



**12500 TI Boulevard, MS 8640, Dallas, Texas 75243**

**PCN# 20131216002  
Qualification of Carrier Tape for Select  
UQFN Package Devices  
Information Only**

**Date:** 12/19/2013

Dear Customer:

This is an information-only announcement of a change to a device that is currently offered by Texas Instruments.

The changes discussed within this PCN are for your information only. Please see the attachment details for the planned implementation date.

This notification period is per TI's standard process. Any negotiated alternative change requirements will be provided via the customer's defined process. Customers with previously negotiated, special requirements will be handled separately. Any inquiries should be directed to your local Field Sales Representative.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager ([PCN\\_ww\\_admin\\_team@list.ti.com](mailto:PCN_ww_admin_team@list.ti.com)).

Sincerely,

PCN Team  
SC Business Services  
Phone: +1(214) 480-6037  
Fax: +1(214) 480-6659

**20131216002**  
**Attachment: 1**

**Products Affected:**

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
TPL0501-100RSER	null
TS3USB31ERSER	null
TS3USB31RSER	null

Technical details of this Product Change follow on the next page(s).

<b>PCN Number:</b>	20131216002			<b>PCN Date:</b>	12/19/2013																		
<b>Title:</b>	Qualification of Carrier Tape for Select UQFN Package Devices																						
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Phone:</b>	+1(214) 480-6037	<b>Dept:</b>	Quality Services																		
<b>Change Type:</b>																							
<input type="checkbox"/> Assembly Site	<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Assembly Materials																					
<input type="checkbox"/> Design	<input type="checkbox"/> Electrical Specification	<input type="checkbox"/> Mechanical Specification																					
<input type="checkbox"/> Test Site	<input checked="" type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Process																					
<input type="checkbox"/> Wafer Bump Site	<input type="checkbox"/> Wafer Bump Material	<input type="checkbox"/> Wafer Bump Process																					
<input type="checkbox"/> Wafer Fab Site	<input type="checkbox"/> Wafer Fab Materials	<input type="checkbox"/> Wafer Fab Process																					
<input type="checkbox"/>	<input type="checkbox"/> Part number change	<input type="checkbox"/>																					
<b>PCN Details</b>																							
<b>Description of Change:</b>																							
<p>This notification is to inform of TI's Qualification of Carrier Tape for Select UQFN Package Devices. Carrier Tape design differences shown below:</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Current Carrier Tape (3M081981), mm</th> <th>New Carrier Tape (3M117081 ), mm</th> </tr> </thead> <tbody> <tr> <td>Ao (Width)</td> <td>1.70 <math>\pm</math> 0.05</td> <td>1.70 <math>\pm</math> 0.05</td> </tr> <tr> <td>Bo (Length)</td> <td>1.70 <math>\pm</math> 0.05</td> <td>1.70 <math>\pm</math> 0.05</td> </tr> <tr> <td>Ko (Depth)</td> <td>0.76 <math>\pm</math> 0.05</td> <td>0.70 <math>\pm</math> 0.05</td> </tr> <tr> <td>Pitch</td> <td>4.0 <math>\pm</math> 0.1</td> <td>4.0 <math>\pm</math> 0.1</td> </tr> <tr> <td>Tape Width</td> <td>8.0 +0.3/-0.1</td> <td>8.0 +0.3/-0.1</td> </tr> </tbody> </table> <p>See Attachment A for detail drawings and photographs.</p>						Description	Current Carrier Tape (3M081981), mm	New Carrier Tape (3M117081 ), mm	Ao (Width)	1.70 $\pm$ 0.05	1.70 $\pm$ 0.05	Bo (Length)	1.70 $\pm$ 0.05	1.70 $\pm$ 0.05	Ko (Depth)	0.76 $\pm$ 0.05	0.70 $\pm$ 0.05	Pitch	4.0 $\pm$ 0.1	4.0 $\pm$ 0.1	Tape Width	8.0 +0.3/-0.1	8.0 +0.3/-0.1
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<b>Reason for Change:</b>																							
Standardization of tape size for UQFN 1.5x1.5x0.55 mm package size with full SPQ of 5ku per reel.																							
<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>																							
None																							
<b>Changes to product identification resulting from this PCN:</b>																							
None																							
<b>Product Affected:</b>																							
HPA00655RSER	SN74AUP2G240RSER	SN74AUP3G07RSER	TPS22933ARSER																				
SN74AUP1G74RSER	SN74AUP2G241RSER	SN74AUP3G14RSER	TPS22933ARSET																				
SN74AUP2G00RSER	SN74AUP2G32RSER	SN74AUP3G17RSER	TPS22960RSER																				
SN74AUP2G02RSER	SN74AUP2G79RSER	SN74AUP3G34RSER	TS3USB31ERSER																				
SN74AUP2G08RSER	SN74AUP2G80RSER	TCA5405RUGR	TS3USB31RSER																				
SN74AUP2G125RSER	SN74AUP3G04RSER	TLV3011AIRUGR	TS3USB31RSEGR4																				
SN74AUP2G126RSER	SN74AUP3G06RSER	TPL0501-100RSER	TS5A21366RSER																				

## Qualification Data:



### Shipping Tape & Reel Qualification Summary (QSS 003-008)

A/T Site: HANA Semiconductor (AYT) Co., Ltd

Supplier: 3M  
Vendor Part No: 3M117081 (Hana part number : 851140)  
TI Part No: N/A (If available)  
Weight/meter (g) 2.30 g  
Package Description RSE 8L (1.5x1.5X0.55)  
Package Designator RSE 8L (1.5x1.5X0.55)  
Result: Pass  
Date: Nov 11'13

I. First Article Inspection Test  
II. Manufacturability Test  
III. Camber Test  
IV. Surface Resistivity Test  
V. Dimensional Check (Measured by IQC)  
VI. Fit Analysis  
VII. Drop Test  
VIII. Supplier Drawing

PASS (Pass/Fail)

PASS

PASS

PASS

PASS

PASS

PASS

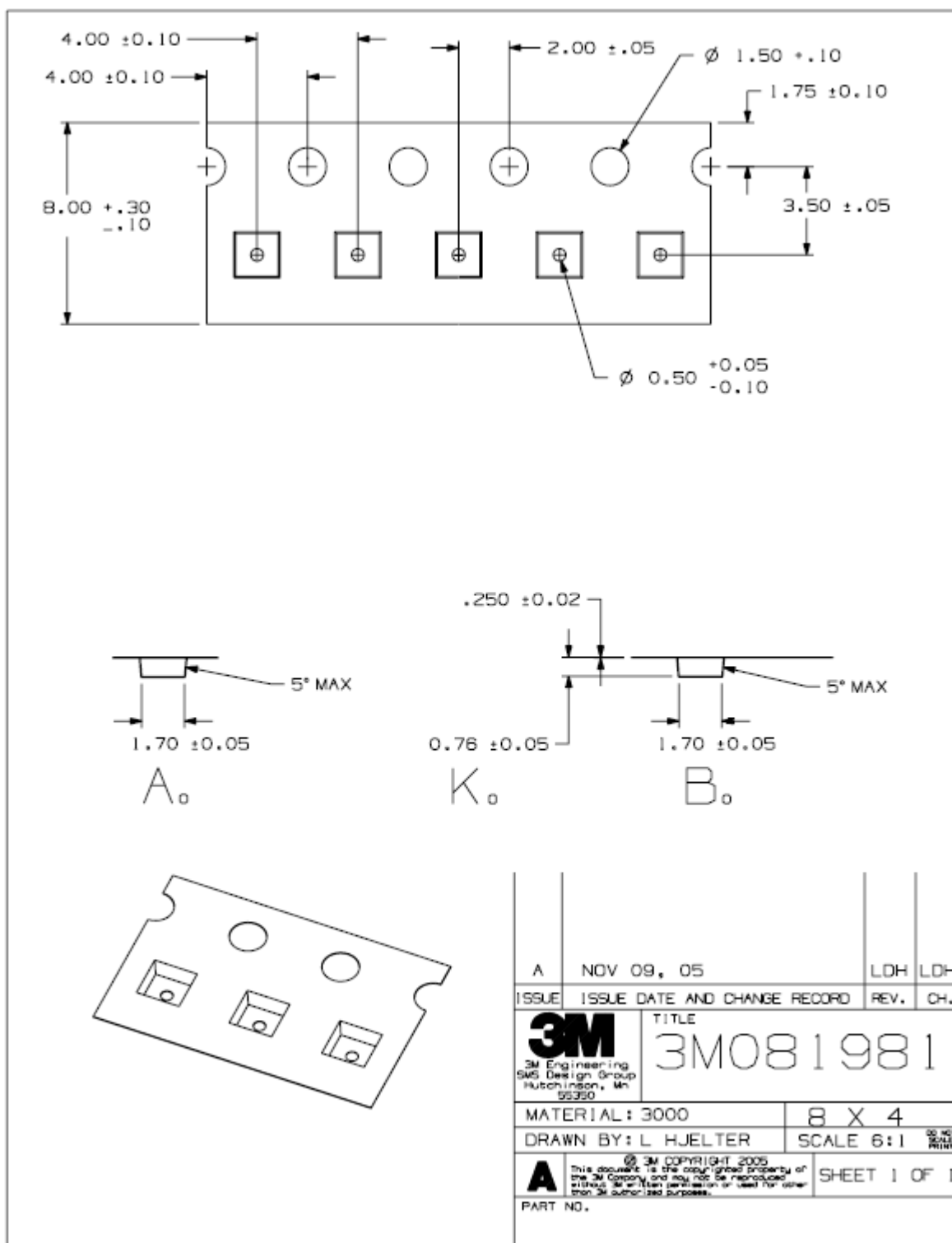
PASS

PASS

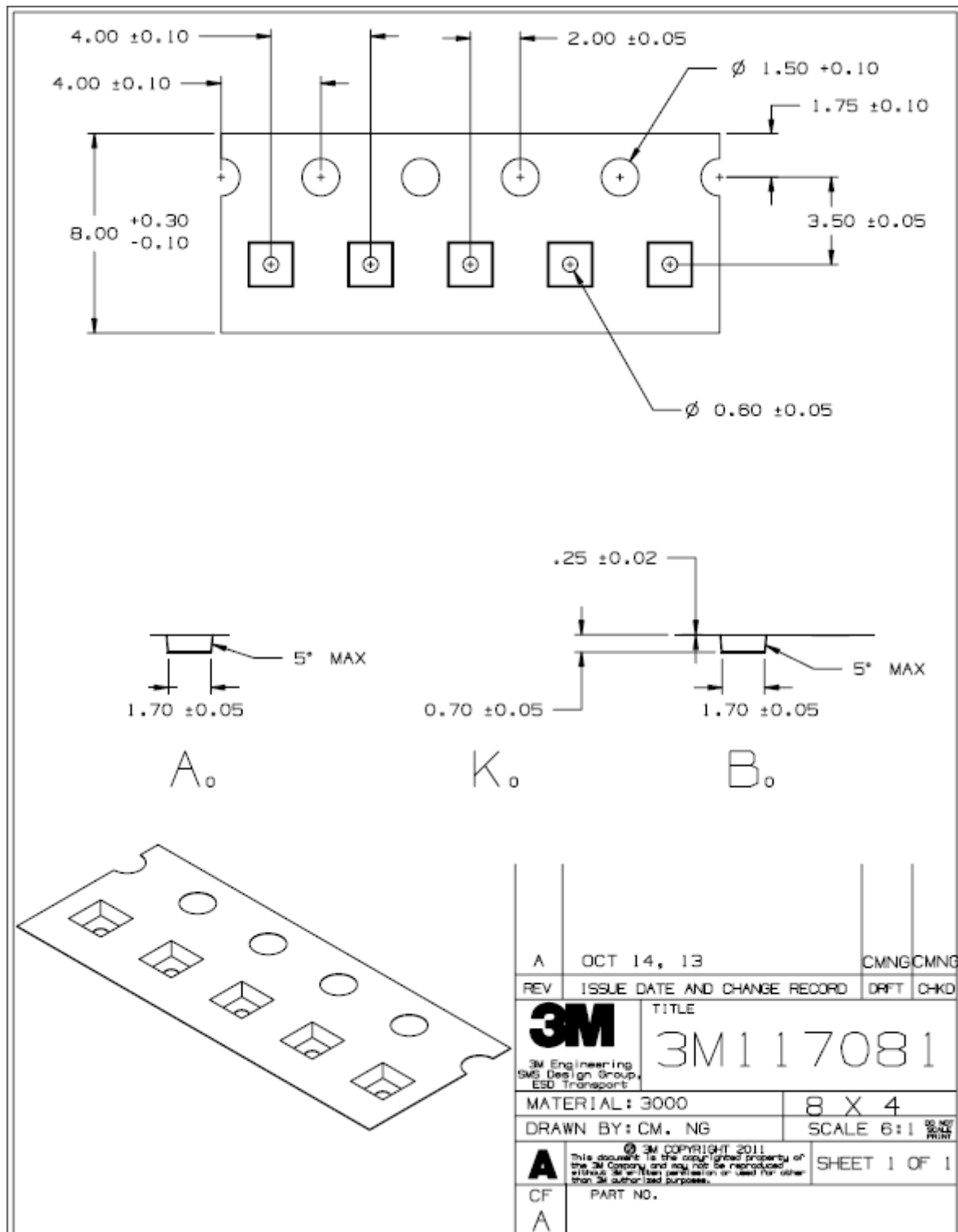
## Attachment A

### CHANGE FROM 3M081981 TO 3M117081 Carrier Tape

From: **3M081981**



To: **3M117081**



### **DIMENSIONAL CHECK (MEASURED BY IQC)**

Parameters	Nominal Size	RESULTS		RESULTS	
		MIN	MAX	MIN	MAX
<b>Ao</b>	1.7	1.72	1.73	Good	Good
<b>Bo</b>	1.7	1.72	1.73	Good	Good
<b>Ko</b>	0.7	0.69	0.7	Good	Good
<b>P1</b>	4	3.99	4	Good	Good
<b>P2</b>	2	1.98	2.002	Good	Good
<b>Po</b>	4	3.99	4.003	Good	Good
<b>W</b>	8	8.04	8.05	Good	Good
<b>T</b>	0.254	0.25	0.254	Good	Good
<b>E1</b>	1.75	1.72	1.74	Good	Good
<b>F</b>	3.5	3.49	3.51	Good	Good

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

<b>Location</b>	<b>E-Mail</b>
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>