GFT201
Optical to Electrical Module

Features

- 1260 nm to 1650 nm wavelength
- 20 µW (-17 dBm) optical threshold
- FC/PC connector
- < 30 ps RMS jitter
- 10 V output level on 50 Ω load
- Width shaping and Frequency limitation or same as input
- Compact and rugged module
- 5 V - 5 W, AC/DC adapter (US, EU, UK, Australia, and China blade included) & 2 m USB A to C Cable



Applications

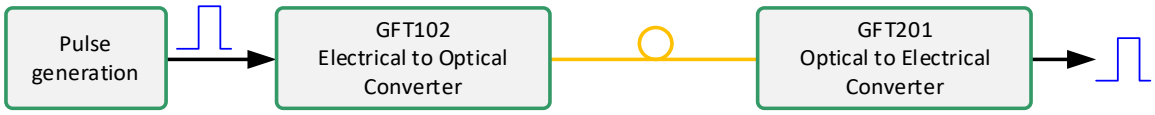
- Long distance pulse/trigger transmission
- High EMI environments transmission
- Laser research
- High-energy physics
- Picosecond timing
- Instrument Triggering

Description

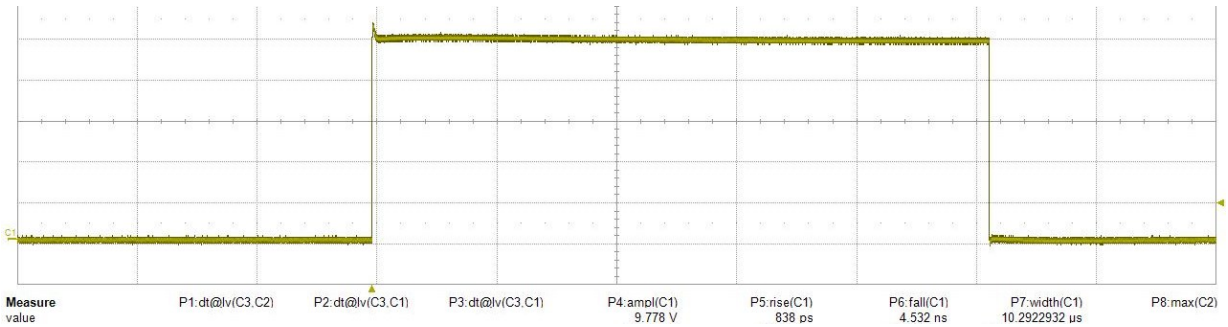
The GFT201 module converts an optical pulse into a fast electrical pulse of 10 V (or +5 V in option) under 50 Ω.

The output pulse can be configured to be a fixed width or a copy of the optical input width.

This module combined with GFT102 (Electrical to Optical 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.



Channel output pulse



(2 V/div, 2 µs/div)

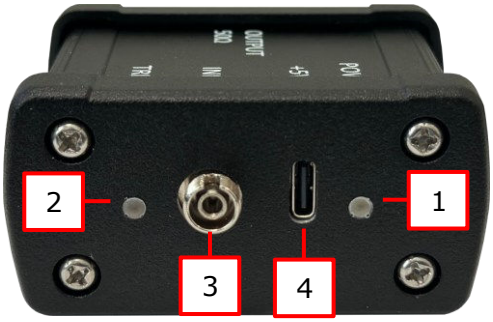
Output Pulse under 50 Ω

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Specifications

Input	
Max. Optical Power	1 mW
Optical Threshold	20 µW ± 10 µW (-17 dBm)
Wavelength	1260 nm to 1650 nm
Max. Frequency	100 kHz
Connector	FC/PC
Output pulse	
Level	+ 10 V ± 0.5 V
External load	50 Ω
Rise time	< 1 ns
Width (FWHM)	200 ns ± 50 ns
Jitter	< 30 ps RMS
Connector	BNC
General	
Size	50 x 70 x 35 mm (w/o connectors) 70 x 70 x 35 mm (w/ connectors)
Operating temp.	15 to 35 °C
Power input	+5 V / 100 mA, USB-C connector
Options	
Option 1	-FC: Base version -SC: Adapter FC to SC -ST: Adapter FC to ST -LC: Adapter FC to LC
Option 2	-200n: 200ns output width (base version) -xxxx: Customized output width: fixed, 100 ns to 1 ms ± 5 %
Option 3	-100k: Retrigger limited to 100kHz (base version) -xxxx: Customized maximum retrigger frequency: fixed, 1 Hz to 100 kHz
Option 4	-LIM: Width and frequency limited (base version) -COP: Copy of input width and frequency (Duty cycle < 33 %, max 100 kHz)
Option 5	-10V: +10 V output level (base version) -5V: + 5 V output level
Option 6	-13: 1310 nm wavelength (Base version) -85: 850 nm wavelength

Front & Rear Panel





Connector, Switch, Indicators

Front panel		
	Indicators	
1	POWER	Fixed green when power ON
2	TRIG'D	Lighted up blue at trigger frequency
	Connectors	
3	INPUT	FC/PC optical trigger input
4	+5V IN	USB type C power supply input
Rear panel		
	Connectors	
5	OUTPUT 50 Ω	BNC electrical output connector