

USB 3.1 Gen 2 – GSB4X Series

COMPLIANT TO USB 3.1 SPECIFICATIONS; IDEAL FOR SERVER APPLICATIONS

Amphenol USB 3.1 Gen 2 Connector operates with full-duplex signaling over two differential pairs, improving host-directed simultaneous bidirectional communication. It supports scalable power delivery up to 100W and performance speed up to 10Gb/s.

- Supports SuperSpeed communication 10Gb/s
- Improved efficiency in data transfer and power efficiency
- Backward compatible with USB 3.1 Gen 1 (USB 3.0) and USB2.0
- Fast charging and sync performance



FEATURES

- Supports SuperSpeed communication 10Gb/s
- 9, 10, 18 positions available
- DIP and SMT options for shell application
- Terminal design enables high and reliable contact force
- Optimized design on shell structure
- Rugged gold-plated leaf contact design
- Metal friction lock grounding fingers and polarization plastic
- High temperature thermoplastic for SMT process
- Halogen-free material

BENEFITS

- Minimizes user waiting time
- Ready for next-generation applications
- Suitable for a wide variety of application requirements
- Reliable mounting performance on PCB
- Provides superior electrical performance for low contact resistance
- Full metal shielding protects against EMI (Electromagnetic Interference) / RFI (Radio-Frequency interference) / ESD (Electromagnetic Discharge)
- Improves contact resistance and prevents corrosion
- Superior tactile sense in the snap-in and catch operation
- Robust mating operation ensures strong connection
- High flammability rating
- Meets environmental, health and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Housing: High Temperature Thermoplastic, complies with UL 94V-0, Optional Colour
- Contact: Copper alloy, 0.2mm thickness, Selective gold plated on contact area, 100u” min. matte tin plated on soldering tail, 50u” min. nickel under-plated overall
- Shell: Stainless Steel, Nickel Plating Overall

MECHANICAL PERFORMANCE

- Insertion Force: 35N (3.57 Kgf) max.
- Withdrawal Force:
 - 10N (1.02 Kgf) min.
 - After test: 8N (0.81Kgf)
- Durability: 5000 cycle unplug/plug
- Vibration: No disturbance greater than 1microsecond
- Mechanical Shock: No disturbance greater than 1microsecond

ELECTRICAL PERFORMANCE

- Low Level Contact:
 - Initial: 30mΩ max. for VBUS and GND contacts
 - 50mΩ max. for all other contacts
 - R:10mΩ max.
- Insulation:100mΩ min.
- Voltage: 30 Volts DC
- Current: 1.8A max.
- Mated connection impedance: 90Ω±15Ω (85Ω~105Ω)

PACKAGING

- Tape and Reel
- Tray

SPECIFICATION

- Amphenol Product Specification: PS-7530

ENVIRONMENTAL

- Operating Temperature: 0°C to +60°C
- Shipping and Storage Temperature: -20°C to +85°C
- Thermal Shock:
 - No physical damage
- Cyclic Temperature Humidity:
 - No physical damage
- Temperature Life:
 - No physical damage
- Solderability: 95% of immersed area must show no voids, Pin holes
- Mixed Flowing Gas: No physical damage
- Soldering Heat: No physical damage

TARGET MARKETS/APPLICATIONS



Datacom Equipment
Telecommunication
Test Card and Card Extenders



Gaming
IP Phone
Set Top Box



High End Computers
Routers
Servers



Test and Measurement Equipment

PART NUMBERS

Description	Orientation	Pins	Application	Tail Pin Length (mm)	Shell Hold Down Length (mm)	Part Numbers
Type A Receptacle	Right Angle	9	DIP	2.4 / 3	3.2 / 3.6	GSB41113XXHR
Type A Receptacle	Right Angle, Stacked	18	DIP	2.4 / 3	3.0 / 3.5	GSB41123XXHR
Type A Receptacle	Vertical	9	DIP	2.3 / 3.0	2.85	GSB412137CHR
Type A Receptacle	Upright	9	DIP	1.9 / 2.4 / 4.4	2.8 / 3.8	GSB411634XHR
Type A, Plug	Cable assembly	9	-	-	-	GSB417131HR
Type A, Plug	Right Angle offset 0.3mm	9	SMT	-	1.8	GSB4164X5XHR
Type B Receptacle	Right Angle	9	DIP	2.8	-	GSB4211311WEU
Type B, Plug	Cable assembly	9	-	-	-	GSB422137EU
Micro B, Receptacle	Right Angle	10	SMT	-	-	GSB443133HR
Micro B, Receptacle	Right Angle	10	SMT	-	1 / 1.4	GSB443K33HR
Micro B, Receptacle	Right Angle, High Rise	10	SMT	-	0.81	GSB443T33HR