



## T760 high voltage optical-to-electrical converter

### Features

- Two transformer-isolated digital pulse outputs
- Adjustable pulse amplitudes from 5 volts to 80 volts (-1 version) or 100 volts (-2 version) into 50  $\Omega$
- Outputs clean, flat pulses with typical risetimes below 1 nanosecond (-1 version) or 2.5 nanoseconds (-2 version)
- Two 850 nanometer fiberoptic inputs with analog signal monitors and adjustable trigger thresholds
- External universal power supply or 12-volt DC power
- Compatible with Highland J720, J724, V720, and P730 optical pulse sources
- Ideal accessory for Highland's P400 and T560 digital delay/pulse generators, and T34x family of embedded waveform generators



The T760 converts two digital fiberoptic inputs into high-level isolated electrical pulse outputs. Each optical input has an individual digital threshold trimpot, analog signal monitor, and threshold test point, allowing optimum setting of receive thresholds.

Digital outputs are transformer isolated. A single trimpot, with test point, sets the digital output levels from 5 volts to 80-100 volts peak.

Electrical outputs directly follow optical inputs.

Highland also offers the T750, a 4-channel high-voltage transformer-isolated pulse driver.

## Specifications : T760 high voltage optical-to-electrical converter

FUNCTION	Dual-channel compact high voltage optical-to-electrical converter
INPUTS	Two 850 nm fiberoptic ST inputs 1 mW nominal, single or multimode
OPTICAL THRESHOLD	Trimpot adjustable per channel, 250 $\mu$ W to 1500 $\mu$ W Monitor outputs and trigger level test points provided
OUTPUTS	Two individually-isolated transformer-coupled square pulses with common amplitude adjustment T760-1: 5 to 80 volts into an external 50 $\Omega$ load T760-2: 5 to 100 volts into an external 50 $\Omega$ load Tip jacks monitor logic threshold and output level 750 ns width, 6.5% duty cycle max at 5 volts 270 ns width, 0.5% duty cycle max at 80 volts 200 ns width, 0.2% duty cycle max at 100 volts
RISETIME	T760-1: less than 1 ns typ. T760-2: less than 2.5 ns typ.
FALLTIME	See manual section 4.5
JITTER	Less than 30 ps RMS
INSERTION DELAY	8 ns typ.
OPERATING TEMPERATURE	0 to 60°C
CALIBRATION INTERVAL	One year
POWER	+12 volts, 0.8 amps max Highland J12 wall-plug power supply is included
CONNECTORS	Fiber: ST Signals: SMB Power, 2.1 x 5.5 mm coaxial, center positive Tip jacks monitor for high voltage output level Tip jacks monitor trigger threshold level
INDICATORS	Green power on LED
PACKAGING	4.75" (L) x 4.05" (W) x 1.25" (H) extruded aluminum enclosure