

PCN Number:	20150211000A		PCN Date:	03/30/2015	
Title:	Qualification of Carrier Tape for 14/16 pin SOP and 28 pin SSOP device				
Customer Contact:	PCN Manager	Dept:	Quality Services		
Proposed 1st Ship Date:	09/30/2015	Estimated Sample Availability:	Date provided at sample request		
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
Revision A is to (1) announce the <u>addition</u> of new devices that were not included on the original PCN notification and (2) update Carrier tape comparison table in Blue text below. These new devices are in Group 1 of the Product Affected section and highlighted in yellow. Group 2 devices are the from the Original device list of this notification. The expected first shipment date for these new devices will be 180 days from this notice for these newly added devices only.					
This notification is to inform of TI's Qualification of change for Carrier Tape 4135168-0070 supporting 14/16 pin SOP and 28 pin SSOP package devices. Carrier tape comparison as follows:					
Carrier Tape Comparison:					
Item	Current		Proposed		
Supplier	<u>Cpak</u>		<u>Cpak</u>		
Material	Polystyrene		Polystyrene		
Color	Black		Black		
Dimension (detail comparison in table 2 in sheet 4)	A0 = 8.1mm ± 0.1 B0 = 10.40 mm ± 0.1 K0 = 2.5mm ± 0.1 K1 = 2.1mm ± 0.1 W = 16.0mm ± 0.3		A0 = 8.60mm ± 0.1 B0 = 10.50mm ± 0.1 K0 = 2.50mm ± 0.1 K1 = 1.95mm ± 0.1 W = 16.00mm ± 0.3		
Surface resistivity	Between 1.01x 10 ⁵ to 8.12 x 10 ⁵		Between 1.54x10 ⁵ to 5.37 x 10 ⁶		
Part number	4135168-0070		4212589-0026		
Reason for Change:					
Continuity of supply. Tape Side pocket reflection causing high rejection rate on lead abnormality during Tape and Reel process.					
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):					
None					
Changes to product identification resulting from this PCN:					
None					
Product Affected Group 1: Additional Device					
CD4093BQNSRG4HT	TPIC46L01DBG4	TPIC46L02DB	TPIC46L03DB		
TPIC46L01DB	TPIC46L01DBR	TPIC46L02DBG4	TPIC46L03DBG4		
Product Affected Group 2: Original Device					
TPIC46L03DBR	TPIC46L02DBR	TPIC46L02DBRG4			
TPIC46L01DBRG4	SN0301022BDBR				

Qualification Data



Revision: C

EQ# : _____
A/T Site: MLA

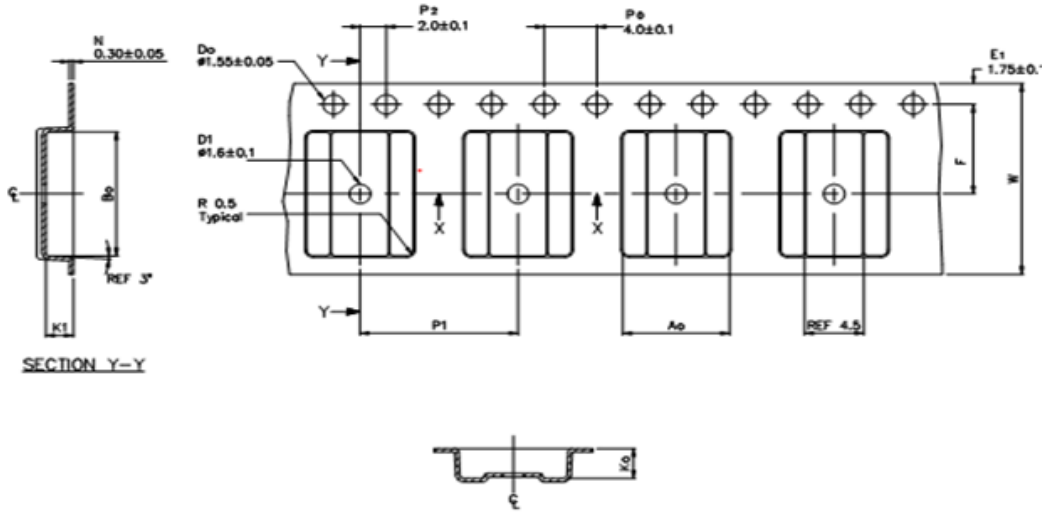
Lead Package Carrier Tape Qualification Summary

Reference (QSS 003-008, 009-006, 014-102, 007-102)

Supplier:	C-PAK PTE LTD
Supplier Part No:	S406031119-01
TI Part No:	4212589-0026 (If available)
Weight/meter (g):	4.8 gm
Material:	14 NS
Package Description:	SOP
Package Designator:	SSOP 28H6 CL3 22X6G3 L390 W16
Result:	PASS
Date:	August 19, 2014

I. First Article Inspection Test	<u>PASS</u> (Pass/Fail)
II. Manufacturability Test	<u>PASS</u>
III. Dimensional Test	<u>PASS</u>
IV. Camber Test	<u>PASS</u>
V. Electrical Test	<u>PASS</u>
VI. Fit Analysis	<u>PASS</u>
VII. Drop Test	<u>PASS</u>

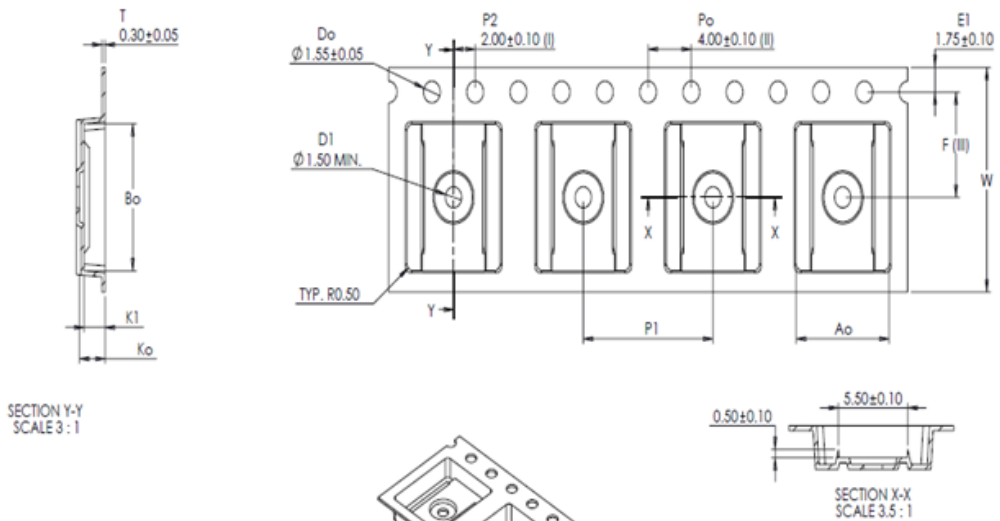
Appendix A: Tape Design comparison Current Tape



Ao	8.10	+/-0.1
Bo	10.40	+/-0.1
Ko	2.50	+/-0.1
K1	2.10	+/-0.1
F	7.50	+/-0.1
P1	12.00	+/-0.1
W	16.00	+/-0.3

TI P/N	C-PAK P/N
4136158-0070	SSOP28/30

Proposed Tape



Ao	8.60	+/- 0.10
Bo	10.50	+/- 0.10
Ko	2.50	+/- 0.10
K1	1.95	+/- 0.10
F	7.50	+/- 0.10
P1	12.00	+/- 0.10
W	16.00	+/- 0.30

Forming format: Press Form - 17-G
Estimated max. length: 390 meter / 2218G3 reel

- (I) Measured from centreline of sprocket hole to centreline of pocket.
- (II) Cumulative tolerance of 10 sprocket holes is ± 0.20.
- (III) Measured from centreline of sprocket hole to centreline of pocket.
- (IV) Other material available.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

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

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com