

Package Improvement for 10L and 14L  
Bottombrazed Flatpack and Provide Pin 1  
Marking on Old 14L Flatpacks  
Qualification Results



E. POLICARPIO JR.

# 10L BOTTOMBRAZED FLATPACK QUALIFICATION RESULTS

# In-Line Monitors and Screening Test (Reference: MIL-STD-883)

**Package: 10L Bottombrazed Flatpack**

**Device: ADA4096S**

**Assembly Lot ID: E334783.1**

Test Description	Test Method	Sample Size	Results	Remarks
Pre-seal Die Shear Test	2019	5 units	0/5	Pass
Wire Pull Test	2011	5 units (all wires)	0/40	Pass
Third Optical Inspection	2010/A	100%	97% (within plan yield / no failure related to package)	Pass
Temperature Cycling	1010/C	100%	100%	Pass
Constant Acceleration	2001/E	100%	100%	Pass
Final Visual Inspection	2009	100%	100%	Pass
Particle Impact Noise Detection (PIND) Test	2020/A	100%	100%	Pass
Radiographic Inspection	2012	100%	93% (within plan yield / no failure related to package)	Pass
Fine Leak Test	1014/A	100%	100%	Pass
Gross Leak Test	1014/C	100%	100%	Pass

# Reliability Tests (Reference: MIL-STD-883)

**Package: 10L Bottombrazed Flatpack**

**Device: ADA4096S**

**Test Lot ID: E338408.9**

Test Description	Test Method	Qty (Accept #)	Sample Size	No. of Rejects	Remarks
<b>SUBGROUP 1</b>		<b>15 (0)</b>			
Physical Dimensions	2016		15	0	Pass
<b>SUBGROUP 2</b>		<b>45 (0) for Leads from 3 devices min</b>			
Lead Integrity	2004/B2		45 leads	0	Pass
Fine Leak Test	1014/A		5	0	Pass
Gross Leak Test	1014/C		5	0	Pass
<b>SUBGROUP 3</b>		<b>15 (0)</b>			
Test @ +25C			15	0	Pass
Thermal Shock	1011/B		15	0	Pass
Temperature Cycle	1010/C		15	0	Pass
Moisture Resistance	1004		15	0	Pass
Visual Inspection	1004/1010		15	0	Pass
Test @ +25C			15	0	Pass
Test @ -55C			15	0	Pass
Test @ +125C			15	0	Pass
Fine Leak Test	1014/A		15	0	Pass
Gross Leak Test	1014/C		15	0	Pass

# Reliability Tests (Reference: MIL-STD-883)

Test Description	Test Method	Qty (Accept #)	Sample Size	No. of Rejects	Remarks
<b>SUBGROUP 4</b>		<b>15 (0)</b>			
Test @ +25C			15	0	Pass
Mechanical Shock	2002/B		15	0	Pass
Vibration Variable Frequency	2007/A		15	0	Pass
Constant Acceleration	2001/E		15	0	Pass
Fine Leak Test	1014/A		15	0	Pass
Gross Leak Test	1014/C		15	0	Pass
Visual Exam	2007		15	0	Pass
Test @ +25C			15	0	Pass
Test @ -55C			15	0	Pass
Test @ +125C			15	0	Pass
<b>SUBGROUP 5</b>		<b>15 (0)</b>			
Salt Atmosphere	1009/A		15	0	Pass
Visual Exam	1009		15	0	Pass
Fine Leak Test	1014/A		15	0	Pass
Gross Leak Test	1014/C		15	0	Pass
<b>SUBGROUP 6</b>		<b>3 (0)</b>			
Internal Water Vapor Content	1018		3	0	Pass
<b>SUBGROUP 7</b>		<b>15 (0)</b>			
Adhesion of Lead Finish	2025		15 Leads	0	Pass

# 14L BOTTOMBRAZED FLATPACK QUALIFICATION RESULTS

# In-Line Monitors and Screening Test (Reference: MIL-STD-883)

**Package: 14L Bottombrazed Flatpack**

**Device: ADA4077-4S**

**Assembly Lot ID: E364232.1**

Test Description	Test Method	Sample Size	Results	Remarks
Pre-seal Die Shear Test	2019	5 units	0/5	Pass
Wire Pull Test	2011	5 units (all wires)	0/70	Pass
Third Optical Inspection	2010/A	100%	96.75% (within plan yield / no failure related to package)	Pass
Temperature Cycling	1010/C	100%	100%	Pass
Constant Acceleration	2001/E	100%	100%	Pass
Final Visual Inspection	2009	100%	100%	Pass
Particle Impact Noise Detection (PIND) Test	2020/A	100%	100%	Pass
Radiographic Inspection	2012	100%	97% (within plan yield / no failure related to package)	Pass
Fine Leak Test	1014/A	100%	100%	Pass
Gross Leak Test	1014/C	100%	100%	Pass

# Reliability Tests (Reference: MIL-STD-883)

**Package: 14L Bottombrazed Flatpack**

**Device: ADA4077-4S**

**Test Lot ID: E365423.1**

Test Description	Test Method	Qty (Accept #)	Sample Size	No. of Rejects	Remarks
<b>SUBGROUP 1</b>		<b>15 (0)</b>		<b>TBD</b>	Available by Feb. 2021
Physical Dimensions	2016		15		
<b>SUBGROUP 2</b>		<b>45 (0) for Leads from 3 devices min</b>		<b>TBD</b>	Available by Feb. 2021
Lead Integrity	2004/B2		45 leads		
Fine Leak Test	1014/A		5		
Gross Leak Test	1014/C		5		
<b>SUBGROUP 3</b>		<b>15 (0)</b>		<b>TBD</b>	Available by Feb. 2021
Test @ +25C			15		
Thermal Shock	1011/B		15		
Temperature Cycle	1010/C		15		
Moisture Resistance	1004		15		
Visual Inspection	1004/1010		15		
Test @ +25C			15		
Test @ -55C			15		
Test @ +125C			15		
Fine Leak Test	1014/A		15		
Gross Leak Test	1014/C		15		



# Reliability Tests (Reference: MIL-STD-883)

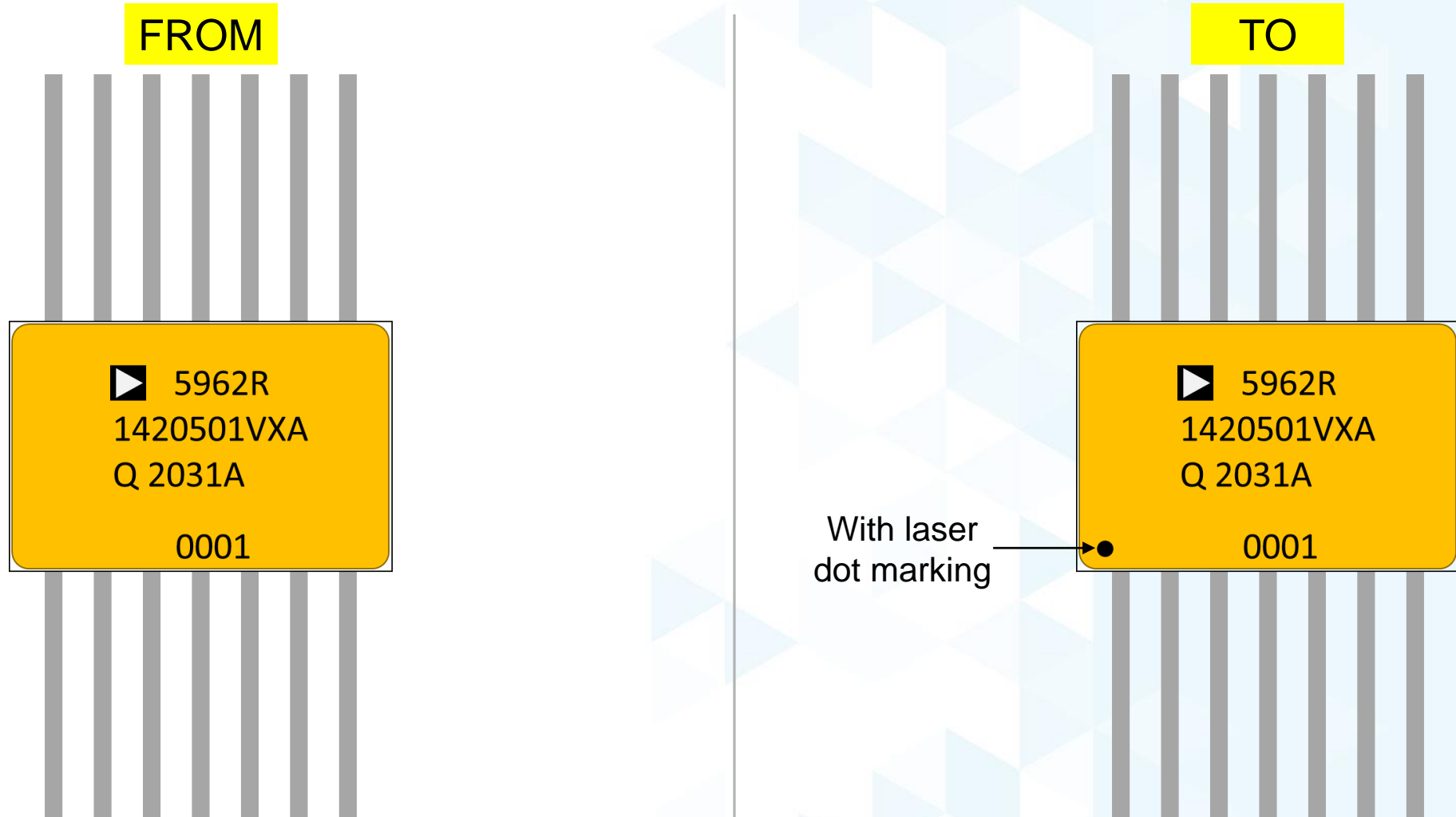
Test Description	Test Method	Qty (Accept #)	Sample Size	No. of Rejects	Remarks
<b>SUBGROUP 4</b>		<b>15 (0)</b>		<b>TBD</b>	Available by Feb. 2021
Test @ +25C			15		
Mechanical Shock	2002/B		15		
Vibration Variable Frequency	2007/A		15		
Constant Acceleration	2001/E		15		
Fine Leak Test	1014/A		15		
Gross Leak Test	1014/C		15		
Visual Exam	2007		15		
Test @ +25C			15		
Test @ -55C			15		
Test @ +125C			15		
<b>SUBGROUP 5</b>		<b>15 (0)</b>		<b>TBD</b>	Available by Feb. 2021
Salt Atmosphere	1009/A		15		
Visual Exam	1009		15		
Fine Leak Test	1014/A		15		
Gross Leak Test	1014/C		15		
<b>SUBGROUP 6</b>		<b>3 (0)</b>		<b>TBD</b>	Available by Feb. 2021
Internal Water Vapor Content	1018		3		
<b>SUBGROUP 7</b>		<b>15 (0)</b>		<b>TBD</b>	Available by Feb. 2021
Adhesion of Lead Finish	2025		15 Leads		

# Package Improvement for 10L and 14L Bottombrazed Flatpack and Provide Pin 1 Marking on Old 14L Flatpacks Summary of Change



E. POLICARPIO JR.

# Interim Marking Change on 14L BBFP Products

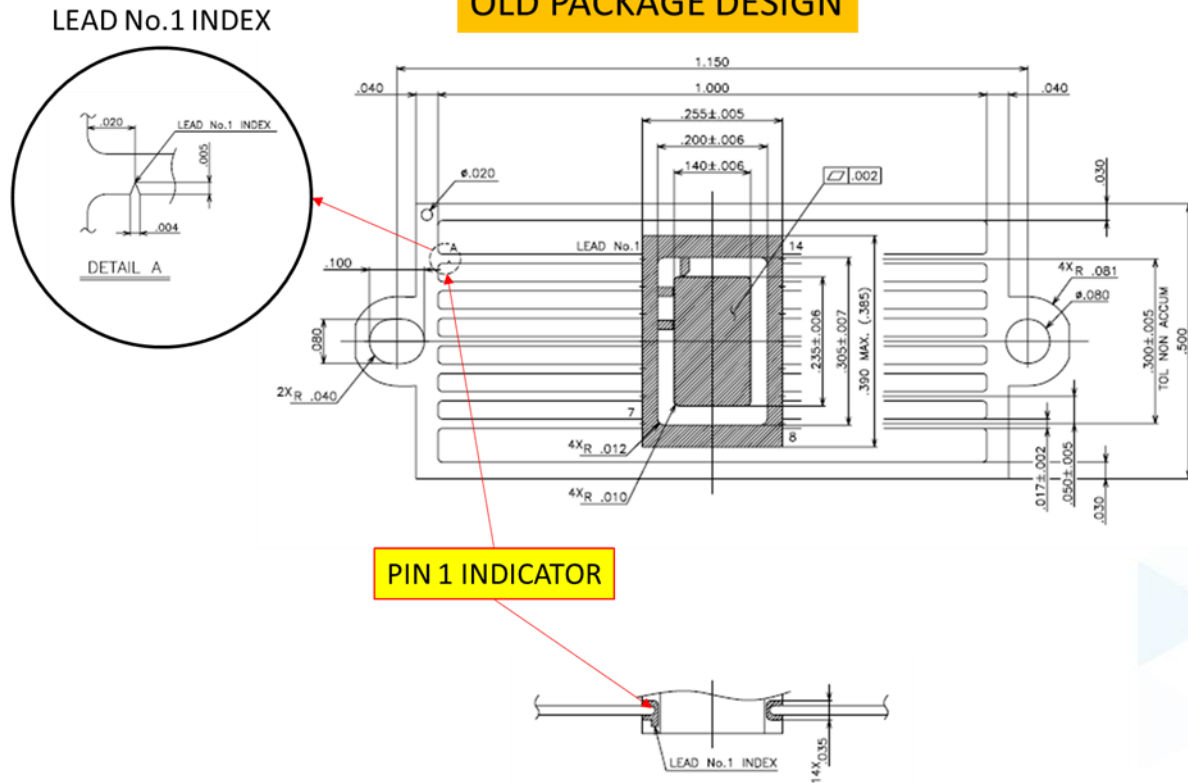


**Date Codes 1630 to 2031**

# 14L BBFP Package Change

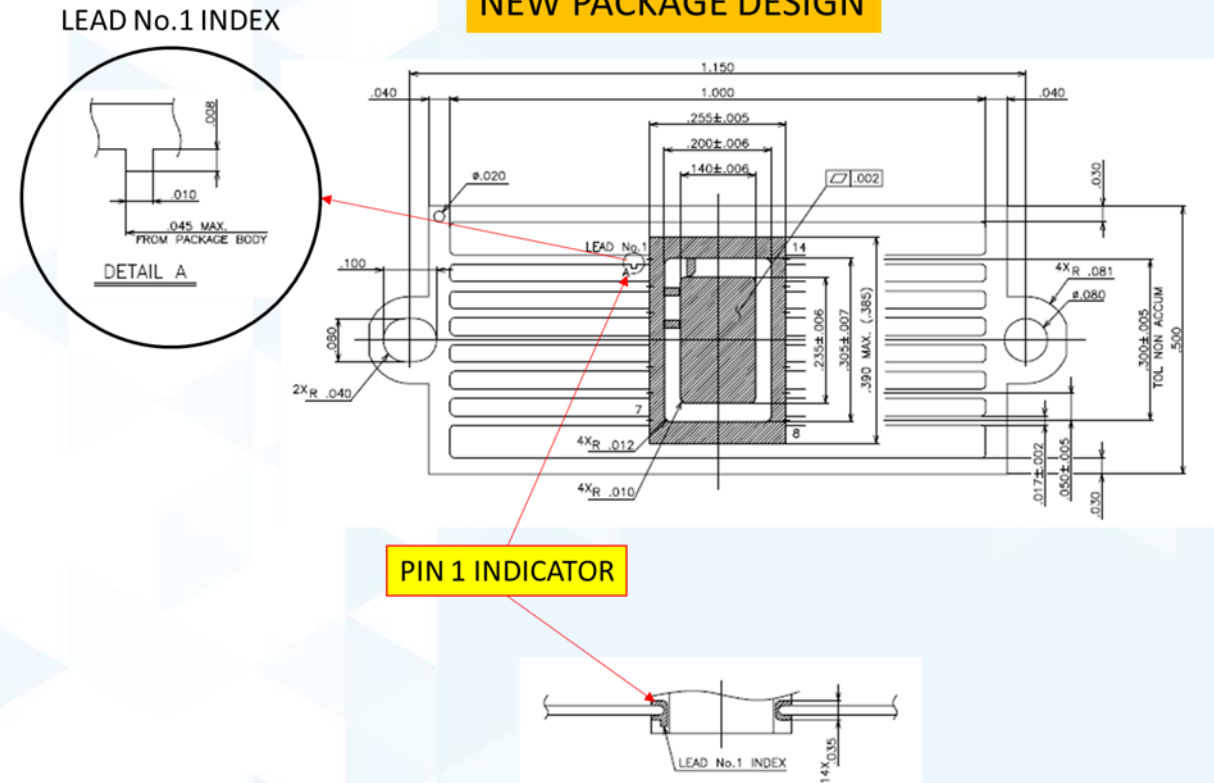
**FROM**

**OLD PACKAGE DESIGN**



**TO**

**NEW PACKAGE DESIGN**



**Effective Date Code 2047**

*No change on the material composition on both leads and package body, package plating and package dimension.*

