

# Infinity

## Receptacle



Amphenol's INFINITY (4X/12X) series of connectors facilitate data speeds up to 60 Gbps total bandwidth, as required by InfiniBand™, Fibre Channel and Serial Attached SCSI Trade Associations, with superior EMI performance. INFINITY connectors are high-density, hot pluggable and meet SFF-8470 specifications.

A variety of receptacles are available that will fit multiple connectors into a 1U form factor and PCI bracket. All receptacles are available with standard or RoHS compliant materials. Capable of data rates beyond 5.0 Gbps per channel. Available in 4X and 12X versions, lanyard latch and screw lock styles available.

### Applications

- InfiniBand™
- Fibre Channel
- 10Gb Ethernet
- SAS, External (Serial Attached SCSI)
- SFF-8470
- CX4
- Datacom Devices
- HCAs (Host Controller Adapters)
- High Speed Routers and Switches
- Storage Devices
- SANs (Storage Area Networks)
- Servers
- RAID
- XAUI

## Product Specification for InfiniBand connector system

### Mechanical Characteristics

Insertion force: 55.5 N maximum (for 4X version)  
Withdrawal force: 6.1 N typical (for 4X version)  
Durability: 250 mating cycles  
Coplanarity: 0.1mm

### Electrical Characteristics

Impedance: 90 – 100Ω  
Rise time for impedance measurement: 70 ps  
Within pair skew: 5 ps  
Return Loss: Meets SFF8470 spec  
LLCR: 80 mΩ max  
Insulation Resistance: 10 GΩ at 100 VDC  
DWV: 100 VRMS for 60 seconds

### Materials

#### Contacts

- Base material – Copper alloy
- Plating
  - Mating area – refer to p/n table
  - Solder tails – refer to p/n table

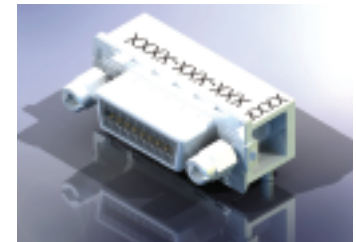
#### Shell

- Base material – Zinc alloy #3
- Plating – 100μ" Nickel plated

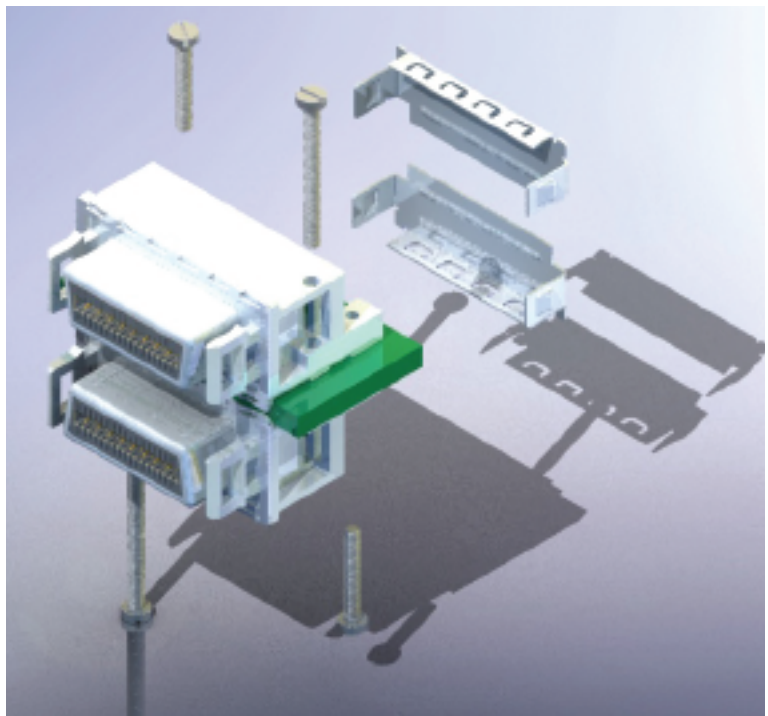
Housings: Black color, glass-reinforced, lead-free solder reflow process compatible thermoplastic, UL94V-0 rated

Temperature rise: Meets the requirement of 30°C ΔT

Operating temperature -40° to +85°C  
Storage temperature -40° to +85°C



Thumbscrew with locating posts



Belly to belly

[www.infinityconnectors.com](http://www.infinityconnectors.com)

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All specifications are subject to change without notice.

### Ordering Information

Contact Amphenol for additional options

## Infinity Receptacle

U65 - X XX - X X X 0 - X

#### SERIES DESIGNATION

#### STYLE

- B - Solder posts (with locating post)
- C - Same as B, long s-post for 4mm PCB
- E - M2 screw mount (with locating post)
- F - Belly to Belly design
- H - (2) M2 screw mount in front and (2) solder posts in back (6-PCB hole applications only)
- J - Same as B, 3.3mm long posts

#### NO OF CHANNELS

- 04 - 4X
- 12 - 12X

#### CONTACT PLATING

- 1 - 50µ" gold plating
- 2 - 30µ" gold plating
- 4 - 50µ" gold plating (RoHS)
- 5 - 30µ" gold plating (RoHS)

#### ACCESSORIES OPTION

- 0 - Ship with C-clips or regular jack screw
- 1 - One piece clip or self-locking jack screw
- 2 - No locking plate or jack screw (order separately)
- 3 - No locking plate and no EMI gasket or no jack screw and no gasket
- 4 - No locking plate and with special EMI gasket (Lanyard only)

#### PACKAGING

- None - Tray packaging
- T - Tape and reel packaging
- C - Rear cover / tray packaging
- CT - Rear cover / tape & reel packaging
- M2 Screw Mount Application
- M - M2 screws included / tray packaging
- MT - M2 screws included / tape and reel packaging
- CM - Rear cover w/ M2 screws included / tray packaging
- CMT - Rear cover w/ M2 screws included / T&R packaging

#### KEYING OPTION OR MODIFIER:

- 0 - Standard (no keying)

#### APPLICATION:

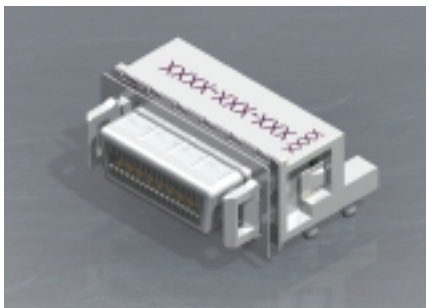
- 1 - Lanyard latch style
- 2 - Screw lock style
- 6 - Lanyard latch style for 6-PCB holes
- 8 - Screw lock style for 6-PCB holes
- 7 - Same as 6 with top mounting ear
- 9 - Same as 8 with top mounting ear

#### INFINITY RECEPTACLE ACCESSORIES (ORDER SEPARATELY)

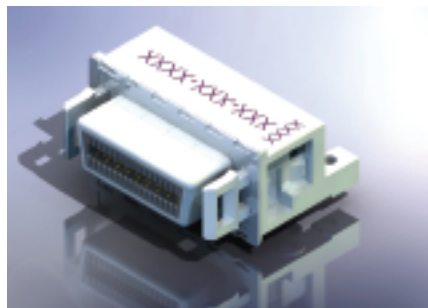
- U65-404-21-P = 4X One-piece lock plate\*
- U65-404-60-P = 4X Optional rear cover
- U65-404-61-P = 4X Belly-To-Belly Optional rear cover
- U65-412-21-P = 12X One-piece lock plate\*
- U65-412-60-P = 12X Optional rear cover
- U65-404-40-P = Thumbscrews (standard)\*\*
- U65-404-41-P = Thumbscrews (self-locking w/Nylok)\*\*

#### Notes

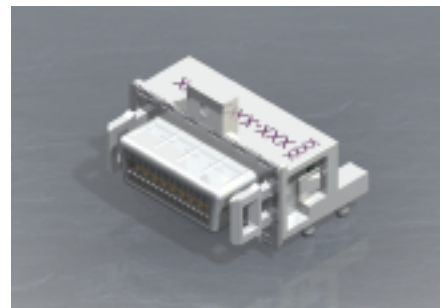
- \* Lanyard application only
- \*\* Screwlock application only
- \*\*\* Screwlock 12X application only



Lanyard latch with rear arms and solder posts



Lanyard latch with rear arms, screw mount



Lanyard latch with top mounting, rear arms