

CEESCOPE LITE™

The 'All in One' complete portable survey solution with an even smaller footprint

CEESCOPE LITE™ Advanced Features



This 'All in One' compact unit features integrated RTK GNSS positioning, a dual channel echo sounder, with full water column recording,

internal data logging and a rechargeable NiMH battery.

It has been designed to work in remote controlled and dedicated survey vessels while occupying minimal space.



The echo sounder operates in automatic or manual mode and is capable of recording a high resolution (3200 spp) full water column acoustic envelope. This results in

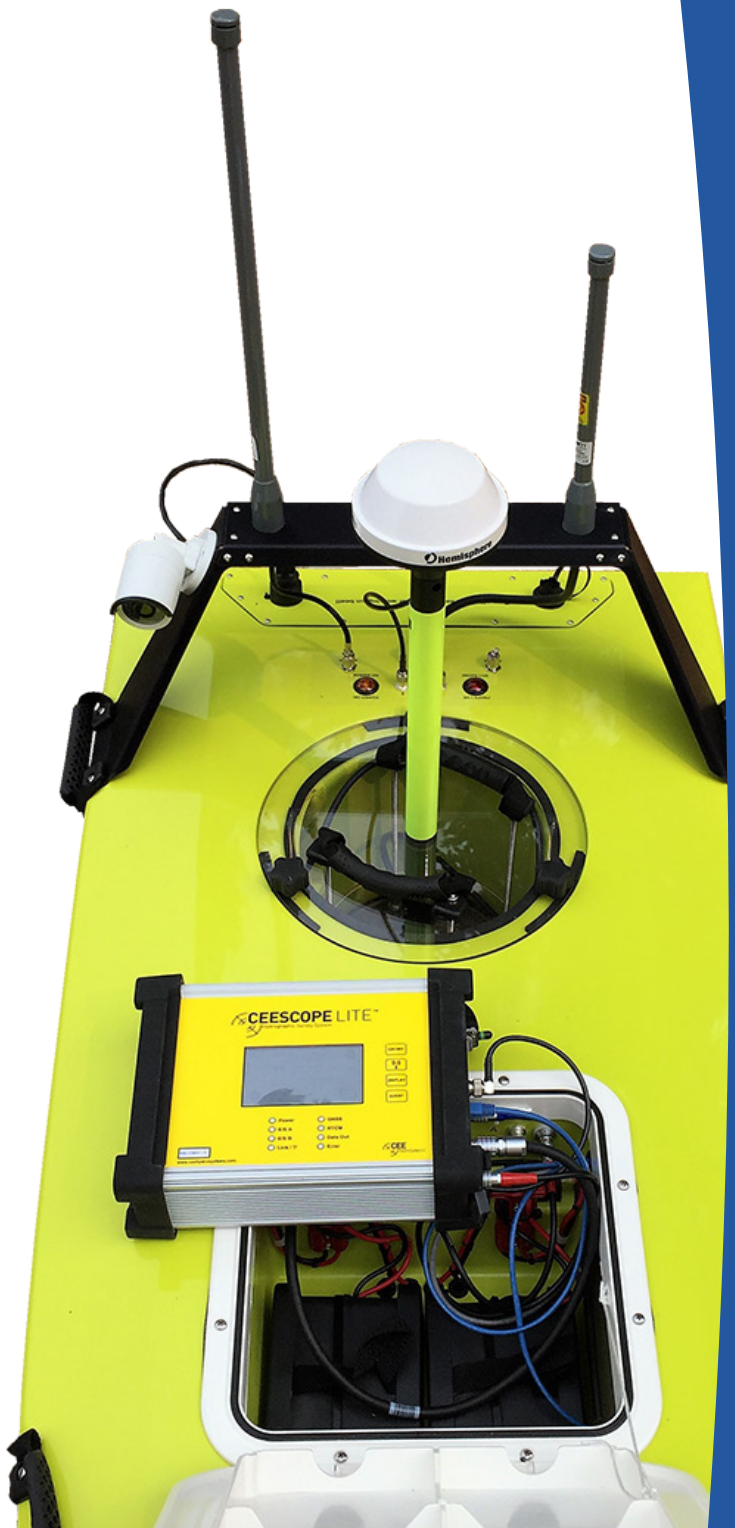
extremely detailed acoustic data for accurate post processing analysis.

Integrated with the latest GNSS receivers the unit utilises all known GNSS signals, making it a future proof investment.



A removable waterproof USB memory stick connects to the unit making it simple to log real time data and then transfer logged survey data to a PC.

All data is internally PPS time stamped.



CEESCOPE LITE™

General Specifications

Physical

| | |
|------------|---|
| Dimensions | 31.0 x 21.5 x 9.2 cm (L x W x D) 12.2" x 8.46" x 3.62" |
| Display | 420 x 272 touch screen colour LCD |
| Weight | 3.45 kg (8.05 lbs)* |
| Connectors | LEMO 1K & 2K series, RJ45, TNC |

Environmental

| | |
|---------------------------|---------------------------|
| Operating temperature | 0°C – 50°C (32°F – 122°F) |
| Humidity | 95% non condensing |
| Ingress protection rating | IP67 |

Power

| | |
|------------------------|--|
| Power consumption | 7.2 W - Eclipse L1 Basic Max 23 W + LAN2 PoE requirements |
| Internal battery | Rechargeable NiMH battery 3Ah |
| Antenna voltage output | 5.0 VDC (nominal) |
| External power supply | Nominal 12.0 VDC @ 2A (9-30 VDC range) |

Connectivity

| | |
|-----------------------|-------------------------------------|
| Dual Network Port | 2 x PoE Capable (Passive + 802.3af) |
| Bluetooth | 50m range* |
| Wi-Fi | 0 – 1000 m range* |
| Internal UHF Rx modem | 403 – 473 MHz (RTK only) |

GNSS Receiver Options

| | Horizontal Accuracy (metres) | Constellations | Channels | Correction Inputs |
|------------------------------|---|---------------------|----------|--|
| Hemisphere Eclipse L1 | ± 0.5 Atlas Basic (RMS DGNSS) ± 0.04 Atlas H10 (RMS DGNSS) | Multi-Constellation | 372 | RTCM v2.x (DGPS) |
| Hemisphere Eclipse L1/L2 RTK | ± 0.008 (RMS RTK) | Multi-Constellation | 372 | RTCM v2.x (DGPS) RTCM v3.x/CMR/ CMR+(RTK) |
| NovAtel 729 L1/L2 | ± 0.6 SBAS (RMS DGPS) ± 0.05 TERRASTAR (RMS DGNSS) | GPS / GLONASS | 555 | RTCM v2.x (DGPS) |
| NovAtel 729 L1/L2 RTK | ± 0.01 (RMS RTK) | GPS / GLONASS | 555 | RTCM v2.x (DGPS) RTCM v3.x/CMR/ CMR+(RTK) |
| Trimble BD990 RTK | ± 0.007 (RMS RTK) | Multi-Constellation | 336 | RTCM v2.x (DGPS) RTCM v3.x/CMR/ CMR+(RTK) sCRMx (Trimble RTK) |

Transducer Options

| | |
|---------------------|--------------------------|
| Standard 200 kHz | 9° beam width @ -3dB |
| Narrow Beam 200 kHz | 3° beam width @ -3dB |
| Dual 200/33 kHz | 8°/19° beam width @ -3dB |
| Dual 200/24 kHz | 4°/24° beam width @ -3dB |

Echo Sounder

| | |
|----------------------|---|
| Mode | Auto Shallow, Auto or Manual |
| Depth range** | 0.15 – 200 m (0.6 – 650 ft) @ 200 kHz 0.75 – 200 m (2.5 - 650 ft) @ 24/33kHz |
| Ping rate | 1 – 20 Hertz, depth dependent |
| Pulse length | HF (1 – 35), LF (1 – 30) |
| TVG | None, LOG 10, LOG 20 |
| Manual gain | 30 – 100% |
| Sound Velocity Range | 1350 – 1750m (4,429 – 5,741 ft) |
| Draft | 0 – 10 m (1 cm increments) |
| Accuracy | 1 cm ± 0.1% of depth |
| Resolution | 1 cm |

External Data Interfaces (RS-232)

| | |
|------------|-----------------------|
| GNSS input | NMEA 0183 |
| IMU input | TSS 1 (Heave Aiding) |
| Compass | NMEA 0183, HDT or HDG |
| RTCM | UHF or Network |

* line of sight
* series dependent

- specifications are subject to change
- visit www.ceehydro.com for the complete list of specifications
- v19329

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