

Serial Telemetry Radio Kit - 915MHz, 500mW

WRL-17255

Retired Product

This product has been retired from our catalog and is no longer for sale. This page is made available for those looking for datasheets and the simply curious.

DESCRIPTION

INCLUDES

FEATURES

DOCUMENTS

The Serial Radio Telemetry Kit is a small, lightweight, and inexpensive open source radio platform that can allow for ranges of better than 300m out of the box. The radio uses the very popular Si1000 chipset along with the open source **SiK firmware**. This firmware allows for a simple serial cable replacement to transmit any serial data including telemetry, RTK correction data (RTCM), or simple Serial.print() statements without any configuration required.

This telemetry kit includes two radio modules, a microB USB cable, microB OTG cable, two JST-GH cables, two right-angled RP-SMA connectors, and two 915MHz antennas. Each radio module in the kit features a transmit power of 500mW, a RX sensitivity of -117dB, a full duplex transparent serial link of 57600baud and are equipped with a microB USB and UART port for easy connectivity.

Both radios have a microB connector and use the FT23x USB to serial IC making it immensely easy to pass serial data from a remote radio to a base computer or cell phone. Radios are configured using simple **AT commands**. The provided JST-GH cables make connecting to the TX/RX pins of the radio a literal snap.

In order to use the Serial Telemetry Radio Kit, you'll need to cut the one of the provided JST-GH cables in half and tin the ends (for insertion into Arduino headers) or solder the connections to your remote unit (rover, weather station, Arduino, etc). Plug the other module into the USB port on your base station, computer, or cell phone.

A getting started guide is included in the Documents tab to help you set up this radio link for the Pixhawk drone controller but this link can be used for any serial data transmission.

Tags

500mW

915MHZ

KIT

PIXHAWK

RADIO CONTROLLED

RADIO TELEMETRY

ROBOTICS

RP-SMA

WIRELESS

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Hookup Accessories for Serial Telemetry Radio Kit - 915MHz, 500mW

SparkFun RTK Surveyor

GPS-18443

\$427.95

SparkFun GPS-RTK-SMA Breakout - ZED-F9P (Qwiic)

GPS-16481

\$274.95

★ ★ ★ ★ ☆ 13

2.4GHz Duck Antenna RP-SMA

WRL-00145

\$8.95

★ ★ ★ ★ ☆ 2

2.4GHz Duck Antenna RP-SMA - Large

WRL-00558

\$10.95

★ ★ ★ ★ ☆ 1

Similar Items for Serial Telemetry Radio Kit - 915MHz, 500mW

SiK Telemetry Radio V3 - 915MHz, 100mW

WRL-19032

\$89.95

HackRF One

WRL-13001

\$339.95

★ ★ ★ ★ ☆ 38

SparkFun Pro RF - LoRa, 915MHz (SAMD21)

WRL-15836

\$33.95

★ ★ ★ ★ ☆ 3

SparkFun RFM69 Breakout (915MHz)

WRL-12775

\$13.95

★ ★ ★ ★ ☆ 6

Serial Telemetry Radio Kit - 915MHz, 500mW Product Help and Resources

TUTORIALS

SKILLS NEEDED

Setting up a Rover Base RTK System

OCTOBER 14, 2020

Getting GNSS RTCM correction data from a base to a rover is easy with a serial telemetry radio! We'll show you how to get your high precision RTK GNSS system setup and running.

How to Build a DIY GNSS Reference Station

OCTOBER 15, 2020

Learn how to affix a GNSS antenna, use PPP to get its ECEF coordinates and then broadcast your own RTCM data over the internet and cellular using NTRIP to increase rover reception to 10km!

COMMENTS

14

REVIEWS

0

Comments

Looking for answers to technical questions?

We welcome your comments and suggestions below. However, if you are looking for solutions to technical questions please see our [Technical Assistance](#) page.

Log in or register to post comments.

JB_Remote

/ about 2 years ago / ★ 2

I can confirm the Unit puts out 500mw. I measured it with a HP Spectral analyzer and got 26.65 dBm. This works out to about 462mW. Close enough to 500mW for me. Although in the software reports on 100mW when you do an inquire.

I have been very pleased with the product. It simple to use out of the box. Find the RFD900 tools on the internet if you want to play with the unit. There mode were you can connect one unit to you computer and see how RSSI of both units at the same time. Great for testing antennas.

Member #1639689

/ about 2 years ago * / ★ 1

I'm using the RFD900 Tools and I also see the TXPOWER apparently limited to 20. Did you do anything to get to 26.65? I wonder if it boots up set to 26.65 (27), but only reports 20. I was able to set it to numbers lower than 20, but don't have a way to measure the actual power. I can confirm that these radios were able to send and receive RTK corrections between a Surveyor Rover and Surveyor Base when there was a mile between them. I was happy with that. I did put after-market antennas on both radios (Superbat 900MHz 3G 4G Antenna 9dBi through Amazon).

RocketGuy

/ about 3 years ago / ★ 2

Is it 500mw or 100mw? Conflicting descriptions.

AlexWaller

/ about 3 years ago / ★ 1

Says 500 on device, says 100 in quick start guide. Would also like clarity.

RossRobotics //codlink

/ about 3 years ago * / ★ 1

I would go for 500, as the tags also state 500. More than likely that the guide covers more than one version. It would be nice if SF would clarify it though. SF has changed over the last couple of years and that's why I don't purchase from here anymore. It's obvious that they don't read comments and reviews anymore. Even the spam is out of control.

Eli C

/ about 3 years ago * / ★ 2

The spam is definitely annoying. I zap it every morning, first thing.

To your issue - the attached quick start lists 100 mW maximum output power. That said, you are correct that there are multiple versions and our internal datasheet for this one says 500mW.

Sorry it took so long guys - we just missed this comment. We've been busy!

RossRobotics //codlink

/ about 2 years ago / ★ 1

Is that why there is spam under this comment that states "2 weeks ago"?

CF

/ about 2 years ago / ★ 2

SparkFun receives **thousands** of spam comments 24 hours a day, 7 days a week, 365.25 days a year. We do the best we can to catch them all but we don't work 24 hours a day and we don't work on holidays and weekends so you might see some spam for a bit until it gets deleted.

Sometimes one or two spam comments might get missed as well, flagging them helps but some might get missed, just let us know and we can zap them. We're just a small collection of humans against an army of spam bots, than you for your patience and understanding.

Eli C

/ about 2 years ago / ★ 2

Entirely possible. I just recently got involved. It's dependent on whatever else I have going on, so while I do try to check in every day, I sometimes miss things. We're working on it, but those buggers are persistent.

Landscape Futurist

/ about 2 years ago / ★ 1

Assuming the 300m range in the description is for the 100mw version (https://www.sparkfun.com/products/15007), does anybody have an updated Tx/Rx range for the 500mw version?

John Pilgrim

/ about 2 years ago / ★ 1

Can pairs of these devices be mixed and matched between the pairs that ship in each box, without any reconfiguration? In other words, if I buy two pairs of these radios (four in total, let's call them Pair1RadioA Pair1RadioB Pair2RadioA Pair2RadioB), can Pair1RadioA communicate with Pair2RadioA without reconfiguration? I am not asking about one-to-many, only about mixing one-to-one pairs. Thanks!

chip

/ about 3 years ago / ★ 1

Do these radios have an FCC ID? If so what is it?

MLH

/ about 2 years ago / ★ 1

Not likely at 500mW or even 100mW. A ham license would be required to operate legally, sparkfun should mention this in the description.

Kuhny1

/ about 2 years ago * / ★ 1

I understand that this reply is really late. In the US, the FCC states on their site, that the maximum unlicensed transmit power for ISM bands is 1W with max radiated output of 4W.

So this should (I said "should", use at your own risk I'm not accountable for any legal trouble you get into...) be completely legal to use without FCC device registration or licensing. As long as it is part 15 certified. Its not specified if it is or not.

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