

## Bi-directional Optical to TTL Converter 850 nm



### Features

- Converts fiber-optic signals to TTL, and TTL to fiber-optic
- Selectable polarity
- Compact package
- Low latency and jitter
- Square wave transmission up to 50 MHz
- DC operation

### Applications

- EMI-immune trigger and logic level signal delivery in distributed systems
- Long-range digital signal transmission
- Frequency transmission
- High voltage isolation
- General-purpose optical-TTL signal conversion

### Specifications

Fiber-optic input	Broadcom HFBR-1415Z receiver (ST bayonet), 850 nm light (near infra-red)
TTL output	TTL levels into 50 ohms.  Polarity switch-selectable for the output to be the same or inverted relative to the fiber-optic input.
TTL input	TTL levels, input impedance high (> 1 Mohm) or 50 ohm, internal jumper selectable.
Fiber optic output	Broadcom AFBR-2418Z 50 MBd transmitter (ST bayonet) , 850 nm light (near infra-red)  Polarity switch-selectable for output to be the same or inverted relative to the TTL input.
Propagation delay	<= 25 nsec optical to TTL <= 25 nsec TTL to optical
Propagation jitter	< 1 nsec
Frequency range	DC to 50 MHz (50% duty cycle square wave)
Power input	+24 +/- VDC, 100 mA max. Fused 1.1 A.



**Connectors**

Fiber optics	ST bayonet
TTL	BNC jacks 50 ohm, two. Signal on core.
24 VDC input	2.1 mm threaded jack. Mate with Switchcraft S761K or equivalent. Pin: +24 VDC; Shell: 0V
Ground	Case grounded via mounting flange

**Controls and indicators**

Polarity switches	Independent toggle switches for optical to TTL, and TTL to optical.
Indicators	Power on green LED

**Case**

Type	Stainless steel sheet with mounting flange, IP43.
Weight	0.20 kg (0.44 lb)

**Environment**

Operating environment	10 to 35C, < 80% humidity, non-condensing, vibration < 0.2 g all axes, 1 to 100Hz
Storage environment	0 to 50C, < 80% humidity, non-condensing, vibration < 2g all axes, 1 to 100Hz

**Ordering information**

X22-850	Bi-directional Optical to TTL converter, ST bayonet fiber optic connectors
MTG-DIN35-7662	DIN rail mounting adaptor
PSU24-25-1	Universal 24 VDC power supply, medical rated, 25 W, C8 line inlet, Switchcraft S761 threaded jack outlet.

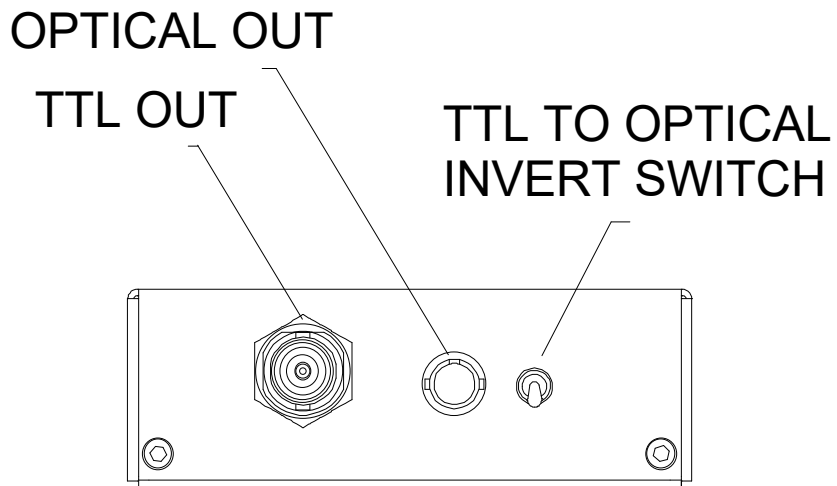
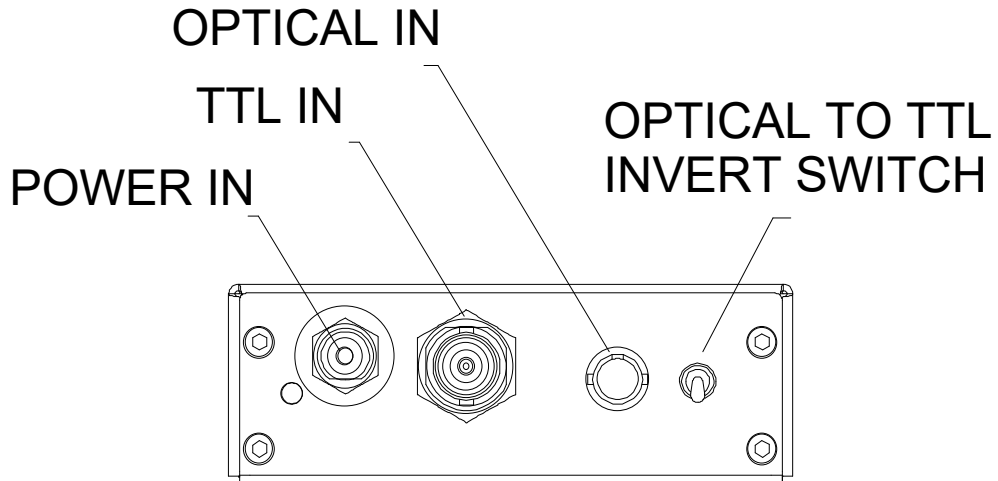
Pyramid Technical Consultants, Inc.,  
 135 Beaver Street Suite 102  
 Waltham MA 02452 USA  
 Tel: +1 781 402 1700 (USA),  
 +44 1273 492002 (UK)  
 Email: support@ptcusa.com      [www.ptcusa.com](http://www.ptcusa.com)

The information herein is believed accurate at time of publication, but no specific warranty is given regarding its use. All specifications are subject to change. Trademarks and copyright acknowledged.

X22-850\_DS\_230710



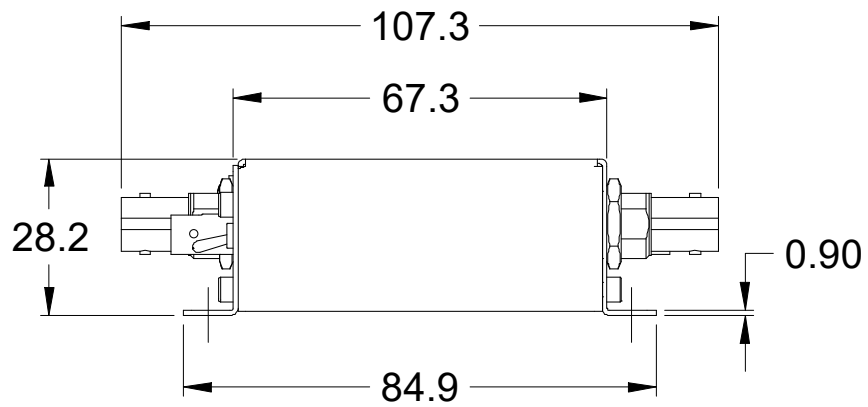
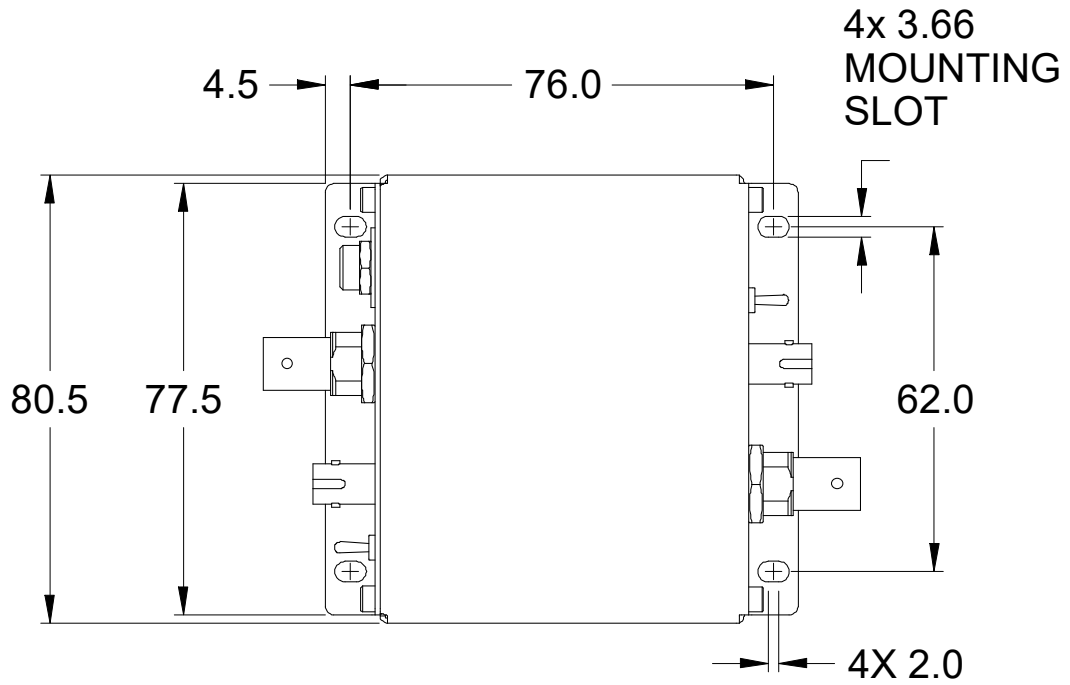
X22-ST



Dims mm



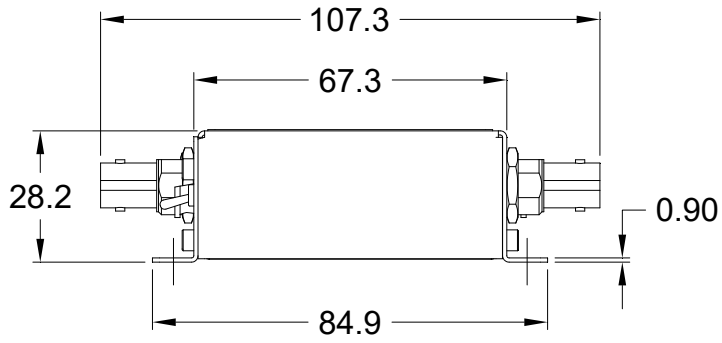
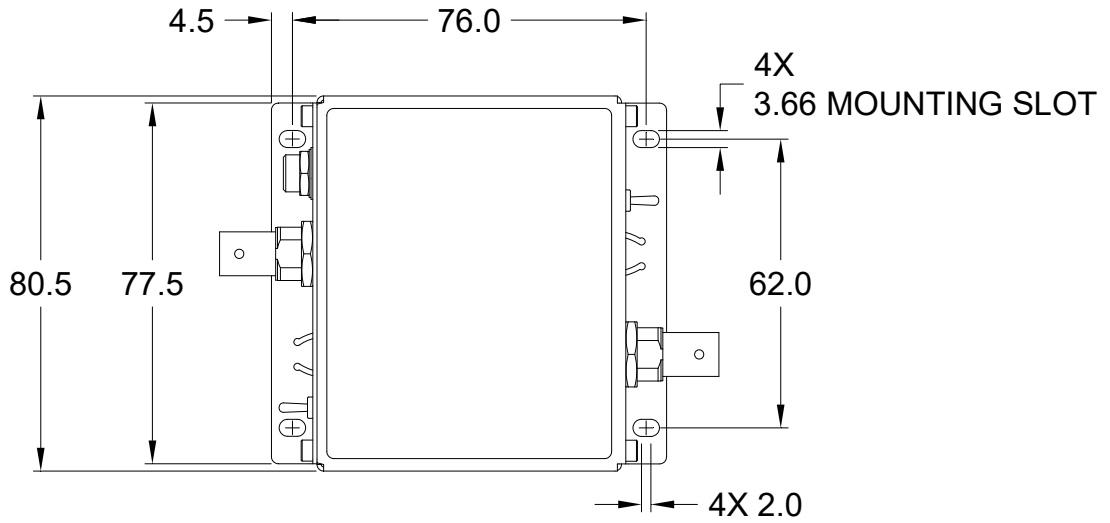
X22-ST



Dims mm



X22-VL



Dims mm

