

DMPL-1060, Directly modulated, fibre-coupled, picosecond diode laser, 1060 nm

Specifications.

Wavelength (pre-set at factory)	1064 nm
Optical bandwidth	0.3nm - 0.6nm
Optical pulsewidth (pre-set)	20ps - 50ps
Peak power (pre-set)	100mW - 300mW
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

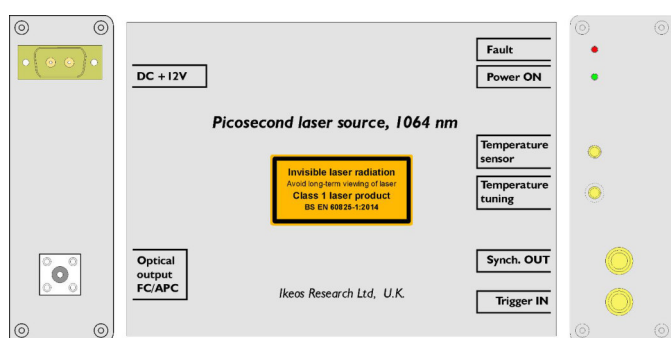


Figure 1. Rear panel. Top panel. Front panel.

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 a single-mode optical fibre.

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 longer delays for the optical output (12ns - 1us) can be preset at manufacturing stage, as an option.

The laser wavelength can be tuned, within a small range of ± 0.5 nm, by temperature adjustment.

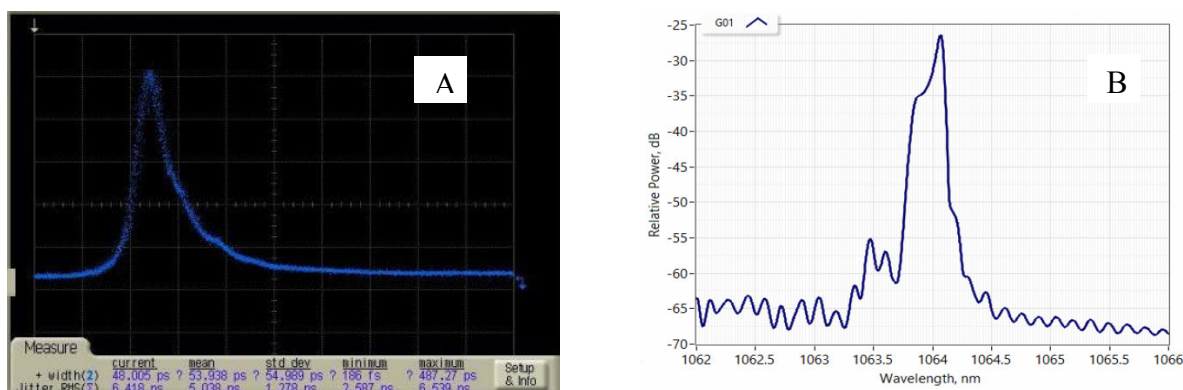


Figure 2. Laser output. a) Oscilloscope trace, corresponding to actual pulsewidth of 45 ps. b) Spectrum.