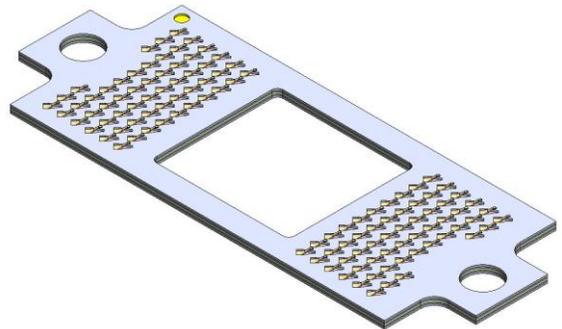


112 Position LGA/LGA PCBeam™ Connector

Neoconix P/N: BDX0112DMMSXAU01

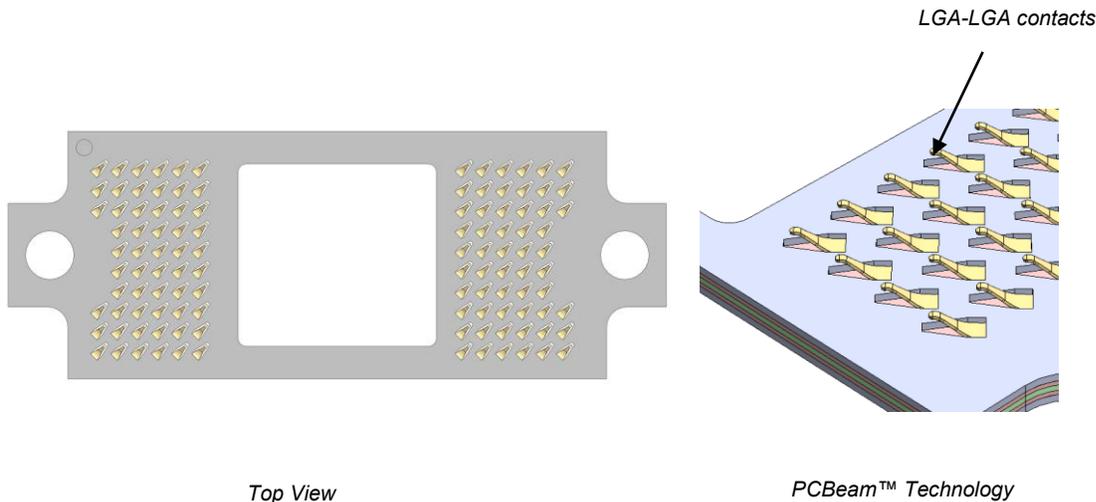
FEATURES

- High density 1.0 mm x 1.0 mm area-array pitch
- Ultra-low profile BtB application, 0.55mm 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.



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CROSS REFERENCE INFO:

- TI Interposer Drawing: 2518370
- TI DMD Drawing: 2518197

ORDERING INFORMATION:

- Part Number: BDX0112DMMSXAU01
- 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
EN1	End Product Environment	DLP, Automotive	
EN2	Operating Temperature	-55C to 105C	
EN3	Storage Temperature	-40C to 85C	
EN4	Thermal shock	-55C to 105C, Ramp times should be 10C per min and dwell times be 0.5 hour. Perform 25 cycles.	Test Condition II of EIA-364-32
EN5	High temperature life	105C x 250 hours	according to EIA-364-17

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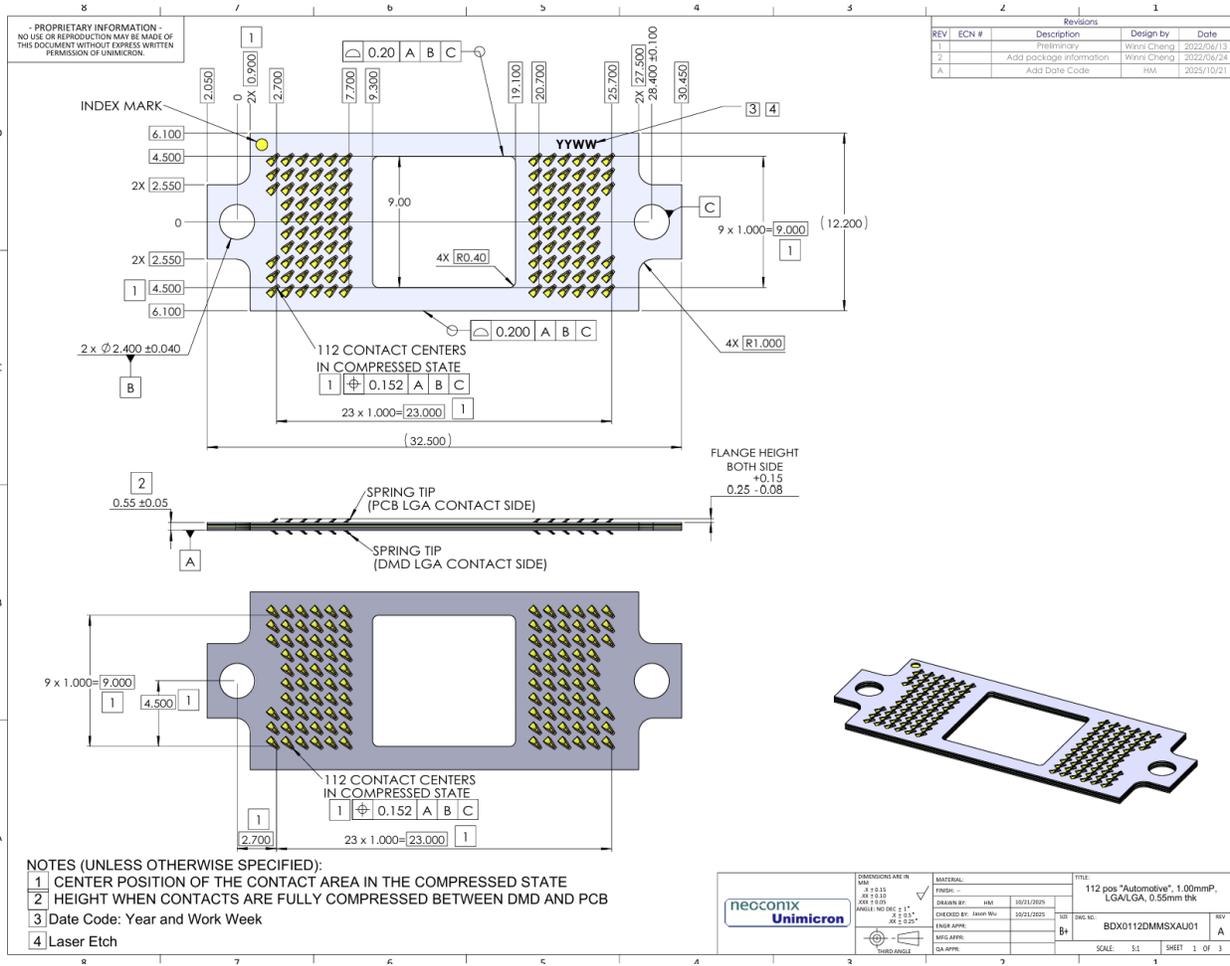
EN6	Cyclic Temperature & Humidity	minimum requirement is 250 hours of humidity exposure at 25 °C to 65 °C and 80% relative humidity	The required dwell time at T min and T max is 2 hours with 2 hour ramps for a total of 8 hours of test time per cycle
EN7	Salt Spray	48hrs, 5% mist	
EN8	Random Vibration	No signal discontinuities of more than 1 u-sec during the test.	Per EIA364-28, test condition VII, letter D, Duration: 10 minutes per axis for all 3 axes. Frequency Range: 5 ~ 500 Hz. 5 to 20Hz (slope): (0.01g ² /Hz)@5Hz, (0.02g ² /Hz)@20Hz; 20 to 500Hz (flat): Input acceleration is 3.10 g RMS,;
EN9	Mechanical Shock	No signal discontinuities of more than 1 u-sec during the test.	Per EIA364-27 Acceleration: 40G, half-sine wave Shock duration: 11 ms. Shocks in each of 3 directions.
EN10	Thermal disturbance	Cycle the connector between 15°C and 85°C, Ramp should minimum of 2C per minute	Perform 10 such cycle
EN11	Steady-State Temperature and Humidity	no evidence of corrosion products at the connector contact area,	Per EIA364-113 tested at 40 °C±3 °C, 93%±5% RH for 14 days

OTHER ITEMS

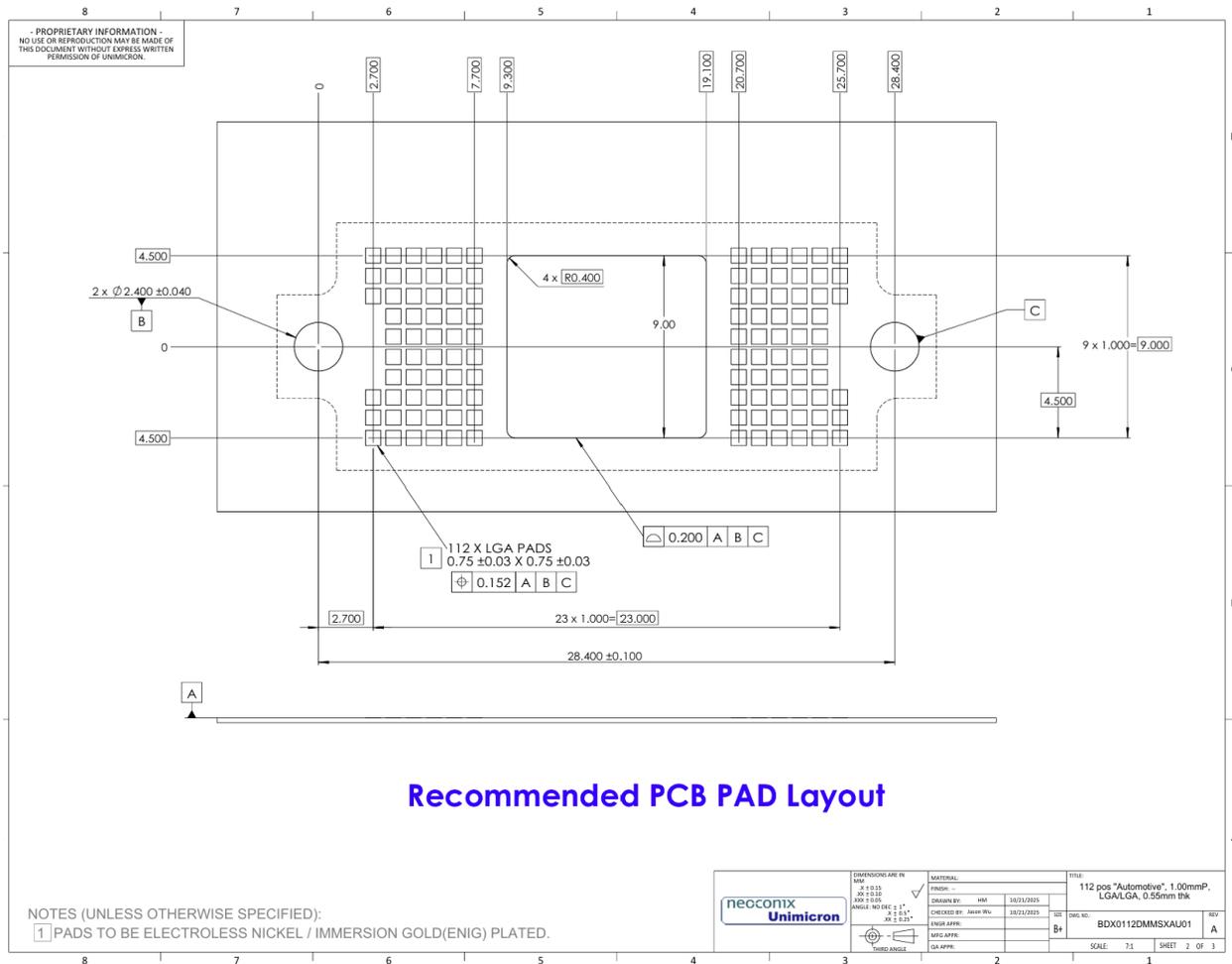
ITEM	DESCRIPTION	REQUIREMENT	COMMENT
1	ROHS Compliant per 2002/92/EC	Required	

NOTE: Specifications are subject to change without notice.

DIMENSIONAL INFORMATION



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

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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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China Contact: Lynn Li (李丽银)
Phone: +86 13425137953 (Shenzhen)
Email: sales@neoconix.com

REVISION HISTORY

Rev A	06/27/2022	Production Release
Rev B	05/30/2023	Updated target load per contact from 55grams to 45grams
Rev C	10/30/2025	Replaced Target Load per Contact with Recommended Compression Force for the Array

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