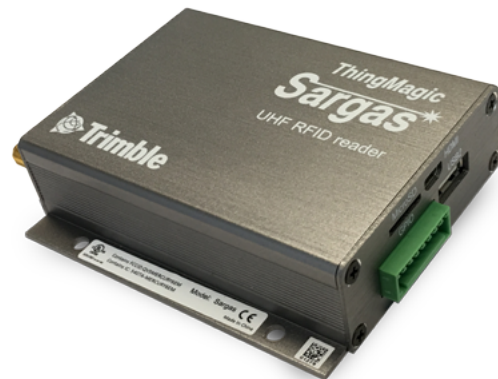




# Fixed Reader with ReaderService

reader & microservice for edge integration



RFM5110

## 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

24 x 80 x 104 mm

2 SMA antenna ports

RJ45 Ethernet/PoE

Smart Passive Sensing™

REST Interface Software

Aggregates RFM5108 data

## What's in the system?

The RFM5110 is a wireless RF reader system for battery-free Smart Passive Sensing™ devices. The RFM5110 RF reader incorporates a processor running embedded Linux®. The RFM5144 ReaderService is included with the system and runs either on the reader itself for full edge processing, or on a PC/server in a distributed processing configuration.

## How is it used?

The system includes several sample programs that employ the built-in REST interface to access data from the integrated SQL database.

## Sensors sold separately

The system includes a selection of temperature and moisture sensors to facilitate evaluation and software development. Other Axzon sensors can be purchased separately for use with the RFM5110 system.

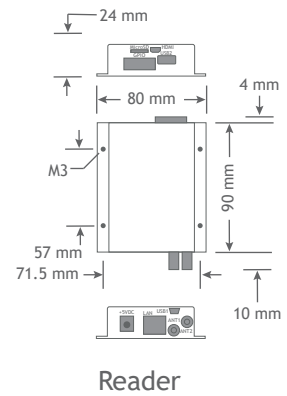
## Part numbers

The RFM5110-A is a system-level product that includes the RFM5144-B ReaderService™ software. The RFM5144-B implements a complete microservice compatible with Windows®, Linux® and MAC®. The RFM5144 ReaderService can aggregate data from other Axzon RF readers.

## RFM5110 System Performance Data

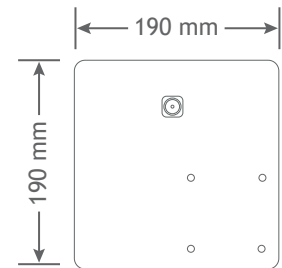
Fixed wireless RF reader hardware for Smart Passive Sensing devices

PARAMETER	VALUE
Normal temperature range	-20 °C to +60 °C
Compatible standards Regulatory and Safety	EPC class 1 gen 2 v2 ISO 18000-63, 18000-6B, IPx, AEI ATA, EPC Global LLRP V1.1 FCC/IC, CE Mark IEC 60950-1 (ed.2), US-17650-UL
Number of antenna ports	2, 50 Ω, SMA Female
Output power	0 dBm to +30 dBm, ±1 dBm
Interface options	Ethernet 10/100 Mbit or USB 2.0 device, type B
Processor	Embedded Linux at 700MHz , 512 MB RAM, 4 GB Flash
Power supply	4.5 to 5.5 VDC, 15 W maximum
Size	24 x 80 x 104 mm
Mounting	Screw-mounted
Shipment method	Individually boxed
Minimum order quantity	1 pc MOQ
Ordering information	RFM5110-AF (FCC 902 to 928 MHz) RFM5110-AE (ETSI/EU 865.6 MHz to 867.6MHz)



Bolt-attached antenna (RFM5203-A) for use with RFM5110 reader

PARAMETER	VALUE
Antenna performance	865 - 965 MHz, 7.5 dBic, circular polarization
Ordering information	RFM5203-A Worldwide antenna



Fixed wireless reader software characteristics (See RFM5144 for additional details)

PARAMETER	VALUE
Manage reader settings	Radio configuration, regional settings, max output power setting, 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	ActiveMQ messaging/integration patterns server
Data output	Embedded SQL database
Programming interface	REST with text-formatted JSON messages
Source code	Java library, with example demo source code
Compatible Smart Readers	Can aggregate data from: RFM5108. RFM5109, RFM5110

