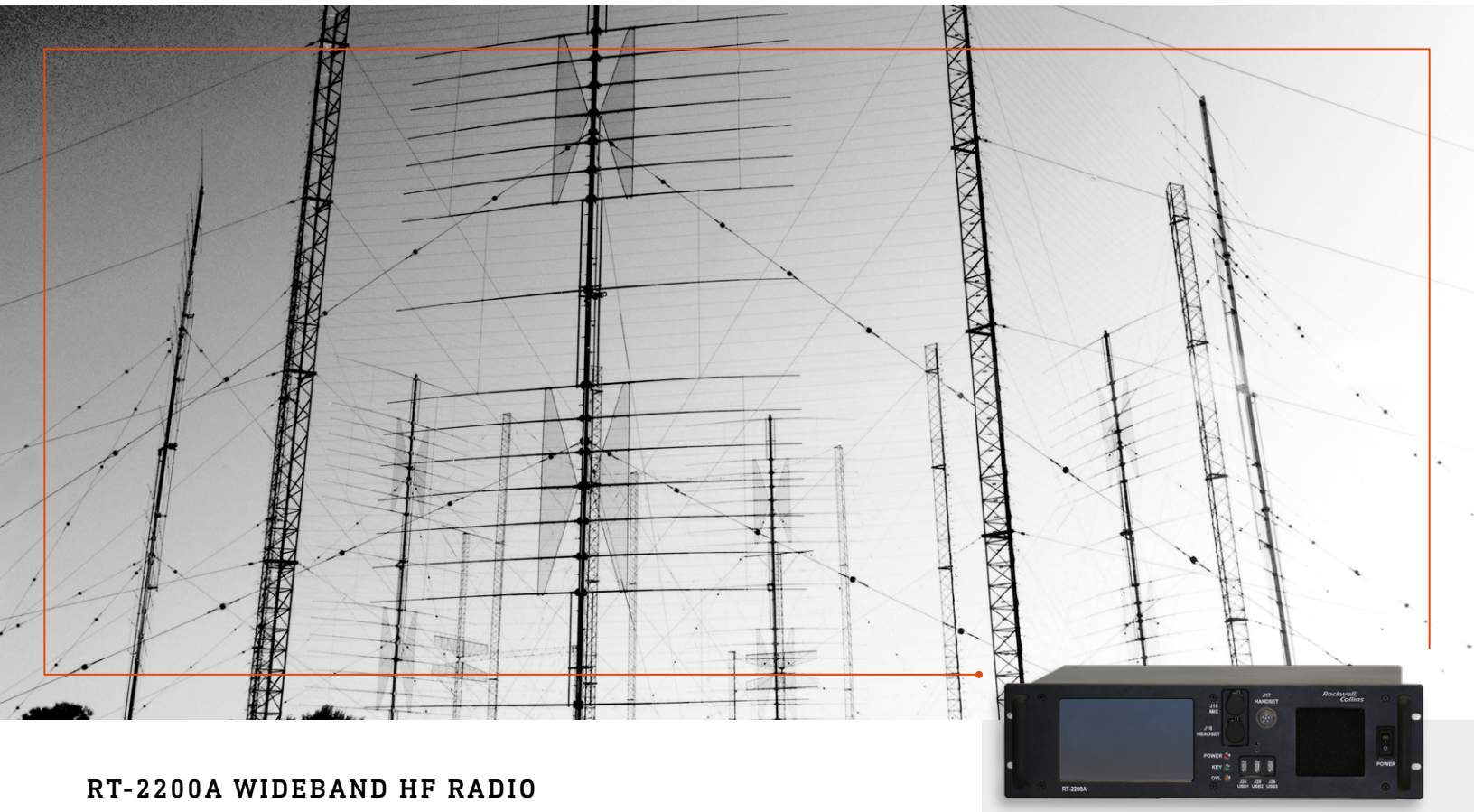

RT-2200A WIDEBAND HF RADIO

TAKING HF WHERE IT'S NEVER BEEN BEFORE

Made for today, ready for tomorrow

Collins Aerospace's RT-2200A high-frequency (HF) radio provides modernized wideband, as well as legacy narrowband, interoperability for beyond line of sight (BLoS) analog voice and digital voice and data communications.

The RT-2200A's wideband channel (3-48 kHz) operation provides significant advantages over legacy HF. It facilitates better establishment and maintenance of links in poor propagation and operating environments than legacy narrowband HF can support.

Even under these conditions, the RT-2200A will support text chat and low rate digital voice. Under normal conditions, it can deliver high-speed data rates up to 20 times faster than legacy narrowband, which supports networking and other data-intensive applications. The RT-2200A is taking HF where it's never gone before.

This software defined radio is the next-generation replacement for the RT-2200, maintaining most legacy functionality. Our engineers can work with customers to customize the installations and networks to meet their specific requirements, such as remote control and split-site operability.

Collins Aerospace has a long history of HF and networking expertise worldwide. In the High Frequency Industry Association community, we have helped to set the standards for both 4G Automatic Link Establishment (ALE) and 48 kHz wideband waveforms. We continue to invest in bringing next-generation HF capability to our U.S. and international customers.

KEY FEATURES

- Supports flexible architectures enabling networking capabilities in commercial and military installations
- 1.5 to 29.99999 MHz transmit and receive frequency ranges in regular operation
- Delivers data rates up to 20 times faster than legacy HF, per MIL-STD-188-110D Appendix D (48 kHz channel)
- Built-in 4G ALE for reliability and ease of use
- Simplex and half-duplex operation
- SSB, two-channel ISB, CW, AM, AME Tx, WBHF modes
- MIL-STD-188-141D compliant

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TECHNICAL FEATURES

- Flexible networking architecture options, with multiple external crypto and IP networking protocol options
- Built-In-Test (BIT) provides fault detection and isolation
- Analog voice built in
- Front-panel, six-pin military (GC283) and aviation audio headset connectors (1/4 inch and 0.206 inch), rear panel line in/out (600 ohm load)
- Standard Ethernet rear-panel connectors (RJ-45)
- Signal-to-noise enhancement (companding) on voice links
- Standard USB front and rear-panel connectors for keyboard or mouse (USB Type A)
- Data interfaces over synchronous serial, asynchronous serial and Ethernet
- Built-in receiver overload protection and filtering for operation without external pre-/post selector in most environments
- CE conformity
- MTBF >40,000 hours per MIL-HDBK-217F for ground fixed environment at 25°C (estimated)
- Compatible with Link-11 systems (requires external modem)

SPECIFICATIONS

Exciter electrical

Rated RF output	100 milliwatts into 50 ohms
Compatible PAs	URG-III family (narrowband) URG-IV family (narrowband, wideband Other (contact Collins)
3rd order IMD products	40 dB below either of two equal tones at 14 dBm
Audio inputs	Two balanced 600-ohm line inputs

Receiver electrical

IF rejection	80 dB (minimum)
Image rejection	80 dB (minimum)
Maximum RF input	+13 dBm
Sensitivity (10 dB SINAD)	0.5 uV (-113 dBm) 3 kHz BW SSB/ISB 0.25 uV (-119 dBm) CW 3.16 uV (-97 dBm) 3 kHz BW AM
Audio outputs	Two balanced 600-ohm line outputs
Speaker	Internal, with front panel volume control External 8 ohm speaker jack (0.25 inch)

Common electrical

Tuning range	Receive: 0.350 - 29.99999 MHz Transmit: 1.5 - 29.99999 MHz
Tuning resolution	1 Hz
Frequency stability	3 parts in 10^7
Bandwidths	SSB – per MIL-STD-188-141A, single or dual-channel WBHF – per MIL-STD-188-110D (3-48 kHz) Waveforms up to 48 kHz/240 kbps
Modes	USB,LSB,ISB,WBHF,CW,AM,AME Tx
Duty cycle	100%
Control	Local control through built-in 178 mm touch screen or keyboard/ monitor/mouse Remote control via serial or 10/100 Base-T Ethernet
Primary power	100-240 VAC, 50-60 Hz single phase

Environmental

Operating temperature	-20° to 50° C
Non-operating temperature	-40° to 85° C
Humidity	Up to 95 percent relative humidity with no condensation

Physical

Height x width x depth	133 x 483 x 458 mm (5.22" x 19" x 18")
Weight	12.7 kg (28 lbs)

Specifications subject to change without notice.

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