

<b>PCN Number:</b>	20150211000		<b>PCN Date:</b>	02/23/2015	
<b>Title:</b>	Qualification of Carrier Tape for 14/16 pin SOP and 28 pin SSOP device				
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services		
<b>Proposed 1<sup>st</sup> Ship Date:</b>	05/23/2015		<b>Estimated Sample Availability:</b>	Date provided at sample request	
<b>Change Type:</b>					
<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"/>	Wafer Fab Process
<b>PCN Details</b>					
<b>Description of Change:</b>					
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:					
<b>Carrier Tape Comparison:</b>					
<b>Item</b>	<b>Current</b>		<b>Proposed</b>		
Supplier	Cpak		Cpak		
Material	Polystyrene		Polystyrene		
Color	Black		Black		
Dimension (detail comparison in table 2 in sheet 4)	A0 = 8.1mm ± 0.1 B0 = 10.50mm ± 0.1 K0 = 2.5mm ± 0.1 K1 = 2.2mm ± 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 ± 0.1		
Surface resistivity	Between 1.01x 10 <sup>5</sup> to 8.12 x 10 <sup>5</sup>		Between 1.54x10 <sup>5</sup> to 5.37 x 10 <sup>6</sup>		
Part number	4135168-0070		4212589-0026		
<b>Reason for Change:</b>					
Continuity of Packaging					
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>					
Tape Side pocket reflection causing high rejection rate on lead abnormality during Tape and Reel process					
<b>Changes to product identification resulting from this PCN:</b>					
None					
<b>Product Affected:</b>					

74AC11008NSR	PCM1804DBR	SN74HC03NSR	SN74LS670NSR
74AC11032NSR	PCM2704CDBR	SN74HC04ANSR	SN74LS74ANSR
74AC11138NSR	PCM2704DBR	SN74HC04NSR	SN74LS75NSR
74ACT11074NSR	PCM2704S1DBR	SN74HC05ANSR	SN74LS85NSR
ADS1256IDBR	PCM2705CDBR	SN74HC05NSR	SN74LS86ANSR
ADS1256IDBT	PCM2705DBR	SN74HC08ANSR	SN74LS90NSR
ADS7871IDBR	PCM2900BDBR	SN74HC08NSR	SN74LS92NSR
ADS932E/2K	PCM2900CDBR	SN74HC109NSR	SN74LV00ANSR
AM26C31CNSR	PCM2900E/2K	SN74HC10ANSR	SN74LV02ANSR
AM26C31INSR	PCM2902BDBR	SN74HC10NSR	SN74LV04ANSR
AM26C31INSR-B	PCM2902CDBR	SN74HC11ANSR	SN74LV05ANSR
AM26C32CNSR	PCM2902E/2K	SN74HC11NSR	SN74LV06ANSR
AM26C32INSR	PCM2903BDBR	SN74HC125ANSR	SN74LV07ANSR
AM26LS31CNSR	PCM2903CDBR	SN74HC125NSR	SN74LV08ANSR
AM26LS32ACNSR	PCM2906BDBR	SN74HC126ANSR	SN74LV10ANSR
AM26LV31CNSR	PCM2906BS1DBR	SN74HC126NSR	SN74LV11ANSR
AM26LV31EINSR	PCM2906CDBR	SN74HC132ANSR	SN74LV123ANSR
AM26LV31INSR	PCM3001E/2K	SN74HC132NSR	SN74LV125ANSR
AM26LV32CNSR	PCM4202DBR	SN74HC138ANSR	SN74LV125ATNSR
AM26LV32EINSR	PCM4202DBT	SN74HC138NSR	SN74LV126ANSR
AM26LV32INSR	PCM4202IDBREP	SN74HC139ANSR	SN74LV132ANSR
BUS1064FNSR	PGA2500IDBR	SN74HC139NSR	SN74LV138ANSR
BUS1065GNSR	SG3524NSR	SN74HC148ANSR	SN74LV139ANSR
BUS1066H1NSR	SN101178NSR	SN74HC148NSR	SN74LV14ANSR
BUS1072JNSR	SN105239ADBR	SN74HC14ANSR	SN74LV157ANSR
CD14538BNSR	SN105239DBR	SN74HC14NSR	SN74LV161ANSR
CD4001BNSR	SN1301037NSR	SN74HC151ANSR	SN74LV163ANSR
CD4002BNSR	SN250129NSR	SN74HC151NSR	SN74LV164ANSR
CD4007UBNSR	SN320002NSR	SN74HC153ANSR	SN74LV165ANSR
CD40102BNSR	SN65C1167ENSR	SN74HC153NSR	SN74LV166ANSR
CD40103BNSR	SN65C1167NSR	SN74HC157ANSR	SN74LV174ANSR
CD40106BNSR	SN65C1168ENSR	SN74HC157NSR	SN74LV175ANSR
CD40109BNSR	SN65C1168NSR	SN74HC158ANSR	SN74LV20ANSR
CD4010BNSR	SN65C3238DBR	SN74HC158NSR	SN74LV21ANSR
CD4011BNSR	SN65C3238EDBR	SN74HC161ANSR	SN74LV221ANSR
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CD4013BNSR	SN65LVDS32NSR	SN74HC163NSR	SN74LV367ANSR
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CD4017BNSR	SN7416NSR	SN74HC166ANSR	SN74LV4052ANSR
CD4018BNSR	SN7438NSR	SN74HC166NSR	SN74LV4053ANSR
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CD4022BNSR	SN74AC08NSR	SN74HC191NSR	SN74LVC00ANSR
CD4023BNSR	SN74AC10NSR	SN74HC193ANSR	SN74LVC02ANSR
CD4024BNSR	SN74AC14NSR	SN74HC193NSR	SN74LVC04ANSR
CD4025BNSR	SN74AC32NSR	SN74HC20ANSR	SN74LVC06ANSR
CD4026BNSR	SN74AC74NSR	SN74HC20NSR	SN74LVC07ANSR
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CD4028BNSR	SN74ACT00NSR	SN74HC21NSR	SN74LVC10ANSR
CD4029BNSR	SN74ACT04NSR	SN74HC251ANSR	SN74LVC139ANSR
CD4030BNSR	SN74ACT08NSR	SN74HC251NSR	SN74LVC14ANSR
CD4040BNSR	SN74ACT14NSR	SN74HC253NSR	SN74LVC32ANSR
CD4042BNSR	SN74ACT32NSR	SN74HC257ANSR	SN74LVC74ANSR
CD4043BNSR	SN74ACT74NSR	SN74HC257NSR	SN74LVC86ANSR
CD4044BNSR	SN74ACT86NSR	SN74HC258NSR	SN74LVT125NSR
CD4046BNSR	SN74AHC00NSR	SN74HC259ANSR	SN74LVTH125NSR
CD4047BNSR	SN74AHC02NSR	SN74HC259NSR	SN74LVTH126NSR

CD4049UBNSR	SN74AHC04NSR	SN74HC266ANSR	SN74LVU04ANSR
CD4050BNSR	SN74AHC05NSR	SN74HC266NSR	SN74S04NSR
CD4051BNSR	SN74AHC08NSR	SN74HC27ANSR	SN74S05NSR
CD4052BNSR	SN74AHC125NSR	SN74HC27NSR	SN74S09NSR
CD4053BNSR	SN74AHC126NSR	SN74HC32ANSR	SN74S1051NSR
CD4060BNSR	SN74AHC132NSR	SN74HC32NSR	SN74S140NSR
CD4063BNSR	SN74AHC138NSR	SN74HC365NSR	SN74S38NSR
CD4066BNSR	SN74AHC139NSR	SN74HC367ANSR	SN74S74NSR
CD4068BNSR	SN74AHC14NSR	SN74HC367NSR	SN75107ANSR
CD4069UBNSR	SN74AHC157NSR	SN74HC368ANSR	SN75107BNSR
CD4070BNSR	SN74AHC32NSR	SN74HC368NSR	SN75110ANSR
CD4071BNSR	SN74AHC4066NSR	SN74HC393ANSR	SN75113NSR
CD4072BNSR	SN74AHC594NSR	SN74HC393NSR	SN75115NSR
CD4073BNSR	SN74AHC74NSR	SN74HC4020NSR	SN75116NSR
CD4075BNSR	SN74AHC86NSR	SN74HC4040NSR	SN751178NSR
CD4077BNSR	SN74AHCT00NSR	SN74HC4060NSR	SN75121NSR
CD4078BNSR	SN74AHCT02NSR	SN74HC4066NSR	SN75124NSR
CD4081BNSR	SN74AHCT04NSR	SN74HC595ANSR	SN75138NSR
CD4082BNSR	SN74AHCT08NSR	SN74HC595NSR	SN75154NSR
CD4089BNSR	SN74AHCT132NSR	SN74HC74ANSR	SN75173NSR
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CD4094BNSR	SN74AHCT14NSR	SN74HC86ANSR	SN75182NSR
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CD4502BNSR	SN74AHCT594NSR	SN74HCT00NSR	SN75189ANSR
CD4503BNSR	SN74AHCT74NSR	SN74HCT02ANSR	SN75189NSR
CD4504BNSR-E	SN74AHCT86NSR	SN74HCT02NSR	SN75207BNSR
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CD4532BNSR	SN74ALS133NSR	SN74HCT74NSR	SN75ALS197NSR
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CD74HC4024NSR	SN74ALVC10NSR	SN74LS123NSR	TL084CNSR
CD74HC4046ANSR	SN74ALVC125NSR	SN74LS125ANSR	TL1451ACNSR
CD74HC4049NSR	SN74ALVC126NSR	SN74LS126ANSR	TL1451CNSR
CD74HC4050NSR	SN74ALVC14NSR	SN74LS132NSR	TL1451INSR
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CD74HC4075NSR	SN74AS04NSR	SN74LS145NSR	TL441CNSR
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CDC319DBR	SN74AS174NSR	SN74LS161ANSR	TLC27L9CNSR
DSD1796DBR	SN74AS175BNSR	SN74LS163ANSR	TLC27M4CNSR
LM2901NSR	SN74AS20NSR	SN74LS164NSR	TLC339CNSR
LM2902KNSR	SN74AS21NSR	SN74LS165ANSR	TLC3704CNSR
LM2902NSR	SN74AS257NSR	SN74LS166ANSR	TLC374CNSR
LM324ANSR	SN74AS27NSR	SN74LS174NSR	TLC7524CNSR
LM324KANSR	SN74AS280NSR	SN74LS175NSR	TLS9110NSR
LM324KNSR	SN74AS32NSR	SN74LS191NSR	TPS2201IDBR
LM324NSR	SN74AS74ANSR	SN74LS193NSR	TPS2202AIDBR
LM339ANSR	SN74F00NSR	SN74LS19ANSR	TPS2205IDBR
LM339NSR	SN74F02NSR	SN74LS20NSR	TPS2206ADBR
LM348NSR	SN74F04NSR	SN74LS21NSR	TPS2206IDBR
MAX211CDBR	SN74F08NSR	SN74LS221NSR	TPS2216ADBR
MAX211IDBR	SN74F10NSR	SN74LS247NSR	TPS2216DBR
MAX213CDBR	SN74F112NSR	SN74LS251NSR	TPS2226ADBR
MAX213IDBR	SN74F11NSR	SN74LS257BNSR	TPS2226DBR
MAX232NSR	SN74F125NSR	SN74LS279ANSR	TRS213CDBR
MAX3237ECDBR	SN74F138NSR	SN74LS27NSR	TRS213IDBR
MAX3237EIDBR	SN74F151BNSR	SN74LS280NSR	TRS232NSR
MAX3238CDBR	SN74F153NSR	SN74LS283NSR	TRS3237ECDBR
MAX3238ECDBR	SN74F157ANSR	SN74LS30NSR	TRS3237EIDBR
MAX3238EIDBR	SN74F161ANSR	SN74LS31NSR	TRS3238ECDBR
MAX3238IDBR	SN74F163ANSR	SN74LS32NSR	TRS3238EIDBR
MAX3243CDBR	SN74F175NSR	SN74LS33NSR	TRS3243CDBR
MAX3243ECDBR	SN74F20NSR	SN74LS365ANSR	TRS3243ECDBR
MAX3243EIDBR	SN74F257NSR	SN74LS367ANSR	TRS3243EIDBR
MAX3243IDBR	SN74F27NSR	SN74LS368ANSR	TRS3243IDBR
MAX3243MDBREP	SN74F280BNSR	SN74LS37NSR	TRSF3238ECDBR
MC3403NSR	SN74F30NSR	SN74LS38NSR	TRSF3238EIDBR
MC3486NSR	SN74F32NSR	SN74LS390NSR	UA723CNSR
MC3487NSR	SN74F38NSR	SN74LS393NSR	UA733CNSR
NE556NSR	SN74F74NSR	SN74LS423NSR	ULN2003AINSR
PCM1791ADBR	SN74F86NSR	SN74LS47NSR	ULN2003ANSR
PCM1792ADBR	SN74HC00ANSR	SN74LS51NSR	ULN2004AINSR
PCM1794ADBR	SN74HC00NSR	SN74LS590NSR	ULN2004ANSR
PCM1795DBR	SN74HC02ANSR	SN74LS592NSR	
PCM1796DBR	SN74HC02NSR	SN74LS624NSR	

## Qualification Data



Revision: C

EQ# :  
A/T Site: MLA

## Lead Package Carrier Tape Qualification Summary

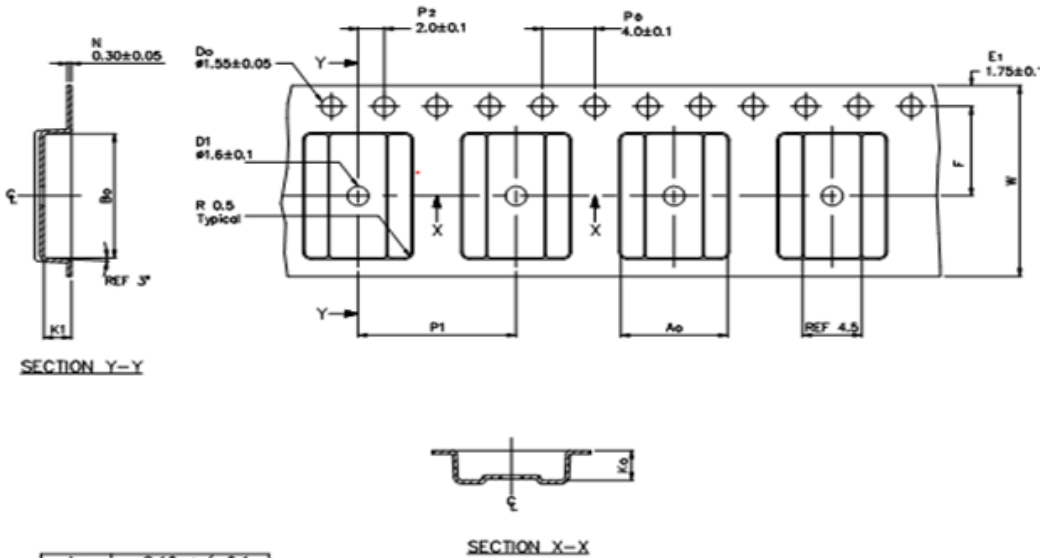
Reference (QSS 003-008, 009-006, 014-102, 007-102)

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	PASS (Pass/Fail)
II. Manufacturability Test	PASS
III. Dimensional Test	PASS
IV. Camber Test	PASS
V. Electrical Test	PASS
VI. Fit Analysis	PASS
VII. Drop Test	PASS

## Appendix A: Tape Design comparison

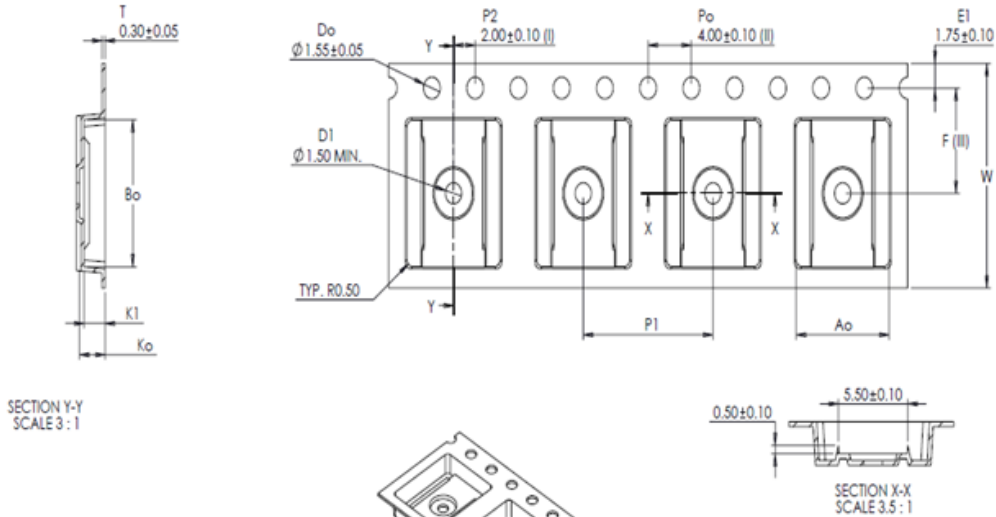
# Current Tape



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

T/P/N	C-PAK P/N
4136156-0070	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	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>