

# <u>RF-7850A-AT101</u> AIRBORNE ANTENNA

#### AIRBORNE ANTENNA

ELECTRICAL	
Frequency Range	30 – 88 MHz 108 – 174 MHz 225 – 512 MHz
Impedance	50 ohms
VSWR	< 2.5: 1 maximum
Polarization	Vertical
Tuning Time	< 60u seconds
RF Power Capacity	25 W VHF 50 W UHF
Gain	> -15 dBi 30 MHz > -7 dBi 88 MHz > -3 dBi 118-174 MHz > +1 dBi 225-512 MHz

## MECHANICAL

Antenna Port	TNC female
Dimensions	6.5 H x 11 W x 4 D in (165.1 H x 279.4 W x 101.6 D mm)
Weight	3 lbs (1.36 kg)
Finish	Urethane lusterless black

## ENVIRONMENTAL

Altitude	50,000 ft above sea level
Impact Shock	30 g
Steady State Acceleration	6 g
Temperature	-65.2° to 131° F (-54° to +55° C) (operational) -79.6° to 185° F (-62° to +85° C) (non-operational)
MIL-STD-810G	Humidity Fixed-wing vibration Rotary-wing vibration Rain Sand and dust Shock Acceleration Salt/fog
Wind	125 mph (201 kph)



# Full-Spectrum Coverage

The Harris RF-7850A-AT101 is a vertically polarized, low-profile and fast tune VHF/UHF antenna operating within the 30-512 MHz frequency range. Designed for use with the Harris RF-7850A Falcon III® airborne networking radios, the AT101 is ruggedized for reliable performance on lighter platforms with lower ground clearance. This omnidirectional antenna handles 25 watts VHF and 50 watts UHF power. Tuning is controlled by a separate Logic Control Unit.

## LOGIC CONTROL UNIT

ELECTRICAL		
Power Input	22 to 29 VDC	
Power Consumption	.5 amps max @ 28 VDC	
Reverse Polarity	Per MIL-STD 704F	

MECHANICAL	
Dimensions	2.7 H x 6.3 W x 3.06 D in (68.6 H x 159.7 W x 77.8 D mm)
Weight	2.99 lbs (0.75 kg)
Finish	Urethane lusterless black

ENVIRONMENTAL	
Temperature	-65.2° to 159.8° F (-54° to +71° C) (operational)
MIL-STD-461F	CE101 CE102 RE101 RE102 CS101 CS114 CS115 CS116 RS101 RS103

RF-7850A-AT101 Airborne Antenna

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