

GFT102

Electrical to Optical Module



Features

- +2.5 V to +10 V input pulse
- 1310 nm output wavelength
- < 1 ns output rise time
- < 10 ps RMS jitter
- Up to 1 MHz
- Compact and rugged module

Applications

- Long distance pulse/trigger transmission
- High EMI environments transmission
- Laser research
- High-energy physics
- Picosecond timing
- Instrument Triggering



Description

The GFT102 module is designed to convert fast electrical pulses to fast optical pulses of 1 mW (@ 10V IN).

This module combined with GFT201 (Optical to Electrical Converter) is ideal to transmit pulses/triggers to remote location up to 1 Km and when the critical pulse has high common voltage with respect to the measurement equipment.



Specifications

Input	
Pulse polarity	Positive
Level	+2.5 V to +10 V
Impedance	50 Ω $\pm$ 5 %
Rise time	< 1 ns
Min. width (FWHM)	10 ns
Max. Frequency	> 1 MHz
Connector	BNC
Output	
Pulse polarity	Positive
Power	50 μ W min @ +2.5 V
Rise time	< 1 ns
Wavelength	1310 nm $\pm$ 20 nm
Min. width (FWHM)	10 ns
Max. insertion delay	5 ns
Jitter	< 10 ps RMS
Connector	FC/PC
General	
Size	42 x 30 x 30 mm (w/o connectors) 62 x 30 x 30 (w/ connectors)
Operating temp.	15 to 35 $^{\circ}$ C
Options	
Option 1	-FC: Base version -SC: Adapter FC to SC -ST: Adapter FC to ST -LC: Adapter FC to LC
Option 2	-13: 1310 nm wavelength (Base version) -85: 850 nm wavelength

Front & Rear Panel



Connector, Switch, Indicators

Front panel		
Connectors		
1	OUTPUT	FC/PC optical trigger output
Rear panel		
Connectors		
2	INPUT 50 Ω	BNC electrical input connector