DMPL-1550-50, Directly modulated, fibre-coupled, picosecond diode laser, 1550 nm

Specifications.

	Standard configuration	With built-in optical bandpass filter
Wavelength (pre-set at factory)	1550nm +/- 0.1nm (optional: any in range 1549-1554nm)	1550.16 nm, DWDM channel 34 (optional: another DWDM channel 30 to 40)
Optical bandwidth	0.5nm - 1nm	0.2nm
Optical pulsewidth (pre-set)	25ps - 50ps	30ps-60ps
Peak power (pre-set)	10mW - 50mW	3mW - 20mW
Internal oscillator	no	
Pulse repetition rate	0 - 10MHz	
"True" single-shot regime	yes	
Built-in temperature stabilisation	± 0.005 degr. C	
Optical output	SM fibre, FC/APC connector	
Polarisation maintaining fibre	no (optional)	
Power supply (AC/DC adapter included)	+12V DC, 2 A	
Laser safety class	1	

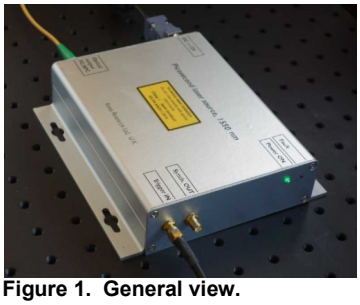

Figure 1. General view.

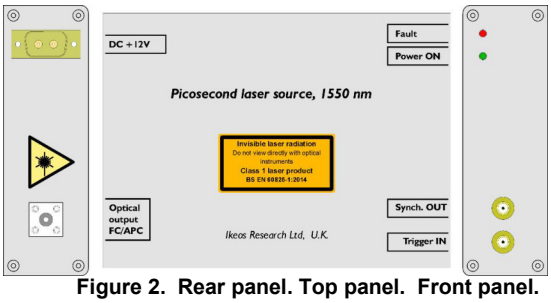

Figure 2. Rear panel. Top panel. Front panel.

Description

This simple, stand-alone laser module features robust and compact design, maintenance-free operation and ease of use. The pulsewidth and peak power are fixed, the repetition rate is defined by external trigger. A range of wavelength options are available on request.

The output delivered via an optical fibre, similar to standard SMF28.

The generator is triggered by the rising front of the input trigger pulse, following which the positive SyncOut pulse emerges after a delay of 9ns-12ns, and the optical pulse emerges after a delay of 20ns-25ns. Shorter or longed delays for the optical output (12ns - 1us) can be preset at manufacturing stage, as an option.

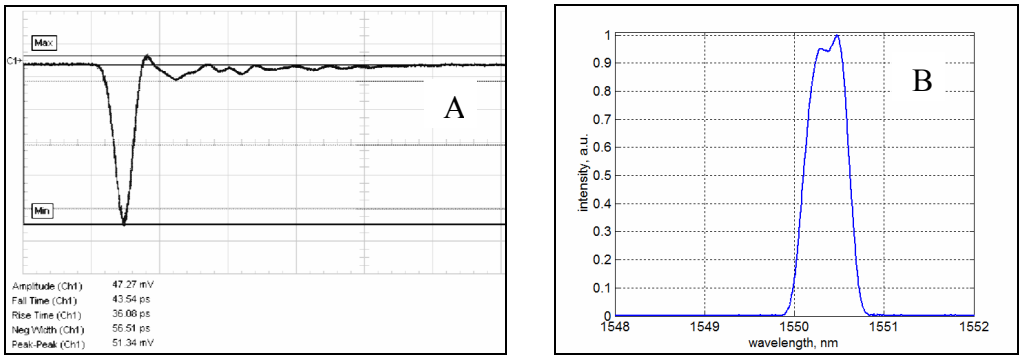

Figure 3. Pre-filtered output measurements. a) Oscilloscope trace, corresponding to actual pulsewidth of 40 ps. b) Spectrum.