

# MCCI<sup>®</sup> USB 3.0 Connection Exerciser Price Quotation

## Connection Problems Analysis

Finding and analyzing USB connection problems is an important part of preparing for USB design compliance testing. USB 2.0 succeeded in the market place because it is a reliable and straightforward way to connect to PC hosts. One way to ensure that USB 3.0 is similarly successful is to test for connect/disconnect problems as a part of the design and development process.

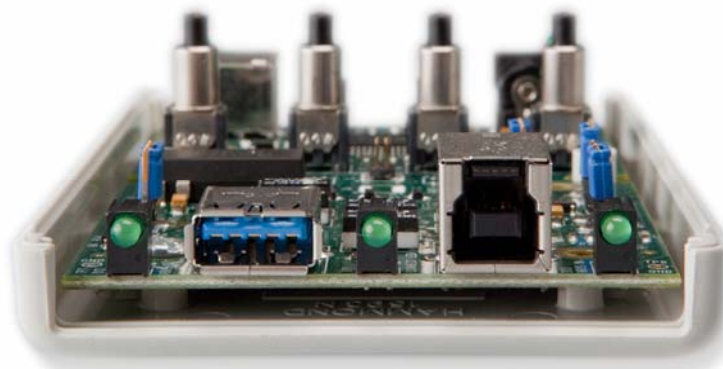
The MCCI USB 3.0 Connection Exerciser is a tool that is used to simulate Host to Device cable removal and attachment. The microcontroller and the high frequency relays within the Exerciser can either be operated with a pre-programmed connection pattern, or can be controlled real-time through an auxiliary USB port by a Control PC. Features include:

- An impedance controlled, low loss USB data path. The Exerciser is transparent when in the connected state
- Data relays are rated to 7 GHz
- VBUS and Data connect sequence and detach sequence mimics the connection order of a physical cable plug
- The ground connection is never broken
- Connection time can be controlled down to 10 ms
- Device Under Test (DUT) VBUS optionally configurable for flow-through or buffered operation
- Control PC needs no drivers. Native HID drivers are all that is required
- The 2101 can be powered from any of the following sources:
  - External 5 V power supply.
  - Control PC VBUS connection.
  - Host Under Test (HUT) VBUS power supply (optional)
- The 2101 can also be used for testing low speed, full speed, high speed devices and hosts.

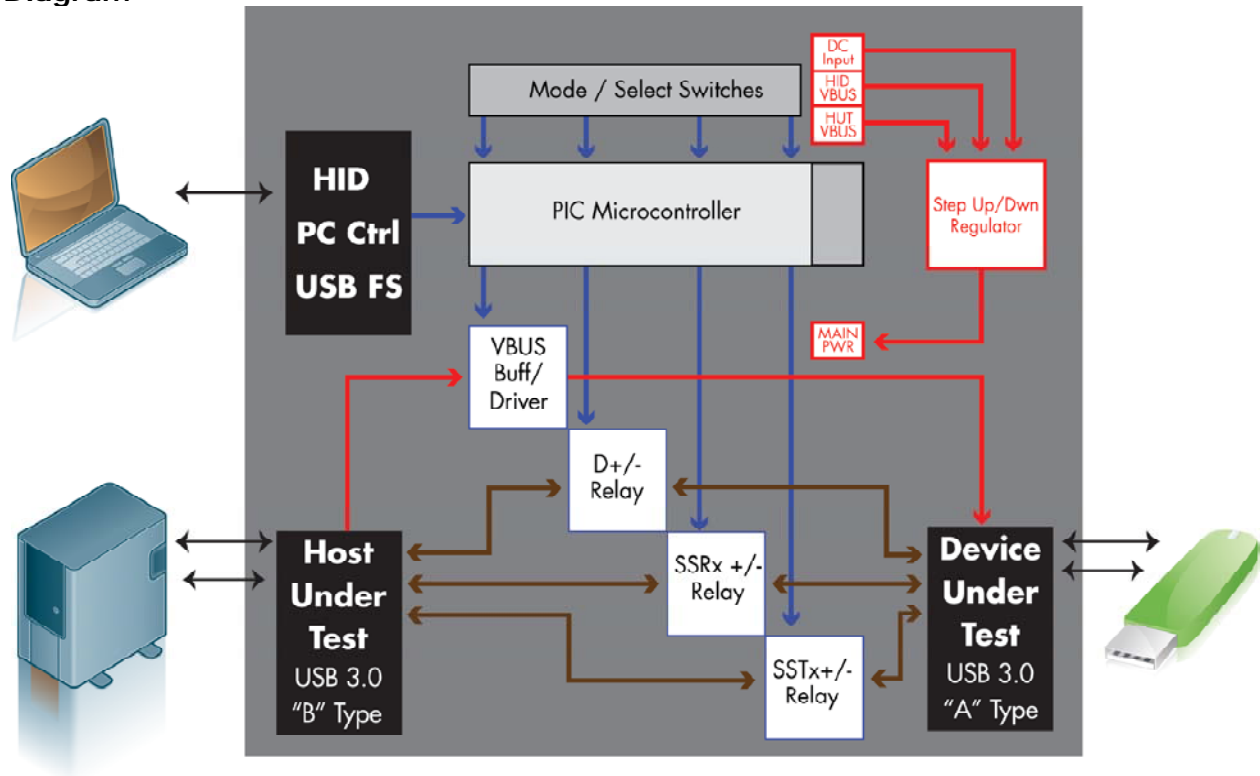
## MCCI Advantage

MCCI technology has been delivered in over 600 million consumer products to date. Our customers place their USB needs for their high volume products confidently in the hands of MCCI. We have the world's largest USB software team, with a world-wide support presence that allows us to address customer support needs around the clock.

## *Model 2101 Connection Exerciser*



## Block Diagram



## Specifications

Mechanical	Size H x W x D	111.25 x 75 x 25.2 mm (4.38 x 2.95 x .99")
	Weight	9 oz
Electrical	Power dissipation (all relays on)	1.75 W
	Max DUT VBUS current switch (VBUS pass-thru mode)	900 mA
Connectors	Max DUT VBUS current	900 mA
	to HUT (on case front)	USB 3.0 Std "B"
	to DUT (on case front)	USB 3.0 Std "A"
	DC Input (on case back)	2.1 mm round, center positive
LED Indicators	to Control PC (on case back)	USB 2.0 Std "B"
	VBUS IN (on case front)	On when HUT VBUS is detected
	Connect (on case front)	On when HUT is Connected to DUT
	VBUS OUT (on case front)	On when DUT VBUS is enabled
Mode Buttons	Main Power (on case back)	On when Exerciser is fully powered
	PC Link (on case back)	On when Control PC has enumerated Exerciser
	Soft LEDs 1 thru 4 (on case top)	Used by Exerciser FW for various functions (see User Manual)
	Momentary soft switches 1 thru 4 (on case top)	Used by Exerciser FW for various functions (see User Manual)
Power Supply	AC supply Input	100 to 240 V AC; 50 to 60 Hz
	DC supply Output	5 V DC, 2.5 A max
Cables	Control PC	4 foot STD "A" to STD "B" USB 2.0
	USB 3.0 Patch Cables (for use from HUT to 2101 or 2101 to DUT).	1 foot STD "A" to STD "B" USB 3.0

## **To Buy**

The Model 2101 MCCI USB3 Connection Exerciser Kit is priced at US\$ 995.00 and, in addition to the unit itself, includes a Control PC Cable, a USB 3.0 Patch Cable, Power Supply and User Manual.

Payment must be made in advance. You may pay via Amex, Visa, Master Card or Wire Transfer by email at <orders@mcci.com>

## **General Terms and Conditions**

*The following terms and conditions apply.*

1. This proposal shall be valid for 30 days.
2. All prices quoted in US dollars, FOB, Ithaca, New York. Payments may be made by credit card or wire transfer. For wire transfers, customer will pay all transfer charges. Payments are due with order.
3. Customer agrees to indemnify and hold harmless MCCI from and against any and all claims, losses, damages, cost or expenses (including but not limited to attorney's fees) suffered or incurred by MCCI as the result of or in connection with the use of this device.
4. These terms and conditions shall form the sole and exclusive terms of this quotation, and will not be superseded by terms and conditions printed on the Customer's purchase order, or any other terms and conditions, without the express written approval of MCCI.
5. Governing Law: State of New York