



Oscar 64

5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz



General Description

The Oscar 64 is a compact, small cell directional panel antenna designed for efficient coverage in the 3300-4700 MHz range, making it ideal for 4x4 MIMO applications in 5G NR and 4G LTE networks.

Engineered for urban and rural fixed wireless deployments, it features $\pm 45^\circ$ slant linear polarisation to enhance signal stability and minimise interference.

With its rugged ASA radome and robust design, the Oscar 64 is well-suited for outdoor installations, supporting high wind resistance up to 240 km/h.

This antenna provides four N-Female connectors, supporting 4x4 MIMO for improved data throughput in high-density applications, and offers flexible mounting options to ensure ease of installation.

A version with 5 meter low loss cables and SMA Male connectors is also available for applications requiring extended cable runs.

Key Features

- Supports 5G NR Bands n7, n38, n48, n77, n78, n79
- Supports 4G LTE Bands 7, 22, 38, 42, 43, 48, 49, 52, 69
- Optimised for Small Cell and Fixed Wireless Applications
- $\pm 45^\circ$ Slant Linear Cross Polarisation
- Four-port MIMO with N-Female connectors
- UV-resistant ASA radome for durability
- Wide 65° horizontal beamwidth and 20-25° vertical beamwidth

Typical Applications

- Small cell and fixed wireless networks
- Urban and rural network densification
- 4G LTE and 5G NR coverage enhancement
- Enterprise and public venues connectivity
- Smart city infrastructure support





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Electrical Specifications

Frequency range:	3300-4700 MHz
Gain:	12.10 dBi (3300-3800 MHz), 12.8 dBi (3700-4700 MHz)
Polarisation:	±45° Slant Linear
VSWR:	≤ 1.5
Impedance:	50 Ohms
Isolation:	≥ 22 dB
Max input power:	50 W
Cross-Polar Discrimination:	15.5 dB
Front-to-back ratio:	28 dB (3300-3800 MHz), 26 dB (3700-4700 MHz)
Ground plane independent:	Yes

Environmental Specifications

Operating temperature range:	-30 °C to +70 °C
Storage temperature range:	-40 °C to +85 °C
Max wind speed:	240 km/h (150 mph)
Radome material:	ASA, UV resistant

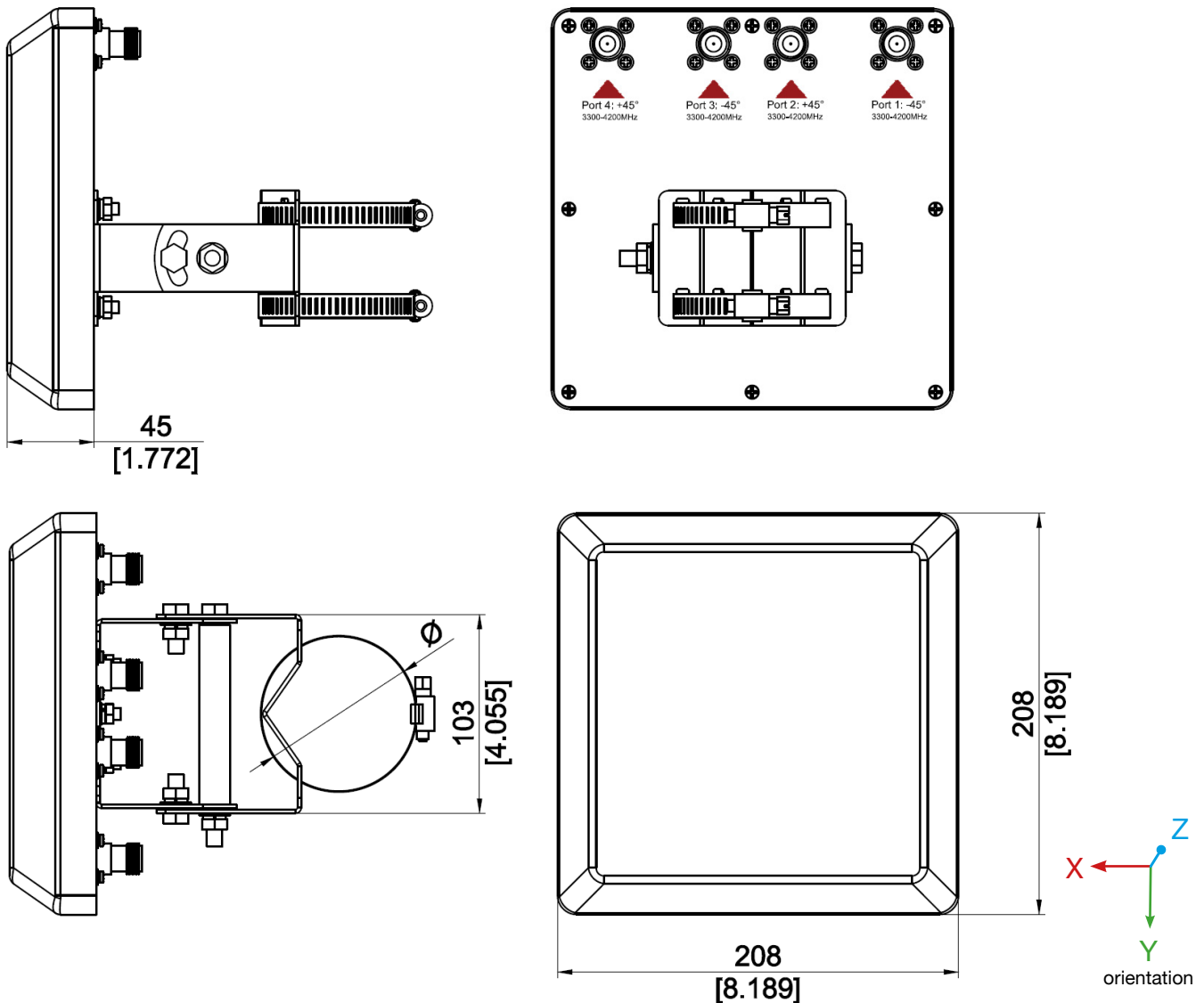
Mechanical Specifications

Dimensions:	208 mm x 208 mm x 45 mm
Weight:	0.9 kg (antenna body), 0.5 kg (mount kit)
Connector:	4 x N-Female
Mounting method:	Wall or pole mount

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Dimensional Drawing

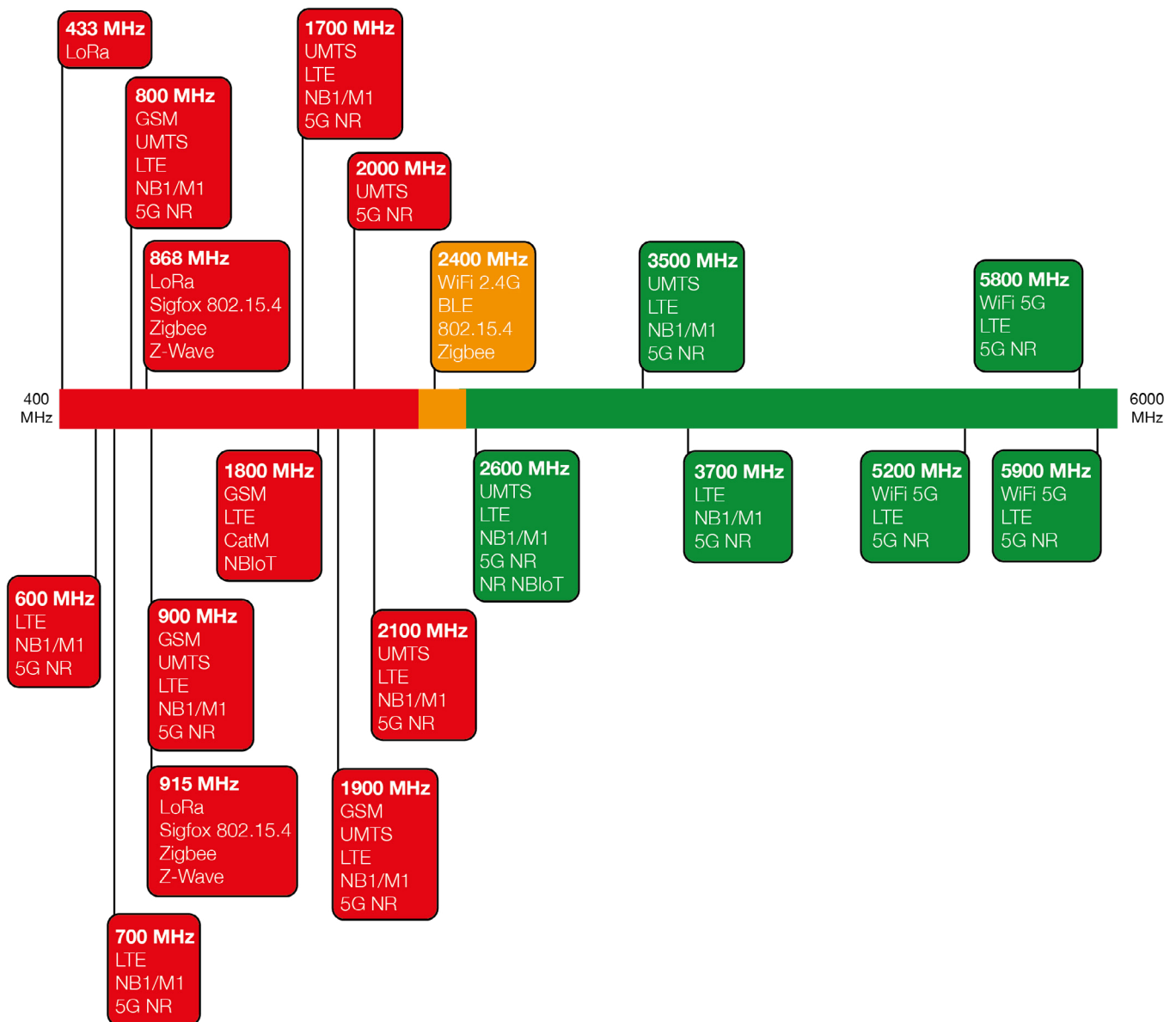




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Spectrum Coverage



● Suitable band

● Adequate band in good signal conditions

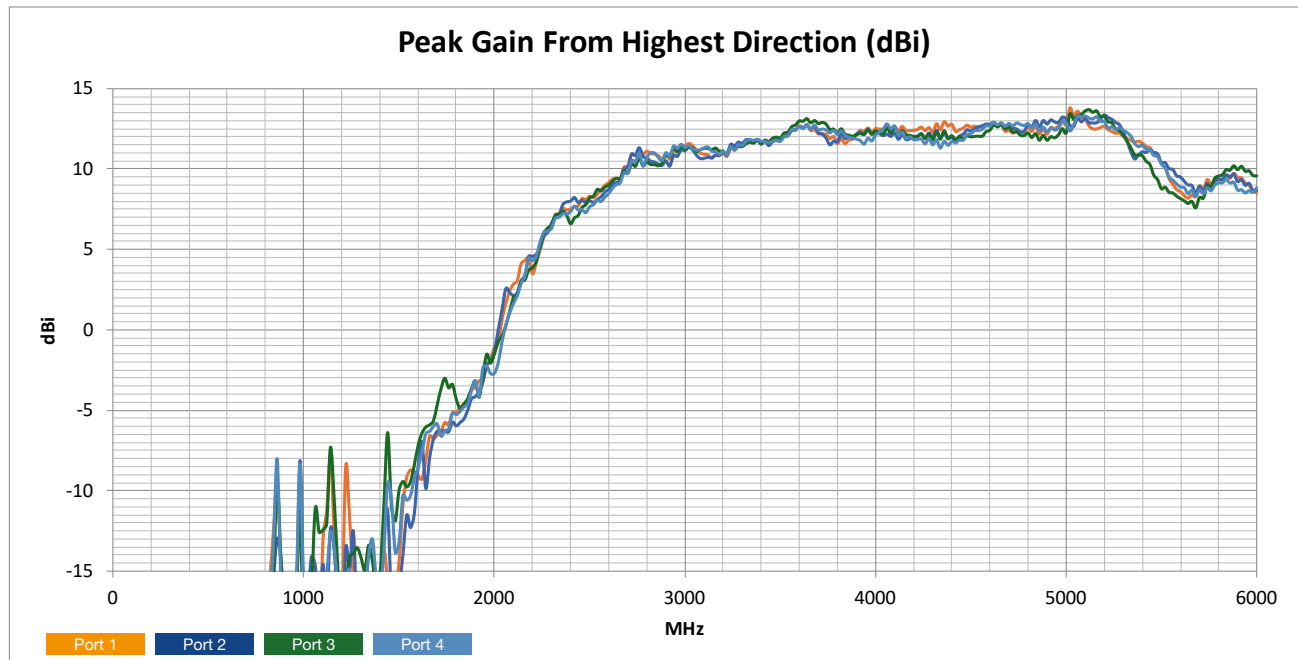
● Likely to be unsuitable



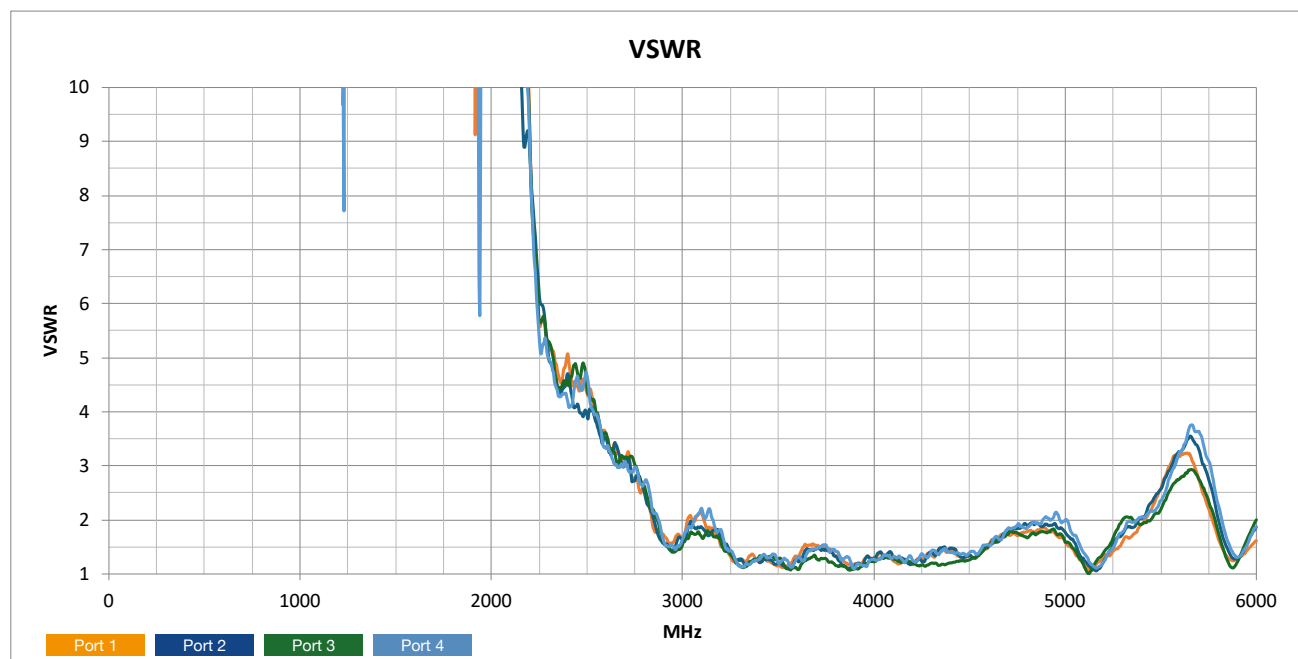
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Peak Gain vs. Frequency



VSWR

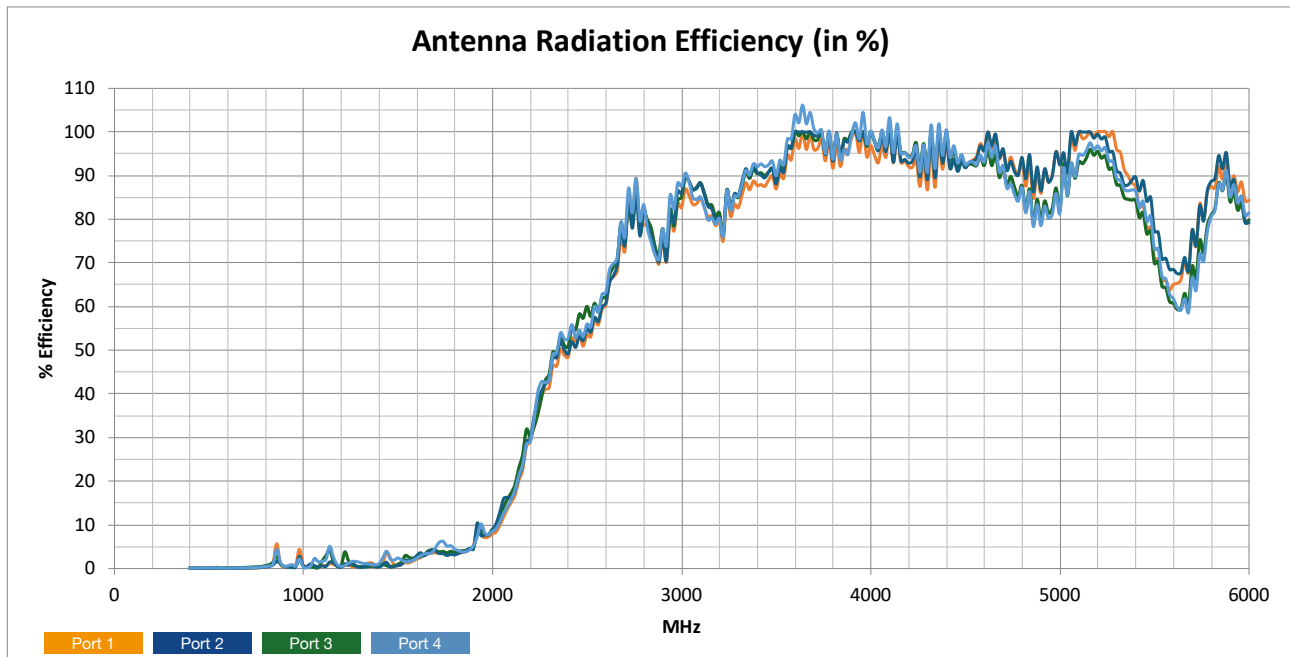




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Radiation Efficiency



Usable Cellular Frequency Support (2100 MHz – 6700 MHz)

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





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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	NTN Band	Uplink	Downlink	Average Upload Efficiency (%)	Average Download Efficiency (%)	Maximum Upload VSWR	Maximum Download VSWR	Use Indicator
	1	1	1	1	n1	n1		1920 - 1980 MHz	2110 - 2170 MHz	7.66	20.08	20.82	15.10	●
PCS-1900	2	2	2	2	n2	n2		1850 - 1910 MHz	1930 - 1990 MHz	4.71	7.47	45.36	21.44	●
DCS-1800	3	3	3	3	n3	n3		1710 - 1785 MHz	1805 - 1880 MHz	3.45	3.82	30.83	42.73	●
	4	4	4	4				1710 - 1755 MHz	2110 - 2155 MHz	3.52	18.97	23.58	15.10	●
GSM-850	5	5	5	5	n5	n5		824 - 849 MHz	869 - 894 MHz	1.44	1.43	53.87	32.89	●
	6							830 - 840 MHz	875 - 885 MHz	1.08	1.22	46.76	32.89	●
	7	7	7	7	n7	n7		2500 - 2570 MHz	2620 - 2690 MHz	55.20	69.54	4.42	3.40	●
E-GSM-900	8	8	8	8	n8	n8		880 - 915 MHz	925 - 960 MHz	0.59	0.76	32.89	23.65	●
	9	9						1749.9 - 1784.9 MHz	1844.9 - 1879.9 MHz	3.35	4.02	30.81	42.65	●
	10	10						1710 - 1770 MHz	2110 - 2170 MHz	3.45	20.08	26.41	15.10	●
	11	11	11	11				1427.9 - 1447.9 MHz	1475.9 - 1495.9 MHz	3.22	0.94	27.23	161.01	●
	12	12	12	12	n12	n12		699 - 716 MHz	729 - 746 MHz	0.13	0.18	76.70	47.21	●
	13	13	13	13	n13			777 - 787 MHz	746 - 756 MHz	0.32	0.21	57.07	50.45	●
	14	14	14	14	n14	n14		788 - 798 MHz	758 - 768 MHz	0.38	0.25	61.11	57.51	●
		17		17				704 - 716 MHz	734 - 746 MHz	0.13	0.18	69.58	47.21	●
		18	18	18	n18	n18		815 - 830 MHz	860 - 875 MHz	0.71	3.94	58.93	28.68	●
	19	19	19	19				830 - 845 MHz	875 - 890 MHz	1.32	1.07	46.76	32.89	●
	20	20	20	20	n20	n20		832 - 862 MHz	791 - 821 MHz	2.99	0.49	43.88	61.49	●
	21	21	21	21				1447.9 - 1462.9 MHz	1495.9 - 1510.9 MHz	2.85	0.91	35.33	140.51	●
	22	22						3410 - 3490 MHz	3510 - 3590 MHz	88.47	92.01	1.31	1.33	●
		24	24	24	n24	n24		1626.5 - 1660.5 MHz	1525 - 1559 MHz	3.10	1.37	18.52	34.17	●
	25	25	25	25	n25	n25		1850 - 1915 MHz	1930 - 1995 MHz	4.93	7.49	45.36	22.02	●
	26	26	26	26	n26	n26		814 - 849 MHz	859 - 894 MHz	1.21	2.38	59.04	32.89	●
		27	27					807 - 824 MHz	852 - 869 MHz	0.58	4.74	60.20	25.97	●
		28	28	28	n28	n28		703 - 748 MHz	758 - 803 MHz	0.16	0.32	71.29	61.49	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable



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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	NTN Band	Uplink	Downlink	Average Upload Efficiency (%)	Average Download Efficiency (%)	Maximum Upload VSWR	Maximum Download VSWR	Use Indicator
		28A						703 - 733 MHz	758 - 788 MHz	0.14	0.28	71.29	58.27	●
		29			n29			N/A	717 - 728 MHz	N/A	0.15	N/A	40.69	●
		30			n30			2305 - 2315 MHz	2350 - 2360 MHz	43.98	49.26	5.18	4.68	●
		31	31	31				452.5 - 457.5 MHz	462.5 - 467.5 MHz	0.08	0.08	97.47	80.62	●
	32	32						N/A	1452 - 1496 MHz	N/A	1.64	N/A	161.01	●
		33						1900 - 1920 MHz	1900 - 1920 MHz	7.14	7.14	36.60	36.60	●
		34			n34			2010 - 2025 MHz	2010 - 2025 MHz	8.44	8.44	21.64	21.64	●
		35						1850 - 1910 MHz	1850 - 1910 MHz	4.71	4.71	45.36	45.36	●
		36						1930 - 1990 MHz	1930 - 1990 MHz	7.47	7.47	21.44	21.44	●
		37						1910 - 1930 MHz	1910 - 1930 MHz	8.32	8.32	16.20	16.20	●
		38			n38			2570 - 2620 MHz	2570 - 2620 MHz	60.91	60.91	3.66	3.66	●
		39	39		n39			1880 - 1920 MHz	1880 - 1920 MHz	6.03	6.03	45.36	45.36	●
		40	40		n40			2300 - 2400 MHz	2300 - 2400 MHz	47.38	47.38	5.18	5.18	●
		41	41	41	n41	n41		2496 - 2690 MHz	2496 - 2690 MHz	61.81	61.81	4.42	4.42	●
		42	42	42				3400 - 3600 MHz	3400 - 3600 MHz	90.21	90.21	1.33	1.33	●
		43	43	43				3600 - 3800 MHz	3600 - 3800 MHz	96.75	96.75	1.55	1.55	●
		44						703 - 803 MHz	703 - 803 MHz	0.24	0.24	71.29	71.29	●
		45						1447 - 1467 MHz	1447 - 1467 MHz	2.74	2.74	56.41	56.41	●
		46			n46			5150 - 5925 MHz	5150 - 5925 MHz	83.74	83.74	3.23	3.23	●
		47			n47			5855 - 5925 MHz	5855 - 5925 MHz	89.86	89.86	1.33	1.33	●
		48	48	48	n48			3550 - 3700 MHz	3550 - 3700 MHz	96.64	96.64	1.55	1.55	●
		49						3550 - 3700 MHz	3550 - 3700 MHz	96.64	96.64	1.55	1.55	●
		50			n50			1432 - 1517 MHz	1432 - 1517 MHz	1.89	1.89	161.01	161.01	●
		51			n51			1427 - 1432 MHz	1427 - 1432 MHz	2.38	2.38	28.04	28.04	●
		52						3300 - 3400 MHz	3300 - 3400 MHz	86.87	86.87	1.36	1.36	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable



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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	NTN Band	Uplink	Downlink	Average Upload Efficiency (%)	Average Download Efficiency (%)	Maximum Upload VSWR	Maximum Download VSWR	Use Indicator
		53			n53			2483.5 - 2495 MHz	2483.5 - 2495 MHz	52.16	52.16	4.59	4.59	●
								1670 - 1675 MHz	1670 - 1675 MHz	3.50	3.50	20.18	20.18	●
		65		65	n65	n65		1920 - 2010 MHz	2110 - 2200 MHz	7.71	22.68	22.36	15.10	●
		66	66	66	n66	n66		1710 - 1780 MHz	2110 - 2200 MHz	3.45	22.68	29.80	15.10	●
		67			n67			N/A	738 - 758 MHz	N/A	0.20	N/A	51.64	●
		68						698 - 728 MHz	753 - 783 MHz	0.14	0.26	76.97	58.27	●
		69						N/A	2570 - 2620 MHz	N/A	60.91	N/A	3.66	●
		70		70	n70	n70		1695 - 1710 MHz	1995 - 2020 MHz	3.64	8.16	23.95	22.36	●
		71	71	71	n71	n71		663 - 698 MHz	617 - 652 MHz	0.10	0.08	77.78	70.78	●
		72	72	72				451 - 456 MHz	461 - 466 MHz	0.08	0.08	100.05	82.19	●
		73	73	73				450 - 455 MHz	460 - 465 MHz	0.07	0.08	101.77	83.24	●
		74	74	74	n74	n74		1427 - 1470 MHz	1475 - 1518 MHz	2.88	0.98	77.65	161.01	●
		75			n75			N/A	1432 - 1517 MHz	N/A	1.89	N/A	161.01	●
		76			n76			N/A	1427 - 1432 MHz	N/A	2.38	N/A	28.04	●
					n77			3300 - 4200 MHz	3300 - 4200 MHz	93.74	93.74	1.55	1.55	●
					n78			3300 - 3800 MHz	3300 - 3800 MHz	92.16	92.16	1.55	1.55	●
					n79			4400 - 5000 MHz	4400 - 5000 MHz	92.76	92.76	1.85	1.85	●
					n80			1710 - 1785 MHz	N/A	3.45	N/A	30.83	N/A	●
					n81			880 - 915 MHz	N/A	0.59	N/A	32.89	N/A	●
					n82			832 - 862 MHz	N/A	2.99	N/A	43.88	N/A	●
					n83			703 - 748 MHz	N/A	0.16	N/A	71.29	N/A	●
					n84			1920 - 1980 MHz	N/A	7.66	N/A	20.82	N/A	●
		85	85	85	n85			698 - 716 MHz	728 - 746 MHz	0.13	0.18	76.97	47.21	●
					n86			1710 - 1780 MHz	N/A	3.45	N/A	29.80	N/A	●
		87	87	87				410 - 415 MHz	420 - 425 MHz	0.10	0.11	78.52	97.27	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable



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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	NTN Band	Uplink	Downlink	Average Upload Efficiency (%)	Average Download Efficiency (%)	Maximum Upload VSWR	Maximum Download VSWR	Use Indicator
		88	88	88				412 - 417 MHz	422 - 427 MHz	0.11	0.10	75.47	101.27	●
					n89			824 - 849 MHz	N/A	1.44	N/A	53.87	N/A	●
					n90	n90		2496 - 2690 MHz	2496 - 2690 MHz	61.81	61.81	4.42	4.42	●
					n91			832 - 862 MHz	1427 - 1432 MHz	2.99	2.38	43.88	28.04	●
					n92			832 - 862 MHz	1432 - 1517 MHz	2.99	1.89	43.88	161.01	●
					n93			880 - 915 MHz	1427 - 1432 MHz	0.59	2.38	32.89	28.04	●
					n94			880 - 915 MHz	1432 - 1517 MHz	0.59	1.89	32.89	161.01	●
					n95			2010 - 2025 MHz	N/A	8.44	N/A	21.64	N/A	●
					n97			2300 - 2400 MHz	N/A	47.38	N/A	5.18	N/A	●
					n98			1880 - 1920 MHz	N/A	6.03	N/A	45.36	N/A	●
					n99			1626.5 - 1660.5 MHz	N/A	3.10	N/A	18.52	N/A	●
1900					n101			1900 - 1910 MHz	1900 - 1910 MHz	6.26	6.26	36.60	36.60	●
				103				787 - 788 MHz	757 - 758 MHz	0.35	0.23	56.34	51.64	●
								663 - 703 MHz	612 - 652 MHz	0.11	0.08	77.78	75.36	●
							n254	1610 - 1625.5 MHz	2483.5 - 2500 MHz	2.52	52.49	29.40	4.59	●
							n255	1626.5 - 1660.5 MHz	1525 - 1559 MHz	3.10	1.37	18.52	34.17	●
							n256	1980 - 2010 MHz	2170 - 2200 MHz	7.81	27.89	22.36	10.48	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable

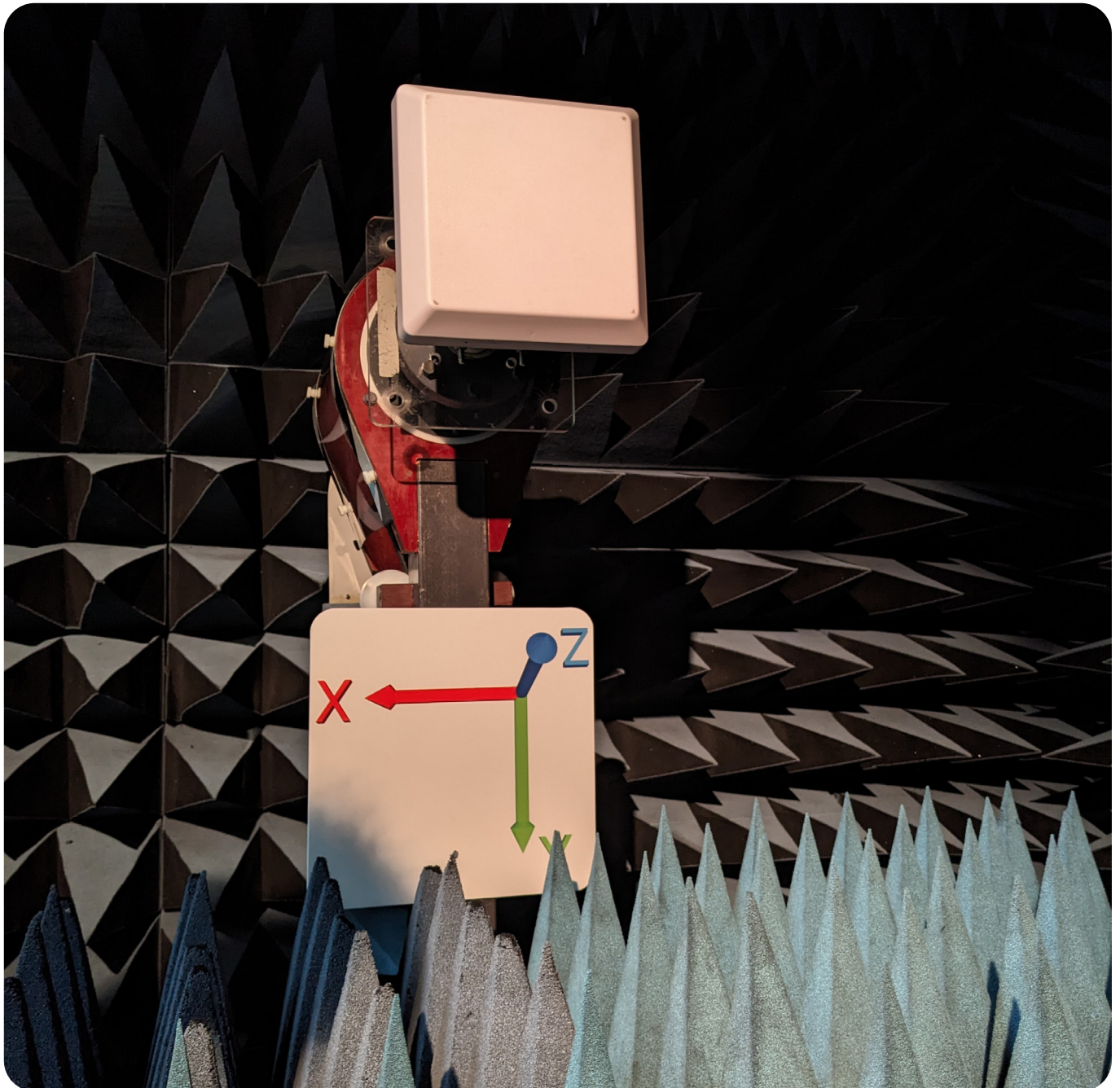
NOTE: For each frequency band, Siretta provides a traffic light indication to show the suitability of the antenna for use at that frequency band. Determination of exactly what makes an antenna good or bad at any frequency is subjective.

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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Test Setup (in Free Space)



5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

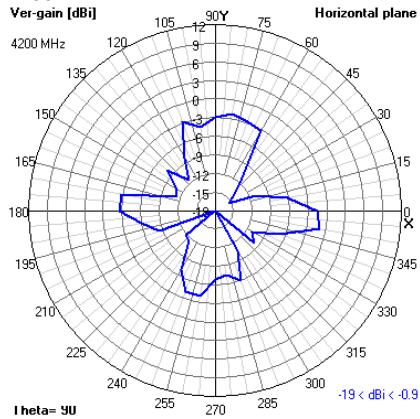


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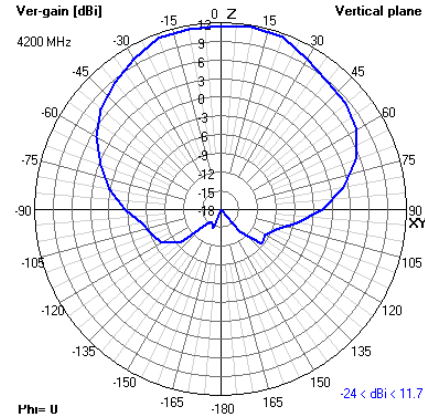
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

2D Radiation Plots [Port 1]

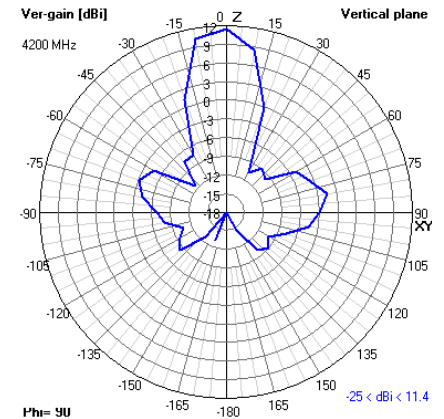
4200 MHz XY



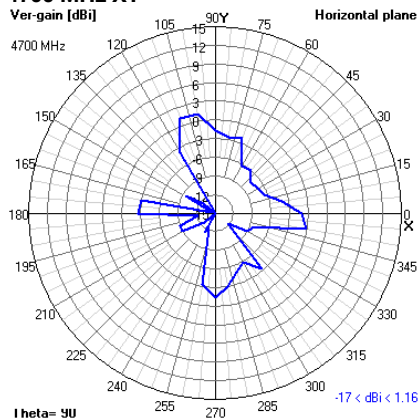
XZ



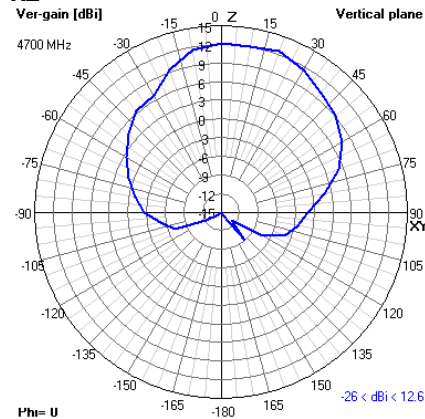
YZ



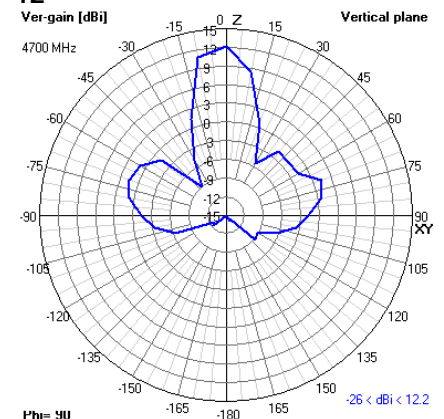
4700 MHz XY



XZ



YZ

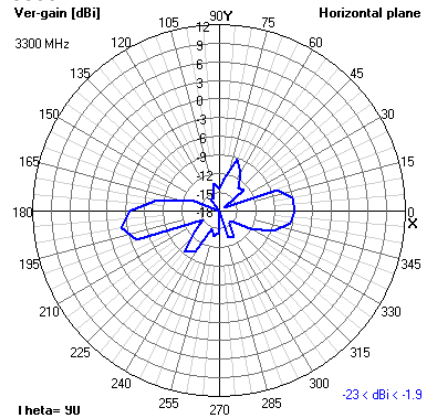


Oscar 64

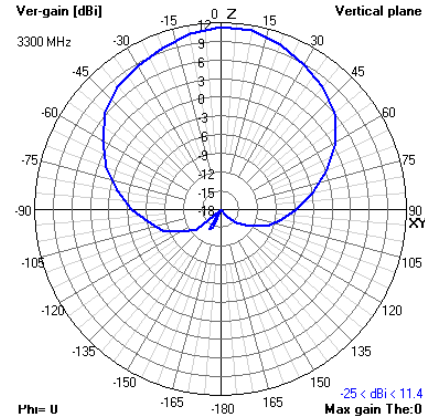
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

2D Radiation Plots [Port 2]

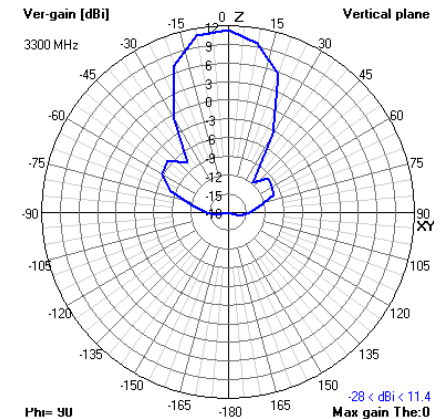
3300 MHz XY



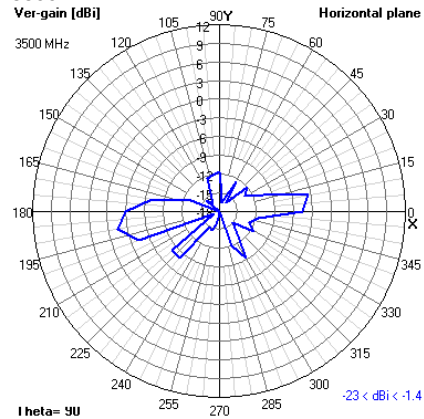
XZ



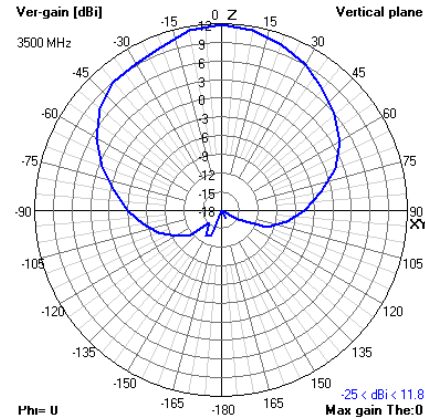
YZ



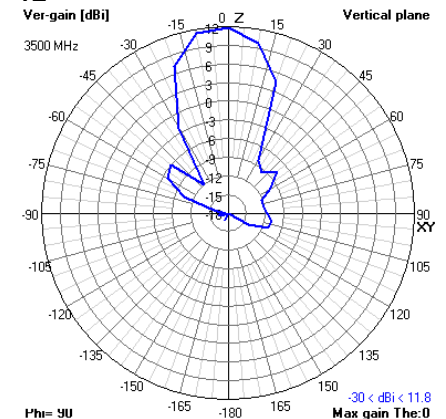
3500 MHz XY



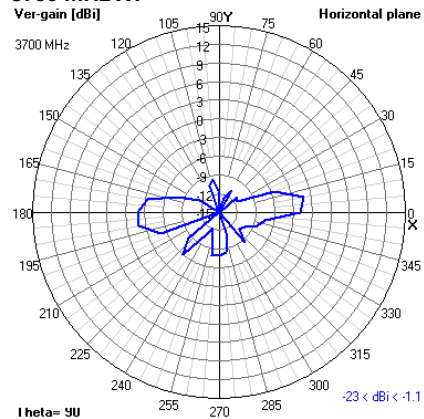
XZ



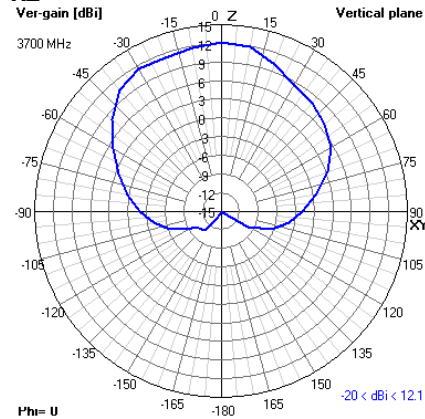
YZ



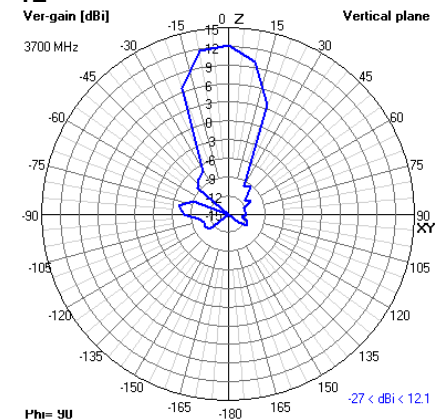
3700 MHz XY



XZ



YZ



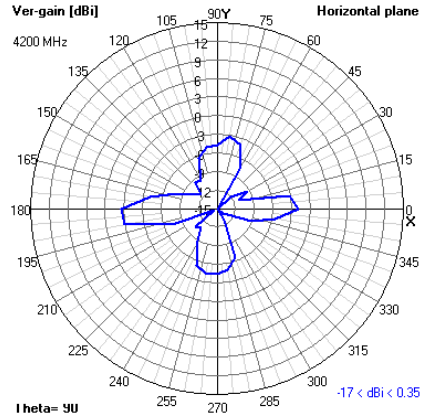


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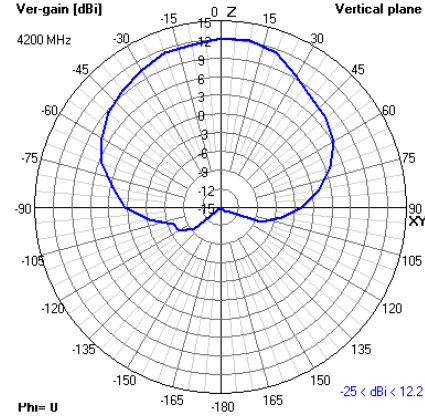
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2D Radiation Plots [Port 2]

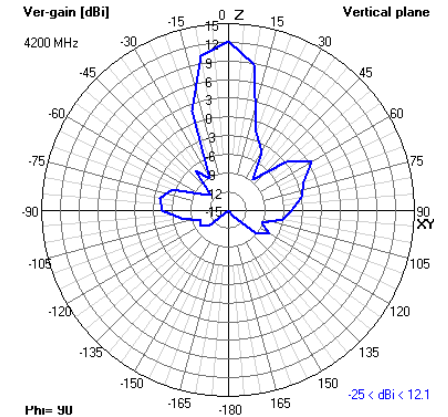
4200 MHz XY



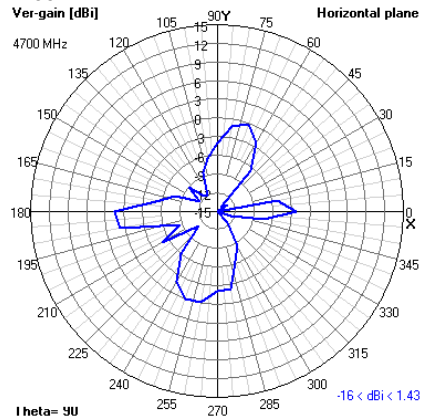
XZ



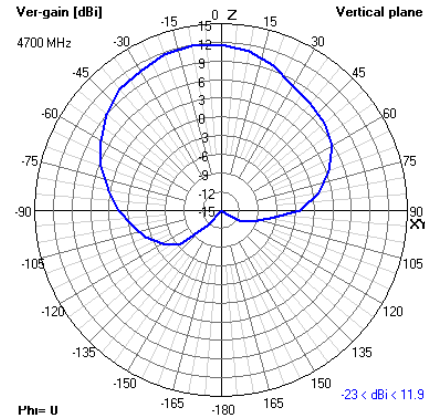
YZ



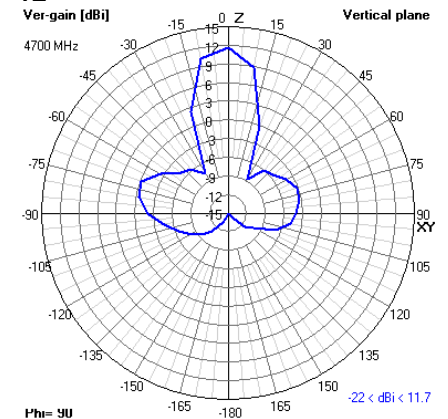
4700 MHz XY



XZ



YZ

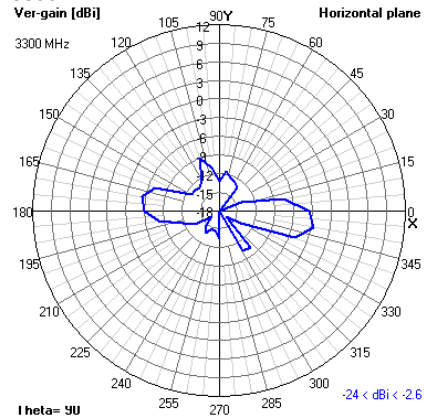


Oscar 64

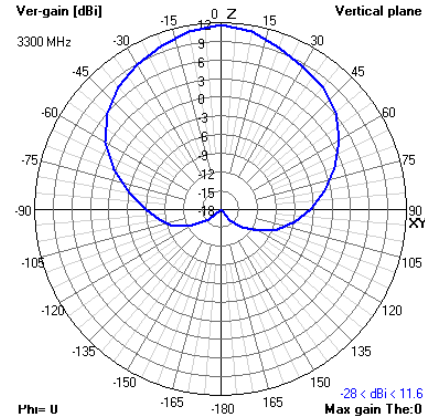
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

2D Radiation Plots [Port 3]

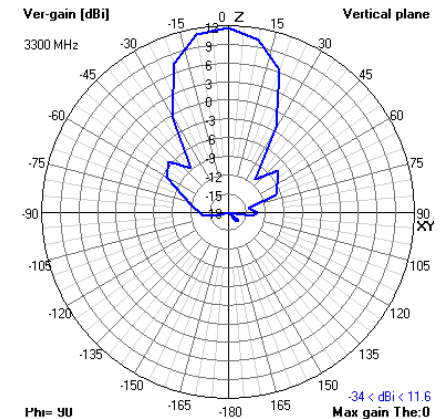
3300 MHz XY



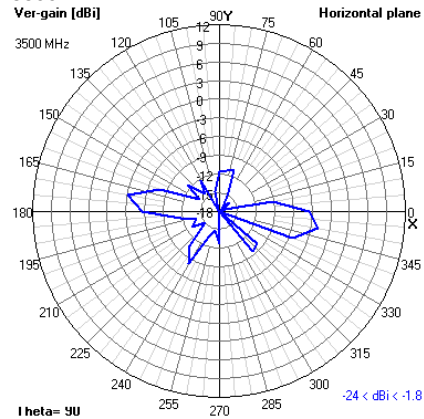
XZ



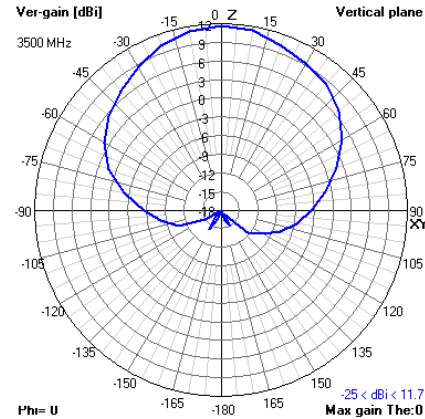
YZ



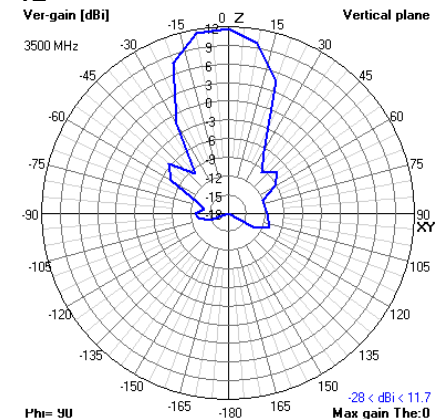
3500 MHz XY



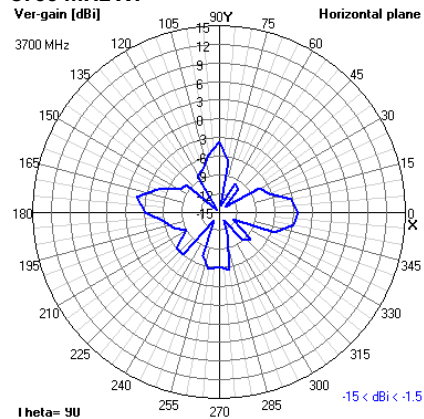
XZ



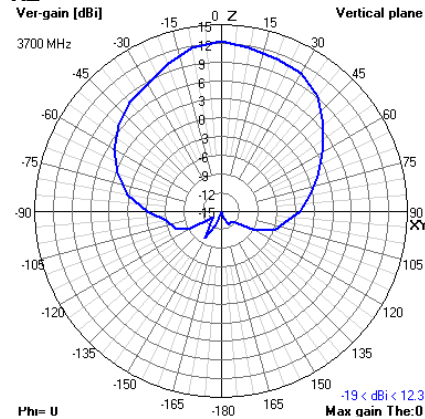
YZ



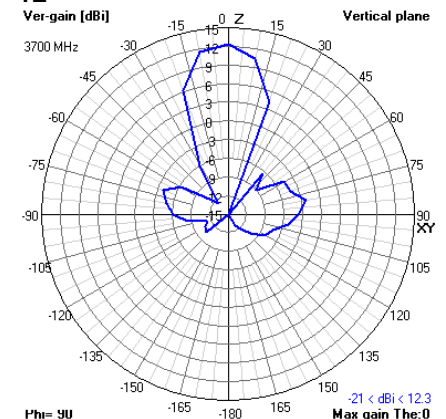
3700 MHz XY



XZ



YZ

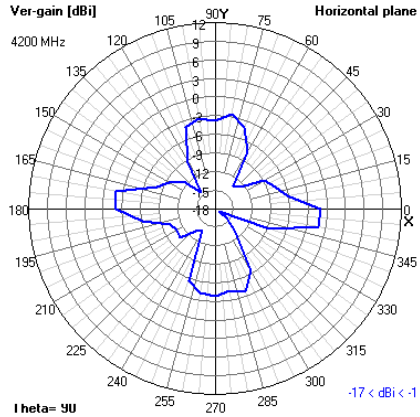


Oscar 64

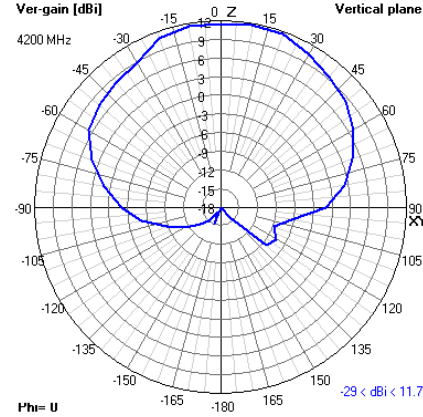
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

2D Radiation Plots [Port 3]

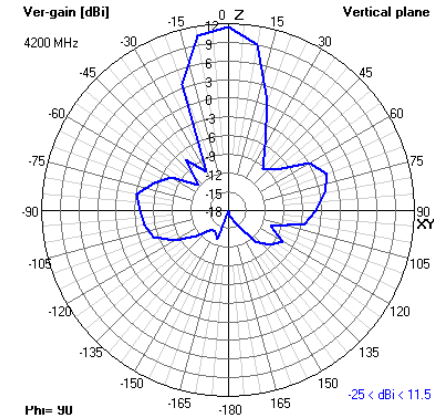
4200 MHz XY



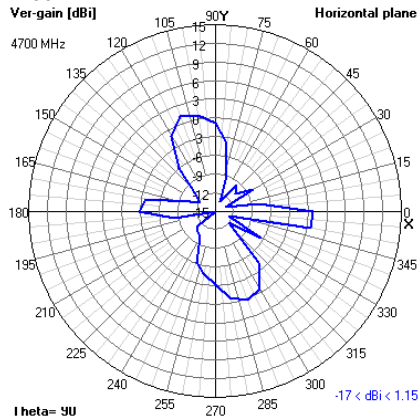
XZ



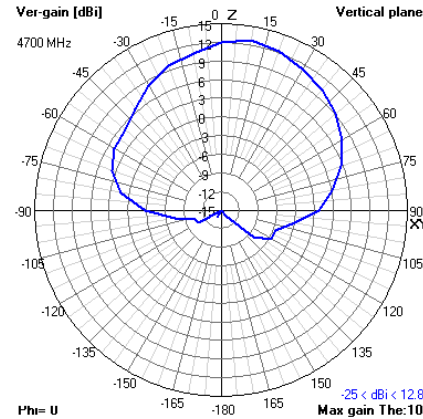
YZ



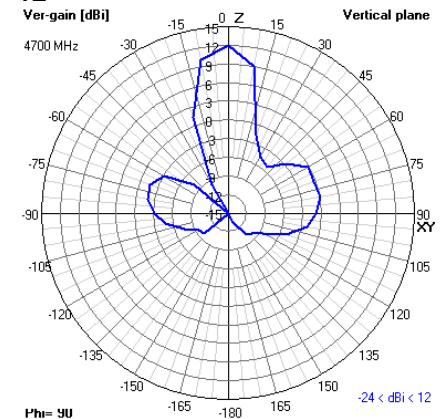
4700 MHz XY



XZ



YZ



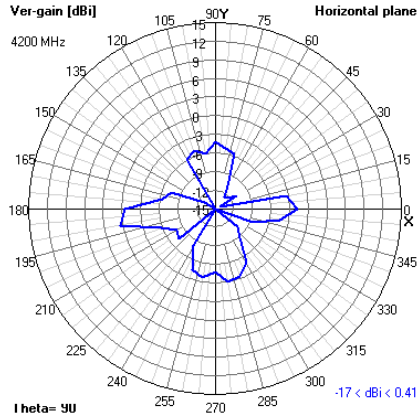
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

Oscar 64

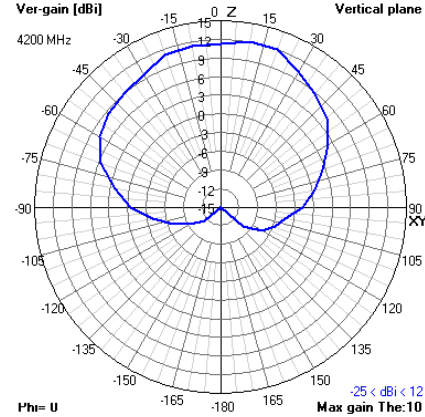
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

2D Radiation Plots [Port 4]

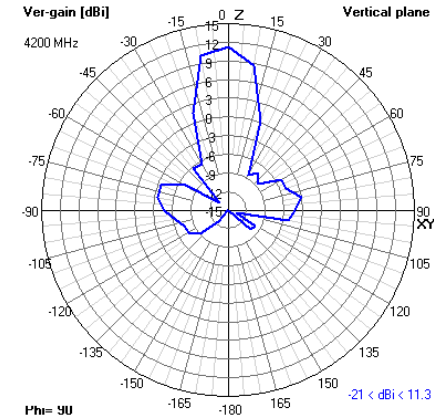
4200 MHz XY



XZ



YZ



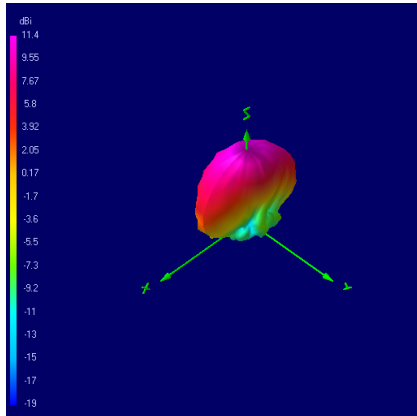


Oscar 64

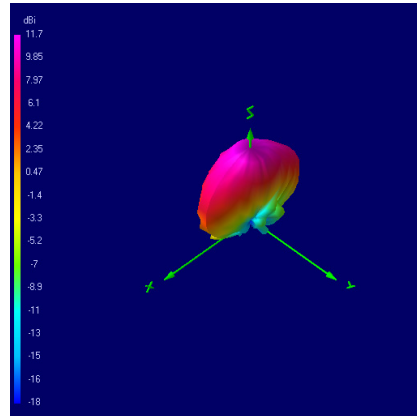
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

3D Radiation Plots [Port 1]

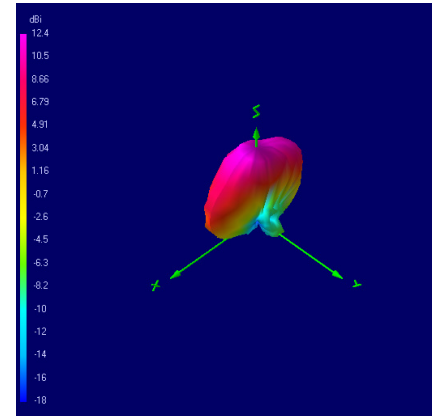
3300 MHz



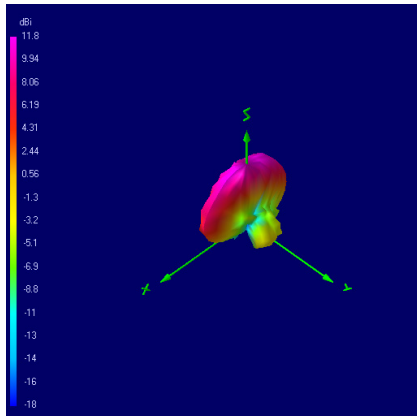
3500 MHz



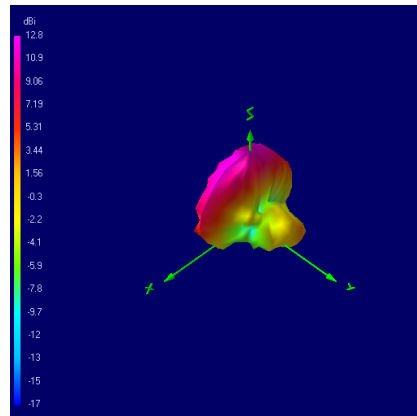
3700 MHz



4200 MHz



4700 MHz



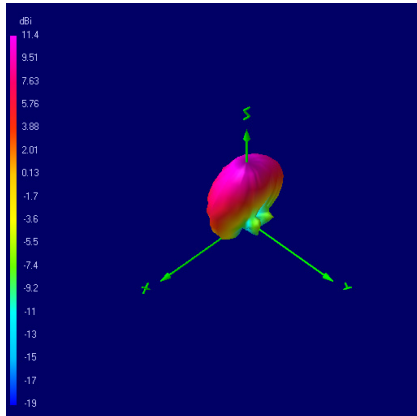


Oscar 64

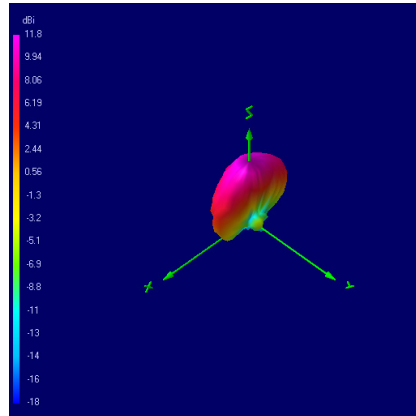
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

3D Radiation Plots [Port 2]

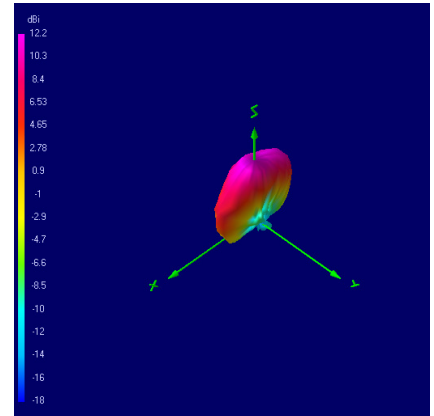
3300 MHz



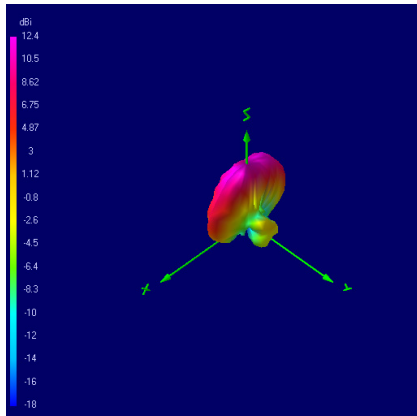
3500 MHz



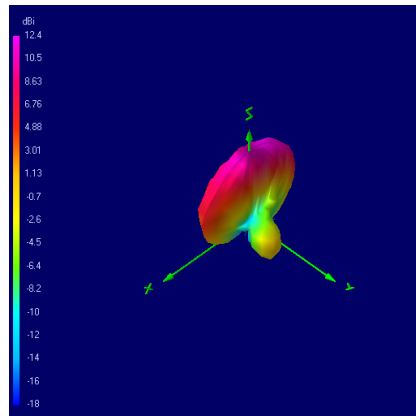
3700 MHz



4200 MHz



4700 MHz



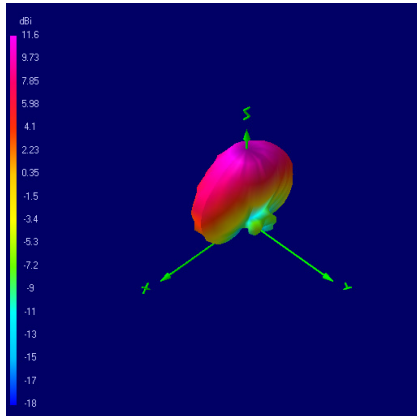


Oscar 64

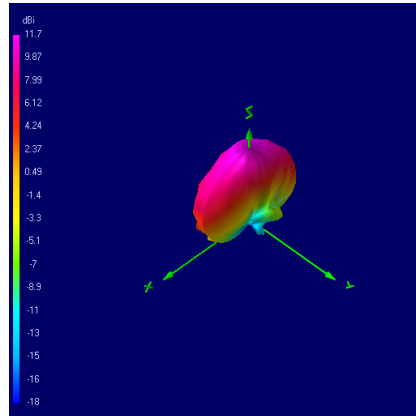
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

3D Radiation Plots [Port 3]

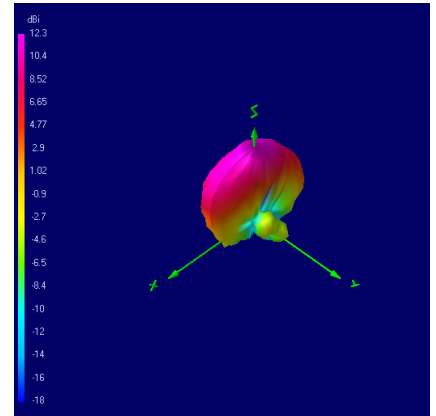
3300 MHz



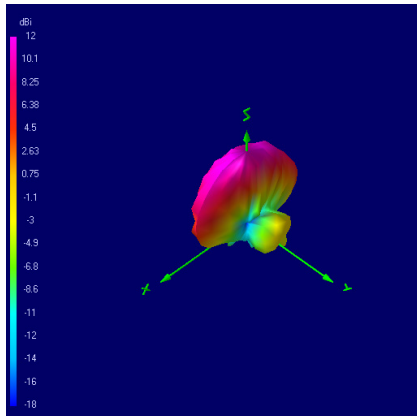
3500 MHz



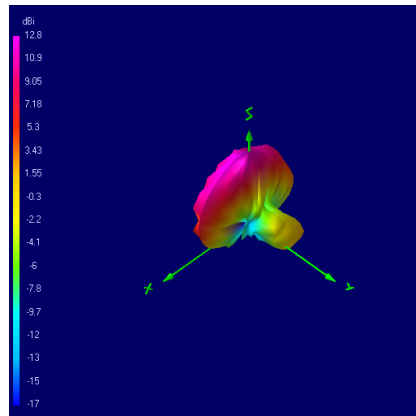
3700 MHz



4200 MHz



4700 MHz



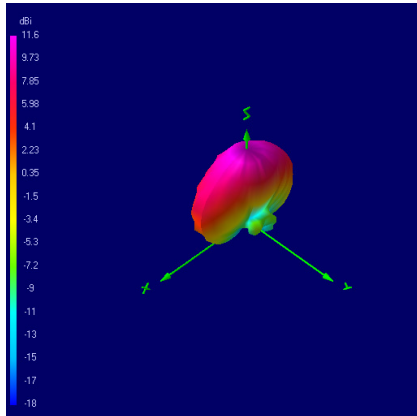


Oscar 64

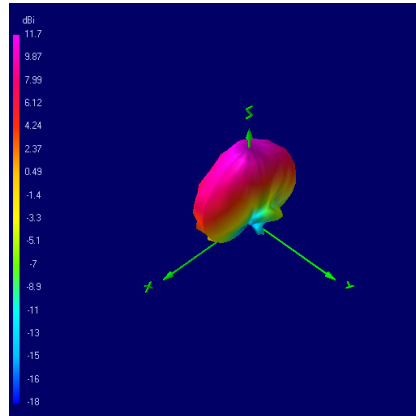
5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

3D Radiation Plots [Port 4]

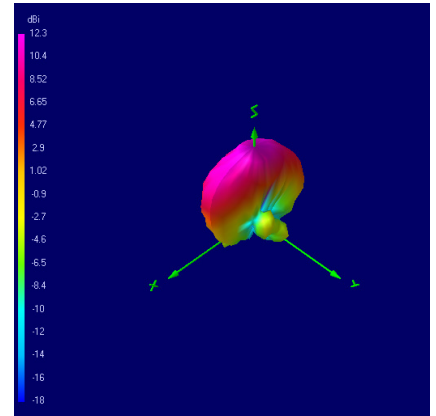
3300 MHz



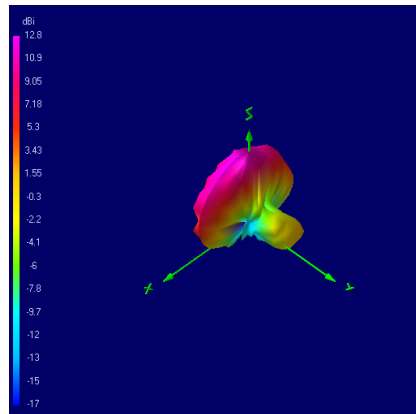
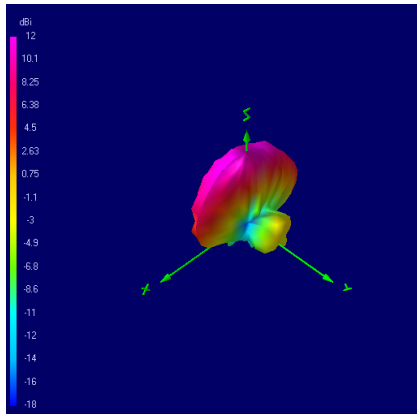
3500 MHz



3700 MHz



4200 MHz



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

Ordering Details:

Part Number	Description
OSCAR64/X/NTYPEF/S/29	4x4 Port Directional MiMO Panel Antenna 4 x N-TYPE Female Connectors
OSCAR64/5M/SMAM/LL/29	4x4 Port Directional MiMO Panel Antenna 5M Low Loss Cables 4 x SMA Male Connectors



Oscar 64

5G 4x4 Port MiMO Directional 65° HPBW Panel Antenna for 3300-4700 MHz

Ordering Details:

Part Number	Description
OSCAR64/X/NTYPEF/S/29	4x4 Port Directional MiMO Panel Antenna 4 x N-TYPE Female Connectors
OSCAR64/5M/SMAM/LL/29	4x4 Port Directional MiMO Panel Antenna 5M Low Loss Cables 4 x SMA Male Connectors

Associated Cables:

For the OSCAR64/X/NTYPEF/S/29, the following cables can be used to extend installation reach and maintain good signal quality.

Part Number	Description	Length (M)	Connector 1	Connector 2
ASMR600A058L13	N-TYPE(M) TO SMA(M) 6M LOW LOSS (SLL200) CABLE ASSEMBLY	6	N type male	SMA male
ASMR1000A058L13	N-TYPE(M) TO SMA(M) 10M LOW LOSS (SLL200) CABLE ASSEMBLY	10	N type male	SMA male
ASMR1500A058L13	N-TYPE(M) TO SMA(M) 15M LOW LOSS (SLL200) CABLE ASSEMBLY	15	N-type male	SMA male
ASMR2000A058L13	N-TYPE(M) TO SMA(M) 20M LOW LOSS (SLL200) CABLE ASSEMBLY	20	N-type male	SMA male