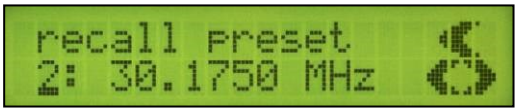
RX-C receiver

Datawell - Oceanographic Instruments

Advanced HF link receiver with synthesizer tuner, network connectivity and HVA support

The RX-C is a dedicated HF link receiver that supports all Datawell Waverider buoys fitted with the standard HF transmitter. The RX-C supports both the “HXV” format and the “HVA” transmission formats. The HXV format is used by all buoys, except the DWR4(/ACM) buoy which uses the HVA format.

In the RX-C, a programmable digital frequency synthesizer makes it possible to manually select the reception frequency in 100 Hz steps. This allows reception of any frequency between 25.5 and 35.5 MHz by the touch of a button. Additionally, up to 6 frequencies can be stored into the internal preset memory.



To connect the RX-C to a personal computer, the RX-C features both a serial port and an Ethernet network port. The serial port is ideal for a direct connection to a nearby PC. The Ethernet port allows the RX-C to be connected to a network or Internet router.

The Ethernet port makes the RX-C very flexible. The Ethernet port functions as four “virtual” serial ports. Once connected to a network or the internet, data can thus be retrieved from the RX-C by up to four computers at the same time. Also, a built-in embedded web server makes it possible to remotely monitor and configure the RX-C. This makes the RX-C ideal for application at remote locations.

To ensure the best reception possible, the RX-C uses a completely linear signal processing chain that does not distort the signal like traditional FSK receivers. This makes the RX-C relatively resistant against near-band interference and noise signals.

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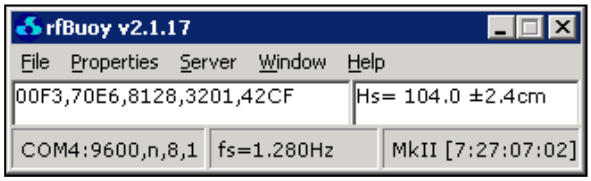
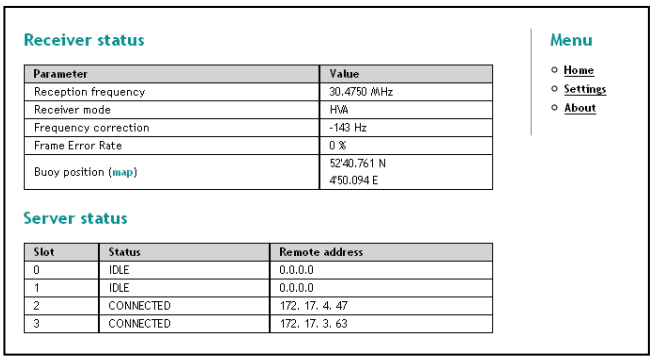
The RX-C is supported by the W@ves21 software package and the new Waves4 package.



The RX-C comes standard as a compact desktop model. Alternatively, the RX-C is available as a 19" rack-mount model with the same specifications.
For applications where AC power is not available, such as remote (solar powered) locations, the RX-C can also be equipped with a 10 - 18 VDC power input instead of the standard 100 - 240 VAC power input.



Embedded webserver

Specifications

HF	Frequency range	25.5 - 35.5 MHz (35.5 - 45.0 MHz on request) PLL synthesizer tuning
	Usable sensitivity	–116 dBm (0.5 μV)
	Dynamic range	> 60dB
	Receiver bandwidth	1.2 kHz
	Link bit rate	81.92 bits per second, 2FSK modulation (HXV mode) 163.84 bits per second, 4FSK modulation (HVA mode)
	Compatibility	Directional Waverider MkI, MkII, MkIII, DWR-G, WR-SG and DWR4(/ACM)
Interface	Display	2 x 20 character liquid crystal display with backlight
	Network	RJ45 10base-T Ethernet
	Serial output	3-wire RS232, 9600 bits per second
	AC power (standard)	100 - 240 VAC, 50-60 Hz, 3.4W avg. / 5.0W max.
	DC power (optional)	10 - 18 VDC, 3.0W avg. / 4.5W max.
Environmental	Temperature range	– 10 - +50 °C
	Relative humidity	10 - 80% (non condensing)
	Weight (desktop)	1.8 kg
	Weight (19")	2.3 kg
	Dimensions (desktop)	230 x 100 x 200 mm (W x H x D)
	Dimensions (19")	482 x 88 x 200 mm (W x H x D) 2U (rack size)

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