

## 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



#### TARGET MARKETS



#### 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 (0.81Kg)
- 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

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## Amphenol:

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