

Final Product/Process Change Notification Document #:FPCN24010X Issue Date:08 Nov 2021

Title of Change:	Package assembly site transfer for narrow body SOIC packages from Amkor and/ or ASE Chung Li to ASE Kunshan		
Proposed First Ship date:	15 Feb 2022 or earlier if approved by customer		
Contact Information:	Contact your local onsemi Sales Office or Lay Woon Lim < <u>LayWoon.Lim@onsemi.com</u> >.		
PCN Samples Contact:	Contact your local onsemi Sales Office or < <u>PCN.samples@onsemi.com</u> >. 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 Phine.Guevarra@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:	Parts can be identified by the assembly code in the traceability code		
Change Category:	Assembly Change		
Change Sub-Category(s):	Manufacturing Site Transfer, Material Change		
Sites Affected:			
onsemi Sites		External Foundry/Subcon Sites	
None		ASECL, Taiwan (ChungLi)	
	ASEKS, China		
		ATP1 - Amkor Technology Philippines P1	

#### Description and Purpose:

This Final PCN is to notify of the completed actions to qualify a new package assembly site, ASE located in Kunshan, China (ASEKS) for narrow body SOIC-8 and SOIC-16 packages that are currently assembled in Amkor Tech Philippines Plant 1 and/ or ASE in Chung Li. This change is to allow onsemi to consolidate the package assembly manufacturing of SOIC packages to limited sites for better supply chain management and manufacturing flexibility. The package BOM will be changed to the standard BOM for the SOIC packages at ASEKS. Due to specific tooling requirement at ASEKS, a few minor physical dimension parameters on the case outline drawing or physical outline drawing will be changing as detailed below.

	Before Change Description	After Change Description	
Assembly Site	Amkor Tech Philippines Plant 1 ASE Chung Li	ASE Kunshan	
Die Attach	Henkel EPOXY 8290, EPOXY 84-1 LMIS R4 Hitachi EN4900G	Hitachi EN4900GC	
Mold Compound	Sumitomo EME-6600H, EME-G600, G700LS Sumitomo G700LY	Hitachi CEL-9240HF10AK	
	From	То	
Product marking change	Product marking change Assembly Site Code for Amkor or ASE Chung Li Latest marking style format. Assembly S for ASEKS.		



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			From		То	
Case Outline Drawing Changes						
SOIC-8 Case Outline # 751AZ Document # 98AON34918E						
SOIC-6 Case Outline # 751A2 Document # 98AON34918E SOIC-16 Case Outline # 751BA Document # 98AON34919E						
eliability Data V DEVICE NAME	-	G	case outline 751AZ (mm)DIMMINMAXh0.250.41	DIM h	MIN MAX 0.25 0.50	
MS: 078780						
	3					
	3 Specification		Condition	Interval	Results	
ACKAGE: SOIC-8		Ta= 150°C	Condition	Interval 1008 hrs	Results	
ACKAGE: SOIC-8	Specification	Ta= 150°C Ta= -65°C to +150°C				
ACKAGE: SOIC-8 Test HTSL	Specification JESD22-A103			1008 hrs	0/231	
ACKAGE: SOIC-8 Test HTSL TC+PC	Specification JESD22-A103 JESD22-A104	Ta= -65°C to +150°C 130°C, 85% RH, 18.8		1008 hrs 1000 cyc	0/231 0/231	
ACKAGE: SOIC-8 Test HTSL TC+PC UHAST+PC	Specification JESD22-A103 JESD22-A104 JESD22-A118	Ta= -65°C to +150°C 130°C, 85% RH, 18.8	Bpsig, unbiased	1008 hrs 1000 cyc	0/231 0/231 0/231	
ACKAGE: SOIC-8 Test HTSL TC+PC UHAST+PC PC	Specification JESD22-A103 JESD22-A104 JESD22-A118 J-STD-020 JESD-A113	Ta= -65°C to +150°C 130°C, 85% RH, 18.8 T	Bpsig, unbiased MSL 2 @ 260 °C	1008 hrs 1000 cyc	0/231 0/231 0/231 0/462	
ACKAGE: SOIC-8 Test HTSL TC+PC UHAST+PC PC SD PD	Specification           JESD22-A103           JESD22-A104           JESD22-A118           J-STD-020 JESD-A113           JSTD002           JESD22-B100 and           JESD22-B108           E: FS6370-01G-XTD           30724	Ta= -65°C to +150°C 130°C, 85% RH, 18.8 T	8psig, unbiased MSL 2 @ 260 ℃ a = 245C, 10 sec	1008 hrs 1000 cyc	0/231 0/231 0/231 0/462 0/45	
ACKAGE: SOIC-8 Test HTSL TC+PC UHAST+PC PC SD PD V DEVICE NAME MS: 078781; 08 ACKAGE: SOIC-1	Specification           JESD22-A103           JESD22-A104           JESD22-A118           J-STD-020 JESD-A113           JSTD002           JESD22-B100 and           JESD22-B108           E: FS6370-01G-XTD           80724           I6	Ta= -65°C to +150°C 130°C, 85% RH, 18.8 T	Bpsig, unbiased MSL 2 @ 260 °C a = 245C, 10 sec Per Case Outline	1008 hrs 1000 cyc 96 hrs	0/231 0/231 0/231 0/462 0/45 0/30	
ACKAGE: SOIC-8 Test HTSL TC+PC UHAST+PC PC SD PD PD / DEVICE NAME AS: 078781; 08 ACKAGE: SOIC-1 Test	Specification           JESD22-A103           JESD22-A104           JESD22-A118           J-STD-020 JESD-A113           JSTD002           JESD22-B100 and           JESD22-B108           E: FS6370-01G-XTD           30724           J6	Ta= -65°C to +150°C 130°C, 85% RH, 18.8 T T	Bpsig, unbiased MSL 2 @ 260 °C a = 245C, 10 sec Per Case Outline Condition	1008 hrs           1000 cyc           96 hrs	0/231 0/231 0/231 0/462 0/45 0/30 Results	
ACKAGE: SOIC-S Test HTSL TC+PC UHAST+PC PC SD PD V DEVICE NAME MS: 078781; 08 ACKAGE: SOIC-2 Test HTSL	Specification           JESD22-A103           JESD22-A104           JESD22-A118           J-STD-020 JESD-A113           JSTD002           JESD22-B100 and           JESD22-B108           E: FS6370-01G-XTD           30724           J6           Specification           JESD22-A103	Ta= -65°C to +150°C 130°C, 85% RH, 18.8 T T T T T T T T T T T T T	Bpsig, unbiased MSL 2 @ 260 °C a = 245C, 10 sec Per Case Outline Condition	1008 hrs           1000 cyc           96 hrs           Image: state	0/231 0/231 0/231 0/462 0/45 0/30 <b>Results</b> 0/231	
ACKAGE: SOIC-5 Test HTSL TC+PC UHAST+PC PC SD PD VDEVICE NAME MS: 078781; 08 ACKAGE: SOIC-7 Test HTSL TC+PC	Specification           JESD22-A103           JESD22-A104           JESD22-A118           J-STD-020 JESD-A113           JSTD002           JESD22-B100 and           JESD22-B108           E: FS6370-01G-XTD           80724           J6           Specification           JESD22-A103           JESD22-A103           JESD22-A118	Ta= -65°C to +150°C 130°C, 85% RH, 18.8 T T T T T T T T T T T T T	Bpsig, unbiased MSL 2 @ 260 °C a = 245C, 10 sec Per Case Outline Condition C 8psig, unbiased	1008 hrs           1000 cyc           96 hrs           Image: state	0/231 0/231 0/231 0/462 0/45 0/30 <b>Results</b> 0/231 0/231	
ACKAGE: SOIC-S Test HTSL TC+PC UHAST+PC PC SD PD V DEVICE NAME MS: O78781; OB ACKAGE: SOIC-3 Test HTSL TC+PC UHAST+PC	Specification           JESD22-A103           JESD22-A104           JESD22-A118           J-STD-020 JESD-A113           JSTD002           JESD22-B100 and           JESD22-B108           E: FS6370-01G-XTD           80724           I6           Specification           JESD22-A103           JESD22-A104	Ta= -65°C to +150°C 130°C, 85% RH, 18.8 Ta= 150°C Ta= 150°C Ta= -65°C to +150°C 130°C, 85% RH, 18.8	Bpsig, unbiased MSL 2 @ 260 °C a = 245C, 10 sec Per Case Outline Condition	1008 hrs           1000 cyc           96 hrs           Image: state	0/231 0/231 0/231 0/462 0/45 0/30 <b>Results</b> 0/231 0/231	

### QV DEVICE NAME: FS7140-01G-XTD

## RMS: 078782

PACKAGE: SOIC-16				
Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
TC+PC	JESD22-A104	Ta= -65°C to +150°C	1000 сус	0/231
UHAST+PC	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 2 @ 260 °C		0/462
SD	JSTD002	Ta = 245C, 10 sec		0/45
PD	JESD22-B100 andJESD22-B108	Per Case Outline		0/30



#### **Electrical Characteristics Summary:**

Electrical characteristics are not impacted.

#### 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	
FS7140-01G-XTP	FS7140-01G-XTD	
FS7140-01G-XTD	FS7140-01G-XTD	
FS6377-01IG-XTD	FS6370-01G-XTD	
FS6377-01G-XTP	FS6370-01G-XTD	
FS6377-01G-XTD	FS6370-01G-XTD	



# Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FS7140-01G-XTD	13715-806-XTD	FS7140-01G-XTD	NA	
FS6377-01G-XTD	11486-912-XTD	FS6370-01G-XTD	NA	
FS6377-01IG-XTD	11486-913-XTD	FS6370-01G-XTD	NA	