

Delta 47

5G/4G Hinged Monopole 600-5600 MHz Antenna

Key Features

- Operates efficiently from 600 - 5600 MHz
- Supports 5G NR / 4G LTE / 3G UMTS / 2G Quad-band GSM Bands
- Supports Cat M and NB-IoT Bands
- Supports Dual band Wi-Fi (2.4G & 5G), Bluetooth & Zigbee
- Adjustable mount allows positioning for best signal
- Ground Plane Independent

Additional Considerations

- Supports ISM 868, 915 and 2450 MHz Bands
- Supports LoRa / Sigfox / Helium / Weightless

General Description

The Delta 47 is a wideband antenna that operates efficiently across a frequency range of 600 MHz to 5600 MHz.

Boasting exceptional radiation efficiency, low VSWR, and a gain of 3-5 dBi, this antenna ensures robust omnidirectional coverage across the most widely-used 5G NR and 4G LTE bands globally.

As an omnidirectional monopole antenna, the Delta 47 provides consistent reception in all directions, while its ground plane independence offers greater flexibility in mounting locations.

Terminated with an SMA male connector, it is ideally suited to applications requiring a simple, cable free set up.

The knuckle design allows the antenna to be positioned to best take advantage of the incoming signal, allowing straight, 45° and 90° positions along with 360° rotation.

D Direct	5G New Radio	4G LTE	3G UMTS	2G GSM
LTE M	LTE NB-IoT	IEEE 802.15.4	ISM 868	ISM 915
ISM 2.4G	ISM 5.8G	WiFi 2.4G & 5G	WiFi 4 802.11n	WiFi 5 802.11ac
WiFi 6 802.11ax	WLAN 2400	WLAN 5800	BLE Bluetooth	ZB Zigbee
Z Wave	LoRa Wireless	SF Sigfox	HNT Helium	W Weightless

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Electrical Specifications

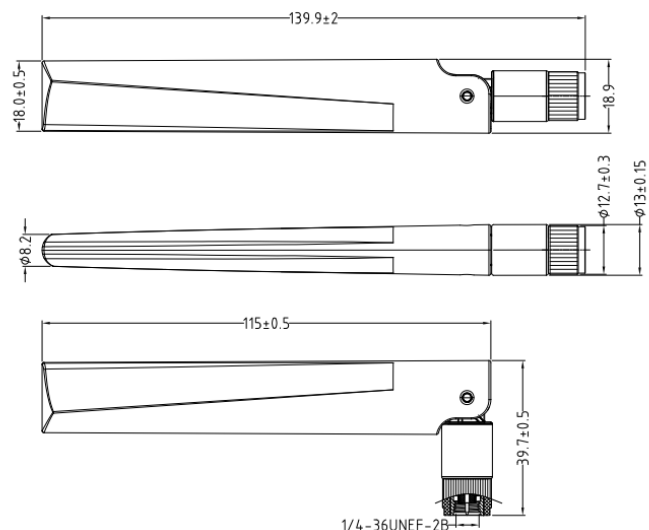
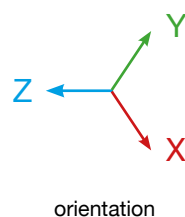
Impedance:	50 Ohm
Polarization:	Vertical
Max Input Power:	10W
Ground plane independent:	Yes

Environmental Specifications

Operating Temperature range:	-40 °C to +80 °C
Storage Temperature range:	-40 °C to +80 °C

Mechanical Specifications

Dimensions:	140 mm Length
Weight:	17 g
Connector:	SMA Male
Mounting method:	Direct Connect
Housing materials:	UV Resistant PC+ABS

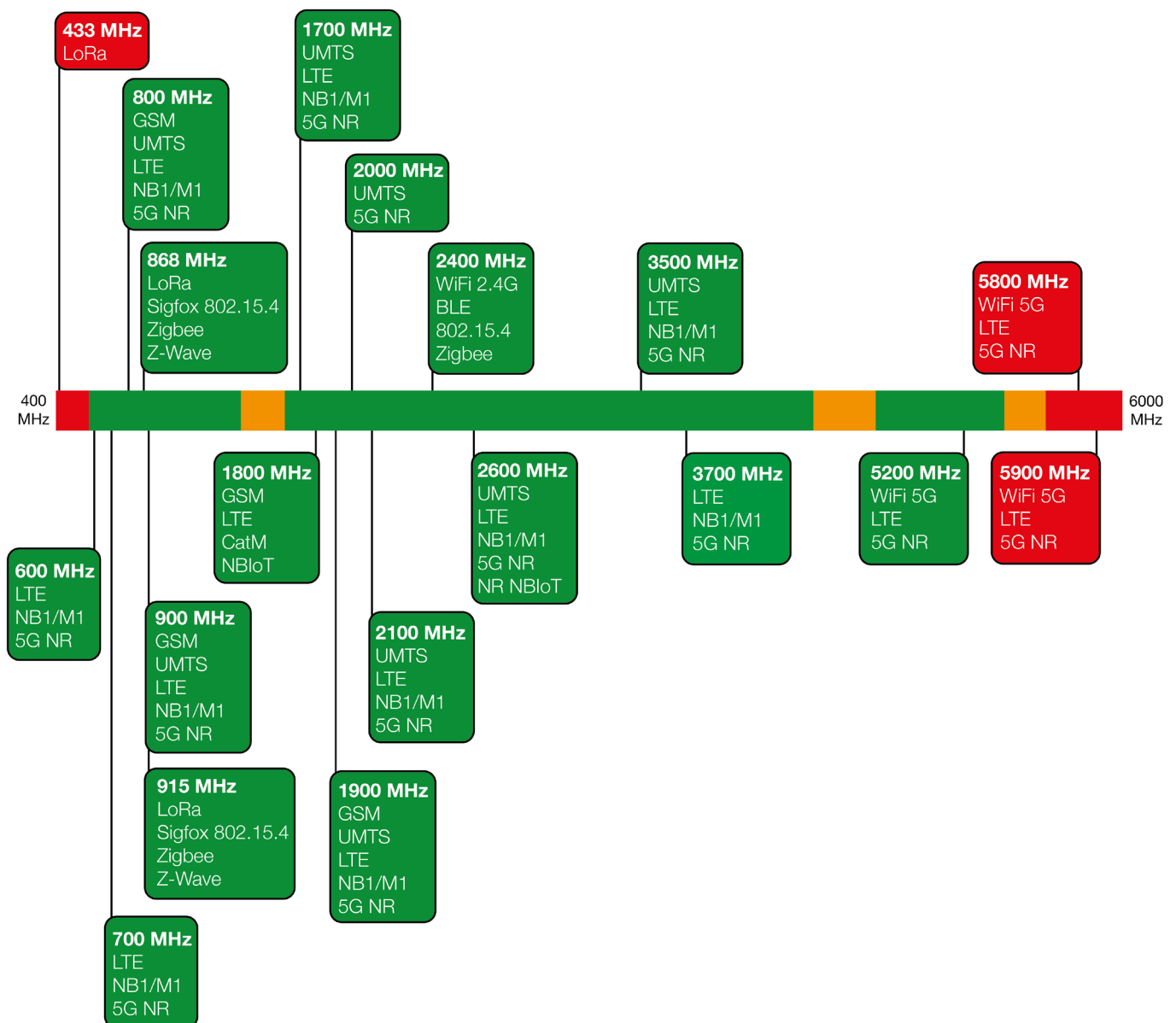




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Spectrum Coverage



● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable



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Usable Cellular Frequency Support (410 MHz – 1900 MHz)

	410	450	600	700	800	850	900	1500	1600	1700	1800	1900
GSM Bands:						●	●				●	●
UMTS Bands:				●	●	●	●			●	●	●
LTE Bands:			●	●	●	●	●	●	●	●	●	●
LTE Cat M Bands:			●	●	●	●	●		●	●	●	●
LTE Cat NB Bands:			●	●	●	●	●		●	●	●	●
5G NR Bands:			●	●	●	●	●	●	●	●	●	●
NR Cat NB Bands:			●	●	●	●	●		●		●	●

Usable Cellular Frequency Support (2000 MHz – 5900 MHz)

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



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Usable ISM Frequency Support (433 MHz - 5800 MHz)

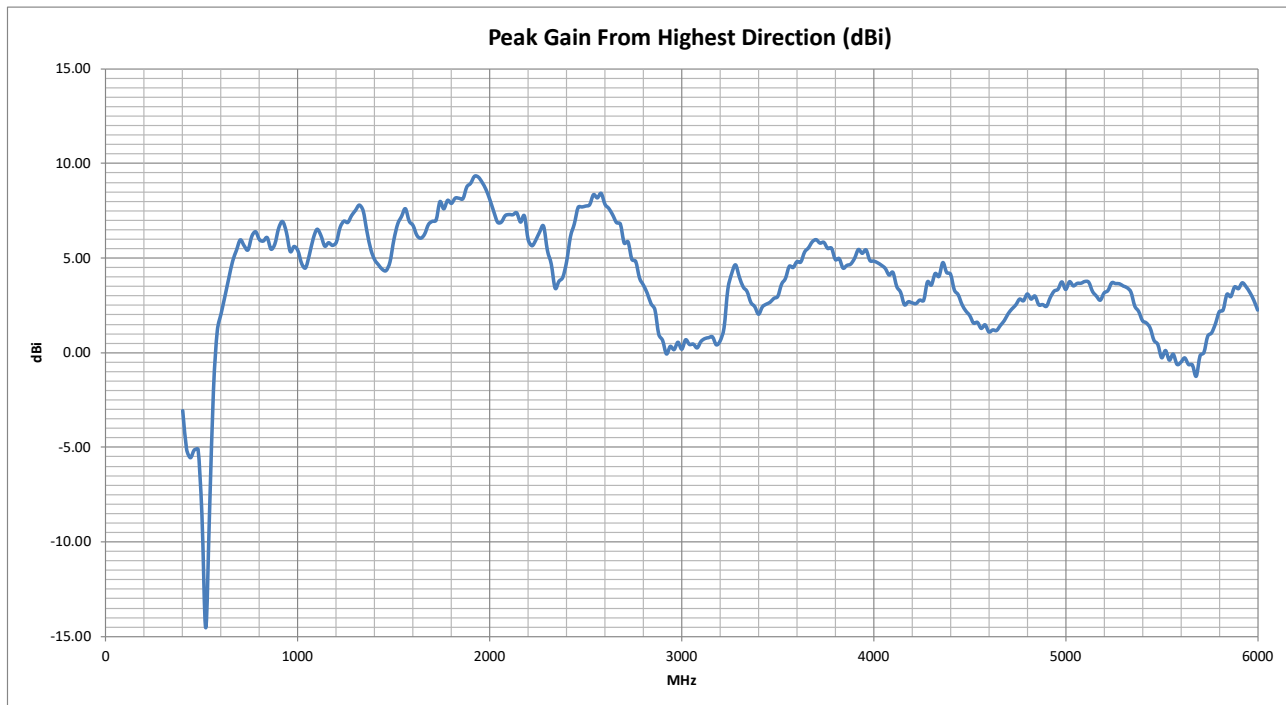
	433	868	915	2450	5800
Bluetooth				●	
Helium		●	●		
IEEE 802.15.4		●	●	●	
ISM 433					
ISM 868		●			
ISM 915			●		
ISM 2.4G				●	
ISM 5.8G					
LoRa		●	●		
SigFox		●	●		
Weightless		●	●		
Wi-Fi 2.4G				●	
Wi-Fi 5G					●
Wi-Fi 6E					
Zigbee		●	●	●	
Z-Wave		●	●		



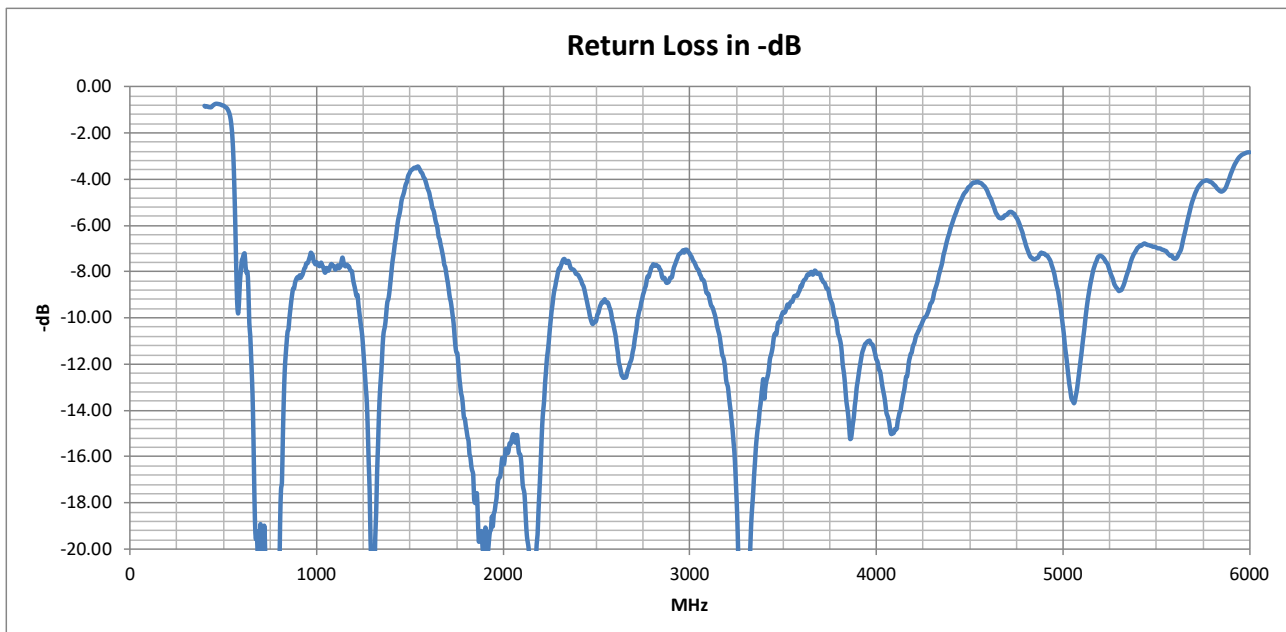
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Peak Gain vs. Frequency



Return Loss

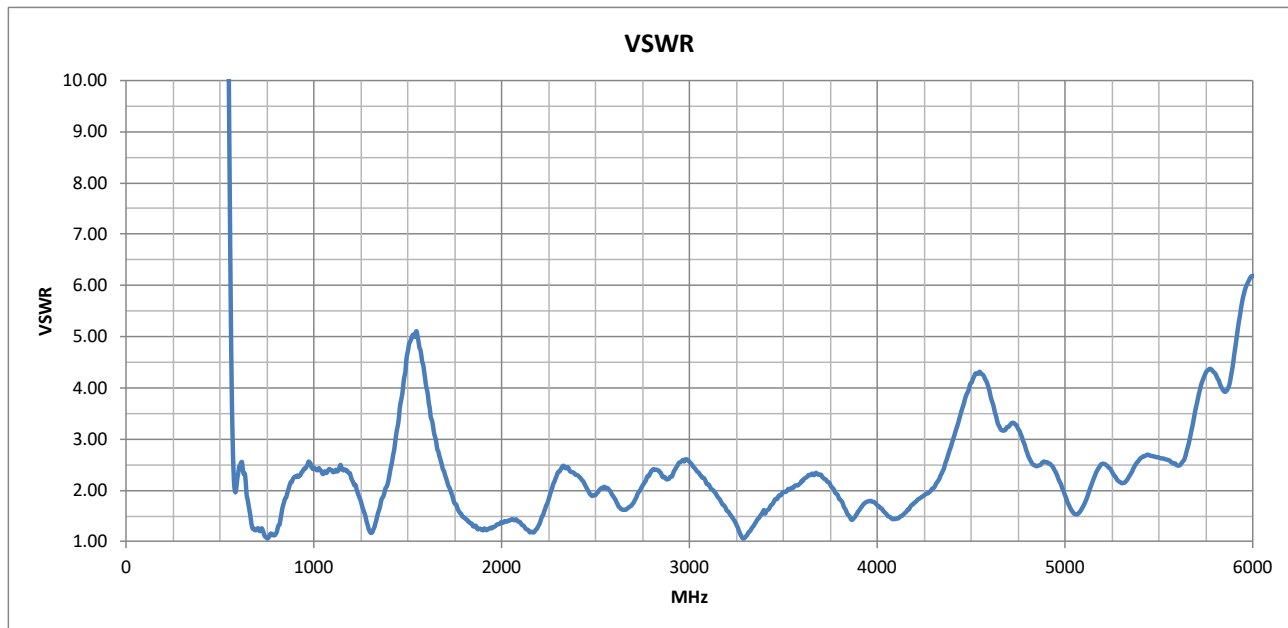




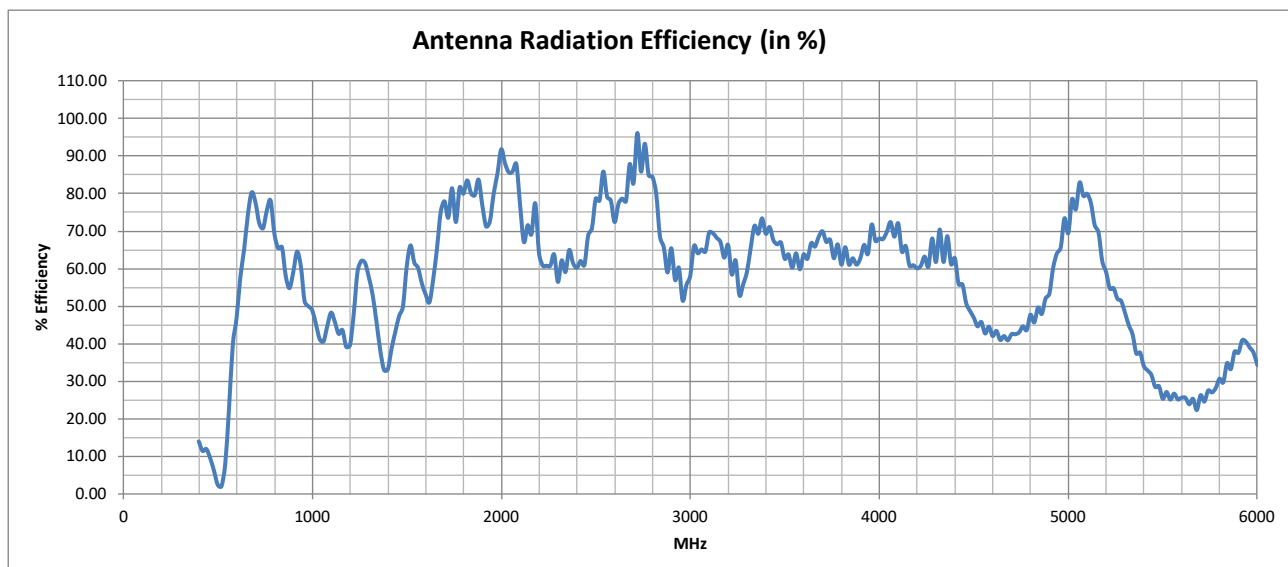
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VSWR



Radiation Efficiency





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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	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	76.97	70.07	1.33	1.31	●
PCS-1900	2	2	2	2	n2	n2	1850 - 1910 MHz	1930 - 1990 MHz	79.88	79.52	1.30	1.35	●
DCS-1800	3	3	3	3	n3	n3	1710 - 1785 MHz	1805 - 1880 MHz	77.14	81.36	2.13	1.44	●
	4	4	4	4			1710 - 1755 MHz	2110 - 2155 MHz	77.09	69.87	2.13	1.31	●
GSM-850	5	5	5	5	n5	n5	824 - 849 MHz	869 - 894 MHz	65.06	56.07	1.85	2.25	●
	6						830 - 840 MHz	875 - 885 MHz	65.69	55.31	1.78	2.21	●
	7	7	7	7	n7	n7	2500 - 2570 MHz	2620 - 2690 MHz	80.72	80.74	2.06	1.70	●
E-GSM-900	8	8	8	8	n8	n8	880 - 915 MHz	925 - 960 MHz	58.79	58.61	2.28	2.47	●
	9	9					1749.9 - 1784.9 MHz	1844.9 - 1879.9 MHz	77.00	80.88	1.73	1.30	●
	10	10					1710 - 1770 MHz	2110 - 2170 MHz	76.41	70.07	2.13	1.31	●
	11	11	11	11			1427.9 - 1447.9 MHz	1475.9 - 1495.9 MHz	42.75	53.20	3.33	4.67	●
	12	12	12	12	n12	n12	699 - 716 MHz	729 - 746 MHz	75.55	71.28	1.26	1.18	●
	13	13	13	13	n13		777 - 787 MHz	746 - 756 MHz	77.02	73.39	1.13	1.07	●
	14	14	14	14	n14	n14	788 - 798 MHz	758 - 768 MHz	72.43	75.89	1.16	1.15	●
		17		17			704 - 716 MHz	734 - 746 MHz	74.87	71.25	1.24	1.12	●
		18	18	18	n18	n18	815 - 830 MHz	860 - 875 MHz	65.68	56.86	1.64	2.15	●
	19	19	19	19			830 - 845 MHz	875 - 890 MHz	65.39	55.69	1.84	2.24	●
	20	20	20	20	n20	n20	832 - 862 MHz	791 - 821 MHz	62.66	68.52	2.01	1.45	●
	21	21	21	21			1447.9 - 1462.9 MHz	1495.9 - 1510.9 MHz	46.44	61.36	3.76	4.90	●
	22	22					3410 - 3490 MHz	3510 - 3590 MHz	67.87	62.10	1.93	2.14	●
		24	24	24	n24	n24	1626.5 - 1660.5 MHz	1525 - 1559 MHz	58.86	62.04	3.35	5.10	●
	25	25	25	25	n25	n25	1850 - 1915 MHz	1930 - 1995 MHz	79.38	80.28	1.30	1.37	●
	26	26	26	26	n26	n26	814 - 849 MHz	859 - 894 MHz	65.28	56.47	1.85	2.25	●
		27	27				807 - 824 MHz	852 - 869 MHz	66.44	58.42	1.51	2.10	●
		28	28	28	n28	n28	703 - 748 MHz	758 - 803 MHz	72.64	74.87	1.25	1.22	●

● 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	Uplink	Downlink	Average Upload Efficiency (%)	Average Download Efficiency (%)	Maximum Upload VSWR	Maximum Download VSWR	Use Indicator
		28A					703 - 733 MHz	758 - 788 MHz	73.26	76.61	1.25	1.15	●
		29			n29		N/A	717 - 728 MHz	N/A	72.03	N/A	1.25	●
		30			n30		2305 - 2315 MHz	2350 - 2360 MHz	59.36	63.55	2.42	2.45	●
		31	31	31			452.5 - 457.5 MHz	462.5 - 467.5 MHz	10.17	8.74	23.28	23.65	●
	32	32					N/A	1452 - 1496 MHz	N/A	50.28	N/A	4.67	●
		33					1900 - 1920 MHz	1900 - 1920 MHz	74.10	74.10	1.25	1.25	●
		34			n34		2010 - 2025 MHz	2010 - 2025 MHz	88.63	88.63	1.39	1.39	●
		35					1850 - 1910 MHz	1850 - 1910 MHz	79.88	79.88	1.30	1.30	●
		36					1930 - 1990 MHz	1930 - 1990 MHz	79.52	79.52	1.35	1.35	●
		37					1910 - 1930 MHz	1910 - 1930 MHz	72.16	72.16	1.25	1.25	●
		38			n38		2570 - 2620 MHz	2570 - 2620 MHz	75.75	75.75	2.00	2.00	●
		39	39		n39		1880 - 1920 MHz	1880 - 1920 MHz	77.22	77.22	1.25	1.25	●
		40	40		n40		2300 - 2400 MHz	2300 - 2400 MHz	61.26	61.26	2.47	2.47	●
		41	41	41	n41	n41	2496 - 2690 MHz	2496 - 2690 MHz	79.39	79.39	2.06	2.06	●
		42	42	42			3400 - 3600 MHz	3400 - 3600 MHz	64.95	64.95	2.18	2.18	●
		43	43	43			3600 - 3800 MHz	3600 - 3800 MHz	66.06	66.06	2.33	2.33	●
		44					703 - 803 MHz	703 - 803 MHz	73.77	73.77	1.25	1.25	●
		45					1447 - 1467 MHz	1447 - 1467 MHz	46.69	46.69	3.85	3.85	●
		46			n46		5150 - 5925 MHz	5150 - 5925 MHz	35.91	35.91	5.32	5.32	●
		47			n47		5855 - 5925 MHz	5855 - 5925 MHz	37.48	37.48	5.32	5.32	●
		48	48	48	n48		3550 - 3700 MHz	3550 - 3700 MHz	64.84	64.84	2.33	2.33	●
		49					3550 - 3700 MHz	3550 - 3700 MHz	64.84	64.84	2.33	2.33	●
		50			n50		1432 - 1517 MHz	1432 - 1517 MHz	51.68	51.68	4.96	4.96	●
		51			n51		1427 - 1432 MHz	1427 - 1432 MHz	40.88	40.88	2.97	2.97	●
		52					3300 - 3400 MHz	3300 - 3400 MHz	68.82	68.82	1.61	1.61	●

● Suitable band

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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	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	74.45	74.45	1.90	1.90	●
		54	54	54	n54	n54	1670 - 1675 MHz	1670 - 1675 MHz	71.47	71.47	2.62	2.62	●
		65		65	n65	n65	1920 - 2010 MHz	2110 - 2200 MHz	81.09	70.81	1.38	1.35	●
		66	66	66	n66	n66	1710 - 1780 MHz	2110 - 2200 MHz	76.83	70.81	2.13	1.35	●
		67			n67		N/A	738 - 758 MHz	N/A	72.71	N/A	1.10	●
		68					698 - 728 MHz	753 - 783 MHz	74.26	76.40	1.26	1.15	●
		69					N/A	2570 - 2620 MHz	N/A	75.75	N/A	2.00	●
		70		70	n70	n70	1695 - 1710 MHz	1995 - 2020 MHz	77.13	90.17	2.31	1.39	●
		71	71	71	n71	n71	663 - 698 MHz	617 - 652 MHz	78.50	63.32	1.40	2.48	●
		72	72	72			451 - 456 MHz	461 - 466 MHz	10.35	8.99	23.13	23.65	●
		73	73	73			450 - 455 MHz	460 - 465 MHz	10.47	9.16	23.03	23.65	●
		74	74	74	n74	n74	1427 - 1470 MHz	1475 - 1518 MHz	44.89	57.86	3.91	4.97	●
		75			n75		N/A	1432 - 1517 MHz	N/A	51.68	N/A	4.96	●
		76			n76		N/A	1427 - 1432 MHz	N/A	40.88	N/A	2.97	●
					n77		3300 - 4200 MHz	3300 - 4200 MHz	65.99	65.99	2.33	2.33	●
					n78		3300 - 3800 MHz	3300 - 3800 MHz	66.17	66.17	2.33	2.33	●
					n79		4400 - 5000 MHz	4400 - 5000 MHz	49.61	49.61	4.31	4.31	●
					n80		1710 - 1785 MHz	N/A	77.14	N/A	2.13	N/A	●
					n81		880 - 915 MHz	N/A	58.79	N/A	2.28	N/A	●
					n82		832 - 862 MHz	N/A	62.66	N/A	2.01	N/A	●
					n83		703 - 748 MHz	N/A	72.64	N/A	1.25	N/A	●
					n84		1920 - 1980 MHz	N/A	76.97	N/A	1.33	N/A	●
		85	85	85	n85		698 - 716 MHz	728 - 746 MHz	75.68	71.30	1.26	1.19	●
					n86		1710 - 1780 MHz	N/A	76.83	N/A	2.13	N/A	●
		87	87	87			410 - 415 MHz	420 - 425 MHz	12.41	11.52	20.49	19.91	●

● 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	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	12.15	11.57	20.45	19.83	●
					n89		824 - 849 MHz	N/A	65.06	N/A	1.85	N/A	●
					n90	n90	2496 - 2690 MHz	2496 - 2690 MHz	79.39	79.39	2.06	2.06	●
					n91		832 - 862 MHz	1427 - 1432 MHz	62.66	40.88	2.01	2.97	●
					n92		832 - 862 MHz	1432 - 1517 MHz	62.66	51.68	2.01	4.96	●
					n93		880 - 915 MHz	1427 - 1432 MHz	58.79	40.88	2.28	2.97	●
					n94		880 - 915 MHz	1432 - 1517 MHz	58.79	51.68	2.28	4.96	●
					n95		2010 - 2025 MHz	N/A	88.63	N/A	1.39	N/A	●
					n96		5925 - 7125 MHz	5925 - 7125 MHz	N/A	N/A	N/A	N/A	●
					n97		2300 - 2400 MHz	N/A	61.26	N/A	2.47	N/A	●
					n98		1880 - 1920 MHz	N/A	77.22	N/A	1.25	N/A	●
					n99		1626.5 - 1660.5 MHz	N/A	58.86	N/A	3.35	N/A	●
1900					n101		1900 - 1910 MHz	1900 - 1910 MHz	75.51	75.51	1.25	1.25	●
				103			787 - 788 MHz	757 - 758 MHz	74.86	74.92	1.12	1.08	●
					n105		663 - 703 MHz	612 - 652 MHz	78.37	62.25	1.40	2.55	●

● 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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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	11.81	19.61	-5.38	●
ISM 868 MHz	863 - 870 MHz	57.02	2.11	5.63	●
ISM 915 MHz	902 - 928 MHz	62.64	2.31	6.95	●
ISM 2.4 GHz	2400 - 2500 MHz	66.44	2.29	7.77	●
Wi-Fi 2.4G	2401 - 2483 MHz	64.67	2.29	7.73	●
Wi-Fi 2.4G (USA)	2401 - 2473 MHz	63.82	2.29	7.71	●
Wi-Fi 2.4G (Japan)	2401 - 2495 MHz	65.90	2.29	7.76	●
Wi-Fi 5G (all channels)	5150 - 5990 MHz	36.16	6.17	3.71	●
Wi-Fi 5G (Ch 32-48)	5150 - 5250 MHz	60.04	2.52	3.71	●
Wi-Fi 5G (Ch 32-64)	5150 - 5330 MHz	55.21	2.52	3.71	●
Wi-Fi 5G (Ch 32-161)	5150 - 5815 MHz	35.94	4.37	3.71	●
Wi-Fi 5G (Ch 32-173)	5150 - 5875 MHz	35.72	4.37	3.71	●
ISM 5.8 GHz	5725 - 5875 MHz	30.26	4.37	3.36	●
UWB band 1	3168 - 3696 MHz	64.62	2.33	5.97	●
UWB band 2	3696 - 4224 MHz	65.59	2.30	5.99	●
UWB band 3	4224 - 4752 MHz	52.09	4.31	4.78	●
UWB band 4	4752 - 5280 MHz	62.01	3.17	3.78	●
UWB band 5	5280 - 5808 MHz	30.53	4.37	3.66	●

● Suitable band

● Adequate band in good signal conditions

● Likely to be unsuitable

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