

RF-5570
HF-ISB EXCITER

*a DSP-based,
state-of-the-art,
HF exciter*

The RF-5570 is ideally suited for very high performance transmitter applications such as base, embassy, shipboard, and naval shore stations. The Digital Signal Processing (DSP) and Direct Digital Synthesis (DDS)-based architecture provides very low distortion, a high signal-to-noise ratio, and superior spectral purity that can be even further enhanced for difficult collocated installations via an optional internal postselector. Complete coverage of the 1.5 to 29.99999 MHz frequency range is provided in 1 Hz increments. Modes of operation include USB, LSB, two-channel ISB, CW, AME, and FSK. Low delay distortion DSP filters for high-speed data applications, including LINK-11 and 9600 bit per second HF modems, are standard.

The graphical pixel-format LCD and soft-key based front panel provides "plug-and-play" intuitive operation, minimizing training requirements, while front panel programmable audio and keyline source selection and automatic external standard frequency selection further ease installation and operation. Full remote control and monitoring capability for unattended system applications are provided via an asynchronous serial data interface in accordance with RS-422 standard. Controllable functions include frequency, mode, keying, power output, channel programming and selection, and BITE.

Built-in test diagnoses and isolates malfunctions to the module level, while the greatly minimized number of modules simplifies logistics and minimizes time to repair.

The RF-5570 Exciter is supplied as part of the RF-1140C 1 kW, RF-1165A 5 kW and RF-1155A 10 kW solid-state HF-ISB Transmitters.



General

- **Frequency Range**
1.5 to 29.99999 MHz in 1 Hz increments
- **Frequency Stability**
1 part in 10^8 for any 24-hour period and
1 part in 10^7 over temperature
using the internal standard
- **External Standard**
1, 5, 10 MHz, with automatic selection
- **Channel Memory**
100 channel capacity, capable of being
loaded locally or remotely with
complete exciter parameters
- **Standard Modes**
USB (J3E, A3J or R3E, A3A) CW (A1A, A1)
LSB (J3E, A3J or R3E, A3A) AME (H3E, A3H)
ISB (B8E, A3B) 2 channel FSK (F2B, F2)
- **Audio Inputs**
USB, LSB, AUX1, AUX2, MIC
- **FSK Shifts**
Selectable: 85 @2805 Hz, 170 @2000 Hz,
and 850 @2000 Hz
- **Power Output**
+20 dBm minimum (Adjustable to -50 dB
in 1 dB steps)
- **Sideband Characteristics**
 ≤ 3 dB 300 to 3050 Hz, Link II-compliant
delay distortion
- **Intermodulation Distortion**
35 dB minimum below PEP
- **In-Band Noise**
-85 dB/Hz
- **Sideband Suppression**
-60 dB
- **Broadband Noise**
-135 dB/Hz @100 kHz
- **Spurious Suppression**
-70 dB

Environmental

- **Temperature**
-10°C to +55°C (operating); -40°C to +71°C (non
operating)
- **Humidity**
0 to 95% RH, condensing, per MIL-STD-810E,
Method 507.3 Procedure III – Aggravated
- **Shock**
MIL-STD-901, Grade A, Type A, Class II
- **Vibration**
MIL-STD-167-1, Type 1, to 50 Hz

Installation

- **Power Supply**
115 or 230 VAC $\pm 20\%$, 47 to 63 Hz, single phase
- **Power Consumption**
100 VA maximum
- **Size**
3.5H x 19.0W x 17.5D in
(9H x 48W x 43D cm)
- **Weight**
23 lb (10.5 kg) maximum

Options

- RF-1317A Digitally Tuned Postselector

Specifications are subject to change without notice.



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