Laserstar

Versatile Laser Power/Energy Meter

- Two models available: dual and single channel
- Single channel model can be upgraded to dual channel
- Compatible with all Ophir thermopile, pyroelectric, photodiode and RP heads
- Large LCD display
- Backlighting and rechargeable battery
- Screen graphics and statistics (std dev. min, max)
- Analog output
- Built-in RS232 interface
- Log every data point at >1500Hz with pyroelectric heads
- Non-volatile data storage up to 50,000 points
- Laser tuning screen and power log
- Audio sound for laser tuning and low battery
- Statistics package
- GPIB option (IEEE488.1)
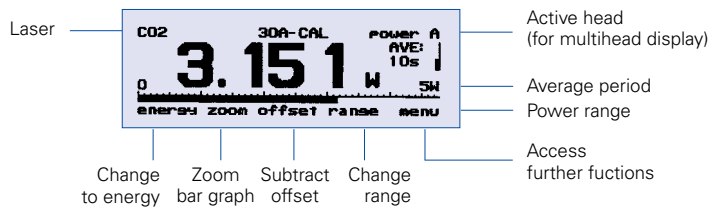- NIST traceable
- CE marked
- Soft keys, menu-driven

The dual channel model enables user to simply plug in any of Ophir's thermal, pyroelectric, photodiode or RP heads and measure two channels independently, or the ratio or difference between them in real time.

Up to 10 data files (54,000 points total) can be stored for onboard review or downloading to computer even if Laserstar has been switched off. The built-in RS232 interface and StarCom PC software allow on-line processing of data or processing previously stored data; results are displayed graphically on a PC.
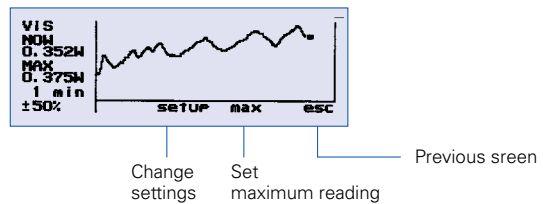
Digital Power Screen

- CW industrial, medical and scientific lasers
- pW to 20KW with appropriate heads
- Can average over selected period Useful for unstable lasers
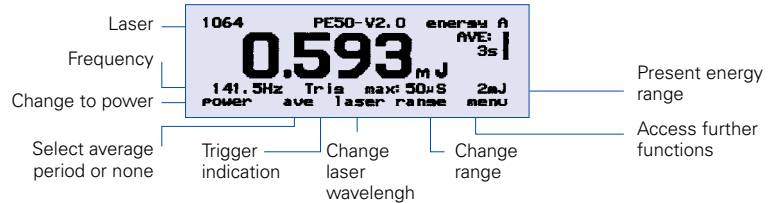- Fast response bar graph

Laser — CO2 | 30A-CAL | Power A — Active head (for multihead display)

AVE: 10s — Average period

3.15 1 W | 5W — Power range

0 energy zoom offset range menu — Access further fuctions

Change to energy | Zoom bar graph | Subtract offset | Change range

Laser Tuning Screen or Power Log Screen (not shown)

- Maximizing laser power
- User selected time periodand zoom
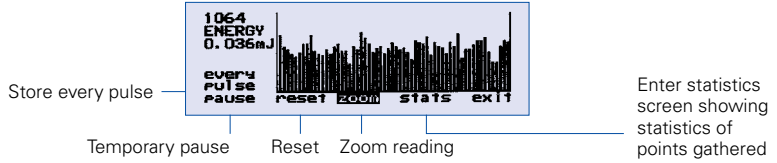- Option of audio tune tone

VIS
NOW
0.352W
MAX
0.375W
1 min
±50%   setup max   esc

Change settings | Set maximum reading — Previous sreen

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Energy Measurement Screen

- Pyroelectric and thermal heads – single pulse
- Pyroelectric frequency measurement

Laser
Frequency
Change to power

1064   PE50-V2.0   energy A
0.593 mJ   AVE: 3s
141.5Hz Trig max:50µS   2mJ
power ave laser range   menu

Select average period or none
Trigger indication
Change laser wavelengh
Change range

Present energy range
Access further functions
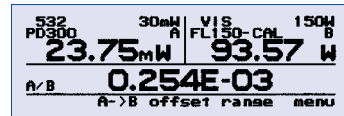
Energy Log Screen

- Pyroelectric heads
- Thermal heads – successive single pulses
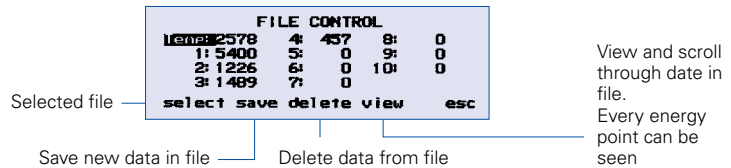- Continuous scroll
- Energy statistics

Store every pulse

1064
ENERGY
0.036mJ
every
pulse
pause   reset Zoom stats exit

Temporary pause   Reset   Zoom reading

Enter statistics screen showing statistics of points gathered

Ratio Screen

- Two independent heads
- Measure ratio, sum, difference
- Normalize one head to the other

532   30mW │ VIS   150W
PD300   A│FL150-CAL   B
23.75mW │ 93.57 W
A/B   0.254E-03
A->B offset range   menu

Normalize head B to reading of A
Subtract background

Data Storage and Transmission

- Non-volatile storage of power and energy logging data
- Store in up to 10 files and transmit to PC
- PC using StarCom Windows program provided

Selected file

FILE CONTROL
file:2578   4: 457   8:   0
1: 5400   5:   0   9:   0
2: 1226   6:   0 10:   0
3: 1489   7:   0
select save delete view   esc

Save new data in file   Delete data from file

View and scroll through date in file. Every energy point can be seen

Specifications

Display:	High legibility 64 x 240 pixel graphics supertwist LCD with switchable, electroluminescent backlight which operates from charger or battery. Large 17mm digits. Screen refresh 15Hz.
Features:	Many screen features including: power with bargraph, energy, average, exposure, frequency, graphs and more. Analog output 1 volt F.S.
Case:	Molded high-impact plastic with swivel display and EMI conductive shielding, to allow use even in proximity to pulsed lasers.
Size:	Folds to a compact 228mm W x 195mm L x 54mm H.
Battery:	Rechargeable 18 hours between charges. Charger (included) also functions as AC adapter.
Multihead Option:	Two heads can be connected and measure independently, or the ration, sum or difference of the two can be displayed.
Data Handling:	Built-in RS232 communications at up to 19200 baud. Non-volatile on-board data storage in 10 files of up to 54000 points total. Data can be viewed on-board or transmitted to PC.
Head Features:	Works with thermal, pyroelectric and photodiode heads. Automatic, continuous, background cancellation with PD300 heads. Submicrojoule and multikilohertz capability with pyroelectric heads.
Program Features:	User can update calibration information. Preferred startup configuration can be set by user. User can recalibrate power, energy, response time and zero offset.

Ordering Information

Item	Description	Ophir P/N
Laserstar	Laserstar single channel universal smart head display for thermal, pyroelectric, photodiode and RP heads	7Z01600
Laserstar 2 Channel	Laserstar with dual channel capability including ration and difference measurement	7Z01601
Laserstar Hard Case	Hard case 46x35x13cm. For display and up to three heads	1Z09101
Laserstar AN adapter	Laserstar analog output adapter. Plugs into D25 output and provides analog output from BNC plug (1 unit supplied with Laserstar)	7Z11004
Laserstar Battery Pack	Laserstar NiMH Battery update Kit	7E14006
Laserstar IEEE Option	IEEE GPIB adapter for Laserstar	78300

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