

# Micro USB (USB 2.0) – GMCB05 Series

## COMPLIANT TO USB 2.0 SPECIFICATION; IDEAL FOR FAST CHARGING

As the leading manufacturer of interconnects, Amphenol ICC develops a wide range of Micro USB connectors for the consumer, datacom, industrial, and automotive applications. Micro USB 2.0 connectors have power contacts of 1.8A and 3A current for fast charging. The plastic tongue and two layer shells design ensure high reliability and prevent connector damage. Amphenol offers customized design to suit various customer requirements. These connectors also offer high speed signal stability up to 480Mb/s transmission.

- 5 circuits
- Compliant to USB 2.0 specification
- High speed 480Mb/s transmission
- Halogen-free, RoHS compliance
- Fully shielded



### TARGET MARKETS



### FEATURES

- 5 positions with USB 2.0 specification compliance
- Robust shell hold-down design
- Available in various options like shell DIP and SMT
- High speed signal stability up to 480Mb/s transmission
- Optimized shell structure design
- Rugged Gold-plated leaf contact for reliability needs
- Halogen-free material
- The smallest USB 2.0 Interface

### BENEFITS

- Plug operation includes a snap in catch with tactile feedback ensuring an easy connection
- Reliable SMT process, and soldering with Printed Circuit Board (PCB)
- High performance in Signal Integrity (SI)
- Full metal shielding protects against Electromagnetic Interference (EMI), Radio-Frequency interference (RFI), and Electromagnetic Discharge (ESD)
- Full metal shielding protects against EMI (Electromagnetic Interference)/ RFI (Radio-Frequency interference) / ESD (Electromagnetic Discharge)
- Improves contact resistance and prevents corrosion
- Meets environmental, health and safety requirements
- Improved real estate space saving

## TECHNICAL INFORMATION

### MATERIAL

- Housing: High Temperature Thermoplastic, complies with UL 94V-0, Black
- Contact: Copper alloy, Selective gold plated on contact area, 50u" min. nickel under-plated gold flash overall or Tin 100u"min selective plated.
- Shell: Stainless Steel

### MECHANICAL PERFORMANCE

- Insertion Force: 35N (3.57 Kgf) max.
- Withdrawal Force: 10N (1.02 Kgf) min.
- Durability:
  - 10,000 mating/unmating cycles
  - 8N (0.81 Kgf) min.
- Vibration: No disturbance greater than 1µs
- Mechanical Shock: No disturbance greater than 1µs

### ELECTRICAL PERFORMANCE

- Low Level Contact Resistance:
  - Initial: 30mΩ max.
  - Final  $\Delta R$ : 20mΩ max.
- Insulation: 100mΩ min.
- Voltage Rating: 30V DC
- Current Rating at T30°C max.
  - Signal 1.0A per contact
  - Power 1.8A per contact

### PACKAGING

- Tape and Reel

### SPECIFICATION

- Amphenol Product Specification: PS-7395

### ENVIRONMENTAL

- Operating Temperature: -40°C to +85°C
- Shipping and Storage Temperature: -20°C to + 60°C
- Thermal Shock: No physical damage
  - Contact Resistance:  $\Delta R=+10m\Omega$  max.
- Cyclic Temperature Humidity: No physical damage
  - Contact Resistance:  $\Delta R=+10m\Omega$  max.
- Temperature Life: No physical damage
  - Contact Resistance:  $\Delta R=+10m\Omega$  max.
- Solderability: 95% of immersed area must show no voids, Pin holes
- Salt Spray Test: No physical damage
  - Contact Resistance:  $\Delta R=+10m\Omega$  max.

### TARGET MARKETS/APPLICATIONS



GPS  
Infotainment systems



ISDN and PBXs



Digital Media Player  
Gaming  
Mobile Phone  
Set Top Box  
TV Panel  
Tablet



HDD



POS System

## PART NUMBERS

Description	Orientation	Pins	Application	Shell Hold Down Length (mm)	Part Numbers
Type B, Receptacle	Right Angle	5	SMT	2.95	GMCB053X1123H1HR
Type B, Receptacle	Right Angle, High Rise	5	SMT	0.81	GMCB05821124EU
Type B, Receptacle	Right Angle Sink	5	SMT	0.7	GMCB05AX1124HEU
Type B, Receptacle	Right Angle	5	SMT	-	GMCB053X1X21BEU
Type B, Receptacle	Right Angle	5	SMT	0.6	GMCB053X1X24CEU
Type B, Receptacle	Vertical	5	SMT	1.7 / 2.3	GMCB05BXX124XH1EU
Type B, Receptacle	Right Angle, IPX4	5	SMT	-	GMCBA058XX1230HHR
Type B, Receptacle	Reverse Right Angle	5	SMT	0.85	GMCB05DX1123BEU
Type AB, Receptacle	Right Angle, High Rise	5	SMT	0.81	GMCB058XXX34CHR
Type AB, Receptacle	Vertical, Low Profile	5	SMT	1.5	GMCB051X1X34HEU