



L3HARRIS™
FAST. FORWARD.

RF-2601

1 kW Fast-Tune HF Antenna Coupler

PHYSICAL	
Dimensions	Coupler Unit: 10.7 H x 15 W x 30 D in (27.2 H x 38.1 W x 76.2 D cm) Control Unit: 1.75 H x 19 W x 8.75 D in (4.4 H x 48.3 W x 22.2 D cm)
Weight	Coupler Unit: 86 lb maximum (39 kg) Control Unit: 10 lb (4.5 kg)
ENVIRONMENTAL	
Temperature	MIL-STD-810D Method 501.2, Procedure I and II (storage at +71°C and operation at +65°C) Method 502.2, Procedure I and II (storage at -62°C and operation at -54°C)
Humidity	MIL-STD-810D Method 507.2, Procedure II (0 to 100% relative humidity)
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
Shock	MIL-S-901 Grade A Class I (solid mount) Lightweight Type A
Altitude	MIL-STD-810D Method 500.2, Procedure I and II (storage and operation to 15,000 ft)
Salt Fog	MIL-STD-810D Method 509.2, Procedure I
Dust	MIL-STD-810D Method 510.2, Procedure I and II (blowing dust and sand)
Rain	MIL-STD-810D Method 506.2, Procedure I (blowing rain)
POWER	
Power Supply	115/230 VAC ±10%, 50/60 Hz single phase
Power Consumption	145 watts maximum Primary power derived from transmitter/transceiver



The RF-2601 is a ruggedized, ship-qualified antenna coupler, ideal for scenarios where fast-frequency changes are necessary such as those incorporating Automatic Link Establishment. This 1 kW Fast-Tune Antenna provides continuous operation in severe environments for 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 1.6 to 30 MHz frequency range. The antenna coupler features fast transmitter tuning technologies with minimized emissions. The coupler is designed for direct interface with the RF-1140 1 kW HF-ISB Transmitter Series and RF-1145 1 kW Transceiver System, and supports remote operations up to 500 feet from a transmitter or transceiver.

ELECTRICAL	
Frequency Range	1.6 to 30 MHz
RF Power	2 to 30 MHz: 1 kW PEP/Average 1.6 to 2 MHz: 1 kW PEP/500 watts Average
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
Tuning Accuracy	VSWR of 1.2:1 typical
Tuning Time	Memory: 75 milliseconds to 125 milliseconds Learn: 2-3 seconds typical, 10 seconds maximum
Tune Power Requirements	25 to 280 watts
Circuit Protection	Protection from high VSWR, high temperature, low pressurization, RF over-voltage, control line lightning surges, RF path lightning surges
Coupler Bypass	Automatically in fault mode Manually, with RF-2602 Status Monitor
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

OPTIONAL ACCESSORIES	
RF-2601AC	Similar to RF-2601, except RF-2602 Status Monitor is deleted
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 drynitrogen-filled cylinder, regulator, and 10 foot hose sufficient to pressurize the RF-2601 up to 12 times
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-2601 1 kW Fast-Tune HF Antenna Coupler

© 2020 L3Harris Technologies, Inc. | 05/2020 TAC SP172

Non-Export Controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



1025 W. NASA Boulevard
Melbourne, FL 32919