

ANTENNA DATA SHEETS

454/459 MHz

- MobilMark
Y6646D-C
- SWA Southwest
Part # 1000-029
Omni Broadband Whip Antenna, 225 - 512 MHz, 2 dBi, TNC(m)

**Y6646D-A
Y6646D-B
Y6646D-C**

Technical Specification

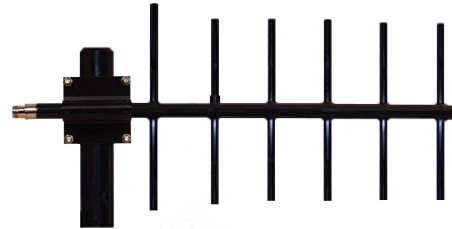
400-460 MHz - A FULLY WELDED YAGI 9.5dBd / 11.5dBi GAIN
425-485 MHz - B
450-512 MHz - C

High Performance: These antennas provide 9.5dBd, wide band performance.

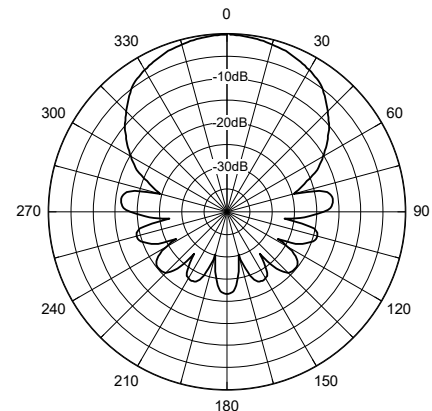
Rugged and weatherproof: The construction of our heavy duty end fed yagis feature aluminum heavy wall tubing and 3/8" solid elements. All exposed areas are coated with UV polyester. The feed system is completely enclosed.

Lightweight and Durable: These antennas are easily installed by one person.

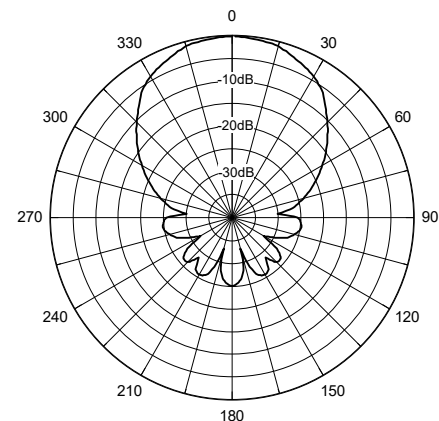
Termination : Direct Female Type "N"



Horizontal Pattern



Vertical Pattern



ELECTRICAL SPECIFICATIONS:

GAIN: 9.5dBd
FREQUENCY: A 400-460MHz
FREQUENCY: B 425-485MHz
FREQUENCY: C 450-512MHz
VSWR: <1.5:1
FRONT TO BACK: 20dB
VERT BEAMWIDTH: 45°
HORIZ BEAM WIDTH: 55°
RATING : 300 watts, 50 ohms impedance

MECHANICAL SPECIFICATIONS:

MATERIAL: 1" (2.54cm) heavy wall aluminum
 3/8" (3.5cm) solid elements
FINISH: UV inhibited polyester coat
LENGTH: 24" (61cm)
WIDTH: 15" (38cm)
WEIGHT: 3 lbs. (1.3kg)
MOUNT: 2 3/8" (6.1cm)
FLAT PLATE AREA: .42 ft²
WIND RATING: 125 MPH (201kph)
WIND LOAD: 25.5 lbs (63.5cm)

Features:

- 225 - 512 MHz
- Monopole Design with built in 50 Ohm matching network
- Lightweight Design
- Bandwidth achieved by using internal matching components (within antenna)
- Extremely Rugged Design
- Low Visibility / Reflectivity
- Highly Flexible
- Waterproof & Fully Potted Design
- Black Chrome Non-Rotating TNC(m) RF Connector
- 20 Meter Waterproof Design (When Installed)

Note 1: The specifications and performance of this antenna are dependent on antenna matching network and counterpoise dimensions.

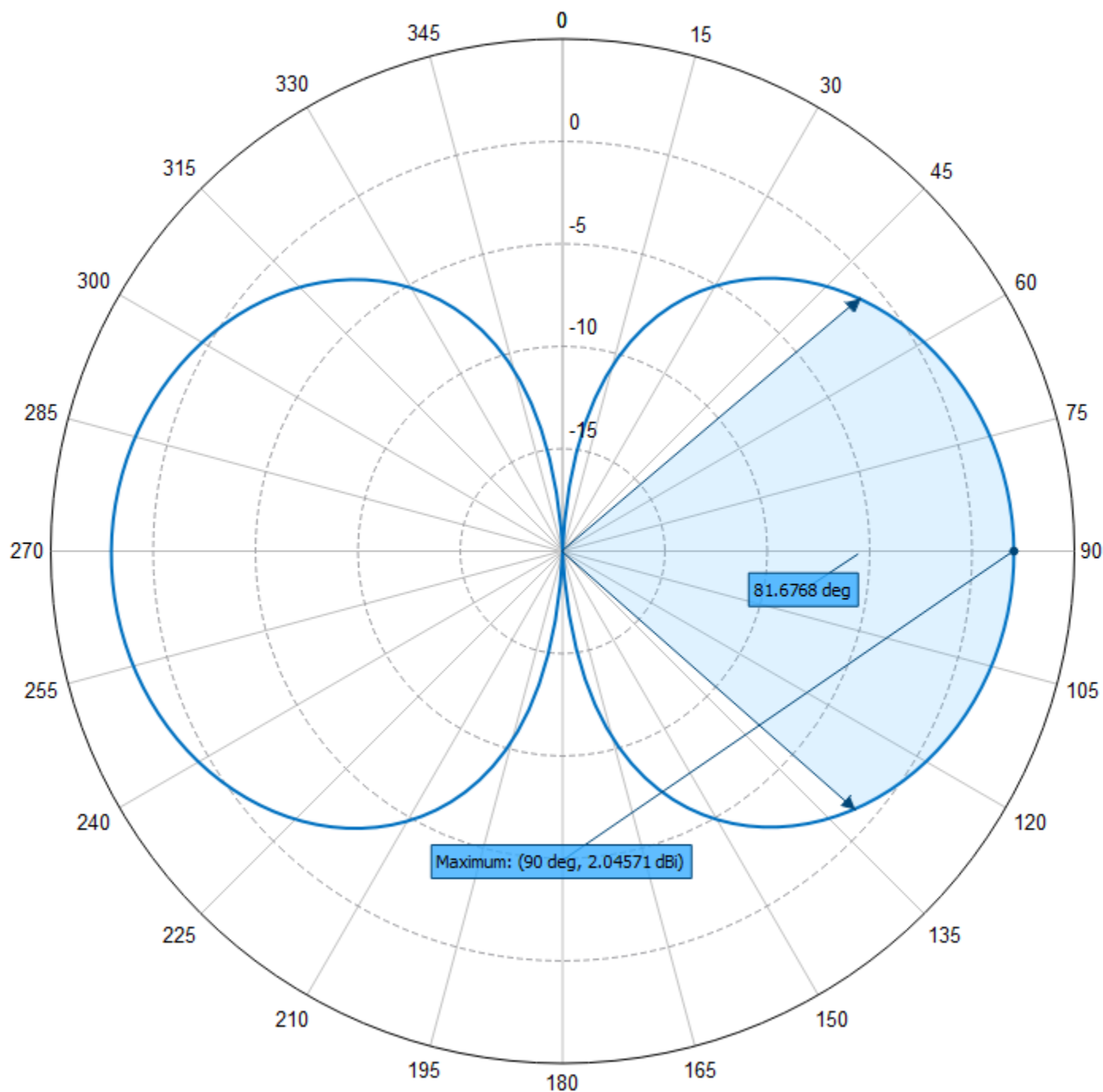
Note 2: 50 Ohm impedance is measured at antenna connector when mounted to radio counterpoise.



Antenna Specifications

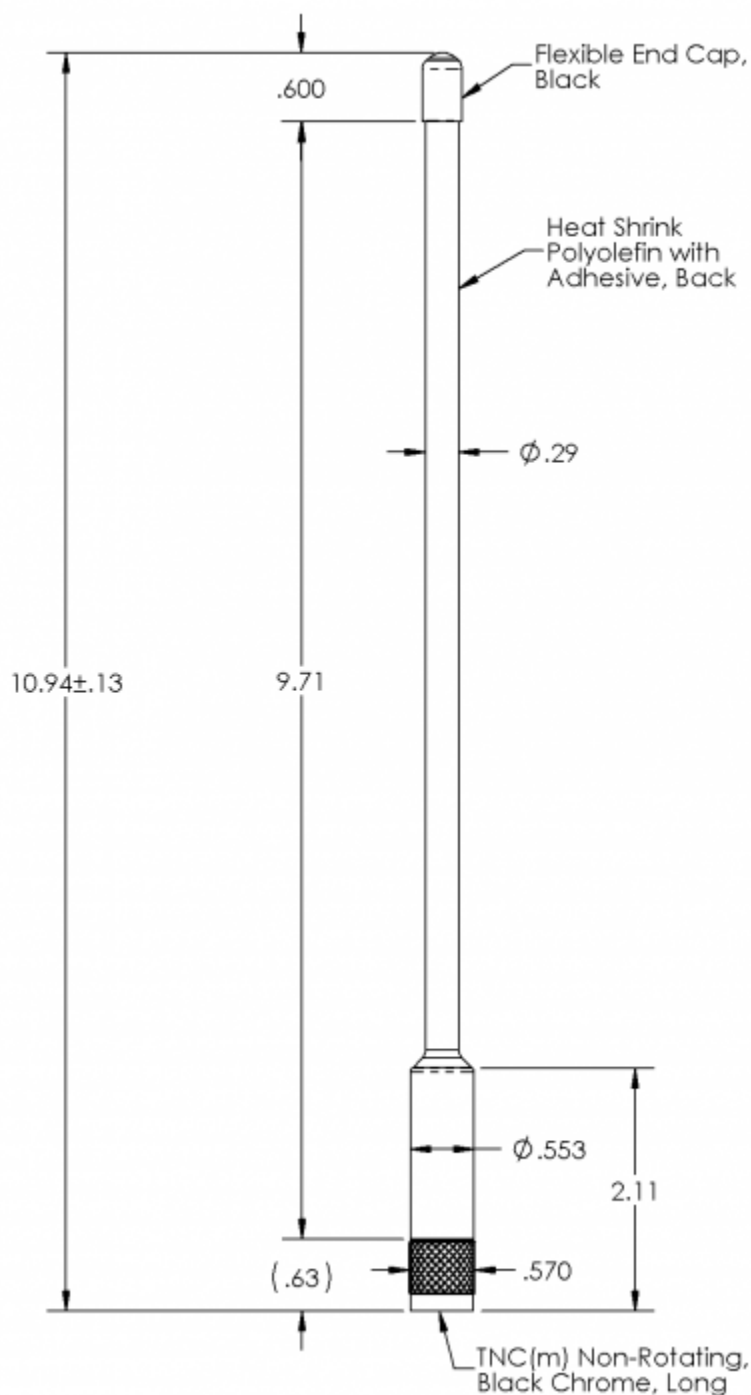
Parameter	Value	Units	Tolerance
Antenna Pattern	Omni Antenna		
Impedance	50	Ohms	
Minimum Frequency	0.225 / 225	GHz / MHz	
Maximum Frequency	0.512 / 512	GHz / MHz	
Frequency Bandwidth	0.287 / 287	GHz / MHz	
Maximum VSWR	3.0:1	Ratio	
Gain	2	dBi	When mounted to a counterpoise of 5 x 7 x 20 cm
Polarization	Vertical		
Maximum RF Input Power	10	Watts	Dependent on matching network losses
Horizontal (AZ) Beamwidth	360	Degrees	
Vertical (EL) Beamwidth	82	Degrees	

Parameter	Value	Units	Tolerance
Ground Plane Required	Yes		
Radome Material	Black Polyolefin with Black End Cap		
Color	Black		
RF Connector Type	TNC(m) Non-Rotating		
RF Connector Finish	Black Chrome		
Product Height	10.940 / 277.876	inches / mm	±0.13"
Product Diameter	0.570 / 14.478	inches / mm	
Product Weight	2.00 / 56.70	oz / grams	



Elevation Pattern

Referenced to +5 dBi



Engineering Drawing

All dimensions are in inches

Features:

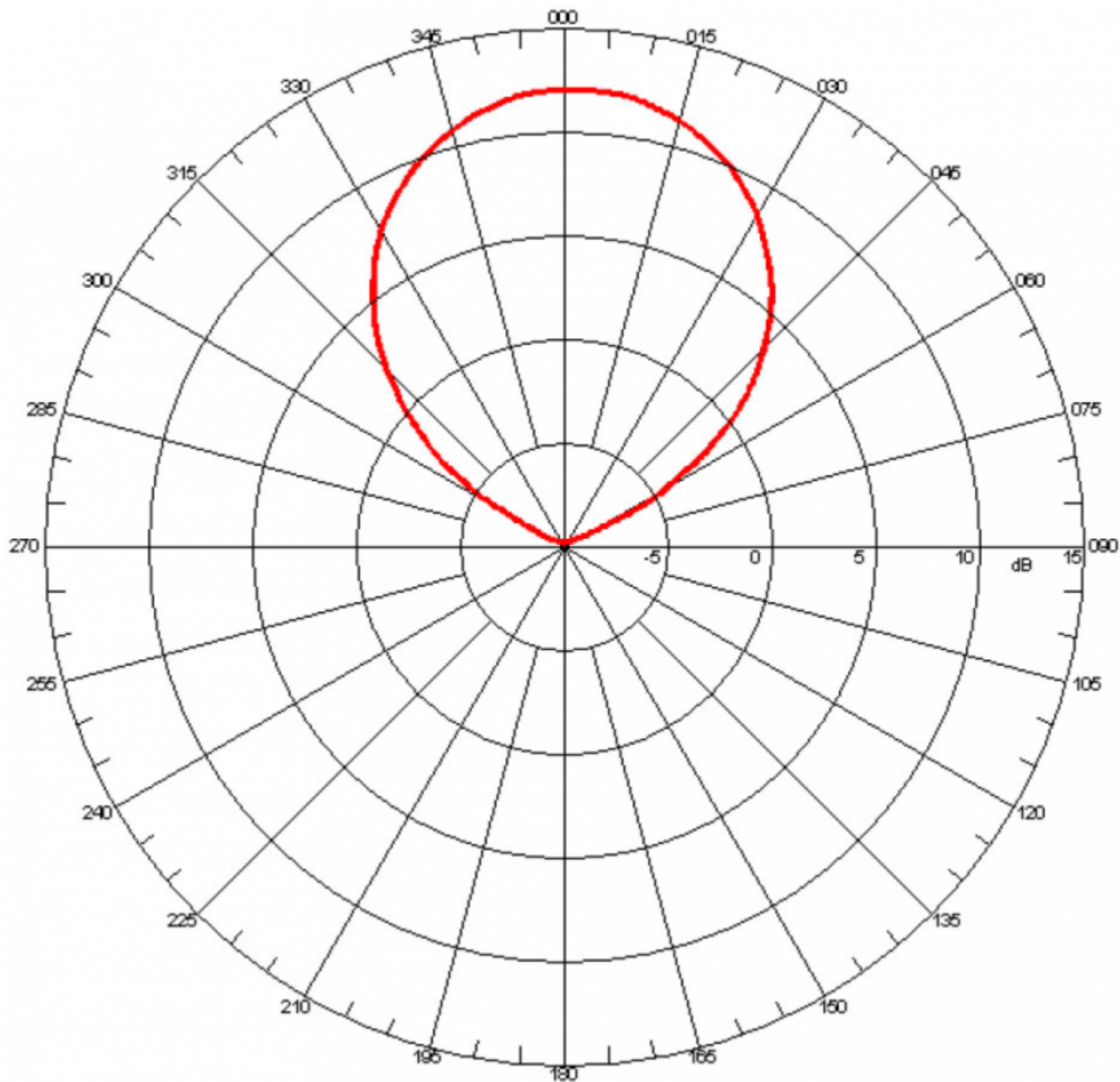
- Broad Band Coverage
- 4.4 - 5.9 GHz
- 15 dBi
- Designed for C Band communication in the following markets:
 - Law Enforcement
 - Surveillance
 - UAV & UGV Ground Stations



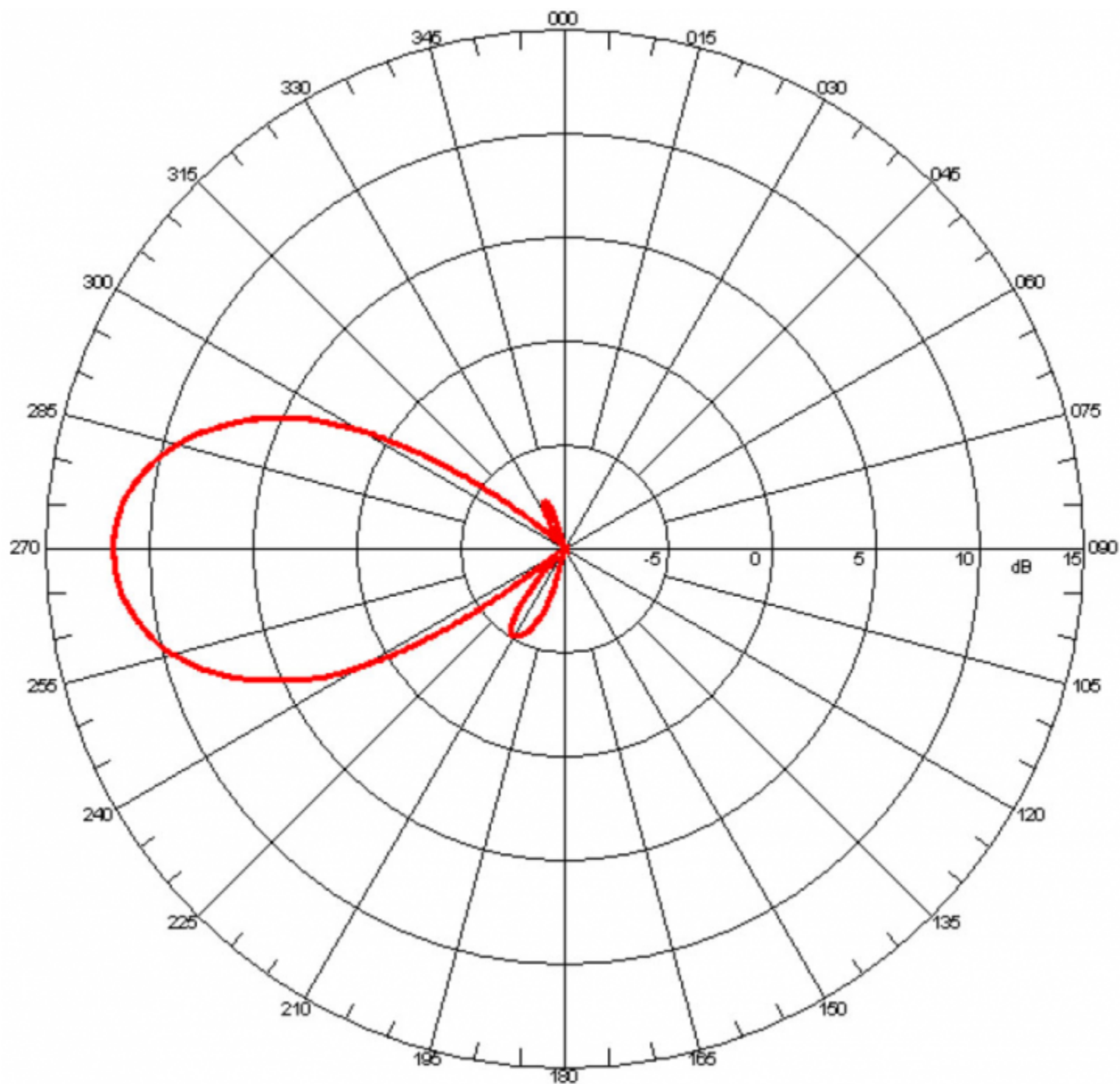
Antenna Specifications

Parameter	Value	Units	Tolerance
Antenna Pattern	Directional Antenna		
Frequency Band	C		
Impedance	50	Ohms	
Minimum Frequency	4.4 / 4,400	GHz / MHz	
Maximum Frequency	5.9 / 5,900	GHz / MHz	
Frequency Bandwidth	1.5 / 1,500	GHz / MHz	
Maximum VSWR	1.5:1	Ratio	15 dB Return Loss
Gain	15	dBi	
Polarization	Vertical		
Maximum RF Input Power	50	Watts	
Horizontal (AZ) Beamwidth	55	Degrees	
Vertical (EL) Beamwidth	32	Degrees	

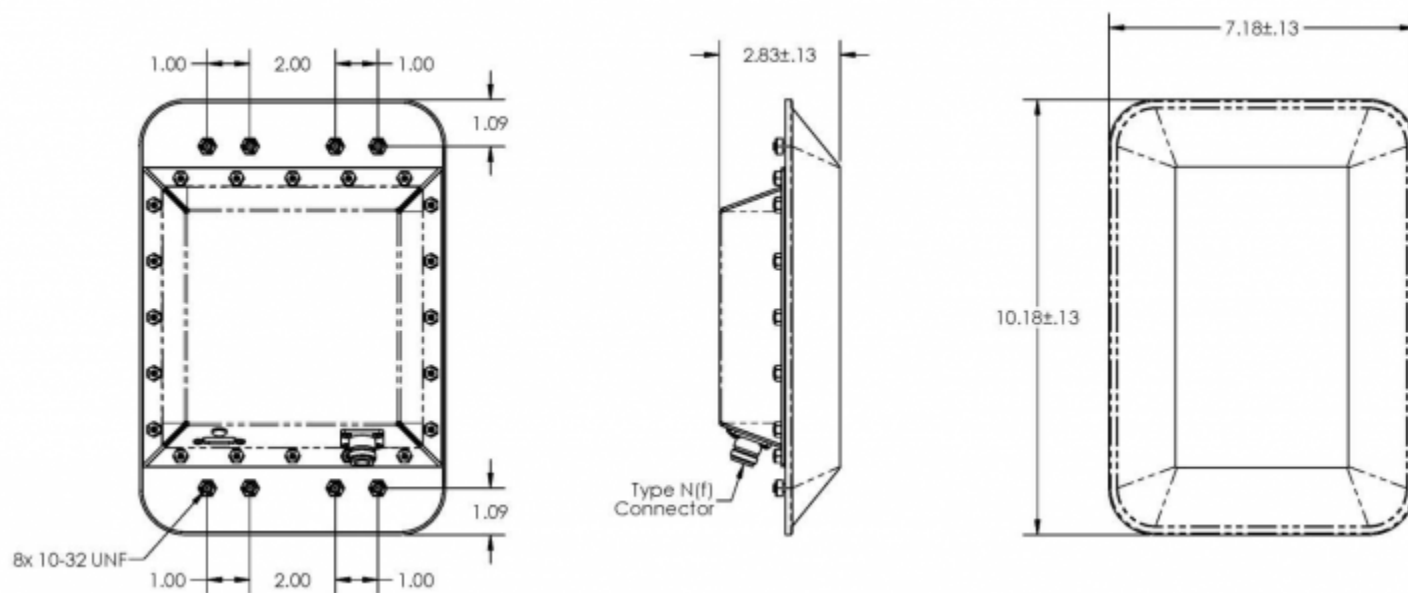
Parameter	Value	Units	Tolerance
Ground Plane Required	No		
Color	White		
Mount Style	Panel		
RF Connector Type	Type-N(f)		
IP Rating	IP64 when RF connectors are terminated with mating connectors		
Operating Temperature Range	-40 to +185	°F	(-40 to +85 °C)
Product Length	10.180 / 258.572	inches / mm	±0.13"
Product Width	7.180 / 182.372	inches / mm	±0.13"
Product Height	2.830 / 71.882	inches / mm	±0.13"
Product Weight	16.00 / 453.59	oz / grams	



Azimuth Pattern



Elevation Pattern



Engineering Drawing

Dimensions are in inches