



**MICROCHIP**

# **QUALIFICATION REPORT**

**PCN #: JAON-28JDEI667**

**Date:  
April 10, 2015**

**Qualification of a new 13 inch plastic reel with smaller window  
for selected packages at MTAI, MMT and SIGT sites**

**Distribution:**

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**Purpose:** \_\_\_\_\_ Qualification of a new 13 inch plastic reel with smaller window for selected packages at MTAI, MMT and SIGT sites

**CCB No.:** \_\_\_\_\_ 1608

**Package:**

**Lead / Body Size:** \_\_\_\_\_ 64 TQFP 10x10 mm / 100 TQFP 12x12 mm

**Carrier tape:**

64 TQFP 10x10 mm

**MCHP P/N:** \_\_\_\_\_ 22004406

**MFG P/N:** \_\_\_\_\_ TQFP10101.0

**Width** \_\_\_\_\_ 24 mm

100 TQFP 12x12 mm

**MCHP P/N:** \_\_\_\_\_ 22008001

**MFG P/N:** \_\_\_\_\_ TQFP12121.0J

**Width** \_\_\_\_\_ 24 mm

**Cover tape:**

**MCHP P/N:** \_\_\_\_\_ 22102002

**MFG P/N:** \_\_\_\_\_ CSL-Z7302

**Width** \_\_\_\_\_ 24 mm

**Plastic reel:**

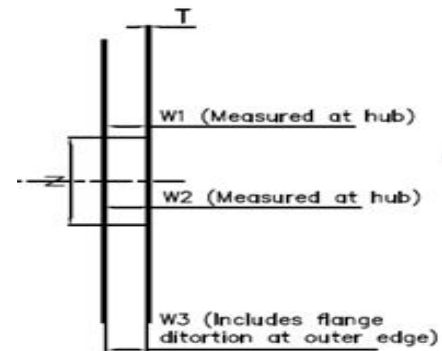
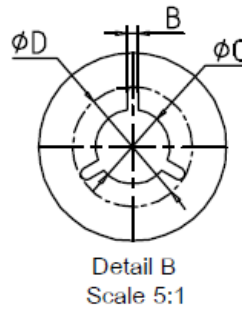
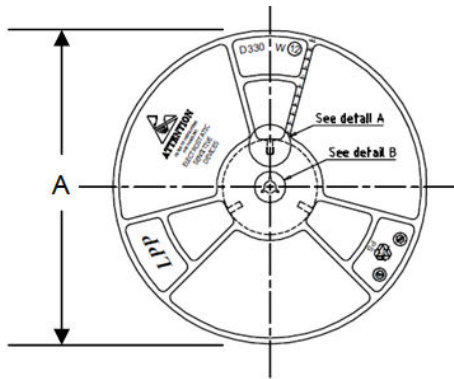
**MFG P/N:** \_\_\_\_\_ See below

**Diameter** \_\_\_\_\_ 13 inches

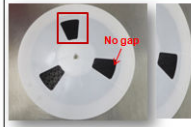

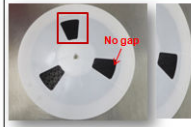

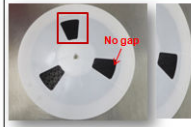

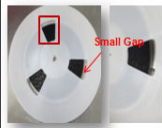

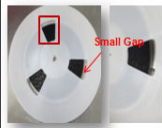

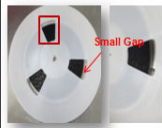

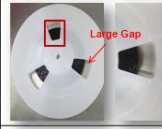

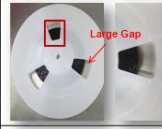

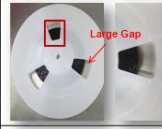

**TEST 1: DIMENSIONAL MEASUREMENT vs EIA-481-D (S/S : 4 Reels per width)**

Unit : mm

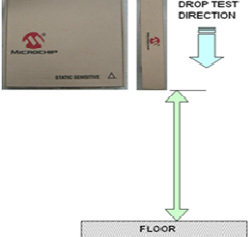
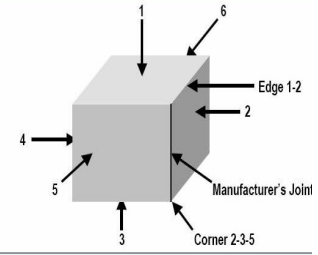
PART NO.	TEST	Reel diameter A	Guide width B	Hole diameter C	D	Wall Thickness T	W1	W2
R13-12-04-E	EIA-481-D	609 (max)	1.50 (min)	12.80 - 13.50	20.20 (min)	1.80	12.40 - 14.40	18.40
	New Plastic reel (Small Window)	330	1.50	13.00	20.20	2.50	12.40	18.40
R13-16-04-E	EIA-481-D	609 (max)	1.50 (min)	12.80 - 13.50	20.20 (min)	1.80	16.40 - 18.40	22.40
	New Plastic reel (Small Window)	330	1.50	13.00	20.20	2.50	16.40	22.40
R13-24-04-E	EIA-481-D	609 (max)	1.50 (min)	12.80 - 13.50	20.20 (min)	1.80	24.40 - 26.40	30.40
	New Plastic reel (Small Window)	330	1.50	13.00	20.20	2.50	24.40	30.40
R13-32-04-E	EIA-481-D	609 (max)	1.50 (min)	12.80 - 13.50	20.20 (min)	1.80	32.40 - 34.40	38.40
	New Plastic reel (Small Window)	330	1.50	13.00	20.20	2.50	32.40	38.40
R13-44-04-E	EIA-481-D	609 (max)	1.50 (min)	12.80 - 13.50	20.20 (min)	1.80	44.40 - 46.40	50.40
	New Plastic reel (Small Window)	330	1.50	13.00	20.20	2.50	44.40	50.40



**TEST 2: VACUUM RESISTANCE**

TEST	TEST LOCATION	METHOD	CONDITION	ACCEPTANCE CRITERIA	A_SS								
Full reel (No Gap)	MTHAI	Pack per MCHP standard Vacuum seal with normal parameters	Per PI-24069BC / PI-24069BC-002	No reel deformation	<p>Passed (4 reels)</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Before vacuum seal</th> <th>After vacuum seal</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Propose (small window)</td> <td></td> <td></td> <td>No reel deform ✓</td> </tr> </tbody> </table>	Type	Before vacuum seal	After vacuum seal	Result	Propose (small window)			No reel deform ✓
Type	Before vacuum seal	After vacuum seal	Result										
Propose (small window)			No reel deform ✓										
Partial reel (Small Gap)	MTHAI	Pack per MCHP standard Vacuum seal with normal parameters	Per PI-24069BC / PI-24069BC-002	No reel deformation	<p>Passed (4 reels)</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Before vacuum seal</th> <th>After vacuum seal</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Propose (small window)</td> <td></td> <td></td> <td>No reel deform ✓</td> </tr> </tbody> </table>	Type	Before vacuum seal	After vacuum seal	Result	Propose (small window)			No reel deform ✓
Type	Before vacuum seal	After vacuum seal	Result										
Propose (small window)			No reel deform ✓										
Half of reel (Large Gap)	MTHAI	Pack per MCHP standard Vacuum seal with normal parameters	Per PI-24069BC / PI-24069BC-002	No reel deformation	<p>Passed (4 reels)</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Before vacuum seal</th> <th>After vacuum seal</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Propose (small window)</td> <td></td> <td></td> <td>No reel deform ✓</td> </tr> </tbody> </table>	Type	Before vacuum seal	After vacuum seal	Result	Propose (small window)			No reel deform ✓
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Propose (small window)			No reel deform ✓										

**TEST 3: FREE DROP TEST (International Safe Transit Association – ISTA)**

TEST	TEST LOCATION	METHOD	CONDITION	ACCEPTANCE CRITERIA	A_SS
Free drop test	MTHAI	2010 ISTA Resource Book	<p>- Packing as MCHP standard</p> <p>- Free drop from 4 feet height</p>  <p>- Repeat free drop as below diagram</p>  <p>- Unpack Visual inspection + Lead scan</p>	<p>- No Plastic reel damage</p> <p>- No defect per QCI-33003BC (Part damage and Bent pin )</p>	<p>0 / 4,800 units (64 TQFP)</p> <p>0 / 4,800 units (100 TQFP)</p>