

Waterproof USB Type C

SCALABLE, SUPERSPEED CONNECTOR SYSTEM

Waterproof USB Type C Connectors are expected to be widely used as a next-generation interface. They support a variety of protocols such as USB 2.0, USB 3.1 Gen 1, Gen 2 and meet SuperSpeed communication 10Gb/s, 5A and 20V power supply.

The usability for USB 3.1 Type C connector is enhanced also by its low profile and reversible product design. It is ideal for emerging product designs.

- Reversible plug and cable orientation
- Meets USB 3.1/3.0/2.0 speed performance
- Supports high speed transmission up to 10Gb/s
- Extended 5A current rating for USB Power delivery
- Right angle stand-off and straddle mount configurations and waterproof type available



TARGET MARKETS



FEATURES

- Tailored for emerging product designs
- Similar size as Micro USB
- Supports high speed transmission up to 10Gb/s
- Excellent copper alloy material for terminals design
- 24 pin assignment for different kinds of protocol requirements
- Up to 10,000 mating cycles
- Waterproof glue, O-ring added and liquid insert-mold implemented in the front end of the shell

BENEFITS

- Reversible plug and cable orientation for better user experience
- Smaller connector size saves space
- Meets USB 3.1 Gen 1 and Gen 2 specifications
- Backward compatible with USB 2.0
- Extended 5A current rating for USB Power delivery
- Supports audio and video signal output with alternate mode
- Enhanced durability
- Meets IPX2 to IPX8 ratings

TECHNICAL INFORMATION

MATERIAL

- Housing: High Temperature Polymer, UL94V-0, Black
- Contact: Copper Alloy
- Shell: Stainless Steel

MECHANICAL PERFORMANCE

- Insertion Force: 5N to 20N
- Extraction Force: 8N to 20N
- Extraction Force (after durability): 6N to 20N
- Durability: 10,000 mating cycles

ELECTRICAL PERFORMANCE

- Contact Resistance: 40mΩ max. initial for VBUS, GND and all other contacts
- Insulation Resistance: 100mΩ min. initial
- Dielectric Withstanding Voltage: 100V AC

PACKAGING

- Tray/Tape and Reel available upon request

SPECIFICATION

- Amphenol Specification: USB Type-C Receptacle

APPROVALS AND CERTIFICATIONS

- RoHS

ENVIRONMENTAL

- Humidity: 40±2°C, 90 to 95% (RH), for 96 hours
- Temperature Life: 105±2°C for 120 hours

TARGET MARKETS/APPLICATIONS



Charger
Car Media Player/Hub



Connector Hub
Flash Disk
Mobile Phone/Tablet
VR Camera



Hard Disk Drives
Solid State Drives



Industrial Computer
POS System



Medical

PART NUMBERS

USB Version	Data Rate	No. of Contacts	Orientation	Level of Liquid Ingress Protection	Center Height	Shell Feature	Termination Type	Part Numbers
USB 3.1 Gen 2	10Gb/s	24	Top	IPX4	1.58	DIP	Dual Row SMT	124019362112A
USB 3.1 Gen 1	5Gb/s	24	Middle	IPX8	0.40	DIP	Dual Row SMT	124018312112A
USB 3.1 Gen 2	10Gb/s	24	Top	IPX4	1.50	DIP	Dual Row SMT	124019372112A
USB 3.1 Gen 2	10Gb/s	24	Top	IPX8	1.50	DIP	Dual Row SMT	124018612112A
USB 3.1 Gen 2	10Gb/s	24	Middle	IPX4	0.37	Screw Hole Plate	Dual Row SMT	124019322112A
USB 3.1 Gen 2	10Gb/s	24	Top	IPX8	1.50	Screw Hole Plate	Dual Row SMT	124018792112A
USB 3.1 Gen 2	10Gb/s	24	Top	IPX8	1.50	DIP	Dual Row SMT	124018802112A
USB 3.1 Gen 2	10Gb/s	24	Top	IPX8	1.53	Screw Hole Plate	Dual Row SMT	124019282112A
USB 3.1 Gen 2	10Gb/s	24	Top	IPX2	1.75	DIP	Dual Row SMT	12401899E412A
USB 3.1 Gen 2	10Gb/s	24	Top, Short Body	IPX2	1.58	DIP	Dual Row SMT	12401945E212A
USB 3.1 Gen 1	5Gb/s	24	Middle, Short Body	IPX5	0.40	DIP	Dual Row SMT	124019032112A
USB 3.1 Gen 1	5Gb/s	24	Middle	IPX8	0.40	DIP	Dual Row SMT	124018392112A
USB 3.1 Gen 2	10Gb/s	24	Middle, Short Body	IPX8	0.40	DIP	Dual Row SMT	124018312112A
USB 3.1 Gen 2	10Gb/s	24	Top / Short Body	IPX4	1.50	Straight	Dual Row SMT	124019372112A
USB 3.1 Gen 2	10Gb/s	24	Middle / Short Body	IPX4	0.37	Straight & Screw Hole Plate	Dual Row SMT	124019322112A
USB 3.1 Gen 2	10Gb/s	24	Middle / Short Body	IPX8	-	Straight & Screw Hole Plate	Dual Row SMT	124019282112A