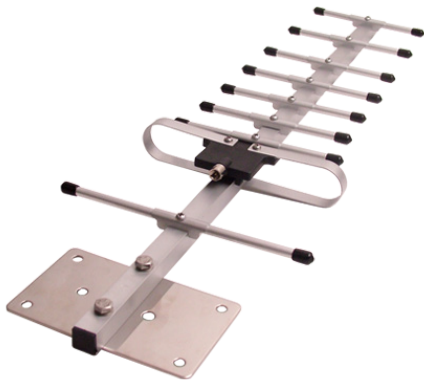


Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

Key Features

- 4G/5G Antenna
- 9 element
- 10.55 dBi peak gain



General Description

The Oscar 3A is an efficient, low-cost aluminium antenna with an enamel coating, designed with 9 elements to deliver a peak gain of 10.55 dBi. It offers reliable coverage over the lower LTE and NR frequency bands, making it suitable for cellular applications in rural or challenging RF environments.

This antenna is also optimised for ISM applications within the 868-915 MHz range, achieving around 80% radiation efficiency and a gain of 9-10 dBi.

Equipped with an FME Male connector, the Oscar 3A ensures a secure connection when paired with the appropriate cable assembly, and it is recommended to seal the joint against water ingress. A universal clamp is included for easy mounting on standard antenna poles, enhancing its practicality for various installation scenarios.

Additional Considerations

- Selection of cable assemblies available – see ordering information tab
- Excellent performance for low cost

O Wall/Pole	5G New Radio	4G LTE	3G WCDMA	2G GSM
LTE M	NB-IoT Narrowband	IEEE 802.15.4	ISM 868	ISM 915
LoRa Wireless	SF Sigfox	HNT Helium	W Weightless	



Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

Electrical Specifications

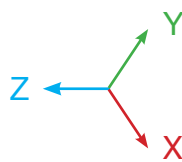
Impedance:	50 Ohm
Polarization:	Vertical
Max input power:	200 W
Ground plane independent:	Yes

Environmental Specifications

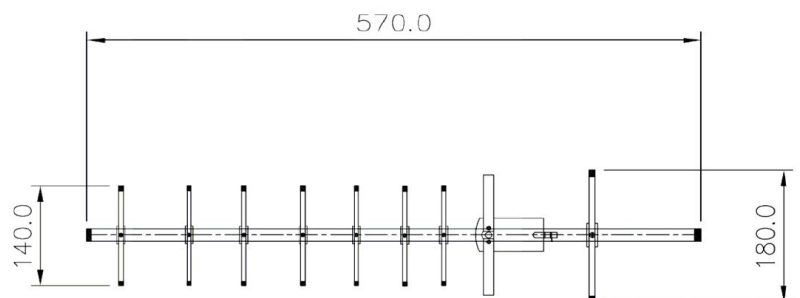
Operating temperature range:	-30 to +60 °C
Storage temperature range:	-40 to +70 °C

Mechanical Specifications

Dimensions:	570 mm length 180 mm Width 36 mm Height
Weight:	210 g
Connector:	FME Male
Mounting method:	Direct Connect
Housing materials:	Aluminium



Orientation

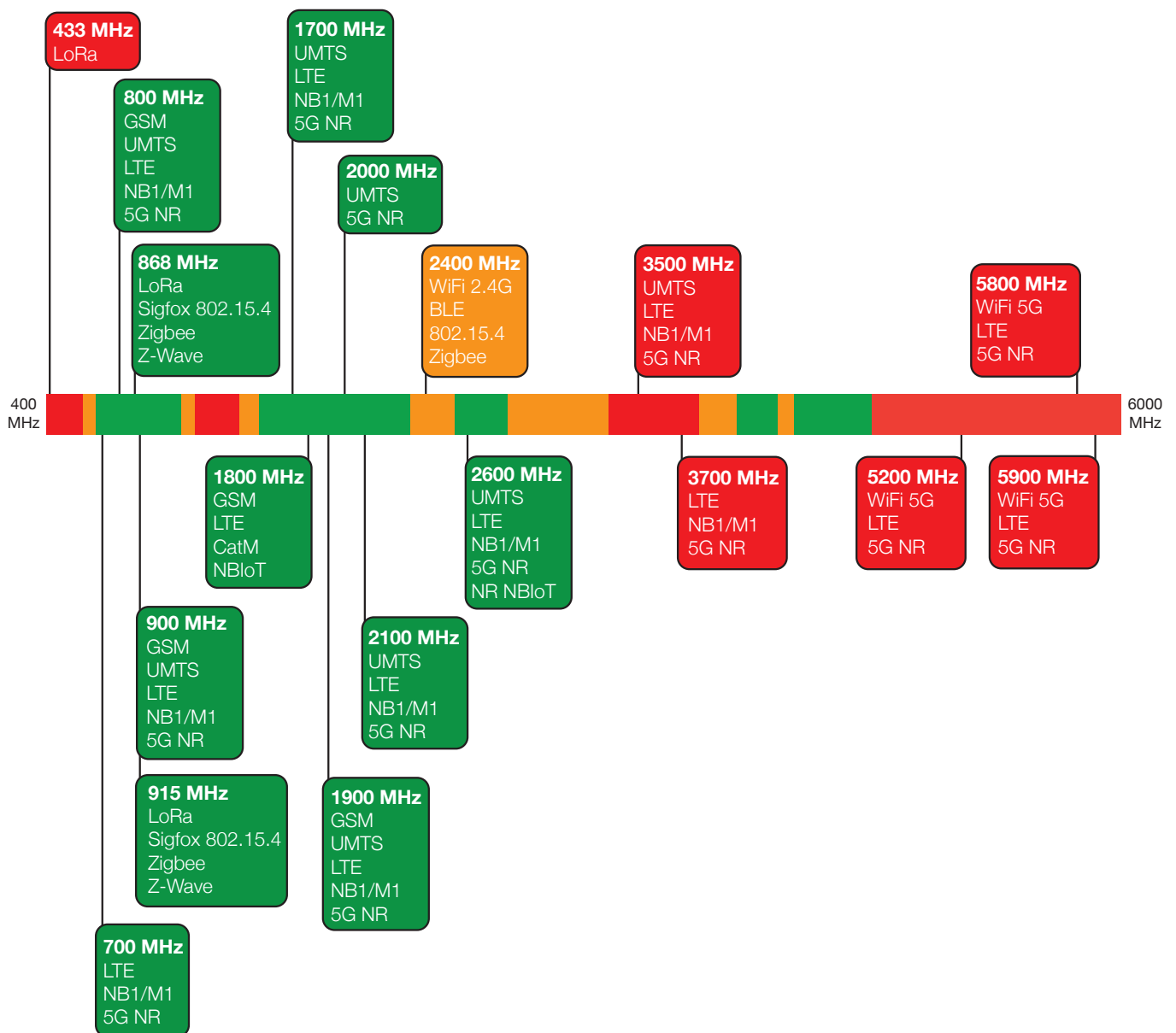




Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

Spectrum Coverage



● Suitable band

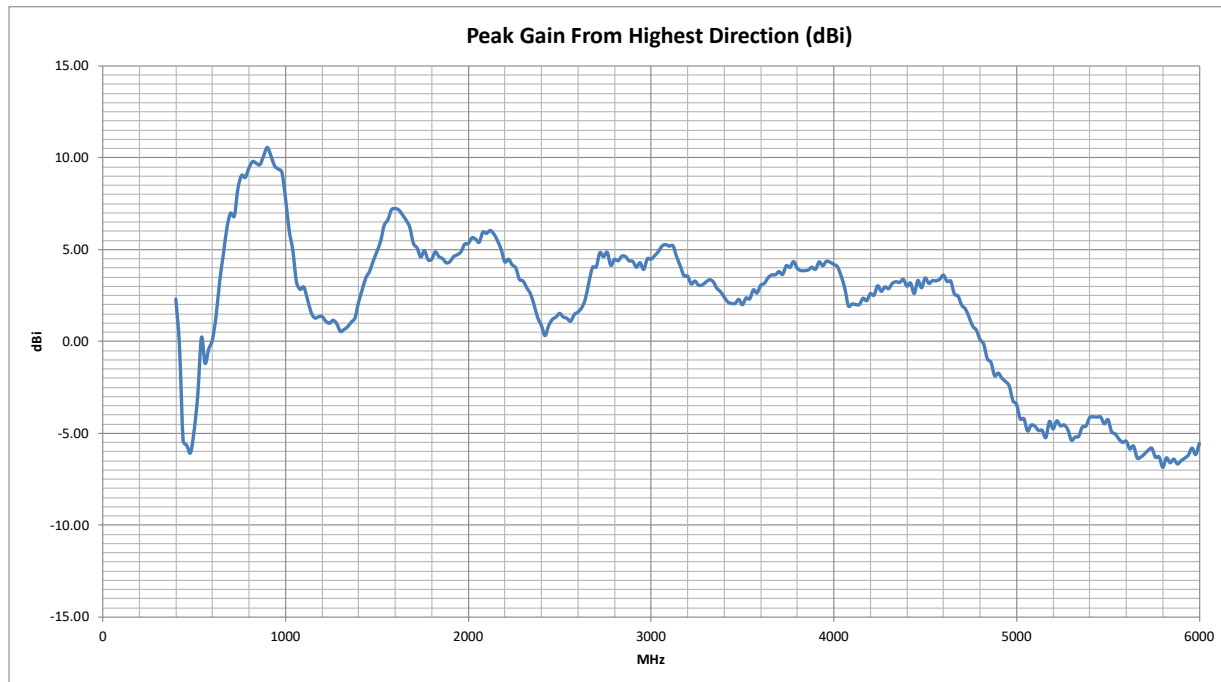
● Adequate band in good signal conditions

● Likely to be unsuitable

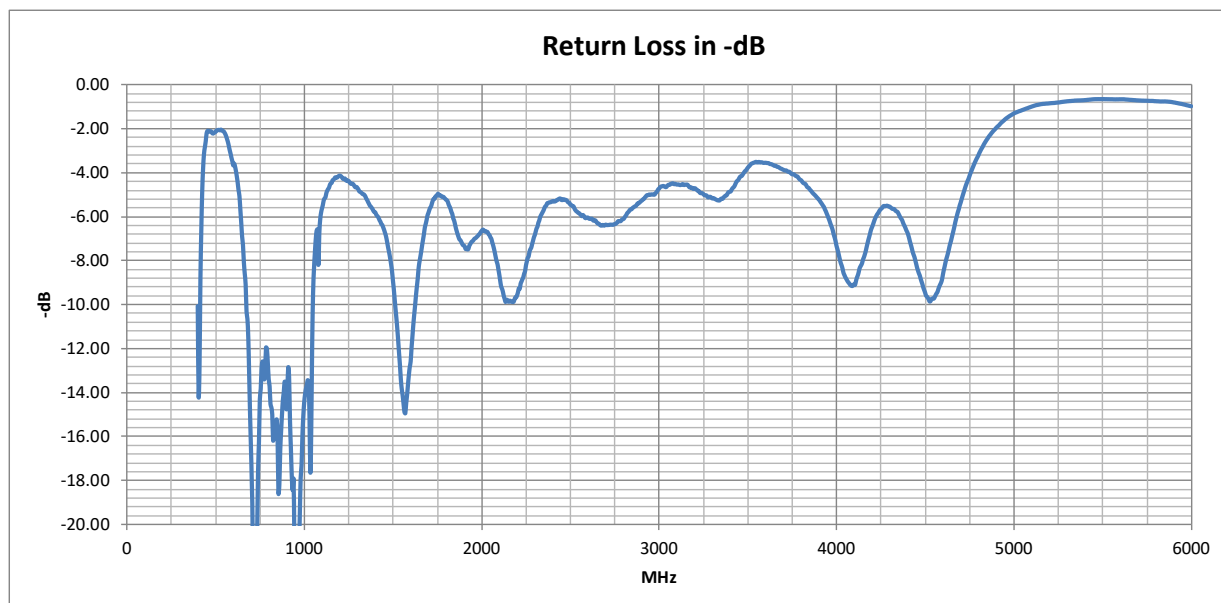
Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

Peak Gain vs. Frequency



Return Loss

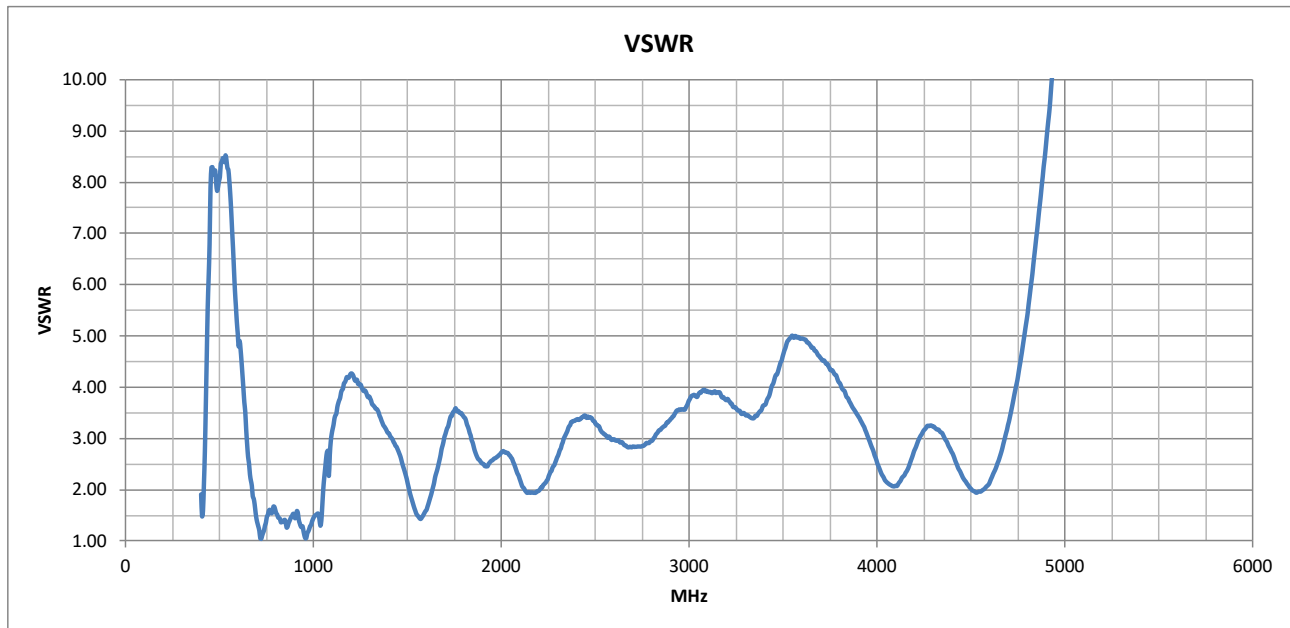




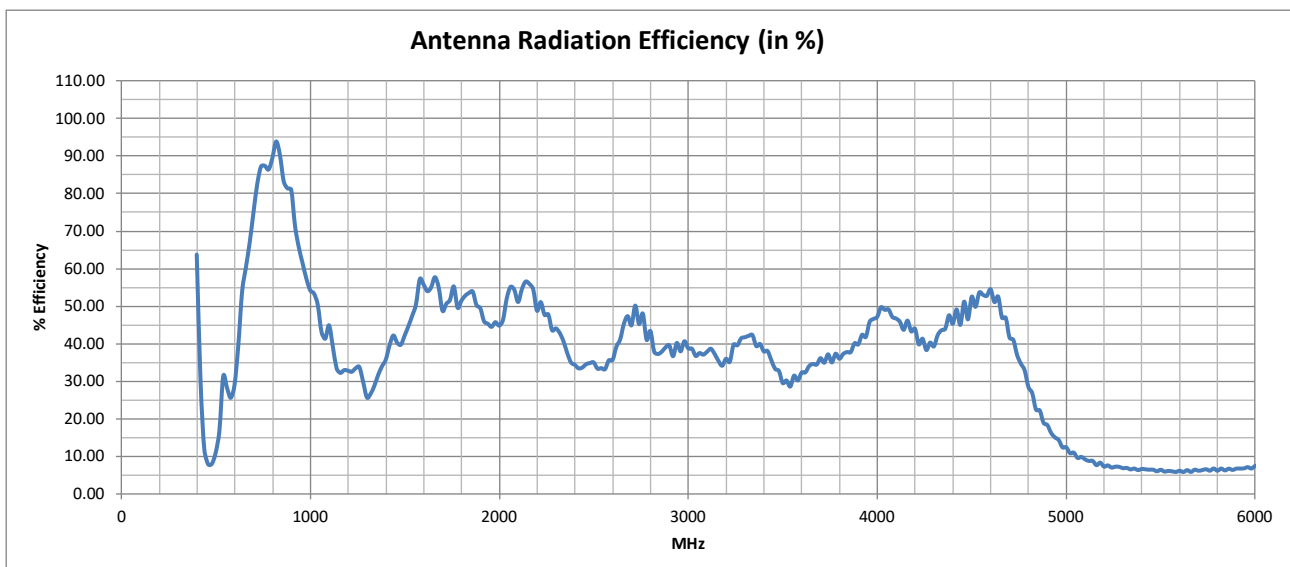
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4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

VSWR



Radiation Efficiency





Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

Usable Cellular Frequency Support (410 MHz – 2300 MHz)

	410	450	600	700	800	850	900	1500	1600	1700	1800	1900	2000	2100	2300
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 (433 MHz - 5800 MHz)

	433	868	915	2450	5800
Bluetooth					
IEEE 802.15.4		●	●		
LoRa		●	●		
SigFox		●	●		
Wi-Fi 2.4G					
Wi-Fi 5G					
Zigbee		●	●		
Z-Wave		●	●		



Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

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
PCS-1900	2	2	2	2	n2	n2	1850 - 1910 MHz	1930 - 1990 MHz	51.12	45.25	2.86	2.69	●
DCS-1800	3	3	3	3	n3	n3	1710 - 1785 MHz	1805 - 1880 MHz	51.96	52.90	3.59	3.40	●
	4	4	4	4			1710 - 1755 MHz	2110 - 2155 MHz	51.63	55.44	3.59	2.07	●
GSM-850	5	5	5	5	n5	n5	824 - 849 MHz	869 - 894 MHz	90.72	81.63	1.42	1.53	●
	6						830 - 840 MHz	875 - 885 MHz	91.27	81.57	1.40	1.50	●
	7	7	7	7	n7	n7	2500 - 2570 MHz	2620 - 2690 MHz	33.74	43.81	3.29	2.97	●
E-GSM-900	8	8	8	8	n8	n8	880 - 915 MHz	925 - 960 MHz	79.65	65.47	1.59	1.35	●
	9	9					1749.9 - 1784.9 MHz	1844.9 - 1879.9 MHz	52.69	52.87	3.59	2.93	●
	10	10					1710 - 1770 MHz	2110 - 2170 MHz	52.28	55.52	3.59	2.07	●
	11	11	11	11			1427.9 - 1447.9 MHz	1475.9 - 1495.9 MHz	41.63	40.60	2.91	2.45	●
	12	12	12	12	n12	n12	699 - 716 MHz	729 - 746 MHz	77.84	86.47	1.37	1.39	●
	13	13	13	13	n13	n13	777 - 787 MHz	746 - 756 MHz	86.89	87.41	1.67	1.52	●
	14	14	14	14	n14		788 - 798 MHz	758 - 768 MHz	88.47	87.34	1.67	1.61	●
		17		17			704 - 716 MHz	734 - 746 MHz	78.80	86.96	1.29	1.39	●
		18	18	18	n18	n18	815 - 830 MHz	860 - 875 MHz	93.18	82.66	1.45	1.43	●
	19	19	19	19			830 - 845 MHz	875 - 890 MHz	90.67	81.49	1.42	1.53	●
	20	20	20	20	n20	n20	832 - 862 MHz	791 - 821 MHz	87.75	90.95	1.42	1.66	●
	21	21	21	21			1447.9 - 1462.9 MHz	1495.9 - 1510.9 MHz	40.82	42.69	2.78	2.19	●
	22	22					3410 - 3490 MHz	3510 - 3590 MHz	34.87	30.23	4.52	5.01	●
		24	24	24	n24		1626.5 - 1660.5 MHz	1525 - 1559 MHz	55.79	47.89	2.45	1.77	●
	25	25	25	25	n25	n25	1850 - 1915 MHz	1930 - 1995 MHz	50.83	45.24	2.86	2.72	●
	26	26	26	26	n26		814 - 849 MHz	859 - 894 MHz	91.49	82.02	1.45	1.53	●
		27	27				807 - 824 MHz	852 - 869 MHz	92.78	83.80	1.50	1.38	●
		28	28	28	n28	n28	703 - 748 MHz	758 - 803 MHz	83.26	87.67	1.43	1.67	●
		28A					703 - 733 MHz	758 - 788 MHz	81.43	87.06	1.31	1.67	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable



Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

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
		29			n29		N/A	717 - 728 MHz	N/A	83.13	N/A	1.14	●
		30			n30		2305 - 2315 MHz	2350 - 2360 MHz	43.56	38.37	2.81	3.25	●
		31	31	31			452.5 - 457.5 MHz	462.5 - 467.5 MHz	8.96	7.98	8.29	8.26	●
	32	32					N/A	1452 - 1496 MHz	N/A	40.47	N/A	2.74	●
		33					1900 - 1920 MHz	1900 - 1920 MHz	47.79	47.79	2.51	2.51	●
		34			n34		2010 - 2025 MHz	2010 - 2025 MHz	46.34	46.34	2.76	2.76	●
		35					1850 - 1910 MHz	1850 - 1910 MHz	51.12	51.12	2.86	2.86	●
		36					1930 - 1990 MHz	1930 - 1990 MHz	45.25	45.25	2.69	2.69	●
		37					1910 - 1930 MHz	1910 - 1930 MHz	46.39	46.39	2.50	2.50	●
		38			n38		2570 - 2620 MHz	2570 - 2620 MHz	36.28	36.28	3.04	3.04	●
		39	39		n39		1880 - 1920 MHz	1880 - 1920 MHz	48.86	48.86	2.59	2.59	●
		40	40		n40		2300 - 2400 MHz	2300 - 2400 MHz	39.13	39.13	3.37	3.37	●
		41	41	41	n41	n41	2496 - 2690 MHz	2496 - 2690 MHz	38.06	38.06	3.32	3.32	●
		42	42	42			3400 - 3600 MHz	3400 - 3600 MHz	32.54	32.54	5.01	5.01	●
		43	43	43			3600 - 3800 MHz	3600 - 3800 MHz	35.09	35.09	4.95	4.95	●
		44					703 - 803 MHz	703 - 803 MHz	85.66	85.66	1.67	1.67	●
		45					1447 - 1467 MHz	1447 - 1467 MHz	40.73	40.73	2.78	2.78	●
		46			n46		5150 - 5925 MHz	5150 - 5925 MHz	6.62	6.62	26.42	26.42	●
		47			n47		5855 - 5925 MHz	5855 - 5925 MHz	6.67	6.67	22.72	22.72	●
		48			n48		3550 - 3700 MHz	3550 - 3700 MHz	33.02	33.02	5.00	5.00	●
		49					3550 - 3700 MHz	3550 - 3700 MHz	33.02	33.02	5.00	5.00	●
		50			n50		1432 - 1517 MHz	1432 - 1517 MHz	41.41	41.41	2.89	2.89	●
		51			n51		1427 - 1432 MHz	1427 - 1432 MHz	40.88	40.88	2.92	2.92	●
		52					3300 - 3400 MHz	3300 - 3400 MHz	40.77	40.77	3.66	3.66	●
		53			n53		2483.5 - 2495 MHz	2483.5 - 2495 MHz	34.99	34.99	3.37	3.37	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable



Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

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
		65		65	n65	n65	1920 - 2010 MHz	2110 - 2200 MHz	45.30	54.61	2.76	2.07	●
		66	66	66	n66	n66	1710 - 1780 MHz	2110 - 2200 MHz	52.11	54.61	3.59	2.07	●
		67			n67		N/A	738 - 758 MHz	N/A	87.35	N/A	1.56	●
		68					698 - 728 MHz	753 - 783 MHz	79.78	87.08	1.38	1.64	●
		69					N/A	2570 - 2620 MHz	N/A	36.28	N/A	3.04	●
		70		70	n70	n70	1695 - 1710 MHz	1995 - 2020 MHz	49.43	45.49	3.21	2.76	●
		71	71	71	n71		663 - 698 MHz	617 - 652 MHz	67.48	49.26	2.23	4.41	●
		72	72	72			451 - 456 MHz	461 - 466 MHz	9.25	7.98	8.29	8.28	●
		73	73	73			450 - 455 MHz	460 - 465 MHz	9.45	7.97	8.29	8.30	●
		74	74	74	n74		1427 - 1470 MHz	1475 - 1518 MHz	41.09	41.89	2.92	2.46	●
		75			n75		N/A	1432 - 1517 MHz	N/A	41.41	N/A	2.89	●
		76			n76		N/A	1427 - 1432 MHz	N/A	40.88	N/A	2.92	●
					n77		3300 - 4200 MHz	3300 - 4200 MHz	39.08	39.08	5.01	5.01	●
					n78		3300 - 3800 MHz	3300 - 3800 MHz	35.21	35.21	5.01	5.01	●
					n79		4400 - 5000 MHz	4400 - 5000 MHz	37.30	37.30	13.24	13.24	●
					n80		1710 - 1785 MHz	N/A	51.96	N/A	3.59	N/A	●
					n81		880 - 915 MHz	N/A	79.65	N/A	1.59	N/A	●
					n82		832 - 862 MHz	N/A	87.75	N/A	1.42	N/A	●
					n83		703 - 748 MHz	N/A	83.26	N/A	1.43	N/A	●
					n84		1920 - 1980 MHz	N/A	45.29	N/A	2.66	N/A	●
		85	85	85	n85		698 - 716 MHz	728 - 746 MHz	77.65	86.37	1.38	1.39	●
					n86		1710 - 1780 MHz	N/A	52.11	N/A	3.59	N/A	●
		87	87	87			410 - 415 MHz	420 - 425 MHz	42.81	27.92	2.12	3.64	●
		88	88	88			412 - 417 MHz	422 - 427 MHz	39.45	26.09	2.37	4.02	●
					n89		824 - 849 MHz	N/A	90.72	N/A	1.42	N/A	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable



Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

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
					n90	n90	2496 - 2690 MHz	2496 - 2690 MHz	38.06	38.06	3.32	3.32	●
					n91		832 - 862 MHz	1427 - 1432 MHz	87.75	40.88	1.42	2.92	●
					n92		832 - 862 MHz	1432 - 1517 MHz	87.75	41.41	1.42	2.89	●
					n93		880 - 915 MHz	1427 - 1432 MHz	79.65	40.88	1.59	2.92	●
					n94		880 - 915 MHz	1432 - 1517 MHz	79.65	41.41	1.59	2.89	●
					n95		2010 - 2025 MHz	N/A	46.34	N/A	2.76	N/A	●
					n97		2300 - 2400 MHz	N/A	39.13	N/A	3.37	N/A	●
					n98		1880 - 1920 MHz	N/A	48.86	N/A	2.59	N/A	●
					n99		1626.5 - 1660.5 MHz	N/A	55.79	N/A	2.45	N/A	●
					n101		1900 - 1910 MHz	1900 - 1910 MHz	48.67	48.67	2.51	2.51	●
				103			787 - 788 MHz	757 - 758 MHz	87.64	87.47	1.67	1.56	●

● 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.



Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

ISM Standards Frequency Support

Application	Frequency Range	Efficiency (%)	Maximum VSWR	Peak Gain from highest direction (dBi)	Use Indicator
ISM 433 MHz	433.05 - 434.79 MHz	17.51	5.51	-3.621	●
IMT 868 MHz	863 - 870 MHz	82.75	1.39	9.845	●
ISM 915 MHz	902 - 928 MHz	74.11	1.59	10.505	●
ISM 2.4 GHz	2400 - 2500 MHz	34.30	3.45	1.52	●
Wi-Fi 2.4G	2401 - 2483 MHz	34.15	3.45	1.35	●
Wi-Fi 2.4G (USA)	2401 - 2473 MHz	34.05	3.45	1.2745	●
Wi-Fi 2.4G (Japan)	2401 - 2495 MHz	34.26	3.45	1.47	●
Wi-Fi 5G (all channels)	5150 - 5990 MHz	6.65	26.42	-4.11	●
Wi-Fi 5G (Ch 32-48)	5150 - 5250 MHz	7.64	21.40	-4.33	●
Wi-Fi 5G (Ch 32-64)	5150 - 5330 MHz	7.39	23.57	-4.33	●
Wi-Fi 5G (Ch 32-161)	5150 - 5815 MHz	6.62	26.42	-4.11	●
Wi-Fi 5G (Ch 32-173)	5150 - 5875 MHz	6.62	26.42	-4.11	●
ISM 5.8 GHz	5725 - 5875 MHz	6.52	23.88	-5.82	●

● 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.

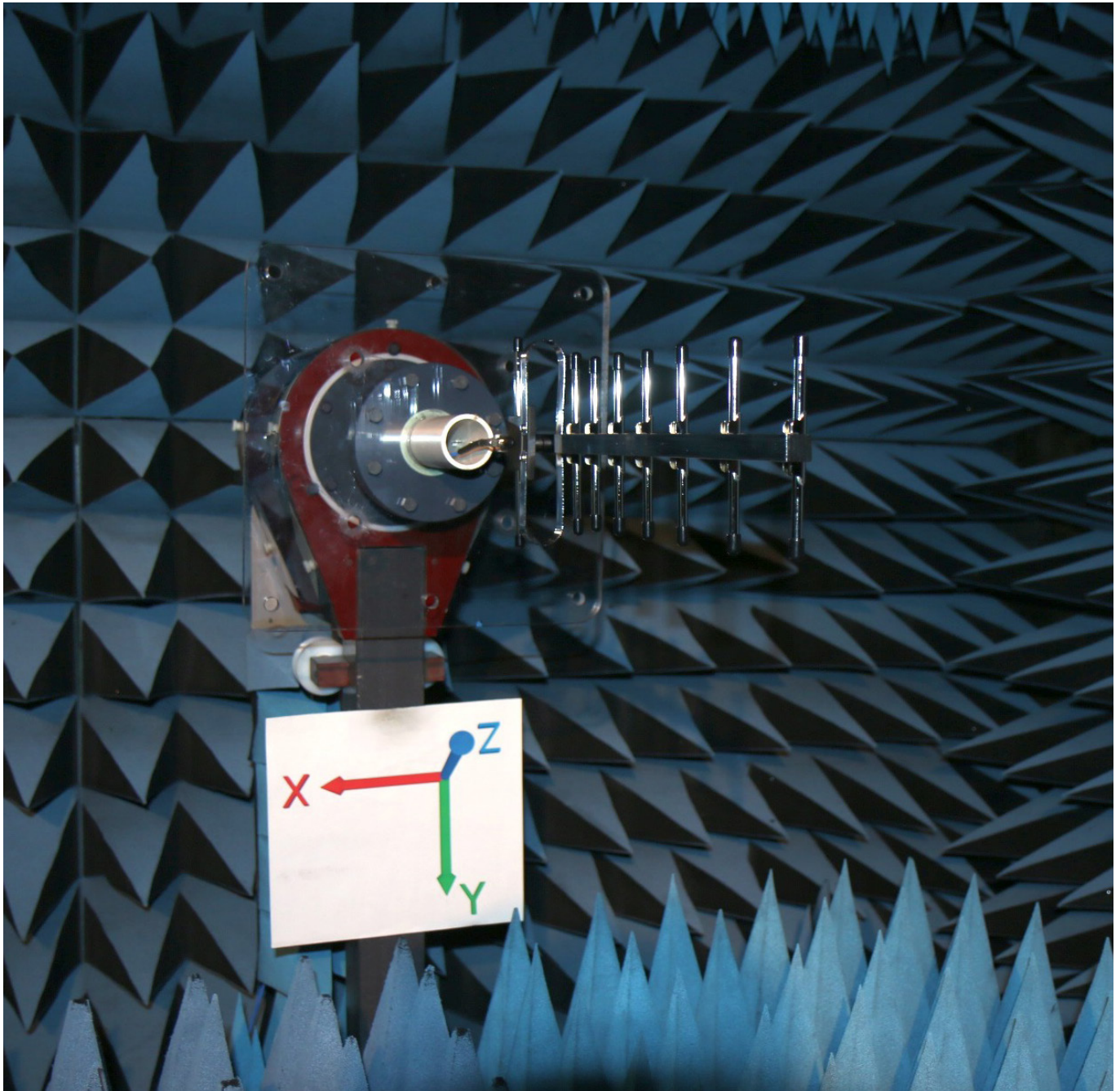
The view presented is that of Siretta's engineering team having taken into account the efficiency and VSWR measurements. The end user is advised to use their own criteria and/or testing to confirm suitability.



Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

Test Setup



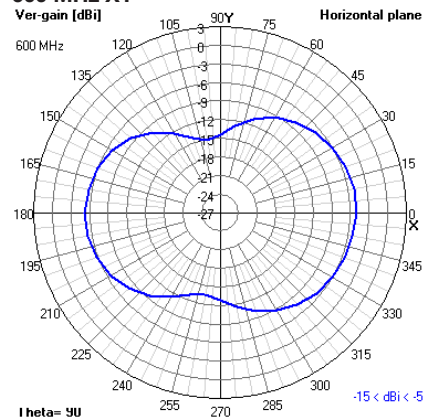


Oscar 3A

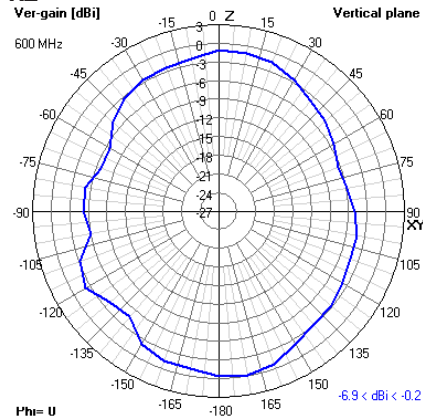
4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

2D Radiation Plots

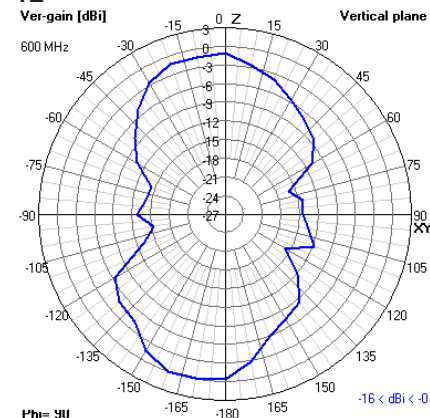
600 MHz XY



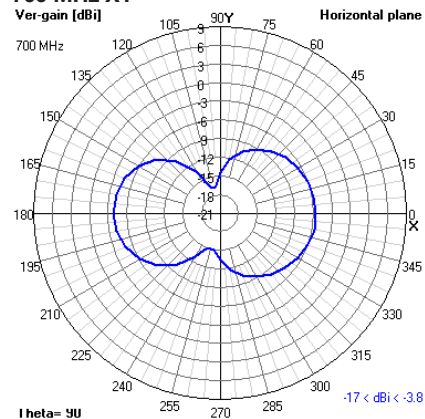
XZ



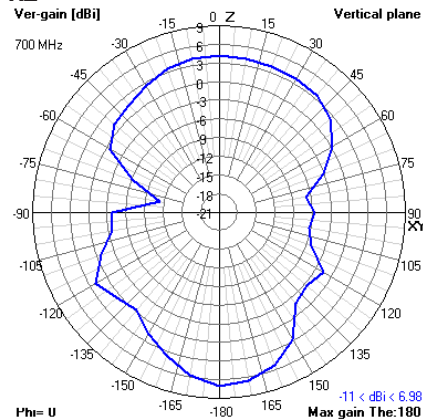
YZ



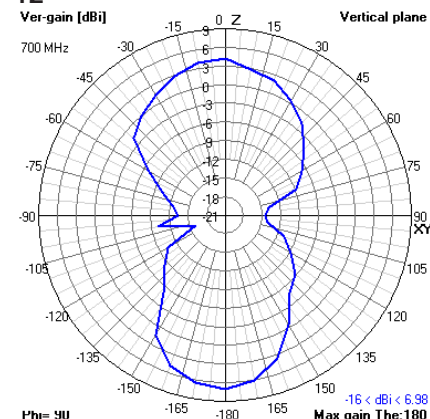
700 MHz XY



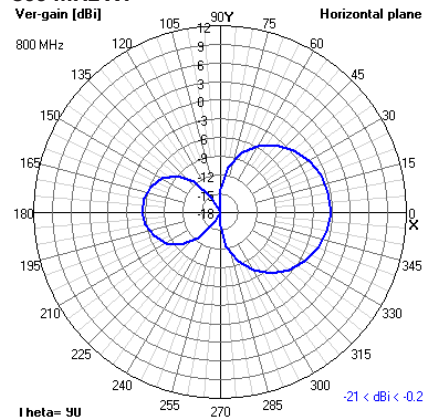
XZ



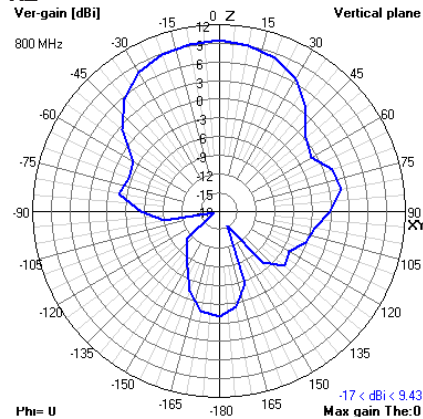
YZ



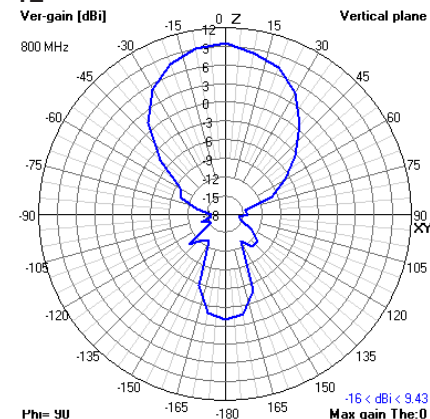
800 MHz XY



XZ



YZ

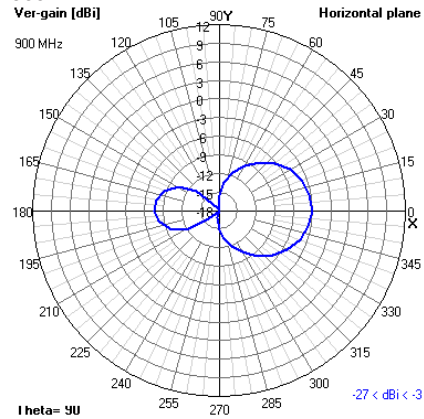


Oscar 3A

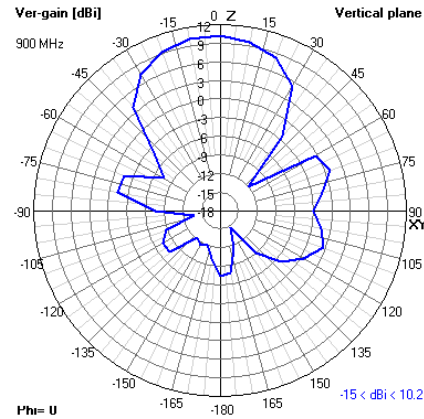
4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

2D Radiation Plots

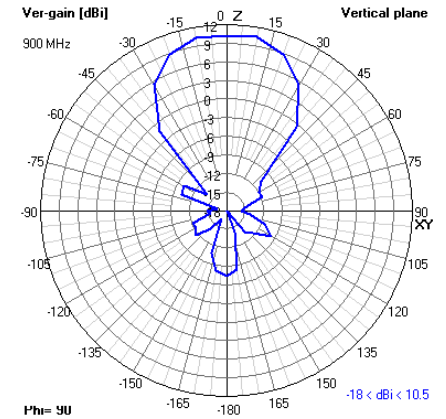
900 MHz XY



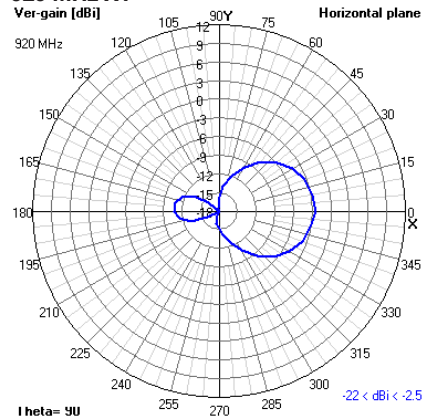
XZ



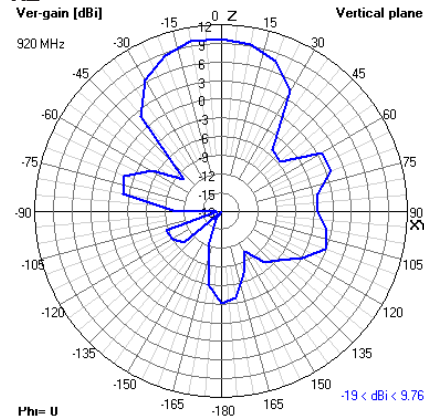
YZ



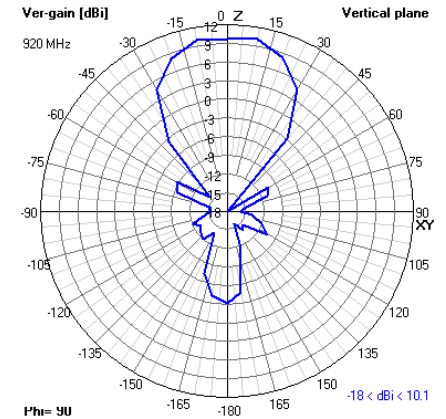
920 MHz XY



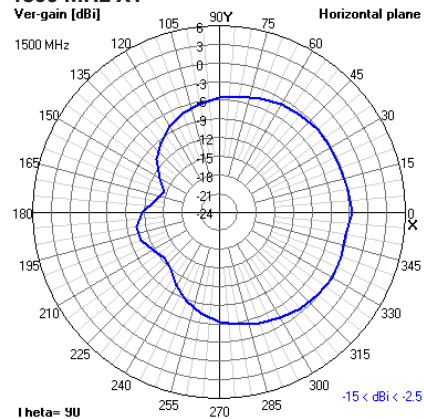
XZ



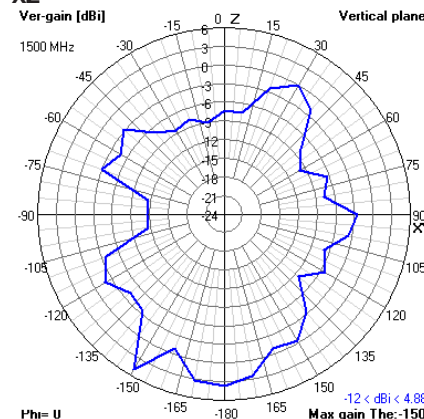
YZ



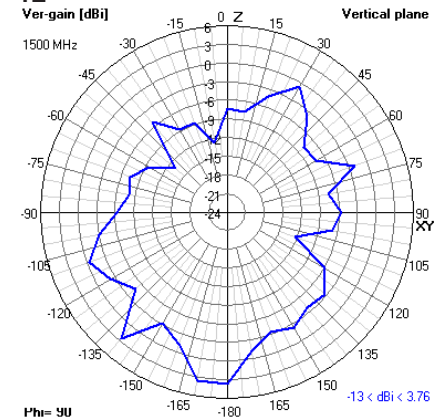
1500 MHz XY



XZ



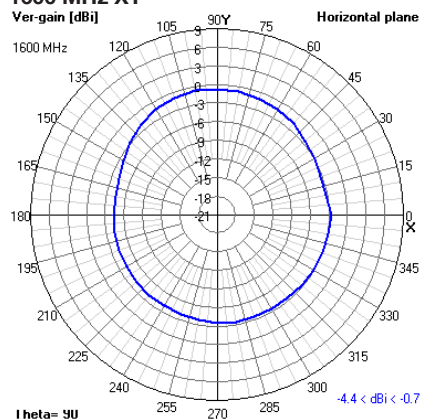
YZ



4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

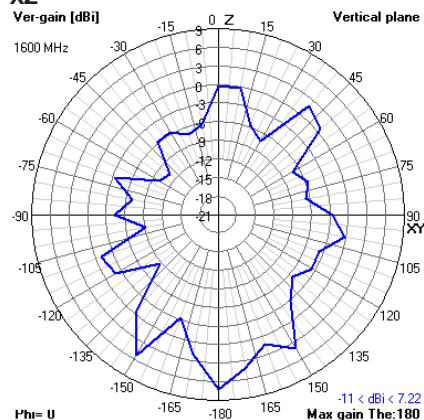
1600 MHz XY

Ver-gain [dBi]



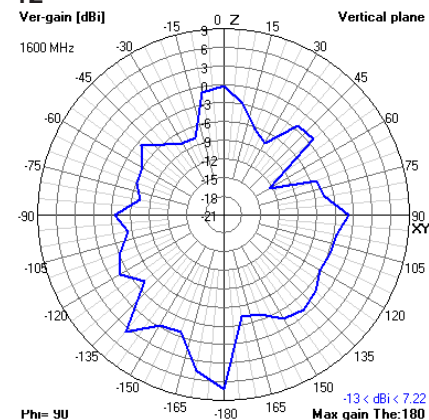
XZ

Ver-gain [dBi]



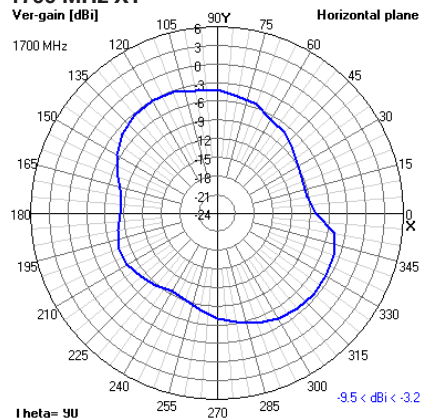
YZ

Ver-gain [dBi]



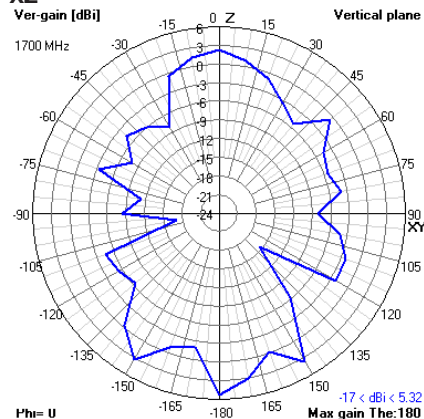
1700 MHz XY

Ver-gain [dBi]



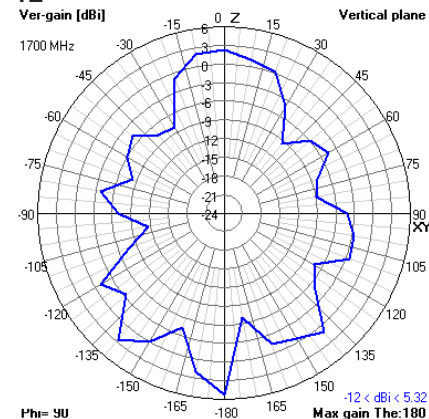
XZ

Ver-gain [dBi]



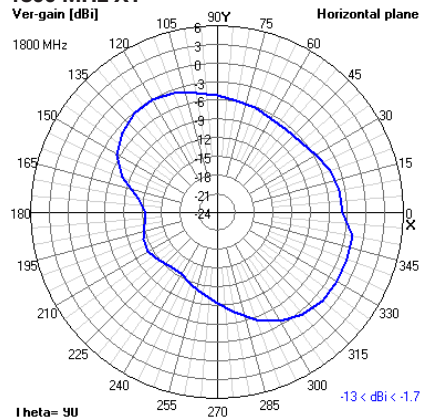
YZ

Ver-gain [dBi]



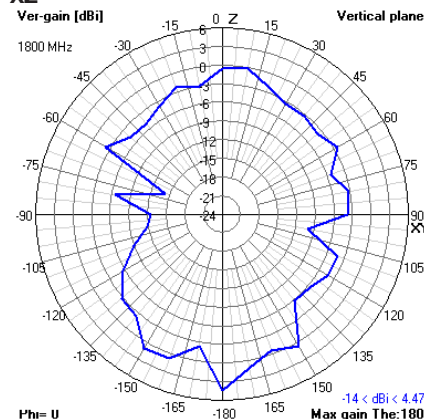
1800 MHz XY

Ver-gain [dBi]



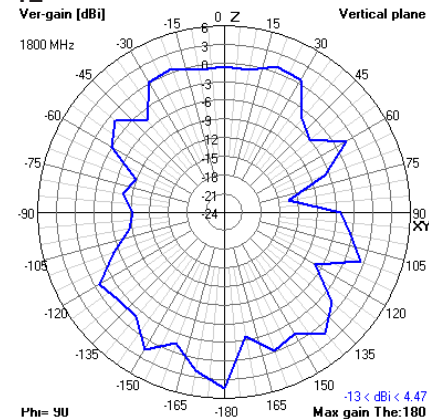
XZ

Ver-gain [dBi]



YZ

Ver-gain [dBi]



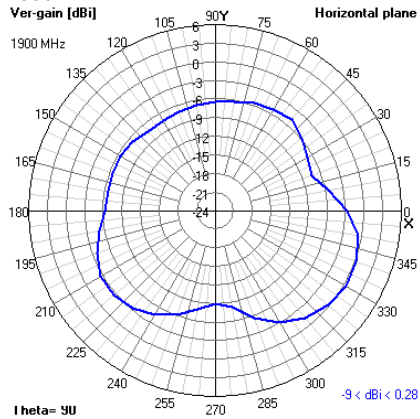


Oscar 3A

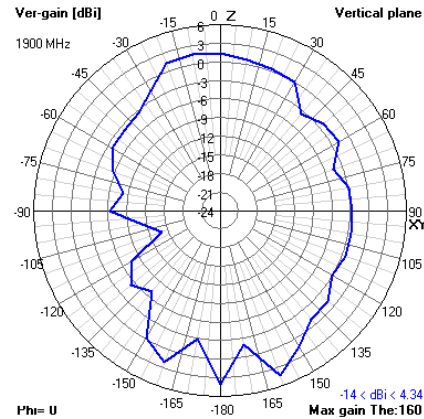
4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

2D Radiation Plots

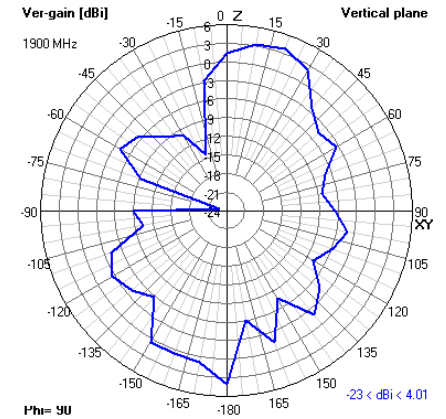
1900 MHz XY



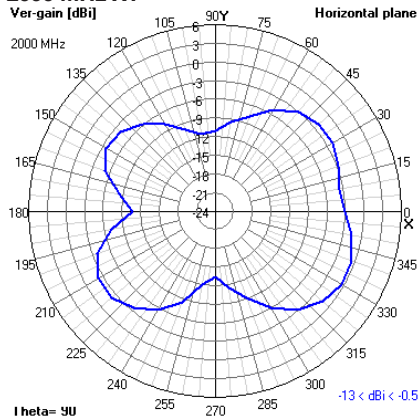
XZ



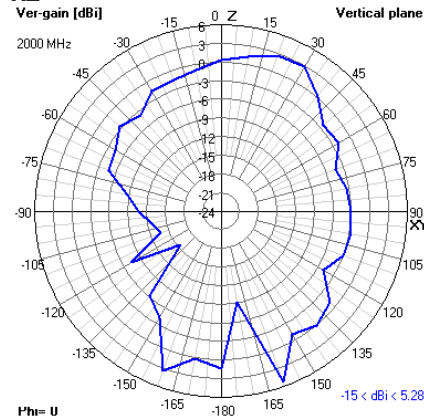
YZ



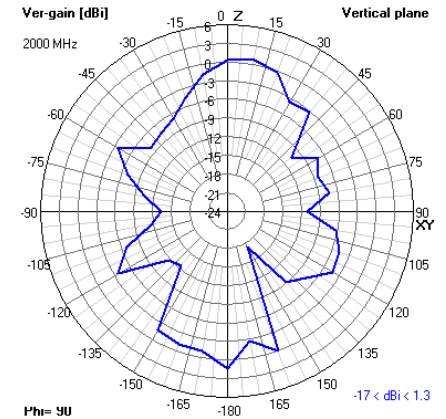
2000 MHz XY



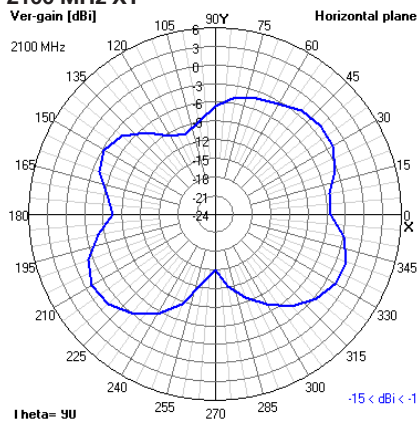
XZ



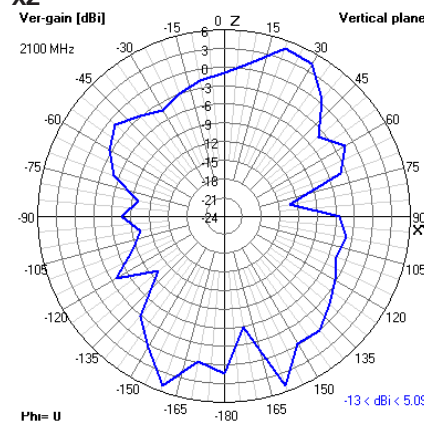
YZ



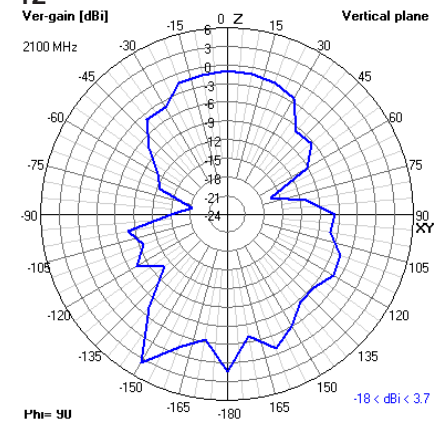
2100 MHz XY



XZ



YZ



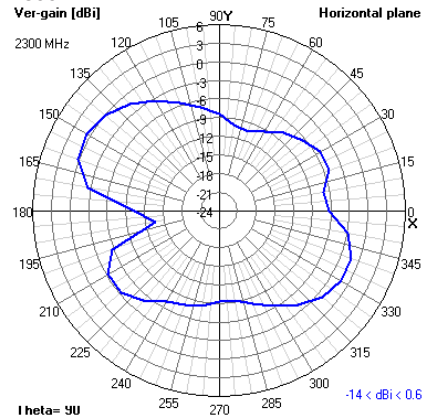


Oscar 3A

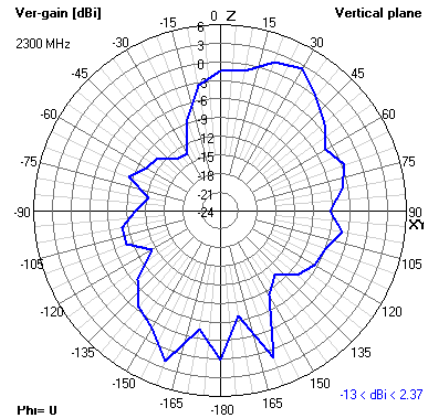
4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

2D Radiation Plots

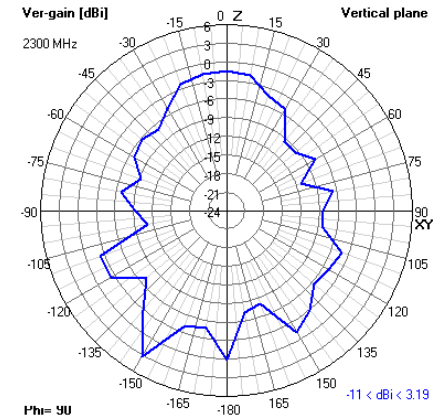
2300 MHz XY



XZ



YZ



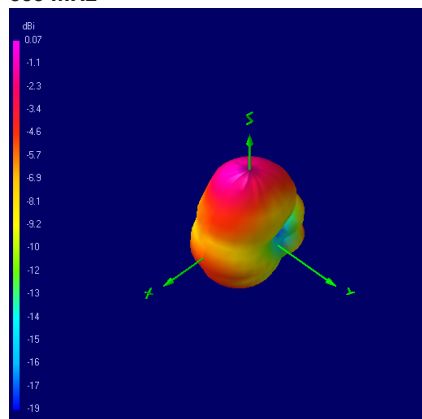


Oscar 3A

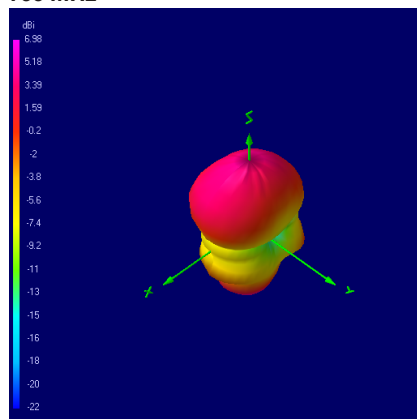
4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

3D Radiation Plots

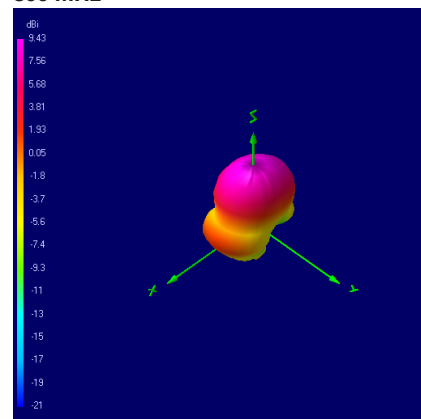
600 MHz



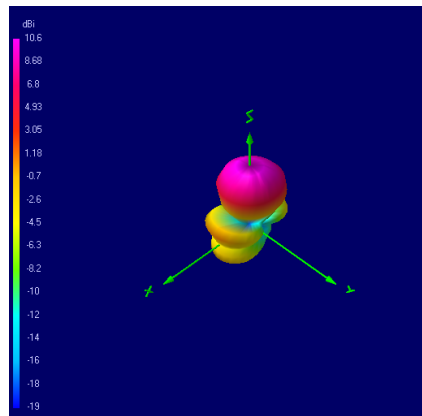
700 MHz



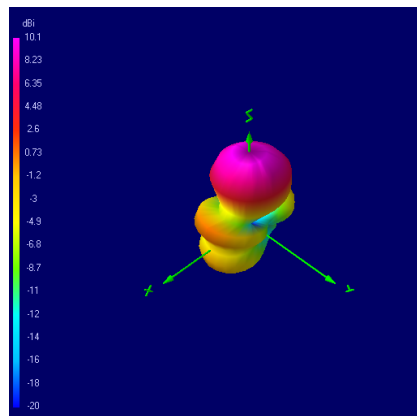
800 MHz



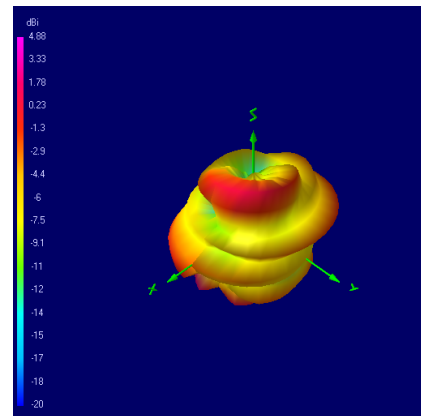
900 MHz



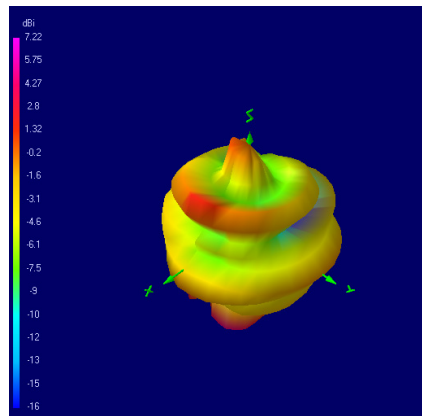
920 MHz



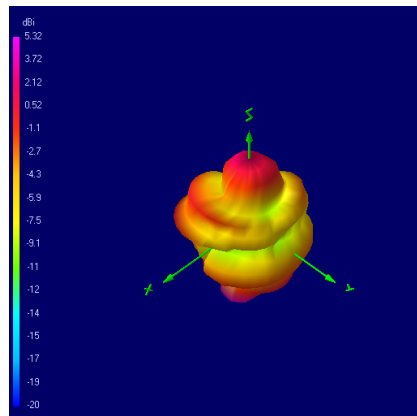
1500 MHz



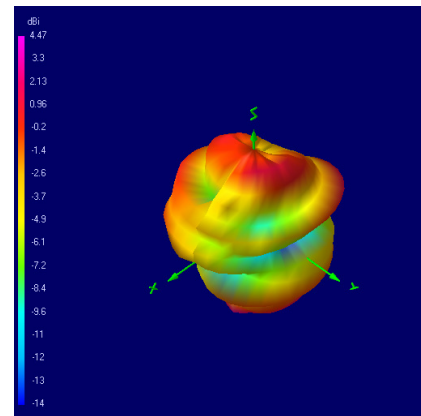
1600 MHz



1700 MHz



1800 MHz



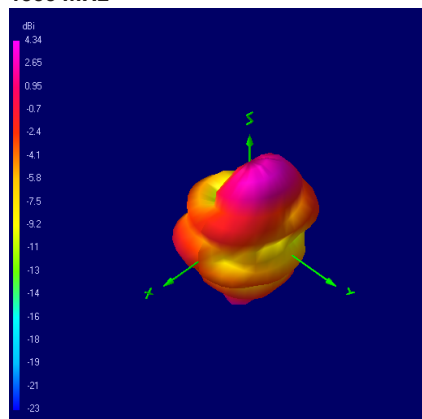


Oscar 3A

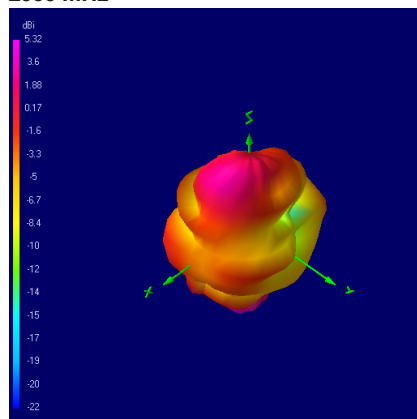
4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

3D Radiation Plots

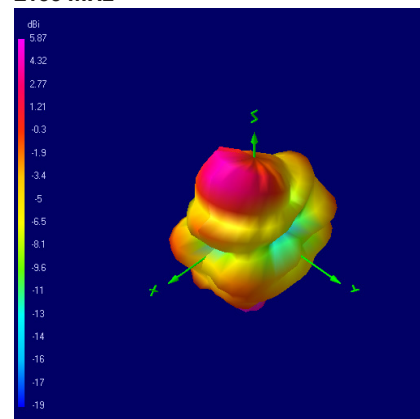
1900 MHz



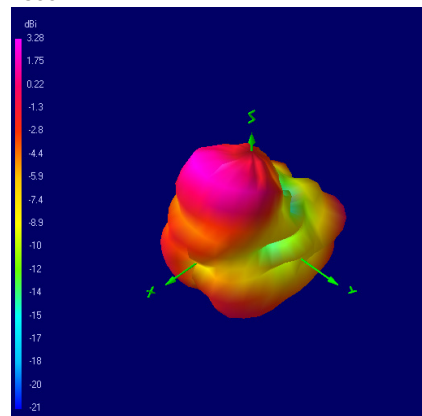
2000 MHz



2100 MHz



2300 MHz



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





Oscar 3A

4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna

Ordering Details:

Part Number	Description
OSCAR3A/X/FMEM/S/S/19	4G/5G LoRa 868-915 MHz High Gain Open Yagi Wallmount Antenna FME Male Connector

Associated Cables:

Part Number	Description	Length (M)	Connector 1	Connector 2
ASME300F058L13	FME(M) TO FME(F) 3M LOW LOSS (SLL200) CABLE ASSEMBLY	3	FME Female	FME Male
ASME500F058L13	FME(M) TO FME(F) 5M LOW LOSS (SLL200) CABLE ASSEMBLY	5	FME Female	FME Male
ASME1000F058L13	FME(M) TO FME(F) 10M LOW LOSS (SLL200) CABLE ASSEMBLY	10	FME Female	FME Male
ASME1500F058L13	FME(M) TO FME(F) 15M LOW LOSS (SLL200) CABLE ASSEMBLY	15	FME Female	FME Male
ASME2000F058L13	FME(M) TO FME(F) 20M LOW LOSS (SLL200) CABLE ASSEMBLY	20	FME Female	FME Male
ASMA300F058L13	SMA(M) TO FME(F) 3M LOW LOSS (SLL200) CABLE ASSEMBLY	3	FME Female	SMA Male
ASMA500F058L13	SMA(M) TO FME(F) 5M LOW LOSS (SLL200) CABLE ASSEMBLY	5	FME Female	SMA Male
ASMA1000F058L13	SMA(M) TO FME(F) 10M LOW LOSS (SLL200) CABLE ASSEMBLY	10	FME Female	SMA Male
ASMA1500F058L13	SMA(M) TO FME(F) 15M LOW LOSS (SLL200) CABLE ASSEMBLY	15	FME Female	SMA Male
ASMA2000F058L13	SMA(M) TO FME(M) 20M LOW LOSS (SLL200) CABLE ASSEMBLY	20	FME Female	SMA Male
ASMZG300F058L13	TNC(M) TO FME(F) 3M LOW LOSS (SLL200) CABLE ASSEMBLY	3	FME Female	TNC Male