



Multifunction Sharkfin Antenna (WiFi)

Model No.: A81-TD3-100

Rev. A

C K Li

2/12/2025

General Information



	Manufacturer:	Nextivity, Inc.
	Address:	16550 West Bernardo Drive, Building 5, Suite 550 San Diego, CA 92127 United States
	Antenna Type:	Monopole
	P/N:	A81-TD3-100 rev A
	Included Functions:	• Ultra Wide Band - 4G/5G • Ground plane independent • Articulated connector

Technical Data



Electrical Data				
Frequency Range (MHz) :	GPS/GNSS Element	1559-1612 / 1164-1189		
	4G/5G Elements	4x 617-960, 1427-6000		
	WiFi Elements	3x 2396-2485 / 5150-7125		
	B14 Whip	758-798		
Typical VSWR* :	4G/5G Elements	≤3:1		*Across 95% of relevant bands when measured on typical router housing
	WiFi Elements	≤3:1		
	B14 Whip	<2:1		
Typical worst case isolation (dB)** :	4G/5G Elements	≥ 7	617-960 MHz	** Isolation stated as worst case value for elements of the same type measured in free space without additional cable
		≥16	1427-6000 MHz	
	WiFi Elements	≥17	2.4-7.2 GHz	
Nominal Polarization :		Vertical		
Pattern :		Omni-directional		
Impedance :		50Ω		
Max Input Power (W) :		5		

Technical Data, *continuous*



GPS/GNSS Data	
Frequency Range (MHz) :	1559-1612 / 1164-1189
Gain (dBi) :	30dB / 26
Rejection at 787MHz (B14) (dB) :	>50
Polarization :	Right Hand Circular
Operating Voltage (Nominal) (VDC) :	3-5
Current (mA) :	36, Typical
Mechanical Data	
Dimensions (mm) - Installed	Total Height : 82 (3.2")
	Length : 253 (9.96")
	Width : 142 (5.56")
	Whip length : 84 (3.3")
Material :	ASA,Silicone Rubber, Aluminium Alloy
Operating Temp (°C) :	-40° / +80°C (-40° / 176°F)
Ingress Protection :	IP69K
Radome Material Approvals :	UL-94:HB UL-746C:F1

Technical Data, *continuous*



Extension Cable Data		
Cable Type:	GPS/GNSS & B14	FR CS29 (UN ECE R 118 Compliant)
	4G/5G & WiFi	CS32 (UN ECE R 118 Compliant)
Dimensions (mm) :	Diameter	5 (0.2")
	Length	3000 (10')
Termination :	GPS/GNSS	1x SMA (m)
	4G/5G	4x SMA (m)
	WiFi	3x SMA Rev Pol
	B14 Whip	1x SMA (m)

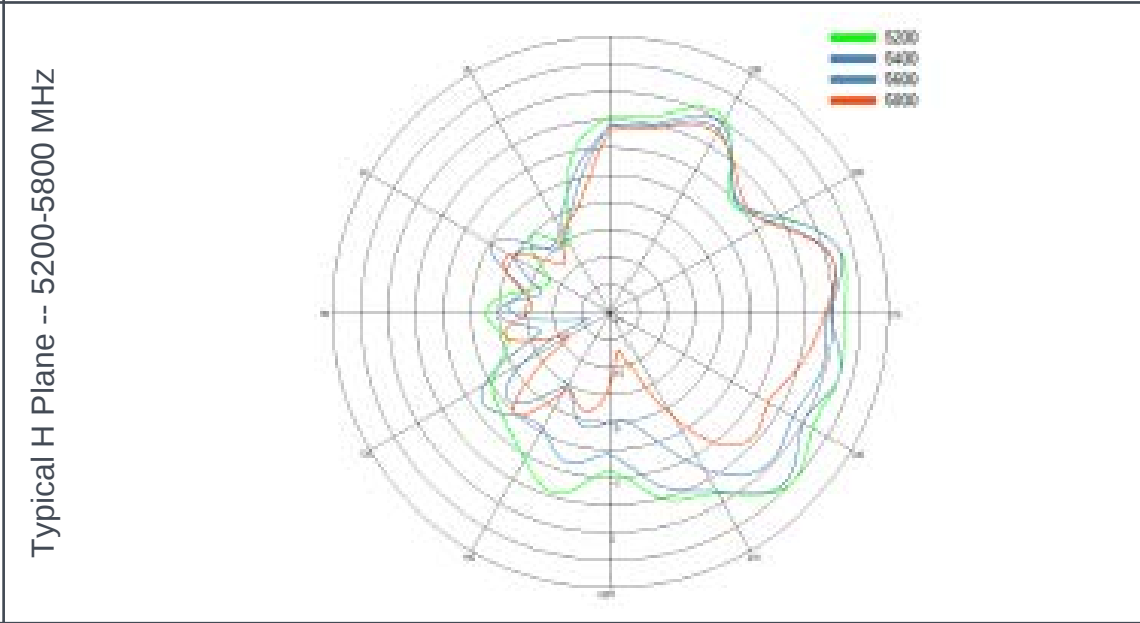
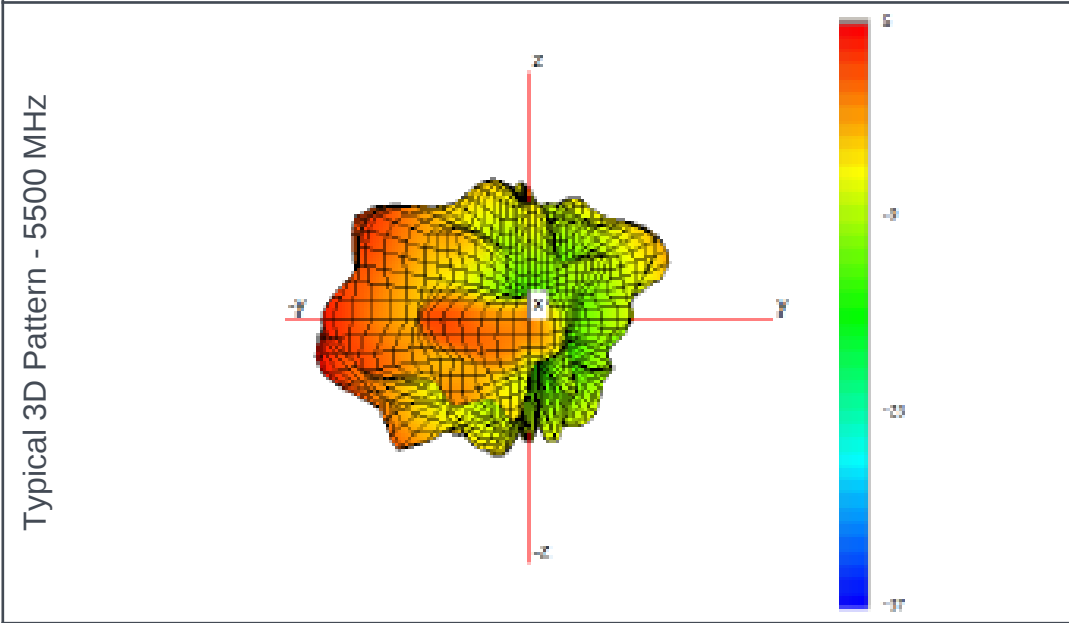
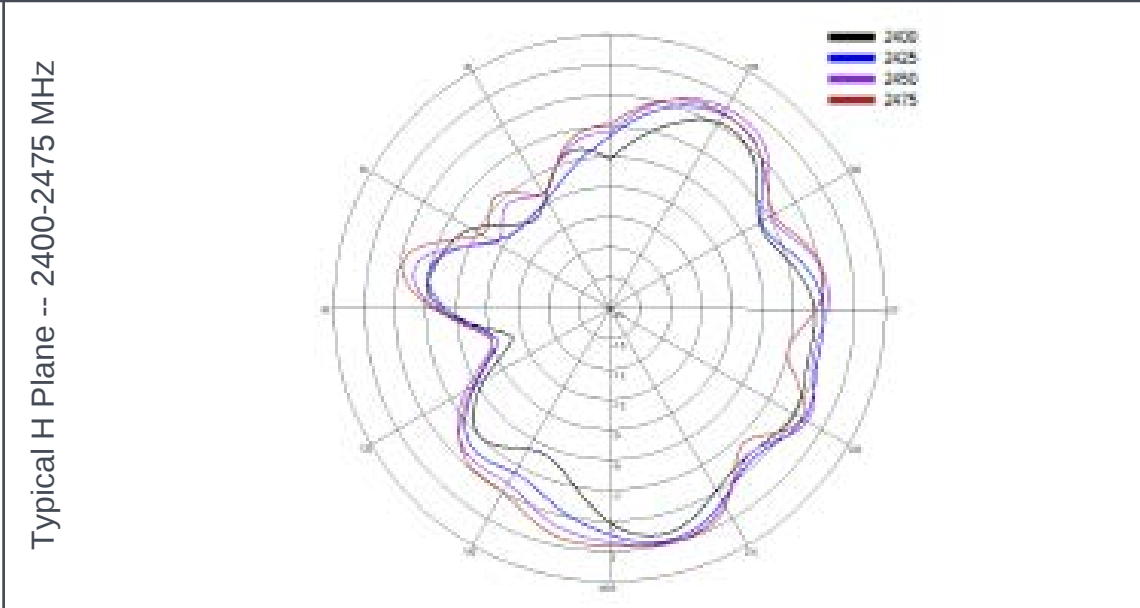
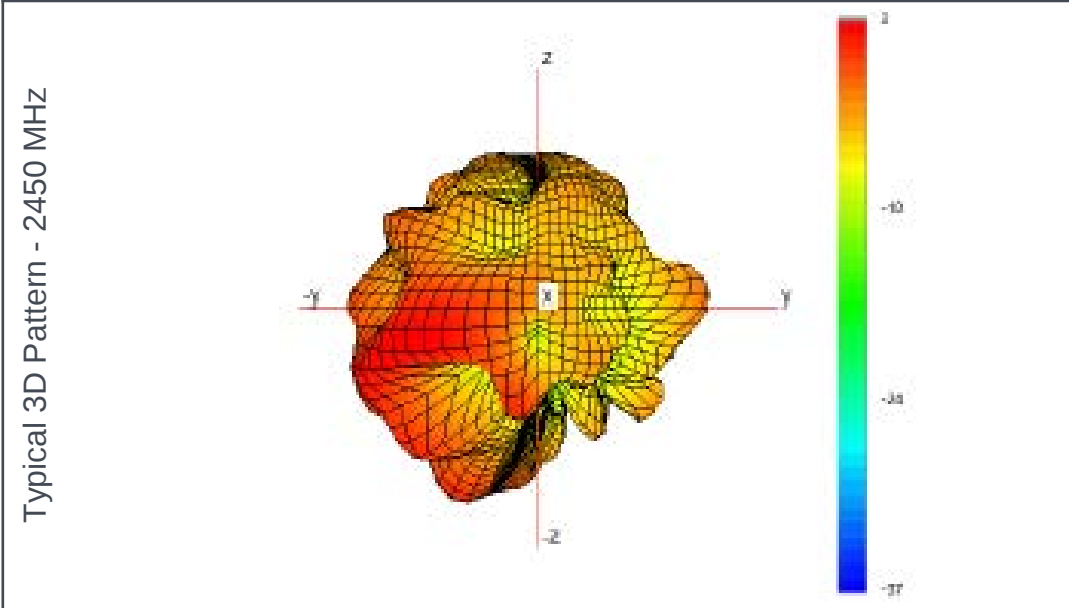
Antenna Gain - WiFi



Antenna measured in free space	Frequency Range (MHz)	Bands	Peak Gain* (dBi)
	2396-2485	WiFi 2.4GHz	2.05
	5150-5250	UNII-1	2.94
	5250-5350	UNII-2A	3.45
	5470-5725	UNII-2B	3.9
	5725-5900	UNII-3	2.11
	5845-5885	UNII-4	0.41
	5935-6415	UNII-5	2.075
	6435-6515	UNII-6	1.66
	6535-6875	UNII-7	1.73
	6875-7125	UNII-8	1.6

* Included 3m external cables

Typical 3D Patterns - WiFi



Typical 3D Patterns - WiFi

