

# RADIOBERRY Transceiver 5 Watt RBPA1.0

[WWW.DXRADIOZONE.COM](http://WWW.DXRADIOZONE.COM)

This user guide will give you the basic understanding and operation of the RBPA1.0. This transceiver is based on the RADIOBERRY SDR with integrated pre-amplifier and stacked onto the Raspberry PI 4B 4G Memory board. The RADIOBERRY is extremely versatile radio which supports the Hermes Lite protocol. So any SDR software on that market that supports Hermes Lite will work with this transceiver.

It comes with a 7 Inch high resolution and high contrast display 800x600. Default software included for standalone operation is SDRBERRY, PiHPDSR and SPARKSDR, but will support remote software SDR platforms such as THETIS with Hermes Lite protocol.

The unit comes with a 5 Volt USB power supply rated at 4 amps with integrated power switch. The included interfaces are listed below.

- 2 x USB 2.0 ports
- 2 x USB 3.0 ports
- 1 x 100M Ethernet port
- 1x WIFI interface configurable on the Raspberry PI desktop after boot.
- 1 x 12-13 Volt input power for power amplifier only. (Not required for receive mode only)
- 1 x KEY/PTT control for CW operation.
- 1 x 3 Watt audio amplifier with external bass reflex speaker
- 1 x Integrated 12 to 8 volt regulated power supply for integrated Power amplifier
- 1 x Bluetooth receiver for audio devices such as headphone with microphone
- 1 x audio output jack for use with external speakers
- 2 x HDMI monitor outputs (not required for operation)
- 1 x speaker push button switch to disable internal speaker when used with external audio jack and speakers.

The transceiver can be fully controlled by the touch screen input but a mouse and keyboard makes life easier. Mouse only operation is supported also.

The RADIOBERRY boots into the standard PI OS desktop. There are 5 ICONS available. One for SDRBERRY, one for PiHPDSR, and one for SPARKSDR. There are 2 addition desktop icons for turning the radioberry on and off when required in the background. The SDRBERRY application however does not require the RADIOBERRY background application to run. It talks directly to the RADIOBERRY with it's own library. However the PiHPDSR and SPARKSDR and all remote connected SDR software using the Hermes Lite protocol needs RADIOBERRY driver running in the background for these software applications to work.

By default to can immediately double click the SDRBERRY icon and start using the RADIOBERRY SDR. No other applications required other than external antenna. **WARNING**

**!!!** a high SWR will cause damage to the receiver and transmitter if not tuned to below 2.0 or better. If you exit SDRBERRY and want to use SPARKSDR or PiHPDSR or any other remote software, you

need to double click and execute the radioberry\_on icon. Answer **YES** to execute when asked. This will load the driver in background. You can then double click SPARKSDR or PiHPSDR to start the application. Once you exit SPARKSDR or PiHPSDR and want to use the SDRBERRY software again, you must stop the background RADIOBERRY driver or the SDRBERRY application will hang and a reboot will be needed to recover.

The user guide for SDRBERRY and all other software are available on the internet but there is a copy of the latest on our website [www.dxradiotone.com/en/support](http://www.dxradiotone.com/en/support) page. Each application has its basic setup for the RADIOBERRY, such as frequency calibration and drive value for power output adjustment. Please read each to make sure you understand ALL THE FEATURES OF THE APPLICATION. For your convenience, we have calibrated the three included applications. If you install any remote versions, you can use the settings in the default applications we installed and enter them into the application being used.

You can use a small portable wireless or wired mouse and keyboard if you feel the touch screen is too hard to operate. Any usb mouse and keyboard will work. If you have any specific questions, please send an email to [tech@dxradiotone.com](mailto:tech@dxradiotone.com) for assistance. You can also join our support discussion board at [www.dxradiotone.com/en/support](http://www.dxradiotone.com/en/support) for

The supplied SD card on the back of the RADIOBERRY SDR is preconfigured by DXRADIOZONE.COM. If you corrupt the SD card by accident, we can supply you with a fresh image that you can burn to a Micro SD card 32G or higher. Please use LEXAR, SAMSUNG or SANDISK Micro SD cards **ONLY**.

Please direct all your technical questions to [tech@dxradiotone.com](mailto:tech@dxradiotone.com)

Manual for **SPARKSDR** is available [HERE](#)

Manual for **PiHPSDR** is available [HERE](#)