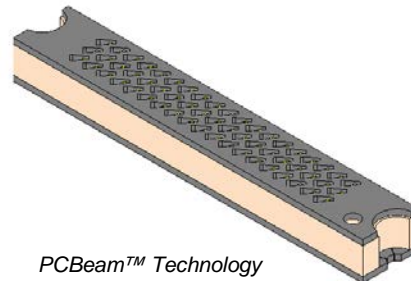


## 57 -Position LGA/LGA PCBeam™ Connector

Neoconix P/N: BDX0057CMMF4AU00

### FEATURES

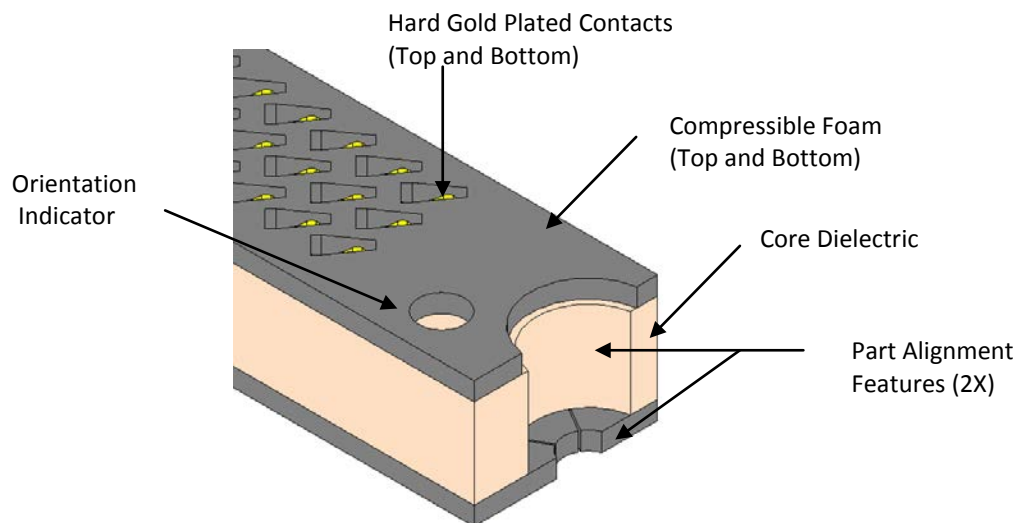
- High density 0.7424mm area-array pitch
- Low profile, 1.60 mm mated height
- PCBeam™ high reliability LGA spring contacts
- Hard gold-plated contact interface
- Compressible foam protective outer layers
- IPC-4101B compliant (halogen-free)
- ROHS 2011/65/EU compliant



*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.

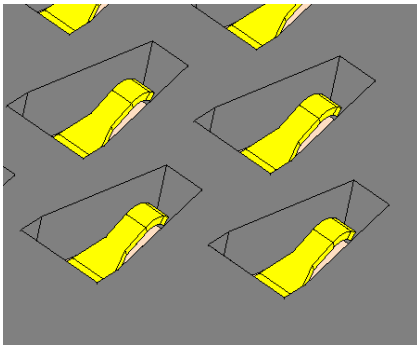


*Interposer Features – Unmated State*

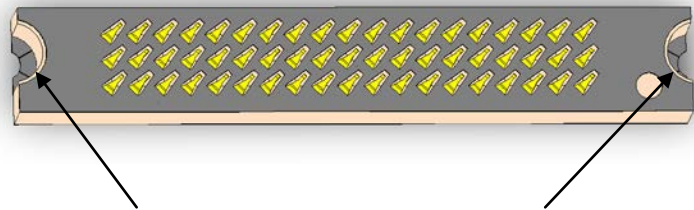
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**DESCRIPTION**

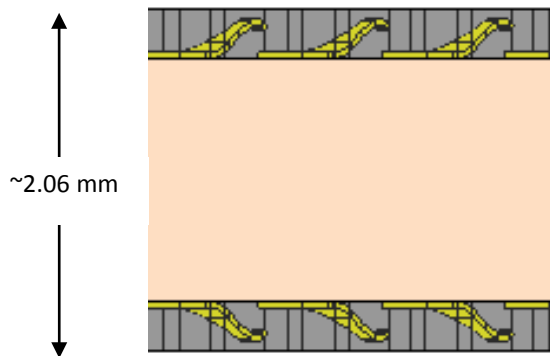
At the unmated state, the PCBeam contacts sit below the surface of the compressible foam. The foam will protect the contact beams from potential damage during handling and assembly. On either end of the part are slotted holes used for alignment. Foam flaps protruding from the bottom side of the alignment 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.



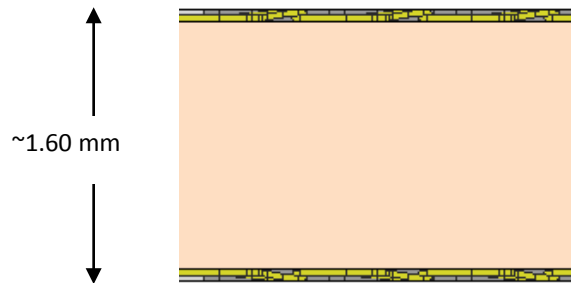
*Contacts Recessed Below Foam Surface*



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



*Side View - Unmated State*



*Side View - Mated State*

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**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 85°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

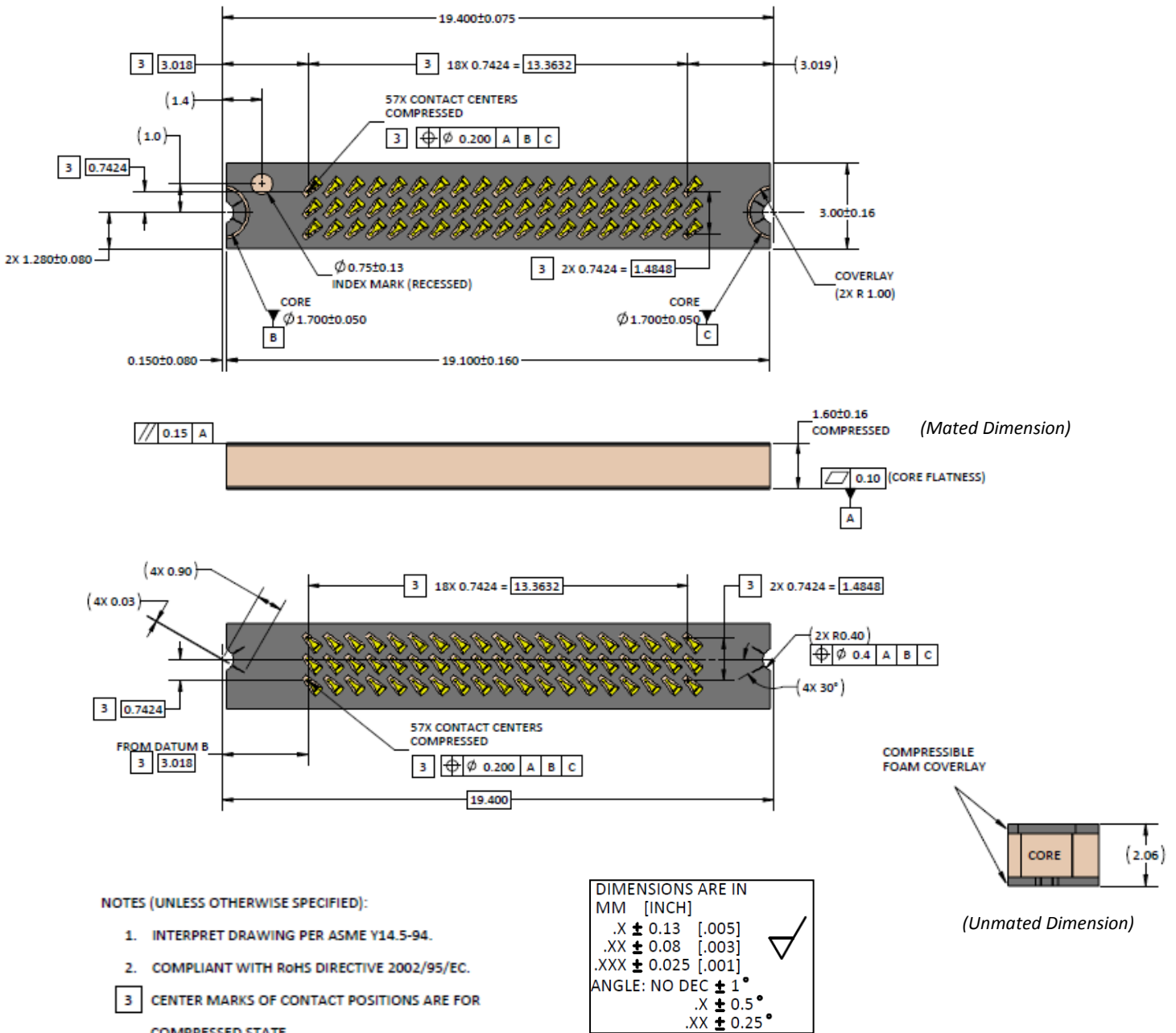
**MATERIALS**

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.*

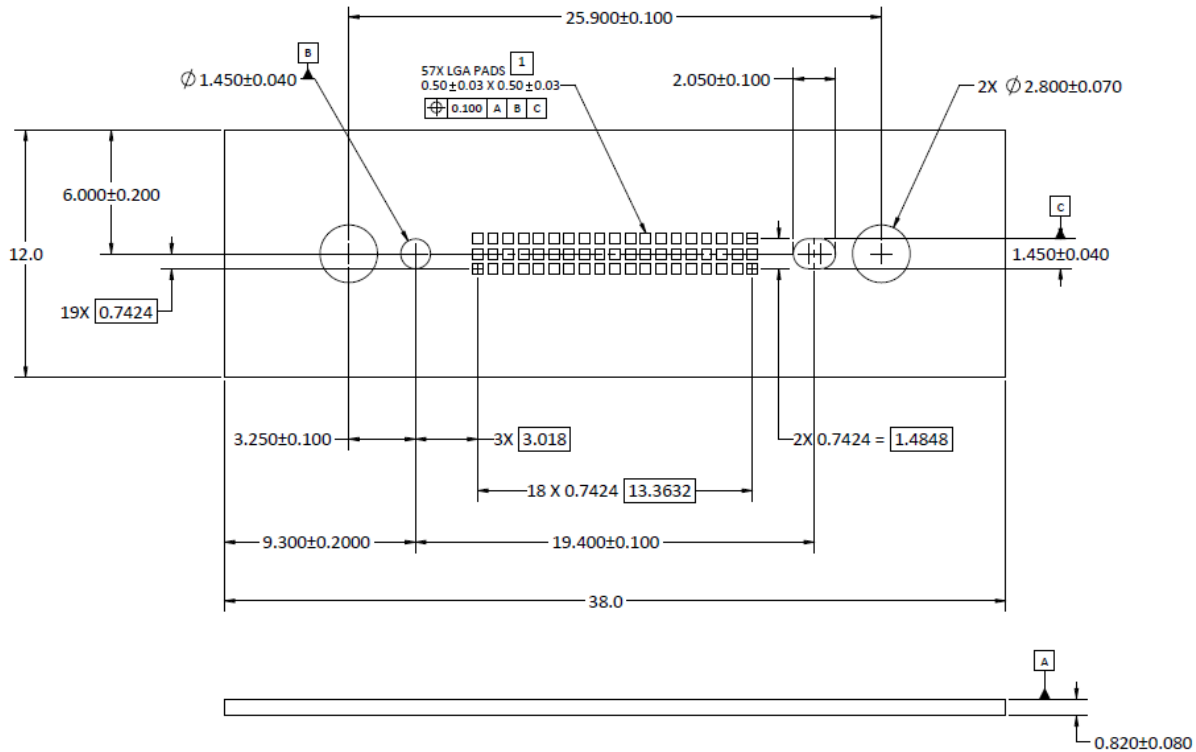
**DIMENSIONAL INFORMATION**

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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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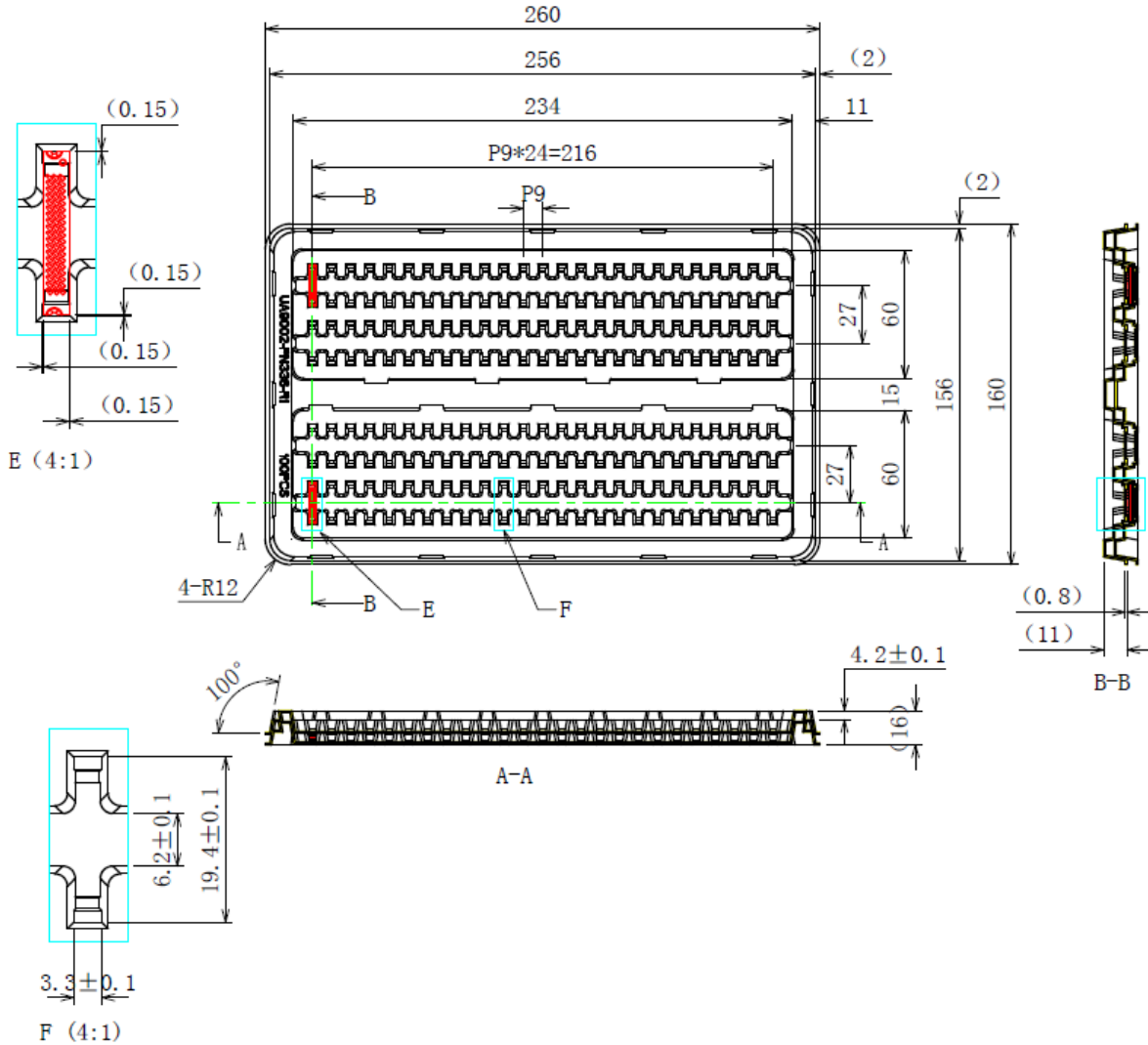
**ASSEMBLY & HANDLING GUIDELINES**

- 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 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.

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**PACKAGING INFO**

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



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## CONTACT INFO

For any additional questions, please contact Neoconix at the address below:

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(408) 530-9393 (phone)  
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*PCBeam™ is a trademark of Neoconix Incorporated.*

## REVISION HISTORY

Rev A	10/1/2014	Production Release
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