

#### RAMSEY ELECTRONICS®

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# SUPER SPEED STEUSB 3.1 GEN 2 Type C RF ISOLATED INTERFACE

# STEUSB3CC





### Overview

The STEUSB3CC is a Single Channel Lab Grade USB 3.1 Gen 2 Type C RF Isolated Interface. It is designed to pass USB communications up to 10Gbps data speed while providing RF isolation from 200MHz to 40GHz. The conductive insertion loss will be greater than 85dB within this band. The unit also provides 5, 9, 15, or 20 volts DC at up to 3 amps of current for Power Delivery. This equates to a maximum of 60 watts of power available to be delivered to the load. The unit is fully backward compatible with all previous versions of USB communications.

## **Applications**

The primary application is for use in an RF Shielded Test Enclosure. The STEUSB3CC allows USB 3.1 Gen 2 data to pass while maintaining an enclosure's RF isolation. The interface will also work well in RF Screen Room applications, or anywhere you need to pass USB data and maintain RF isolation.

#### **Features**

USB Type C Input and Output connectors
Single Flange Nut for mounting
Gasket Washers to provide high quality RF bond
Includes 24VDC 6.25 Amp 150 Watt Switching Power supply, Foreign cords available
Port Savers



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## **STEUSB3CC Interface Specifications**

**Power Requirements:** 

Voltage: 24VDC

Current: 3.75A Maximum Watts: 90W Maximum

**Ports** 

Upstream Facing (UFP): USB Type C, Label Side

Downstream Facing (DFP):USB Type C, Mounting Pipe Side

Power Connector: 4 Pin Power DIN

**Compatible Data Protocols:** 

USB 1.0: Low Speed, 1.5Mbps
USB 1.1: Full Speed,12Mbps
USB 2.0: High Speed, 480Mbps
USB 3.0, USB 3.1 Gen 1: SuperSpeed, 5Gbps
USB 3.1, USB 3.1 Gen 2: SuperSpeed+, 10Gbps

**Communication:** 

Computer Connection: Upstream Facing Port Device Connection: Downstream Facing Port,

Data Line: 90 Ohm, Balanced Impedance

USB2 Pairs: 480Mbps (HS), 12Mbps (FS), 1.5MBPS (LS)

USB3 Pairs: 10Gbps (SS+), 5Gbps (SS)

**Power Delivery:** 

DFP: Supports 4 Power Profiles over CC1 and CC2

15W (5VDC 3A), High Voltage Indicator Off 27W (9VDC 3A), High Voltage Indicator On 45W (15VDC 3A), High Voltage Indicator On 60W (20VDC 3A), High Voltage Indicator On

RF Isolation (Conductive Insertion Loss All Lines):

DC to 200MHz: Unspecified 200MHz to 8GHz: >90dB typical 8GHz to 40GHz: >85dB typical

Physical:

Dimensions: 3.96" H (100.6mm) x 3.25" W (82.6mm) x 0.935" D (23.7mm),

Plus Pipe and Strain Relief

Weight: 19.9oz (0.450kg)

Operating Temperature: 32 to 122 degrees F (0 to 50 degrees C)

Pipe Data: 0.9" Long, 1.0" - 20 Threaded Pipe with Flange Nut

Data Port/DFP Pwr: 2 Type - C Receptacles

Power Port: 4 Pin Power DIN

Indicators: Red LED, Power Indicator

Yellow LED, High Power (>5VDC) for DFP Power

**Included Power Supply \*:** 

Description: AC-DC Switching Power Supply

Ramsey Part Number: PS110

Voltage Input: 90 to 264VAC

Voltage Output: 24VDC

Input Current: 2.5 Amps @ 100VAC

Output Current: 6.25 Amps
Output Power Max: 150 Watts
Input Frequency: 47 to 63Hz

Operating Temperature: -22 to 149 degrees F (-30 to 65 degrees C), derates linearly from

100% at 40 degrees C to 50% load a 65 degrees C

Input Connector: IEC60320/C14
Output Connector: 4 Pin Power DIN

Efficiency Level: VI

Included Power Cord \*, Provided Standard, may be substituted for foreign use.

Description: North American Power cord

Ramsey Part Number: PS86

Cord: 18 AWG x 3 (Black, White, Green)

Plug: NEMA 5-15P

Connector: IEC60320/C-13 Straight
Rated: 125VAC, 10 Amps
Length: 98 Inches (2.5 Meters)

2 Included Data Cables \*:

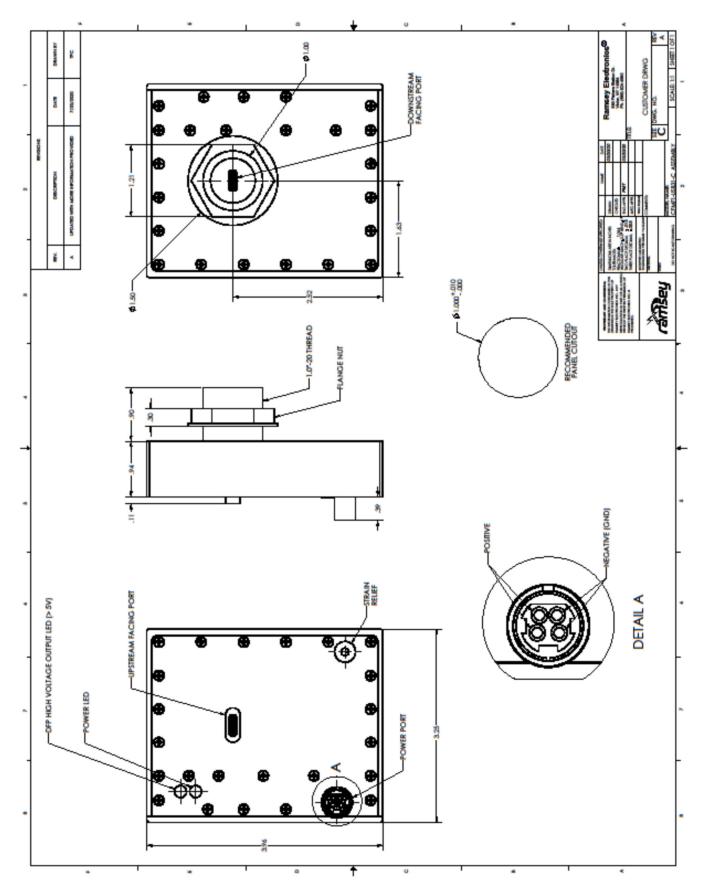
Description: USB 3.1 Gen 2 Male/Male 10Gbps Interface Cable

Ramsey Part Number: CABL51

Cable: Rated for USB3.1 Gen 2 (10Gbps)

Connectors: 2 Type C Male Connectors Length: 39.37 Inches (1 Meter)

<sup>\*</sup> Due to availability, included parts may be substituted without notice.



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