

Precision Dynamic Measurement with PDM³



General Specifications

Weight (including battery)	1010 g
Dimensions (length, width, height)	197 x 99 x 156 mm
Storage temperature	-20 to +50 °C
Operating temperature	-10 to +45 °C
IP Classification	IP65
Optics	4 No. 850nm IR illuminators Waterproof 25mm camera LENS with 850nm narrow band IR filter
Pointers	2 No. 532nm removable green lasers (Class 3R , <5mW) (check local OHS construction industry requirements)
Measuring FOV (Field-of-view)	Line detection mode 8.4 ° (147cm / 10m offset) Area detection mode 8.4 x 4.7 ° (147cm x 83cm /10m offset)
Sampling rate	45 to 8043 Hz
IMU	Invensense MPU-6000 3-axis Gyroscope, 3-axis Accelerometer, battery monitor, ambient temperature sensor and core temperature sensor
Supply power	Either 4 No. Samsung INR 18650-30Q 3000mAh 15A protected button-top rechargeable batteries or 4 No. Panasonic NCR18650B, 3350mAh, 4.87A protected button-top rechargeable batteries (no alternatives permitted)
Charging	USB-A to USB-C charging (cables supplied)
Data Interfaces	Wireless : 2.4Ghz Wi-Fi Wired mode : Ethernet over USB (4m USB cable included)
Current consumption	Idle mode : 3.5W (LED's are off) Measuring : 7W (USB and WiFi)

Operational Characteristics

Offset Distance Range	2m to >50m
Recommended Range	5m to 15m
Notional Position Accuracy	± 0.1mm or better / 10m offset distance
Notional Velocity Accuracy	± 0.1m/s or better / 10m offset distance
Rotational Tolerance	± 45° about perpendicular
Recommended Mounting	solid placement on sand bag on ground; or tripod
Sampling rate Accuracy	better than ± 0.2%
Multi-point tracking	up to 32 simultaneous targets

Software Security Features

Code Protection	CPU-level encryption
Console binding	Each copy of software is coded to bind to its tablet console. Illegal copy software will not work in other environments
Digital output	All data files are protected by encryption
Client logo	Hardwired into every report
Anti-amendment report	Key values of the site report (input identification and output results are encrypted into a QR code.

Hardware Security Features

Secure connection	Standard WPA2, password protected
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Rugged Tablet PC

Model	Cenava W87J 8" rugged tablet
Size and weight	237 x 156 x 20 mm and 910 g
Memory	8GB RAM
Storage	128GB SSD
CPU	Intel Jasper Lake N5100 Processor, 4 cores and 8 threads, embedded 4MB smartcache, TDP 6W. max 2.8GHz
Screen	8" Frame mount TFT screen HD resolution (1920x1280) 5 point tempered glass G+F+F, hardness 7H
Environmental	IP67; 95% humidity, non-condensing
Drop Resistance	US MIL-STD-810G 1.22 metres drop resistance
Operating temperature	-20 to +55 °C
Battery	Removable hot-swappable polymer lithium-ion battery 7.6V 5000mAh, 19V/3.42A charging in 4 hours
GPS	NEO-7 u-blox 7 GNSS equipped capable of location detection within 2.5m (SIM card required)

Warnings and Classifications

PDM ³	Class 1 LED Device (Classification IEC 60825-1:2014)
Laser Pointers	Class 3R Laser Device (Classification IEC 60825-1:2014) Class 3R (or USA Class IIIA) applies to visible light lasers (400nm to 700nm) limited to between 1mW and 5mW continuous wave

Product specifications may be subject to change without notification.

IP65 rated transit case



50m roll of reflective tape

Docking station (optional)

PDM³ unit

1m and 4m USB cables

Power cable

Tablet pen

Charger

Sandbag/weightbag (not shown)

Hot-swappable battery for tablet (optional)

Rugged tablet

Adapter for standard survey tripod (optional)

Manbily B-20 ballhead

Manbily MT-01 tripod

