Display Port to Type-C Convertor

DSC-317 provides a Display Port Type-C Male to Type-C Female converter cable.

FEATURES

Compliant with Type-C Specification Revision 1.2
Supports VESA Display Port Alt. Mode 1.0a
Support Display Port AUX Channel DC voltage level detection
Configurable USB Type-C Ports. Device can be designed with Type-C plug or Type-C receptacle connector. CC logic and Power Delivery protocol support one sink port and one charging port
Rp and Rd resistors integrated / Built-in Ra termination resistor
USB Type-C SBU and Display Port AUX Channel switch integrated
Support Type-C plug orientation detection
Integrated USB Billboard Class, Version 1.21 for supporting USB Type-C Alt. Mode

GENERAL DESCRIPTION

DSC-317 is a USB Type-C logic controller. The device is targeted for system designers implementing USB Type-C devices with Display Port capabilities and USB Power Delivery 2.0 support. The DSC-317 integrates the USB Type-C plug orientation and attached detection mechanism on the CC (Channel Communication) pins. Its robust Power Delivery 2.0 module using the BMC protocol can enable USB Type-C devices operating in various power management roles including Consumer, Provider and Power Role Swap. The Display Port Alt. mode is another alternative interface supported in the DSC-317. A built-in Billboard Class can be automatically exposed to the USB 2.0 D+/- bus if a Type-C PD Source (DFP) does not equip USB Type-C Alt. Mode features that support Display Port signal transmission. The system with DSC-317's Display Port Alt. mode enabled can be programmed to support Type-C to Display Port display or Display Port to a Type-C DP Alt. mode monitor. The DSC-317's bi-directional signal converter for the Display Port HPD (hot plug detection) and VDM (Vendor Defined Message) is capable of translating the HPD to the appropriated VDM to Type-C DP device and vice versa. In addition to hardware support of PHY and Link layers, the DSC-317 has an internal microprocessor to handle the cable logic communication and can be programmed for customization according to the application of USB Type-C platforms. For reducing the BOM cost of final products, the DSC-317 integrates all necessary components and circuits, such as LDO, clock generation isolation circuit, R a, Rd and Rp etc..

Applications & Specification

Mobile systems, VR/AR / Cellular handsets, PAD/Tablets
Digital video cameras and Digital still cameras

- -40°C to 70°C Ambient Operation Temperature Range / ESD HBM 8.0 kV
- Support Type-C of TV / Monitor
- Easy to install , Plug & Play, Power free
- Contents: Display Port Male to Type-C Female converter cable with 15 cm cable
- Dimension :43*23*12 (mm) +15cm Cable Weight : 25g~40g include cable