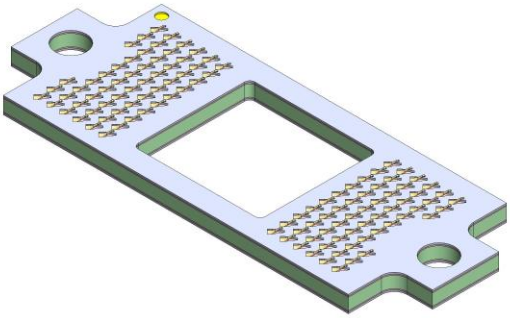
112 Position LGA/LGA PCBeam™ Connector

Neoconix P/N: BDX0112DMMSXAU00

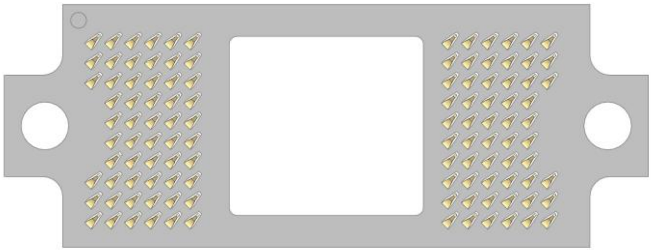
FEATURES

- High density 1.0 mm x 1.0 mm area-array pitch
- Low profile BtB application, 1.30mm mated height
- PCBeam™ high reliability LGA/LGA spring contacts
- 15u" Hard gold-plated contact interface
- RoHS 2011/65/EU (RoHS2) compliant

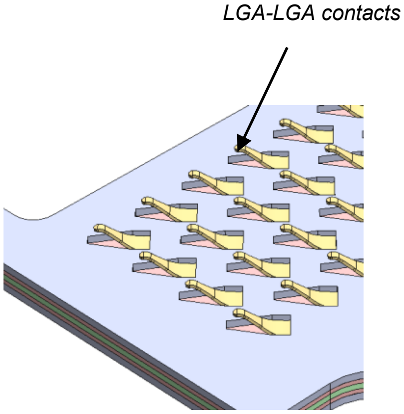


OVERVIEW

The PCBeam™ 112 Position Connector is an interconnect solution for the Texas Instruments S320 DMD. Featuring Neoconix's patented PCBeam™ interconnect technology, this product offers high performance and high reliability in an extremely compact form factor, a heat-sink opening, and features for precise alignment of the connector to the DMD and main PC Board.



Top View



PCBeam™ Technology

CROSS REFERENCE INFO:

- TI Interposer Drawing: 2518361
- TI DMD Drawing: 2518197

ORDERING INFORMATION:

Part Number:	BDX0112DMMSXAU00
Production Packaging:	Vacuum formed Low Profile Matrix Trays
Minimum Production Order Quantity:	2000
Lead Time:	8 weeks ARO

PRODDUCT SPECIFICATIONS

MECHANICAL

ITEM	DESCRIPTION	REQUIREMENT	COMMENT
M1	Contact Pitch	1.0 mm x 1.0 mm	
M2	Contact Count	112 positions	
M3	Recommended Compression Force	33N min / 135N max	
M4	Contact Deflection	0.25mm Typical	
M5	Durability Cycles	25 mate / un-mate cycles minimum	
M6	Min Gold Thickness	0.38µm (15 µin)	

ELECTRICAL

ITEM	DESCRIPTION	REQUIREMENT	COMMENT
E1	Resistance Per Position	< 50 mOhm	
E2	Current capacity	0.5A per contact minimum	DC current
E3	Insulation Resistance	100 MOhm	
E4	Dielectric Withstanding Voltage	100 V	
E5	Operating Frequency	< 1 GHz	

ENVIRONMENTAL

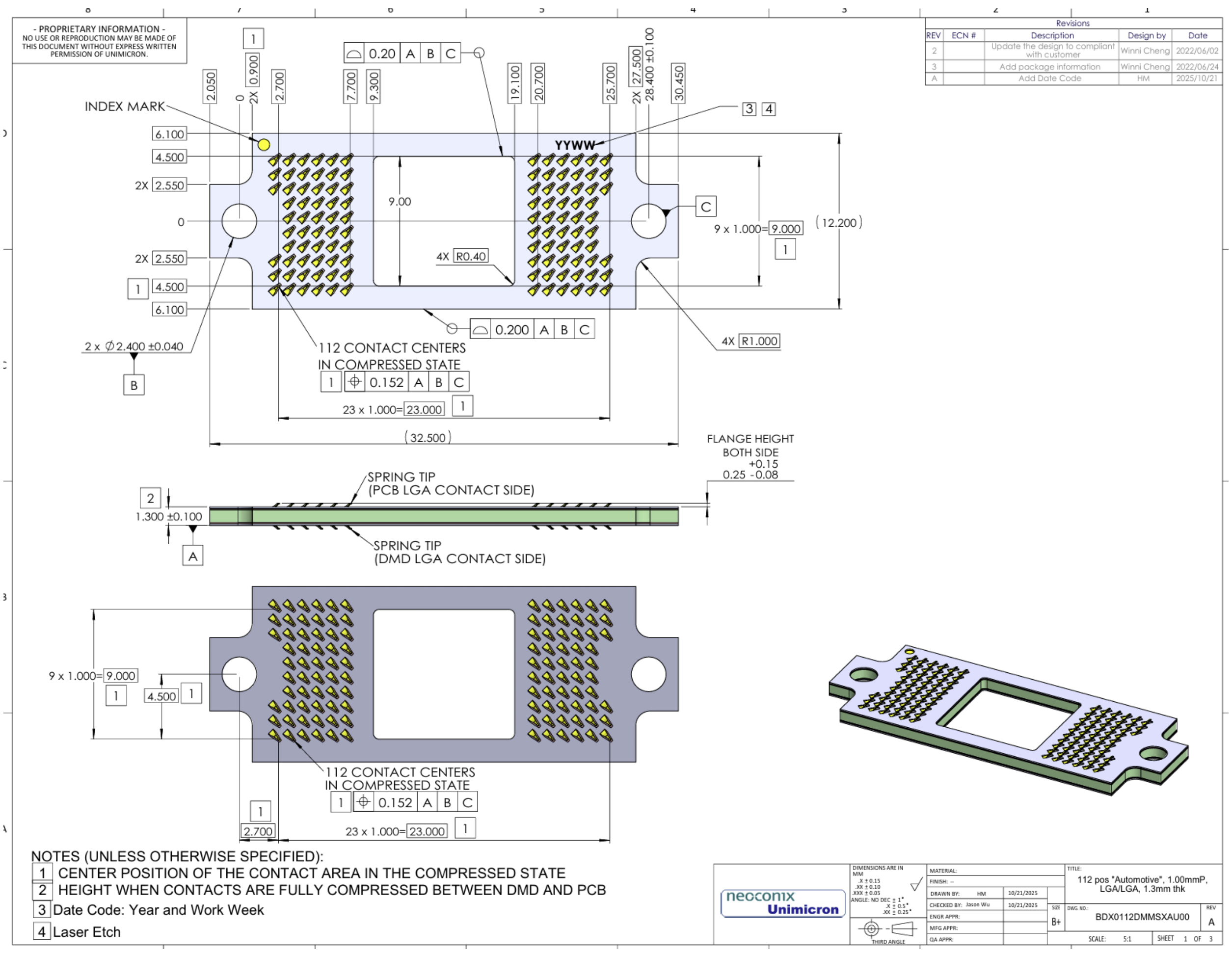
ITEM	DESCRIPTION	REQUIREMENT	COMMENT
N1	End Product Environment	DLP, Automotive	
N2	Operating Temperature	-55C to 105C	
N3	Storage Temperature	-40C to 85C	

OTHER ITEMS

ITEM	DESCRIPTION	REQUIREMENT	COMMENT
1	ROHS Compliant per 2002/92/EC	Required	

NOTE: Specifications are subject to change without notice.

DIMENSIONAL INFORMATION



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PERMISSION OF UNIMICRON.

Revisions				
REV	ECN #	Description	Design by	Date
2		Update the design to compliant with customer	Winni Cheng	2022/06/02
3		Add package information	Winni Cheng	2022/06/24
A		Add Date Code	HM	2025/10/21

NOTES (UNLESS OTHERWISE SPECIFIED):
1 CENTER POSITION OF THE CONTACT AREA IN THE COMPRESSED STATE
2 HEIGHT WHEN CONTACTS ARE FULLY COMPRESSED BETWEEN DMD AND PCB
3 Date Code: Year and Work Week
4 Laser Etch

DIMENSIONS ARE IN MM
.X ± 0.15
.XX ± 0.10
.XXX ± 0.05
ANGLE: NO DEC ± 1°
.X ± 0.5°
.XX ± 0.25°

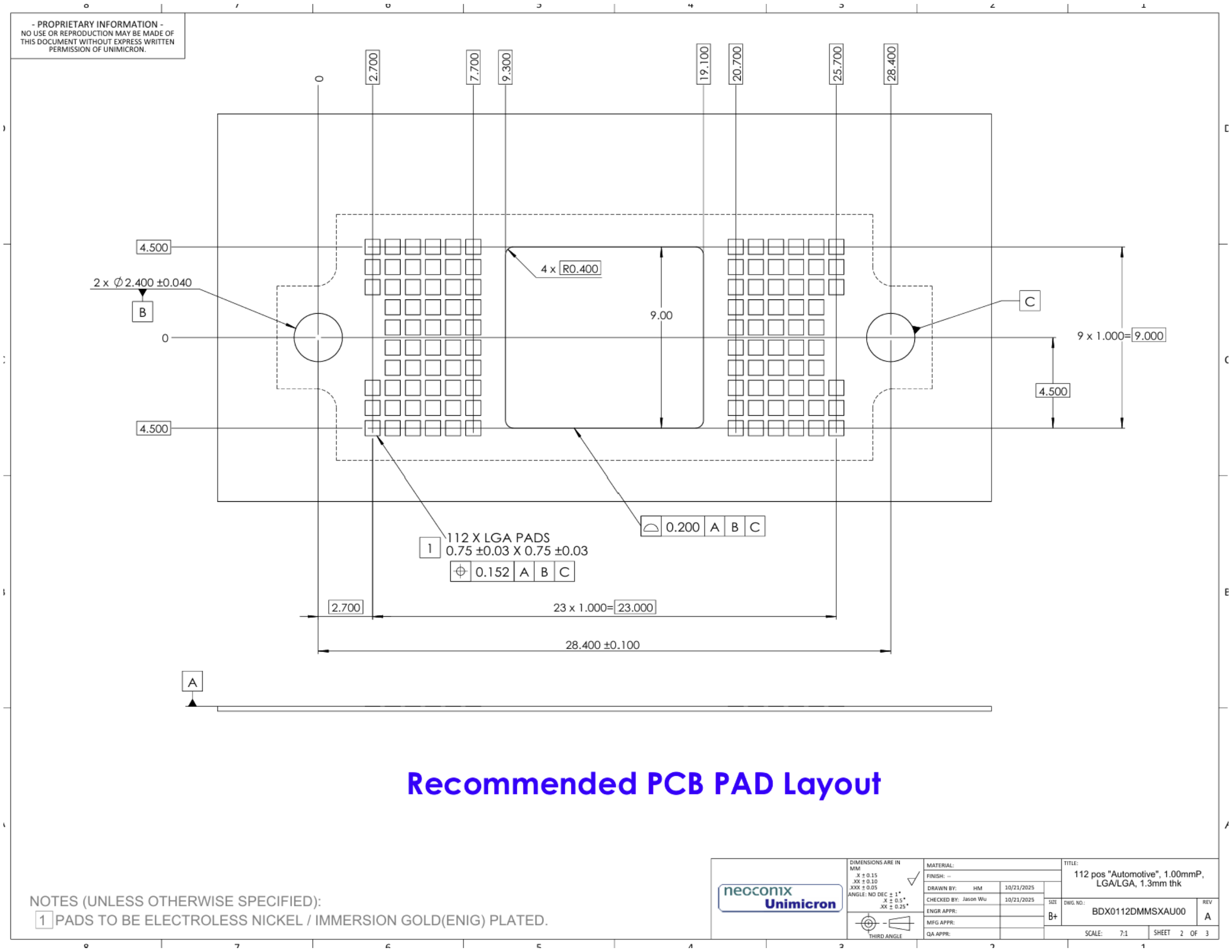
MATERIAL:		
FINISH: --		
DRAWN BY:	HM	10/21/2025
CHECKED BY:	Jason Wu	10/21/2025
ENGR APPR:		
MFG APPR:		
QA APPR:		

TITLE: 112 pos "Automotive", 1.00mmP, LGA/LGA, 1.3mm thk
SIZE B+
DWG. NO.: BDX0112DMMSXAU00
REV A
SCALE: 5:1
SHEET 1 OF 3

Note: This example is for reference only. Please refer to the product drawing.

RECOMMENDED PCB LAYOUT

Note: This example is for reference only. Please refer to the product drawing.



ASSEMBLY & HANDLING GUIDELINES

- The use of latex gloves is recommended when handling interposers. As with any normal force connector, avoid touching contact tips and handle the product only by its edges.

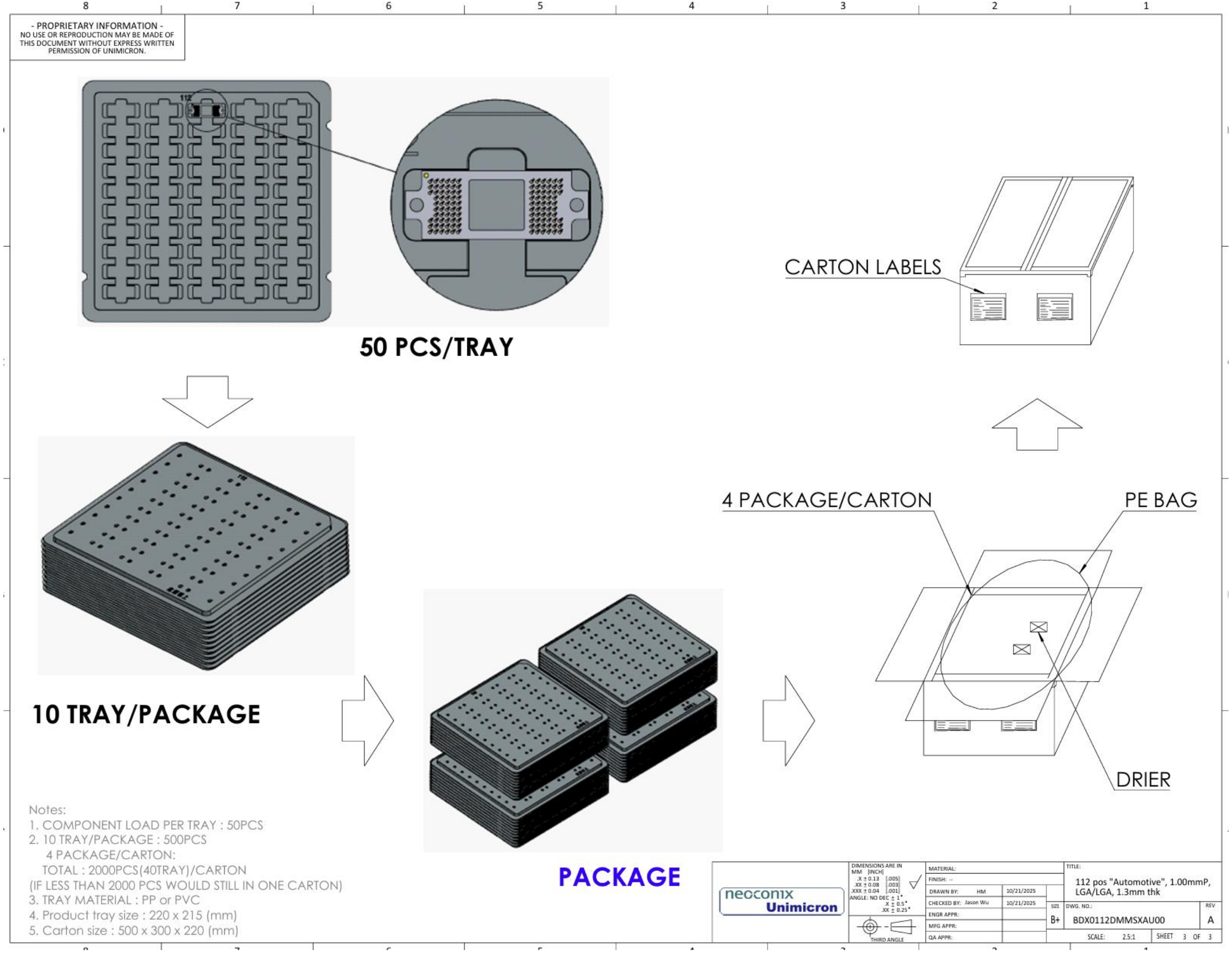
- When clamping the module, PCB, or FPC onto the connector, please ensure that the force is applied uniformly. Force should be applied vertically through the z-axis and not in an angled direction.

- Cleaning is typically not needed if the product is kept in original packaging. When necessary, cleaning can be employed with the use of compressed air. Direct the flow of air in the direction that the contact elements are pointing. Cleaning can also be performed with an ultrasonic bath of isopropyl alcohol (IPA). A 5 minute soak can be followed by a 10 minute bake at 65°C.

- When not in use, please keep product stored in original packaging.

PACKAGING INFO

Production parts are provided in low profile vacuum formed trays. Each tray holds 50 pcs at 40 trays per carton, Total= 2000 pcs/Carton



Notes:
1. COMPONENT LOAD PER TRAY : 50PCS
2. 10 TRAY/PACKAGE : 500PCS
4 PACKAGE/CARTON:
TOTAL : 2000PCS(40TRAY)/CARTON
(IF LESS THAN 2000 PCS WOULD STILL IN ONE CARTON)
3. TRAY MATERIAL : PP or PVC
4. Product tray size : 220 x 215 (mm)
5. Carton size : 500 x 300 x 220 (mm)

DIMENSIONS ARE IN MM [INCH]
.X ± 0.13 [.005]
.XX ± 0.08 [.003]
.XXX ± 0.04 [.001]
ANGLE: NO DEC ± 1°
.X ± 0.5°
.XX ± 0.25°

MATERIAL:
FINISH: --
DRAWN BY: HM 10/21/2025
CHECKED BY: Jason Wu 10/21/2025
ENGR APPR:
MFG APPR:
QA APPR:
TITLE: 112 pos "Automotive", 1.00mmP, LGA/LGA, 1.3mm thk
SIZE B+
DWG. NO.: BDX0112DMMSXAU00
REV A
SCALE: 2.5:1
SHEET 3 OF 3

ORDERING INFO

To obtain a quotation, please contact the Neoconix sales office at sales@neoconix.com or 408-530-9393. Please include the part number(s) of interest.

Custom interposers and hardware are also available from Neoconix.

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Phone: +86 13425137953 (Shenzhen)
Email: sales@neoconix.com

REVISION HISTORY

Rev A	06/27/2022	Production Release
Rev B	05/23/2023	Updated target load per contact from 55 grams to 45grams
Rev C	10/23/2025	Replaced Target Load per Contact with Recommended Compression Force for the Array