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ACTIVE SATELLITE ANTENNA SYSTEM FOR THE IC-SAT100

AH-41

Active Satellite Antenna System for Using the IC-SAT100 Satellite PTT Radio in a Building

Covers both Iridium[®] satellite frequencies and GNSS L1 band frequencies, and provides a solution for satellite communications indoors

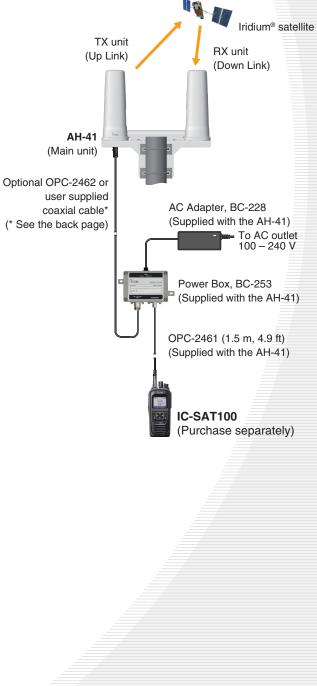
Use optional OPC-2462 (59 m, 193.5 ft) or user supplied coaxial cable (Max. 169 m, 554.5 ft) to obtain a line-of-sight path to the satellite

Power over Coaxial (PoC) carries electrical power through the coaxial cable – Electrical power cabling can be reduced

Separate TX/RX unit configuration, TX unit with a Power Amplifier and RX unit with a LNA (Low Noise Amplifier)

The main unit has IP67 waterproof and dust-tight protection for outdoor installation





SPECIFICATIONS

GENERAL				
Frequency range	1616.02–1626.48 MHz (TX unit/RX unit) 1575.42–1605.4 MHz (RX unit, GNSS L1 band)			
Antenna impedance	50 Ω nominal (N-J connector)			
Polarization	Right-hand circular			
Operating temperature range	–25°C to +55°C, –13°F to +131°F			
Current drain (approximate)	Less than 2.5 A (at relay) Less than 0.8 A (stand-by)			
Dimensions (W \times H \times D) (projections not included)	$310 \times 326 \times 89$ mm (TX/RX units + bracket) 77 × 200 × 77 mm (each unit)			
Weight (approximate)	1.6 kg, 3.5 lb			
TX UNIT				
Rated output power	37.7 dBm ± 1 dB (at 23.3 dBm input to TX unit)			
Spurious emissions	0.25 μW (≤ 1 GHz), 1.0 μW (> 1 GHz)			
RX UNIT				
Total gain	17 dB ±1.5 dB (at –80 dBm input to RX unit)			
Noise figure	Less than 3.0 dB			
Spurious emissions	0.25 μW (≤ 1 GHz), 1.0 μW (> 1 GHz)			

All stated specifications are subject to change without notice or obligation.

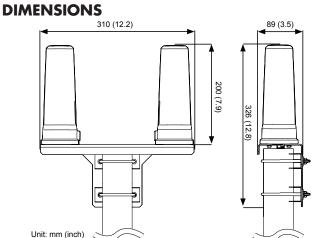
Applicable IP Rating

Ingress Protection Standard				
IP rating (AH-41 main unit)	IP67 (Waterproof and dust-tight)			

Packing Includes :

- Main unit (TX/RX units and bracket)
- OPC-2461, Coaxial cable (1.5 m, 4.9 ft)
- BC-253, Power box
- BC-228, AC adapter
- Mounting kit (U-bolts, pole clamps, washers and nuts)





OPTIONAL ACCESSORY



OPC-2462

COAXIAL CABLE (5D-HFA) (59 m, 193.5 ft)

SUGGESTED MAIN ANTENNA CABLES

Use optional OPC-2642 or user supplied coaxial cable to meet Iridium[®] performance requirements, and comply with FCC regulations.

Cable loss requirement from Power box to the AH-41 12.5–13.0 dB loss at 1621 MHz

Reference Cable	Diameter	Cable Length
Times Microwave Systems		
LMR 195	4.95 mm, 0.195 inch	27 m, 88.6 ft
LMR 240	6.10 mm, 0.240 inch	39 m, 128.0 ft
LMR 300	7.62 mm, 0.300 inch	49 m, 160.8 ft
LMR 400	10.29 mm, 0.405 inch	75 m, 246.1 ft
LMR 500	12.70 mm, 0.500 inch	92 m, 301.8 ft
LMR 600	14.99 mm, 0.590 inch	115 m, 377.3 ft
LMR 900	22.10 mm, 0.870 inch	169 m, 554.5 ft

Above cable lengths are for your reference which are calculated by the target cable loss at 1500 MHz.



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