



## Ranger 3 Data Collector

- Spectra Precision Survey Pro software
- Large, bright, sunlight-readable color VGA screen
- Meets MIL-STD-810G standards
- IP67 rating
- SDHC card slot and USB connections
- 30+ hours rechargeable battery
- Windows Mobile 6.5
- Integrated Bluetooth, Wi-Fi, Compass and GPS

The third generation Spectra Precision® Ranger™ Data Collector offers a large bright touch-screen, full alpha-numeric, easy to operate, keypad, and is packed with the features surveyors depend on. Built rugged, it meets rigorous MIL-STD-810G military standard for drops, vibration, humidity and extreme temperatures, and with an IP67 rating, it's designed to keep your investment and your data safe. The Ranger features Survey Pro and Windows Mobile 6.5, with the capability to run the mobile version of all your favorite programs including Excel and Outlook. Integrated Bluetooth capabilities let you connect to field equipment without cables. The Ranger 3 comes standard with 8 GB of onboard memory for storing data. Move your data fast and easily using the SDHC card slot, Bluetooth, USB cable, or USB memory stick. Choose from three different models of the Ranger with the features that best suits your needs and your budget. They're all power-packed, so there's no wrong choice.

MODELS OVERVIEW	3RC	3XC	3L
<b>PROCESSOR/SPEED</b>			
ARM® Cortex™-A8	800 MHz	800 MHz	800 MHz
<b>MEMORY</b>			
SDRAM	256 MB	256 MB	256 MB
Data storage (On-board Flash)	8 G	8 G	8 G
<b>WIRELESS</b>			
Integrated Bluetooth	Standard	Standard	Standard
Wi-Fi	Standard	Standard	Standard
3G GSM WWAN	N/A	Standard	N/A
2.4 GHz robotic radio Module	Standard	N/A	N/A
<b>FEATURES</b>			
Compass	Standard	Standard	Standard
Accelerometer	Standard	Standard	Standard
SMP Camera with LED flash	Standard	Standard	N/A
Navigation grade GPS	Standard	Standard	Standard

### STANDARD FEATURES

- Microsoft Windows Mobile 6.5
- "ABCD" style keypad with 10-key number pad, directional buttons, and 4 programmable buttons
- Touch-screen
- Battery life of 30+ hours under normal operating conditions
- Complete recharge in 3 hrs
- Battery charge status LED indicator
- Notification LED
- Integrated speaker and microphone

### PHYSICAL

- Size**  
141 mm × 278 mm × 64 mm  
(5.6 in × 10.9 in × 2.5 in)
- Weight**  
1.04 kg (2.3 lb) including battery  
1.10 kg (2.4 lb) including battery and optional internal radio

### ELECTRICAL

- Processor**  
Texas Instrument Sitara™ 3715 series  
ARM® Cortex™-A8 Processor (800 MHz)
- Expansion**  
SDHC memory slot, USB host
- Display**  
107 mm (4.2 in) landscape VGA display,  
640 × 480 pixels, sunlight-readable color TFT  
with LED backlight, resistive touch-screen
- Power**  
11.1V, 2600 mAh, Li-Ion rechargeable pack

\* Only available on select models.

### ENVIRONMENT

- Operating Temperature**  
-30 °C to 60 °C (-22 °F to 140 °F)
- Storage Temperature**  
-40 °C to 70 °C (-40 °F to 158 °F)
- Humidity**  
90% RH temp cycle,  
-20 °C/60 °C (-4 °F/140 °F)
- Sand & Dust**  
IP6x: 8 hours of operation with  
blowing talcum powder (IEC-529)
- Water**  
IPx7, sealed against accidental immersion  
(1 m for 30 min.)

### I/O

- Ports**  
9-pin serial port RS-232 (115 Kbps)  
USB client and host  
DC power port  
Radio antenna for integrated  
2.4 GHz radio modem (optional)

### STANDARD SOFTWARE

- Word Mobile  
Excel Mobile  
PowerPoint Mobile  
Outlook Mobile  
Calculator  
Microsoft Pictures & Videos  
Flashlight mode control application  
Calendar / Contacts  
Windows Media Player  
Messenger  
Adobe Acrobat Reader  
SatViewer (GPS interface software application)  
Customized Camera and Flash control including  
geo-tagging through Microsoft Pictures & Videos  
software\*
- Operating system language options  
(customer selection): Simplified Chinese, English,  
French, German, Japanese, Spanish

### STANDARD ACCESSORIES

- Rechargeable Lithium-Ion battery module  
International AC power supply  
USB cable (mini)  
Stylus with sprint tip (pkg of 2)  
Stylus tether  
Screen protectors  
I/O port dust covers / Audio port dust cover  
Standard soft case  
Hand strap

# SPECTRA PRECISION®

## RANGER™ 3 DATA COLLECTOR

## SPECSHEET

### TECHNICAL SPECIFICATIONS

#### Standard software

Windows Mobile® 6.5 Professional operating system, including:

- Microsoft Office Mobile:
    - Word Mobile
    - Excel Mobile
    - PowerPoint Mobile
    - Outlook Mobile
  - Internet Explorer Mobile
  - SMS Text Messaging Support
  - Notes / Tasks
  - Task Manager
  - Customized Camera and Flash control including geo-tagging through Microsoft Pictures & Videos software\*
- Calculator
  - Microsoft Pictures and Videos
  - Flashlight mode control application
  - Calendar / Contacts
  - Windows Media Player
  - Messenger
  - Adobe Acrobat Reader
  - SatViewer (GPS interface software application)

Operating system languages options (customer provisionable):

- Simplified Chinese, English, French, German, Japanese, Spanish

#### Spectra Precision Field Software

The Spectra Precision Ranger data collector runs Spectra Precision Survey Pro field software.

#### Standard Accessories (included)

- 28.9 Wh Li-Ion battery
- International AC power supply
- USB cable (mini)
- Stylus with spring tip (pkg of 2)
- Stylus tether
- Radio antenna for integrated 2.4 GHz radio modem\*
- Screen protectors
- I/O port dust covers
- Audio port dust cover
- Standard soft case
- Hand strap

### HARDWARE

#### Physical Specifications

- Size . . . . . 141 mm x 278 mm x 64 mm (5.6 in x 10.9 in x 2.5 in)  
80 mm (3.2 in) at handgrip
- Weight . . . . . 1.04 kg (2.3 lb) including rechargeable battery  
1.10 kg (2.4 lb) including rechargeable battery and internal 2.4 GHz radio-modem\*
- Housing . . . . . Polycarbonate (case), Hytrel® (overmold)

### ENVIRONMENTAL SPECIFICATIONS

Meets or exceeds:

- Operating Temperature . . . . . -30 °C to 60 °C (-22 °F to 140 °F)
- Storage Temperature . . . . . -40 °C to 70 °C (-40 °F to 158 °F)
- Temperature shock . . . . . MIL-STD-810G, Method 503.5, Procedure I
- Humidity . . . . . 90% RH temp cycle -20 °C/60 °C (-4 °F/140 °F)  
MIL-STD-810G, Method 507.5
- Sand & dust . . . . . IP6x: 8 hours of operation with blowing talcum powder (IEC-529)
- Water . . . . . IPx7: Immersed in 1 m of water for 30 minutes (IEC-529)
- Drop . . . . . .26 drops at room temperature from 1.22 m (4 ft) onto plywood over concrete  
MIL-STD-810G, Method 516.6, Procedure IV
- Vibration . . . . . General Minimum Integrity and Loose Cargo test  
MIL-STD 810G, Method 514.6, Procedures I, II
- Altitude . . . . . 4,572 m (15,000 ft) at 23 °C (73 °F) and 12,192m (40,000 ft.) at -30 °C (-22 °F)  
MIL-STD-810G, Method 500.5, Procedures I, II, III

### ELECTRICAL SPECIFICATIONS

- Processor . . . . . Texas Instrument Sitara™ 3715 series ARM® Cortex™-A8 Processor (800 MHz)
- Memory . . . . . 256 MB RAM
- Storage . . . . . 8 GB non-volatile NAND Flash onboard
- Expansion . . . . . SDHC memory slot, USB host
- Batteries . . . . . 11.1 V, 2600 mAh, 28.9 Wh Li-Ion rechargeable pack  
Battery life of 30+ hours under normal operating conditions¹.  
Full charge in 3.0 hours.
- Notification LEDs . . . . . 3 x tri-colored notification LEDs
- Display . . . . . 107 mm (4.2 in) landscape VGA display, 640 x 480 pixels  
sunlight-readable color TFT with LED backlight, resistive touchscreen
- Keyboard . . . . . "ABCD" style keypad with 10-key number pad,  
directional buttons, and 4 programmable buttons
- Audio . . . . . Integrated speaker and microphone with 3.5 mm stereo  
headset/microphone port
- I/O . . . . . USB Host, USB Client  
DC power port, 9-pin serial RS-232
- Wireless . . . . . integrated Bluetooth 2.0 +EDR, integrated Wi-Fi 802.11 b/g  
integrated quad-band GSM/GPRS/EDGE: 850/900/1800/1900 MHz,  
2/6 Mbit/s 3G HSDPA GSM WWAN\*  
integrated 2.4 GHz frequency-hopping spread-spectrum radio modem\*
- Camera\*/GPS/Compass/Accelerometer . . . . . 5 MP auto focus camera  
with dual white light LED flash, LED flashlight function;  
integrated GPS (WAAS enabled); integrated compass;  
integrated accelerometer

### CERTIFICATIONS

Class B Part 15 FCC certification, CE Mark approval and C-tick approval.  
RoHS compliant. Bluetooth type approvals and regulations are country specific.

MIL-STD-810G, IP 67, MIL-STD-461, PTCRB, GCF compliant, Wi-Fi Alliance certified.

Country type certifications: USA, Canada, EU, New Zealand, Australia.  
Pending certifications: Brazil, China (PRC), India, Japan, Republic of Korea, Russia, Taiwan, Thailand, UAE

### RECYCLING INFORMATION

For product recycling instructions and more information, please go to [www.spectraprecision.com/ev.shtml](http://www.spectraprecision.com/ev.shtml).

#### Recycling in Europe:

To recycle Spectra Precision WEEE (Waste Electrical and Electronic Equipment products that run on electrical power), call +31 497 53 24 30, and ask for the "WEEE Associate". Or, mail a request for recycling instructions to: Spectra Precision, c/o Menlo Worldwide Logistics, Meerheide 45, 5521 DZ Eersel, NL.

¹ Unit is idle with backlight turned on, no radios turned on, moderate temperatures.

\* Only available on select models

Specifications are subject to change without prior notice.



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