



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **TB1405-01** DATE: **July 7, 2014**
Product Affected: **TQFP-44, TQFP-64**
shipped in Tape & Reel
(Refer to Attachment II for affected part#)
Date Effective: **October 7, 2014**

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark
☐ Back Mark
☐ Date Code
☒ Other Shipment starting from October 7, 2014.

Contact: **IDT PCN DESK**
E-mail: pcndesk@idt.com

Attachment: ☒ Yes ☐ No
Samples: N/A

DESCRIPTION AND PURPOSE OF CHANGE:

- | | |
|---|--|
| <input type="checkbox"/> Die Technology | 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. |
| <input type="checkbox"/> Wafer Fabrication Process | |
| <input type="checkbox"/> Assembly Process | |
| <input type="checkbox"/> Equipment | The new carrier tape has changes in pocket design and dimensions. |
| <input type="checkbox"/> Material | |
| <input type="checkbox"/> Testing | Attachment I - Additional information on the changes. |
| <input type="checkbox"/> Manufacturing Site | |
| <input type="checkbox"/> Data Sheet | Attachment II - Affected part list |
| <input checked="" type="checkbox"/> Other - Packaging | Attachment III - Carrier Tape Drawings |

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.

| | |
|------------------|---|
| Customer: _____ | <input type="checkbox"/> Approval for shipments prior to effective date. |
| Name/Date: _____ | E-Mail Address: _____ |
| Title: _____ | Phone# /Fax# : _____ |

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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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 | ¹ 500 & ² 2000 | 500 |

Notes:

1. TQFP-44 & TQFP-64 from ICS market segment

2. TQFP-64 from IDT market segment



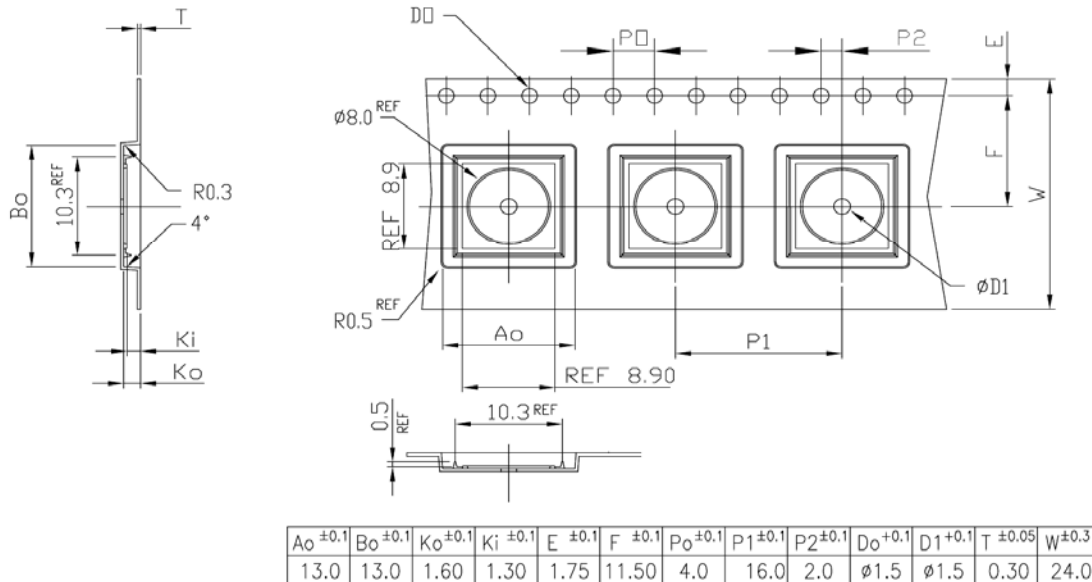
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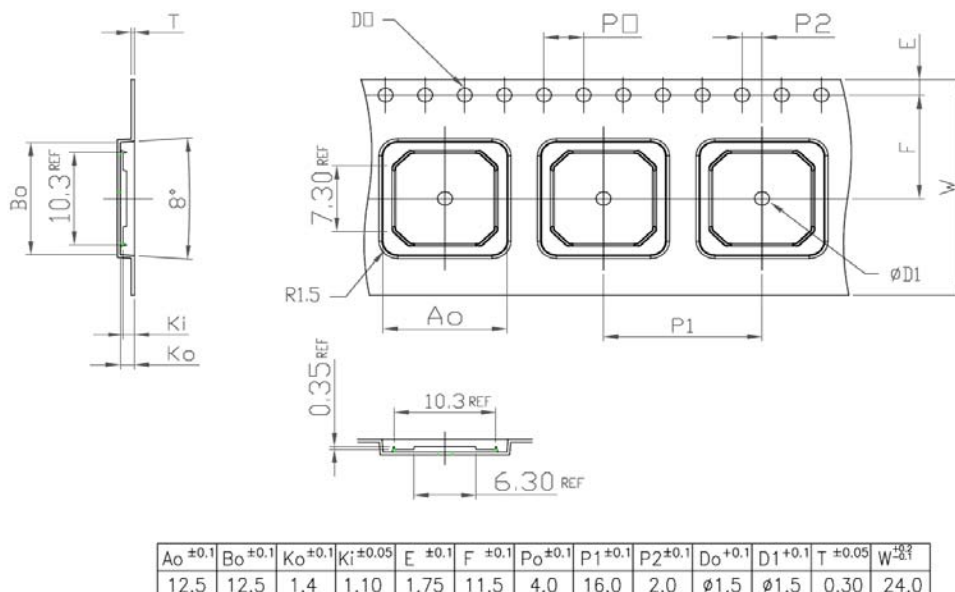
ATTACHMENT I - PCN #: TB1405-01

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.*



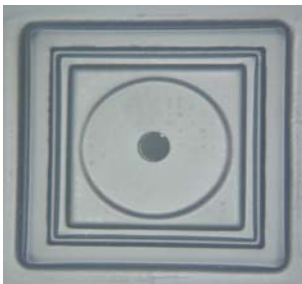
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Figure2: Illustration of Carrier Tape Pocket Design

From: Carrier Tape (P8-300-E64)



To: Carrier Tape (P8-460-000)

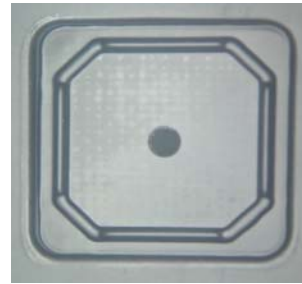


Figure3: Illustration for Tape & Reel Packing Changes

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



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



bubble sheet

pizza box



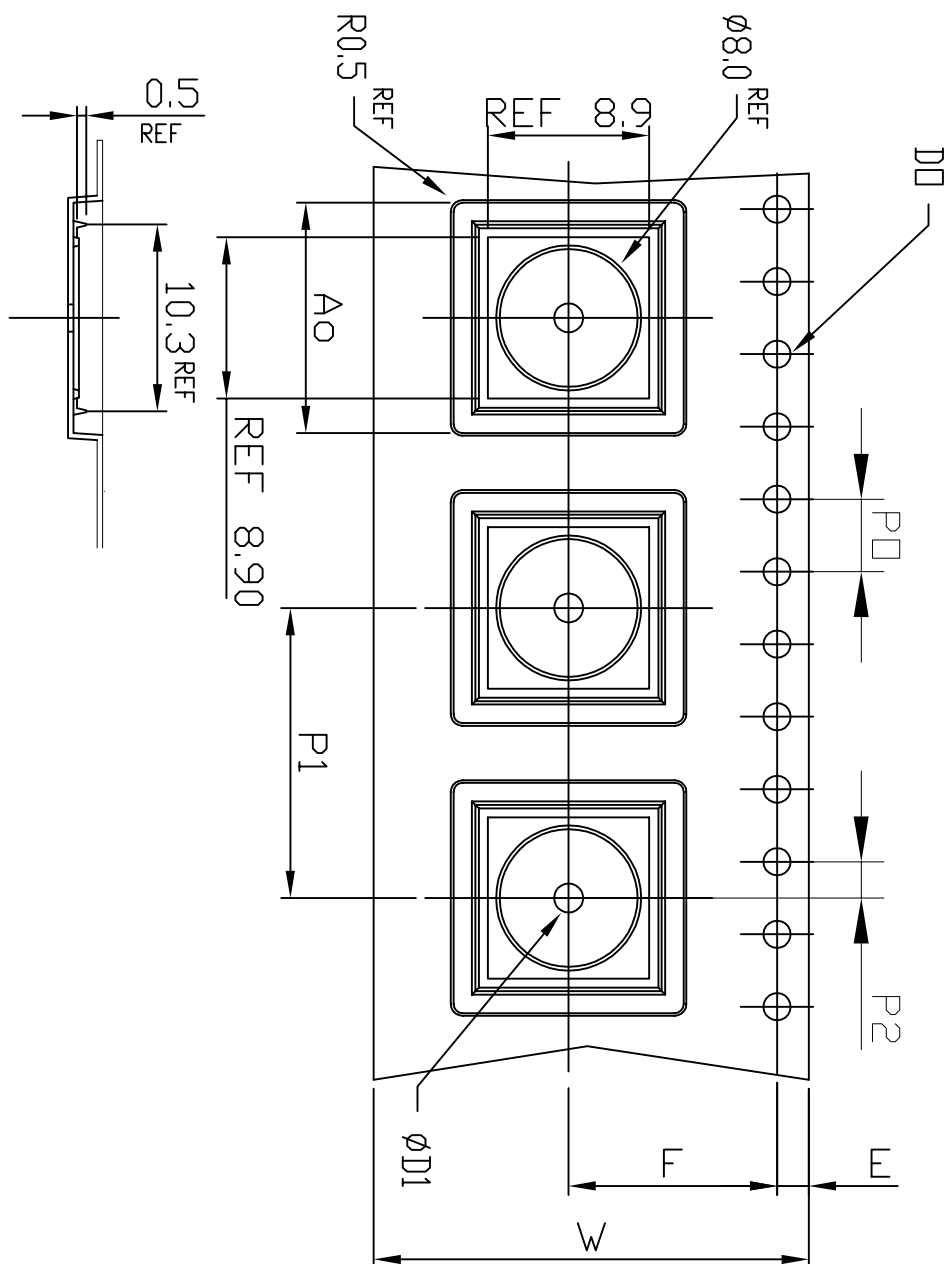
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Affected Part Numbers

| 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 | |

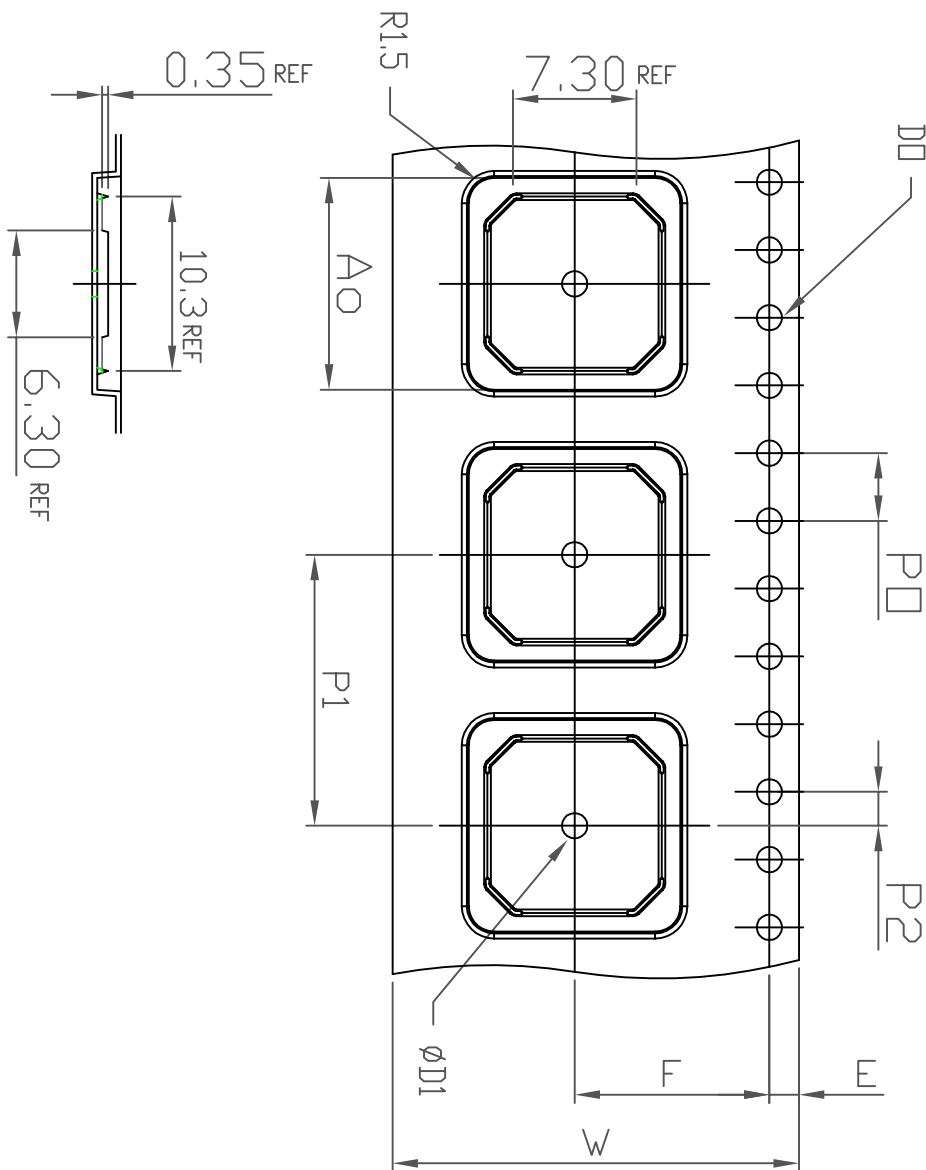
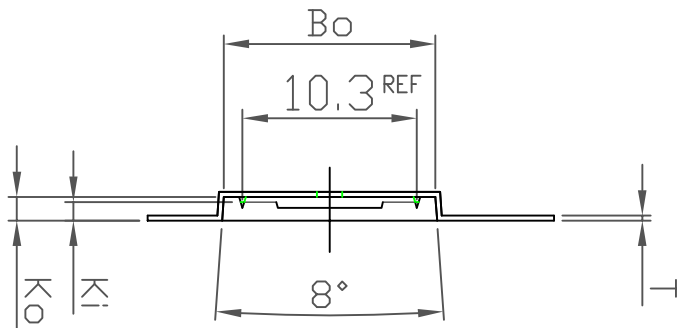


| | | | | | | | | | | | | |
|-----------------|-----------------|-----------------|-----------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|---------------|
| $A_0^{\pm 0.1}$ | $B_0^{\pm 0.1}$ | $K_0^{\pm 0.1}$ | $K_1^{\pm 0.1}$ | $E^{\pm 0.1}$ | $F^{\pm 0.1}$ | $P_0^{\pm 0.1}$ | $P_1^{\pm 0.1}$ | $P_2^{\pm 0.1}$ | $D_0^{+0.1}$ | $D_1^{+0.1}$ | $T^{\pm 0.05}$ | $W^{\pm 0.3}$ |
| 13.0 | 13.0 | 1.60 | 1.30 | 1.75 | 11.50 | 4.0 | 16.0 | 2.0 | $\emptyset 1.5$ | $\emptyset 1.5$ | 0.30 | 24.0 |

- NOTES : (UNLESS OTHERWISE SPECIFIED)
1. SUPPLIER : PCT
 2. SUPPLIER PART NUMBER : TQFP10x10x1.0-22B3-360C-SD
 3. 10 SPROCKET HOLE PITCHES CUMULATIVE TOLERANCE $\pm 0.2\text{mm}$
 4. REFER TO MSA-3018 FOR THE ALLOWABLE CAMBER REQUIREMENT.
 5. MATERIAL : BLACK CONDUCTIVE POLYSTYRENE.
 6. A₀ AND B₀ MEASURED ON A PLANE 0.3 MM ABOVE THE BOTTOM OF THE POCKET.
 7. K₀ MEASURED FROM A PLANE ON THE INSIDE BOTTOM OF THE POCKET TO THE TOP SURFACE OF THE CARRIER
 8. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE.
 9. POCKET CENTER AND POCKET HOLE CENTER MUST BE SAME POSITION.
 10. REFER TO MSA-3092 & MSA-3018 FOR THE IDT STANDARD REQUIREMENT FOR CARRIER TAPE.
 11. ALL THE DIMENSIONS ARE IN MILLIMETERS (MM).
 12. LENGTH PER ROLL = 360 METERS.

[illegible]

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)
1. SUPPLIER : PCT
 2. SUPPLIER PART NUMBER : TOPP10x10x1.0NGP-22B3-360C-SD
 3. 10 SPROCKET HOLE PITCHES CUMULATIVE TOLERANCE ±0.2mm
 4. REFER TO MSA-3018 FOR THE ALLOWABLE CAMBER REQUIREMENT.
 5. MATERIAL : BLACK CONDUCTIVE POLYSTYRENE.
 6. Ao AND Bo MEASURED ON A PLANE 0.3 MM ABOVE THE BOTTOM OF THE POCKET.
 7. Ko MEASURED FROM A PLANE ON THE INSIDE BOTTOM OF THE POCKET TO THE TOP SURFACE OF THE CARRIER.
 8. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE.
 9. POCKET CENTER AND POCKET HOLE CENTER MUST BE SAME POSITION.
 10. REFER TO MAA-3092 & MSA-3018 FOR THE IDT STANDARD REQUIREMENT FOR CARRIER TAPE.
 11. ALL THE DIMENSIONS ARE IN MILLIMETERS (MM).
 12. LENGTH PER ROLL = 360 METERS.

TOLERANCES UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .25
ANGLE ±.5°
XXX ± .13

APPROVALS

DATE

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

STOCK NO. P8-460-000

DRAWING NO. MSC-7396

DO NOT SCALE DRAWING

SHEET 1 OF 1

SCALE N/A

REV 00

www.IDT.com

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