

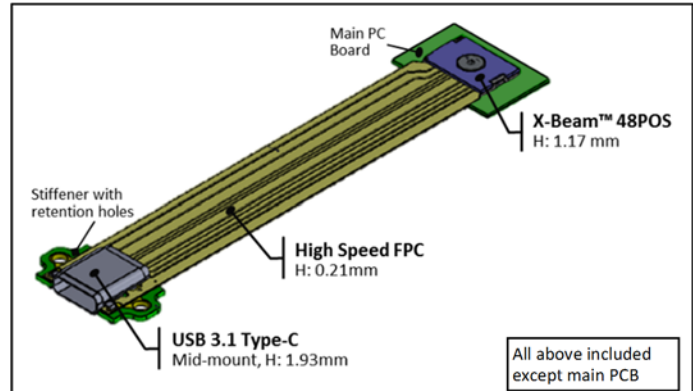
USB 3.1 FPC Bridge Series

USB 3.1 Type-C High Speed & Power Independent FPC Assembly



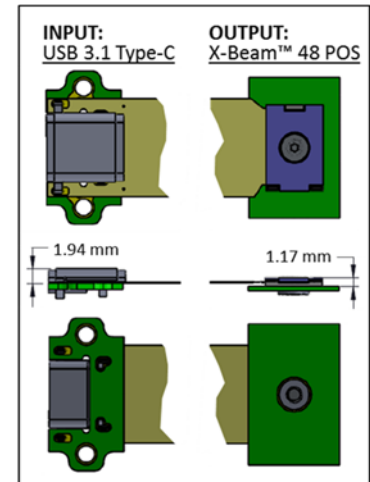
OVERVIEW

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.



FEATURES

- Finished assembly allows reliable and rapid USB3.1 Type C implementation.
- Independently mounted assembly saves cost by minimizing the time consuming design and 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: -40°C to +85°C
- Additional customization options offered
- Compliant with ROHS 2011/65/EU and IPC-4101B (halogen-free)



STANDARD PRODUCT FAMILY

Kit Part Number ^①	FPC Length (mm)	FPC Part Number	PCB ^③ Thickness	Nut Part Number	Screw Part Number ^②
U31CA-FX048F050MA	50	U31C-X048F050MA	0.60 to 1.00 mm	B01-000633 M2, P 0.25mm	B01-000662 M2, L 2.0mm
U31CA-FX048F080MA	80	U31C-X048F080MA			
U31CA-FX048F100MA	100	U31C-X048F100MA			
U31CA-FX048F120MA	120	U31C-X048F120MA	1.00 to 1.60 mm	B01-000654 M2, P 0.40mm	B01-000661 M2, L 3.0mm
U31CA-CX048F050MA	50	U31C-X048F050MA			
U31CA-CX048F080MA	80	U31C-X048F080MA			
U31CA-CX048F100MA	100	U31C-X048F100MA			
U31CA-CX048F120MA	120	U31C-X048F120MA			

1. Standard Kit includes X-Beam Connector, FPC, USB Type C receptacle, and nut (**screw is not included**).
2. Kits may be ordered with screws by adding -2mm or -3mm to Kit PN, e.g. U31CA-CX048F050MA-2mm
3. Kits are available for PCB thickness to 4.00 mm, see the USB3.1 Application Specification (AS00024).

Electrical Properties	Type	Rating	Units
Resistance Per Position Total Assembly (LLCR)	DC	0.32 - 0.67	Ohms (Ω)
Current Rating	DC	5.0	Amps (A)
Insulation Resistance	DC	> 100	MOhms (MΩ)
Dielectric Withstanding Voltage	DC	100	Volts (V)
Impedance		85 ± 9	Ohms (Ω)
Differential Insertion Loss (5GHz)	AC	> -3.5	dB
Differential Return Loss (5GHz)	AC	< -10	dB

FOR MORE INFORMATION

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