



Fixed RAIN/UHF Reader with API

Advanced software simplifies integration

RFM5108



APPLICATIONS

IoT sensing
 Building performance
 Factory 4.0 monitoring
 Data center monitoring
 Cold chain shipping

KEY FEATURES

Reader temperature range
 -20 °C to +55 °C

210 x 121 x 31 mm

16 SMA antenna ports

RJ45 Ethernet/PoE

Smart Passive Sensing™

Java-based RfmApi Software

Aggregate data w/ RFM5109

Wireless battery-free temperature monitoring

The RFM5108 is a 4-channel wireless RF reader system for battery-free Smart Passive Sensing™ devices. The RFM5108 is a “fixed” reader supporting continuous monitoring. The system is equipped with 4 external antenna ports which can be individually controlled and adjusted from one central location.

Flexible antenna placement and selection

RFM5108 allows antennas to be placed in the optimum location for effective sensor reads. In many cases sensors are distributed over a large area. The RFM5108 can be used to place, test and optimize antenna placement for best overall sensor communication.

Software to simplify and speed integration tasks

The RFM5108 includes the Java-based RfmApi sensor management software with optimized sensor reading algorithms. This PC-based software speeds integration of sensor data into larger systems. Source code for demonstration programs illustrates how the RfmApi is used. The RFM5108-B data can also be aggregated through a smart fixed reader like the RFM5109. The RfmApi is also available separately under part number RFM5140-B.

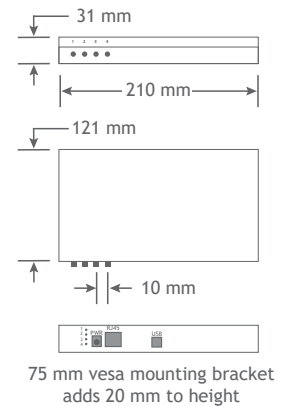
Compliance and configurations

The RFM5108 is available in FCC and ETSI/EU frequency ranges. The system comes with a power supply, an RFM5203-A UHF antenna, an antenna cable and a selection of sensors.

RFM5108 System Performance Data

Fixed wireless reader hardware characteristics for Smart Passive Sensing devices

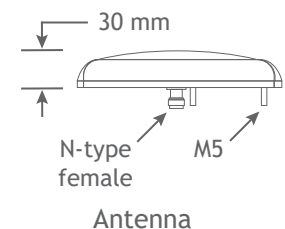
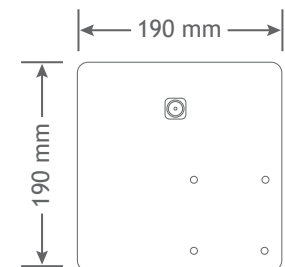
PARAMETER	VALUE
Normal temperature range	-20 °C to +55 °C
Compatible standards	EPC class 1 gen 2 v2 ISO 18000-63 AES authentication in accordance with ISO/IEC 29167-10, CE ETSI EN 302 208, CE ETSI EN 301 489, FCC part 15.247 IC RSS-210, Safety IEC 60950-1
Number of antenna ports	4-Channels, 50 Ω, SMA Female
Output power	+30 dBm
Interface options	Ethernet 10/100 Mbit or USB 2.0 device, type B
Power supply	PoE 802.3af or 240/110 V AC/DC adapter: 8W PoE, 6.5W DC
Size	210 x 121 x 31 mm
Mounting	Detachable mounting bracket with vesa 75
Shipment method	Individually boxed
Minimum order quantity	1 pc MOQ
Ordering information	RFM5108-CF (FCC 902 to 928 MHz) RFM5108-CE (ETSI/EU 865.6 MHz to 867.6MHz)



Reader

Bolt-attached antenna (RFM5203-A) for use with RFM5108 reader

PARAMETER	VALUE
Antenna performance	865 - 965 MHz, 7.5 dBic, circular polarization
Ordering information	FCC or ETSI/EU included in appropriate set



Fixed wireless reader software characteristics (See RFM5140 for additional details)

PARAMETER	VALUE
Manage reader settings	Radio configuration, regional settings, max output power, automatic power modulation
Advanced sensor settings	Read algorithms, averaging modes including linear fit algorithm, read counts, verbose data modes, real-time monitoring mode
Message manager	Warning message manager, sensor value, sensor identification data
Data output	User-directed storage
Programming language	Java jar file and Eclipse project files
Source code	API interface source code, example demo code
Compatible Smart Readers	RFM5108 data can be aggregated using RFM5109