

USC-3150

USB to USB Isolator

DATASHEET

Rev1.0

May 2012



sysacom

www.sysacom.com

Features

- Bi-directional USB to USB
- 5kV galvanic isolation
- USB 2.0 compatible
- Full speed data rate: 12 Mbps
- Lead-Free / ROHS compliant
- Up to 350mA available



Applications

- Data acquisition
- Instrumentation isolation
- Communication
- Medical application

Description

Using the USC-3150 is an easy way to isolate a USB host to any device without any loss of speed. The USC-3150 can be used in various types of applications where isolation is necessary such as, a data streaming device, a data acquisition device, an instrumentation device or a communication device.

Low and high intensity option are available (LC or HC option), so the USC-3150 is adaptable to several applications. Also, USC-3150 is available without enclosure (OEM option) or with enclosure (ENC option). Refer to Electrical Characteristics and Ordering Information sections for more information.

The USC-3150 is made with parts that are in accordance with the following safety and regulatory approvals:

- UL recognition 5000Vrms for 1 minute
- UL/CSA 60950-1
- 60601-1 Certified

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Revision History

Revision Number	Revision Date	Description of Changes
01	05/24/2012	Initial release

1. Electrical Characteristics

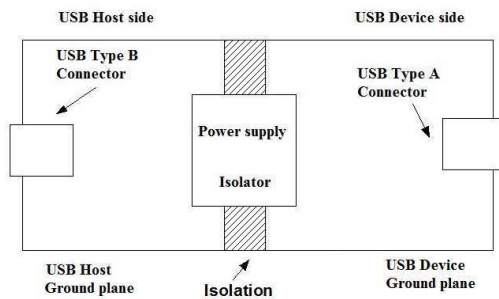
Specifications	USC-3150/LC	USC-3150/HC	Unit
Performance			
USB Compliance	2.0	2.0	
Max. Data Rate			
Full speed	12	12	Mbps
Environment			
Operating Temp Range	-40 to 85°C	-40 to 85°C	°C
Electrical			
Supply Voltage (from USB host)	5.0	5.0	V
Supply Current no load (from USB host)	30	110	mA
Supply Current full load (from USB host)	300	950	mA
Output Voltage (USB device)	5.0	5.0	V
Max. Output Current (to USB device)	65	650	mA
Typical Output Current at 500mA supply	N/A	350	mA
Electrical isolation	5.0	5.0	KV
Physical			
<i>Weight</i>			
<i>OEM Option</i>	15	28	Grams
<i>ENC Option</i>	36	49	Grams

Connectors		
Pin	J1 ¹	J2 ²
1	VCC	VCC
2	D+	D+
3	D-	D-
4	GND	GND

1- USB Type B connector

2- USB Type A connector

2. Principle of operation

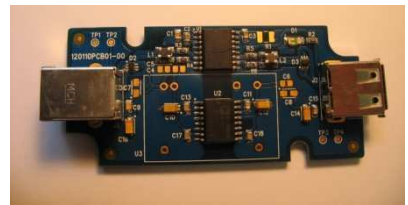
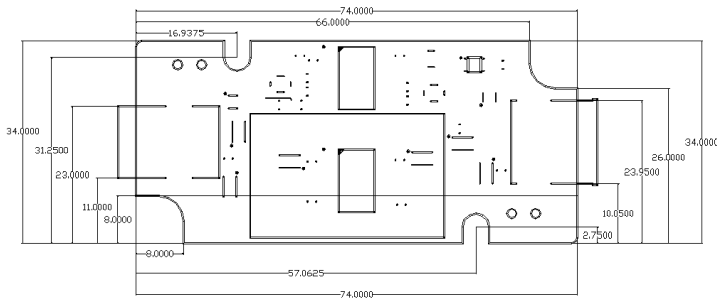
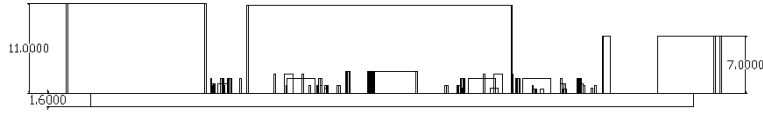


On the USC-3150, the galvanic isolation has been placed between the host and the device. The USC-3150 is powered from USB host port. It can supply up to 650mA to the USB device port.

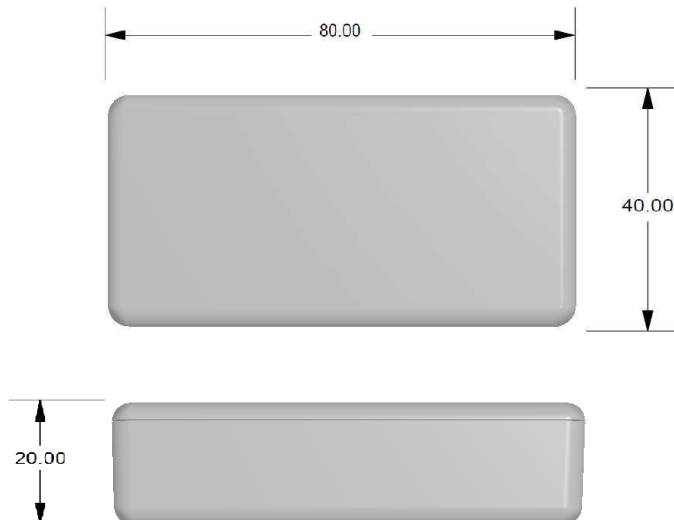
The USC-3150 has 2 female USB connectors, 1 type B for PC connection and 1 type A for device connection. It's easily adaptable to any device with standard USB cable A/B.

3. Mechanical

OEM option:



ENC option:



4. Ordering Information

Part	Current (Max)	Temperature Range	Enclosure
USC-3150/LC/OEM	65mA	-40°C ~ 85°C	NO
USC-3150/HC/OEM	650mA	-40°C ~ 85°C	NO
USC-3150/LC/ENC	65mA	-40°C ~ 85°C	YES
USC-3150/HC/ENC	650mA	-40°C ~ 85°C	YES

5. Warranty

Sysacom R&D plus Inc warrants the USC-3150 Isolated USB to SPI converter to be free from malfunctions and defects in both materials and workmanship for one year from the date of purchase.

If the equipment does not function properly during the warranty period due to defects in either materials or workmanship, Sysacom R&D plus Inc will, at its option, either repair or replace the equipment without charge, subject to limitations stated herein. Such repair service will include all labour, as well as any necessary adjustments and / or replacement parts.

LIMITATIONS

The warranty becomes null and void if you fail to pack your USC-3150 in a manner consistent with the original product packaging and damage occurs during shipment.

Sysacom R&D plus Inc makes no other warranties, express, implied, or of merchantability or fitness for a particular purpose for this equipment or software. Repair or replacements without charge are Sysacom R&D plus Inc only obligation under this warranty. Sysacom R&D plus Inc will not be responsible for any special, consequential or incidental damages resulting from the purchase, use, or improper functioning of this equipment regardless of the cause.

Depending on your geographical location, some limitations may not apply.

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