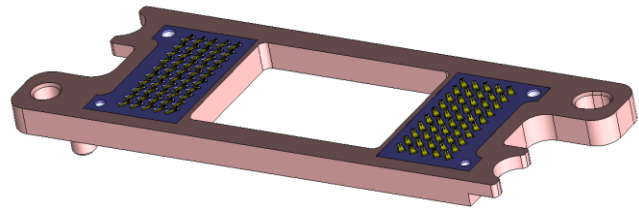


100-Position LGA/LGA PCBeam™ Connector

Neoconix P/N: BDX0100CMMHFAU00

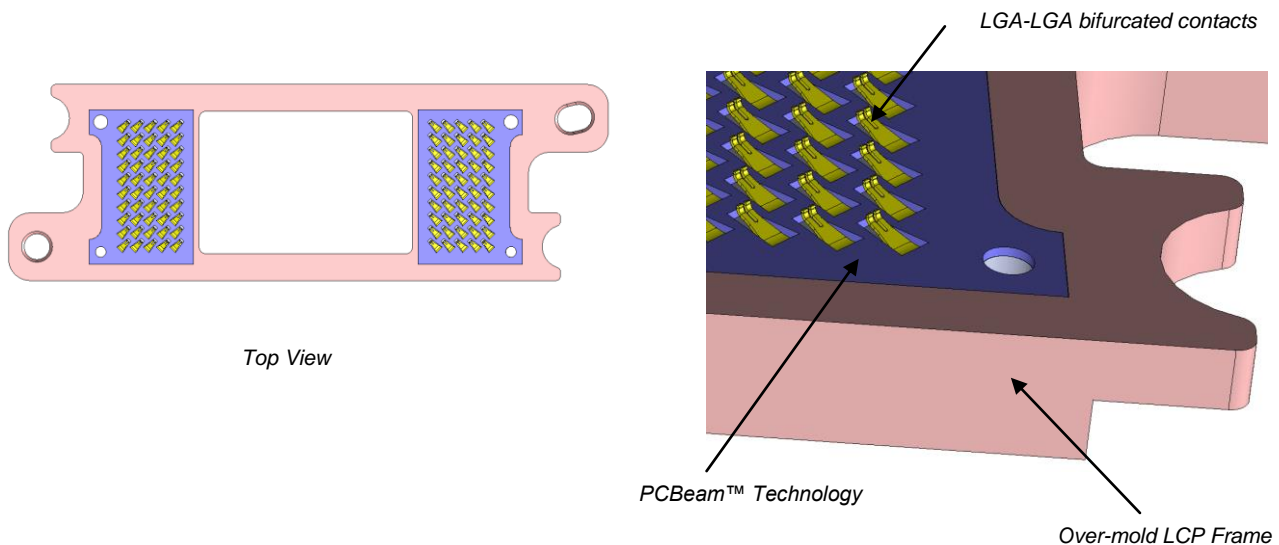
FEATURES

- High density 0.7424mm area-array pitch
- Low profile, 1.60 mm mated height
- PCBeam™ high reliability LGA spring contacts
- Bifurcated contact tips
- Over-molded plastic frame for improved dimensional tolerances
- Hard gold-plated contact interface
- RoHS 2011/65/EU (RoHS2) compliant



OVERVIEW

The PCBeam™ 100 Position Connector is an interconnect solution for the Texas Instruments DLP4710 (S312 DMD). This one-piece, high density and cost effective solution is enabled by the use of an over-molded plastic frame which integrates two 50 position PCBeam™ interposers, a heat-sink opening, and features for precise alignment of the Interposers to the DMD and main PC Board. A bifurcated contact design enhances the product reliability by providing an aggressive wiping during assembly.



DOCUMENT NUMBER: AS-000024	REV. D 10/26/2018	100-pin Interposer	AUTHOR: WT	Page 1 of 6
--------------------------------------	-----------------------------	--------------------	----------------------	-----------------------

CROSS REFERENCE INFO:

- TI Interposer Drawing: 2513791
- TI DMD Drawing: 2513652

ORDERING INFORMATION:

- Part Number: BDX0100CMMHFAU00
- Production Packaging: Vacuum formed Low Profile Matrix Trays
- Minimum Production Order Quantity: 3,000
- Lead Times: 8 weeks ARO

SPECIFICATIONS
MECHANICAL

Contact Configuration.....	single-beam, bifurcated tips
Contact Pitch.....	0.7424mm x 0.7424mm
Contact Count.....	100 (10x5x2)
Target Load / Contact.....	30 ± 10 grams
Contact Deflection.....	0.16 mm typical per side

ELECTRICAL

Current Rating.....	0.5A per position
Resistance.....	< 50mΩ per position
Dielectric Withstanding Voltage.....	100VDC

ENVIRONMENTAL

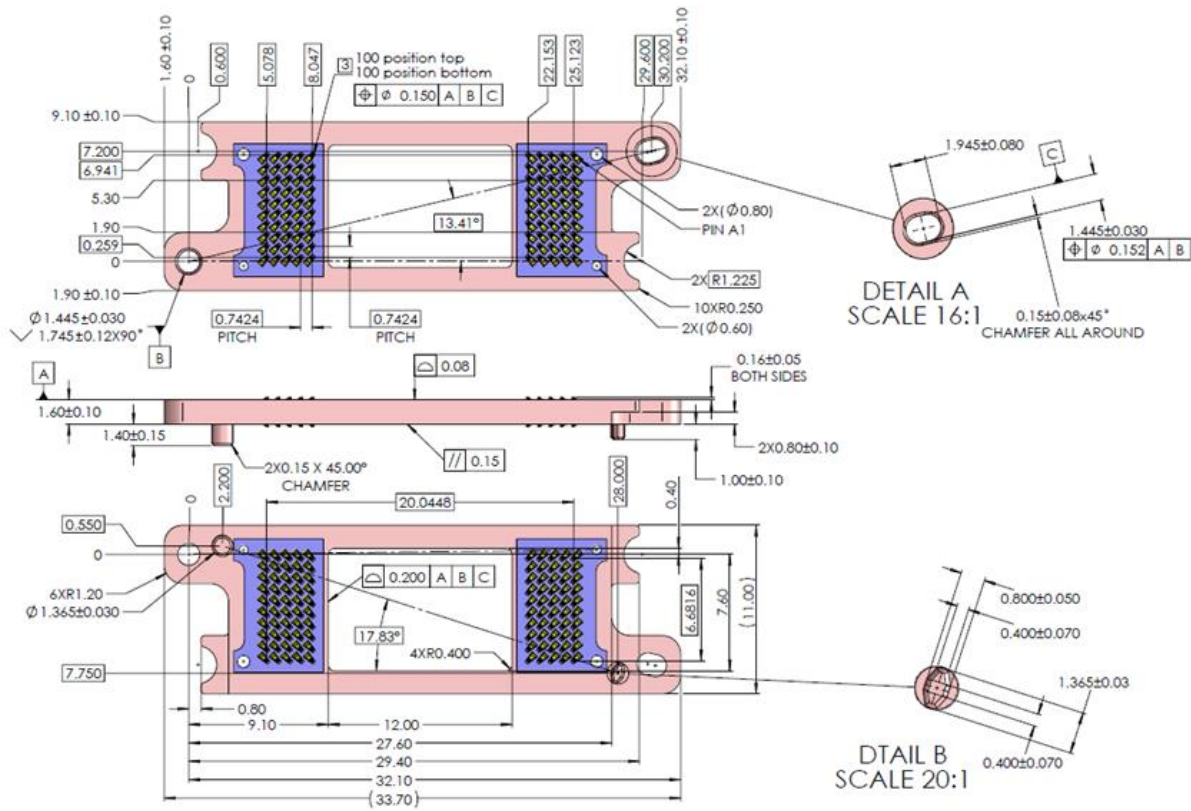
Operating Temperature.....	-20°C to 85°C
Storage Temperature.....	-40°C to 85°C
Heat aging.....	85°C, 96hrs,
High temperature Humidity.....	96 hrs, 90% RH, 60°C
Low temperature/ Ambient Humidity	96 hrs, -25 °C
Temperature Cycling	32 cycles, -25°C to 60°C
Thermal Shock.....	32 cycles, -25°C to 60°C
Salt Spray.....	48hrs, 5% mist
Random Vibration.....	10-55Hz rms, 3 axes, 2hrs/axis
Insertions.....	50 mating cycles

MATERIALS

Core Dielectric.....	FR4
Frame.....	LCP, UL 94V-0
Contact Elements.....	Copper alloy
Contact Plating.....	hard Au over Ni
Surface Insulator.....	polyimide or soldermask

NOTE: Specifications are subject to change without notice.

DOCUMENT NUMBER: AS-000024	REV. D 10/26/2018	100-pin Interposer	AUTHOR: WT	Page 2 of 6
--------------------------------------	-----------------------------	--------------------	----------------------	-----------------------

DIMENSIONAL INFORMATION

NOTES (UNLESS OTHERWISE SPECIFIED) :

1. INTERPRET DRAWING PER ASME Y14.5-94.
2. COMPLIANT WITH RoHS DIRECTIVE 2011/65/EU.
3. CENTER MARKS OF CONTACT POSITIONS ARE FOR COMPRESSED STATE.
4. Material :
 Contacts: High performance copper alloy.
 Contact base: FR4 with plated through holes
 Housing: LCP resin, Glass fiber filled, UL 94V-0 rated
 Black color
 Plating: 5 U" min gold plated on contact tip, 70 ± 30 U" nickel underplated
5. Either of the redundant contact tips can apply toward the true position location

 DIMENSIONS ARE IN
 MM [INCH]

.X ± 0.13 [.005]

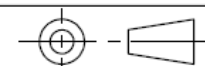
.XX ± 0.08 [.003]

.XXX ± 0.025 [.001]

ANGLE: NO DEC ± 1°

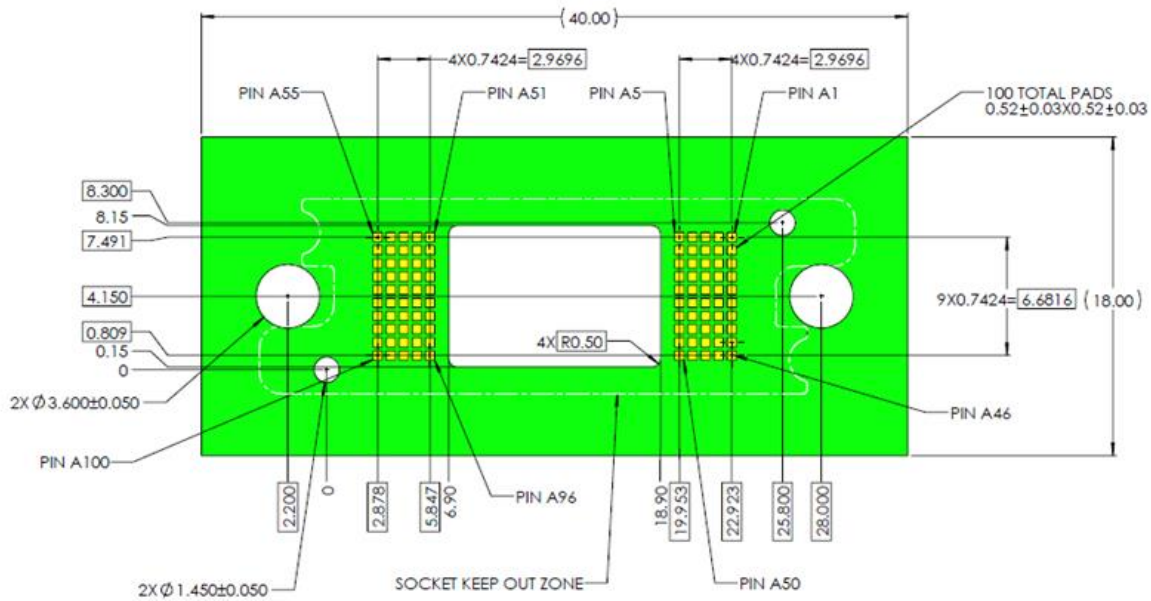
.X ± 0.5°

.XX ± 0.25°



THIRD ANGLE

DOCUMENT NUMBER: AS-000024	REV. D 10/26/2018	100-pin Interposer	AUTHOR: WT	Page 3 of 6
--------------------------------------	-----------------------------	--------------------	----------------------	-----------------------

RECOMMENDED FPC OR PCB LAYOUT

recommend PCB footprint

(Dimensions in mm)

- NOTES: UNLESS OTHERWISE SPECIFIED:
- 1 PADS TO BE ELECTROLESS NICKEL / IMMERSION GOLD (ENIG) PLATED
 - 2 VIAS IN PAD AREAS MUST BE FILLED
 - 3 INTERPOSER OUTLINE: NO COMPONENTS ALLOWED WITHIN THIS AREA
 - 4 ALLOWED COMPONENT AREA; MAXIMUM COMPONENT HEIGHT 1.3 mm
 - 5 IF SOLDERMASK IS APPLIED IN THE ARRAY AREA, IT SHALL NOT PROTRUDE ABOVE THE PLANE OF THE CONTACT PAD SURFACE

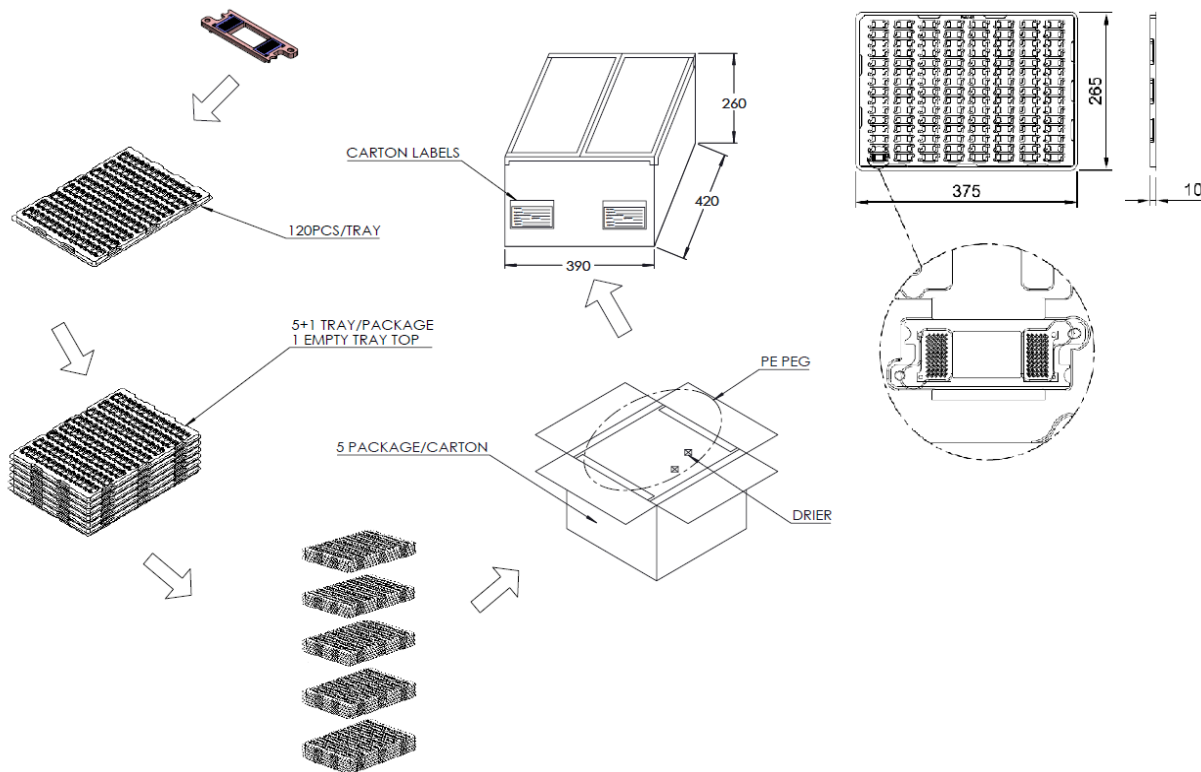
DOCUMENT NUMBER: AS-000024	REV. D 10/26/2018	100-pin Interposer	AUTHOR: WT	Page 4 of 6
--------------------------------------	-----------------------------	--------------------	----------------------	-----------------------

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 120 pcs.



DOCUMENT NUMBER: AS-000024	REV. D 10/26/2018	100-pin Interposer	AUTHOR: WT	Page 5 of 6
--------------------------------------	-----------------------------	--------------------	----------------------	-----------------------

**CONTACT INFO**

For further information, please contact the Neoconix sales office at sales@neoconix.com or 408-530-9393.

Neoconix, Inc.
4020 Moorpark Avenue, #108
San Jose, CA 95117 USA

PCBeam™ is a trademark of Neoconix Incorporated.

REVISION HISTORY

Rev A	01/06/2017	Production Release
Rev B	01/20/2017	Updated environmental specs.
Rev C	08/09/2017	Updated cross reference info
Rev D	10/26/2018	Updated packaging info to 3kpcs per carton (ECN 1218)

DOCUMENT NUMBER: AS-000024	REV. D 10/26/2018	100-pin Interposer	AUTHOR: WT	Page 6 of 6
--------------------------------------	-----------------------------	--------------------	----------------------	-----------------------