



Final Product/Process Change Notification

Document #:FPCN25572X3

Issue Date:25 Oct 2023

Title of Change:	Update to FPCN25572X - to provide reliability data for MicroPak 6lds and MicroPak 2 6lds.	
Proposed First Ship date:	01 Jan 2024 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office or logic.fpcn@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 ChangKit.Mok@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:	Custom source on label will show TW instead of US/JP to indicate new die source from Vanguard. Changed material may be identified by plant code or lot code too.	
Change Category:	Wafer Fab Change, Assembly Change, Test Change	
Change Sub-Category(s):	Manufacturing Site Transfer	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
None	STARS Microelectronics, Thailand	
	Vanguard International Semiconductor, Taiwan	
Description and Purpose:		
With reference to FPCN25572X , this FPCN presents the updated reliability results for MicroPak 6lds and MicroPak 2 6lds.		
➤ MicroPak:		
	From	To
Fab Site	TPSCo and Diodes Maine	Vanguard International Semiconductor (VIS)
Assembly Site	Stars, Hana, UTAC	Stars
Wire	PCC, Au, Au	PCC
Lead frame	PPF, PPF, PPF	PPF
Mold Compound	EME G700LTD, CEL9220HF13H, G770HCD	EME G700LTD
Die Attach	HR-5104, 8006NS, 8006NS	HR-5104

➤ **MicroPak2:**

	From	To
Fab Site	TPSCo and Diodes Maine	Vanguard International Semiconductor (VIS)
Assembly Site	Stars, Hana, UTAC	Stars
Wire	PCC, Au, Au	PCC
Lead frame	PPF, PPF, PPF	PPF
Mold Compound	EME G700LTD, CEL9220HF13H, G770HCD	EME G700LTD
Die Attach	HR-5104, 8006NS, 8006NS	HR-5104

➤ **Reliability Summary:** Refer to embedded excel RMS 87728 and 87726.

Update on replacement part numbers:

Current Orderable Part Number	Previous New Orderable Part Number	Updated New Orderable Part Number
NC7SZU04FHX-L22175	NC7SZU04FHX	NC7SZU04AFHX
NC7SZU04L6X-L22175	NC7SZU04L6X	NC7SZU04AL6X

Reliability Data Summary:

Please refer to embedded excel RMS 87728 and 87726.

To view attachments:

1. Download pdf copy of the PCN to your computer
2. Open the downloaded pdf copy of the PCN
3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field
4. Then click on the attached file.

Electrical Characteristics Summary:

Electrical characteristics available upon request.



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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
NC7WZ17FHX	NC7WZ14FHX, NC7SZ14L6X
NC7WZ16L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ16L6X	NC7WZ14FHX, NC7SZ14L6X
NC7WZ16FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ16FHX	NC7WZ14FHX, NC7SZ14L6X
NC7WZ14L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ14L6X	NC7WZ14FHX, NC7SZ14L6X
NC7WZ14FHX	NC7WZ14FHX, NC7SZ14L6X
NC7WZ07L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ07L6X	NC7WZ14FHX, NC7SZ14L6X
NC7WZ07FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ07FHX	NC7WZ14FHX, NC7SZ14L6X
NC7WZ04L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ04L6X	NC7WZ14FHX, NC7SZ14L6X
NC7WZ04FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZU04L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZU04FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ86L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ58L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ58FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ58FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ57L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ57L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ57FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ38L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ38L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ332L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ32L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ32L6X	NC7WZ14FHX, NC7SZ14L6X



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NC7SZ32FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ18L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ18FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ175L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ175L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ157L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ157FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ157FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ14L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ14L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ14FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ14FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ126L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ125L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ125L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ125FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ125FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ11L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ08L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ08L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ08FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ05L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ05FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ04L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ04L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ04FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ02L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ02FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ00L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ00FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SU04L6X	NC7WZ14FHX, NC7SZ14L6X
NC7ST08L6X	NC7WZ14FHX, NC7SZ14L6X
NC7S32L6X	NC7WZ14FHX, NC7SZ14L6X
NC7S14L6X	NC7WZ14FHX, NC7SZ14L6X



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NC7S08L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7S08L6X	NC7WZ14FHX, NC7SZ14L6X
NC7S00L6X	NC7WZ14FHX, NC7SZ14L6X
NC7S00L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7S02L6X	NC7WZ14FHX, NC7SZ14L6X
NC7S04L6X	NC7WZ14FHX, NC7SZ14L6X
NC7S04L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7S14L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7S86L6X	NC7WZ14FHX, NC7SZ14L6X
NC7ST00L6X	NC7WZ14FHX, NC7SZ14L6X
NC7ST02L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ00L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ02FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ02L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ04FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ05L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ08FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ126FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ126FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ126L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ157L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ19FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ19L6X	NC7WZ14FHX, NC7SZ14L6X
NC7SZ57FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ58L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ86FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ86L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZU04L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ04FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZU04L6X	NC7WZ14FHX, NC7SZ14L6X
NC7WZ17L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ17L6X	NC7WZ14FHX, NC7SZ14L6X
NC7WZ17FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7WZ14FHX-L22175	NC7WZ14FHX, NC7SZ14L6X



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NC7SZU04FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ86FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ38FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ38FHX	NC7WZ14FHX, NC7SZ14L6X
NC7SZ32FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ19L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ19FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ18L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ18FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ05FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SZ00FHX-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7SU04L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7ST86L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7ST86L6X	NC7WZ14FHX, NC7SZ14L6X
NC7ST32L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7ST32L6X	NC7WZ14FHX, NC7SZ14L6X
NC7ST08L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7ST02L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7ST00L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7S86L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7S32L6X-L22175	NC7WZ14FHX, NC7SZ14L6X
NC7S02L6X-L22175	NC7WZ14FHX, NC7SZ14L6X

QV DEVICE NAME	RMS	PACKAGE	Test	Specification	Condition	Interval	Results
NC7SZ14L6X	S87728	MicroPak 6L (SIP6)	High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hours	0/231
NC7SZ14L6X	S87728	MicroPak 6L (SIP6)	High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hours	0/231
NC7SZ14L6X	S87728	MicroPak 6L (SIP6)	Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	-	0/693
NC7SZ14L6X	S87728	MicroPak 6L (SIP6)	Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cycles	0/231
NC7SZ14L6X	S87728	MicroPak 6L (SIP6)	Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hours	0/231
NC7SZ14L6X	S87728	MicroPak 6L (SIP6)	Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hours	0/231
NC7SZ14L6X	S87728	MicroPak 6L (SIP6)	Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec		0/30
NC7WZ14FHX	S87726	MicroPak2 6L (UDFN-6)	High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hours	0/77
NC7WZ14FHX	S87726	MicroPak2 6L (UDFN-6)	High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hours	0/77
NC7WZ14FHX	S87726	MicroPak2 6L (UDFN-6)	Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	-	0/231
NC7WZ14FHX	S87726	MicroPak2 6L (UDFN-6)	Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cycles	0/77
NC7WZ14FHX	S87726	MicroPak2 6L (UDFN-6)	Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hours	0/77
NC7WZ14FHX	S87726	MicroPak2 6L (UDFN-6)	Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hours	0/77
NC7WZ14FHX	S87726	MicroPak2 6L (UDFN-6)	Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec	-	0/10