



Integrated Device Technology, Inc.  
6024 Silver Creek Valley Road, San Jose, CA - 95138

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>TB1405-01</b> <b>DATE:</b> <b>July 7, 2014</b> <b>Product Affected:</b> <b>TQFP-44, TQFP-64</b> <b>shipped in Tape &amp; Reel</b> (Refer to Attachment II for affected part#) <b>Date Effective:</b> <b>October 7, 2014</b>	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input type="checkbox"/> Product Mark <input type="checkbox"/> Back Mark <input type="checkbox"/> Date Code <input checked="" type="checkbox"/> Other        Shipment starting from October 7, 2014.
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<b>Contact:</b> IDT PCN DESK <b>E-mail:</b> <a href="mailto:pcndesk@idt.com">pcndesk@idt.com</a>	<b>Attachment:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>Samples:</b> N/A
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**DESCRIPTION AND PURPOSE OF CHANGE:**

- |  |   |
|--|---|
| <input type="checkbox"/> Die Technology<br><input type="checkbox"/> Wafer Fabrication Process<br><input type="checkbox"/> Assembly Process<br><input type="checkbox"/> Equipment<br><input type="checkbox"/> Material<br><input type="checkbox"/> Testing<br><input type="checkbox"/> Manufacturing Site<br><input type="checkbox"/> Data Sheet<br><input checked="" type="checkbox"/> Other - Packaging | <p>This notification is to advise our customers that IDT has planned to convert to a new revision of the carrier tape and to standardize the quantity per reel.</p> <p>The new carrier tape has changes in pocket design and dimensions.</p> <p>Attachment I - Additional information on the changes.<br/> Attachment II - Affected part list<br/> Attachment III - Carrier Tape Drawings</p> |
|--|---|

**RELIABILITY/QUALIFICATION SUMMARY:**

New carrier tape passed IDT internal qualification requirements and complies with EIA-481-D standard.

**CUSTOMER ACKNOWLEDGMENT OF RECEIPT:**

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

<b>Customer:</b> _____ <b>Name/Date:</b> _____ <b>Title:</b> _____	<input type="checkbox"/> <b><i>Approval for shipments prior to effective date.</i></b> <b>E-Mail Address:</b> _____ <b>Phone# /Fax# :</b> _____
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**CUSTOMER COMMENTS:** \_\_\_\_\_

**IDT ACKNOWLEDGMENT OF RECEIPT:**

**RECD. BY:** \_\_\_\_\_                      **DATE:** \_\_\_\_\_



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### ATTACHMENT I - PCN #: TB1405-01

**PCN Type:** Packaging

**Data Sheet Change:** None

**Detail of Change:** This notification is to advise our customers that IDT has planned to convert to a new revision of the carrier tape and to standardize the quantity per reel.

The new carrier tape has changes in pocket design and dimensions and complies with the requirements of EIA-481-D standard.

The new carrier tape passed the IDT internal qualification requirements. Refer to Table 1 for the qualification results.

Refer to Table 2, Figure 1 and 2 for the comparison of the existing and new carrier tape in terms of carrier tape pocket dimensions and pocket designs as well as quantity per reel respectively.

In addition, the packing will be changed where every reel will be wrapped with a layer of bubble sheet before placed into a pizza box for increased protection.

#### Qualification Test Plan and Result:

**Table 1: IDT Internal Qualification Results**

Description	Reject/Sample Size	Result
Peel Strength Test	0/5 strips	Pass
Visual/Mechanical	0/5 pockets	Pass
Surface Resistivity Test	0/5 pockets	Pass
Drop Test, 6 ft	0/1 reel	Pass
Dimensional	0/5 pockets	Pass



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### ATTACHMENT I - PCN #: TB1405-01

**Table 2: Comparison of Existing Carrier Tape and New Carrier Tape and Quantity Per Reel**

Description of Changes	From	To
IDT Carrier Tape Part#	P8-300-E64	P8-460-000
IDT Carrier Tape Drawing#	MSC-4900	MSC-7396
Supplier Carrier Tape Part#	TQFP10x10x1.0-22B3-360C-SD	TQFP10x10x1.0NGP-22B3-360C-SD
Supplier	PCT	PCT
Pocket Width, Ao (mm)	13.0 ± 0.1	12.5 ± 0.1
Pocket Length, Bo (mm)	13.0 ± 0.1	12.5 ± 0.1
Pocket Depth, Ki (mm)	1.3 ± 0.1	1.1 ± 0.05
Pocket Pitch, P1 (mm)	16.0 ± 0.1	16.0 ± 0.1
Total Pocket Depth, Ko (mm)	1.6 ± 0.1	1.4 ± 0.1
Carrier Tape Width, W (mm)	24.0 ± 0.3	24.0 +0.2/-0.1
Carrier Tape Thickness, T (mm)	0.30 ± 0.05	0.30 ± 0.05
Quantity per Reel	<sup>1</sup> 500 & <sup>2</sup> 2000	500

*Notes:*

- 1. TQFP-44 & TQFP-64 from ICS market segment*
- 2. TQFP-64 from IDT market segment*



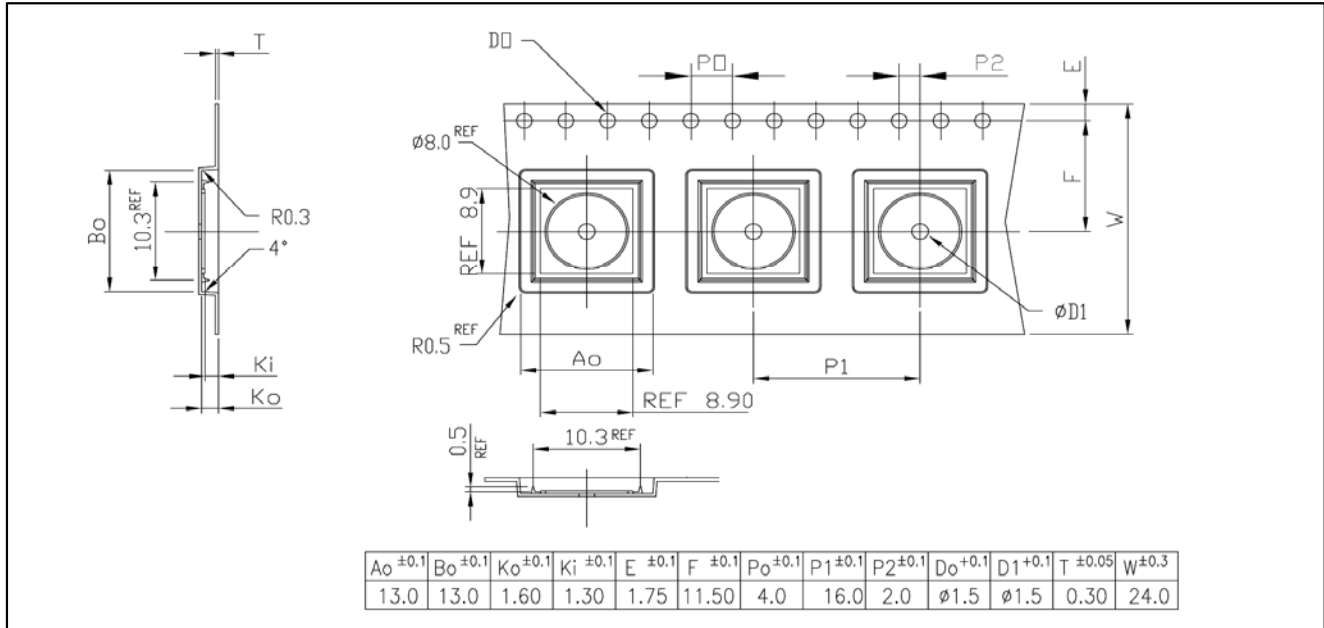
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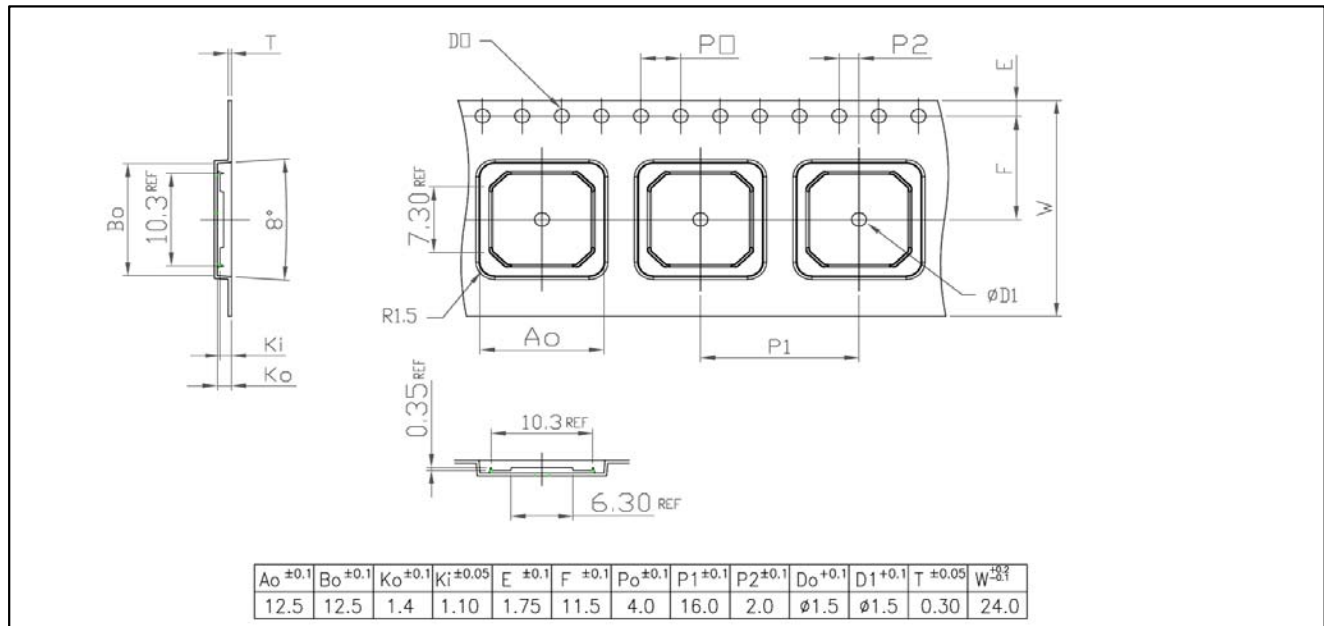
### ATTACHMENT I - PCN #: TB1405-01

**Figure1: Illustration of Carrier Tape Pocket Dimensions**

**From:** Carrier Tape (P8-300-E64) - Pocket Dimensions



**To:** Carrier Tape (P8-460-000) - Pocket Dimensions



\*Note: All dimensions are in mm. Refer to the attached carrier tape drawings for more details.



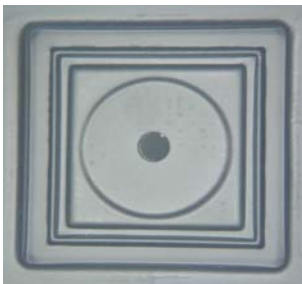
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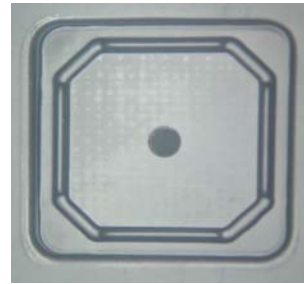
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**Figure2: Illustration of Carrier Tape Pocket Design**

**From:** Carrier Tape (P8-300-E64)



**To:** Carrier Tape (P8-460-000)



**Figure3: Illustration for Tape & Reel Packing Changes**

**From:** Packing for Tape & Reel  
(Without bubble sheet)



**To:** Packing for Tape & Reel (Wrap  
with bubble sheet)



bubble sheet

pizza box



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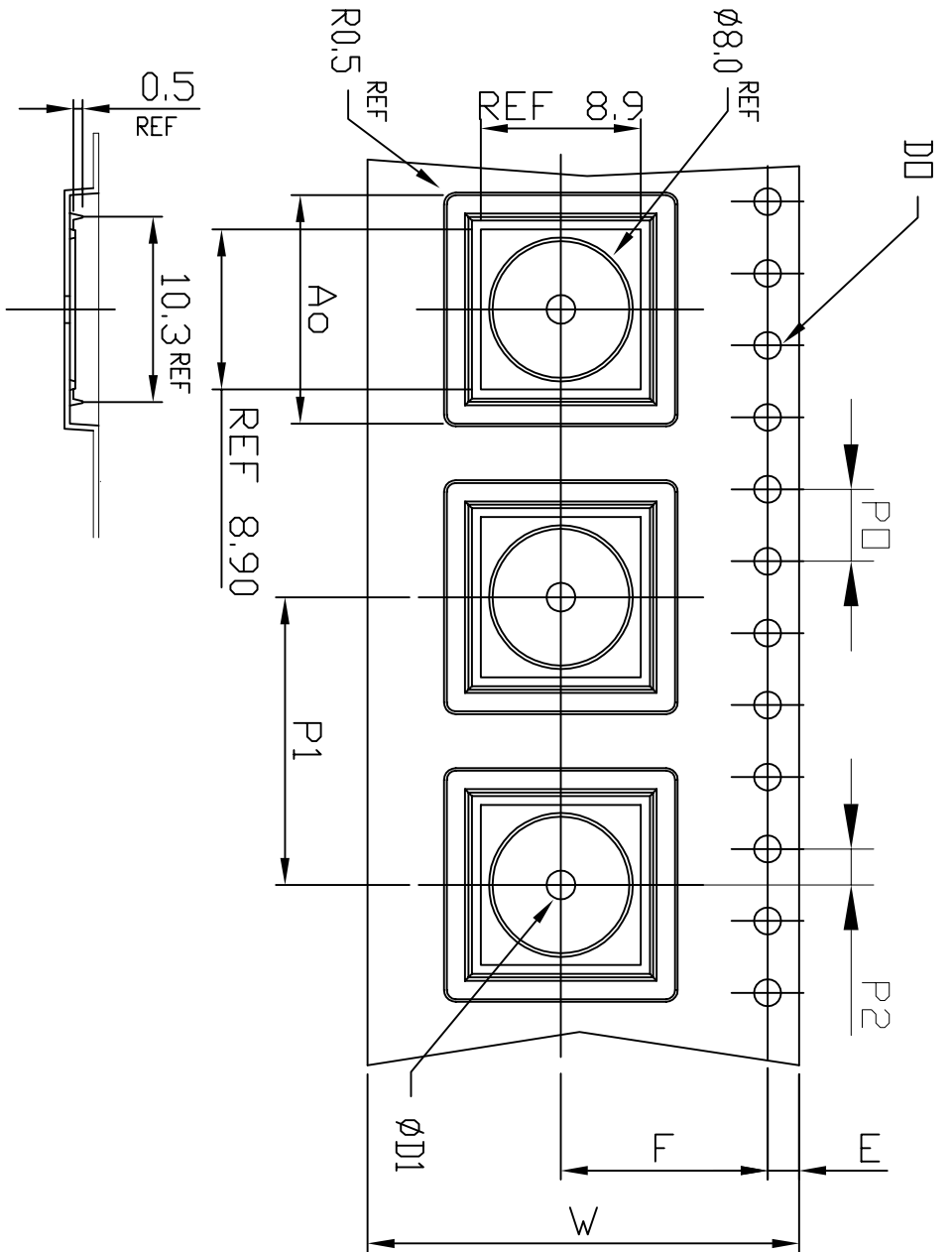
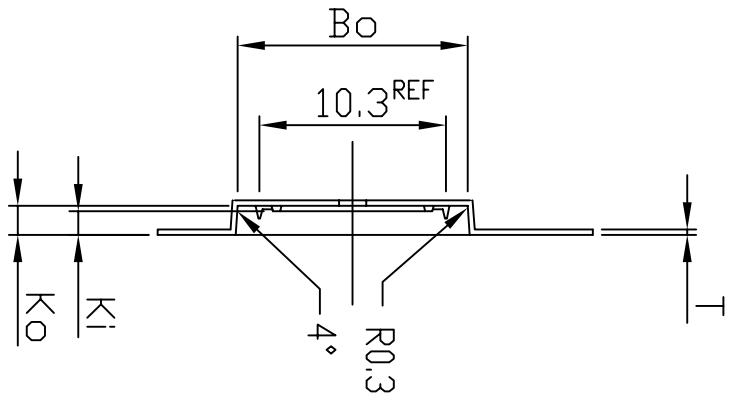
## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT II - PCN #: TB1405-01

#### Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
1893BYI-10LFT	813078BYILFT	841N251DY-01LFT	872S06AYLFT
1893CY-10LFT	82V3202EDG8	843002AY-32LFT	874328BYI-01LFT
1893CYI-10LFT	82V3255EDG8	851021AYLFT	8V41N351Y-01LF8
1893Y-10LFT	82V3352EDG8	8524AYLFT	V103YLFT
1893YI-10LFT	82V3355EDG8	8534AY-01LFT	V104YLFT
2008BY-10LFT	82V3358EDG8	853S024AYLFT	
813076CYILFT	841N251CY-01LFT	854S54AYI-08LFT	

Attachment III - Existing Carrier Tape Drawing



Ao ±0.1	Bo ±0.1	Ko ±0.1	Ki ±0.1	E ±0.1	F ±0.1	Po ±0.1	P1 ±0.1	P2 ±0.1	Do +0.1	D1 +0.1	T ±0.05	W ±0.3
13.0	13.0	1.60	1.30	1.75	11.50	4.0	16.0	2.0	Ø1.5	Ø1.5	0.30	24.0

NOTES : (UNLESS OTHERWISE SPECIFIED)

- SUPPLIER : PCT
- SUPPLIER PART NUMBER : TOPP10x10x1.0-22B3-360C-SD
- 10 SPROCKET HOLE PITCHES CUMULATIVE TOLERANCE ±0.2mm
- REFER TO MSA-3018 FOR THE ALLOWABLE CAMBER REQUIREMENT.
- MATERIAL : BLACK CONDUCTIVE POLYSTYRENE.
- AO AND Bo MEASURED ON A PLANE 0.3 MM ABOVE THE BOTTOM OF THE POCKET.
- Ko MEASURED FROM A PLANE ON THE INSIDE BOTTOM OF THE POCKET TO THE TOP SURFACE OF THE CARRIER.
- POCKET POSITION RELATIVE TO SPROCKET HOLE CENTER MUST BE SAME POSITION.
- POCKET CENTER AND POCKET HOLE CENTER MUST BE SAME POSITION.
- REFER TO MAA-3092 & MSA-3018 FOR THE IDT STANDARD REQUIREMENT FOR CARRIER TAPE.
- ALL THE DIMENSIONS ARE IN MILLIMETERS (MM).
- LENGTH PER ROLL = 360 METERS.

TOLERANCES UNLESS OTHERWISE SPECIFIED  
 DECIMAL .XX ± .13  
 .XXX ± .13  
 ANGLE ±.5°

APPROVALS

DATE

DRAWN

TITLE: DE/DEG 44/64 & ED/EDG 64  
 CARRIER TAPE (PCT)

STOCK NO. P8-300-E64  
 DRAWING NO. MSC-4900

SCALE N/A  
 SIZE

REV 03

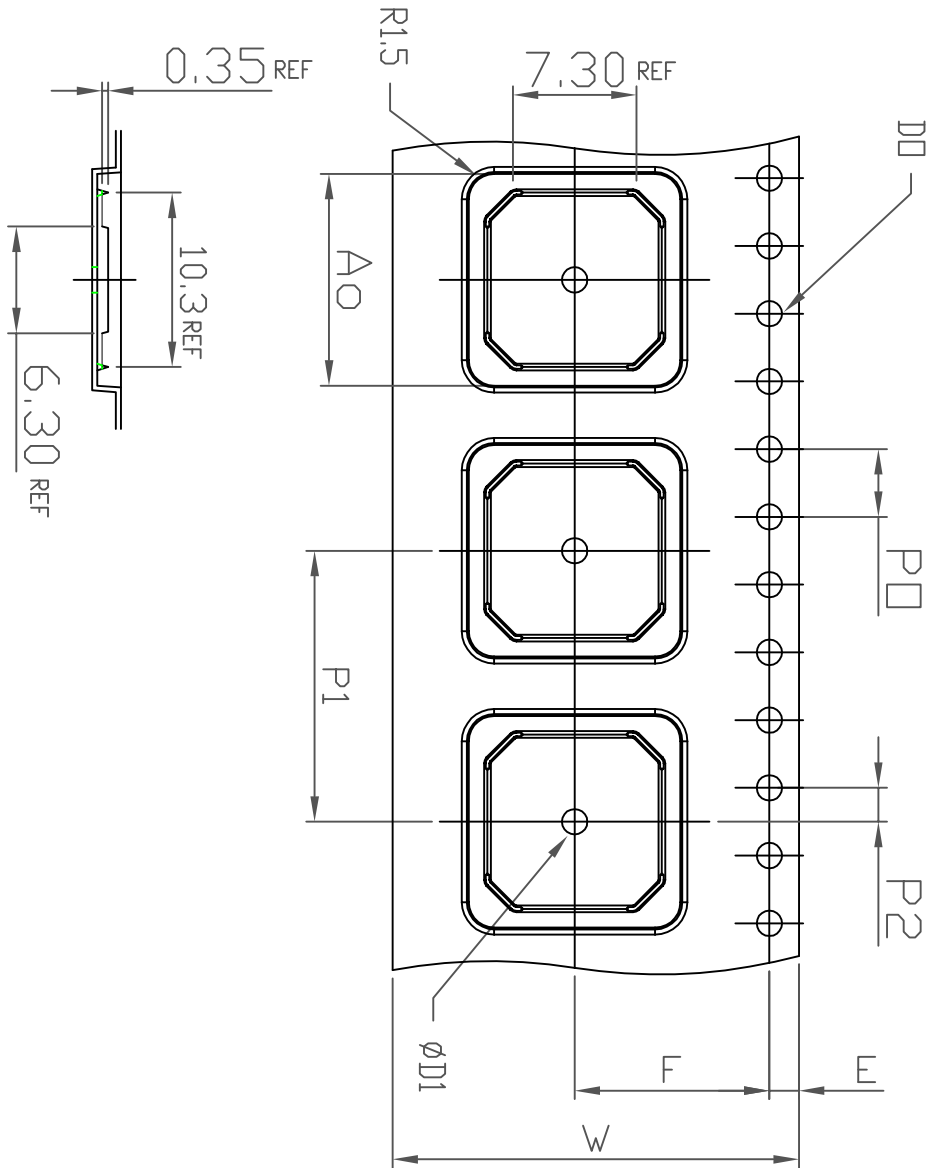
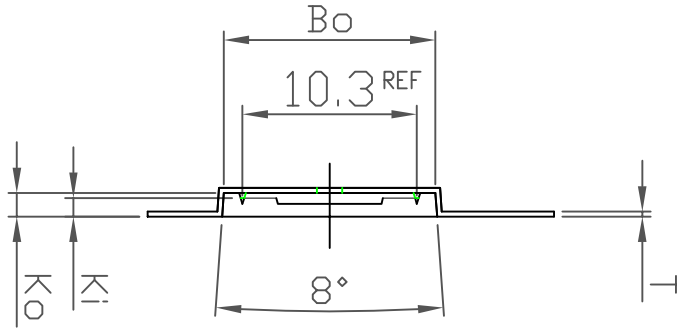
WWW.IDT.COM

6024 Silver Creek Valley Road  
 San Jose, CA 95138  
 PHONE: (408) 284-8200  
 FAX: (408) 284-5972

DO NOT SCALE DRAWING


SHEET 1 OF 2

# Attachment III - New Carrier Tape Drawing



Ao	±0.1	Bo	±0.1	Ko	±0.1	Ki	±0.05	E	±0.1	F	±0.1	PO	±0.1	P1	±0.1	P2	±0.1	Do	+0.1	D1	+0.1	T	±0.05	W	+0.2
12.5		12.5		1.4		1.10		1.75		11.5		4.0		16.0		2.0		Ø1.5		Ø1.5		0.30		24.0	

- NOTES : (UNLESS OTHERWISE SPECIFIED)
- SUPPLIER : PCT
  - SUPPLIER PART NUMBER : TOPP10x10x1.0NCP-22B3-360C-SD
  - 10 SPROCKET HOLE PITCHES CUMULATIVE TOLERANCE ±0.2mm
  - REFER TO MSA-3018 FOR THE ALLOWABLE CAMBER REQUIREMENT.
  - MATERIAL : BLACK CONDUCTIVE POLYSTYRENE.
  - Ao AND Bo MEASURED ON A PLANE 0.3 MM ABOVE THE BOTTOM OF THE POCKET.
  - Ko MEASURED FROM A PLANE ON THE INSIDE BOTTOM OF THE POCKET TO THE TOP SURFACE OF THE CARRIER.
  - POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE.
  - POCKET CENTER AND POCKET HOLE CENTER MUST BE SAME POSITION.
  - REFER TO MAA-3092 & MSA-3018 FOR THE IDT STANDARD REQUIREMENT FOR CARRIER TAPE.
  - ALL THE DIMENSIONS ARE IN MILLIMETERS (MM).
  - LENGTH PER ROLL = 360 METERS.

TOLERANCES UNLESS OTHERWISE SPECIFIED		ANGLE	
DECIMAL	±.25	ANGLE	±.5°
.XX ± .13			
.XXX ± .13			
APPROVALS		DATE	
DRAWN			
		6024 Silver Creek Valley Road San Jose, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-5572	
TITLE: DE/DEG 44/64 & ED/EDG 64 CARRIER TAPE (PCT)		SCALE: N/A	
STOCK NO. P8-460-000	DRAWING NO. MSC-7396	REV. 00	SIZE
DO NOT SCALE DRAWING		SHEET 1 OF 1	