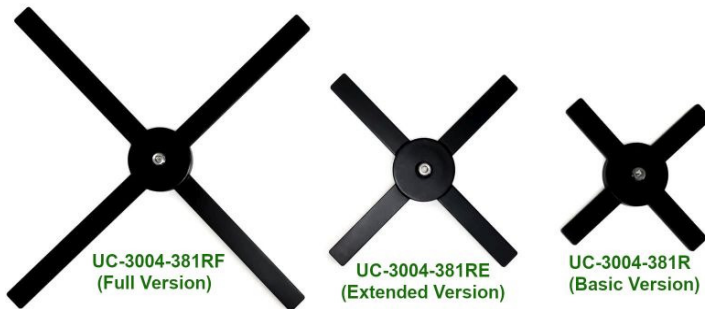


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UC-3004-381 Mini UHF SATCOM Antenna, X-Wing

UHF SATCOM Antenna model UC-3004-381 is a lightweight, tactical, compact Turnstile/X-Wing antenna system. The polarization of this antenna is Circular (CP), intended for communications via MUOS satellites (DAMA/IW/WCDMA). This antenna is approximately half the size of a normal **X-Wing** antenna. However, it offers comparable gain to its full size counterpart. Its half size dimensions make it ideal for tactical applications, where low observability is important. It will also serve to spoof opposing forces and intelligence efforts. They will be believing traffic through the antenna is occurring at much higher frequencies, due to its small size.



X-Wing Polarization Note



SATCOM Antenna Design Modularity and Implementation Philosophy

The design of this Mini UHF X-Wing Antenna is modular. This enables you to use one antenna in multiple ways. For example, mount it on a vehicle, using the [High Gain Mount, ACC-0005](#) and either a magnet ([ACC-0003](#)) or a suction cup ([ACC-0002](#)). For a more permanent installation, use the standard X-Wing bolt mount ([ACC-0008](#), compatible with AV 2090, 4 hole pattern). After reaching your target area and dismount the vehicle, you may remove the antenna (with or without the High Gain Mount). Then, attach it to your radio with a [Coaxial Cable Assembly](#) for portable use (see website for more cable choices). Note: for a lighter, less observable version of this antenna, which fits in a 4" (10 cm) x 4" (10 cm) pouch (see [UC-3004-481](#) Tacsat Antenna).

Contact us for further information about the UC-3004-381 Antenna. This includes additional capabilities, expanded features and customized variants, which are available per special request. Call us to discuss your requirements at 954-345-5000. Alternatively, email us at sales@antennas.us

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UC-3004-381 Technical Specifications

- Operating Frequencies:
 - Original models, **UC-3004-381R/RE/RF**: 243-318 MHz
 - Rev A models, **UC-3004-381AR/ARE/ARF**: 243-380 MHz (useable 225-400 MHz)
- Polarization: Circular (CP) [models -381R_ are RHCP]
- Axial Ratio: 2 dB
- Maximum Power: 50 Watts CW (Continuous operation)
- Gain (peak):
 - Mini (basic) version, directly mounted on connector: -4 dBic
 - Mini (basic) version, on High Gain mount ACC-0005, +1 dBic*
[Elevation pattern \(Basic version\)](#)
 - "E" (Extended) version, directly mounted on connector: 0 dBic
 - "E" (Extended) version, on High Gain mount ACC-0005, +4 dBic*
[Elevation pattern \(Extended version\)](#)
 - "F" (Full) version, directly mounted on connector: +2 dBic
 - "F" (Full) version, on High Gain mount ACC-0005, +6 dBic*
[Elevation pattern \(Full version\)](#)
- Azimuthal Coverage: Omnidirectional
- Nominal Impedance: 50 Ohms (RF), short circuit (DC)
- Maximum VSWR: 3.0 (under 2.5 typical)
 - VSWR Plots:**
 - [UC-3004-381R \(Basic\)](#) - [Rev A: UC-3004-381AR \(Basic\)](#)
 - [UC-3004-381RE \(Extended\)](#) - [Rev A: UC-3004-381ARE \(Extended\)](#)
 - [UC-3004-381RF \(Full\)](#) - [Rev A: UC-3004-381ARF \(Full\)](#)
- Connector Interface: Type N, female
- Operating Temperature: -40C to +85C (-40F to 185F)
- Dimensions:
 - Mini (basic) version: 17 cm (6.5 in) x 17 cm (6.5 in) x 2 cm (3/4 in), not including connector
23 cm (9 in) tip-tip, can fit in a 18 cm x 18 cm (7 in x 7 in) pouch (not supplied)
 - "E" (Extended) version: 23 cm (9 in) x 23 cm (9 in) x 2 cm (3/4 in), not including connector
30 cm (12 in) tip-tip, can fit in a 25 cm x 25 cm (10 in x 10 in) pouch (not supplied)
 - "F" (Full) version: 36 cm (14 in) x 36 cm (14 in) x 2 cm (3/4 in), not including connector
48 cm (19 in) tip-tip, can fit in a 38 cm x 38 cm (15 in x 15 in) pouch (not supplied)
- Weight: 0.5 kg (1 lbs)

NOTES:

- Mounted on a metallic surface

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UC-3004-381 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 3 meters \(10 ft\)](#)
- [LMR195 - use for cables shorter than 3 meters \(10 ft\)](#)

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

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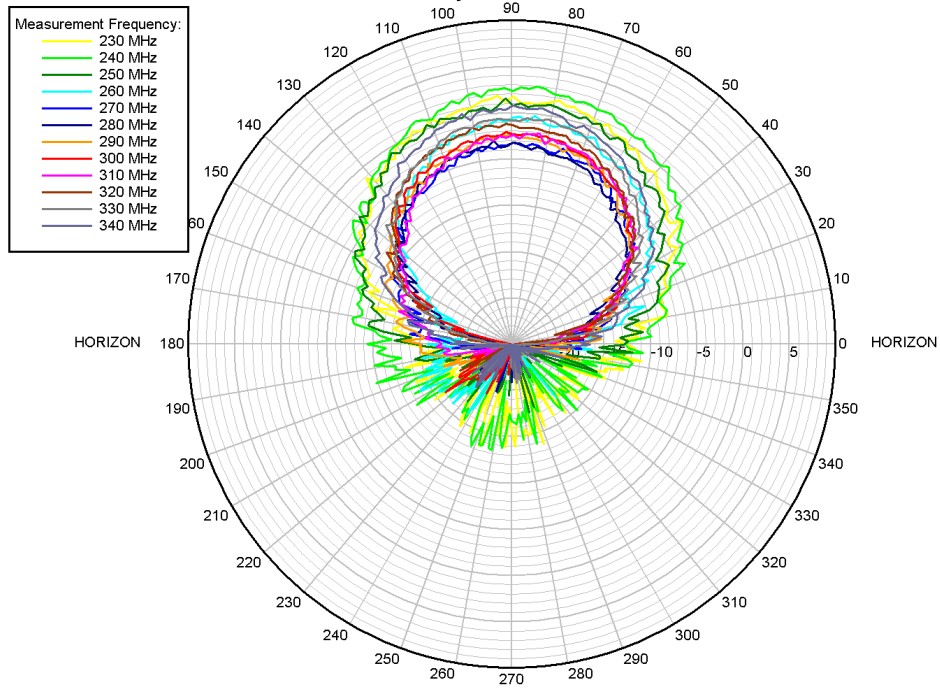
DATASHEET

Elevation Pattern - Antenna UC-3004-381R on a 36" Ground Plane

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

Date: 2011/04/08/20:15 hrs

by: antennas.us

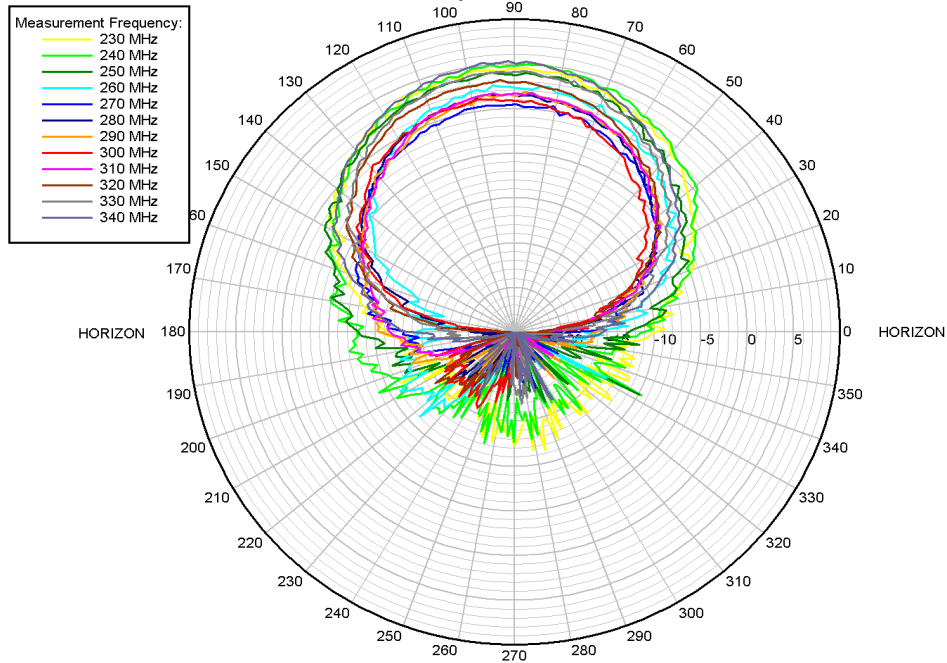


Elevation Pattern - Antenna UC-3004-381RE on a 36" Ground Plane

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

Date: 2011/04/08/19:45 hrs

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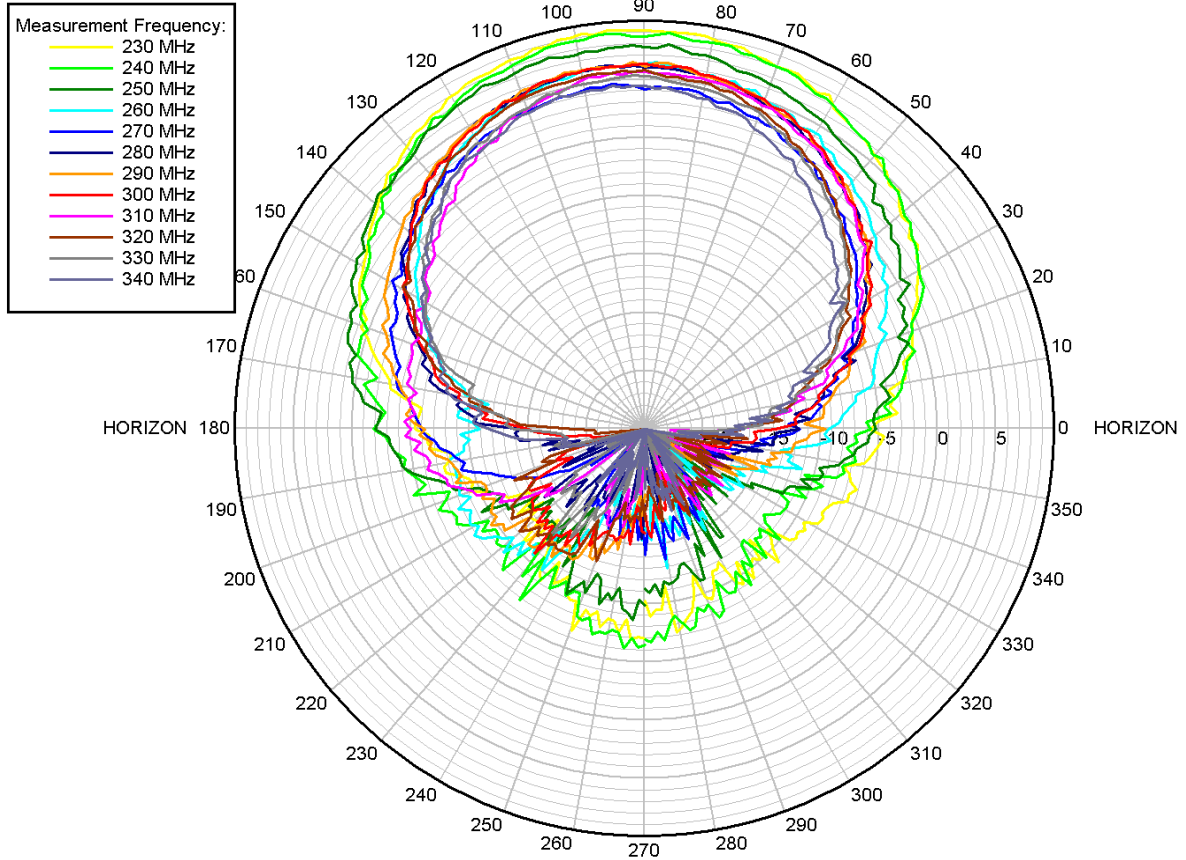
DATASHEET

Elevation Pattern - Antenna UC-3004-381RF on a 36" Ground Plane

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

Date: 2011/04/08/19:25 hrs

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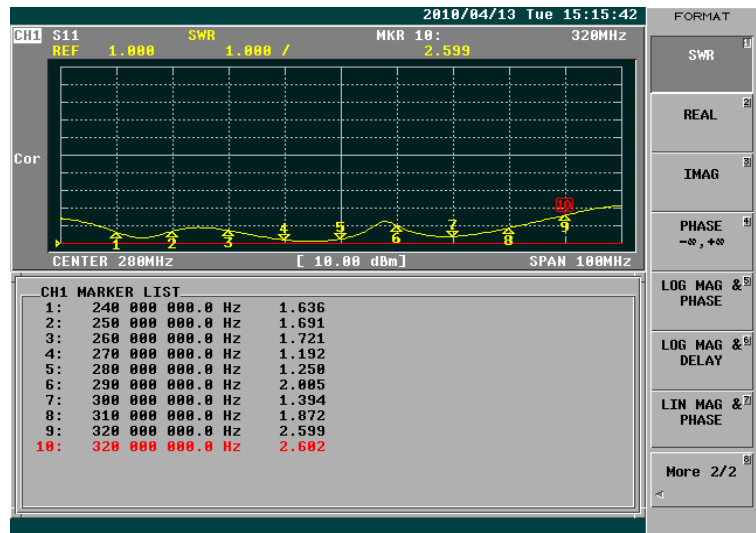


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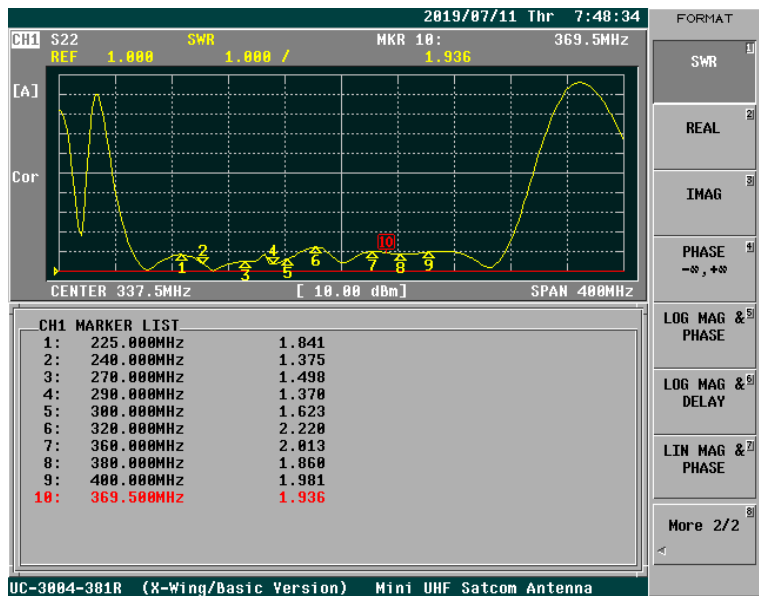
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DATASHEET

VSWR Plot for Basic Version UC-3004-381R



VSWR Plot for Basic Version Revision A UC-3004-381AR

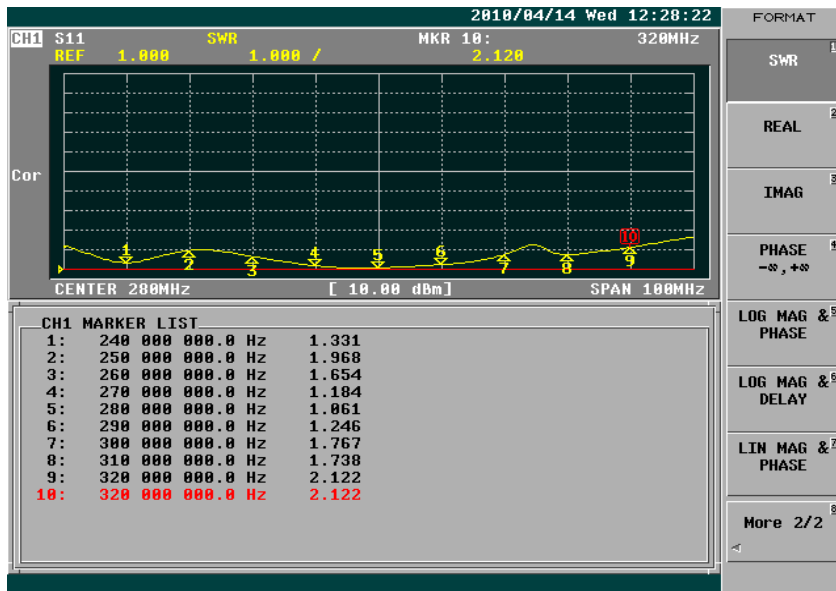


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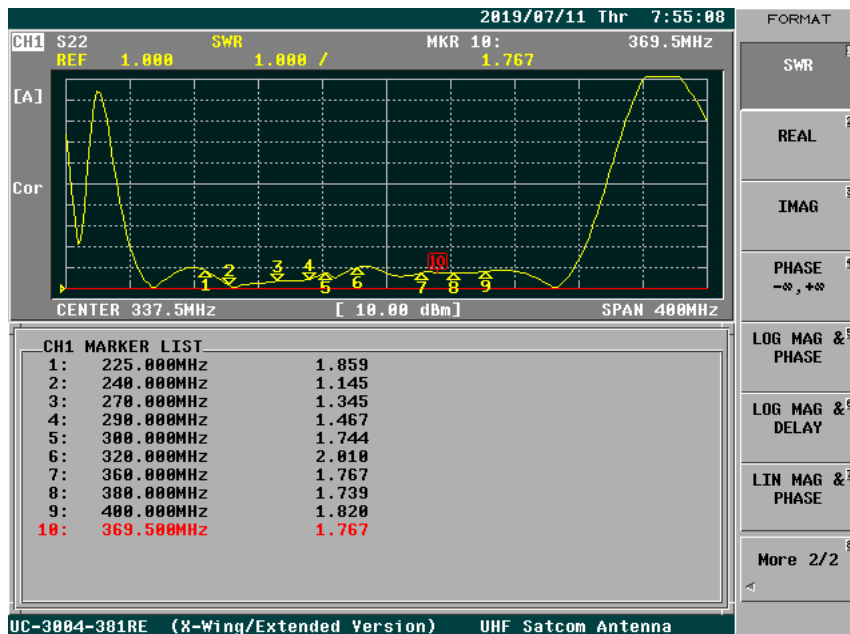
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DATASHEET

VSWR Plot for Extended Version UC-3004-381RE



VSWR Plot for Extended Version Revision A UC-3004-381ARE

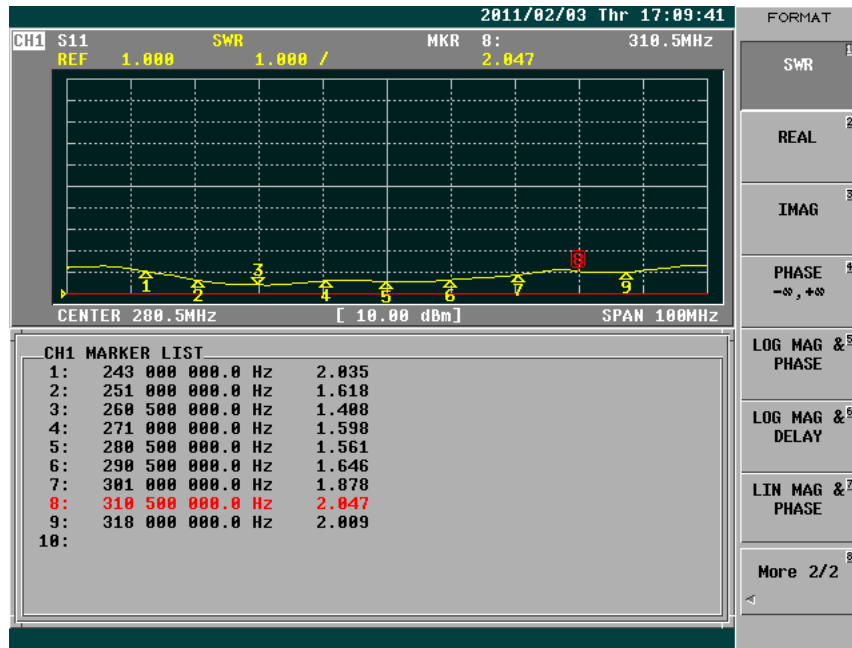


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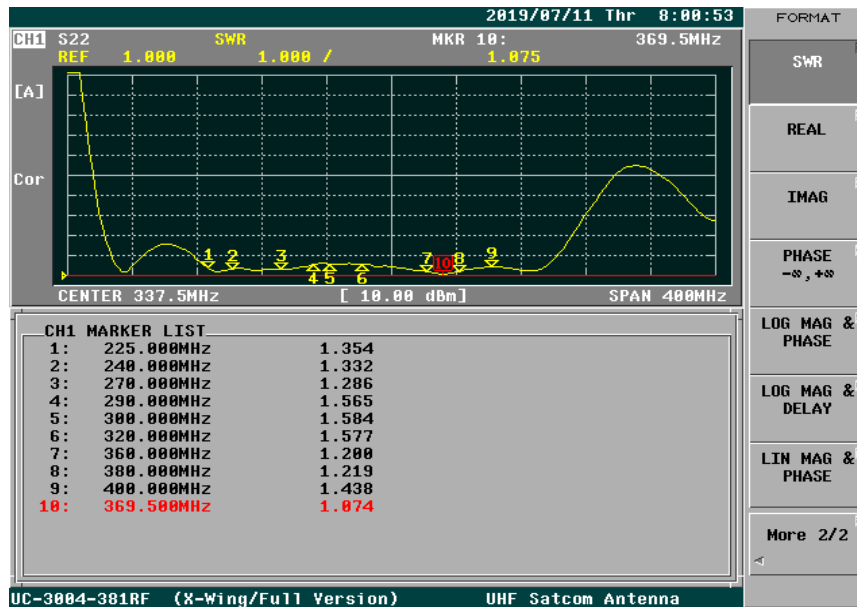
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DATASHEET

VSWR Plot for Full Version UC-3004-381RF



VSWR Plot for Full Version Revision A UC-3004-381ARF



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