



DATA COLLECTOR COMPARISON CHART



	Ranger 7	Ranger 5	Ranger 3	MM60
Operating System	Windows 10	Android™	Windows Embedded Handheld 6.5	Android™ 10
Screen Size	17.8 cm / 7.0"	12.7 cm / 5.0"	10.7 cm / 4.2"	15.2 cm / 6"
Screen Type	Color multi-touch	Color multi-touch	Color touch	Color multi-touch
Internal GPS with SBAS	Yes	Yes	Yes	Yes
Processor	Intel Apollo Lake-N4200, 64-bit quad-core (1.1 GHz)	Qualcomm® SDA660 (2.2 GHz)	Texas Instruments Sitara 800 MHz	Qualcomm Snapdragon 626 (2.2 GHz)
Memory (RAM)	8 GB	4 GB	256 MB	4 GB
Data Storage	64 GB	64 GB	8 GB	64 GB
Internet Connection	Bluetooth, Wi-Fi, 3G, 4G LTE data	Bluetooth, Wi-Fi, 3G, 4G LTE data	Bluetooth, Wi-Fi, 3G GSM data	Bluetooth, Wi-Fi, 3G, 4G LTE data and voice
Camera	Front and Rear	Rear	Rear	Front and Rear
Compatible Software	Origin	Origin	Survey Pro	Origin
GNSS Accuracy (Horizontal)	2-4 m (RMS)	5.2 m average in open, light canopy	2-4 m with SBAS correction	1.5 m
GNSS Satellite Constellations	L1 GPS, GLONASS, BeiDou, SBAS	GPS L1 C/A, QZSS w/SBAS, BeiDou, Galileo, GLONASS	—	GPS, GLONASS, Galileo, QZSS, BeiDou, SBAS
Environmental	IP68 / MIL-STD-810G	IP65 / MIL-STD-810H	IP67 / MIL-STD-810G	IP67 / MIL-STD-810G
Expandability	2x EMPower module bay supports EM100 GNSS receiver, EM120 2.4 GHz radio and EM11x barcode/RFID modules	1x EMPower module bay supports EM100 GNSS receiver, EM120 2.4 GHz radio and EM11x barcode/RFID modules	Some models have an integrated 2.4 GHz radio or Barcode Imager.	—
Battery	2x Field Replaceable/Rechargeable 3100 mAh, 22.53 Wh (4-7 Hours)	Internal Rechargeable Li-Ion 4530 mAh / 7.2V nominal capacity 16 (RTS) - 18 (GNSS RTK) hours Optional field replaceable battery provides additional 16-18 hours	Field Replaceable/Rechargeable 2600 mAh, 28.9 Wh Li-Ion (34 Hours)	Field Replaceable 8000 mAh (15 hours)
Alpha-Numeric data entry	QWERTY or ABCD, with backlight, numeric key block, Fn keys (6 physical + 6 2nd function Fn keys)	QWERTY International English layout with backlight, Numeric, 4 way directional keys, Android keys, 12 programmable Fn keys	QWERTY or ABCD, numeric key block, 4-way directional key with enter and 2 programmable keys	Volume Up/Down, power, home, return, menu, 3 programmable
Size & Weight	209 x 302 x 70 mm 1.42 kg	287.1 x 175.6 x 43.9 mm 0.934 kg	141 x 278 x 64 mm 1.1 kg	196 x 93.4 x 17.2 mm 0.385 kg