

USB 3.1 Gen 1 – GSB31X & GSB32X Series

COMPLIANT TO USB 3.0 SPECIFICATION; IDEAL FOR CONSUMER & SERVER APPLICATIONS

SuperSpeed USB will deliver 10x the data transfer rate of Hi-Speed USB, as well as improved power efficiency. With 5Gb/s signally rate, SuperSpeed USB 3.1 has a Sync-N-Go technology that minimizes user wait time. No device polling and lower active and idle power requirements are other significant features of these connectors. SuperSpeed USB is backwards compatible with USB 2.0.

- Over 10 times performance increase over USB 2.0
- Backwards compatible with USB 2.0
- High-speed 5Gb/s transmission
- Optimized power efficiency
- Fast Sync-N-Go technology



FEATURES

- Available in different height options
- Optional terminal DIP length
- High reliable terminal design
- SuperSpeed up to 5Gb/s transmission
- Optimized shell structure design
- Rugged gold-plated leaf contact for reliability needs
- Halogen-free material

BENEFITS

- Customer design flexibility
- Suitable for different PCB thickness
- Superior electrical performance for low contact resistance
- High performance in Signal Integrity (SI)
- Full metal shielding for Electromagnetic Interference (EMI) / Radio-Frequency interference (RFI) / Electromagnetic Discharge (ESD) protection
- Improves contact resistance and prevents corrosion
- Meets environmental, health and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Housing: High Temperature Thermoplastic, complies with UL 94V-0, Optional Colour
- Contact: Copper alloy, 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 mating/unmating cycles
- Vibration: No disturbance greater than 1µs
- Mechanical Shock: No disturbance greater than 1µs

ELECTRICAL PERFORMANCE

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

PACKAGING

- Tape and Reel
- Tray

SPECIFICATION

- Amphenol Product Specification: PS-7440/PS-7411/PS-7425

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
- Soldering Heat: No physical damage

TARGET MARKETS/APPLICATIONS



Test Card and Card Extenders
Telecommunication/Datacom
Equipment



Gaming
IP Phone
Set Top Box



High End Computers
HDD
Routers
Servers



Test and Measurement Equipment

PART NUMBERS

Description	Orientation	Pins	Application	Tail Pin Length (mm)	Part Numbers
Type A, Receptacle	Right Angle	9	DIP	2.17 / 2.4 / 3	GSB3111XXXHR
Type A, Receptacle	Right Angle	9	DIP	2.1	GSB3111XXX5H4HR
Type A, Receptacle	Right Angle, Sink	9	DIP	1.7 / 3	GSB3114XXFHR
Type A, Receptacle	Right Angle, Reverse	9	DIP	2	GSB311AX1EU
Type A, Receptacle	Right Angle, Reverse Sink	9	DIP	1.8 / 3	GSB311BXXXEU
Type A, Receptacle	Right Angle, Stacked	9	DIP	2.4 / 3	GSB31121XHR
Type A, Receptacle	Right Angle, Stacked	18	DIP	2.17 / 2.67	GSB3112XXX1HR
Type A, Receptacle	Right Angle, Stacked	18	DIP	2.4 / 3	GSB3112XXXHR
Type A, Receptacle	Right Angle, Stacked	18	DIP	2.4 / 3 / 3.45	GSB3112XXX2H5HR
Type A, Receptacle	Right Angle, Stacked	18	DIP	2.4 / 3 / 3.45	GSB3112XXX1H3EU
Type A, Receptacle	Right Angle, Stacked Sink, 9.91mm height	18	DIP	2.4	GSB3115XXFXHR
Type A, Receptacle	Right Angle, Stacked Sink, 9.91mm height	18	DIP	2.4 / 3 / 3.3	GSB3115XXXFHR
Type A, Receptacle	Right Angle, Stacked Sink, 11.42mm height	18	DIP	3 / 3.3	GSB3115XXXT1F3HR
Type A, Receptacle	Right Angle, Stacked Sink, 11.42mm height	18	DIP	2.4 / 3 / 3.3	GSB3115XXXTF3HR
Type A, Receptacle	Right Angle, Stacked Sink, 9.91mm height	18	DIP	2.4 / 3 / 3.3	GSB3115XXXXF1HR
Type A, Receptacle	Right Angle, Stacked Sink, 9.37mm height	18	DIP	1.8 / 2.1 / 2.4 / 2.8	GSB3115XXXXF5HR
Type A, Receptacle	Right Angle, Stacked Sink, 9.91mm height	18	DIP	2.4 / 3 / 3.3	GSB3115XXXXF6HR
Type A, Receptacle	Right Angle, Stacked Sink, 9.91mm height	18	DIP	2.4	GSB3115XXXXF9HR
Type A, Receptacle	Upright	9	DIP	1.9	GSB3116X75KAHR
Type A, Receptacle	Upright	9	DIP	1.9	GSB3116X75KHR
Type A, Receptacle	Upright	9	DIP	1.9 / 2.4 / 4.4	GSB31163XXHR
Type A, Receptacle	Upright	9	DIP	2.4 / 3.5	GSB31D1XXX1HHR
Type A, Receptacle	Upright	9	DIP	3.8	GSB31D1XXX1H2HR
Type A, Receptacle	Vertical	9	DIP	2.3 / 3 / 3.2	GSB3121XXXCHR
Type A, Receptacle	Right Angle, High Rise, 12mm Height	9	DIP	2.4	GSB311JXXXC2EU
Type A, Receptacle	Right Angle, High Rise, 12mm Height	9	DIP	2.4	GSB311J310H1HR
Type A, Receptacle	Right Angle, Spring Contact	9	DIP	4.2	GSB311JXXX2H4EU
Type A, Receptacle	9.73mm Height	9	DIP	2.5	GSB311JXX0H3HR
Type A, Plug	Right Angle, Offset 0.95mm	9	SMT	–	GSB3164X1CEU
Type A, Plug	Right Angle, Offset 0.3mm	9	SMT	–	GSB3164X5XHR
Type B, Receptacle	Right Angle	9	DIP	2.8	GSB3211XXXWEU

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Amphenol:

[GSB311131HR](#) [GSB311231HR](#) [GSB316441CEU](#) [GSB311A41EU](#) [GSB3211311WEU](#) [GSB3111111HR](#)
[GSB3111311HR](#) [GSB3111313HR](#) [GSB311133HR](#) [GSB3112311HR](#) [GSB311233HR](#) [GSB311537FHR](#)
[GSB311538FHR](#) [GSB311538FRHR](#) [GSB311537FRHR](#) [GSB312117CHR](#) [GSB3121171CHR](#) [GSB3121271CHR](#)
[GSB3121371CHR](#) [GSB312137CHR](#) [GSB3211331WEU](#) [GSB311J380H3HR](#) [GSB31D13001HHR](#) [GSB31D13021HHR](#)
[GSB31D12021HHR](#) [GSB311214HR](#) [GSB3115371RF6HR](#) [GSB3115381RF6HR](#) [GSB3115381TF6HR](#)
[GSB3115383RF6HR](#) [GSB3115383TF3HR](#) [GSB3115373TF3HR](#) [GSB311J35F2H4EU](#) [GSB31123521H3EU](#)
[GSB3115371F1HR](#) [GSB3115371RF1HR](#) [GSB3115373RF1HR](#) [GSB3115381RF1HR](#) [GSB3116346FHR](#)
[GSB311J211C2EU](#) [GSB311J311C2EU](#) [GSB311J361C2EU](#) [GSB31113495H4HR](#) [GSB31113995H4HR](#)
[GSB311425FHR](#) [GSB311427FHR](#) [GSB311435FHR](#) [GSB311437FHR](#) [GSB3116175KHR](#) [GSB31123512H5HR](#)
[GSB3115371FHR](#) [GSB3115373FHR](#) [GSB3115383FHR](#) [GSB3115371RF9HR](#) [GSB311J310H1HR](#)
[GSB31D13041H2HR](#) [GSB3112171F1HR](#) [GSB31123635HEU](#) [GSB3112371F1HR](#) [GSB3112380F1HR](#)
[GSB3116175KAHR](#) [GSB3116341HR](#) [GSB3116342HR](#) [GSB3116344HR](#) [GSB3115373T1F3HR](#) [GSB3115381RF5HR](#)
[GSB316445CHR](#) [GSB3111316HR](#) [GSB3116142HR](#) [GSB31D12001HHR](#) [GSB31123522H5HR](#)
[GSB3115381RF4HR](#) [GSB311121HR](#) [GSB3115273TF3HR](#) [GSB311439FHR](#) [GSB31211R1CHR](#) [GSB3115374RF5HR](#)
[GSB3111331HR](#) [GSB3111113HR](#) [GSB3111211HR](#)