onsemi.com
PCN Samples Contact:	Contact your local onsemi 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.
Additional Reliability Data:	Contact your local onsemi Sales Office or Amy.Wu@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	Date Code starting Feb 2022.
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Site Transfer

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
None	Kingpak, Taiwan
	Tong Hsing Electronic Industries, Ltd. , Taiwan

Description and Purpose:

onsemi is relocating AR0233 based family of products for die reconstruct assembly from Kingpak, Chung Lee, Taiwan to Tong Hsing Electronics Limited (THELT), Long Tan, Taiwan. Kingpak is a wholly owned subsidiary of Tong Hsing. This is being done in response to manufacturing floor optimization to support capacity improvement. The proposed site has passed the qualification requirements as per AEC-100 guidelines. The table below summarizes the change. There is no change in the shipping tape.

	Current	Proposed
Die Reconstruct Assembly Site	Kingpak	Tong Hsing Electronic Limited

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

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

Reliability Data Summary:

QV DEVICE NAME : AR0233AT RECON

PACKAGE : THELT RECON, iBGA as QV

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Tj= <u>125</u> °C, 100 % max rated Vcc	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C		Pass
HTSL	JESD22-A103	Ta= <u>150</u> °C	1008 hrs	0/90
TC	JESD22-A104	Ta= <u>-55</u> °C to <u>+125</u> °C	500 cyc	0/231
HAST	JESD22-A110	110°C, 85% RH, with bias	264 hrs	0/231
uHAST	JESD22-A118	110°C, 85% RH, unbiased	264 hrs	0/231
WBS	AEC Q100-001 AEC Q003	CPK >1.67		Pass
WBP	MIL-STD883 Method 2011 AEC Q003	CPK >1.67 or 0 Fails after TC (test #A4)		Pass
HBM	AEC Q100-002	0 Fails; 2KV HBM		Pass
CDM	AEC Q100-011	0 Fails: 750V for corner pins, 500V all other pins		Pass
LU	AEC Q100-004	0 Fails		Pass
ED	AEC Q100-009 AEC Q003	Elect. Distribution: (Test @ C/ R/ H)		Pass

Electrical Characteristics Summary:

Electrical characteristics are not impacted as there is no electrical testing as part of this assembly process and no changes to electrical test conditions at wafer probe.

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
AR0261C55C30SMD20	AR0233ATSE17XUD20
AR1335C55C11SMD20	AR0233ATSE17XUD20
AR1335C55C32SMD20	AR0233ATSE17XUD20
AR1335C55C32SMD20-RC1	AR0233ATSE17XUD20
AR1335C55M11SMD20	AR0233ATSE17XUD20
AR1335C55M32SMD20	AR0233ATSE17XUD20
AR1337C55C32SMD20	AR0233ATSE17XUD20
ARX3A0C55C28SMD20	AR0233ATSE17XUD20
ARX3A0C55M00SMD20-RC1	AR0233ATSE17XUD20
ARX3A0C55M00SMD20	AR0233ATSE17XUD20
ARX3A0C55C28SMD20-RC1	AR0233ATSE17XUD20

Appendix A: Changed Products**PCN#: FPCN22952XB**
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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
ARX3A0CSSM00SMD20-RC1		AR0233ATSE17XUD20	NA	