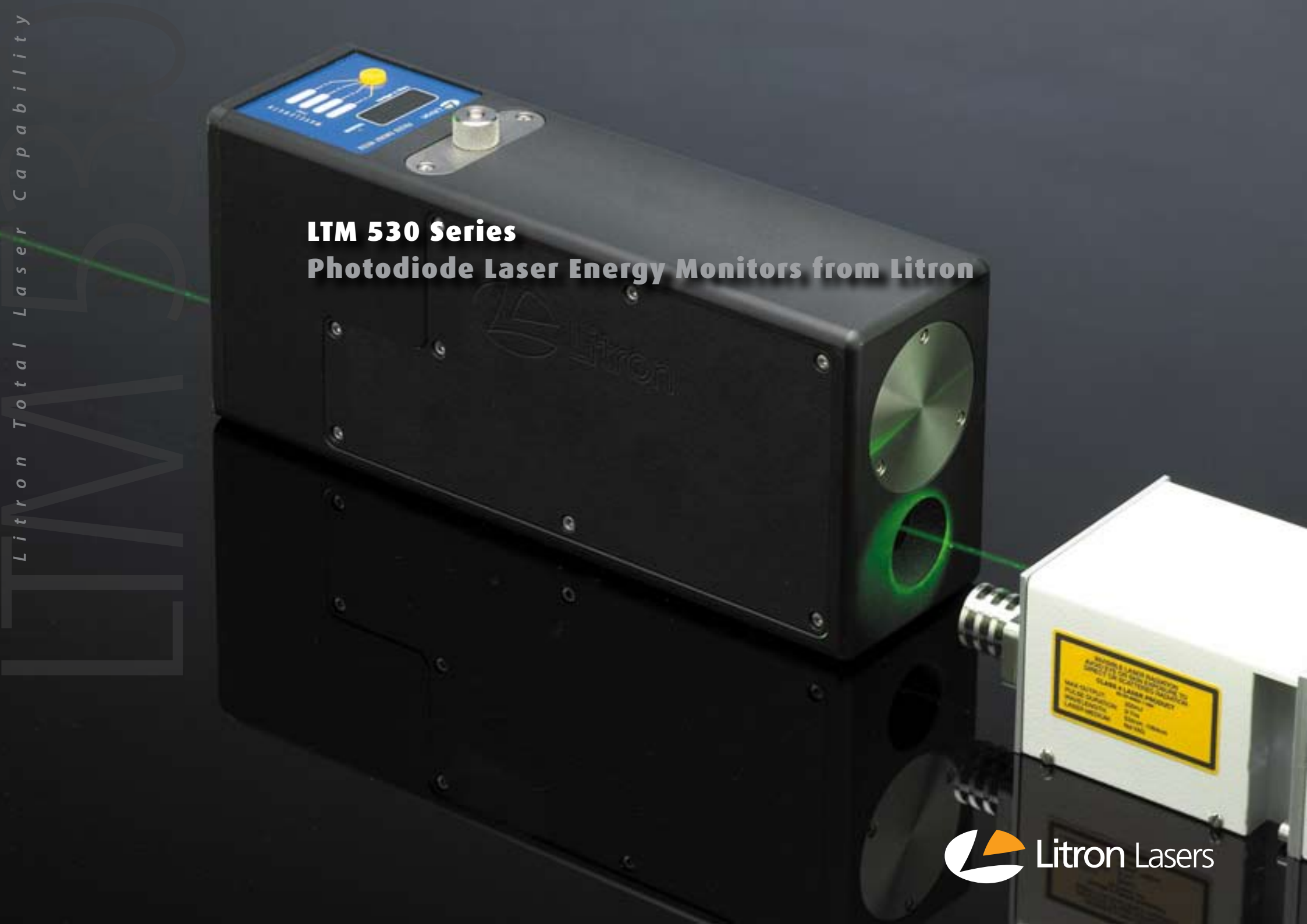
Litron Total Laser Capability
LTM 530
LTM 530 Series
Photodiode Laser Energy Monitors from Litron
Litron Lasers

LTM530

State of the Art in-line Energy Monitoring Devices for Laser Users.

The Litron Energy Monitor Family

FEATURES

- ***Pulse energies from 10µJ to 65J***
- ***400nm - 1650nm (typically depending on the choice of the detection photodiode)***
- ***Pulse repetition rates of up to 1000Hz***
- ***Repeatability errors of less than 0.2%***
- ***High damage threshold - greater than 3J/cm2 Q-switched***
- ***Exceptional linearity***
- ***Rugged design with integrated 4 digit energy display***
- ***Comprehensive software suite with datalogging capability for use with Microsoft® Windows®***
- ***RS232 interface***

The LTM530 series of transfer standard heads are state of the art in-line energy monitoring devices. Extremely low noise detection electronics leads to repeatability errors of less than 0.2%. Such accuracy makes these devices ideal as laboratory meters in the calibration of other energy monitoring devices, or by use of the serial port, in the process monitoring of pulsed laser system performance.

The mechanical construction, machined from solid aluminium, gives the devices great optical stability, eliminating such sources of error from long term energy monitoring.

In conjunction with any of Litron's other photodiode energy monitors, the LTM530 series can be used for independent checking of laser energy in critical processes.

In-line energy monitors are often used in conjunction with standard meters in calibration facilities. In instances such as these it is often necessary to add attenuation to the device, or to filter a specific spectral region. The LTM530 series are fitted with a removable filter holder for such applications.

The type of detection diode that is chosen allows for different spectral ranges to be covered accurately. The maximum measurable pulse length is user selectable up to 50ms via the included software suite. The optional oscilloscope output allows the temporal profile of the laser pulse to be observed. It can be configured either as a 50Ω output or as an integrated output with a time constant of 500µs.

We are happy to discuss your custom requirements should one of our standard range detailed overleaf not be suitable for your application.

Litron Lasers

LTM 530

LTM 530 Series Photodiode Laser Energy Monitors

SPECIFICATIONS

Model	Photodiode Type	Wavelength Range (nm)	Energy Range	Oscilloscope Output	Maximum Pulse Input frequency	Maximum Pulse Input Length
LTM 530-1	Silicon	400-1100	See Note 5	See Note 2	See Note 3	See Note 3
LTM 531-1	InGaAs	900-1650	See Note 5	See Note 2	See Note 3	See Note 3

ALL MODELS

Input Aperture Diameter	**40mm / 30mm useable**
Damage Threshold pulses)	**>500J/cm² (normal mode pulses) 3J/cm² (Q-switched**
Error in repeatability[4]	**Better than ±0.2%**
Display type	**4 digit green LED**
Dimensions (mm)	**270 L x 76 W x 116 H**
Weight (kg)	**2.9**
Outputs	**RS232, optional 50Ω or integrated oscilloscope output**
Power requirements	**6V DC, 1A (Adaptor supplied)**

NOTES

1. The maximum average power loading in free air is 10W. Custom energy ranges are available.

2. An oscilloscope output is available on all models. For an output that is integrated with a time constant of about 500µs append ÐA to the model number and for a 50Ω output capable of resolving 500ps pulses append ÐB to the model code.

3. The maximum pulse width is user settable up to 50ms. The device works by integrating the incident energy over the set period. The maximum input frequency is therefore a function of the maximum pulse width. For a 50ms maximum pulse width, the maximum repetition rate is 18Hz and for a 500µs pulse width the maximum repetition rate is 1kHz.

4. For integration time <2ms and energies >10% of full scale reading.

5. Full dynamic range is achieveable by means of adjustable attenuator.

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