



## UHF RFID Reader Accessory for Trimble Nomad® Handheld Computer

The Nomad® RFID Reader and mounting kit lets users easily add UHF RFID capability to Trimble's popular Nomad rugged handheld computer. This reader allows handheld reading and writing of EPC Global Gen2 tags in the harshest outdoor environments. Like the Nomad handheld itself, this accessory meets the rigorous MIL-STD-810F military standard for drops, vibration, humidity, altitude and extreme temperatures, and also has an IP67 rating. The reader is completely sealed against dust and can survive immersion in up to one meter of water for 30 minutes. Based on the best-in-class ThingMagic M5e-Compact UHF RFID module, the reader is controlled by and powered from the Nomad handheld via USB interface. The reader accessory comes with drivers and software needed to immediately start reading EPC Gen2 tags, as well as a full SDK to allow developers to write their own custom applications in Windows Mobile.

### Ordering information

RFID Accessory only. Does not include Nomad handheld

RFID Reader Accessory Kit for Trimble Nomad - (North America, South America)	RFID-NMD-5EC-NA
RFID Reader Accessory Kit for Trimble Nomad - (Europe)	RFID-NMD-5EC-EU

### Tag / Transponder Protocols

RFID Protocol Support	EPCglobal Gen 2 (ISO 18000-6C) with Anti-Collision and DRM
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### RFID Reader / RF Interface

RFID Reader	ThingMagic M5e-Compact
Antenna	Integral patch antenna with a peak gain of +0.5 dBi @ 915 or 866 MHz (model dependent)
RF Power Output	Separate read and write levels are command-adjustable from 10 dBm to 23 dBm (200 mW), +/-1.0 dBm accuracy
Frequency	Pre-configured for the following regions: FCC/IC (NA, SA) 902-928 MHz EU 865-868 MHz

### Performance

Tag Read Rate	Up to 190 tags/second
Tag Read Distance	Up to 40 inches (100 cm) or less depending on tag sensitivity and reader orientation

### Interface

Physical	USB 2.0, Integral cable, A-type plug termination
Signaling	Asynchronous serial interface with 3.3/5 V logic levels; baud rates from 9600 to 921,600 bps
Protocol	Command-response protocol protected by length field and 16-bit CRC

### Software Included

Drivers	USB Device Driver
Application	Searchlight™ RFID Tag Reading Application: Read tags, Configure device, Keyboard Wedge mode, Save data to file
SDK	Source code of Searchlight application API for development of custom applications on Windows Mobile

### Physical (Not inclusive of Nomad handheld)

Dimensions	3.9 in x 3.5 in x 1.3 in (100 mm x 90 mm x 35 mm)
Weight	11 oz (311.8 g)

### Power

Voltage	+5 VDC (Powered by USB interface)
Power Consumption	2.7 W max Reading 0.32 W max Idle > 120 mW Standby > 1 mW Sleep/Suspend Power savings maximized when using the RFID Searchlight software application

### Environmental

Standards:  
Meets or exceeds the following standards based on MIL-STD-810F:

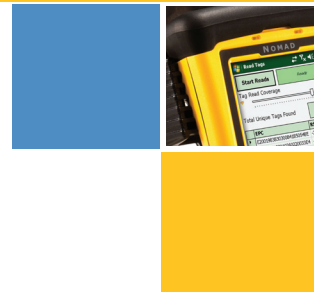
Operating Temp.	-22 °F/140 °F (-30 °C/+60 °C) (Max temp. may be duty-cycle limited)
Storage Temp.	-40 °F/158 °F (-40 °C/+70 °C)
Temp. Shock	-31 °F/149 °F (35 °C /+65 °C)
Humidity	90% RH temp cycle 32 °F/158 °F (0 °C /+70 °C)
Drop	26 drops from 1.22 m onto plywood over steel
Vibration	General Minimum Integrity & Loose Cargo test
Altitude	Normal operation at : 4,572 m at 41 °F (5 °C) 12,192 m at -22 °F (-30 °C)
Immersion	IP67 - 1 m water for 30 minutes
Sand and dust	IP67 - 8 hours of operation with blowing talcum powder

### Certifications

Direct Communication	FCC Part 15 A,B,C CE/ETSI EN 302 208-1, -2, EN 300 220-1, -2, -3, EN 301-489-1, -3, IC RSS-General Issue 2, RSS-210 Issue 7,RSS-102 Issue 2
Safety	RoHS Compliant UL/ IEC 60950-1
Environmental	IP67 / IEC 60529 MIL-STD-810F



Specifications subject to change without notice.



## Develop

Create RFID-enabled solutions  
using industry-standard tools

## Deploy

Enable rapid deployment and reliable  
operation of RFID solutions within a wide  
variety of new and existing environments

## Optimize

Maximize productivity, improve ROI,  
and lower operating costs



For more information, visit [www.thingmagic.com](http://www.thingmagic.com)

To purchase ThingMagic products, please email  
[sales@thingmagic.com](mailto:sales@thingmagic.com) or call 1-866-833-4069  
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