



## CU-9150

1 KILOWATT AUTOMATIC ANTENNA COUPLER



The Sunair CU-9150 is a proven solution in communications applications where rugged, reliable, flexible, and adaptable equipment is required. The next-generation antenna coupler has the ability to tune a wide variety of antennas over the entire HF band. The CU-9150 operates continuous duty at power levels up to 1kW Average / 1 kW PEP over 2 – 30 MHz and 500W Average / 1 kW PEP over 500W over 1.5 – 2 MHz. The antenna coupler uses a high speed digitally-tuned network to support whips and long wire antennas, while a built-in microprocessor controls internal selectable RF circuit elements to provide 50  $\Omega$  coaxial feed line impedance, with a maximum 1.5:1 VSWR. Typical tuning time is less than 4 seconds at any new frequency across 1.5 – 30 MHz, and 30 ms from memory.

The Sunair CU-9150 is built to meet harsh environmental requirements of exposed dust and saltwater installations, such as transportable shelters, rooftop, and shipboard. Designed as a companion to the Sunair 9000D series radios and LPA series amplifiers, the product can also be interfaced to other manufacturers' available HF products. The antenna coupler's intuitive modular design allows for ease of maintenance and upgrade throughout the equipment life cycle at minimal expense. More than a thousand are in daily service as integral components of critical strategic communications solutions worldwide.

- **Continuous Duty Operation**
- **Operation With Whips and Long Wire Antennas**
- **Line Flattener for High VSWR Broadband Antennas**
- **30 ms Tuning From Memory**
- **Comprehensive BITE to LRU**
- **Low RF Output During Tuning**
- **Ruggedized For Exposed Installations**

## PRODUCT SPECIFICATIONS

GENERAL	
Frequency Range	1.5 – 30 MHz
RF Input Power	* 1.5 – 2.0 MHz 1 kW PEP / 500 W Average * 2.0 – 30.0 MHz 1kW PEP / 1 kW Average
Duty Cycle	Continuous
Tuning Capability	* Whips and Long Wire * For Whips < 35 Feet 3 – 30 MHz
Tuning Time	4 Second Typical; 30 ms From Memory
Tuning Power	45 W
Tuning Accuracy	1.5:1 VSWR Typical
Channel Memory	128
Output Impedance	50 $\Omega$ Nominal Via N Female Connector
Remote Capability	Maximum 250 Feet With Standard Control Cable Assembly; Longer Lengths Available With Special Control Cable Assembly or Optional DC / DC Supply
Circuit Protection	* Antenna Terminal: Spark Gap * Control Cable: Lightning Impulse
MTBF	12000 Hours
MTR	30 Minutes
Dimensions	* 9.6 H x 17.9 W x 28.81 L (in) * 24.4 H x 45.5 W x 73.2 L (cm)
Weight	56 lbs (25.5 kg)
Construction (Finish)	Anodized; Painted With Marine Grade Finish
Mounting Orientation	Unrestricted
Origin	Designed and Manufactured in the U.S.A.

PERIPHERAL EQUIPMENT OPTIONS	
Spares Kits	Field Modules
Radios	RT-9000D / R-9000D / T-9000D
500 W/1 kW Power Amplifiers	LPA-9500 / LPA-9600
Other	* Transport Case * Shockmount Kit * DC to DC Converter Assembly * Long Wire Adapter Kit (For Wires > 75 Feet) * Diagnostic Test Set

ENVIRONMENTAL	
Temperature	* Operating: -50°C to +65°C (-58°F to 149°F) * Storage: -55°C to +85°C (-67°F to 185°F)
Humidity	MIL-STD 810F, Method 507.4
Shock	MIL-STD 810F, Method 516.5, Procedure 1
Vibration	MIL-STD 810F, Method 514.5 & MIL-STD-167-1
Dust	MIL-STD 810F, Method 510.4, Procedure 1
Rain	MIL-STD 810F, Method 506.4, Procedure 1
Altitude	* Operating: Up to 10,000 Feet * Storage: Up to 40,000 Feet

CERTIFICATIONS	
European CE Standard, (Optional)	* EN 300 373-2 v1.2.1 * EN 301 843-5 v1.1.1 * EN 60950 * Notified Body 1177



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