

# Mesa 3 Field Computer

- Increase Operational Efficiency** — Android OS and the eight-core processor deliver fast performance. The CartoPac Cathodic Protection software for indirect surveys has been thoughtfully designed to streamline workflow, and features like maps help users quickly see what has been surveyed and what needs to be surveyed next.
- Powerful Integrated Package** — Integrated alphanumeric keyboard is ideal for rapid data entry, the high visibility screen is viewable in sunny environments, and the DVM slots into the back of the Allegro AX so you do not need to keep track of multiple components when you go out to the field
- Ultra-Rugged** — Meeting IP68 and MIL-STD-810G ratings, the Mesa 3 is designed to work in the most extreme conditions. Rain, extreme temperatures, or dust will not get in the way of your productivity.
- DVM For The Cathodic Protection Industry** — The integrated Digital Voltmeter, DVM2130, is built upon our patented technology to ensure highly accurate measurements in less than optimal environments.





#### PROCESSOR

- Qualcomm® Snapdragon™ Octa-core Kryo™ 260

#### OPERATING SYSTEM AND SOFTWARE

- Android 9.0 (GMS)

#### MEMORY

- 6 GB LPDDR4x STORAGE
- 64 GB eMMC Flash Storage, MicroSDXC card slot

#### WIRELESS CONNECTIVITY

- Long-range Bluetooth® Smart Ready wireless technology, v5.0+ EDR, Class 1.5, BLE support
- Wi-Fi 802.11 a/b/g/n/ac, 2.4 GHz and 5 GHz
- 2x2 MIMO
- 4G LTE multi-carrier capable GRAPHICS Qualcomm® Adreno™ 512 GPU

#### DISPLAY

- Active viewing area: 7" (178 mm)
- Resolution: WXGA (1280 x 800)
- High-visibility backlit LCD for best-in-class sunlight view-ability
- Portrait or landscape orientation with automatic screen rotation

#### TOUCHSCREEN

- Projected capacitive multi-touch interface for use with gloves, small tipstylus, and in wet conditions
- Optically bonded for increased visibility and strength
- Chemically-strengthened Dragontrail™ High Ion-Exchange (HIE™) cover glass for excellent impact and scratch resistance

#### ENVIRONMENTAL

- IP68 waterproof & dustproof – Water: 1.4 m (4' 7") for 2 hours
- Operating temperature: -4° F to 122° F (-20° C to 50° C)
- Storage temperature: -22° F to 158° F (-30° C to 70° C)
- Shockproof: multiple drops from 4' (1.2 –1.5 m) onto concrete
- Designed to meet MIL-STD-810G test procedures: Method 500.5 Low Pressure (Altitude); Method 501.5 High Temperature; Method 502.5 Low Temperature; Method 503.5 Temperature Shock; Method 506.5 Rain; Method 507.5 Humidity; Method 510.5 Sand and Dust; Method 512.5 Immersion; Method 514.6 Vibration; Method 516.6 Shock

#### PORTS

- 12V DC power input jack
- USB-C, USB 3.1 OTG no battery charging x 1
- Optional RS-232 9-Pin D-Sub connector with 5V DC or 12V DC power output
- Dock connector (Pwr, USB 2.0, & HDMI)

#### BATTERY

- Removable Li-Ion battery, 43.2 Whr
- Operates 10–12 hours on one charge
- Removable battery, easily changeable in field
- Optimized for strong performance in cold temperatures
- Excellent lifecycle performance
- Optional internal 21.6 Whr battery provides hot-swap capability and an additional 5–6 hours runtime

#### PHYSICAL

- Size: 5.40" w x 8.48" l x 1.36" d (137 x 215 x 35 mm)
- Weight: 1.5–2 lbs (680–907 g) depending on battery and expansion configuration
- Durable, chemical- and shock-resistant design
- Easy-to-grip, impact-absorbing, overmolded bumpers
- Lightweight and ergonomic design

#### CAMERA

- Rear 16 MP with LED illumination
- Front 2 MP

#### GPS/GNSS

- Qualcomm SDR660 GNSS receiver and integrated antenna
- Integrated real-time SBAS receiver (WAAS, EGNOS, etc.)
- Supports GPS, GLONASS, & Galileo worldwide; BeiDou & QZSS outside the U.S.

#### CERTIFICATIONS AND STANDARDS

- FCC Class B, CE Marking, Industry Canada
- EN62368 Safety, RoHS 2 Compliant

#### STANDARD ACCESSORIES

- Standard removable battery
- AC wall charger with international plug kit
- Capacitive small-tip stylus w/tether
- Quick start guide
- Hand strap

#### DVM SPECIFICATIONS

- Working voltage (DC): 250 V max. on primary input | 500 mV max. on shut input \*
- Working voltage (AC): 175 V max. on primary input | 350 mV max. on shut input \*
- Input Impedance: 100 MO on primary input | 100 kΩ on shut input \*
- Measurement category: CAT II 250V
- GPS: Internal GNSS (GPS, GLONASS, Galileo, BeiDou)
- Connectivity: USB-C, Bluetooth v5
- Battery: Rechargeable Li-Ion via USB-C, 10-hour battery life

### Accuracy by Range:

|    | Range  | Accuracy**         | Temp Coefficient |
|----|--------|--------------------|------------------|
| DC | 500 mV | ± 0.1% + 0.025 mV* | 0.007% / °C      |
|    | 5 V    | ± 0.1% + 0.001 V*  | 0.007% / °C      |
|    | 250 V  | ± 0.1% + 0.05 V*   | 0.007% / °C      |
| AC | 350 mV | ± 1% + 0.105 mV    | N/A              |
|    | 3.5 V  | ± 1% + 0.00105 V   | N/A              |
|    | 175 V  | ± 1% + 0.0525 V    | N/A              |

### Accuracy Examples:

|    | Signal | Accuracy: |
|----|--------|-----------|
| DC | 100 mV | ± 0.13 mV |
|    | 850 mV | ± 1.9 mV  |
|    | 50 V   | ± 0.1 V   |
| AC | 100 mV | ± 1.1 mV  |
|    | 850 mV | ± 9.5 mV  |
|    | 50 V   | ± 0.55 V  |

\*This input has a range and impedance specially designed for measuring shunts more accurately.

\*\*Accuracy shown is for operation in temperatures from 15°C to 35°C. Annual calibration is required to maintain DVM accuracy.

†DC voltage error increases by 0.1% in the presence of 35 to 100 volts of AC interference.

††AC voltage accuracy applies to input frequencies of 50 or 60 Hz.