

0.35 Pitch – 0.60 Stack Height, BTB, 103 Series

HIGH DENSITY MICRO BOARD-TO-BOARD

Amphenol's 103 series are 0.35mm pitch micro board-to-board connectors designed for high density applications. They support extreme low profile 0.60mm stack height and high current rating up to 5A. These connectors are offered in 4 to 60 positions. These meet USB 3.1 Gen 2 signal transmission rates and are ideal for consumer applications such as mobile phone, smart watch, smart glasses and VR/AR devices.

- Low profile connector design with fine pitch
- High current rating up to 5A
- Double contact points ensure enhanced contact stability
- Wide operating temperature range from -40°C to 85°C



TARGET MARKETS



FEATURES

- Low profile connector design with fine pitch
- Self-cleaning design
- High current rating up to 5A
- Double contact points
- High temperature thermoplastic housing
- Lead and halogen-free

BENEFITS

- Suitable for applications that have space constraint
- High removal and low insertion force
- Supports high power application requirements
- Enhanced contact stability
- Withstands wide operating temperature range (-40°C to 85°C)
- Meets environmental, health and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Housing: High temperature plastic, black color (UL94V-0)
- Contact Terminal: Copper alloy, Au flash over Ni under plating
- Anchor-plate: Copper alloy, Au flash over Ni under plating

MECHANICAL PERFORMANCE

- Durability: 10 mating cycles

No. of contacts	Mating force (N max.)		Un-mating force (N min.)	
	1 st	10 th	1 st	10 th
4	20.5		1.8	
6	24.0		1.9	
8	29		2	
10	34.0		2.1	
12	38.5		2.2	
14	42.5		2.4	
16	48.0		2.8	
20	49		2.9	
24	49.5		3.0	
30	51.5		3.5	
34	53.0		3.7	
40	55		4.1	
48	58		4.7	
50	58.5		4.9	
60	62		5.5	

ELECTRICAL PERFORMANCE

- Voltage Rating: AC/DC 30V
- Current Rating:
 - Signal Pin: 0.3A
 - Power Pin: 5A
- Contact Resistance:
 - Signal Pin: 80mΩ max. (Initial); Power Pin: 30mΩ max. (Initial)
- Insulation Resistance: Initial:100MΩ min.; After: 50MΩ min.
- Dielectric Withstanding Voltage: No short or breakdown after AC 150V, 2mA, 1min.

PACKAGING

- Tape & Reel

APPROVALS AND CERTIFICATIONS

- UL 94V-0
- RoHS compliant

SPECIFICATION

- Aorora Product Specification: IS.EQC.172

ENVIRONMENTAL

- Operating Temperature Range: -40°C to +85°C

TARGET MARKETS/APPLICATIONS



Mobile Phone
Smart Watch
TWS
Smart Glasses
VR/AR Devices

PART NUMBER SELECTOR

