PCN Number:			202	21(	0122001.1A	<b>PCN Date:</b>	June 4, 2021			
Tit	le:	New Tray for	Sele	Select Devices						
Cu	stom	er Contact:	PCN	Ma	<u>anager</u>	Dept:	Qu	Quality Services		
Proposed 1 <sup>st</sup> Ship Da			ite:	e: May 24 2021						
Change Type:										
	Asse	embly Site			Assembly Process			Assembly Materials		
	Desi	gn			Electrical Specification			Mechanical Specification		
Test Site				X	Packing/Shipping		Test Process			
Wafer Bump Site					Wafer Bump Material			☐ Wafer Bump Process		
Wafer Fab Site					Wafer Fab Materials			Wafer Fab Pro	cess	
					Part number char	nge			_	

# **PCN Details**

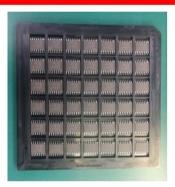
# **Description of Change:**

**Revision A** is to announce the <u>addition</u> of new devices that were not included on the original PCN notification. These new devices are under **Group 2** in the Product affected section below. The expected first shipment date for these new devices will be 90 days from this notice (<u>Sept 4, 2021</u>) for these newly added devices only. The proposed 1<sup>st</sup> ship date of May 24, 2021 still applies for the original set of devices under Group 1.

Texas Instruments is pleased to announce the qualification of a new tray for the devices listed below. A comparison summary of the tray differences as follows:

### **Group 1 Device:**

#### **CURRENT TRAY**



#### **NEW TRAY**



	EXISTING	PROPOSED	COMMENT
Part Number	8060127-0001	4225655-0001	Change
Supplier	Beyonics	TecReach	Change
Tray Design	Insert Tray	<u>Jedec</u> Tray	Change
Tray Dimension	101.6 x 101.6 x 8 mm	322.6 x 135.9 x 7.62 mm	Change
Surface Resistance	10^4 - 10^10 Ohm/Sq	10^4 - 10^10 Ohm/Sq	No Change
Package Size	6.35X9.91x1.78mm	6.35X9.91x1.78mm	No Change
Package Type	Gullwing	Gullwing/Cerpack	Change
Tray Pocket	6 x 7	4 x 22	Change
Color	Black	Black/Red	Change

# **Engineering Validation Results**

	Cu	rrent Tr	ay	Proposed Tray			
Item	806	0127-00	001	4225655-0001			
Description	DIM	MIN	MAX	DIM	MIN	MAX	Remark
Overall Length	101.63	101.5	101.7	322.63	322.35	322.85	Change
Internal Length	NA	NA	NA	315.05	314.75	315.25	Change
Overall width	101.60	101.5	101.7	135.83	135.65	136.15	Change
Upper Stack Length	91.70	91.59	91.8	311.23	311.02	311.40	Change
Lower Stack Length	91.69	91.59	91.8	311.70	311.53	311.91	Change
Upper Stack Width	91.69	91.59	91.8	132.04	131.95	132.33	Change
Lower Stack Width	91.69	91.59	91.8	132.47	132.46	132.84	Change
Stack height	5.01	4.9	5.11	6.36	6.22	6.48	Change
Pitch M	17.96	17.85	18.05	24.45	24.32	24.58	Change
Pitch M1	16.53	16.42	16.62	16.81	16.67	16.93	Change
Pitch M2	14.20	14.1	14.3	13.39	13.27	13.53	Change
Pitch M3	12.13	12.03	12.23	28.98	28.87	29.13	Change
Length of Live Bug	10.16	10.06	10.26	10.22	10.13	10.29	Change
Length of Dead Bug	10.17	10.06	10.26	10.23	10.13	10.29	Change
Ridge Height of DeadBug	6.84	6.78	6.88	6.65	6.60	6.70	Change
Depth of Leavingbug Pocket	6.84	6.78	6.88	6.60	6.52	6.68	Change

# **Group 2 Device:**

# PROBLEM (FROM)



# SOLUTION (TO)



36	EXISTING	PROPOSED	COMMENT
Part Number	8062424-0001	4225717-0001	Change
Supplier	Beyonics	TecReach	Change
Tray Design	Insert Tray	Jedec Tray	Change
Tray Dimension	101.6 x 101.6 x 8 mm	322.6 x 135.9 x 7.62 mm	Change
Surface Resistance	10^4 - 10^10 Ohm/Sq	10^4 - 10^10 Ohm/Sq	No Change
Package Size	6.12X6.15x1.78mm	6.12X6.15x1.78mm	No Change
Package Type	Gullwing	Gullwing/Cerpack	Change
Tray Pocket	6 x 9	4 x 31	Change
Color	Black	Black/Red	Change

# **Engineering Validation Results**

	Current Tray			Pi			
Item	80	062424-00	01	42	Remark		
Description	DIM	MIN	MAX	DIM	MIN	MAX	
Overall Length	101.600	101.498	101.702	322.600	322.350	322.850	Change
Internal Length	NA	NA	NA	315.000	314.750	315.250	Change
Overall Width	101.600	101.498	101.702	135.900	135.650	136.150	Change
Upper Stack Length	91.694	NA	NA	311.150	311.020	311.400	Change
Lower Stack Length	91.694	NA	NA	311.660	311.530	311.910	Change
Upper Stack Width	91.694	NA	NA	132.080	131.950	132.330	Change
Lower Stack Width	91.694	NA	NA	132.590	132.460	132.840	Change
Stack Height	5.004	4.902	5.105	6.350	6.220	6.480	Change
Pitch M	18.506	18.405	18.608	24.450	24.320	24.580	Change
Pitch M1	10.770	10.668	10.871	16.500	16.370	16.630	Change
Pitch M2	6.426	6.325	6.528	9.400	9.270	9.530	Change
Pitch M3	13.909	13.807	14.011	29.000	28.870	29.130	Change
Length of Live Bug	6.502	6.502	6.604	6.450	6.370	6.530	Change
Length of Dead Bug	6.502	6.502	6.604	6.450	6.370	6.530	Change
Depth of Leaving Bug Pocket	3.302	3.200	3.404	2.100	2.000	2.200	Change

# **Reason for Change:**

Existing tray discontinuing

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

None

Changes to product identification resulting from this PCN:

New tray

**Product Affected: Group 1** 

5962-8773901XA	5962R9950402VZA	LF198WG-QMLV	LM139AWGRQMLV
5962-9453402QXA	7704302XA	LM124AWG/883	LM6172AMGW-QML
5962-9560402QXA	ADC128S102WGMPR	LM124AWGRLQMLV	LM6172AMGWFQMLV
5962-9673801VXA	ADC128S102WGRQV	LM124AWGRQMLV	LM6172AMGWRLQV
5962F9560402VXA	DS26C32AMWG/883	LM139AWG-QMLV	LMC6484AMWG/883
5962R9560403VXA	DS90C031WGRQMLV	LM139AWG-SMD	MPD23783NAC
5962R9673801VXA	DS90C032WGLQMLV	LM139AWG/883	MPD23784NAC
5962R9673802VXA	DS90LV031AWGMLS	LM139AWGRLQMLV	SN1401044NAC
962R9950401VZA	JL148BZA		

#### **Product Affected: Group 2** 5962-0254501MZA 5962R0722602VZA LM119WGRQMLV LMH6628WGFQMLV 5962-0254601VZA 5962R0923561VZA LM158AWG/883 LMH6702WG-QMLV 5962-0620601VZA 5962R0923562VZA LM158AWGRLQMLV LMH6702WGFLQMLV 5962-8759401YA 5962R1122201VZA LM158AWGRQMLV LMH6702WGFQMLV 5962-8759402YA 5962R8771002VXA LM185BWG/883 LMP2012WG-QMLV 5962-8771002QXA 5962R8771003VXA LM185WG-1.2/883 LMP2012WGLLQMLV 5962-9091402QYA 5962R9679801VXA LM185WG-2.5/883 LMP2012WGLQMLV 5962-9553601QXA 5962R9679802VXA LM4050WG2.5-MPR MKT-WG10A-MS 5962F0254501VZA DAC121S101WGMPR LM4050WG2.5RLQV MPD23785NAC DAC121S101WGRLV 5962F0254601VZA LM4050WG5.0-MPR RM4050WG10XQV 5962F0254602VZA DAC121S101WGRQV LM4050WG5.0RLQV RM4050WG2.5RQV LF411MWGRLQMLV RM4050WG5.0XQV 5962F9553601VXA LM7171AMWG-QML 5962F9553602VXA LM111WG/883 LM7171AMWGFLQV RM4051WG1.2XQV 5962L0620601VZA LM111WGLQMLV LM7171AMWGFQMLV RM411MWGXQMLV 5962L0620602VZA LM111WGRLQMLV LM95172EWG/NOPB 5962R0722601VZA LM119WGRLQMLV LMH6628WG-OML

### **Group 1 Tray Qualification**



## **Tray Qualification**

Supplier PEAK

Vendor p/n

TI part number: 4225655-1001

Package: 14NAC/14NAD/16NAC/16NAD

Matrix: 22 x 4

package size : 6.35 x 9.9 x 1.77 mm

RESULT: **PASSED** Date: 10/17/20

1. Tray Design

a). Meet TI design requirement

Result: Passed

#### 2. Fitting Test

Test Conditions: Devices shall feed freely and easier to remove from the cavity.

Result: Passed

#### 3. RESISTIVITY TEST

	Limit	Track1	Track2	Track3	Track4	Track5	Track1	Track2	Track3	Track4	Track5
Voltage	< 200	1	3	1	1	1	2	1	1	2	1
voltage	<b>~</b> 200	PASS									
		1.10E+06	3.00E+05	5.80E+04	7.50E+04	7.00E+04	1.60E+10	1.20E+10	1.10E+10	1.90E+10	2.50E+10
Surface Resistance	> 1.00E+04	PASS									

Result: Passed

#### 4. MANUFACTURABILITY TEST

- a) Material on evaluation will not pose any problem with the existing machine.
  - 1. Machine feed (ok)
  - 2. Component pick and place (ok)
  - 3. Vision reflectivity (ok)

Result : Passed

#### 5. DROP TEST

Packing method : - Packing with Tray

Ship Box	8059748-0001
Tray	4225655-0001
Bubble Pack	8085735-0001
Bubble Pack	8032476-0001
Label Pack	4200225-0002

Result: Passed

# **Group 2 Tray Qualification**



# **Tray Qualification**

Supplier : PEAK

Vendor p/n :

TI part number: 4225717-0001 Package: 10NAC/10NAD

Matrix: 4 x 31

package size : 6.12 x 6.15 x 1.78

RESULT: PASSED
Date: 03/15/21

1. Tray Design

a). Meet TI design requirement

Result: Passed

#### 2. Fitting Test

Test Conditions: Devices shall feed freely and easier to remove from the cavity.

Result : Passed

#### 3. RESISTIVITY TEST

		Limit	Tray1	Tray2	Tray3	Tray4	Tray5
	Voltage < 200		9	10	7	12	9
1	Voltage	V 200	PASS	PASS	PASS	PASS	PASS
			2.50E+05	1.50E+05	1.90E+05	1.60E+05	4.60E+05
١	Surface Resistance	> 1.00E+04	PASS	PASS	PASS	PASS	PASS

Result : Passed

### 4. MANUFACTURABILITY TEST

- a) Material on evaluation will not pose any problem with the existing machine.
  - 1. Machine feed (ok)
  - 2. Component pick and place (ok)
  - 3. Vision reflectivity (ok)

Result : Passed

#### 5. DROP TEST

Packing method: - Packing with Tray

Ship Box	8059748-0001
Tray	4225717-0001
Bubble Pack	8085735-0001
	8032476-0001
Label Pack	4200225-0002

Result: Passed

For questions regarding this notice, e-mails can be sent to the contacts shown below or your local Field Sales Representative.

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