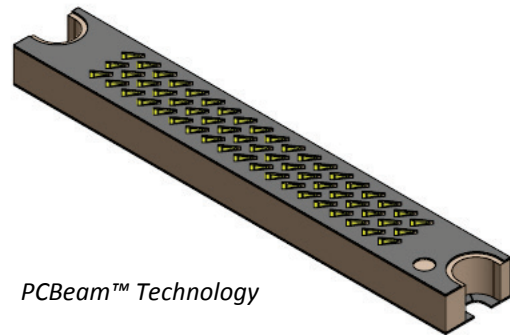


57 -Position LGA/LGA PCBeam™ Connector

Neoconix P/N: BDX0057CMMF4AU00

FEATURES

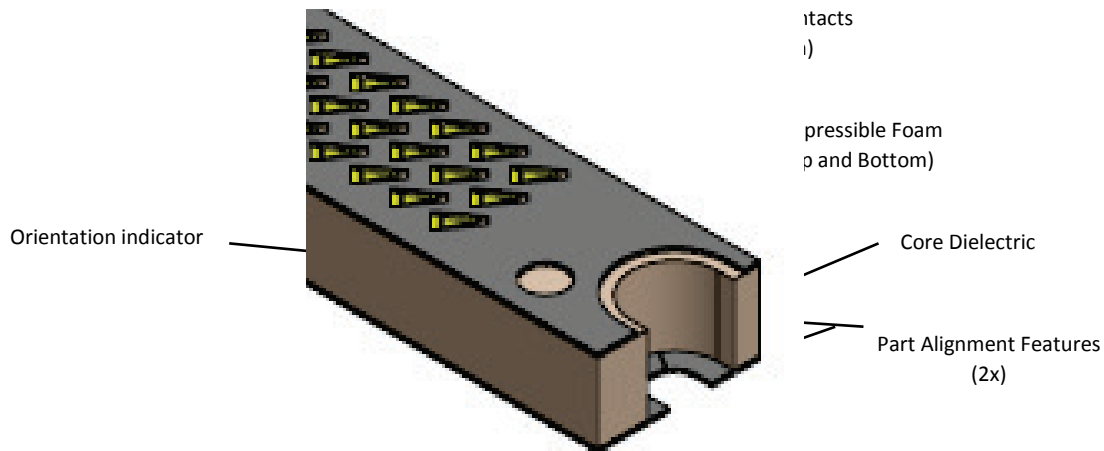
- High density 0.7424mm area-array pitch
- Low profile, 1.60 mm mated height
- PCBeam™ high reliability LGA spring contacts
- Hard gold-plated contact interface
- Compressible foam protective outer layers
- IPC-4101B compliant (halogen-free)
- ROHS 2011/65/EU compliant



PCBeam™ Technology

OVERVIEW

Featuring Neoconix's patented PCBeam™ interconnect technology, this one-piece connector product offers high performance and high reliability in an extremely compact form factor. Compressible foam is used on the top and bottom side of the part to protect the contact beams at the unmated state, and foam flaps are used for part for alignment.

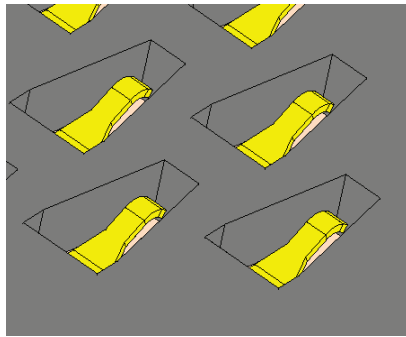


Interposer Features – Mated State

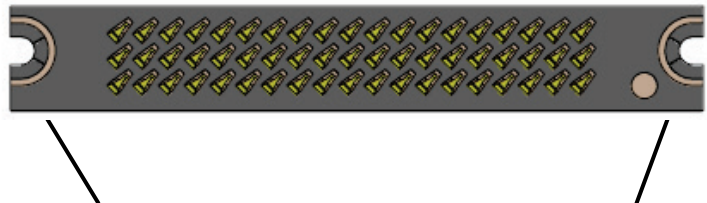
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DESCRIPTION

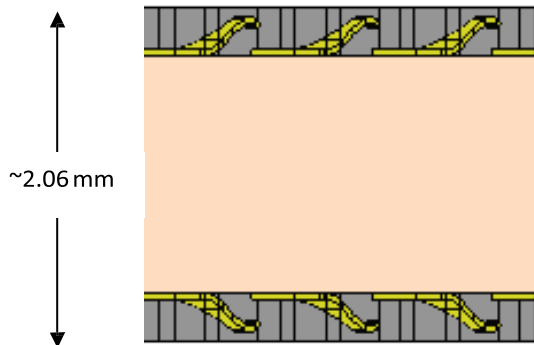
At the unmated state, the PCBeam contacts sit below the surface of the compressible foam. The foam will protect the contact beams from potential damage during handling and assembly. On either end of the part are slotted holes used for alignment. Foam flaps protruding from the bottom side of the alignment holes are used to center the part snugly against the alignment pins. When the clamping system is engaged, the foam will compress ~75% on each side allowing sufficient pin contact to PCB/FPC mating pads. The recommended total compression force is 40N-120N.



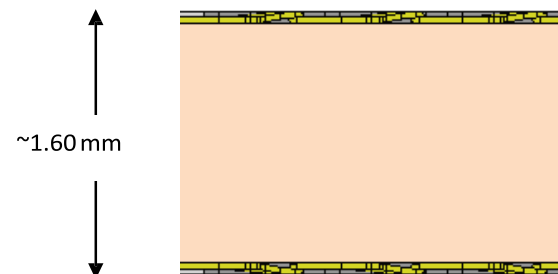
*Contacts Recessed Below Foam Surface
(Unmated State)*



*Top View – Slotted Holes with foam flaps used
for part alignment*



Side View -Unmated State



Side View - Mated State

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CROSS REFERENCE INFO:

- TI Interposer Drawing: 2513242
- TI DMD Drawing: 2512014

ORDERING INFORMATION:

- Part Number: BDY0057CMMF4AU00
- Production Packaging: Anti-static vacuum formed trays
- Minimum Production Order Size: 2000 units

SPECIFICATIONS
MECHANICAL

Contact Configuration.....	single-beam
Contact Pitch.....	0.7424mm x 0.7424mm
Contact Count.....	57 (19x3)
Recommended Total Compression Force.....	40N-120N
Durability Cycles.....	50 mate/un-mate cycles min.
Min Gold Thickness.....	0.38µm (15µ-in)

ELECTRICAL

Resistance per position.....	< 50mΩ
Current Capacity.....	0.5A per position min. Insulation
Resistance.....	100MΩ
Dielectric Withstanding Voltage.....	100VDC Operating
Frequency.....	< 1GHz

ENVIRONMENTAL

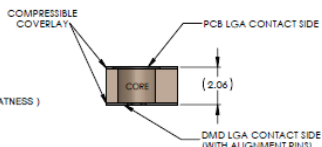
End Product Environment.....	Mobile
Operating Temperature.....	-20°C to 75°C
Storage Temperature.....	-40°C to 85°C
Durability.....	50 Cycles, mate-demate
Heat Soak.....	72 hrs., 90% RH, 65°C
Temp Life.....	96 hrs., 85°C, 10A(P), 0.5A(G)
Temperature Cycling.....	-40°C to 85°C, 100 cycles
Salt Spray.....	48 hrs., 5% salt mist & air Mechanical
Shock.....	50G, 3 per axis
Mechanical Vibration.....	6 hrs. per 3 axis, 10-55-10Hz

MATERIALS

Core Dielectric.....	MCL E-75G or equivalent Contact
Elements.....	Copper alloy
Contact Plating.....	hard Au over Ni
Surface Insulator.....	Urethane foam composite

NOTE: Specifications are subject to change without notice.

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Technical drawing of a mechanical part with the following dimensions and tolerances:

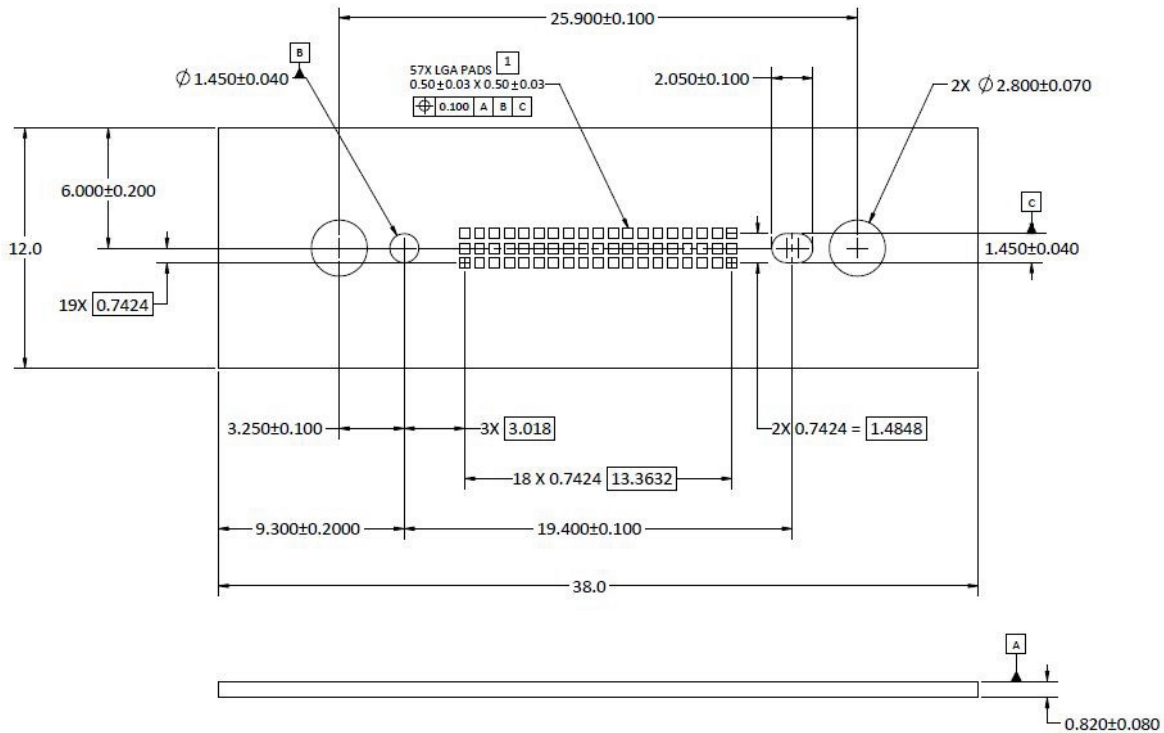
- Top left corner: $(4X0.90)$
- Top center: $(3) 18X0.7424 \pm 13.3632$
- Top right corner: $(3) 2X0.7424 \pm 1.4848$
- Left side hole: $(4X0.03)$
- Left side hole dimension: $(3) 0.7424$
- Right side hole: $(2X0.40)$
- Right side hole dimension: $\Phi \pm 0.4 \text{ A B C}$
- Right side hole angle: $(4X30^\circ)$
- Bottom center: $57X \text{ CONTACT CENTERS COMPRESSED}$
- Bottom center dimension: $(3) \Phi \pm 0.200 \text{ A B C}$
- Bottom left: FROM DATUM B
- Bottom left dimension: $(3) 3.018$
- Bottom center dimension: 19.400

A 3D perspective diagram of a long, thin, grey rectangular plate. The plate is supported by numerous small, yellow cylindrical pins arranged in a regular grid pattern along its length. The plate has semi-circular ends. Below the plate, the text "COMPRESSED ON ALIGNMENT PINS" is written in blue, underlined capital letters.

ANGLE: NO DEC $\pm 1^\circ$
 $.X \pm 0.5^\circ$
 $.XX \pm 0.25^\circ$

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RECOMMENDED FPC or PCB LAYOUT



(Dimensions in mm)

NOTES (UNLESS OTHERWISE SPECIFIED):

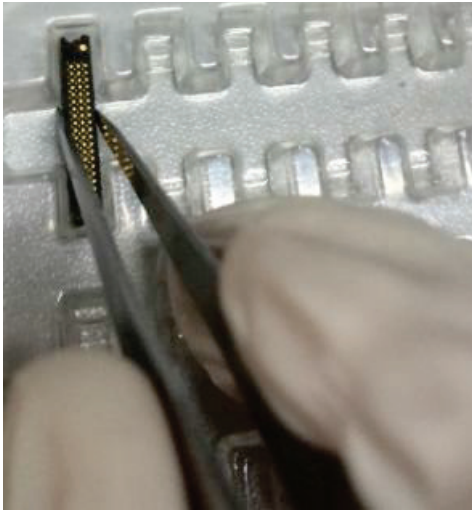
- 1 PADS TO BE ELECTROLESS NICKEL / IMMERSION GOLD (ENIG) PLATED.

Note: If FPC is used, a 1.5mm thick FR4 (or similar) stiffener is recommended on backside of FPC to provide rigidity and reduce warp.

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ASSEMBLY & HANDLING GUIDELINES

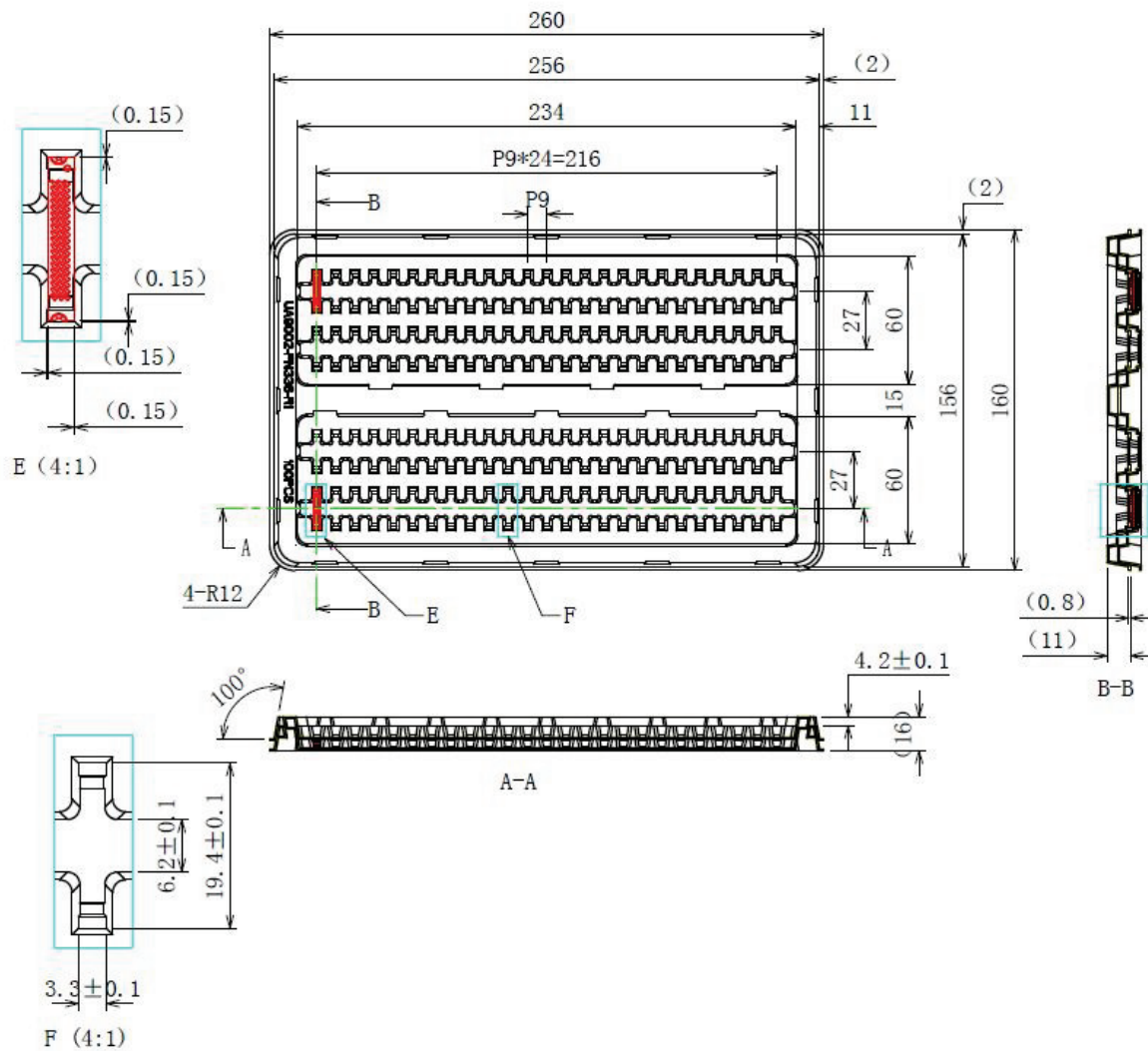
- The use of latex gloves is recommended when handling interposers. As with any normal force connector, avoid touching contact tips and handle the product only by its short edges. For example:



- 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.

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Production parts are provided in Anti-Static vacuum formed trays with 100 pockets per tray. Detailed drawings are available upon request.



(Dimensions in mm)

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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

Corporate Headquarters:

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4020 Moorpark Ave., #108
San Jose, CA 95117 USA

Phone: +1 (408) 530-9393
Fax: +1 (408) 530-9383
Email: sales@neoconix.com
URL: <http://www.neoconix.com/>

China Contact: David Chen
Phone: +1 (408) 768-4135
Email: sales@neoconix.com

PCBeam™ is a trademark of Neoconix Incorporated.

REVISION HISTORY

Rev A	10/1/2014	Production Release
Rev B	02/11/2015	Update handling guide line
Rev C	03/13/2018	Increased interposer length from 19.1 to 20mm

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