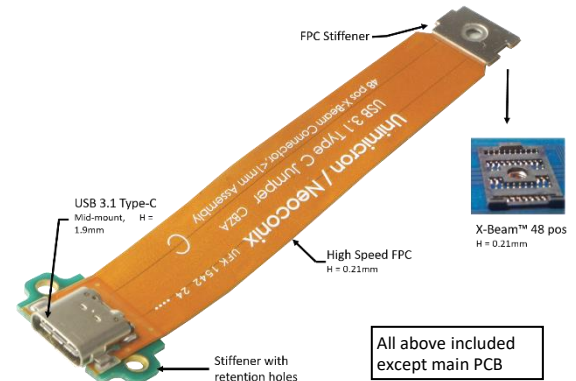# USB 3.1 FPC Bridge Series
USB 3.1 Type-C High Speed & Power Independent FPC Assembly
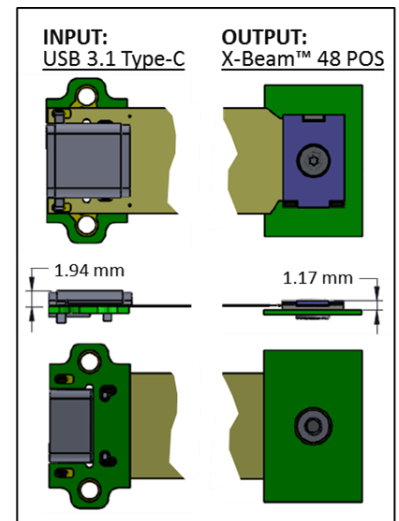
OVERVIEW

The USB3.1 FPC Bridge is a new product development for mobile devices to allow flexibility for the USB 3.1 Type-C receptacle location or the termination point to the main PC Board. The USB 3.1 FPC Bridge Product line provides a fully-tested assembly encompassing a USB3.1 Type-C receptacle, mounted on a high-speed FPC (Flexible Printed Circuit) with stiffener, a 48 position X-Beam™ ultra-low profile interposer for FPC-to-Board interconnect, and required hardware. The standard FPC lengths are fully compliant with the USB 3.1 Type-C Specification for SuperSpeed USB 10Gbps signal speed combined with current capability up to 5 Amps.

FPC Stiffener

USB 3.1 Type-C Mid-mount, H = 1.9mm

High Speed FPC H = 0.21mm

X-Beam™ 48 pos H = 0.21mm

Stiffener with retention holes

All above included except main PCB

FEATURES

- Finished assembly allows reliable and rapid USB3.1 Type C implementation.
- Independently mounted assembly saves cost by minimizing the time consuming design & manufacturing issues associated with main PC Board mounting.
- Fully Compliant to the USB3.1 Type C Specification.
  - Signal Speed: 10Gbps   ○ Current: 5.0 Amps (max)
- Optimized Design for portable electronics:
  - Input: Low profile - mid-mount USB 3.1 Type C receptacle.
  - Bridge: In-house manufactured high-speed FPC.
  - Output: Proven – low profile X-Beam™ 48 POS FPC-to-Board interposer, pick-n-place, and enables robust integral screw FPC retention.
- Operating Temperature: -40ºC to +85ºC
- Additional customization options offered
- Compliant with ROHS 2011/65/EU and IPC-4101B (halogen-free)

INPUT: USB 3.1 Type-C

OUTPUT: X-Beam™ 48 POS

1.94 mm

1.17 mm

STANDARD PRODUCT FAMILY

Kit Part Number [1,2]	FPC Length (mm)	PCB[3] Thickness (mm)	Nut Part Number	Screw Part Number[2]
U31CA-FX048F050MA	50	0.60 to 1.00	B01-000633 M2.0 x 0.25 Thread	B01-000662 M2.0 x 0.25 L = 2.0mm
U31CA-FX048F080MA	80			
U31CA-FX048F100MA	100			
U31CA-FX048F120MA	120			
U31CA-CX048F050MA	50	1.00 to 1.60	B01-000654 M2.0 x 0.40 Thread	B01-000661 M2.0 x 0.40 L = 3.0mm
U31CA-CX048F080MA	80			
U31CA-CX048F100MA	100			
U31CA-CX048F120MA	120			

1.   Standard Kit includes X-Beam™ Connector, FPC, USB 3.1 Type-C receptacle and nut (screw not included).
2.   Kits may be ordered with screw by adding "-2mm" or "-3mm" to Kit Part Number, e.g. U31CA-CX048F050MA-2mm
3.   Kits are available for PCB thickness to 4.00 mm, see USB 3.1 Application Specification (AS00024).

FOR MORE INFORMATION

Neoconix, Inc., 4020 Moorpark Ave, #108., San Jose, CA 95117 Web: www.neoconix.com E: sales@neoconix.com. P: 408.530.9393