

RF-2601**1KW FAST-TUNE****HF ANTENNA COUPLER***a rugged shipboard**qualified high power**antenna coupler*

The RF-2601 Antenna Coupler is designed specifically for applications where fast frequency change is necessary, such as those incorporating automatic link establishment. It will operate continuously under the most severe environmental conditions in vehicular, transportable, shipboard, and fixed-station applications.

The RF-2601 efficiently and rapidly matches the output of 1 kW transmitters and transceivers to a wide variety of whip, dipole, and long-wire antennas over the frequency range of 1.6 to 30 MHz. Upon keying the associated transmitter on a new frequency, tuning occurs typically in 75 ms using previously stored (memorized) tuning information. Emissions are minimized during memory tuning by limiting actual on-the-air time to less than 30 ms.

The coupler is designed for direct interface with the RF-1140 1kW HF-ISB Transmitter Series and RF-1145 1kW Transceiver System and can be remotored up to 500 feet from the transmitter or transceiver.

The RF-2601 provides extensive automatic monitoring of parameters during normal operation and also incorporates comprehensive operator-initiated static and transmit BIT. If a fault condition should arise, the processor-controlled BIT quickly identifies the source of the problem to the replaceable module level or lower, speeding mean time to repair.



Specifications for the RF-2601

Electrical		Environmental	
Frequency Range	1.6 to 30 MHz	Temperature	MIL-STD-810D; Method 501.2 Proc I and II (storage at +71°C and operation at +65°C). Method 502.2, Proc. I and II (storage at -62°C and operation at -54°C).
RF Power	2 to 30 MHz: 1 kW PEP/Average; 1.6 to 2 MHz: 1 kW PEP/500 watts Average	Humidity	MIL-STD-810D; Method 507.2, Proc.II, (0 to 100% relative humidity).
Tuning Capability	1.6 to 30 MHz: 35 foot whip, long wire, dipole, and broadband antennas; (The RF-625A Long-Wire Adapter is necessary for use with long-wires and dipoles.) 2.0 to 30 MHz: 16 to 24 foot mobile and shelter-mounted whips.	Vibration	MIL-STD-810C; Method 514, Procedure VIII, curve Y except 5 to 55 Hz and 0.15 inches dbl. ampl. or 2.5G, whichever is less. MIL-STD-167-1; Type I for shipboard equipment.
Tuning Accuracy	VSWR of 1.2:1 typical	Shock	MIL-S-901; Grade A, Class I (solid mount), Lightweight, type A
Tuning Time	Memory: 75 milliseconds to 125 milliseconds; Learn: 2-3 seconds typical, 10 seconds maximum.	Altitude	MIL-STD-810D; Method 500.2, Proc.I and II, (storage and operation to 15,000 ft.).
Tune Power Requirements	25 to 280 watts	Salt Fog	MIL-STD-810D; Method 509.2, Proc.I
Channel Memory	480 channels.	Dust	MIL-STD-810D; Method 510.2, Proc.I and II (blowing dust and sand).
Circuit Protection	Protection from high VSWR, high temperature, low pressurization, RF over-voltage, control line lightning surges, RF path lightning surges.	Rain	MIL-STD-810D; Method 506.2, Proc.I (blowing rain).
Coupler Bypass	Automatically in fault mode; Manually, with RF-2602 Status Monitor.	Installation	
Remote Capability	Up to 500 feet separation between transmitter and coupler with the use of 1/2 inch or 7/8 inch foam dielectric coaxial cable. Up to 250 feet with the use of RG-213/U Coaxial Cable.	Power Supply	115/230 VAC ±10%, 50/60 Hz single phase
		Power Consumption	145 watts maximum. Primary power derived from transmitter/transceiver.
		Size	Coupler Unit: 30L x 15W x 10.7H in (76.2L x 38.1W x 27.2H cm) Control Unit: 1.75H x 19W x 8.75D in (4.4H x 48.3W x 22.2D cm)
		Weight	Coupler Unit: 86 lb maximum (39 kg) Control Unit: 10 lb (4.5 kg)

Optional Accessories for RF-2601 1 kW Fast-tune HF Antenna Coupler

RF-2601AC	Similar to RF-2601, except RF-2602 Status Monitor is deleted.	RF-636	Dry Air Pump. Hand pump recommended for pressurization of the RF-2601 when dry-nitrogen pressurization equipment is not available. Includes hose. Desiccant condition shown by color indicator on pump body.
RF-625A	Long-Wire Adapter. Permits RF-2601 to tune long-wire antennas.		
RF-628	Dry Nitrogen Kit. For inert gas pressurization of the RF-2601 Antenna Coupler. Includes 20 cubic feet dry-nitrogen-filled cylinder, regulator, and 10 foot hose sufficient to pressurize the RF-2601 up to 12 times.		

Specifications are subject to change without notice.



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