



Final Product/Process Change Notification

Document #:FPCN24441X

Issue Date:15 Dec 2021

Title of Change:	Transfer Assembly reconstruct process from Kingpak to Tong Hsing - Longtan for MT9M114D00STCZK24BC1-200 and AR0330CM1C25SUD20
Proposed First Ship date:	04 Apr 2022 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Mike.Webster@onsemi.com
PCN Samples Contact:	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.
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
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 MT9M114 and AR0330 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. There are no changes to materials or form due to this site change. The table below summarizes the change.

	Before Change Description	After Change Description
Reconstruct Assembly Site	Kingpak	Tong Hsing Electronic Industries

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 : C13C

PACKAGE : 9mm x 9 mm iBGA

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta= <u>105</u> °C, 100 % max rated Vcc	1008 hrs	0/240
ELFR	AEC Q100-008	Ta= <u>125</u> °C	24 hrs	0/2400
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= -55 °C to +125 °C	1000 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, with bias	96 hrs	0/240
uHAST	JESD22-A118	130°C, 85% RH, unbiased	96 hrs	0/240
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; there is no electrical testing as part of this assembly process and no changes to electrical test conditions at wafer probe. Final test comparison on qualification material was equivalent.

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
AR0330CM1C25SUD20	MT9V024D00XTRC13CC1-200
AR0330CM1C12SUD20	MT9V024D00XTRC13CC1-200
MT9M114D00STCZK24BC1-200	MT9V024D00XTRC13CC1-200