

FLS100HC Femtosecond Fibre Laser

This all-PM fibre laser system is designed as a high reliability femtosecond laser system producing high peak power in a compact package. The FLS100H laser produces linearly chirped pulses capable of compression to sub-picosecond duration (using the FLC unit) at a variety of repetition rates.

Target Applications

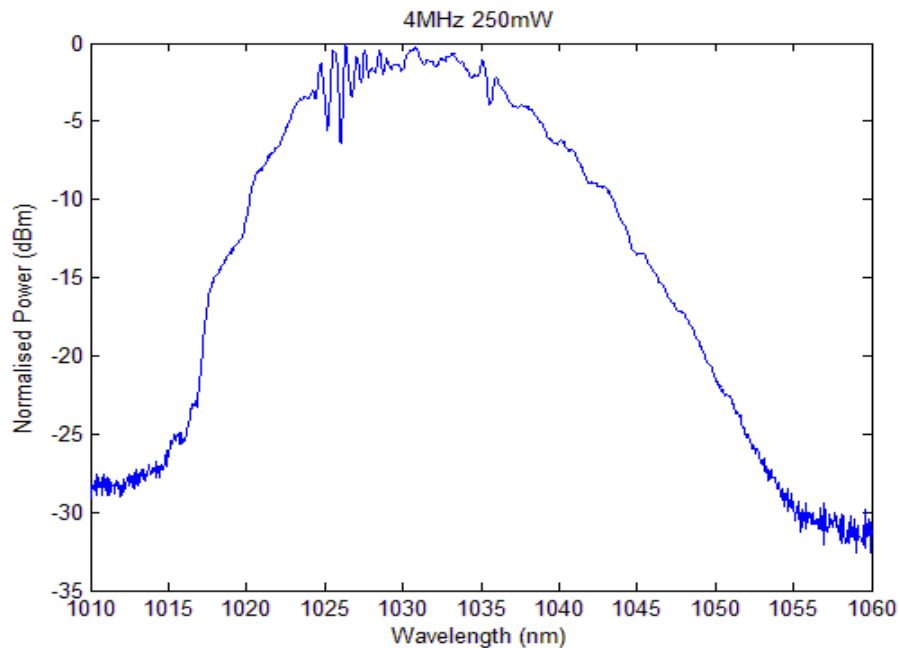
Nonlinear microscopy and materials surface processing

Key Features:

- Robust all PM fibre construction
- No saturable absorber
- No free space optics
- Self starting
- Variable repetition rates 2MHz-20MHz



100nJ
300fs



Typical spectrum of a 4MHz FLS100H laser. These pulses are compressible to <300fs due to the excellent linearity of the chirp.

Specifications:

FLS100

FLS100H

Centre Wavelength	1030nm	
Repetition rate	2-20MHz(customer specified)	
Bandwidth	5-20nm depending on power and repetition rate	
Pulsewidth	30-50ps <200fs with FLC	150ps <300fs with FLC
Average Output power	10mW	350mW
Output polarization	Linear	Linear
PC Interface	RS232 or RS485	RS232 or RS485
Dimensions	260 X 260X 65mm	260 X 260 X 130mm
Power Supply	5VDC 15W	5VDC 20W

Note:

(i) The FLC unit has a specified throughput of >50%, an FLS100H coupled to an FLC unit will yield >200mW and >100nJ per pulse in a free space output beam.

(ii) Bandwidth, spectral shape, repetition rate and compressed pulse duration can be optimised for customer applications. Bandwidth also depends upon the repetition rate and output power, but all lasers produce pulses capable of compression to sub picosecond duration (<300fs).