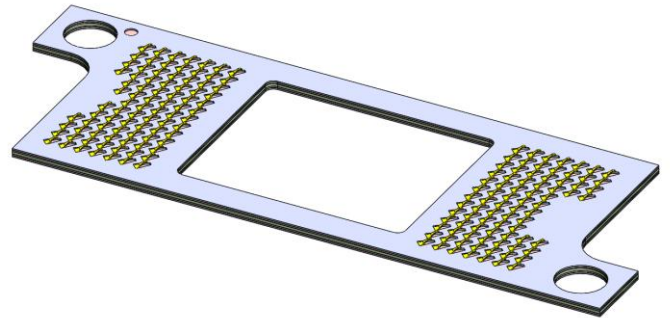


## 166-Position LGA/LGA PCBeam™ Connector

Neoconix P/N: BDX0166CMMSXAU01

### FEATURES

- High density 0.7424mm area-array pitch
- Low profile, 0.43 mm mated height
- PCBeam™ high reliability LGA spring contacts
- Hard gold-plated contact interface
- RoHS 2011/65/EU (RoHS2) compliant

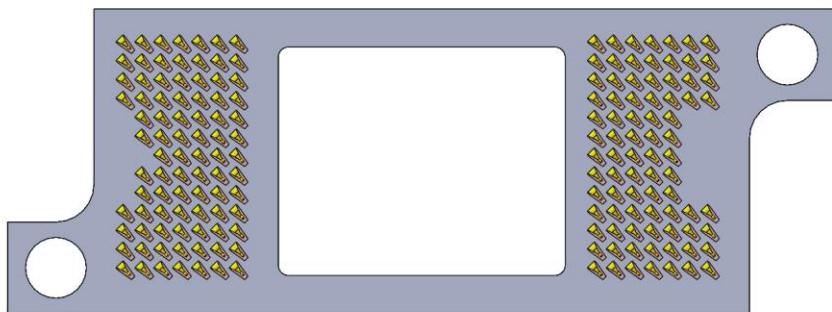


### OVERVIEW

The PCBeam™ 166 Position Connector is an interconnect solution for the Texas Instruments S321 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



Bottom View

|                                      |                             |                    |                            |                       |
|--------------------------------------|-----------------------------|--------------------|----------------------------|-----------------------|
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**CROSS REFERENCE INFO:**

- TI Interposer Drawing: 2518635

**ORDERING INFORMATION:**

- Part Number: BDY0166CMMSXAU01
- 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              |
| Contact Pitch.....         | 0.7424mm x 0.7424mm      |
| Contact Count.....         | 166                      |
| Target Load / Contact..... | 35 ± 10 grams            |
| Contact Deflection.....    | 0.18 mm typical per side |

**ELECTRICAL**

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

**ENVIRONMENTAL**

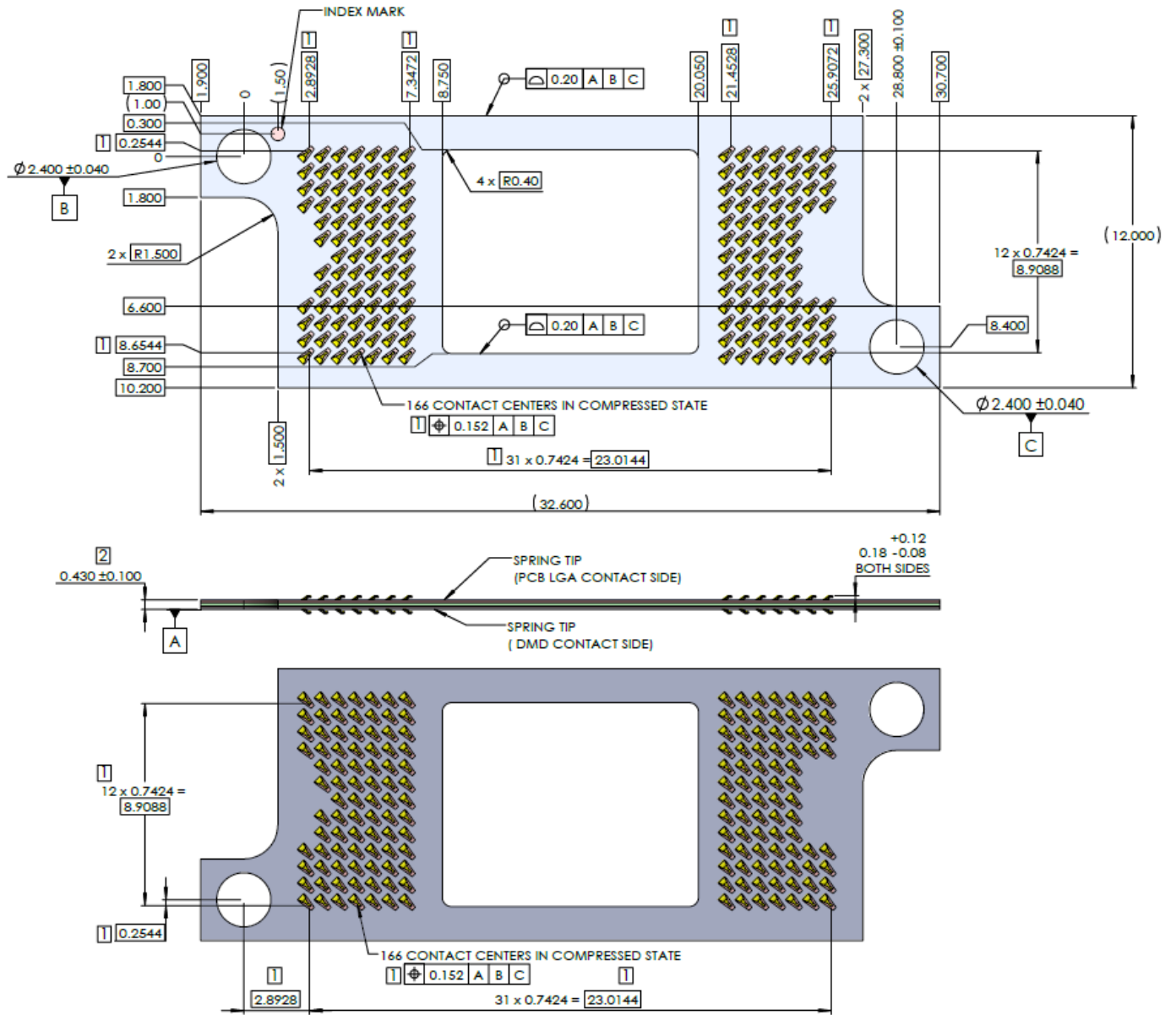
|   |                          |
|---|--------------------------|
| Operating Temperature.....              | -20°C to 85°C            |
| Storage Temperature.....                | -40°C to 85°C            |
| Heat aging.....                         | 85°C, 96hrs,             |
| High temperature Humidity.....          | 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           |
| Insertions.....                         | 50 mating cycles         |

**MATERIALS**

|                        |                 |
|------------------------|-----------------|
| Core Dielectric.....   | FR4             |
| Contact Elements.....  | Copper alloy    |
| Contact Plating.....   | hard Au over Ni |
| Surface Insulator..... | polyimide       |

*NOTE: Specifications are subject to change without notice.*

|                                      |                             |                    |                            |                       |
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**DIMENSIONAL INFORMATION**

**RECOMMENDED FPC OR PCB LAYOUT**

Reference to TI DMD 321 drawing

|                                      |                             |                    |                            |                       |
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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.

**ORDERING INFO**

For order related information, please contact the Neoconix sales office at [sales@neoconix.com](mailto:sales@neoconix.com) or 408-530-9393.

**Corporate Headquarters:**

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*PCBeam™ is a trademark of Neoconix Incorporated.*

**REVISION HISTORY**

|       |            |                    |
|-------|------------|--------------------|
| Rev A | 01/30/2023 | Production Release |
|       |            |                    |
|       |            |                    |
|       |            |                    |
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