

MicroStrain Sensing Product Datasheet

3DMRTK

Cellular RTK Correction Modem



The **3DMRTK** features easy to use real time Kinematic (RTK) correction data to be utilized by the **3DMGQ7**-GNSS/INS.

It provides the simplicity of a cellular connection to our SensorCloud RTK base station network, replacing traditional radio-based stations. With RTK corrections, the **3DMGQ7** can achieve centimeter-level positional accuracy.

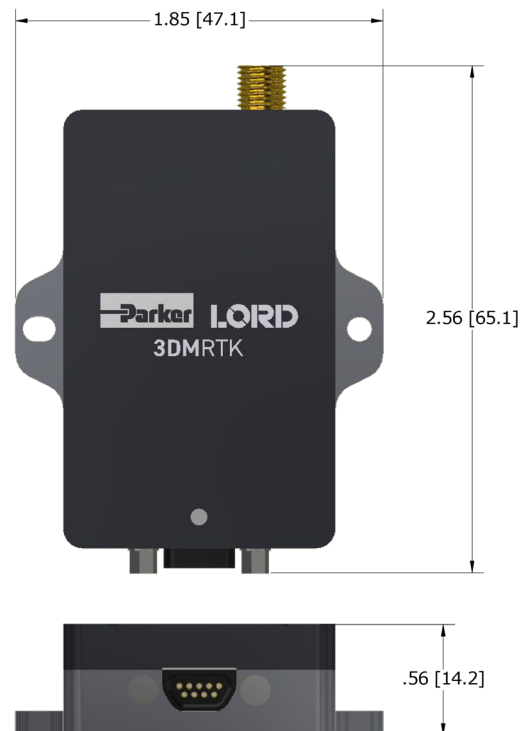
Combine the **3DMRTK** with our SensorCloud RTK network service and **3DMGQ7**-GNSS/INS for a complete navigation system.

FEATURES AND BENEFITS

- Supports industry-standard NMEA and RTCM 3.1 protocols
- Network RTK support bundled with cellular data plan at one low price
- Seamless integration with **3DMGQ7**
- Easy set up – begin receiving RTK corrections immediately after device activation
- Robust RS232 and USB interfaces
- Compact and rugged construction

APPLICATIONS

- Autonomous vehicle (AV) operation
- Wheeled and legged robotics
- Simultaneous localization and mapping (SLAM)
- Beyond visual line of sight (BVLOS) navigation



Cellular RTK Correction Modem

Specifications

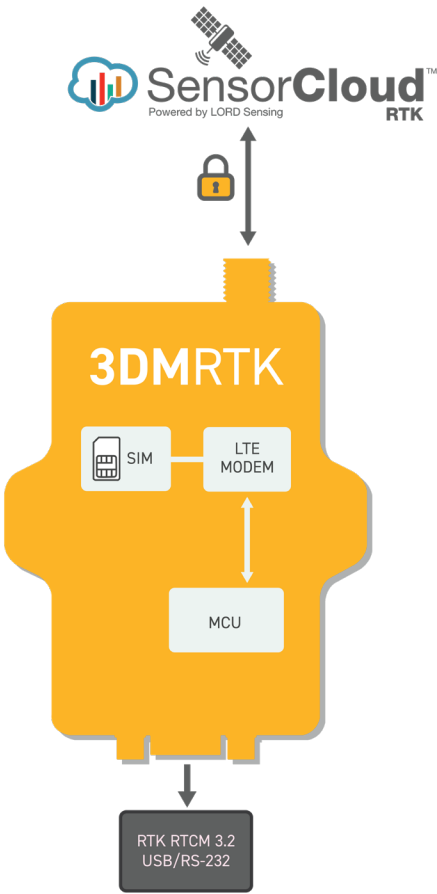
(The following specification results are typical when paired with the 3DMGQ7)

Data output rate	1 Hz
Interface	Micro-D9, RS 232
Protocols	MIP, RTCM 3.1, NMEA
Cellular Network	Cellular Coverage: Global*
Voltage	5 to 16 VDC
Power	1.0W (typical), 2.0W (max)
Size	47 mm x 65 mm x 14.25 mm
Weight	46g
Certifications	FCC, IC, CE, PTCRB

*Some regional restrictions apply. Coverage only where LTE CAT-M/2G deployment is available. Please see our [RTK webpage](#) for details.



System Architecture



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