

# ExtremePort™ QSFP DD 112G Connectors

## 112GB/S PAM-4 QSFP DD INTERCONNECT SYSTEM

Amphenol's ExtremePort™ QSFP DD 112G interconnect system is comprised of a 76 position, 0.80mm pitch connector built for use in high-speed serial applications. Each port supports up to 800Gb/s in aggregate over an 8 x 112Gb/s electrical interface. The cage and connector design provides backward compatibility to QSFP56 modules, which can be inserted into a QSFP DD port and connected to 4 of the 8 electrical channels. It is one of the industry's leading multi-lane pluggable form factors used across Ethernet, Fibre Channel and InfiniBand.

- Operating at 112Gb/s PAM4 for up to 800Gb/s aggregated bandwidth solution
- QSFP series double density product with 8 channels per port
- Backward compatibility with QSFP



### TARGET MARKETS



### FEATURES

- Electrical interface employs 8 lanes that support 112Gb/s PAM4, providing solutions up to 800Gb/s aggregate bandwidth
- Enables up to 28.8Tb/s aggregate bandwidth in a single switch slot
- Backwards mating compatibility with QSFP56
- Supports passive & active copper and optical solutions products
- Multiple connector configurations
- MSA supported standard interface
- Multiple heat sink options
- RoHS compliant

### BENEFITS

- Enables 400G and 800G aggregate bandwidth per port
- Single switch slot with 36 ports QSFP DD
- Allows for use of either QSFP or QSFP DD products in any port
- Enables use of DAC, short and long range optical
- Single (1x1), ganged (1xN) and stacked (2xN) connector and cage configurations
- Meets or exceeds MSA defined product specifications
- Allows user to choose from multiple options to maximize heat dissipation
- Meets environmental, health and safety standards

## TECHNICAL INFORMATION

### MATERIAL

- Connector Housing: Black color, glass reinforced, lead free solder reflow process compatible thermo plastic
- Contacts Base Material: Copper alloy
- Plating Solder Tails: Matte tin over nickel
- Plating Mating Area: Gold
- Resonance Dampening Feature: Stainless steel
- Cage: Stainless steel

### ELECTRICAL PERFORMANCE

- Operating Voltage: 30VDC per contact
- Operating Current: 0.5 A per signal contact; 1.5 A per power contact
- Differential Impedance: 100 ± 10

### MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating Force: 90N max.
- Unmating Force: 50N max.
- PCB Thickness for 1xN Cage:
  - 1.44mm min. for single mounted
  - 2.35mm min. for belly to belly mounted

### ENVIRONMENTAL

- Operating and (Storage) Temperature: -40° C to +85° C
- RoHS & Halogen-free

### SPECIFICATIONS

- Cage Mounting: Through bezel
- EMI Options: Spring fingers
- Configurations:
  - 1xN (N = 1, 2, 3, 4, 5)
  - 2xN (N = 1, 2)

### PACKAGING

- Tape and Reel (connector) or Tray (cage)

### TARGET MARKETS/APPLICATIONS



Switch  
Router and Server  
Wireless Base Station  
Telecom



Datacom  
Datacom/Networking Equipment  
Hubs  
Data Center Switching Applications  
Storage System  
Supercomputer  
High Density Ethernet Switching/Routing Products



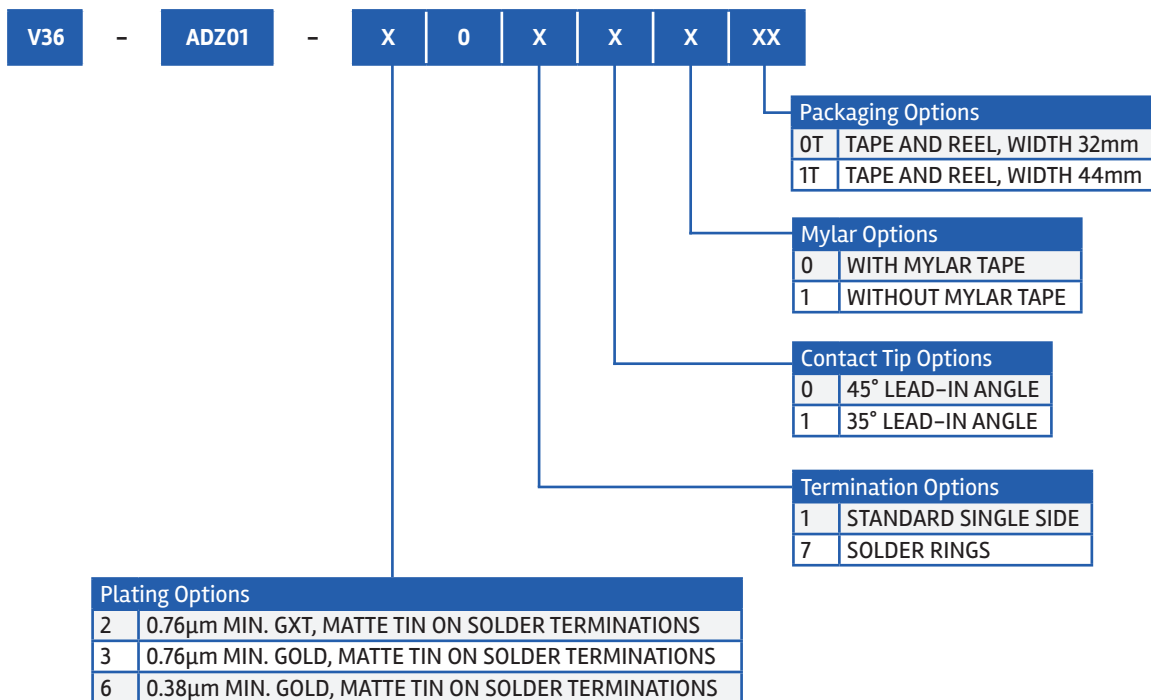
Test Equipment  
Measuring Equipment

## PART NUMBERS

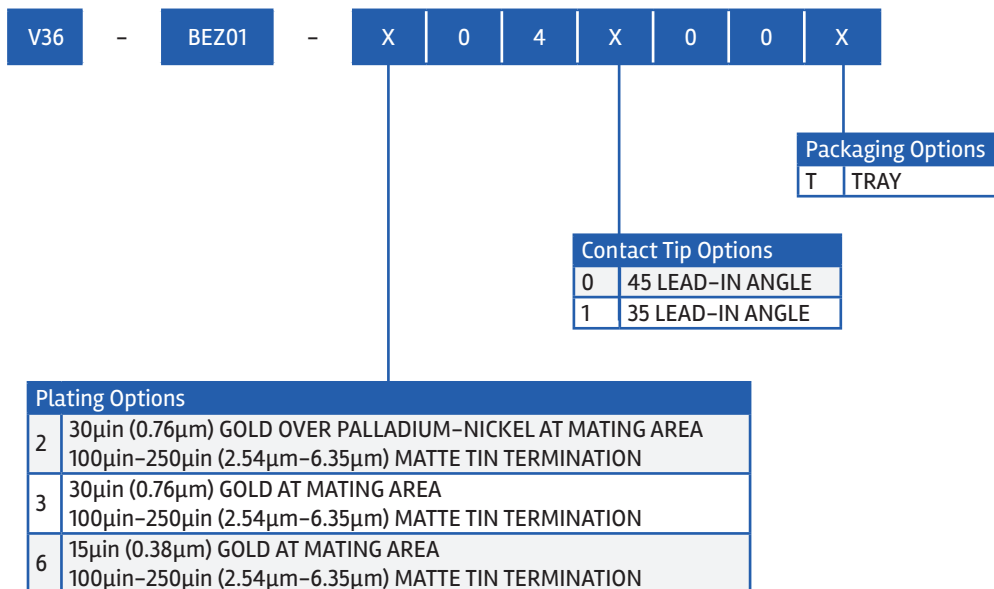
Description	Part Numbers
112G QSFP-DD 1x1 SMT connector	V36-ADZ01-X0X1XXT (X represents various options)
112G QSFP-DD 2X1 SMT connector	V36-BEZ01-XXX1XXT (X represents various options)
112G QSFP-DD 2X1 stacked cage assembly with heat sink and light pipe options	V36-BAZ17-XX5XXXX (X represents various option)

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)

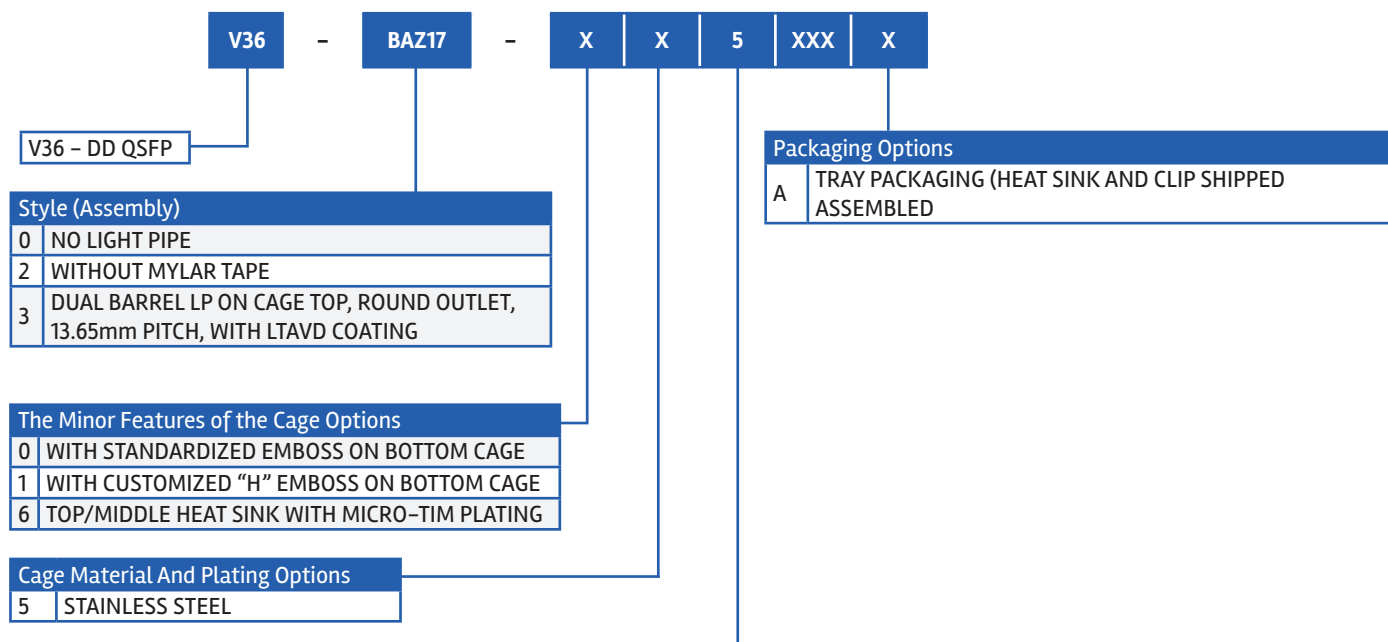
## PART NUMBER SELECTOR – 112G QSFP–DD 1X1 SMT CONNECTOR



## PART NUMBER SELECTOR – 12G QSFP–DD 2X1 SMT CONNECTOR



# PART NUMBER SELECTOR – 112G QSFP–DD 2X1 STACKED CAGE ASSEMBLY



V36 - DD QSFP

Style (Assembly)	
0	NO LIGHT PIPE
2	WITHOUT MYLAR TAPE
3	DUAL BARREL LP ON CAGE TOP, ROUND OUTLET, 13.65mm PITCH, WITH LTAVD COATING

The Minor Features of the Cage Options	
0	WITH STANDARDIZED EMBOSS ON BOTTOM CAGE
1	WITH CUSTOMIZED "H" EMBOSS ON BOTTOM CAGE
6	TOP/MIDDLE HEAT SINK WITH MICRO-TIM PLATING

Cage Material And Plating Options	
5	STAINLESS STEEL

Packaging Options	
A	TRAY PACKAGING (HEAT SINK AND CLIP SHIPPED ASSEMBLED)

Heat Sink Options	
000	NO HEATSINK/NO HOLE
100	NO HEATSINK WITH QSFP–DD OPENING
A02	FIN STYLE– FRONT TO BACK, STANDARD FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=4.2m, W=X, L=Standard), (2 Bar or Dual 2 Bar Clip)
A03	FIN STYLE– FRONT TO BACK, STANDARD FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=6.5m, W=X, L=Standard), (2 Bar or Dual 2 Bar Clip)
A04	FIN STYLE– FRONT TO BACK, STANDARD FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=13.5m, W=X, L=Standard), (2 Bar or Dual 2 Bar Clip)
C01	FIN STYLE– LEFT TO RIGHT, STANDARD FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=3.6mm, W=X, L=Standard), (2 Bar or Dual 2 Bar Clip)
C02	FIN STYLE– LEFT TO RIGHT, STANDARD FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=6.5mm, W=X, L=Standard), (2 Bar or Dual 2 Bar Clip)
C03	FIN STYLE– LEFT TO RIGHT, STANDARD FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=13.5mm, W=X, L=Standard), (2 Bar or Dual 2 Bar Clip)
C04	ZIPPED FIN STYLE– FRONT TO BACK, CUSTOMIZED FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=9.35mm, W=X, L=Standard), (2 Bar or Dual 2 Bar Clip)
E11	ZIPPED FIN STYLE– FRONT TO BACK, CUSTOMIZED FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=6.3mm, W=19.25mm, L=75.78mm), (2 Bar or Dual 2 Bar Clip)
E12	ZIPPED FIN STYLE– FRONT TO BACK, CUSTOMIZED FIN SIZE and QTY, QSFP–DD PAD, NICKEL (H=11.35mm, W=22.2mm, L=76.4mm), (2 Bar or Dual 2 Bar Clip)
E21	FIN STYLE– FRONT TO BACK, WITH SIDE WINGS, QSFP–DD PAD, CLEAR ANODIZED, (H=2.92mm, W=24.38mm, L=90.79mm), (2 Bar or Dual 2 Bar Clip)
K1R	FIN STYLE– FRONT TO BACK, WITH SIDE WINGS, QSFP–DD PAD, CLEAR ANODIZED, (H=2.92mm, W=24.38mm, L=90.79mm), (2 Bar or Dual 2 Bar Clip)

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