RX Receiver User Manual

CBRS, L TE, 2G, 3G, 4G, 5G, WIFI, Wi-MAX, Public Safety, Tetra and LMR.

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Notice

The information in this manual is subjected to change without notice. Every effort has been made in the preparation of this manual to ensure the accuracy of the contents, but all statements, information and recommendations in this manual do not constitute a warranty of any kind, expressed or implied.

Comment on Known Defects and Other Errata

This document lists problems known to be associated with the current release. VIAVI is committed to releasing defect free products and appreciates any reports of issues or assistance in the identification of issues. Problems are prioritized and queued for remedy.

Executive Summary

1. Purpose

This document walks the user through the main functionalities of the Hermes RX Receiver and its applications.

2. Overview

VIAVI's RX Receiver is a device that Receives CW (Continuous Wave) signals with maximum output power -5 dBm. It is compact, portable, lightweight and easy to use for indoor and outdoor. It operates over a wide band: 50 MHz - 6 GHz. This replicates a live network environment for RF propagation testing.

3. Key Features

- Base Unit Frequency range: 50MHz - 6 GHz
- High Sampling Rate: up to 20 Msps
- Data Interface: High Speed USB (with USB Micro-B connector
- Power supply: USB bus power
- SMA female antenna connector (SO ohms)
- Multi-Channel Scanning up to 20 Channels
- High sampling rate Support up to 300 samples/second
- RSSI Accuracy: ±2dB
- Level Range:
  — -115 to -45 dBm (50 to 4500 MHz)
  — -110 to -40 dBm (4500 to 6000 MHz)
- Modulations: CW
- Adjustable frequency
- Supported bands: CBRS, LTE, UMTS/HSXPA, GSM/EDGE, CDMA2000/EV-DO, WiFi/WiMAX, Public Safety/LMR
- Lightweight
- SMA Female antenna port
- One-year manufacturer warranty

Safety Compliances

To avoid damage to your receiver and to ensure efficient operation of your Hermes RX Receiver, please follow the recommendations and best practices:

- This device has no protection against lightning. Please turn off the Hermes RX Receiver during a thunderstorm and if applicable, take the antenna(s) inside before a thunderstorm approach.
- The Receiver itself is not intended for "all weather" outdoor use. It is not water resistant or waterproof.
- To avoid hazards or damage, only use original accessories with the Receiver.
- Do not touch the antenna during operation as it may alter the reception pattern.
- Best practice is to connect the antenna before turning it on.
- Do not operate near flammable or explosive materials.
- If you suspect there is damage to this product, have it inspected only by authorized service personnel or service centers.

Equipment Unpacking and Parts

1. Parts

In order to get started, please make sure that you have all the essential parts and check for any damage before operation:

- RX Receiver
- USB Cable (3V – 0.5 mA)
- Carry Case
- USB User Manual

Power and data are to be used only connected to a tablet, phone, Laptop in built USB.

Main Interface

C - Reset Button

A - SMA Antenna Port

B - USB-Input
Data/Power

A) SMA Female antenna connector
B) USB micro type B - Power and data
C) Reset Button

*SMA ports, buttons, and LED indicators that are not pointed in this page, they don't have use in this Device's Version.

Specifications

1. Batteries

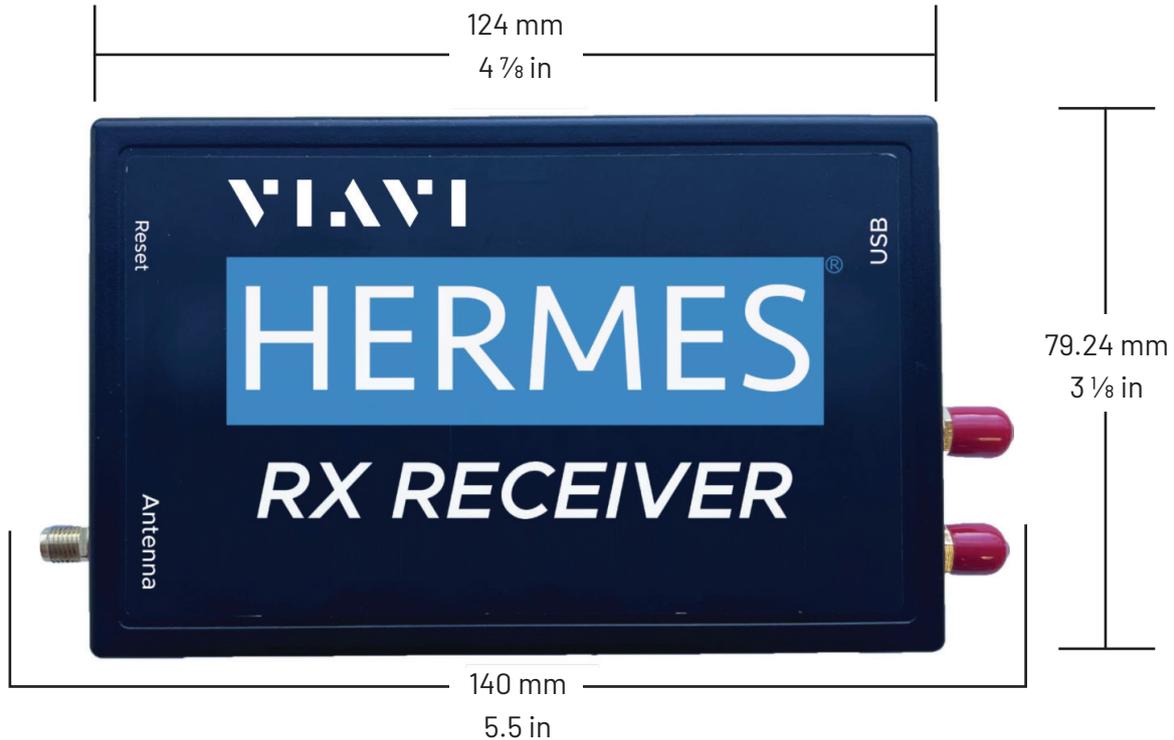The Hermes RX Receiver has no Internal Battery.

2. Power Management

The Power rating is 3 V - 0.5 mA max

3. DC Input

USB Micro-B interface

4. LED Indicators

LED Indicators show different status. The first from left to the right, green is Power. Fith LED, Red is RX on, when the device is synced and receiving signal. All other LEDs are irrelevant for this device model.

Weight: 201 g
7.09 oz

Specifications Table

Hermes RX Receiver

RF Characteristics	
Frequency Bands	50 Mhz to 6 Ghz
Scanned Channels	Up to 20 Channels
Frequency Step	10 KHz
Bandwidth	4 MHz to 20 MHz
Measurement Speed	300 Samples per second
RF Interface	50 ohm SMA Female
Accuracy	±2dB
High Sampling	Up To 20 Msps
External Dimensions	5 .5 in x 3.1 in x 0.7 in (L x W x H)
Weight	201 g/7oz
Operating Temp	–10 to +40°C
Enclosure Material	Aluminum or Plastic
Power Supply	USB bus power (3.3 v S0mA)
Certifications	
Standard Accessories	USB cable, Calibration Certificate, User Manual
Receiver Sensitivity	–115 to –45 dBm (50 to 4500 MHz)
	–110 to –40 dBm (4500 to 6000 MHz

Contact Support

1. Technical Support, Calibrations and Post Sales Assistance

For any support inquiry, contact: Techsupport.Avcomm@viavisolutions.us

2. General Queries:

For any information about prices, specifications, future developments, recommendations, customizations, or general question, kindly contact avcomm.sales@viavisolutions.com