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Oscar 63

Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

Key Features

- Supports Wi-Fi 6e and Wi-Fi 7: 2.4G, 5G and 6G bands
- Supports 5G NR / 4G LTE / 3G UMTS Bands
- Supports UWB frequencies between 2.6 – 8 GHz (UWB Bands 1-8)
- Supports LTE Cat M, LTE Cat NB and NR Cat NB Bands
- Supports Bluetooth / Zigbee / IEEE 802.15.4 / ISM 2.4 GHz / ISM 5.8 GHz

General Description

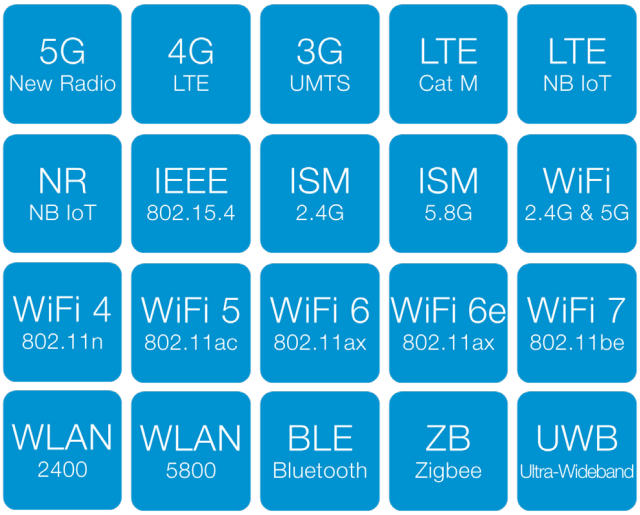
The Oscar 63 is an ultra-wideband, high-gain outdoor panel antenna designed to support a wide range of wireless technologies, including 4G LTE, 5G NR, Wi-Fi 6E, and emerging Wi-Fi 7 standards. Covering frequencies from approximately 2 to 8 GHz, the Oscar 63 delivers reliable, high-performance connectivity for cellular, ISM, and UWB applications.

Designed for outdoor use, the Oscar 63 features a compact, rugged ABS enclosure and a ground-plane-independent design to ensure consistent performance across varied installation environments. Its directional panel architecture provides high gain and strong radiation efficiency, making it suitable for long-range links and high-throughput data transmission.

The antenna supports vertical and horizontal polarization, is rated for up to 50 W input power, and is supplied with an adjustable bracket for wall or pole mounting.

Additional Considerations

- Adjustable mount allows positioning for best signal
- Ground Plane independent
- For associated low loss cables for this antenna, please see ordering information on page 20



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Electrical Specifications

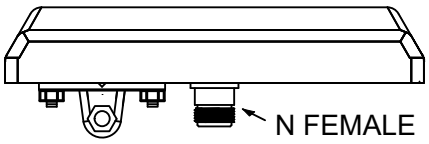
Impedance:	50 Ohm
Polarization:	Vertical/Horizontal
Max Input Power:	50 W
Ground plane independent:	Yes

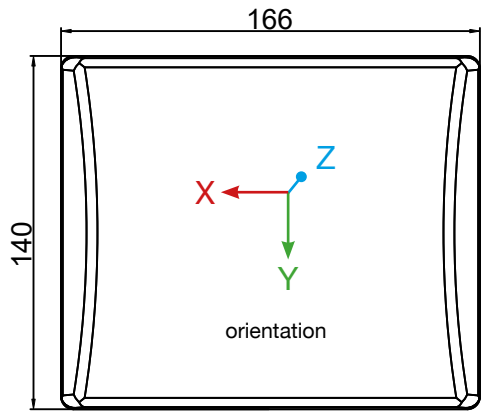
Environmental Specifications

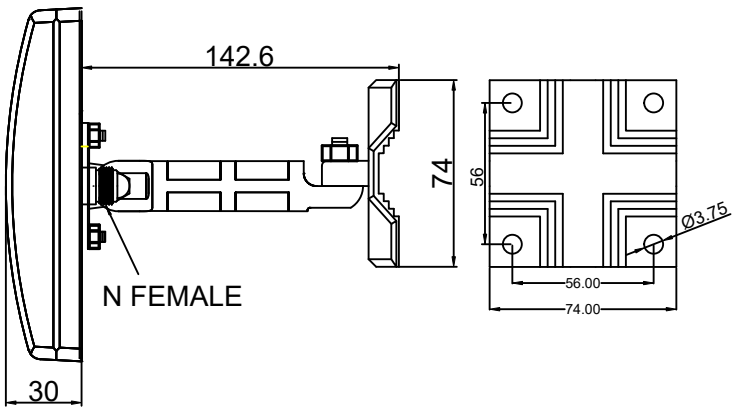
Operating Temperature range:	-30 to +60 °C
Storage Temperature range:	-30 to +75 °C

Mechanical Specifications

Dimensions:	166*140*30 mm (L*W*H)
Weight:	356± 15g (without mount)
Connector:	N-TYPE Female
Mounting method:	Pole/Wall Mount
Housing materials:	ABS
Mounting materials:	Aluminium Alloy & Zinc Alloy







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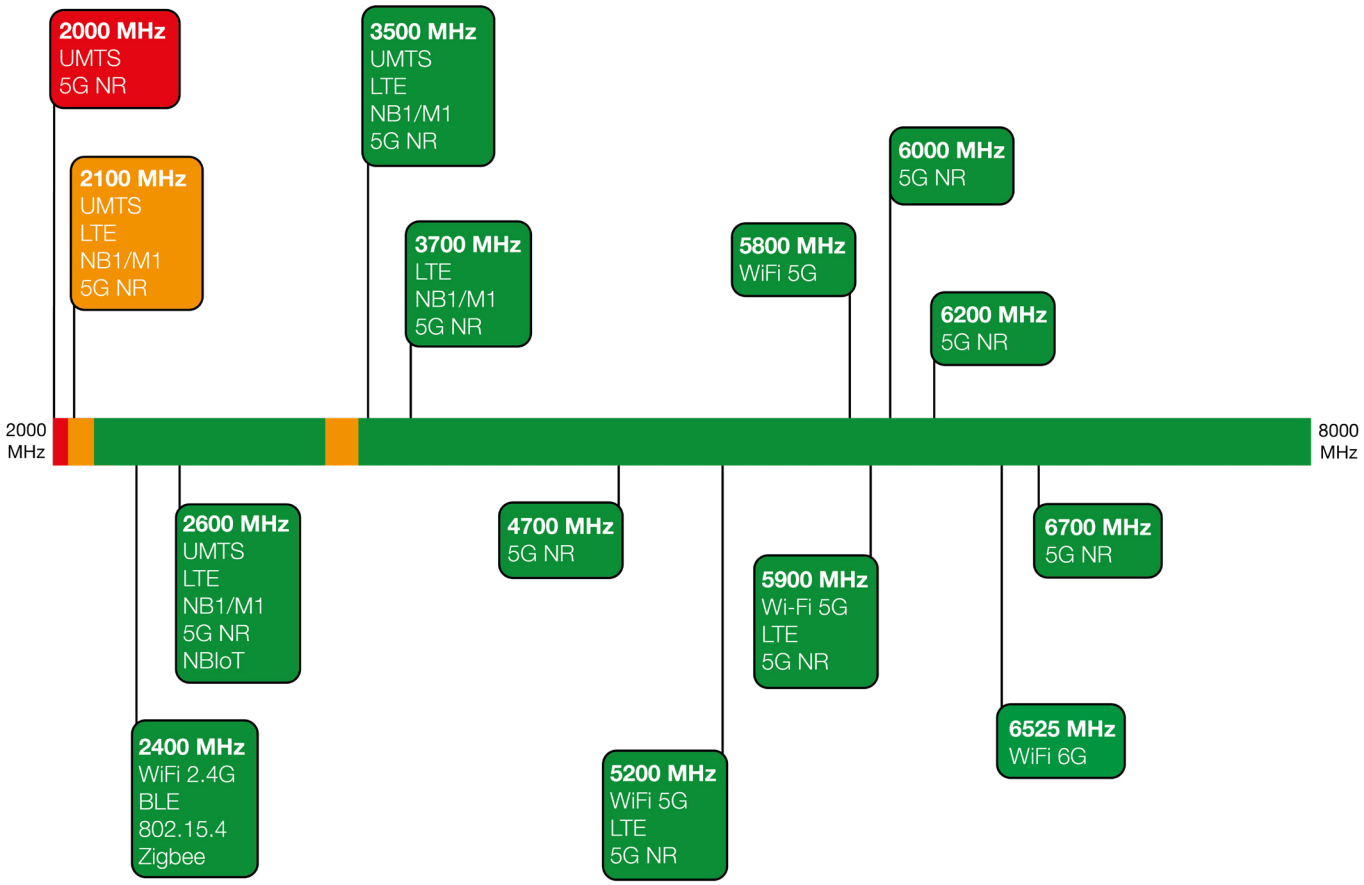
Spectrum Coverage



● Suitable band ● Adequate band in good signal conditions ● Likely to be unsuitable

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Usable Cellular Frequency Support (2000 MHz – 6700 MHz)

	2000	2100	2300	2400	2500	2600	3300	3500	3700	4700	5200	5900	6000	6200	6700
GSM Bands:															
UMTS Bands:						●		●							
LTE Bands:		●	●	●	●	●		●	●		●	●			
LTE Cat M Bands:			●		●	●		●	●						
LTE Cat NB Bands:					●	●		●	●						
5G NR Bands:		●	●	●	●	●		●	●	●	●	●	●	●	●
NR Cat NB Bands:					●	●									

Usable ISM Frequency Support (2450 MHz - 6525 MHz)

	2450	5800	6525
Bluetooth	●		
IEEE 802.15.4	●		
ISM 2.4G	●		
ISM 5.8G		●	
Wi-Fi 2.4G	●		
Wi-Fi 5G		●	
Wi-Fi 6E			●
Zigbee	●		

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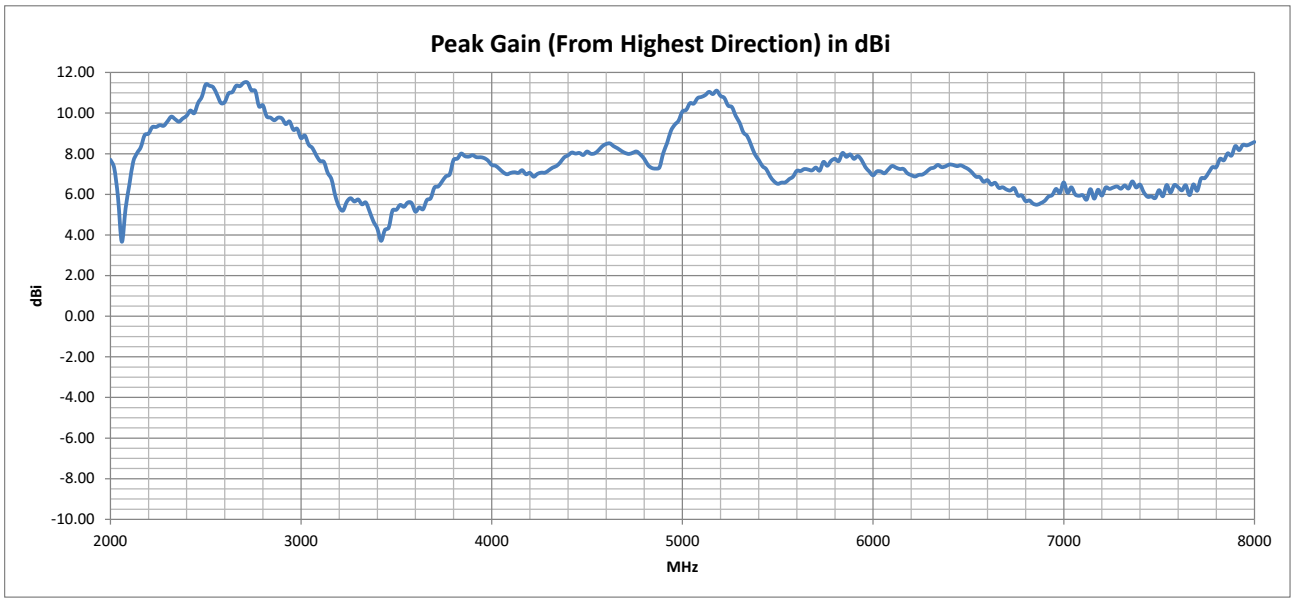
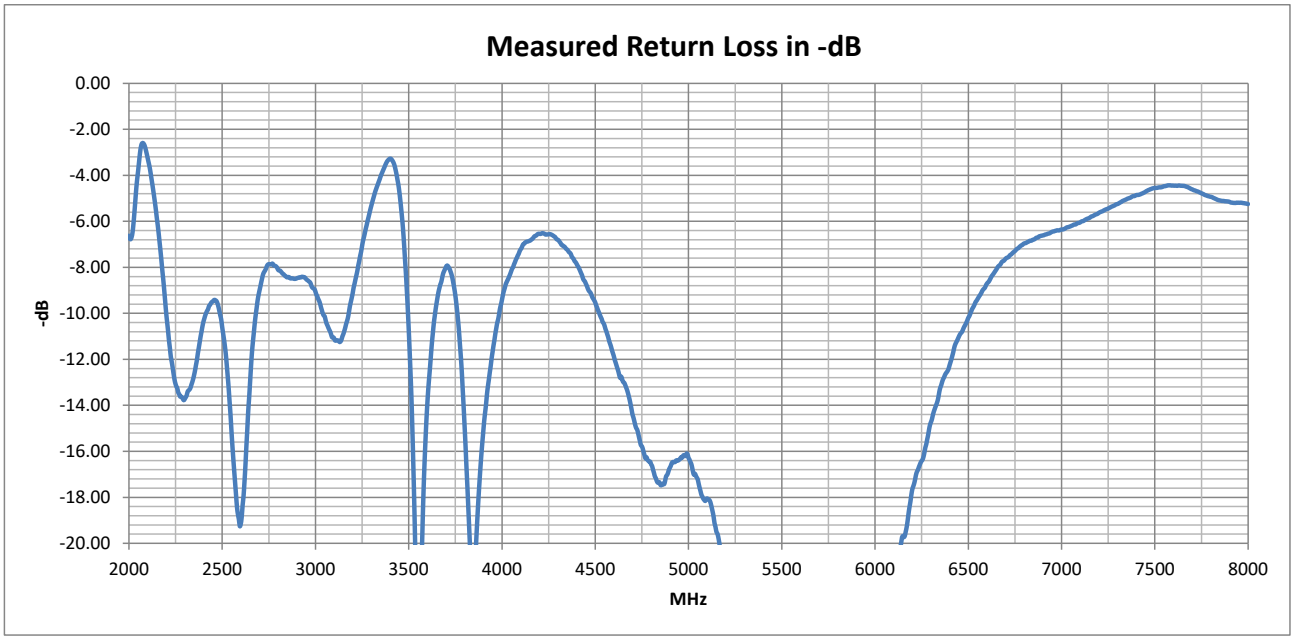
Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

Peak Gain vs. Frequency



Return Loss



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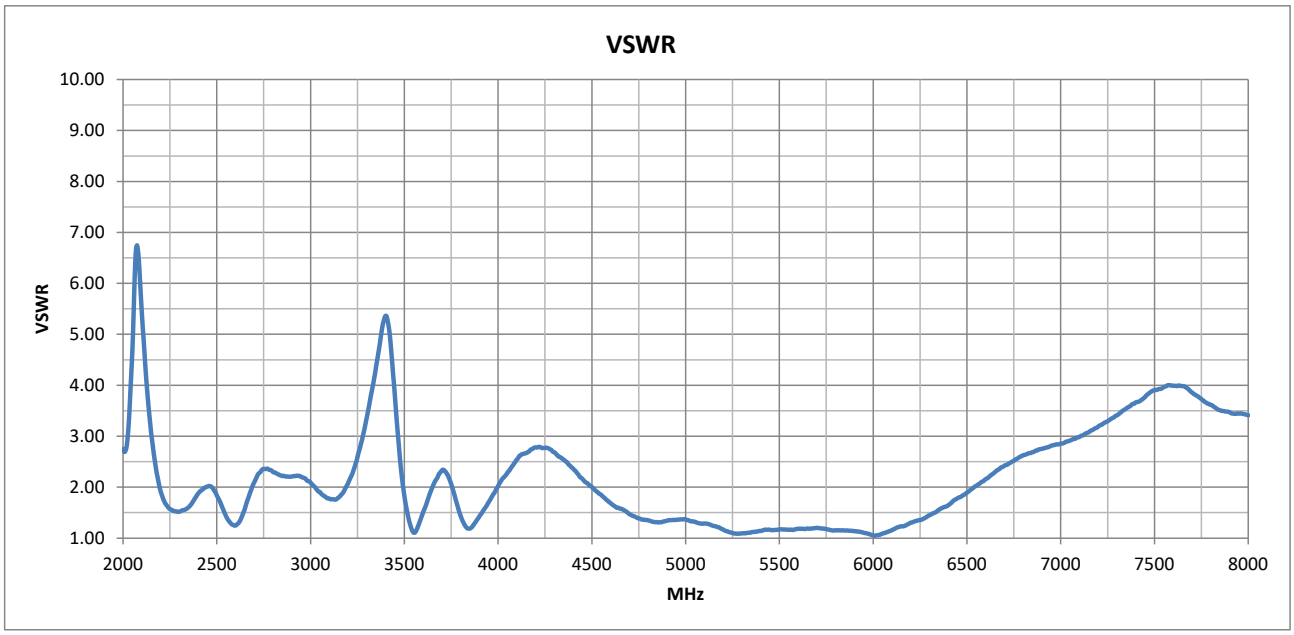
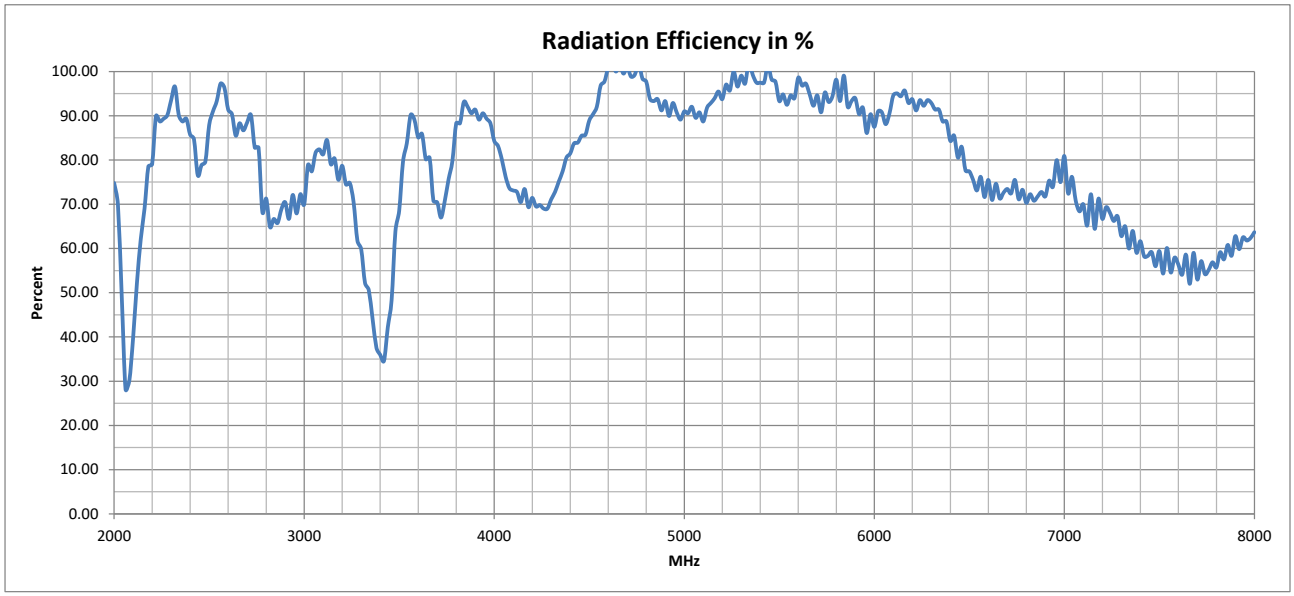
Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

VSWR



Radiation Efficiency



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Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

Cellular Standards Band Support

GSM (2G) Band	UMTS (3G) Band	E-UTRA (4G) Band	Cat M E-UTRA Band	Cat NB E-UTRA Band	NR (5G) Band	Cat NB NR (5G) Band	Uplink	Downlink	Average Upload Efficiency (%)	Average Download Efficiency (%)	Maximum Upload VSWR	Maximum Download VSWR	Use Indicator
	7	7	7	7	n7	n7	2500 - 2570 MHz	2620 - 2690 MHz	92.98	87.41	1.84	2.01	●
	22	22					3410 - 3490 MHz	3510 - 3590 MHz	47.42	85.19	5.29	1.62	●
		30			n30		2305 - 2315 MHz	2350 - 2360 MHz	95.07	89.08	1.54	1.65	●
		34			n34		2010 - 2025 MHz	2010 - 2025 MHz	69.79	69.79	2.97	2.97	●
		38			n38		2570 - 2620 MHz	2570 - 2620 MHz	93.24	93.24	1.32	1.32	●
		40	40		n40		2300 - 2400 MHz	2300 - 2400 MHz	90.88	90.88	1.87	1.87	●
		41	41	41	n41	n41	2496 - 2690 MHz	2496 - 2690 MHz	90.91	90.91	2.01	2.01	●
		42	42	42			3400 - 3600 MHz	3400 - 3600 MHz	66.06	66.06	5.36	5.36	●
		43	43	43			3600 - 3800 MHz	3600 - 3800 MHz	76.79	76.79	2.34	2.34	●
		46			n46		5150 - 5925 MHz	5150 - 5925 MHz	95.87	95.87	1.24	1.24	●
		47			n47		5855 - 5925 MHz	5855 - 5925 MHz	92.68	92.68	1.15	1.15	●
		48	48	48	n48		3550 - 3700 MHz	3550 - 3700 MHz	82.16	82.16	2.33	2.33	●
		49					3550 - 3700 MHz	3550 - 3700 MHz	82.16	82.16	2.33	2.33	●
		52					3300 - 3400 MHz	3300 - 3400 MHz	46.48	46.48	5.36	5.36	●
		53			n53		2483.5 - 2495 MHz	2483.5 - 2495 MHz	83.45	83.45	1.95	1.95	●
		69					N/A	2570 - 2620 MHz	N/A	93.24	N/A	1.32	●
					n77		3300 - 4200 MHz	3300 - 4200 MHz	73.56	73.56	5.36	5.36	●
					n78		3300 - 3800 MHz	3300 - 3800 MHz	66.44	66.44	5.36	5.36	●
					n79		4400 - 5000 MHz	4400 - 5000 MHz	94.02	94.02	2.36	2.36	●
					n90	n90	2496 - 2690 MHz	2496 - 2690 MHz	90.91	90.91	2.01	2.01	●
					n95		2010 - 2025 MHz	N/A	69.79	N/A	2.97	N/A	●
					n96		5925 - 7125 MHz	5925 - 7125 MHz	81.11	81.11	3.04	3.04	●
					n97		2300 - 2400 MHz	N/A	90.88	N/A	1.87	N/A	●
					n102		5925 - 6425 MHz	5925 - 6425 MHz	91.09	91.09	1.73	1.73	●
					n104		6425 - 7125 MHz	6425 - 7125 MHz	73.98	73.98	3.04	3.04	●

● Suitable band ● Adequate band in good signal conditions ● Likely to be unsuitable

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ISM Standards Frequency Support

Application	Frequency Range	Efficiency (%)	Maximum VSWR	Peak Gain from highest direction (dBi)	Use Indicator
ISM 2.4 GHz	2400 - 2500 MHz	81.32	2.02	11.41	●
Wi-Fi 2.4G	2401 - 2483 MHz	80.63	2.02	10.90	●
Wi-Fi 2.4G (USA)	2401 - 2473 MHz	80.76	2.02	10.70	●
Wi-Fi 2.4G (Japan)	2401 - 2495 MHz	80.98	2.02	11.26	●
Wi-Fi 5G (all channels)	5150 - 5990 MHz	95.37	1.24	11.11	●
Wi-Fi 5G (Ch 32-48)	5150 - 5250 MHz	95.28	1.24	11.11	●
Wi-Fi 5G (Ch 32-64)	5150 - 5330 MHz	96.60	1.24	11.11	●
Wi-Fi 5G (Ch 32-161)	5150 - 5815 MHz	96.20	1.24	11.11	●
Wi-Fi 5G (Ch 32-173)	5150 - 5875 MHz	96.09	1.24	11.11	●
Wi-Fi 6E (Ch 1-93)	5925 - 6425 MHz	91.09	1.73	7.84	●
Wi-Fi 6E (all channels)	5925 - 7125 MHz	81.11	3.04	7.84	●
ISM 5.8 GHz	5725 - 5875 MHz	94.85	1.19	8.04	●
UWB band 1	3168 - 3696 MHz	66.22	5.36	6.41	●
UWB band 2	3696 - 4224 MHz	80.32	2.79	8.01	●
UWB band 3	4224 - 4752 MHz	87.35	2.79	8.51	●
UWB band 4	4752 - 5280 MHz	93.46	1.39	11.11	●
UWB band 5	5280 - 5808 MHz	96.25	1.20	9.86	●
UWB band 6	5808 - 6336 MHz	92.32	1.51	8.04	●
UWB band 7	6336 - 6864 MHz	76.54	2.71	7.47	●
UWB band 8	6864 - 7392 MHz	69.58	3.64	6.64	●
UWB band 9	7392 - 7920 MHz	57.35	4.00	8.38	●

● Suitable band ● Adequate band in good signal conditions ● Likely to be unsuitable

NOTE: For each frequency band, Siretta provides a traffic light indication to show the suitability of the antenna for use at that frequency band. Determination of exactly what makes an antenna good or bad at any frequency is subjective.

The view presented is that of Siretta's engineering team having taken into account the efficiency and VSWR measurements. The end user is advised to use their own criteria and/or testing to confirm suitability.

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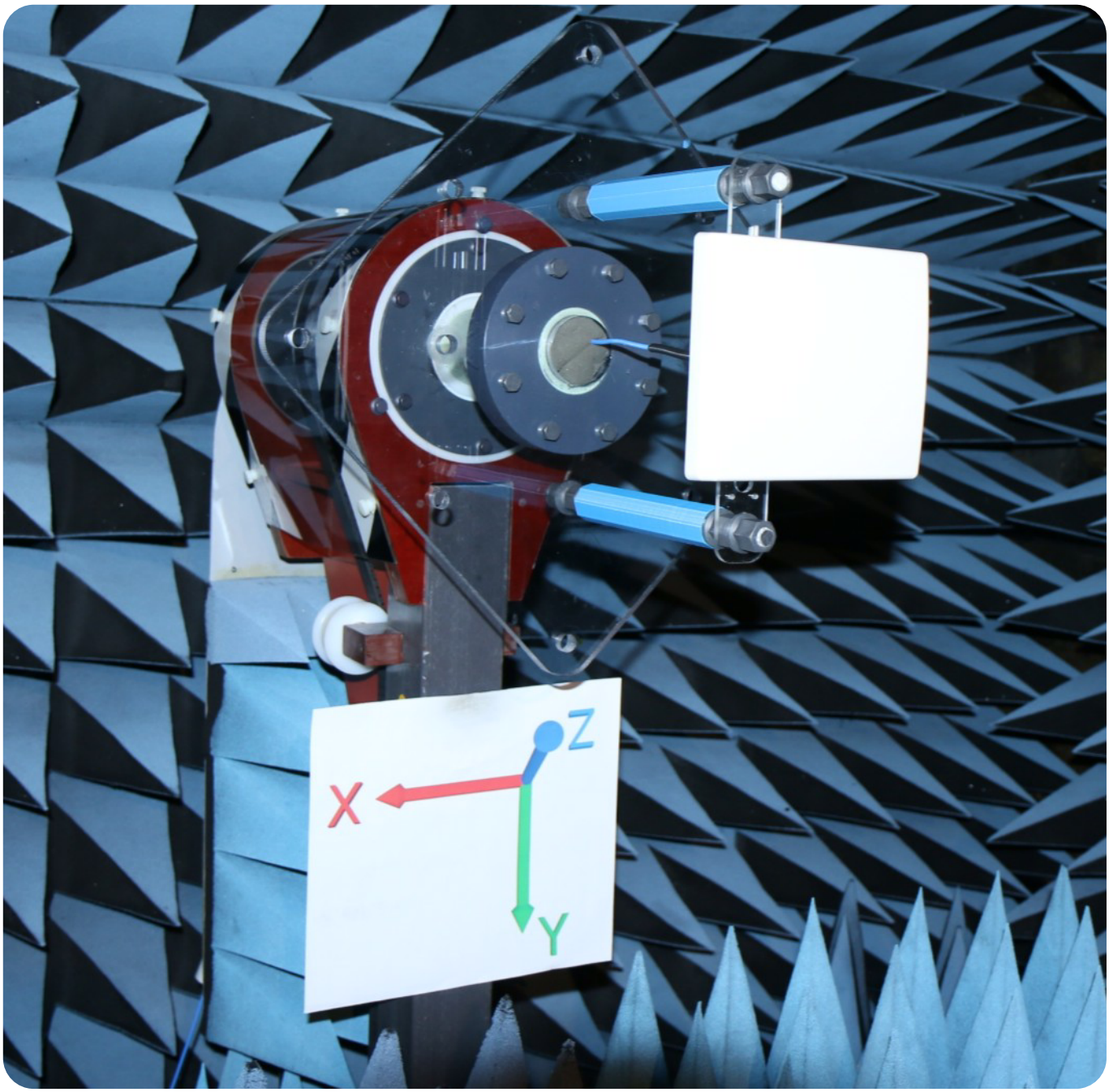
Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

Test Setup (in freespace)



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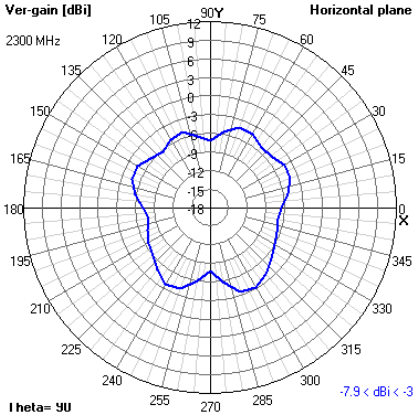
2D Radiation Plots

2300 MHz XY



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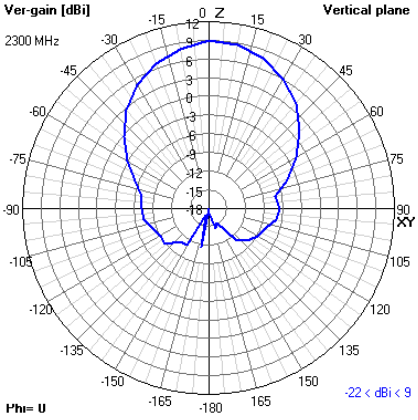

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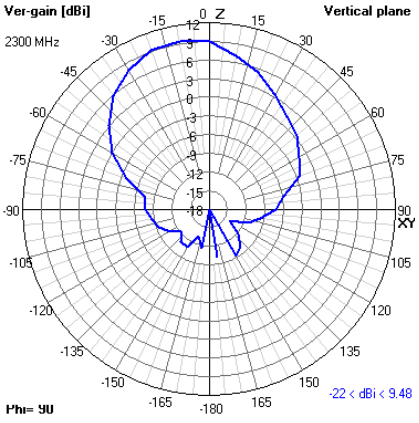
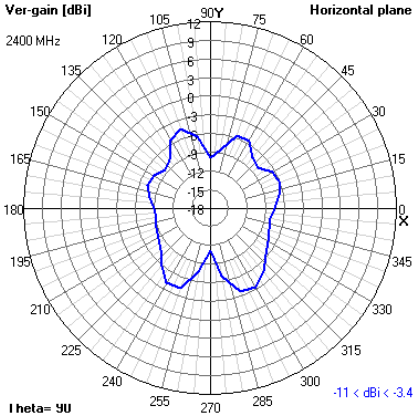


2400 MHz XY



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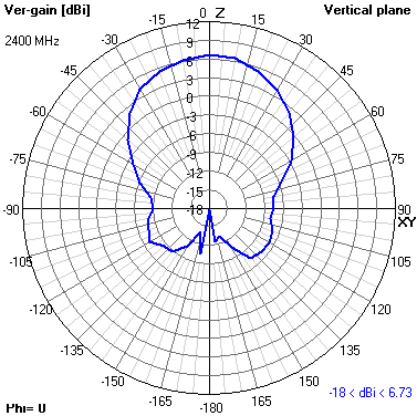

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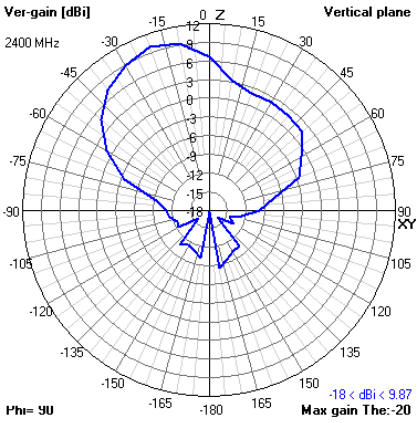
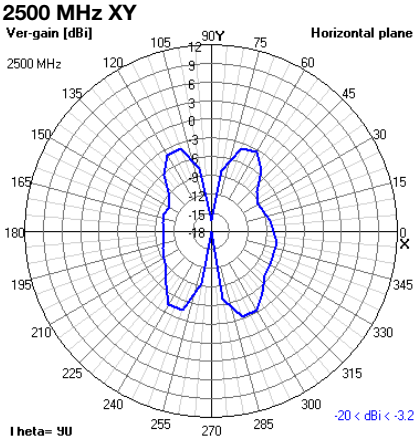


2500 MHz XY



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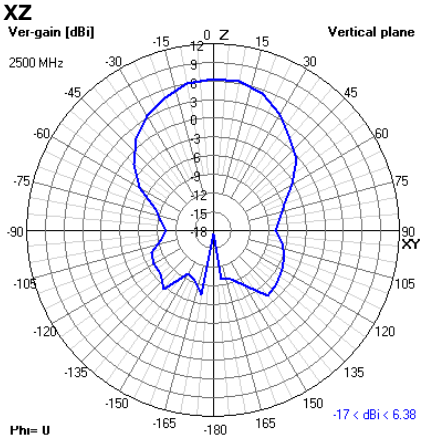

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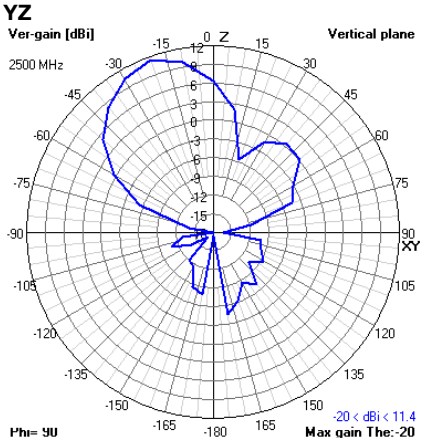

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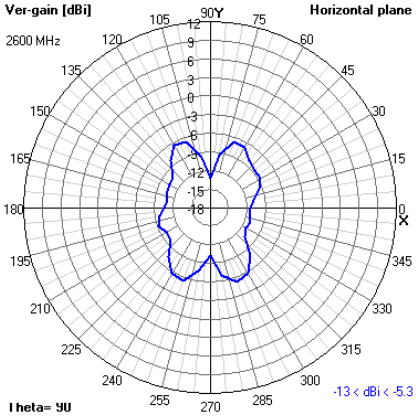
2D Radiation Plots

2600 MHz XY



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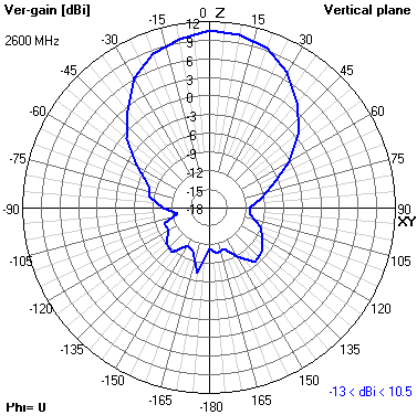

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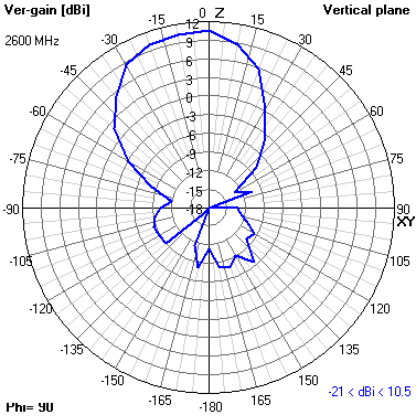
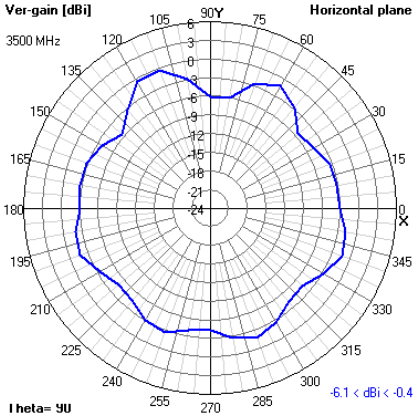


3500 MHz XY



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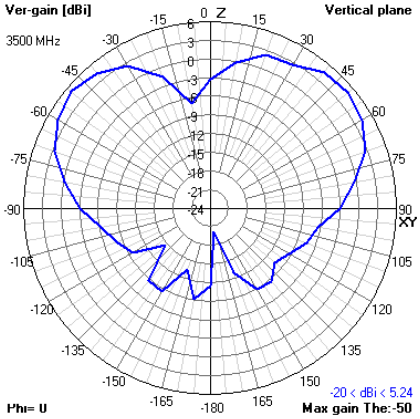

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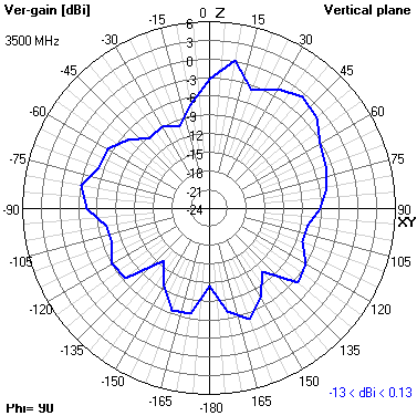
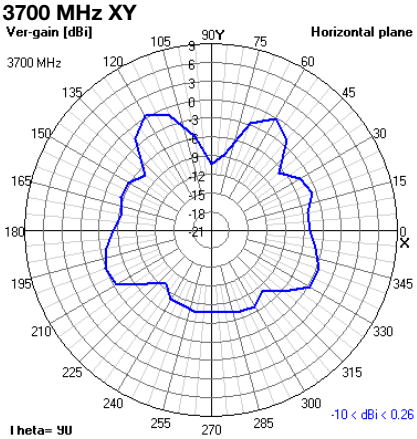


3700 MHz XY



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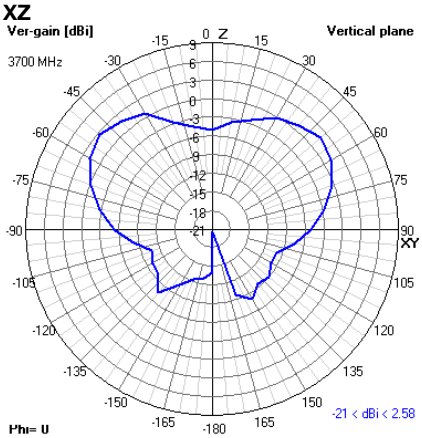

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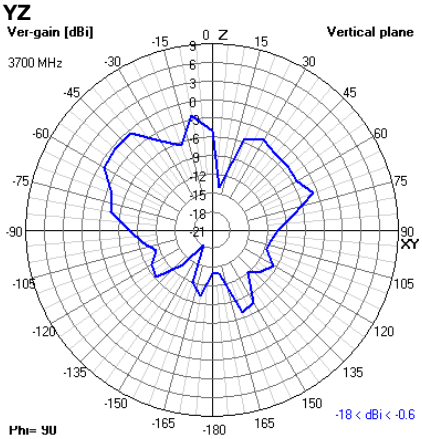

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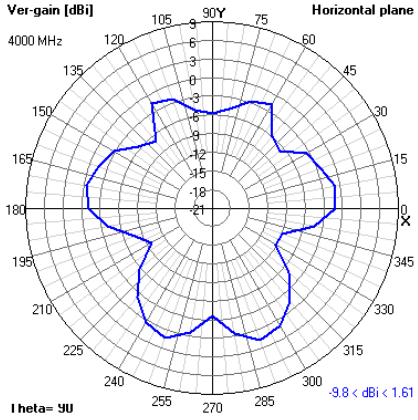
Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

2D Radiation Plots

4000 MHz XY



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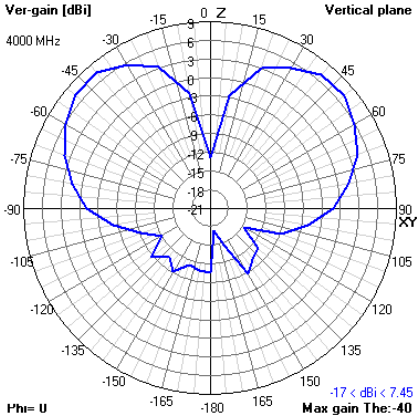

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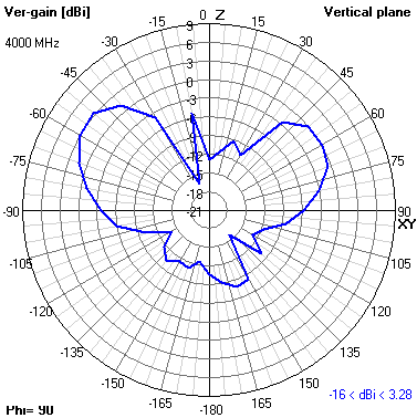
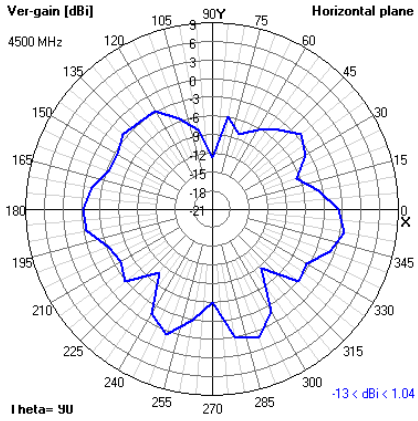


4500 MHz XY



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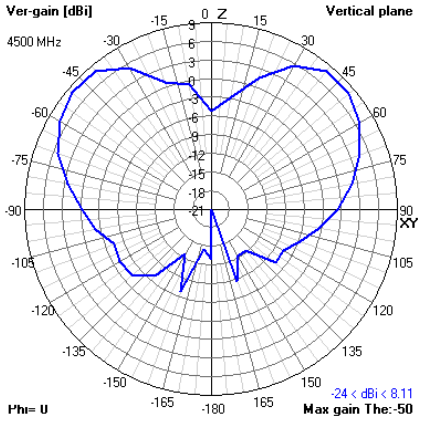

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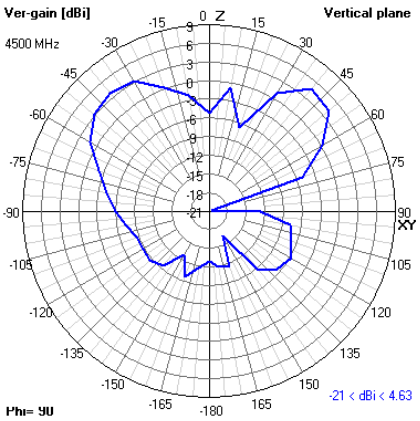
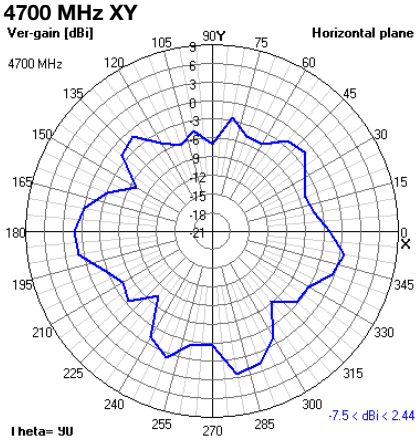


4700 MHz XY



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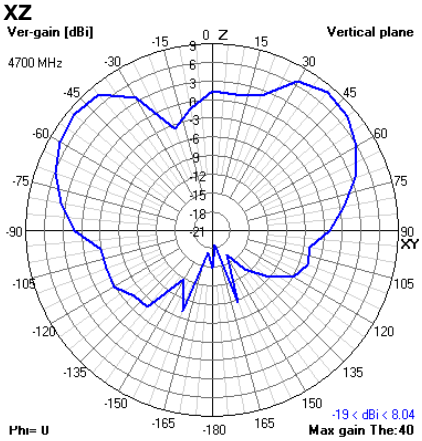

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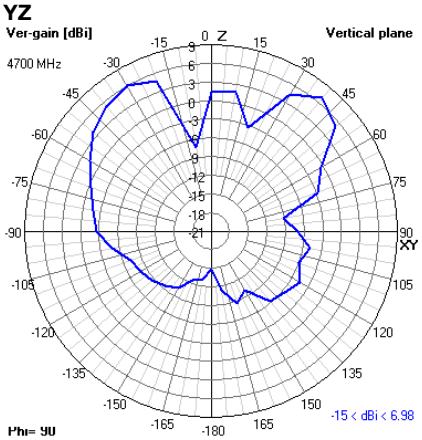

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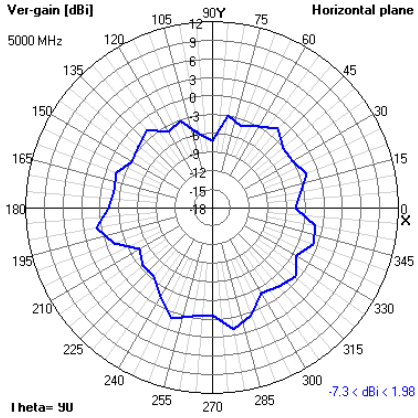
Oscar 63

Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

2D Radiation Plots

5000 MHz XY



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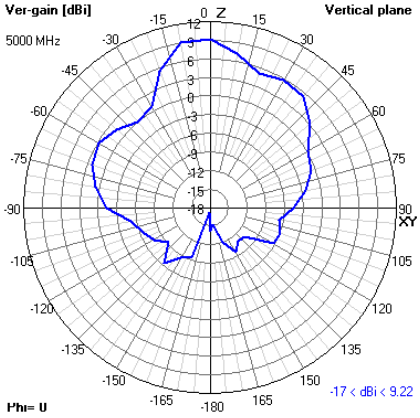

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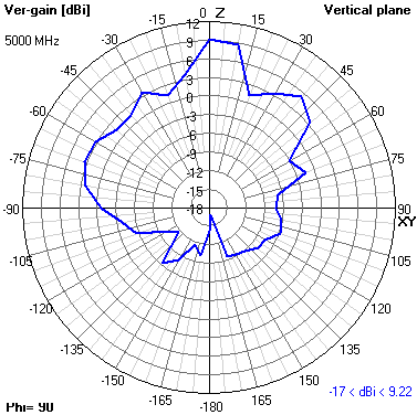
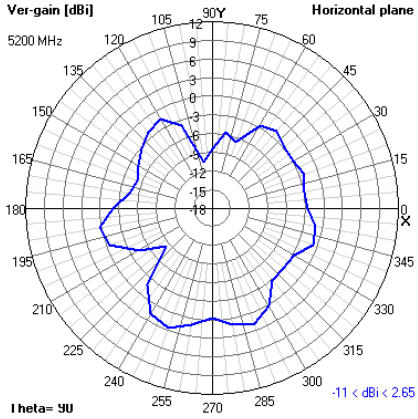


5200 MHz XY



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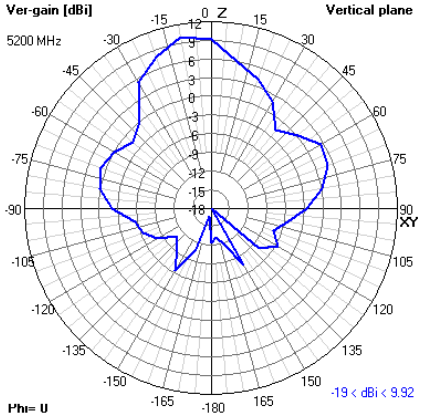

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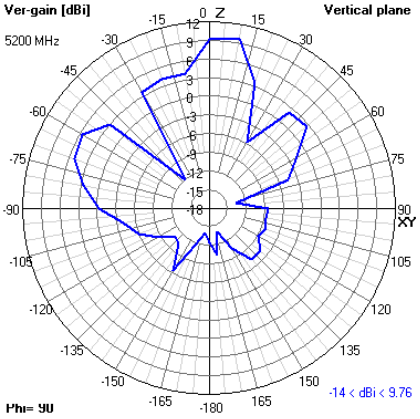
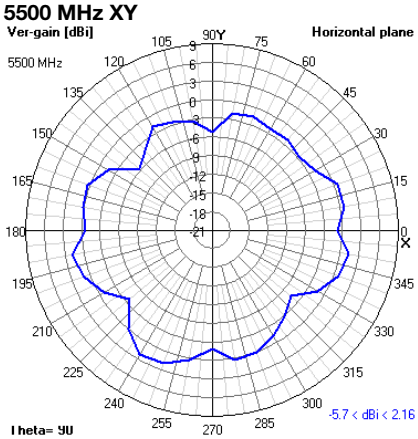


5500 MHz XY



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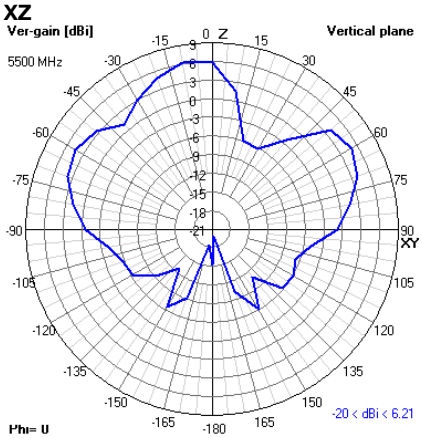

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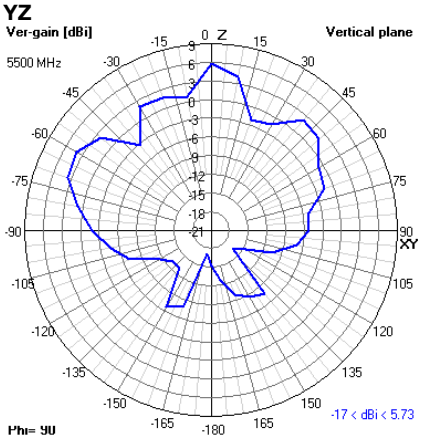


Siretta

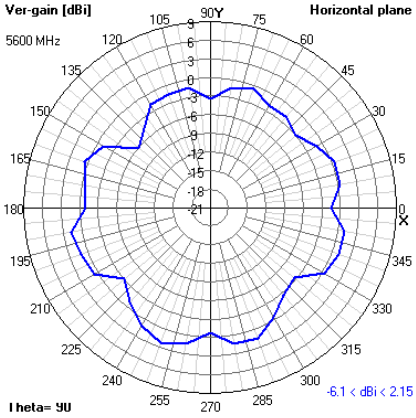
Enabling Industrial IoT

Oscar 63

Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

2D Radiation Plots

5600 MHz XY



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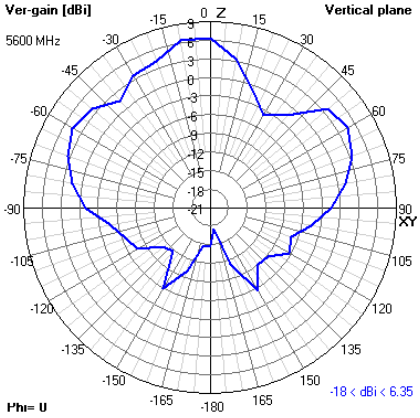

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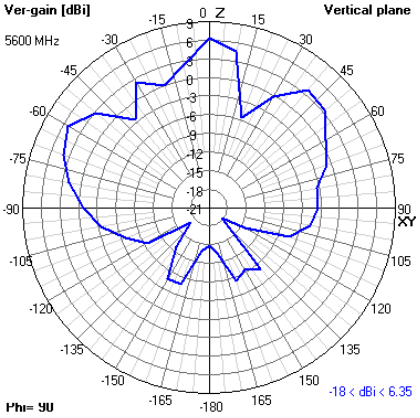
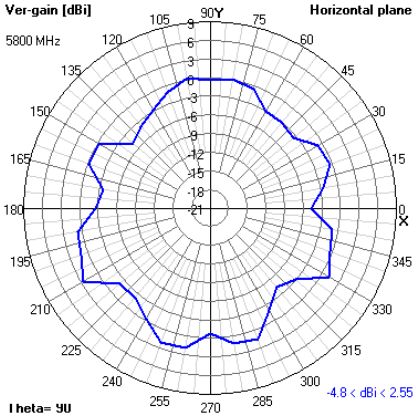
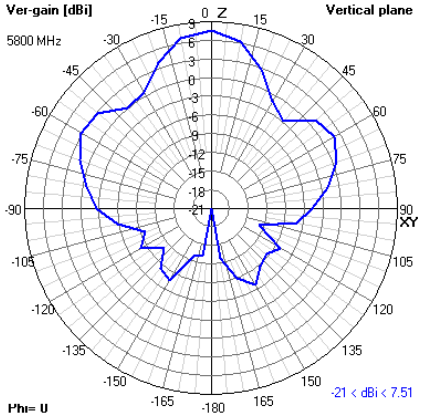


5800 MHz XY



XZ



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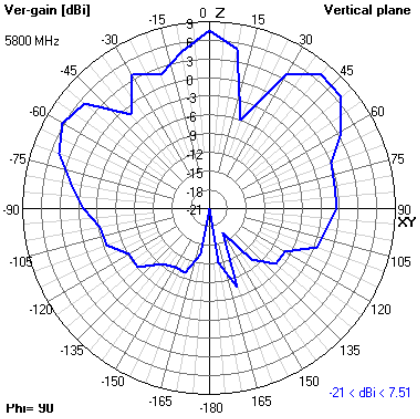
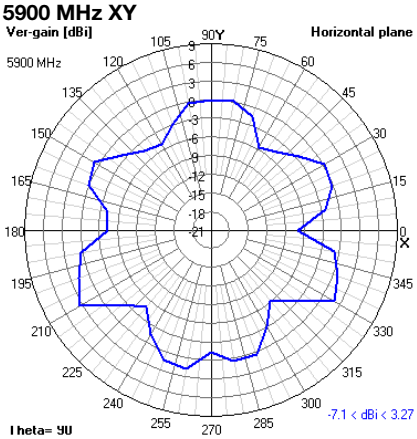


5900 MHz XY



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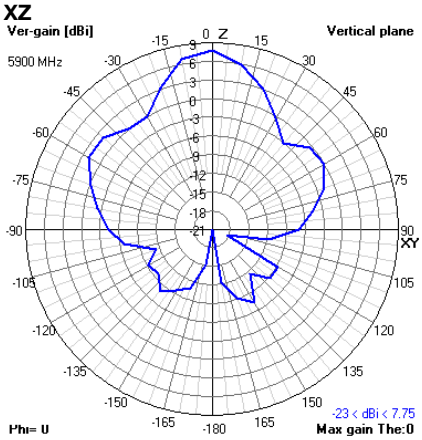

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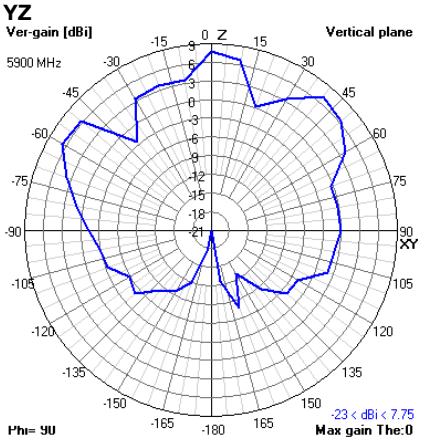


Siretta

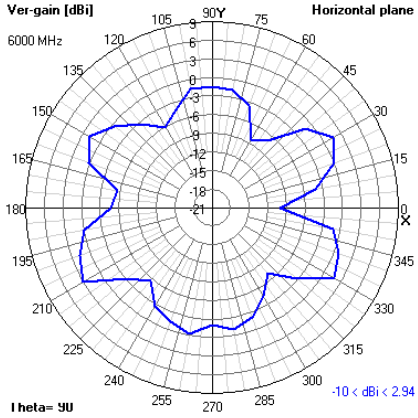
Enabling Industrial IoT

Oscar 63

Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

2D Radiation Plots

6000 MHz XY



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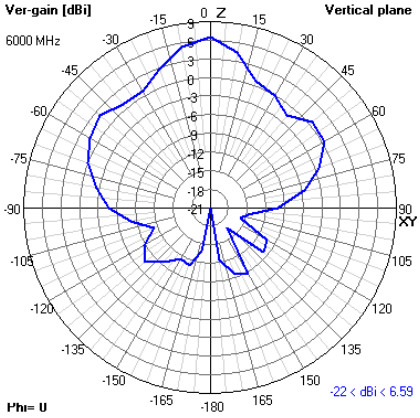
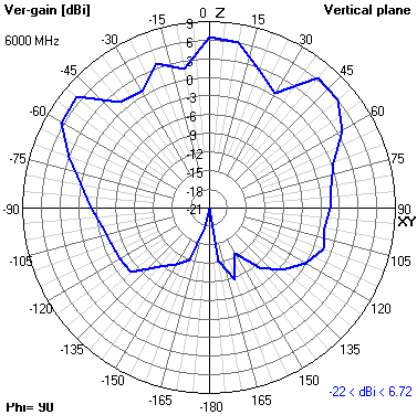
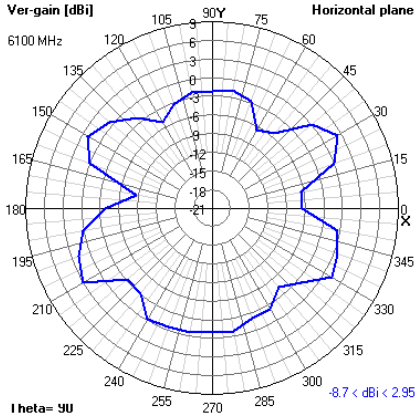


YZ



6100 MHz XY



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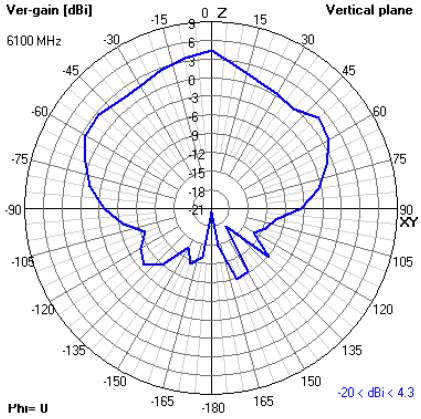

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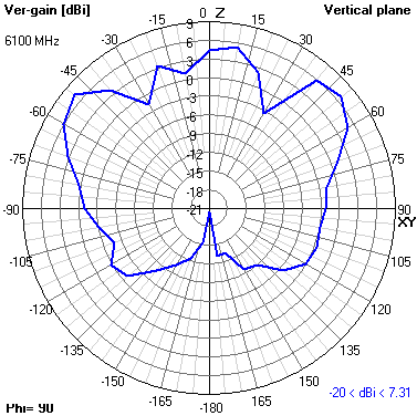
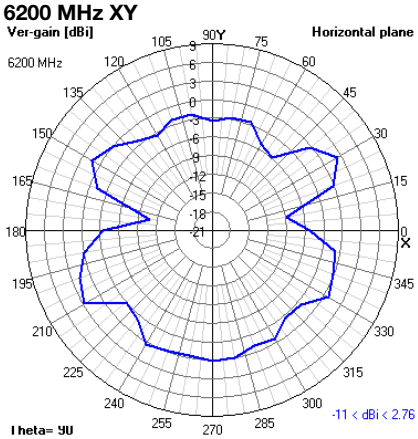
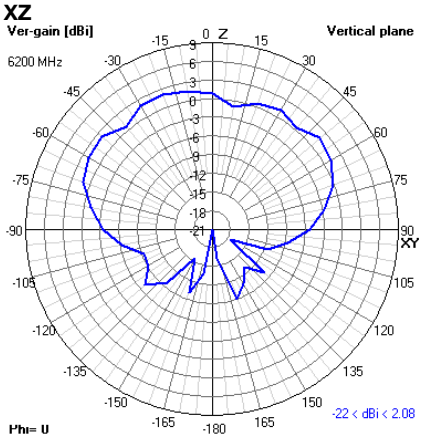


6200 MHz XY



XZ



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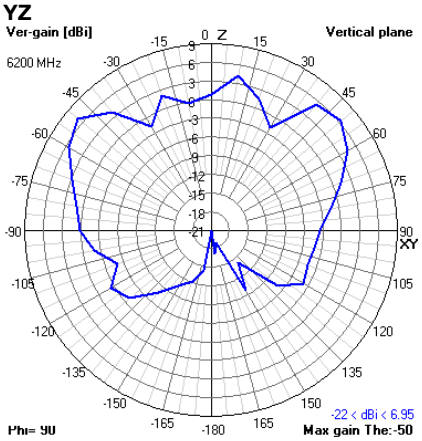


Siretta

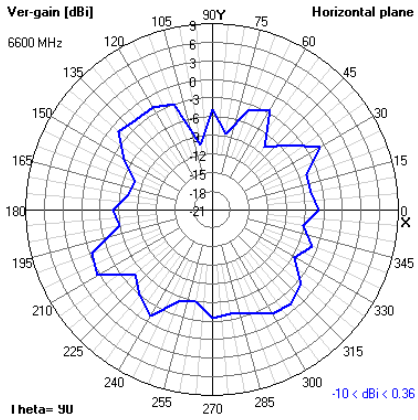
Enabling Industrial IoT

Oscar 63

Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

2D Radiation Plots

6600 MHz XY



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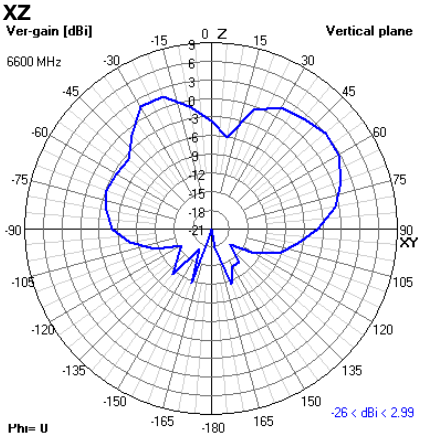

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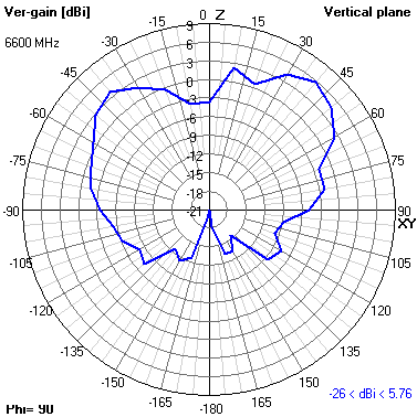
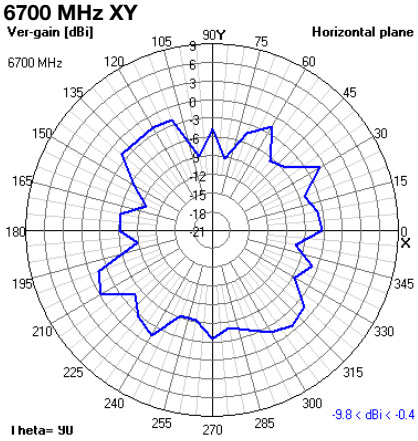
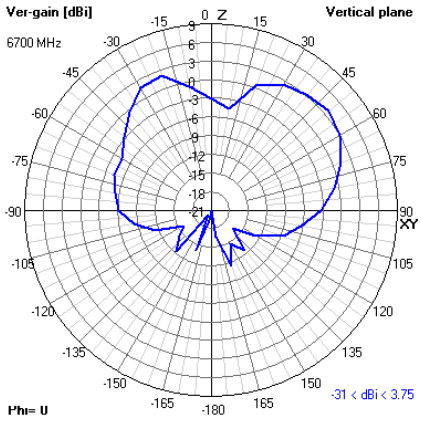


6700 MHz XY



XZ



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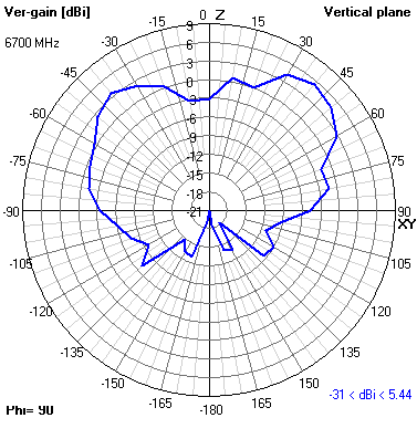
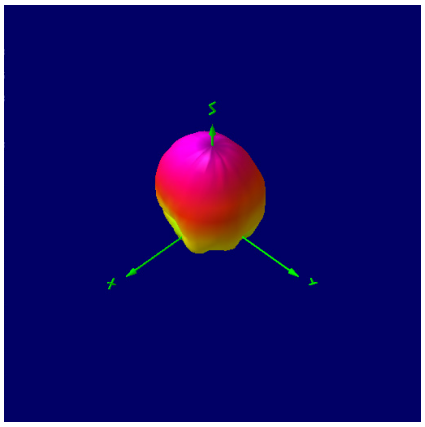


Oscar 63

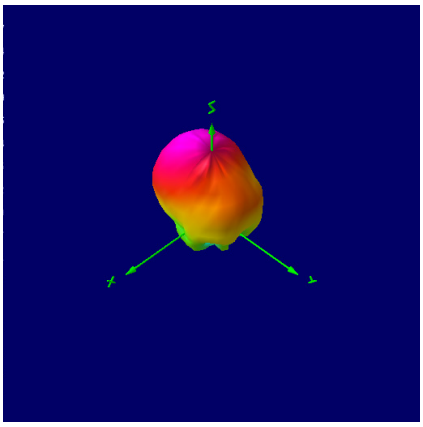
Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

3D Radiation Plots

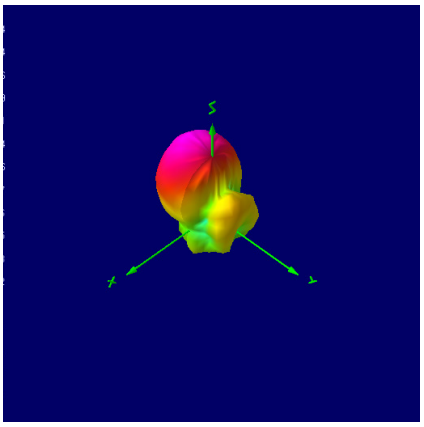
2300 MHz



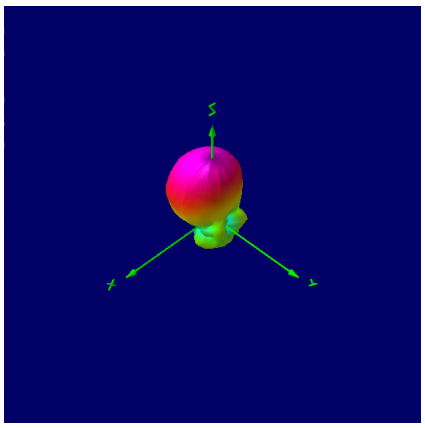
2400 MHz



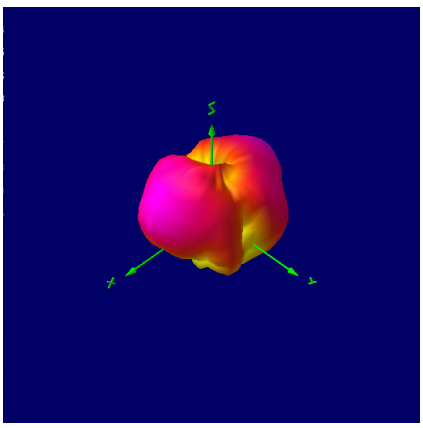
2500 MHz



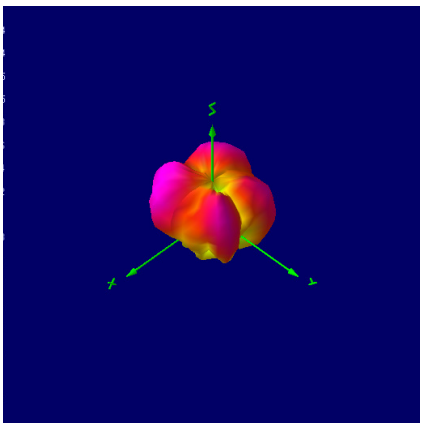
2600 MHz



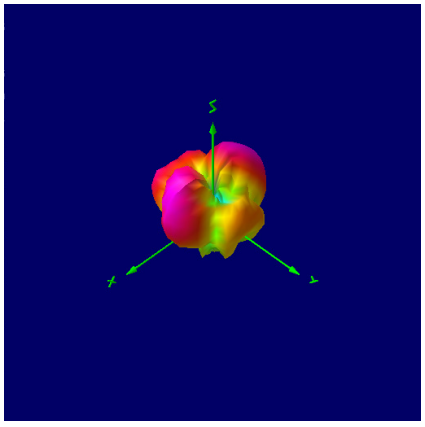
3500 MHz



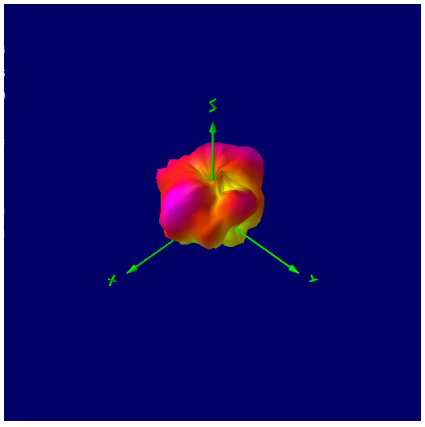
3700 MHz



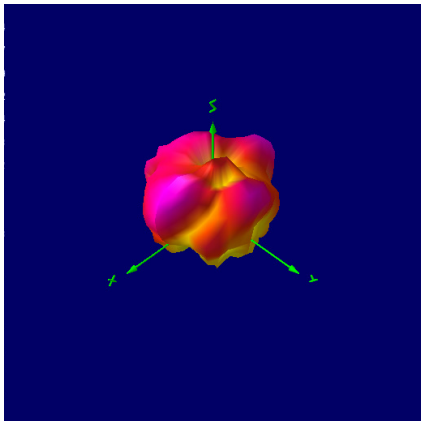
4000 MHz



4500 MHz



4700 MHz

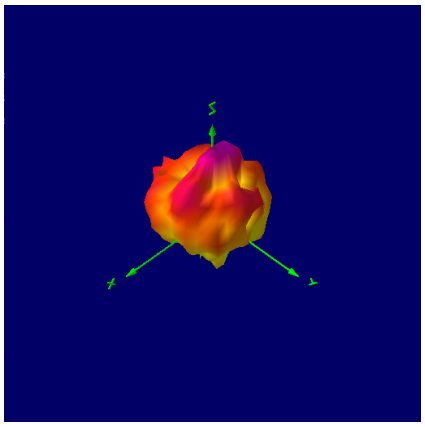


Oscar 63

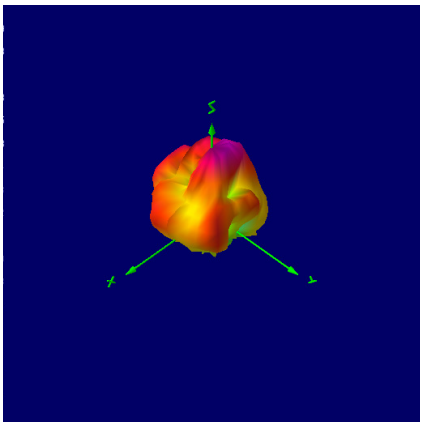
Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

3D Radiation Plots

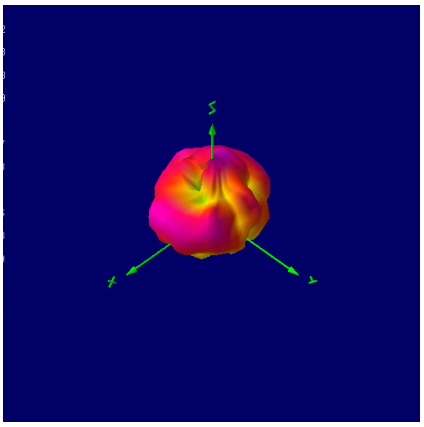
5000 MHz



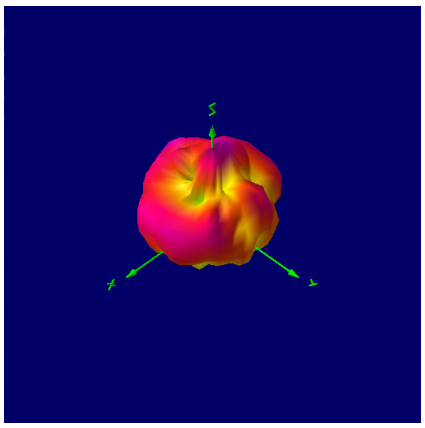
5200 MHz



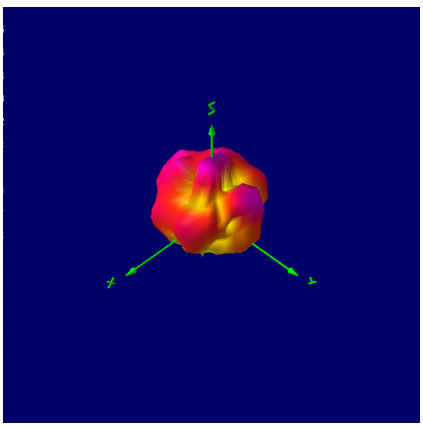
5500 MHz



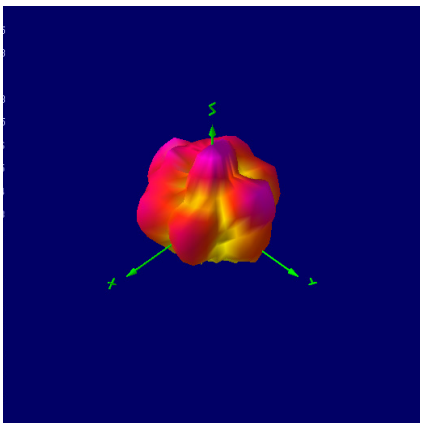
5600 MHz



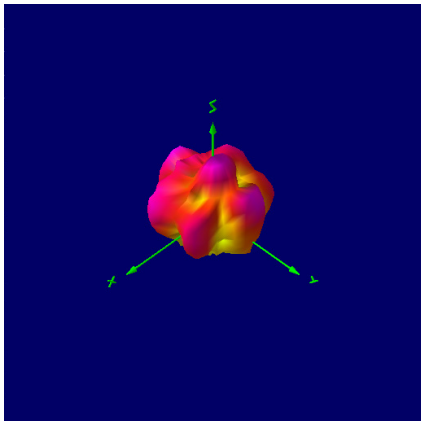
5800 MHz



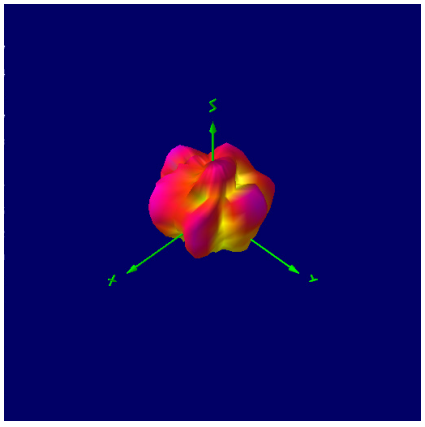
5900 MHz



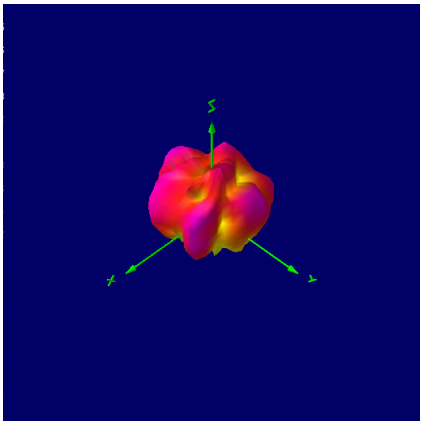
6000 MHz



6100 MHz



6200 MHz

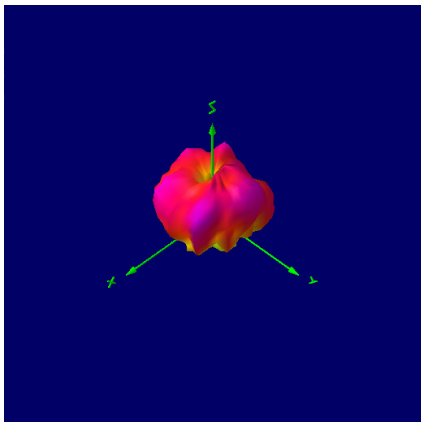


Oscar 63

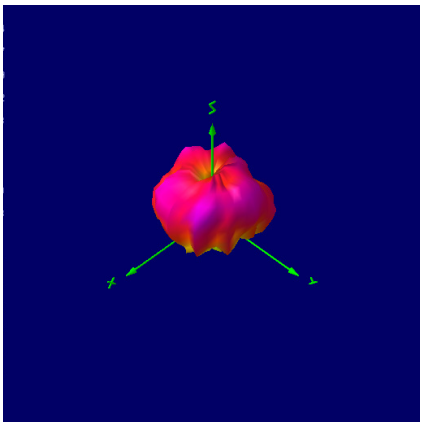
Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G, Wi-Fi 6E and Wi-Fi 7

3D Radiation Plots

6600 MHz



6700 MHz



NOTE: All 3D radiation plots are shown with Theta = 45 and Phi = 45.

Part Number	Description
OSCAR63/X/NTYPE-F/29	Ultra-Wideband High-Gain Outdoor Panel Antenna for 4G, 5G and Wi-Fi 6E with NTYPE-F Connector
ASMR600A058L13	N-TYPE(M) TO SMA(M) 6M LOW LOSS (SLL200) CABLE ASSEMBLY
ASMR1000A058L13	N-TYPE(M) TO SMA(M) 10M LOW LOSS (SLL200) CABLE ASSEMBLY
ASMR1500A058L13	N-TYPE(M) TO SMA(M) 15M LOW LOSS (SLL200) CABLE ASSEMBLY
ASMR2000A058L13	N-TYPE(M) TO SMA(M) 20M LOW LOSS (SLL200) CABLE ASSEMBLY