



# DATA COLLECTOR COMPARISON CHART

**SPECTRA**  
GEOSPATIAL



|                                      | Ranger 7                                                                                               | Ranger 5                                                                                                                                                              | Ranger 3                                                                                    | MM60                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| <b>Operating System</b>              | Windows 10                                                                                             | Android 10                                                                                                                                                            | Windows Embedded Handheld 6.5                                                               | Android 8.0                                               |
| <b>Screen Size</b>                   | 17.8 cm / 7.0"                                                                                         | 12.7 cm / 5.0"                                                                                                                                                        | 10.7 cm / 4.2"                                                                              | 15.2 cm / 6"                                              |
| <b>Screen Type</b>                   | Color multi-touch                                                                                      | Color multi-touch                                                                                                                                                     | Color touch                                                                                 | Color multi-touch                                         |
| <b>Internal GPS with SBAS</b>        | Yes                                                                                                    | Yes                                                                                                                                                                   | Yes                                                                                         | Yes                                                       |
| <b>Processor</b>                     | 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)                         |
| <b>Memory (RAM)</b>                  | 8 GB                                                                                                   | 4 GB                                                                                                                                                                  | 256 MB                                                                                      | 4 GB                                                      |
| <b>Data Storage</b>                  | 64 GB                                                                                                  | 64 GB                                                                                                                                                                 | 8 GB                                                                                        | 64 GB                                                     |
| <b>Internet Connection</b>           | 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               |
| <b>Camera</b>                        | Front and Rear                                                                                         | Rear                                                                                                                                                                  | Rear                                                                                        | Front and Rear                                            |
| <b>Compatible Software</b>           | Origin                                                                                                 | Origin                                                                                                                                                                | Survey Pro                                                                                  | Origin                                                    |
| <b>GNSS Accuracy (Horizontal)</b>    | 2-4 m (RMS)                                                                                            | 5.2 m average in open, light canopy                                                                                                                                   | 2-4 m with SBAS correction                                                                  | 1.5 m                                                     |
| <b>GNSS Satellite Constellations</b> | L1 GPS, GLONASS, BeiDou, SBAS                                                                          | GPS L1 C/A, QZSS w/SBAS, BeiDou, Galileo, GLONASS                                                                                                                     | —                                                                                           | GPS, GLONASS, Galileo, QZSS, BeiDou, SBAS                 |
| <b>Environmental</b>                 | IP68 / MIL-STD-810G                                                                                    | IP65 / MIL-STD-810H                                                                                                                                                   | IP67 / MIL-STD-810G                                                                         | IP67 / MIL-STD-810G                                       |
| <b>Expandability</b>                 | 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.                             | —                                                         |
| <b>Battery</b>                       | 2x Field Replaceable/Rechargeable 3100 mAh, 22.53 Wh (4-7 Hours)                                       | Internal Rechargeable Li-Ion 4530 mAh / 7.2V nominal capacity<br>16 (RTS) - 18 (GNSS RTK) hours<br>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)                     |
| <b>Alpha-Numeric data entry</b>      | 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 |
| <b>Size &amp; Weight</b>             | 209 x 302 x 70 mm<br>1.42 kg                                                                           | 287.1 x 175.6 x 43.9 mm<br>0.934 kg                                                                                                                                   | 141 x 278 x 64 mm<br>1.1 kg                                                                 | 196 x 93.4 x 17.2 mm<br>0.385 kg                          |

For more information including full specification details and sales contacts, please visit [spectrageospatial.com](https://spectrageospatial.com)

Specifications subject to change without notice.

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