

1550nm Pulsed Laser Source for DTS



Product Description:

The 1550nm pulsed laser source for DTS of Connet is a pulsed laser source with high efficiency based on the 1550nm wavelength which is safe to human eyes. The new ns-class pulse-drive circuit has stable pulse and tiny distortion. The optimized low noise Er-doped fiber amplifiers can realize the high peak power and the ns-class pulse output laser. This laser is very suitable for the areas of the distributed fiber temperature measurement system (DTS), the laser ranging and the optical fiber sensing, etc.

The 1550nm pulsed laser source for DTS of Connet employs the separate structure with relatively independent optical path and circuit. The modular package is adopted with the wide voltage supply and the industrial standard DB15 communication port design. The user can control and operate the source easily by computer. The pulse signal generator is integrated inside the source and the signal synchronization output interface is also equipped internally at the same time. The pulse output can be also achieved by the external TTL trigger signal. All modules go through the strict environmental tests to guarantee the long-time reliability and stability. It is very suitable for system integration.

Applications:

- DTS
- OTDR
- Ranging
- Processing
- Other scientific research

Features:

- High peak output: 30W (Typ.)
- Pulse width: 10ns (Typ.)
- Repetition rate tunable: 1kHz-1MHz
- Internal or external TTL modulation
- Reliable performance

Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		VFLS-1550-M-PL		
Wavelength range	nm	1527	1550	1570
Spectral width (FWHM)	nm	-	0.1	1
Peak power ¹	W	20	30	100
Pulse width ²	ns	1	10	250
Repetition rate ³	kHz	1	10	1000
Beam quality	M ²	-	1.1	1.2
Side-mode Suppression Ratio (SMSR)	dB	35	-	-
Output power stability (15mins)	dB	-	±0.003	±0.005
Output power stability (8hrs)	dB	-	±0.03	±0.05
Output isolation	dB	35	-	-
Return loss	dB	40	-	-
Operating temperature	°C	-25	-	50
Storage temperature	°C	-40	-	85
Output fiber type		SMF-28		
Output fiber length	m	> 1		
Optical connector		FC/APC		
Trigger mode		Internal or External TTL Trigger		
Control interface		RS232		
Power supply	V _{DC}	5-24		
Dimension	mm	150(L)x125(W)x25(H)		

Specifications:

- Higher output power can be customized.
- Pulse width is optional or tunable from 1 to 250ns.
- Repetition rate is optional or tunable from 1kHz to 1MHz.

Ordering Information:

- VFLS-1550-M-PL- <PW>
- M: Module
- PW: Peak power in W. Example: 30-30W, 50-50W