



# FieldMaxII-TOP

Laser Power/ Energy Meter

The FieldMax™II-TOP, a next-generation laser measurement system that replaces the original FieldMax, features a new PC host interface, LabView drivers, ActiveX DLL server component, analog output and expanded pyroelectric sensor capability. This combination of features makes FieldMaxII the most powerful and versatile laser meter in its price range.

The value of FieldMaxII-TOP is strengthened by the broad range of thermopile, optical and pyroelectric sensors available. Together, these sensors enable FieldMaxII to measure UV, visible and IR laser output from the nanowatt to the kilowatt range, and to work with CW and pulsed lasers with repetition rates of up to 300 Hz.

FieldMaxII-TOP features a large, easy-to-read backlit LCD and an intuitive user interface with front panel buttons to access all features for simple operation.

To facilitate laser tuning, FieldMaxII-TOP provides a unique tuning feature that is fast and effective. Statistics are supported, including max., min., mean, and standard deviation. Long pulse energy measurements are supported when using thermal sensors.

FieldMaxII-TOP features SmartProbe™ compatibility, which lets users store sensor responsivity, the serial number, and other important information in an EEPROM that automatically loads into the power and energy meter.

This general-purpose meter is designed to accommodate a broad range of users, including developers, production testers, service technicians and general scientific users, as well as laser-based instrumentation builders. For production test applications, a LabView Instrument driver and ActiveX DLL server component facilitate the development of custom testing routines and simplify integration with other test equipment. Field service applications will benefit from the meter's small size, rechargeable battery pack (optional), and responsive tuning indicator for peaking laser output. For general laboratory use, the FieldMaxII offers versatility, accuracy, and easy access to statistics and features, such as wavelength compensation and attenuation correction.



#### **FEATURES**

- Large, bright, backlit LCD display
- Digital accuracy with analog-like movement for laser tuning
- Works with thermopile, optical, and pyroelectric sensors
- Measures energy up to 300 pps
- Intuitive button-driven user interface
- USB 1.1 interface with complete host control capability
- Analog output with selectable full-scale voltage (1, 2, and 5V)
- LabView drivers, applications software, ActiveX DLL server components
- Portable AC/DC operation
- Rechargeable battery pack (optional)
- Compact, rugged enclosure with stand

#### **COMPATIBILITY**

- PowerMax® thermal sensors
- Optical sensors
- Pyroelectric sensors



## FieldMaxII-TOP

ARROW KEYS  Manually control range Select STAT value (min., max., mean, standard deviation) Select and change numerical values  Left Side Panel  Power jack connector, RCA analog output jack (RCA-to-BNC converter  Right Side Panel  USB connector DB-25 smart probe connector			FieldMaxII-TOP
Power - Thermopile Power - Optical Energy - Pyroelectric Displayable full-Scale Power Ranges Thermopile Optical Pyroelectric Power Sampling Rate Accuracy Display Bland Pull-Scale Display Bland Displ	Specifications	Power - Thermopile Power - Optical	30.0 kW 300.0 mW
Thermopile Optical Pyroelectric Pyroelectric Neasurement Resolution Max. Rep. Rate (pulsed energy measurement) Power Sampling Rate Accuracy Digital Meter System Display Digital Tuning Needle Statistical Analysis Computer Interface Internal Trigger Instrument Power Operating Storage Regulations Met Statistical Meter Storage Regulations Met Statistical Meter Storage Regulations Met Statistical Meter Statistic Meter Statistics Meter S		Power - Thermopile Power - Optical Energy - Pyroelectric	10 µW 1 nW 1 nJ
Max. Rep. Rate (pulsed energy measurement)   300 Hz (every pulse)		Thermopile Optical Pyroelectric	3.000 mW to 30.00 kW (auto or manual ranging, selectable) 3.000 µW to 300.0 mW (auto or manual ranging, selectable) 3.000 nJ to 300.0J (manual ranging)
Power Sampling Rate Accuracy Digital Meter System  Meter accuracy + sensor accuracy Display Display Display Display Digital Tuning Needle Statistical Analysis Min., max., mean, and standard deviation Computer Interface Analog Output Internal Trigger Instrument Power  Temperature Operating Storage Regulations Met Size (H x W x D) Size (H x W x D) Weight (including batteries)  Connections  Front Panel Connections  Front Panel  Connections  Front Panel AUTO STAT AUTO STAT AUTO STAT AUTO AUTO AUTO AUTO AUTO AUTO AUTO A			0.1% of full-scale
Accuracy Digital Meter System Display System Display System Digital Tuning Needle Statistical Analysis Computer Interface Analog Output Intermal Trigger Instrument Power Instrument Power Operating Storage Storage Storage Storage Storage Size (H x W x D) Weight (including batteries)  Controls & Connections  Front Panel Connections  Front Panel Connections  Analog WAVE ATTN ANG WAVE ATTN AREA TIRIG SETUPJOCAL ARROW KEYS ARROW KEYS Left Side Panel  Accuracy Down stime connector Meter accuracy + sensor accuracy Minter accuracy + sensor accuracy Minter accuracy + sensor accuracy Minter accuracy + sensor saccuracy Minter accuracy + sensor accuracy Minter accuracy Mi		Max. Rep. Rate (pulsed energy measurement)	300 Hz (every pulse)
Digital Meter System Meter accuracy + sensor accuracy  Display Display Display Display Digital Tuning Needle Statistical Analysis Computer Interface Min, max, mean, and standard deviation Computer Interface USB 1.1 Analog Output Internal Trigger 1 to 20 20% of full-scale, selectable Instrument Power Instrument Power Derating Storage Regulations Met Size (H x W x D) Weight (including batteries)  Controls & Connections  Front Panel PWK/BL Put			10 Hz
Digital Tuning Needle Statistical Analysis Min., max., mean, and standard deviation Computer Interface USB 1.1 Analog Output Internal Trigger Instrument Power  Departing Storage Regulations Met Size (H x W x D) Weight (including batteries)  Connections  Front Panel  Connections  Front Panel  Controls & Connections  AUTO STAT AVG WAVE ATTN AREA TRIG SETUPILOCAL ARROW KEYS  Left Side Panel  Digital Tuning Needle  100 ms time constant Min., max., mean, and standard deviation SUB 1.1 Vis Pan Vis Pix Vis		Digital Meter	Meter accuracy + sensor accuracy
Statistical Analysis			
Computer Interface Analog Output 1V, 2V, SV, 100 Ohm source impedance Internal Trigger 2 to 20% of full-scale, selectable Instrument Power  Pover Storage Storage Size (H x W x D) Weight (including batteries)  Connections  Front Panel Connections  PWR/BL Hz JYW ZERO AUTO STAT AVG WAVE ATTN AVG WAVE ATTN AREA TRIG SETUPYLOCAL ARROW KEYS  Left Side Panel  Left Side Panel  Left Side Panel  Instrument Power  1V, 2V, 75, 00 nOhm source impedance 10, 2V, 75, 00 NOh starter (incl.) 10, 2V, 75, 00 NOh starter (incl.) 10, 2V, 75, 00 NOh nOhm source impedance (incl.) 10, 2V, 75, 00 NOh nOhm source inters (incl.) 20, 2V, 75, 00 NOh n			
Analog Output Internal Trigger Instrument Power  Instrument Power Adapter (incl.)  Instrument Power		,	
Internal Trigger  Instrument Power  Instrument Power Instrument Instrume			
Instrument Power    Six 1,5V alkaline batteries (incl.)			
Six 1,5V alkaline batteries (incl.)   72V,750 mAh rechargeable battery pack (optional)   Temperature			
Operating Storage   -2°C to 7°C (-4°F to 104°F)    -2°C to 7°C (-4°F to 158°F)    -2°C to 7°C to 158°F)    -2°C		Instrument Power	Six 1.5V alkaline batteries (incl.)
Size (H x W x D)  Weight (including batteries)  Controls &  Front Panel  Connections  PWR/BL Hz J/W ZERO AUTO STAT AVG WAVE ATTN AREA TRIG AREA TRIG SETUP/LOCAL ARROW KEYS  Left Side Panel  Left Side Panel  Size (H x W x D)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 100 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 100 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 100 mm (7.87 x 3.94 x 1.57 in.)  200 x 100 x 10		'Operating	
Weight (including batteries)  Controls & Front Panel  PWR/BL Hz J/W Select joules or watts mode ZERO AUTO STAT AVG WAVE ATTN ATTN AREA TRIG SETUP/LOCAL ARROW KEYS  Left Side Panel  Left Side Panel  Right Side Panel  Front Panel  Toggle power switch and backlight Display rep. rate Select joules or watts mode Reset ambient offset for thermal and optical sensors Engage auto-ranging for power sensors Display statistics: max., min., mean, standard deviation Engage averaging Enter wavelength and engage wavelength compensation Enter attenuation factor and engage attenuation Enter area and engage area correction to display W/cm² or J/cm² Select trigger level from 2 to 20% of full scale (for energy sensors) Select STAT value (min., max., mean, standard deviation) Select and change numerical values  Left Side Panel Right Side Panel  USB connector DB-25 smart probe connector		Regulations Met	CE
Controls & Connections  Front Panel  PWR/BL Hz J/W ZERO AUTO STAT AVG ATTN AREA TIRIG AREA TIRIG SETUP/LOCAL ARROW KEYS  Left Side Panel  Left Side Panel  Front Panel  Front Panel  Toggle power switch and backlight Display rep. rate Select joules or watts mode Reset ambient offset for thermal and optical sensors Engage auto-ranging for power sensors Display statistics: max., min., mean, standard deviation Engage averaging Enter wavelength and engage wavelength compensation Enter attenuation factor and engage attenuation Enter area and engage area correction to display W/cm² or J/cm² Select trigger level from 2 to 20% of full scale (for energy sensors) Enters setup mode and accepts selections; cancels PC host contro Manually control range Select STAT value (min., max., mean, standard deviation) Select and change numerical values  Left Side Panel Right Side Panel USB connector DB-25 smart probe connector		Size (H x W x D)	200 x 100 x 40 mm (7.87 x 3.94 x 1.57 in.)
Connections  PWR/BL Hz J/W Select joules or watts mode ZERO AUTO Engage auto-ranging for power sensors STAT AVG Engage averaging WAVE ATTN AREA TRIG SEICUP/LOCAL ARROW KEYS  Left Side Panel Right Side Panel  PWR/BL Hz Display rep. rate Select joules or watts mode Reset ambient offset for thermal and optical sensors Engage auto-ranging for power sensors Display statistics: max., min., mean, standard deviation Engage averaging Enter wavelength and engage wavelength compensation Enter attenuation factor and engage attenuation Enter area and engage area correction to display W/cm² or J/cm² Select trigger level from 2 to 20% of full scale (for energy sensors) Enters setup mode and accepts selections; cancels PC host contro Manually control range Select STAT value (min., max., mean, standard deviation) Select and change numerical values  Left Side Panel USB connector DB-25 smart probe connector		Weight (including batteries)	o.5 kg (1.1 lb.)
Right Side Panel  USB connector  DB-25 smart probe connector		PWR/BL Hz J/W ZERO AUTO STAT AVG WAVE ATTN AREA TRIG SETUP/LOCAL ARROW KEYS	Display rep. rate Select joules or watts mode Reset ambient offset for thermal and optical sensors Engage auto-ranging for power sensors Display statistics: max., min., mean, standard deviation Engage averaging Enter wavelength and engage wavelength compensation Enter attenuation factor and engage attenuation Enter area and engage area correction to display W/cm² or J/cm² Select trigger level from 2 to 20% of full scale (for energy sensors) Enters setup mode and accepts selections; cancels PC host control Manually control range Select STAT value (min., max., mean, standard deviation) Select and change numerical values
DB-25 smart probe connector			
		Kignt Side Panel	
rait Number   10/2/00		Part Number*	1072788



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent offers a limited warranty for all FieldMaxII-TOP systems. For full details of this warranty coverage, please refer to the Service and Support section at www.Coherent.com or contact your local Sales and Service Representative.

