

## Amphenol ICC

# **SATA (Serial ATA) Connectors**

### CONNECTORS FOR HIGH CAPACITY STORAGE SERVERS

Amphenol offers a wide range of high performance SATA connectors. They are designed to support up to 12Gb/s, enabling the implementation of low cost, high speed, high capacity Hard Disk Drive (HDD). The connectors are SATA compliant and meet a wide range of vertical and right angle configurations for usage across server and storage equipment, HDDs and HDD carriers.

- Extends differential signaling from 1.5Gb/s to 12Gb/s
- Staggered contact lengths for hot plugging applications
- Contact range from 7 to 22 positions
- Various plating options available



#### **FEATURES**

- Staggered contact lengths
- Vertical and right angle configurations
- High speed serial interface
- Vertical receptacle heights scalable from 8.15 to 34mm
- Contact range from 7 to 22 positions
- Stamped clips act as connector retainers for robust PCB attachment
- Molded guideposts help mating halves to self-align by providing angled lead-ins

#### **BENEFITS**

- Provides sequential contact mating for hot plugging
- Suitable for servers, storage backplane, HDDs and HDD carriers
- Supports higher data rates up to 12Gb/s
- Provides the option to use connector height as an alternative to using flex cable
- Supports a wide range of customer application
- Provide additional mechanical strength after soldering
- Compensates for connector misalignment

### **TECHNICAL INFORMATION**

#### MATERIAL

- Contact Base Metal: Copper alloy
- Contact Area Finish: Gold over nickel
- Solder Area Finish: Tin over nickel
- Retainer Clip Base Metal: Copper alloy
- Retainer Finish: Tin over nickel
- Housing: High temperature thermoplastic (UL 94V-0)

#### **ELECTRICAL PERFORMANCE**

- Contact Resistance: 30mΩ max. initial;
  15mΩ max. change after test
- Current Rating: 1.5A min. per contact with temperature rise not exceeding 30°C

### **MECHANICAL PERFORMANCE**

- Durability: 500 mating cycles
- Mating Force: 45N max.
- Unmating Force: 10N min.

#### **ENVIRONMENTAL**

- Humidity: 96 hours at 40°C with 90-95% relative humidity. Per EIA 364-31, Method II, test condition A
- Temperature Life: 85°C for 500 hours. Per EIA 364-17, test condition III, method A
- Thermal Shock: 10 cycles between -55 Deg°C to +85°C. Per EIA 364-32, test condition I
- Mixed Flow Gas: Expose 1/2 samples unmated for 7 days and then mated for 7 additional days. The other 1/2 samples are exposed mated for 14 days. Per EIA 364-65, class IIA

#### **APPROVALS & CERTIFICATION**

• UL

#### **SPECIFICATIONS**

 Amphenol Product Specification: GS-12-194 & GS-12-386

#### PACKAGING

Tray/Tube/Tape and Reel available upon request

### **TARGET MARKETS/APPLICATIONS**



Audio/Video Storage

#### HDD HDD Carrier

External Storage System Interposer Card Server Storage Server





Embedded System Board

### **PART NUMBERS**

Connector	Performance	Orientation	Termination	No. Of Positions	Part Numbers	Others
Header	3Gb/s	Vertical	SMT	7	10035691	-
Header	12Gb/s	Vertical	SMT	7	SAT3M3232012TR	-
Header	6Gb/s	Vertical	SMT	22	10117764	-
Receptacle	6Gb/s	Vertical	SMT	22	10029065	-
Receptacle	6Gb/s	Vertical	SMT	22	G16CEJ1210THR	High Rise
Header	6Gb/s	Right Angle	SMT	7	10089036	-
Header	6Gb/s	Right Angle	SMT	22	10101788	-
Receptacle	6Gb/s	Vertical	SMT	22	10031569	-
Header	3Gb/s	Vertical	Through hole	7	59333	-
Receptacle	6Gb/s	Vertical	Press-fit	22	10022676	-
Header	12Gb/s	Right Angle	SMT	7	SAT3M2132072TR	-

## www.amphenol-icc.com