

USB Type C Port-On Connectors >

The expanded family of compact USB Type C Port-On Connectors supports up to 48V/5.0A current and 40 Gbps speeds, and offers waterproof, robust, reliable connectivity in consumer, industrial and IoT devices as well as other high-speed I/O applications.

ADVANTAGES AND FEATURES (WATERPROOF USB TYPE-C CONNECTOR)

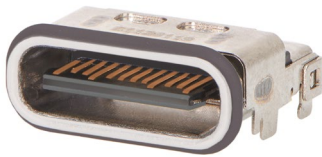
Provides protection against water ingress

With IPX5 and IPX8 ratings, USB connectors are durable in harsh environments.

Available with a TID number

These connectors have a USB certificate.

Housing	Plastic and stainless steel
Voltage	48V
Currents	3.0, 5.0 and 6.0A
Operating temperatures	-30 to +85°C; -40 to +85°C
Mating Forces	5 to 20N



USB 3.2 Gen 2 Type-C,
Top-Mount Receptacle, Waterproof,
24 pin (217804 series)



USB Type-C Receptacle,
6 Circuit (217176 series)



USB 3.2 Gen 2 Type-C, Mid-Mount
Receptacle, Waterproof,
24 pin (221632 series)



USB4 Type-C
Top-Mount Receptacle
24 pin (221455 series)



USB 3.2 Gen 2 Type-C
Vertical Receptacle
24 pin (204711 series)



USB 2.0 Type-C
Top-Mount Receptacle
16 pin (217179 series)

USB Type C Port-On Connectors >

ADVANTAGES AND FEATURES (USB 3.2 GEN 2 TYPE-C CONNECTORS)

Enables fast charging and high-speed data transfer

These connectors support 5.0A/240W power and up to 10 Gbps data rates.

Allows alignment for devices that need lower center line positions

The low-profile design helps facilitate better alignment in a confined space.

Provides significant space savings

The slim fit and short body design helps improve space efficiency.

Offers strong PCB connection

Robust tabs maintain stability for the connector.

Is suitable for different PCB thicknesses to provide stable PCB connections

These USB Connectors have a long-lead design.



USB 3.2 Gen 1 Type-C Receptacle,
Top-Mount, 24 Circuit
(221610 series)



USB 3.2 Gen 2 Type-C Receptacle
Mid-Mount, 24 Circuit
(105455 series)



USB 3.2 Gen 1 Type-CP Lug,
Vertical, 24 Circuit
(218847 series)



USB 3.2 Gen 1 Type-C Receptacle,
Vertical, 24 Circuit
(221608 series)



USB 3.2 Gen 1 Type-C Receptacle
Mid-Mount, 24 Circuit
(217184 series)



USB 2.0 Type-C Receptacle,
Mid-Mount, 16 Circuit
(216990 series)



USB 2.0 Type-C Receptacle,
Upright, 14 Circuit
(216989 series)



USB 2.0 Type-C Receptacle,
Top-Mount, 6 Circuit
(217175 series)

USB Type C Port-On Connectors >

MARKETS AND APPLICATIONS

Mobile Devices

Smartphones/Wireless chargers
Power banks
Laptops
Video games
Graphic cards

Appliances

PCs
Televisions

Aviation

In-flight entertainment systems

MedTech

Glucometers
Electronic inhalers

Industrial and Commercial

Identity door-locking systems
Oscilloscopes
Projectors
Point-of-sale registers

Automotive

Vehicle infotainment
Navigation equipment

Wearables

Electronic watches
AR/VR devices



In-Flight Entertainment Systems



AR/VR Devices

SPECIFICATIONS

Reference Information

Packaging: Tape and reel
UL File No.: NA
CSA File No.: NA
Mates With: series 218847* or 105444*
Terminal Used: Copper Alloy
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes

Mechanical

Contact Retention to Housing:
Insert molded type
Insertion Force to PCB:
Zero Insertion Force
Mating Force: 5 to 20N
Un-mating Force:
8 to 20N (1 to 30 cycles);
6 to 20N (after 10,000 cycles).
Durability (min.): 10,000 cycles

Electrical

Voltage (max.): 48V DC
Current (max.):
3.0Amp -217175/217176/217177/217178;
6.0Amp -202410; 5.0Amp -Others.

Contact Resistance (max.):
30mΩ (initial) and 10 milliohm
(after test) -213716;
40mΩ (initial) and 10 milliohm
(after test) -202410;
40mΩ (initial) and 50 milliohm
(after test) -Others.
Dielectric Withstanding Voltage:
500 V AC -202410; 100 V AC -Others.
Insulation Resistance (min.):
1000 Megohms(initial) and
100 Megohms (after test) -202410;
100 Megohms -Others.

Physical

Housing:
Plastic and stainless steel LCP -
105444/217176/217177/217182/228847;
Nylon -Others.
Contact: Copper Alloy
Plating:
Contact Area —
0.75micron Gold(Au) min. over Nickel(Ni) -
105450/105455/201267/205714/204711/20
2410/203615/217804/221632; Gold Flash
0.025micron Gold (Au) min. over Nickel(Ni)
-Others.

Solder Tail Area —
3.05micron min. Matte Tin(Sn) -105444;
0.05micron Gold(Au) min. -105450/105455/
201267/204711/213083/213716/217804/
203615; 0.025micron Gold (Au) min.
-Others.
PCB Thickness: Refer to product drawing
Operating Temperature:
-30 to +85°C - 105450/105455/201267/
105444/204711/213716/218847;
-40 to +85°C -Others.

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ORDERING INFORMATION

Series No.	Product	Design	Product Configuration	USB Standard	Data Rate (bps)	Power	Circuit
105444	Plug		Right Angle, TID	USB 3.2 Gen 2	10G	48V/5.0A	24
218847			Vertical, SMT	USB 3.2 Gen 1	5G	48V/5.0A	24
105450	Receptacle	Standard	Top Mount, SMT, TID	USB 3.2 Gen 2	10G	48V/5.0A	24
201267			Top Mount, Stand off, TID	USB 3.2 Gen 2	10G	48V/5.0A	24
205714			Top Mount, Screw Hole	USB 3.2 Gen 2	10G	48V/5.0A	24
105455			Mid Mount, SMT	USB 3.2 Gen 2	10G	48V/5.0A	24
204711			Vertical, SMT	USB 3.2 Gen 2	10G	48V/5.0A	24
221610			Top Mount, Dual Row, SMT	USB 3.2 Gen 1	5G	48V/5.0A	24
217183			Top Mount, Dual Row, Hybrid	USB 3.2 Gen 1	5G	48V/5.0A	24
217184			Mid Mount, SMT	USB 3.2 Gen 1	5G	48V/5.0A	24
221608			Vertical SMT, H9.97	USB 3.2 Gen 1	5G	48V/5.0A	24
213716			Top Mount, Dual Row, DIP	USB 2.0	480M	48V/5.0A	16
217179			Top Mount, Single Row, SMT	USB 2.0	480M	48V/5.0A	16
217180			Top Mount, Single Row, CH=5.9	USB 2.0	480M	48V/5.0A	16
216990			Mid Mount, Single Row	USB 2.0	480M	48V/5.0A	16
217182			Vertical, SMT, H6.4	USB 2.0	480M	48V/5.0A	16
219320			Vertical, SMT, H8.8	USB 2.0	480M	48V/5.0A	16
216989			Upright, Dual Row, DIP	USB 2.0	480M	48V/5.0A	14
217175			Top Mount, SMT	USB Type-C	N/A	48V/3.0A	6
217178		Waterproof	Vertical, SMT	USB 3.2 Gen 2	N/A	48V/3.0A	6
217804			Top Mount Dual, TID, IPX8	USB 3.2 Gen 2	10G	48V/5.0A	24
202410			Mid Mount, SMT, IPX8	USB 3.2 Gen 1	5G	48V/5.0A	24
213083			Top Mount, Single Row, IPX8	USB 2.0	480M	48V/5.0A	16
203615			Top Mount, Dual, TID, IPX8	USB 2.0	480M	48V/5.0A	16
217176			Top Mount, SMT, IPX5	USB Type-C	N/A	48V/3.0A	6
217177			Mid Mount, SMT, IPX5	USB Type-C	N/A	48V/3.0A	6

www.molex.com/link/usbproducts.html