



RT-2200 HF RECEIVER-EXCITER

FLEXIBLE CONTROL OPTIONS, DYNAMIC RECONFIGURABILITY

Field-proven reliability in receiving/transmitting voice and data

The Collins RT-2200 is a remote controlled, software defined, high frequency receiver-exciter. It is designed to meet the needs of ground fixed-site and transportable shelter applications. It provides conventional reception and transmission of voice and digital data messages, industry standard Automatic Link Establishment (ALE) capability and high-performance data modem functions. The exciter operating frequency range is 1.5 to 29.999 MHz with the receiver range extending as low as 350 kHz.

The RT-2200 is computer controlled by our advanced control software running on

any computer with a Microsoft® Windows® operating system and using a standard serial interface. Both the RT-2200 and the control software offer great flexibility to optimize and simplify the use of your communications system. The RT-2200 can be used either as a receiver, an exciter or a receiver-exciter in single-site or split-site installations. Each unit may be connected to up to three sources of control information to provide redundancy in large systems.

Additionally, the control software can be configured to control multiple radios and associated equipment such as filters, power amplifiers and antenna couplers.

The overall result is a highly flexible system that experienced Collins Aerospace systems integration engineers will tailor to meet your specific communications needs.



KEY FEATURES AND BENEFITS

- Uses standard waveforms to ensure interoperability with existing networks
- JITC certified
- Includes internal ALE controller (MIL-STD-188-141A Appendix A)
- High-performance data modem capable of data rates from 75 to 1,200 bits per second using waveforms (MIL-STD-188-110A) and up to 19.2 KBPS (MIL-STD-188-110B Appendix C and F in ISB)
- Provides signal reception or signal generation with receive-to-transmit and transmit-to-receive speeds suitable for data applications
- Capability to provide separate transmit and receive frequencies when required

KEY FEATURES AND BENEFITS

- Multiple inputs and outputs enable audio integration from front or rear panel
- 600-ohm balance or unbalance impedances to be used with standard four-wire telephone line connections
- Internal speaker and front panel volume controls
- External speaker jack available for remote monitoring of the receive audio

SPECIFICATIONS

Exciter characteristics

Frequency range	1,500.00 to 29,999.99 kHz
Rated RF output	100 milliwatts into 50 ohms
3rd order intermodulation	45 dB below either of two equal tones at rated output
Audio inputs	Two balanced 600-ohm line inputs

Receiver characteristics

Tuning range	350.00 to 29,999.99 kHz
IF rejection	80 dB
Image rejection	80 dB
3rd order intercept point	+10 dBm minimum
Maximum RF input	+43 dBm
Sensitivity	For 10 dB (s+n)/n: SSB: 0.5 microvolt in 3 kHz bandwidth CW: 0.25 microvolt in 500 Hz bandwidth AM: 3.0 microvolts in 6 kHz bandwidth
Audio outputs	Two balanced 600-ohm line outputs
Internal speaker	Front panel interface; rear panel 8-ohm speaker jack

Common characteristics

Tuning resolution	10 Hz
Frequency stability	Three parts in 10^7 , accepts external 100 kHz or 1 MHz standard
Bandwidths	SSB/ISB: per MIL-STD-188-141A single or dual-channel AM: 6 kHz CW: 500 Hz
Modes	USB, LSB, ISB, CW, AM, AME, simplex, half-duplex
Control	Remote control via RS-232, dual RS-422, or dual RS-485
Duty cycle	100%
Primary power	115 or 230 VAC, 47 to 63 Hz single phase or 23 to 30 VDC, 100 W maximum

Environmental characteristics

Operating temperature	-20 to 50° C
Humidity	Up to 100% relative humidity

Physical characteristics

Height	5.25 in (13.34 cm)
Width	19 in (48.26 cm)
Depth	20 in (50.80 cm), exclusive of mating connectors
Weight	30 lbs (13.61 kg)

The RT-2200's aluminum chassis fills three-rack units (5.25 inches) of a standard 19-inch rack and it fits the limited depth equipment racks used in transportable shelters. Provisions are included for the use of slide mounting rails in applications where mechanical support is required. All cabling to the unit is by D-sub connectors that are positively secured to prevent accidental disconnection due to vibration or shock in transportable applications.

Specifications subject to change without notice.



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