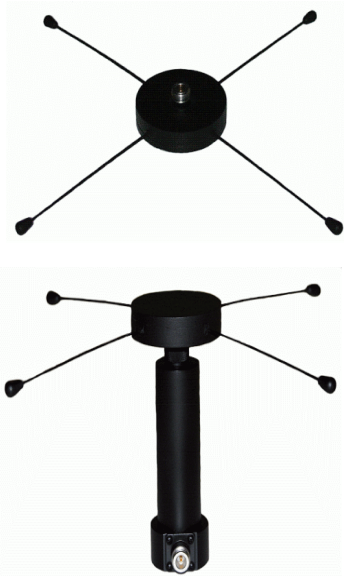


DATASHEET



UC-3004-481 Tacsat Antenna, Tactical X-Wing

Tacsat Antenna model UC-3004-481 is a lightweight, low observable, compact UHF Satcom antenna system. The polarization of this Tactical X-Wing is Circular, intended for communications via UHF MUOS satellites (DAMA/IW/WCDMA). When used on its high gain mount, it can be utilized with UFO and earlier satellites. Its radiating elements are flexible and difficult to see at a distance, from any view angle. The small Tacsat Antenna can be stowed in a very small pouch, or webbed onto a backpack.

UHF Line of Sight communications can be maintained with this antenna. When operated as an intra-team aerial, its circular polarization offers natural diversity, reducing the intensity of multipath. Variants for other operating frequencies may be requested as indicated below.

X-Wing Polarization Note



Key features of this tactical antenna

- Small and Lightweight, stows in a typical trouser/jeans pocket, or a small pouch (4"/10 cm x 4"/10 cm)
- Difficult to see/spot at a distance
- Quick deployment (take out of pocket/pouch, connect to cable and you are ready to communicate)
- Modular - one antenna can serve multiple purposes/platforms
- Compatible with all the accessories of our UC-3004-381 Mini-UHF X-Wing antennas, which include
 - High Gain Mount (ACC-0005)*, doubles the gain (adds 3 dB) when installed on a metal surface larger than 28"/70 cm x 28"/70 cm, or on the ground
 - Suction Cup Mount (ACC-0005 + ACC-0002), to attach to non-metal and metal, smooth surfaces
 - Magnetic/Mag Mount (ACC-0005 + ACC-0003 or ACC-0001), to attach to ferrous metal surfaces
 - Bolt-on, AV 2090-4 hole pattern compatible, direct Vehicle Mount (ACC-0005 + ACC-0008)
 - Universal Antenna Ground Mount Stake (ACC-0013)
 - Standard Camera Tripod (ACC-0005)
 - Make your own bracket - all you need is a 1/4" (6.4 mm) hole
- Antenna elements may be webbed onto a backpack for tactical, on-foot COTM (Communications-On-The-Move)
- In its normal orientation (connector pointing towards the ground), the UC-3004-481R is RHC Polarized (Right Hand), flip it upside down (connector points to the sky) and polarization will change to LHCP (Left Hand)

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UC-3004-481 Technical Specifications

- Operating Frequencies:
 - Original model, **UC-3004-481R**: 243-318 MHz
 - Rev A model, **UC-3004-481AR**: 243-380 MHz (useable 225-400 MHz)
- Polarization: Circular (CP) [model -481R_ is RHCP]
- Axial Ratio: 2 dB
- Maximum Power: 50 Watts CW (Continuous operation)
- Gain (peak):
 - Directly mounted on connector: 0 dBic
[Elevation pattern \(NO Ground Plane\)](#)
 - On High Gain mount ACC-0005, +4 dBic*
- Azimuthal Coverage: Omnidirectional
- Nominal Impedance: 50 Ohms (RF), short circuit (DC)
- Maximum VSWR: 3.0 (under 2.5 typical) [VSWR Plot](#) - [Rev A model VSWR Plot](#)
- Connector Interface: Type N, female
- Operating Temperature: -40C to +85C (-40F to 185F)
- Dimensions: 14 in tip-tip, can fit in a 10 cm x 10 cm (4 in x 4 in) pouch (not supplied)
- Weight: 130 g (0.28 lbs)

NOTES:

- Mounted on a metallic surface

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UC-3004-481 Additional Information

This product is compatible with the following Accessories:

- [12 cm \(5"\) Magnetic Base](#)
- [7 cm \(3"\) Magnetic Base](#)
- [9 cm \(3.5"\) Suction Cup](#)

Recommended Cable Assemblies

- [LMR240 - use for cables longer than 10 meters \(30 ft\)](#)
- [LMR195 - use for cables shorter than 10 meters \(30 ft\)](#)

Specify desired length from drop-down menu

Specify desired connector for the radio end: (usually Type N, TNC or BNC Male)

AN/PRC-152	TNC Male Connector
AN/PRC-117	BNC Male Connector
AN/PRC-148 (MBITR)	TNC Male Connector
LST-5	Type N Male
AN/PSC-5	BNC Male Connector
AN/PRC-119	BNC Male Connector
AN/PRC-139	TNC Male Connector
AN/PRC-113	BNC Male Connector
Motorola Saber	SMA Female Connector
Motorola XTS 3000	SMA Female Connector
Motorola XTS 5000	SMA Female Connector

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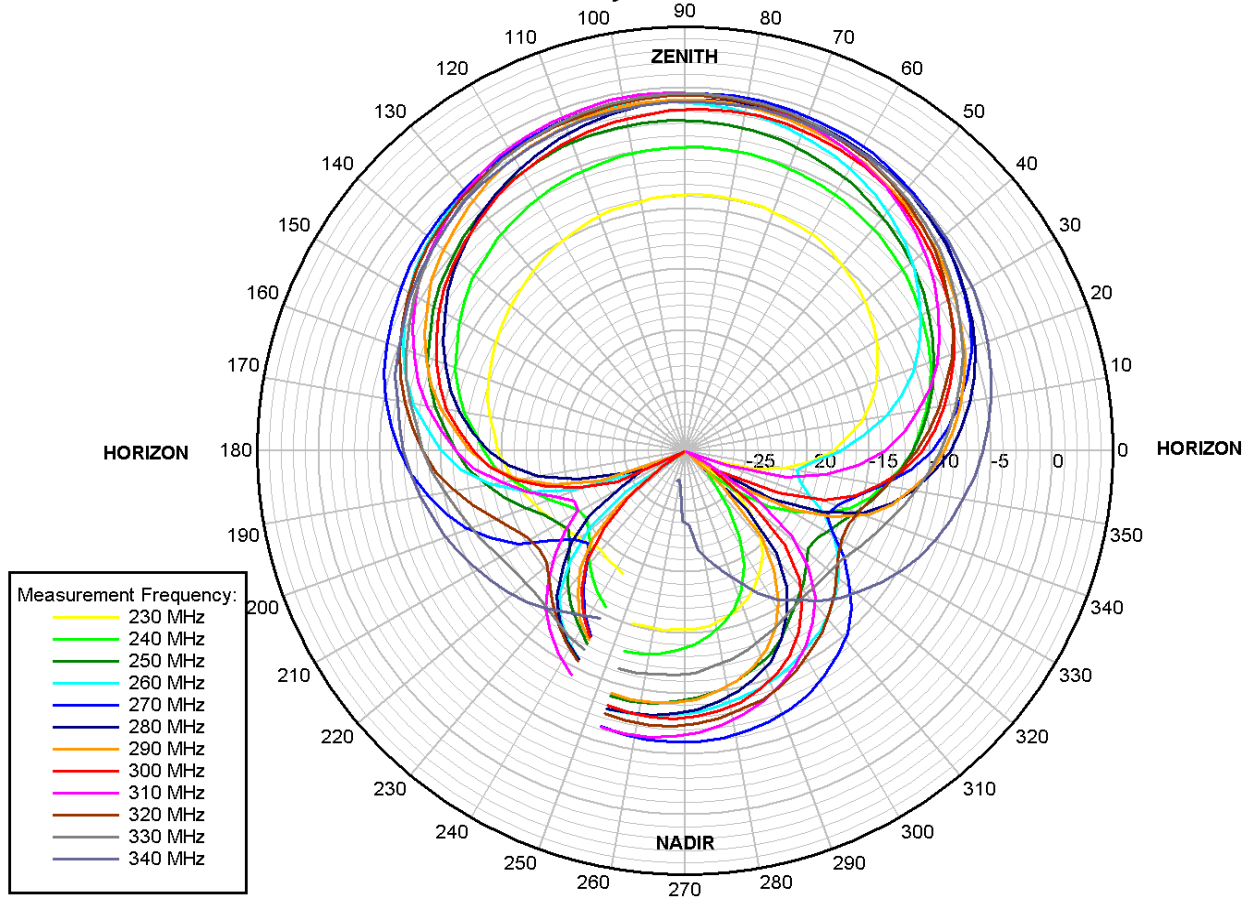
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Elevation Pattern - TacSat Antenna UC-3004-481R -- NO Ground Plane

Radial scale in dBic -- Polarization: Right-Handed Circular (RHCP) -- Zenith @ 90°

Date: 2011/05/18/19:25 hrs

by: antennas.us

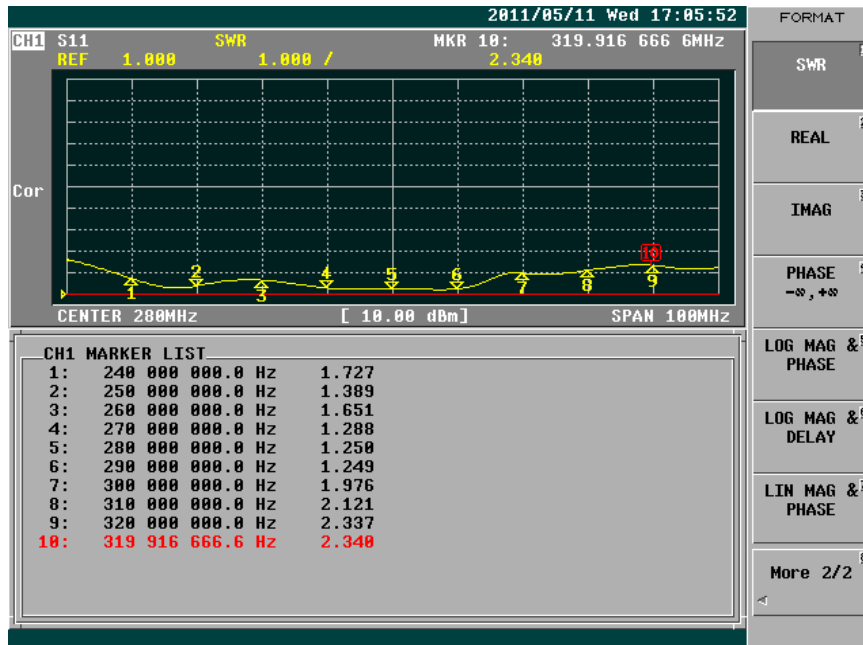


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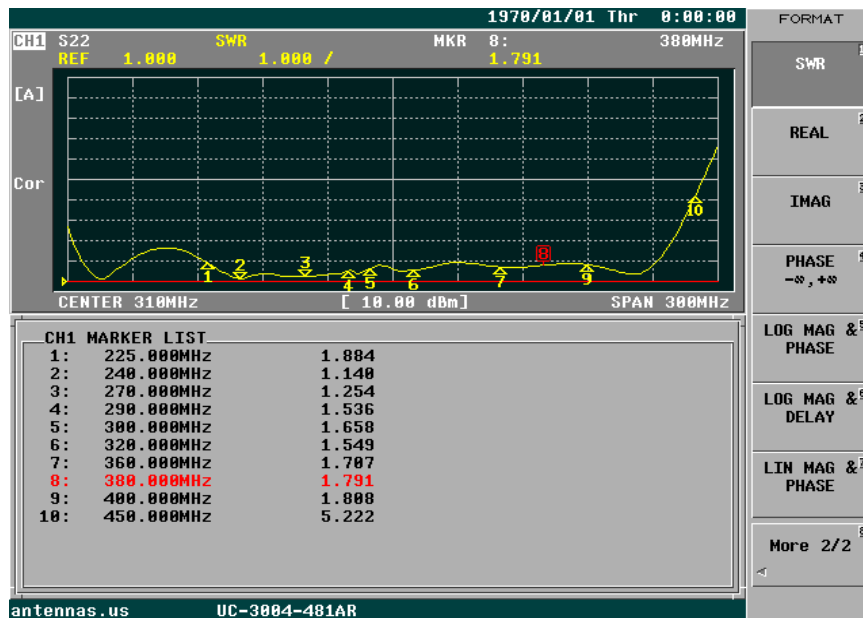
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VSWR Plot for Original (Rv NR) UC-3004-481R



VSWR Plot for Revision A UC-3004-381AR



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