# DATASHEET

# Trimble Ranger 3 rugged handheld computer

## **KEY FEATURES**

Outdoor rugged design

Long-life battery – up to 30 hours use

High-performance mobile processor

Large 4.2 inch high-resolution, sunlightviewable touchscreen display

**Bluetooth and Wi-Fi** 

5 MP autofocus camera with flash

**GPS** receiver with WAAS/SBAS support

**Electronic compass and accelerometer** 

1D barcode laser scanner

3G GSM cellular data modem

**Windows Mobile 6.5 Professional** 

58-key QWERTY plus numeric keypad



# THE RANGER 3 HANDHELD COMPUTER HAS THE OUTDOOR RUGGED DESIGN AND INTEGRATED FEATURES THAT USERS COUNT ON.

# Ready for the Field

The Trimble® Ranger™ 3 computer is designed to withstand the elements and survive the stress of working outdoors. The Ranger 3 series is tested to rigorous military standards for temperature extremes, drops, vibration, humidity and altitude. The IP67 rating means the Ranger 3 handheld is completely sealed against blowing dust and it can survive immersion in up to a meter of water for 30 minutes.

Trimble rugged computers have proven their reliability and lower Total Cost of Ownership over consumer-grade handhelds in the field with thousands of real world users.

# **Powerful integrated features**

The Ranger 3 series has many built-in capabilities that make it easy to collect, save and transmit data in the field. The integrated GPS receiver, compass and accelerometer enable new possibilities for location-aware software to combine location, bearing and motion data. The 5 megapixel autofocus camera uses the GPS data to capture geotagged images. The camera with flash is useful for inspection, maintenance and repair applications.

Standard features of the Trimble Ranger 3 series include an ARM® Cortex™-A8 superscalar processor, a long-life lithiumion battery, integrated Wi-Fi and Bluetooth® wireless capabilities and 8 GB of Flash storage. The Secure Digital card slot enables the addition of SD/SDHC memory cards for even more storage. The large sunlight-visible VGA display shows images, maps and data in crisp detail.

The optional integrated 1D barcode laser scanner enables a variety of applications, such as tracking parts and assets used in field service applications, as well as warehousing and logistical applications.

The optional integrated 3G GSM cellular WWAN enables connectivity to the Internet and corporate networks, enabling mobile applications to synchronize data with servers and databases in the office.

The Ranger 3 series includes the latest Windows Mobile® 6.5 Professional operating system, so it runs all the applications you use most, including a wide range of third-party software for industry-specific applications. Windows Mobile 6.5 Professional features a new interactive user interface that supports taps, flicks, pans and scrolls, making the user experience more intuitive and fun.

The Ranger 3 supports six languages, customer-selectable at initialization. The included international AC charging kit has four adapters for world-wide compatibility.

With all these features together in one rugged computer, you can support robust mobile applications that enable greater efficiencies and new opportunities for your mobile workforce.

# **Robust mobile application platform**

Multiple integrated features, a highperformance CPU, and a rugged design make the Ranger 3 a very capable computing platform for mobile applications. The Ranger 3 Software Development Kit provides software developers with a hardware-specific API to use in conjunction with Microsoft software development tools.

The Ranger 3 series has Windows Mobile certification and has undergone hundreds of hours of testing to ensure reliability and stability.



# Trimble Ranger 3 rugged handheld computer

#### STANDARD FEATURES

- Texas Instruments AM3715 Sitara<sup>™</sup> ARM® Cortex<sup>™</sup>-A8 processor
- 256 MB of RAM
- 8 GB of Flash storage
- Bluetooth 2.0 +EDR
- Wi-Fi (802.11b/g)
- GPS receiver (SiRFstarIII, SiRFInstantFixII, WAAS / SBAS capable)
- Electronic compass
- Accelerometer
- Three tri-color notification LEDs
- USB 2.0 full speed host port
- USB 2.0 high speed client port
- Serial port, 9-pin RS-232
- Secure Digital (SD/SDHC) card slot

# • Microsoft Windows Mobile 6.5 Professional

- 4.2 in (10.6 cm) landscape VGA display, sunlight-readable color TFT
- Resistive touchscreen
- QWERTY keypad with number pad, directional buttons and 4 programmable buttons
- Speaker & microphone
- Headset jack (3.5 mm stereo audio and microphone)
- Operating system language options: Simplified Chinese, English, French, German, Japanese & Spanish (customer selectable on initialization)

# **OPTIONAL INTEGRATED FEATURES**

- 5 MP autofocus camera with dual white LED flash
- 3G GSM cellular data modem
- LED Flashlight function
- 1D barcode laser scanner

## STANDARD SOFTWARE

- SMS Text Messaging Support
- Microsoft® Office Mobile Word Mobile Excel® Mobile PowerPoint Mobile Outlook Mobile
- Internet Explorer Mobile
- Calculator
- Microsoft Pictures and Videos
- Calendar/Contacts
- Windows Media Player
- Messenger
- Adobe Acrobat Reader
- Notes/Tasks
- Trimble SatViewer (GPS interface software application)

#### **SOFTWARE FOR OPTIONAL FEATURES**

- Customized camera and flash control through Microsoft Pictures & Videos software (geotagging camera software)
- Flashlight mode control application
- Trimble CellStart software application (cellular connection setup)
- Trimble ScanAgent barcode scanning software
- Trimble Ranger 3 Software Development Kit

# STANDARD ACCESSORIES

- Rechargeable lithium-ion battery pack
- Hand strap Stylus tether
- Clear screen protectors Display cleaning cloth
- Quick Start guide sheet
- Getting Started Guide on CD-ROM
- · International AC charging kit with four plug adapters
- USB cable
- Stylus with force-modulating spring tip (pkg of 2)
- Audio port dust cover
- I/O port dust cover

#### **OPTIONAL ACCESSORIES**

- · Standard soft carry case
- Vehicle mount (compatible with RAM mounts)
- Spare battery charger
- 12 V vehicle charger

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#### **ENVIRONMENTAL SPECIFICATIONS**

Meets or exceeds:	
Water	Immersed in 1 m of water for 30 minutes
Water jet 12.5 i	mm dia. @2.5 m-3 m, 100 Litr/, min; IEC-529, IP67
Sand & dust 8 I	hours of operation with blowing talcum powder;
	IEC-529, IP67
Drop	26 drops at room temperature from 4 ft (1.22 m)
	onto plywood over concrete;
	6 additional drops at -22 °F (-30 °C);
	6 additional drops at 140 °F (60 °C)
	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
Operating Temperature	–22 °F to 140 °F (–30 °C to 60 °C)
	MIL-STD-810G, Method 501.5, Procedure II
	MIL-STD-810G, Method 502.5, Procedure I, II, III
Storage Temperature	40 °F to 158 °F (-40 °C to 70 °C)
	MIL-STD-810G, Method 501.5, Procedure II
	MIL-STD-810G, Method 502.5, Procedure I, II, III
Temperature shock	31 °F/149 °F (–35 °C/65 °C)
	MIL-STD-810G, Method 503.5, Procedure I
Humidity	90%RH temp cycle –4 °F/140 °F (–20 °C/60 °C)
	MIL-STD-810G, Method 507.5
Altitude	15,000 ft (4,572 m) at 73 °F (23 °C)
	and 40,000 ft (12,192 m) at -22 °F (-30 °C)
	MIL-STD-810G, Method 500.5, Procedures I, II, III

## **PHYSICAL**

Size	. 10.5 in × 5.2 in × 1.9 in (26.6 cm x 13.1 cm x 4.8 cm)
Weight	2.3 lb (1.04 kg), including battery and stylus
Color	Black with Yellow face

#### ELECTRICAL

ELECTRICAL
Processor TI AM3715 Sitara ARM Cortex-A8 Processor at 800 MHz
Memory
Storage 8 GB non-volatile Flash
Expansion
Display4.2 in (10.6 cm), 640 x 480 pixel, VGA TFT
Batteries
I/O USB host and client; 15 V DC power; 3.5 mm stereo + mic audio port;
9-pin RS-232 serial port
GPS accuracy 2–4 m with SBAS correction <sup>2</sup>
Radios
WWAN radios HSDPA 3.6 Mbit/s, Tri-band;
HSDPA/UMTS: 850/1900/2100 MHz, Quad-band;
GSM/GPRS/EDGE: 850/900/1800/1900 MHz

#### CERTIFICATIONS

FCC, CE, R&TTE, IC (Canada), C-tick, GCF compliant, RoHS compliant, Section 508 compliant, AT&T certified, Wi-Fi Alliance certified, MIL-STD-810G, IP67, MIL-STD-461.

Ranger	ger 3 Configurations							
	Bluetooth	GPS	Wi-Fi	Camera	WWAN	Barcode scanner		
3L	х	х	Х					
ЗХС	Х	Х	Х	Х	Х			
3XE	х	х	х	х	х	х		

- 1. To ensure best performance when temperatures are below –4 °F (–20 °C), be sure battery is inserted in the device only when in use. When device is not in use at these temperatures, keep batteries in a pocket or
- 2. 2-4m (50%–95%) accuracy determined using horizontal Root Mean Squared method Open Sky.

Color display images shown may vary slightly from actual display. Specifications subject to change

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