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Megalodon 4G/5G Antenna



- Low Profile 2x 4x4 MiMo 4G/5G
- Up to 8x8 MiMo Dual Band WiFi 6e / 7
- Up to 2 GPS/GNSS L1 or L1/L5 bands
- Meets IK10 and IP69K

The industry leading Megalodon range has been developed to provide 2x 4x4 MiMo 4G/5G antenna systems covering 617-960/1427-6000MHz within a robust low profile package. Covering global cellular bands for future-proof performance, the antenna provides effective functionality for 2x 4G Cat 18/20 and/or 5G modems. This can be combined with a number of other functions including single/dual band GPS/GNSS and up to 8x8 MiMo WiFi elements covering 2.4-7.2GHz (WiFi 6e/7).

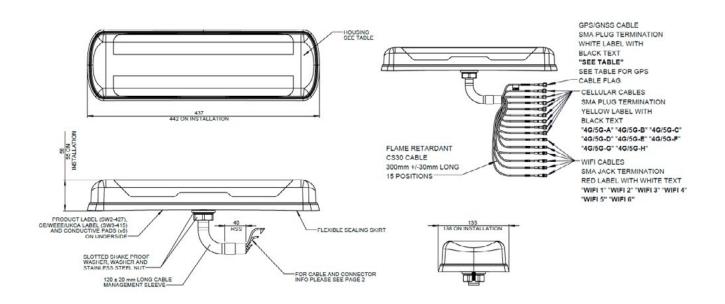
The antenna is designed to be panel mounted and can be fitted on a conductive or non-conductive panel. Supplied with integrated flame retardant low-loss CS30 cables (Compliant to UN ECE R118) and a halogen free, flame retardant radome, the antenna is suitable for many environments and applications, including public safety and transportation.

The LGM variants have an integrated GPS/GNSS module supporting either L1 only or L1/L5 frequencies. This GPS module features advanced filtering for LTE B13/14 designed to minimise potential in band interference.

The antenna is available with a black or white radome which meets IK10 for vandal resistance and IP69K for Ingress protection.

Technical Drawing

LGMHM8-6-60 Shown



Megalodon 4G/5G Antenna

						Pr	oduct Data		
Part No.									
			LGMOM8[B]-6-60	LGMHM8[B]-6-60	LGMQM8[B]-6-60	LGMDM8[B]-6-60	LGMM8[B]-6-60		
Electrical Data									
Frequency Range (MHz)	4G/5G Elements				c 617-960 / 1427-600				
	WiFi Elements		8x 2.4/5.1-7.2GHz		4x 2.4/5.1-7.2GHz		-		
Typical VSWR*	All Elements		<3:1 (4G/5G elements) / <2:1 (WiFi Elements)						
Peak Gain:		617-960MHz	3.4						
	4G/5G Elements	1427-4200MHz	7.4						
Isotropic : (dBi)ŧ		4400-6000MHz	8.2						
	WiFi Elements	2.4 GHz	6						
		5.1-7.2GHz	7						
		617-960MHz	49%						
	4G/5G Elements	1427-2170MHz	55%						
Typical Efficiency **		2300-4200MHz			60%				
		4400-6000MHz			52%				
	WiFi Elements	2.4-7.2GHz			44%				
Nominal Impedance					50Ω				
GPS/GNSS Data									
Frequency Range (MHz)					1559-1612				
VSWR					<2.5:1				
Gain: LNA			26dB						
Out of band rejection			>40dB (@ > +/- 100MHz f)						
Typical Noise Figure			2.7 dB						
Rejection @787MHz					>50 dB				
Voltage /Current				3 -	5V DC 17mA (typica	al)			
Mechanical Data					55(0.4%)				
Dimonoiono (mm)	Height				55( 2.1") 437 (17.2")				
Dimensions (mm)	Length Width								
Operating Temp (°C)	WIGHT		133 (5.2") -40°/ +80°C (-40° / +176°F )						
Colour				10	White / [Black]	• )			
Ingress Protection / Impac	t Resistance				IP69K / IK10				
Mounting Data									
Mounting type					Panel mount				
Max panel thickness (mm)	)				7 (0.27")				
Mounting hole (mm)	25(1")								
Cable Data									
	Туре		comms cables - CS30   GPS cable/s FR RG174 (all cables UN ECE R118 Co				Compliant)		
All Cables	Diameter (mm)				2.8 (0.1")				
	Length (m)				0.3 (1')				
Terminations									
4G/5G					8x SMA Plug (m)				
40/00									
WiFi			8x SMA Jack (f)	6x SMA Jack (f)	4x SMA Jack (f)	2x SMA Jack (f)	-		

\*Across 90% of relevant bands for LGMHM8-6-60 measured in free space without additional cable

+ Efficiency stated is average for all elements and peak gain is highest measured level from LGMHM8-6-60 measured in free space without additional cable.

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Megalodon 4G/5G Antenna

Part No.									
			LG5MOM8[B]-6-60	LG5MHM8[B]-6-60	LG5MQM8[B]-6-60	LG5MDM8[B]-6-60	LG5MM8[B]-6-6		
Electrical Data						-			
Frequency Range (MHz)	4G/5G Elements				617-960 / 1427-600				
	WiFi Elements		8x 2.4/5.1-7.2GHz	6x 2.4/5.1-7.2GHz			-		
Typical VSWR*	All Elements <3:1 (4G/5G elements) / <2:1 (WiFi Elements)								
		617-960MHz			3				
Peak Gain:	4G/5G Elements	1427-4200MHz			7				
Isotropic : (dBi)		4400-6000MHz			8				
	WiFi Elements	2.4 GHz			6				
	vviri Elements	5.1-7.2GHz			7				
		617-960MHz			49%				
	4G/5G Elements	1427-2170MHz			55%				
Typical Efficiency **	46/56 Elements	2300-4200MHz			60%				
		4400-6000MHz			52%				
	WiFi Elements	2.4-7.2GHz			44%				
Nominal Impedance					50Ω				
GPS/GNSS Data									
Frequency Range (MHz)				11	64-1189 / 1559-161	2			
VSWR					<2.5:1				
Gain: LNA		30 / 26dB							
Out of band rejection			>40dB (@ > +/- 100MHz f)						
Typical Noise Figure					2.7 dB				
Rejection @787MHz					>50 dB				
Voltage /Current				3 -	5V DC 37mA (typica	al)			
Mechanical Data									
	Height				55( 2.1")				
Dimensions (mm)	Length				437 (17.2")				
	Width				133 (5.2")				
Operating Temp (°C)				-40°	/ +80°C (-40° / +176°	°F)			
Colour					White / [Black]				
Ingress Protection / Impact	t Resistance				IP69K / IK10				
Mounting Data									
Mounting type					Panel mount				
Max panel thickness (mm)					7 (0.27")				
Mounting hole (mm)		25(1")							
Cable Data									
	Туре		comms cabl	es - CS30   GPS cab	le/s FR RG174 (all o	ables UN ECE R118	Compliant)		
All Cables	Diameter (mm)				2.8 (0.1")				
	Length (m)				0.3 (1')				
Terminations									
4G/5G					8x SMA Plug (m)				
WiFi			8x SMA Jack (f)	6x SMA Jack (f)	4x SMA Jack (f)	2x SMA Jack (f)			

+ Efficiency stated is average for all elements and peak gain is highest measured level from LGMHM8-6-60 measured in free space without additional cable.

### Megalodon 4G/5G Antenna

			Product Data
Part No.			
			LPMM8[B]-6-60
Electrical Data			
Frequency Range (MHz)	4G/5G Elements		8x 617-960 / 1427-6000
Typical VSWR*			<3:1
		617-960MHz	3
Peak Gain: Isotropic : (dBi) <del>i</del>	4G/5G Elements	1427-4200MHz	7
		4400-6000MHz	8
		617-960MHz	49%
		1427-2170MHz	55%
Typical Efficiencył	4G/5G Elements	2300-4200MHz	60%
		4400-6000MHz	52%
Nominal Impedance			50Ω
Mechanical Data			
	Height		55( 2.1")
Dimensions (mm)	Length		437 (17.2")
	Width		133 (5.2")
Operating Temp (°C)			-40°/ +80°C (-40° / +176°F )
Colour			White / [Black]
Ingress Protection / Impa	ct Resistance		IP69K / IK10
Mounting Data			
Mounting type			Panel mount
Max panel thickness (mm	ר)		7 (0.27")
Mounting hole (mm)			25(1")
Cable Data			
	Туре		CS30 (UN ECE R118 Compliant)
All Cables	Diameter (mm)		2.8 (0.1")
Tomainations	Length (m)		0.3 (1')
Terminations			0v CNA Dire ()
4G/5G			8x SMA Plug (m)

\*Across 90% of relevant bands for LGMHM8-6-60 measured in free space without additional cable.

+ Efficiency stated is average for all elements and peak gain is highest measured level from LGMHM8-6-60 measured in free space without additional cable.

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#### Electrical Data Cell -Ground Plane

Measurement Conditions	4G/5G Anten	nas			
LGMHM8-6-60 measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS30 Cable	Frequency Range (MHz)	LTE/NR Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)
	617-698	71, 105	Cell A	3.6	45
		,	Cell B	1.7	37
+			Cell C	2.7	40
			Cell D	1.2	35
	699-798	12,13, 14 17,28	Cell A	3.8	48
CARDON LA CONTRACTOR			Cell B	2.7	43
			Cell C	3.4	42
			Cell D	1.6	40
	807-862	5,19,20,26,27	Cell A	3.5	39
			Cell B	3.0	39
				3.9	41
				1.8 3.7	38 42
THEN WINS	880-960	8	Cell A Cell B	3.0	35
A A A A A A A A A A A A A A A A A A A			Cell C	4.2	46
			Cell D	3.4	35
		11, 21, 74,75,76	Cell A	4.6	53
	1427-1518	11, 21, 74,70,70	Cell B	6.5	57
			Cell C	4.4	51
			Cell D	6.1	52
			Cell A	6.1	51
	1710-1920	2,3,4,9,25,35,39,66	Cell B	6.6	54
			Cell C	4.9	44
			Cell D	5.1	51
		1,23	Cell A	7.5	60
	1920-2170		Cell B	6.6	60
			Cell C	5.9	54
			Cell D	6.1	61
	2300-2400	30,40	Cell A	6.1	61
			Cell B	7.2	70
			Cell C	5.8	59
			Cell D	6.7	67
	2496-2690	7,38,41	Cell A	5.6	50
	2490-2090		Cell B	7.2	62
			Cell C	5.9	53
			Cell D	6.8	62
	3300-4200	22,42,43,48,77,78	Cell A	7.9	59
		22,42,43,40,77,70	Cell B	8.7	62
			Cell C	7.9	62
			Cell D	7.9	69
	4400-5000	79	Cell A	7.2	58
			Cell B	8.3	53
			Cell C	7.0	54
			Cell D	9.8	64

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4G/5G Antennas **Measurement Conditions** LGMHM8-6-60 measured on 600x600mm (2'x2') ground Frequency Range (MHz) plane with 0.5m (1.6') of CS30 Cable 35 41 Cell E 617-698 71, 105 Cell F 39 2.4 Cell G 3.0 38 Cell H 2.9 41 Cell E 4.3 45 699-798 12 13 14 17 28 Cell F 2.4 40 Cell G 31 41 Cell H 37 28 Cell E 38 3.2 807-862 5,19,20,26,27 Cell F 2.4 37 Cell G 3.6 39 Cell H 2.6 37 Cell E 4.0 42 880-960 8 Cell F 2.8 35 Cell G 3.9 45 Cell H 2.6 35 11, 21, 74, 75, 76 Cell E 4.7 49 1427-1518 Cell F 5.9 56 Cell G 4.1 48 Cell H 5.1 47 Cell E 51 64 1710-1920 2,3,4,9,25,35,39,66 Cell F 57 6.6 Cell G 46 4.6 Cell H 50 5.4 Cell E 6.9 59 1920-2170 1 23 Cell F 6.9 63 Cell G 5.3 53 Cell H 59 59 Cell E 7.4 61 2300-2400 30,40 Cell F 7.2 70 Cell G 5.6 55 Cell H 7.0 62 Cell E 5.8 52 2496-2690 7,38,41 Cell F 6.3 62 Cell G 6.1 54 Cell H 59 7.9 Cell E 8.4 59 22,42,43,48,77,78 3300-4200 Cell F 9.3 66 Cell G 7.5 61 Cell H 7.7 63 Cell E 78 52 4400-5000 79 Cell F 8.4 59 Cell G 53 6.8 Cell H 10.2 61

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Electrical Data Cell -**Ground Plane** 

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#### Electrical Data WiFi -Ground Plane

Measurement Conditions	WiFi Antennas					
LGMHM8-6-60 measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS30 Cable	Frequency Range (MHz)	WiFi Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)	
	2396-2485	2.4GHz	WiFi 1	6.7	58	
	2000-2400		WiFi 2	6.8	58	
$+ \frac{1}{2} + $			WiFi 3	5.0	54	
ALL LENGT A ANTAL AND			WiFi 4	4.2	48	
	5150-5250	UNII-1	WiFi 1	8.4	45	
and the second			WiFi 2	8.0	45	
			WiFi 3	8.3	54	
			WiFi 4	5.9	53	
STORES IN THE REPORT OF	5250-5350	UNII-2A	WiFi 1	8.3	44	
			WiFi 2	7.8	44	
			WiFi 3	8.3	53	
			WiFi 4	6.1	51	
ALANN ALASSA	5350-5470	UNII-2B	WiFi 1	7.6	41	
			WiFi 2 WiFi 3	7.1 7.5	42 54	
			WiFi 4	6.2	51	
		UNII-2C	WiFi 1	7.0	42	
	5470-5725	0111-20	WiFi 2	7.6	43	
			WiFi 3	6.9	50	
			WiFi 4	6.5	49	
		UNII-3	WiFi 1	8.0	44	
	5725-5850		WiFi 2	8.2	45	
			WiFi 3	7.1	51	
			WiFi 4	4.9	50	
		UNII-4	WiFi 1	8.0	45	
	5850-5925		WiFi 2	8.5	45	
			WiFi 3	7.7	52	
			WiFi 4	5.5	51	
	5005 0 105	UNII-5	WiFi 1	10.4	48	
	5925-6425		WiFi 2	10.2	47	
			WiFi 3	7.6	56	
			WiFi 4	6.4	53	
	6425-6525	UNII-6	WiFi 1	10.0	50	
	0420-0020		WiFi 2	9.4	47	
			WiFi 3	5.7	55	
			WiFi 4	5.2	53	
	6525-6875	UNII-7	WiFi 1	9.2	48	
			WiFi 2	8.7	44	
			WiFi 3	5.8	50	
			WiFi 4	5.8	49	
	6875-7125	UNII-8	WiFi 1	7.7	46	
			WiFi 2	7.0	42	
			WiFi 3	5.3	45	
			WiFi 4	4.9	44	

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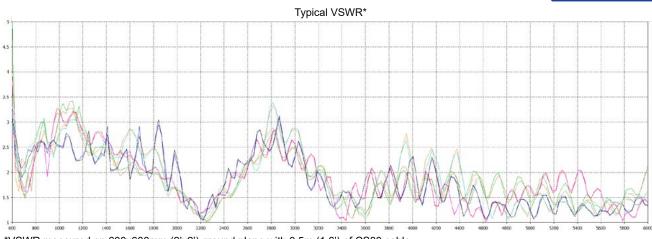
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Electrical Data WiFi -Ground Plane

Measurement Conditions	WiFi Antennas					
LGMHM8-6-60 measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS30 Cable	Frequency Range (MHz)	WiFi Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)	
	0000 0405	2.4GHz	WiFi 5	3.4	40	
	2396-2485		WiFi 6	3.9	41	
	5150-5250		WiFi 5	6.2	56	
		UNII-1	WiFi 6	6.3	54	
	5050 5050	UNII-2A	WiFi 5	6.2	55	
	5250-5350	UNII-2A	WiFi 6	5.9	53	
	5050 5470		WiFi 5	5.5	50	
	5350-5470	UNII-2B	WiFi 6	5.6	51	
	5470-5725	UNII-2C	WiFi 5	6.2	45	
			WiFi 6	6.1	43	
THAN MASS		UNII-3	WiFi 5	6.2	44	
COMMAN AND S	5725-5850		WiFi 6	6.3	42	
			WiFi 5	5.9	44	
	5850-5925	UNII-4	WiFi 6	6.8	3.4       40         3.9       41         6.2       56         6.3       54         6.2       55         5.9       53         5.5       50         5.6       51         6.2       45         6.1       43         6.2       44         6.3       42         5.9       44         6.1       45         6.2       44         6.3       42         5.9       44         6.3       42         5.9       44         6.1       45         6.2       44         6.3       42         5.9       44         6.1       45         4.2       45         5.6       47         4.5       47         4.5       46         4.9       44	
	5005 0405	UNII-5	WiFi 5	6.1	46	
	5925-6425		WiFi 6	7.1	45	
	6425-6525	UNII-6	WiFi 5	5.6	47	
			WiFi 6	4.0	45	
	0505 0075	UNII-7	WiFi 5	4.5	47	
	6525-6875		WiFi 6	4.5	46	
	0075 7405		WiFi 5	4.9	44	
	6875-7125	UNII-8	WiFi 6	4.8	44	





\*VSWR measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS30 cable

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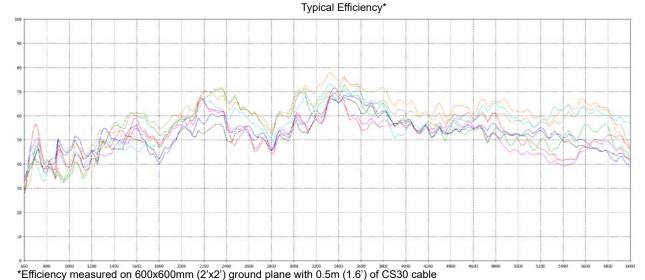
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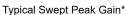
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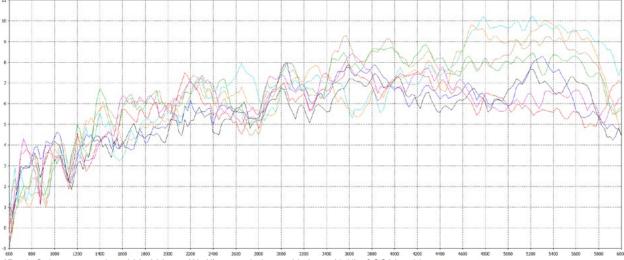
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\*Isolation measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS30 cable . Green trace = best case isolation between element pairs. Red trace - worst case isolation between element pairs.





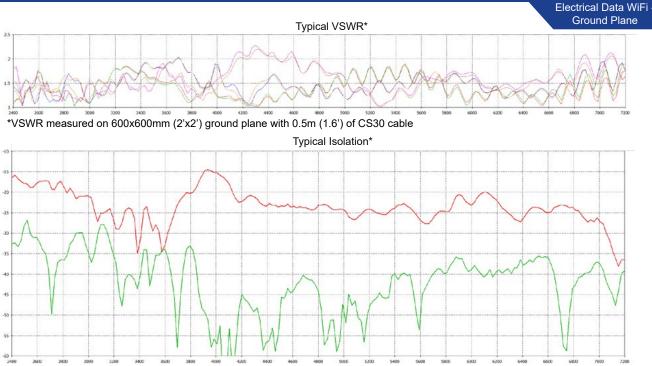


\*Peak Gain measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS30 cable

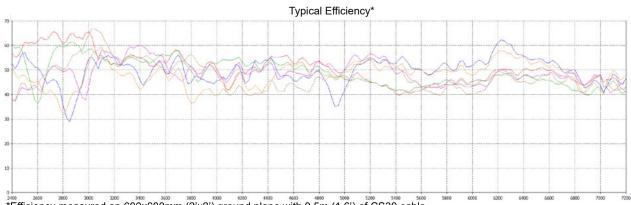
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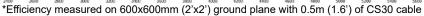
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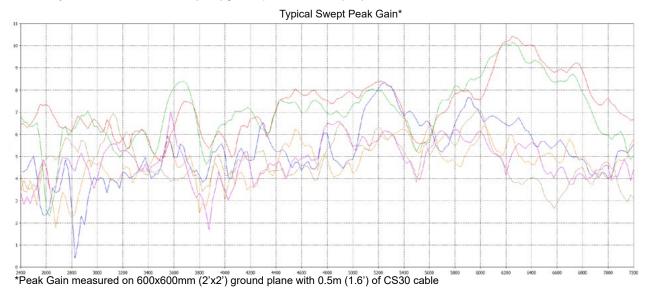
Megalodon 4G/5G Antenna



\*Isolation measured on 600x600mm (2'x2') ground plane with 0.5m (1.6') of CS30 cable . Green trace = best case isolation between element pairs. Red trace - worst case isolation between element pairs.





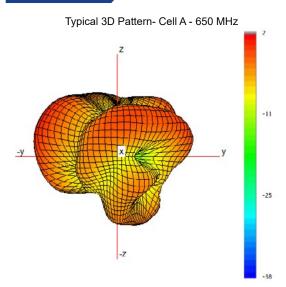


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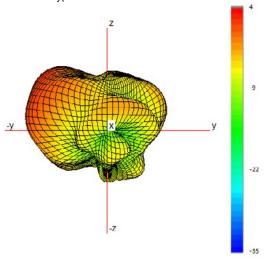
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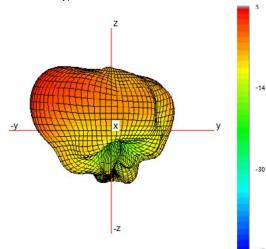
#### 3D Pattern Data on Ground Plane Cell A



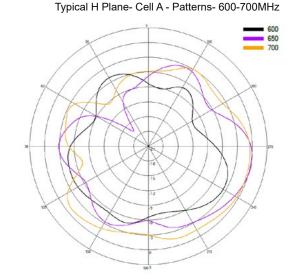
Typical 3D Pattern- Cell A - 750 MHz



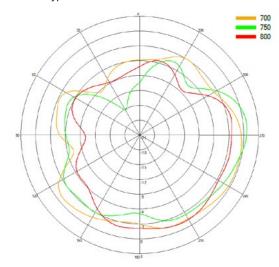
Typical 3D Pattern- Cell A - 850 MHz



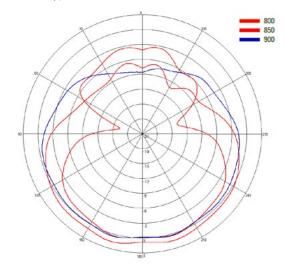
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Typical H Plane- Cell A - Patterns- 700-800MHz



Typical H Plane- Cell A - Patterns- 800-900MHz

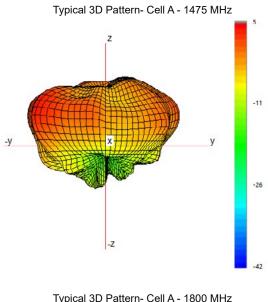


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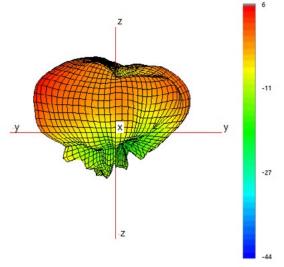
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3D Pattern Data on Ground Plane Cell A

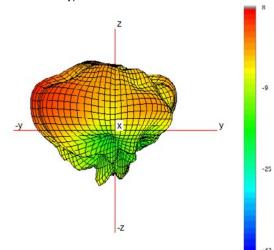
Megalodon 4G/5G Antenna



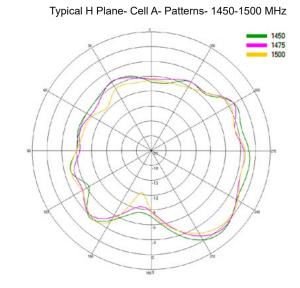
Typical 3D Pattern- Cell A - 1800 MHz



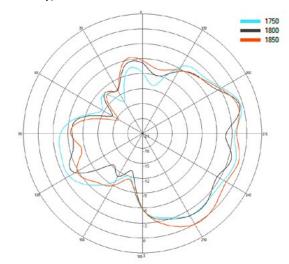
Typical 3D Pattern- Cell A - 2150 MHz



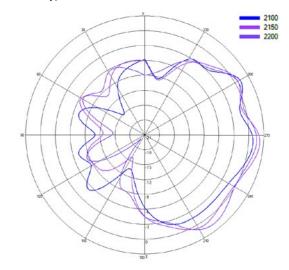




Typical H Plane- Cell A- Patterns- 1750-1850 MHz



Typical H Plane- Cell A- Patterns- 2100-2200 MHz

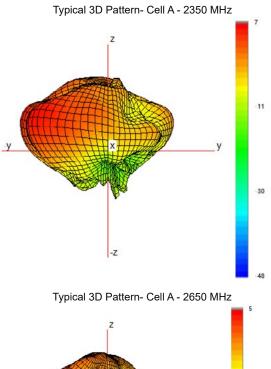


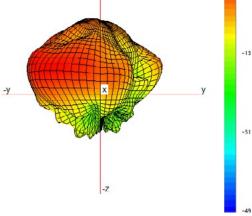
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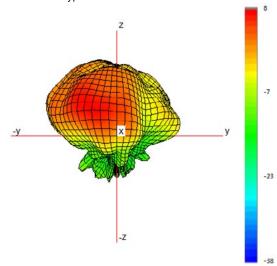
Megalodon 4G/5G Antenna

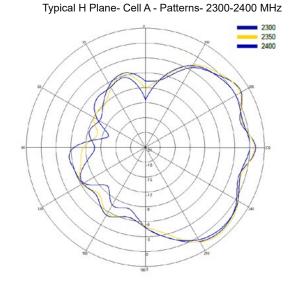
#### 3D Pattern Data on Ground Plane Cell A



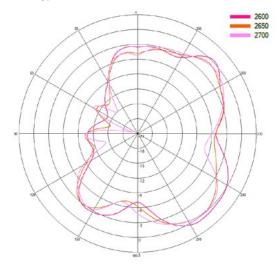


Typical 3D Pattern- Cell A - 3600 MHz

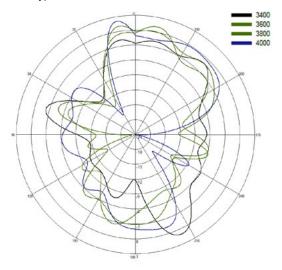




Typical H Plane- Cell A - Patterns- 2600-2700 MHz



Typical H Plane- Cell A - Patterns- 3400-4000 MHz



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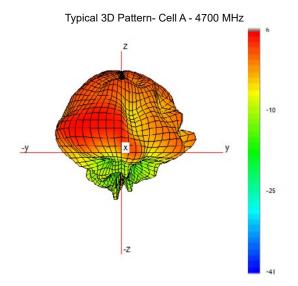
L[X]M[X]M8-6-60 09/08/2024 V3 Page 13

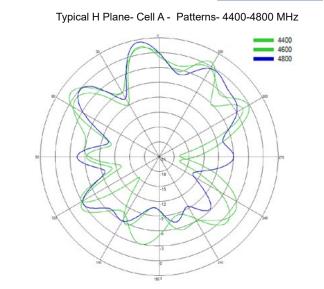
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3D Pattern Data on Ground Plane Cell A

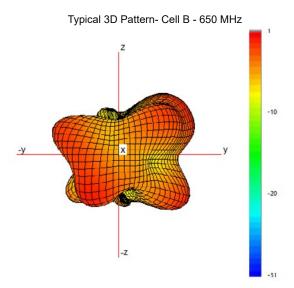
Megalodon 4G/5G Antenna



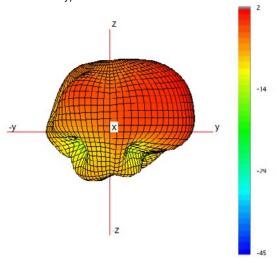


# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

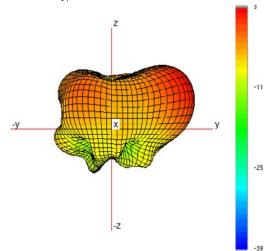
#### 3D Pattern Data on Ground Plane Cell B



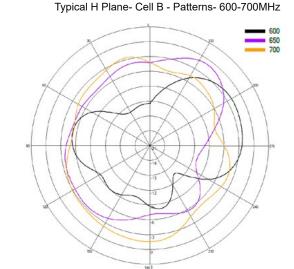
Typical 3D Pattern- Cell B - 750 MHz



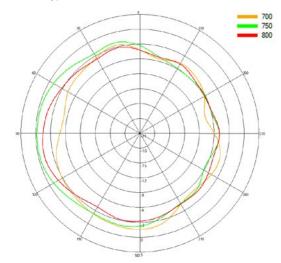
Typical 3D Pattern- Cell B - 850 MHz



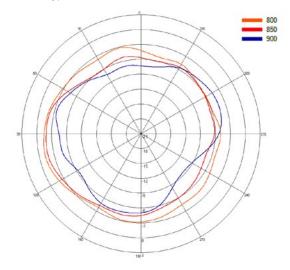
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Typical H Plane- Cell B - Patterns- 700-800MHz



Typical H Plane- Cell B - Patterns- 800-900MHz

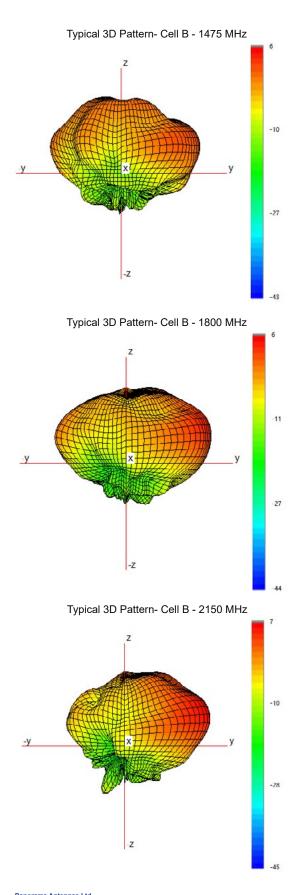


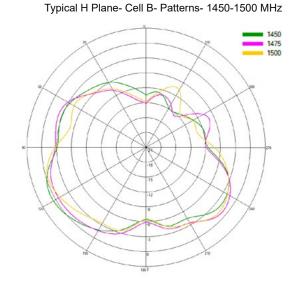
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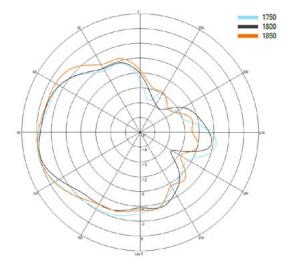
3D Pattern Data on Ground Plane Cell B

Megalodon 4G/5G Antenna

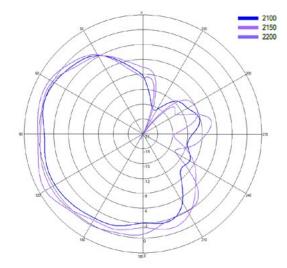




Typical H Plane- Cell B- Patterns- 1750-1850 MHz



Typical H Plane- Cell B- Patterns- 2100-2200 MHz



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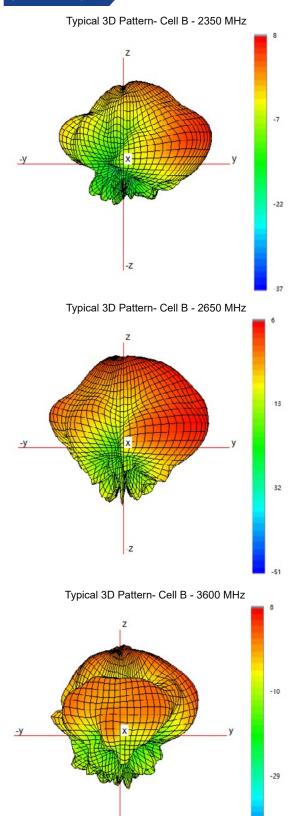
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Typical H Plane- Cell B - Patterns- 2300-2400 MHz

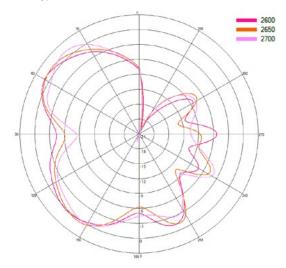
Megalodon 4G/5G Antenna

#### 3D Pattern Data on Ground Plane Cell B

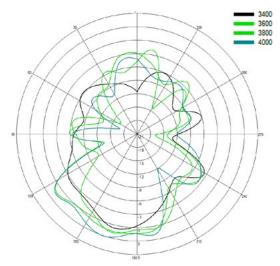


2300 2350 2400

Typical H Plane- Cell B - Patterns- 2600-2700 MHz



Typical H Plane- Cell B - Patterns- 3400-4000 MHz



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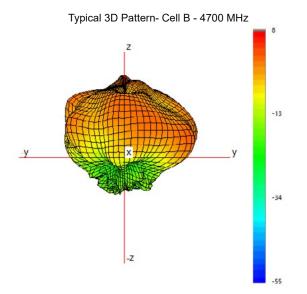
L[X]M[X]M8-6-60 09/08/2024 V3 Page 17

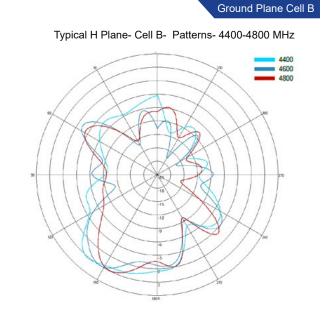
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3D Pattern Data on

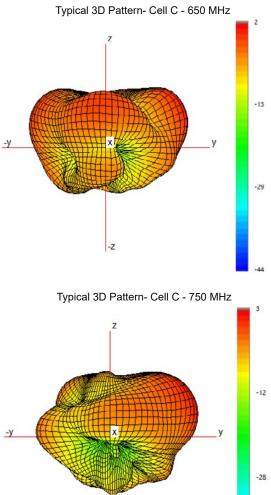
Megalodon 4G/5G Antenna

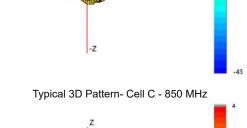


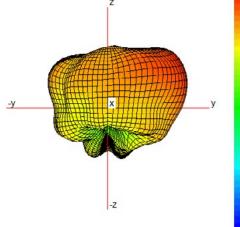


# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

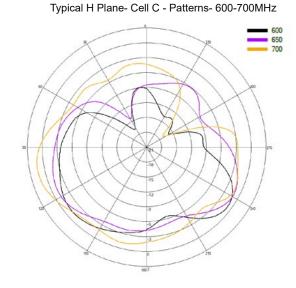
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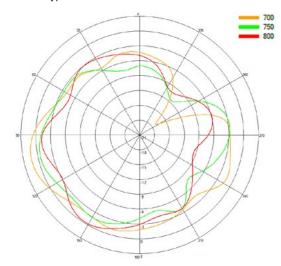




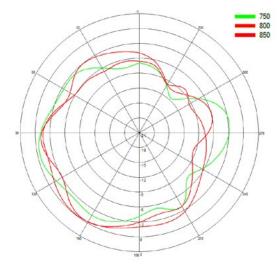
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Typical H Plane- Cell C - Patterns- 700-800MHz



Typical H Plane- Cell C - Patterns- 800-900MHz



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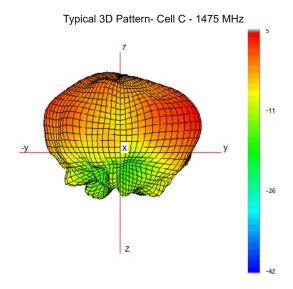
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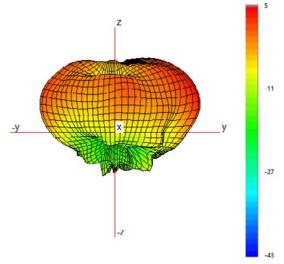
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3D Pattern Data on Ground Plane Cell C

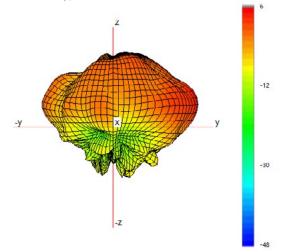
Megalodon 4G/5G Antenna

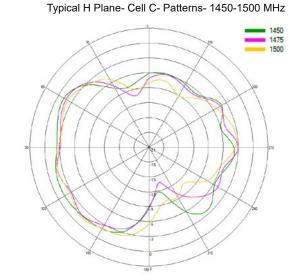


Typical 3D Pattern- Cell C - 1800 MHz

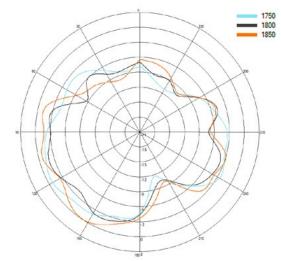


Typical 3D Pattern- Cell C - 2150 MHz

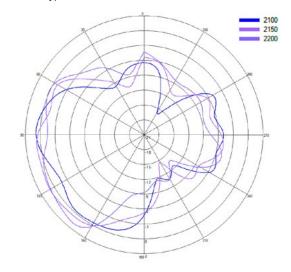




Typical H Plane- Cell C- Patterns- 1750-1850 MHz



Typical H Plane- Cell C- Patterns- 2100-2200 MHz



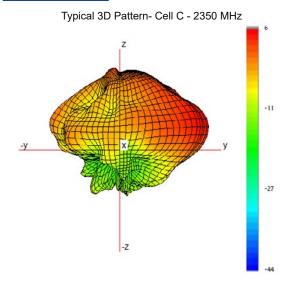
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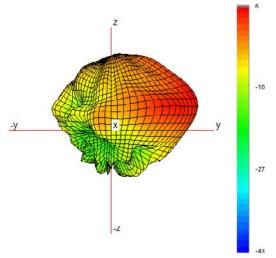
L[X]M[X]M8-6-60 09/08/2024 V3

Megalodon 4G/5G Antenna

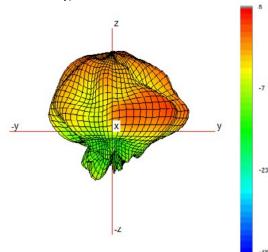
#### 3D Pattern Data on Ground Plane Cell C



Typical 3D Pattern- Cell C - 2650 MHz

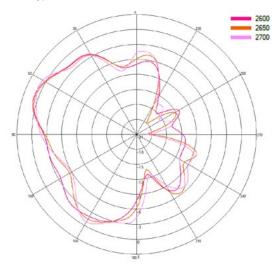


Typical 3D Pattern- Cell C - 3600 MHz

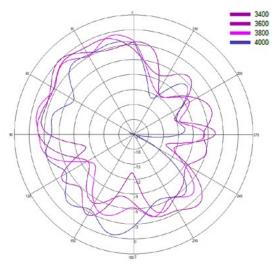


2300 2350 2400

Typical H Plane- Cell C - Patterns- 2600-2700 MHz



Typical H Plane- Cell C - Patterns- 3400-4000 MHz



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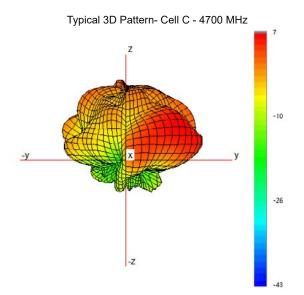
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#### Typical H Plane- Cell C - Patterns- 2300-2400 MHz

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3D Pattern Data on Ground Plane Cell C

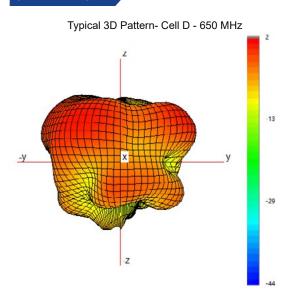
Megalodon 4G/5G Antenna



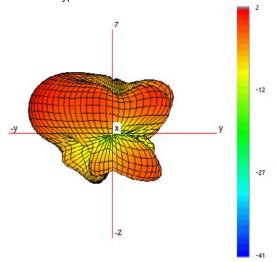
Typical H Plane- Cell C- Patterns- 4400-4800 MHz

# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

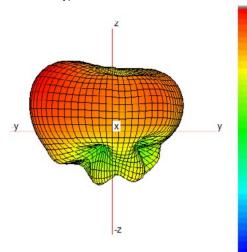
#### 3D Pattern Data on Ground Plane Cell D



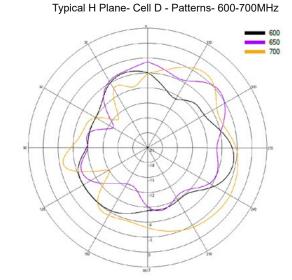
Typical 3D Pattern- Cell D - 750 MHz



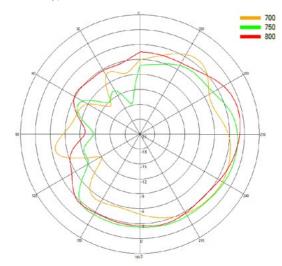
Typical 3D Pattern- Cell D - 850 MHz



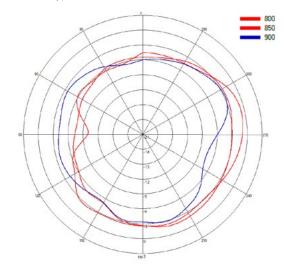
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Typical H Plane- Cell D - Patterns- 700-800MHz



Typical H Plane- Cell D- Patterns- 800-900MHz



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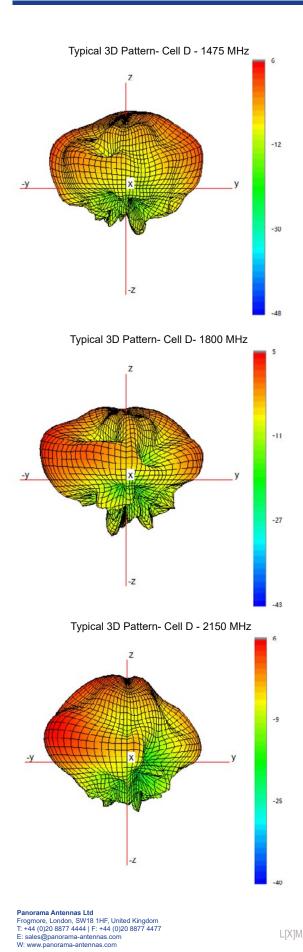
L[X]M[X]M8-6-60 09/08/2024 V3 Page 23

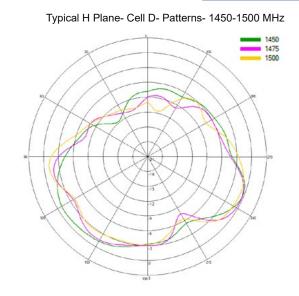
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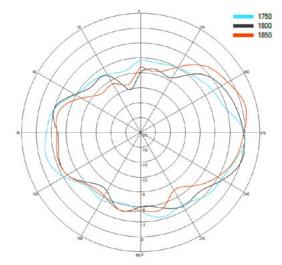
3D Pattern Data on Ground Plane Cell D

Megalodon 4G/5G Antenna

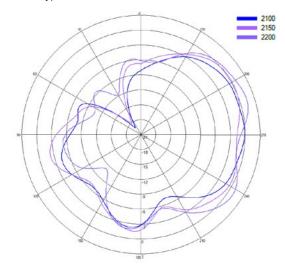




Typical H Plane- Cell D- Patterns- 1750-1850 MHz



Typical H Plane- Cell D- Patterns- 2100-2200 MHz



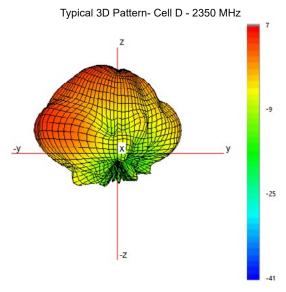
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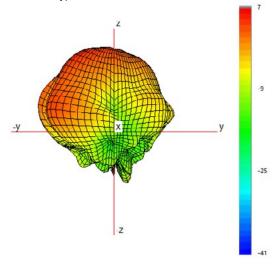
Typical H Plane- Cell D - Patterns- 2300-2400 MHz

Megalodon 4G/5G Antenna

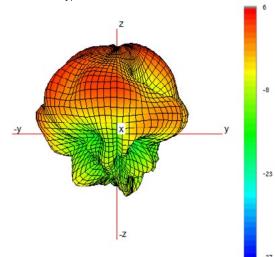
#### 3D Pattern Data on Ground Plane Cell D



Typical 3D Pattern- Cell D - 2650 MHz

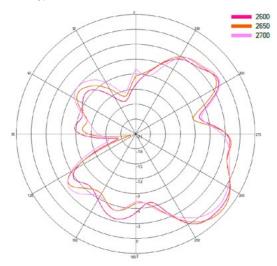


Typical 3D Pattern- Cell D - 3600 MHz

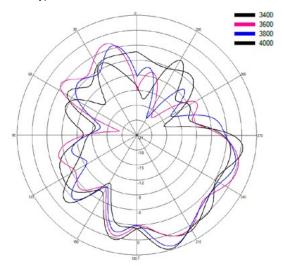


2300 2350 2400

Typical H Plane- Cell D - Patterns- 2600-2700 MHz



Typical H Plane- Cell D - Patterns- 3400-4000 MHz



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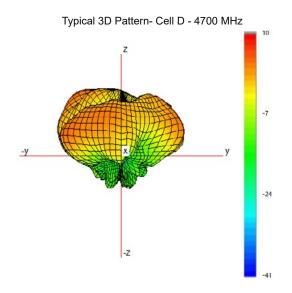
L[X]M[X]M8-6-60 09/08/2024 V3 Page 25

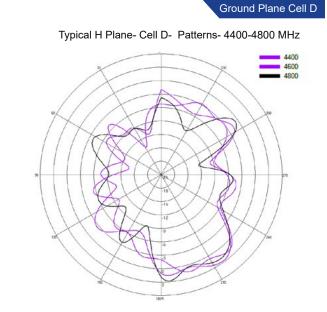
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3D Pattern Data on

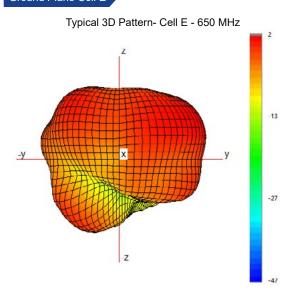
Megalodon 4G/5G Antenna



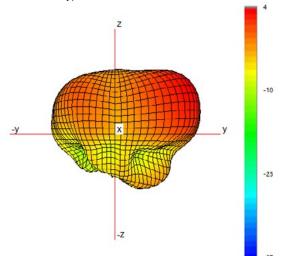


Megalodon 4G/5G Antenna

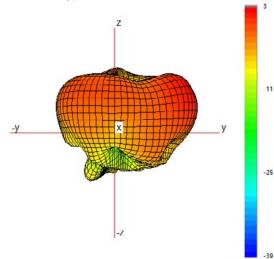
#### 3D Pattern Data on Ground Plane Cell E

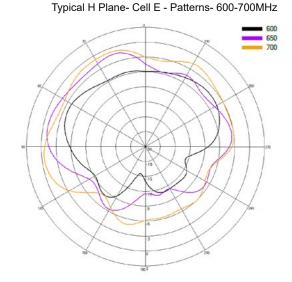


Typical 3D Pattern- Cell E - 750 MHz

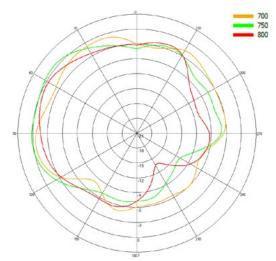


Typical 3D Pattern- Cell E - 850 MHz

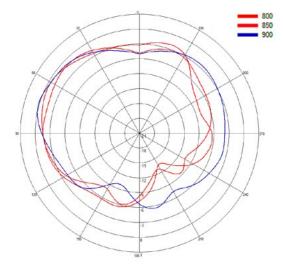




Typical H Plane- Cell E - Patterns- 700-800MHz



Typical H Plane- Cell E- Patterns- 800-900MHz



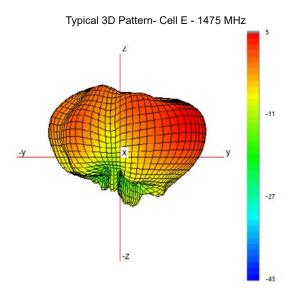
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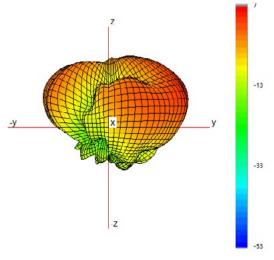
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3D Pattern Data on Ground Plane Cell E

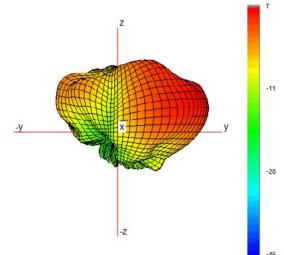
Megalodon 4G/5G Antenna

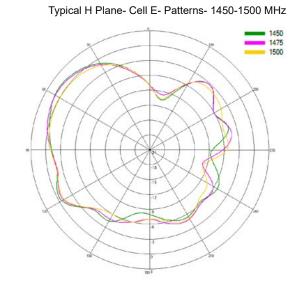


Typical 3D Pattern- Cell E- 1800 MHz

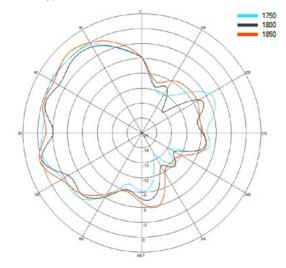


Typical 3D Pattern- Cell E - 2150 MHz

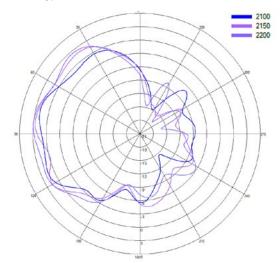




Typical H Plane- Cell E- Patterns- 1750-1850 MHz



Typical H Plane- Cell E- Patterns- 2100-2200 MHz



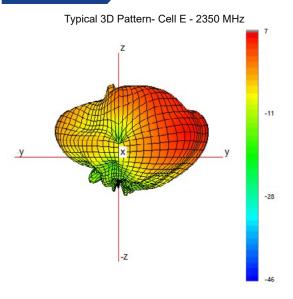
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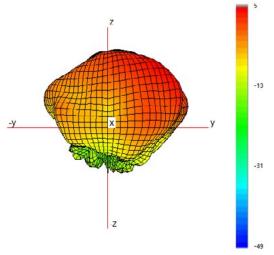
L[X]M[X]M8-6-60 09/08/2024 V3

Megalodon 4G/5G Antenna

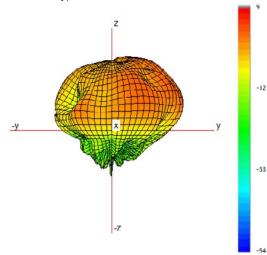
#### 3D Pattern Data on Ground Plane Cell E

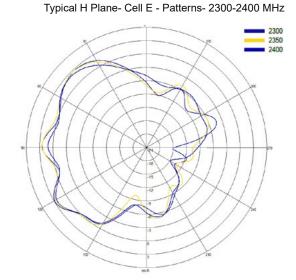


Typical 3D Pattern- Cell E - 2650 MHz

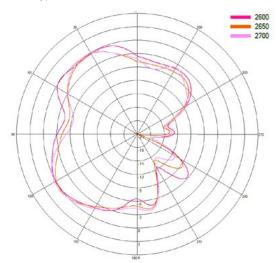


Typical 3D Pattern- Cell E - 3600 MHz

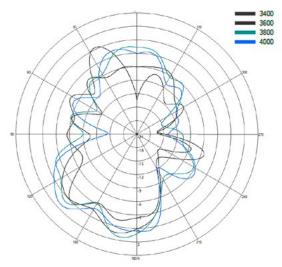




Typical H Plane- Cell E - Patterns- 2600-2700 MHz



Typical H Plane- Cell E - Patterns- 3400-4000 MHz



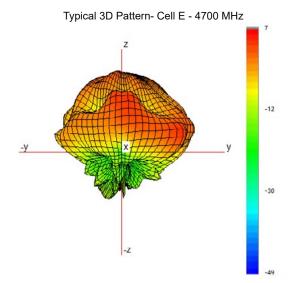
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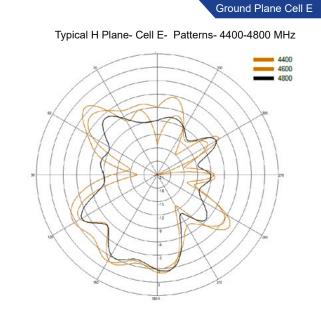
L[X]M[X]M8-6-60 09/08/2024 V3 Page 29

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3D Pattern Data on

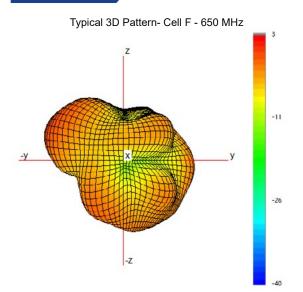
Megalodon 4G/5G Antenna



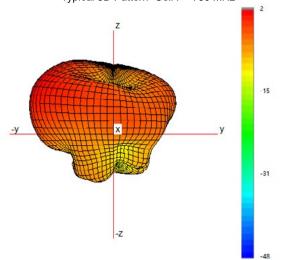


Megalodon 4G/5G Antenna

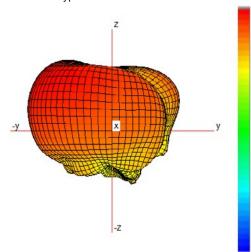
#### 3D Pattern Data on Ground Plane Cell F



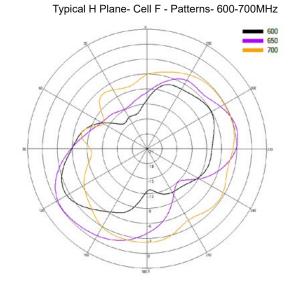
Typical 3D Pattern- Cell F - 750 MHz



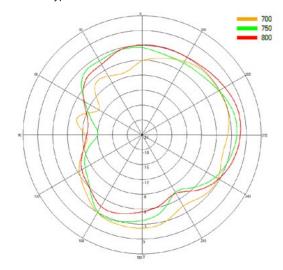
Typical 3D Pattern- Cell F - 850 MHz



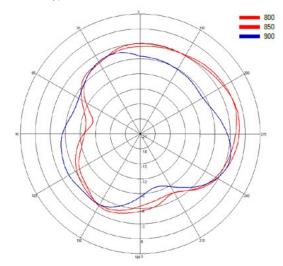
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Typical H Plane- Cell F - Patterns- 700-800MHz



Typical H Plane- Cell F- Patterns- 800-900MHz



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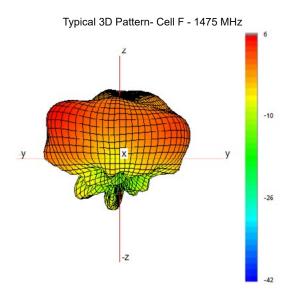
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-16

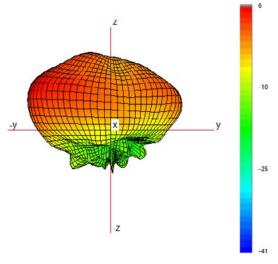
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3D Pattern Data on Ground Plane Cell F

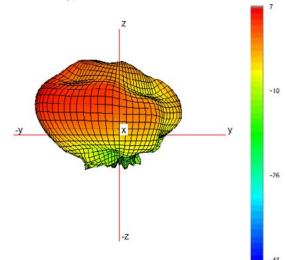
Megalodon 4G/5G Antenna



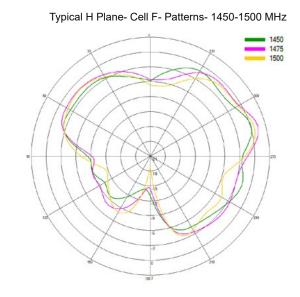
Typical 3D Pattern- Cell F- 1800 MHz



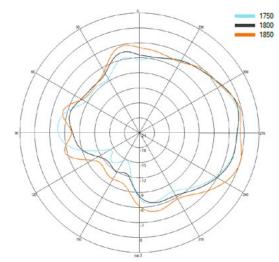
Typical 3D Pattern- Cell F - 2150 MHz



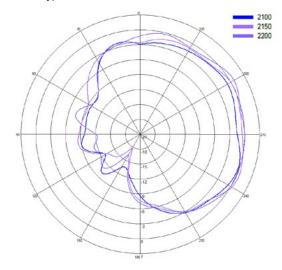
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Typical H Plane- Cell F- Patterns- 1750-1850 MHz



Typical H Plane- Cell F- Patterns- 2100-2200 MHz

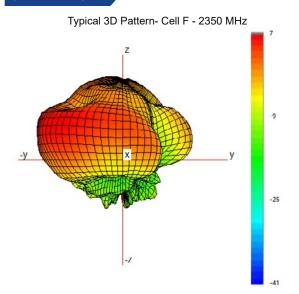


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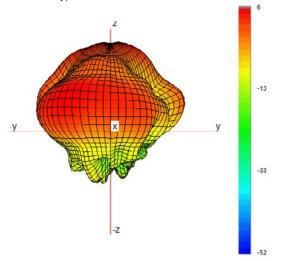
L[X]M[X]M8-6-60 09/08/2024 V3

Megalodon 4G/5G Antenna

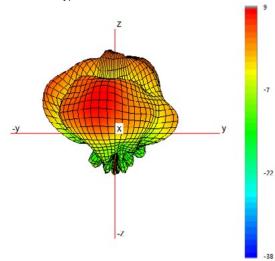
#### 3D Pattern Data on Ground Plane Cell F

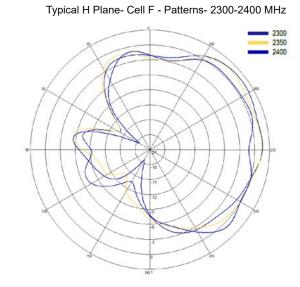


Typical 3D Pattern- Cell F - 2650 MHz

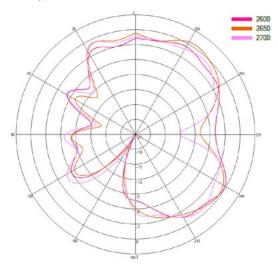


Typical 3D Pattern- Cell F - 3600 MHz

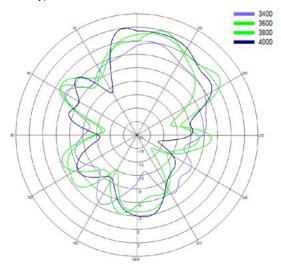




Typical H Plane- Cell F - Patterns- 2600-2700 MHz



Typical H Plane- Cell F - Patterns- 3400-4000 MHz



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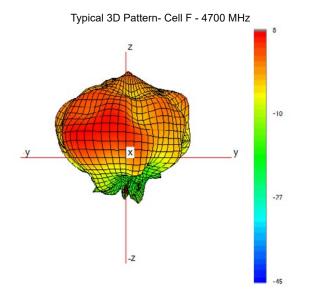
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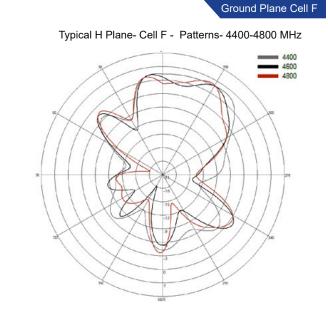
L[X]M[X]M8-6-60 09/08/2024 V3 Page 33

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3D Pattern Data on

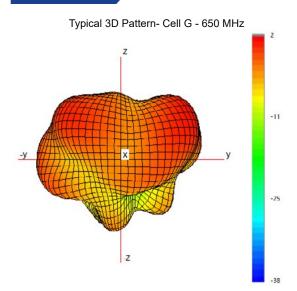
Megalodon 4G/5G Antenna



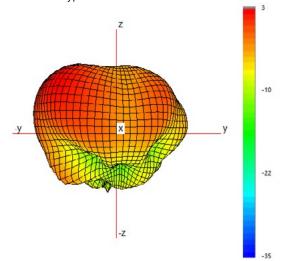


# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

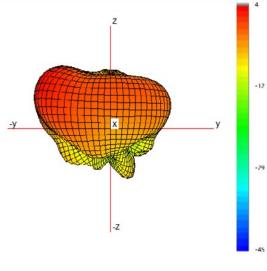
#### 3D Pattern Data on Ground Plane Cell G



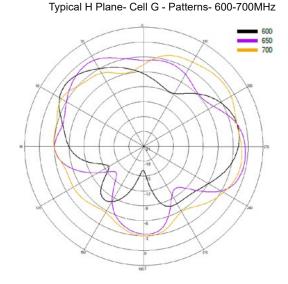
Typical 3D Pattern- Cell G - 750 MHz



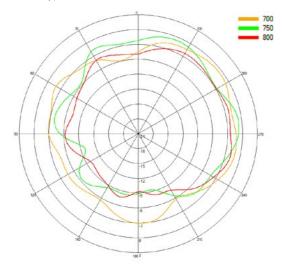
Typical 3D Pattern- Cell G - 850 MHz



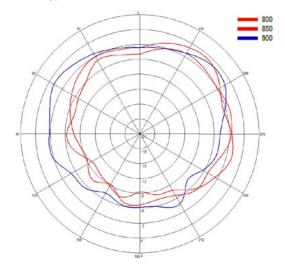
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Typical H Plane- Cell G - Patterns- 700-800MHz



Typical H Plane- Cell G- Patterns- 800-900MHz

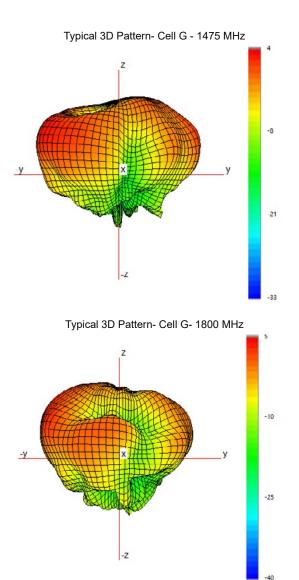


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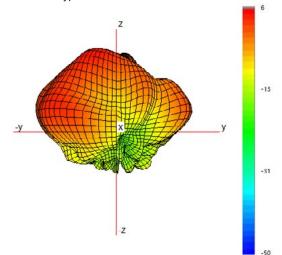
L[X]M[X]M8-6-60 09/08/2024 V3 Page 35

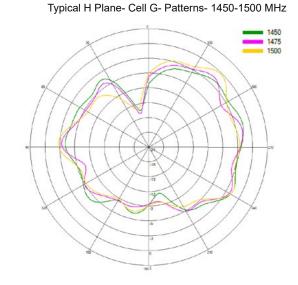
3D Pattern Data on Ground Plane Cell G

Megalodon 4G/5G Antenna

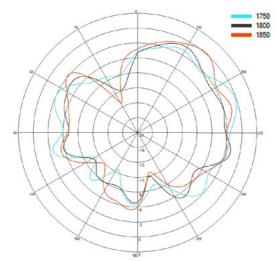


Typical 3D Pattern- Cell G - 2150 MHz

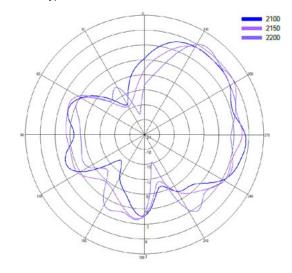




Typical H Plane- Cell G- Patterns- 1750-1850 MHz



Typical H Plane- Cell G- Patterns- 2100-2200 MHz



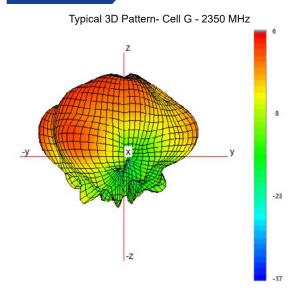
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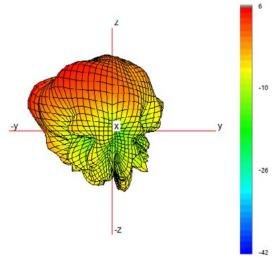
L[X]M[X]M8-6-60 09/08/2024 V3

Megalodon 4G/5G Antenna

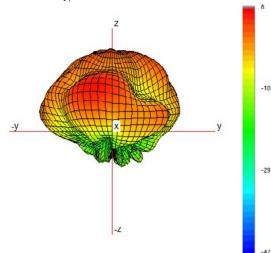
#### 3D Pattern Data on Ground Plane Cell G



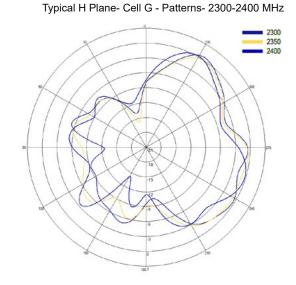
Typical 3D Pattern- Cell G - 2650 MHz



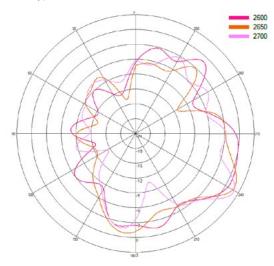
Typical 3D Pattern- Cell G - 3600 MHz



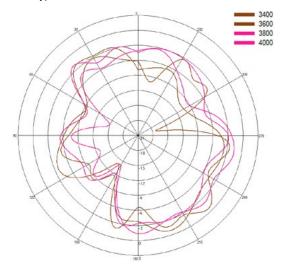
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Typical H Plane- Cell G - Patterns- 2600-2700 MHz



Typical H Plane- Cell G - Patterns- 3400-4000 MHz

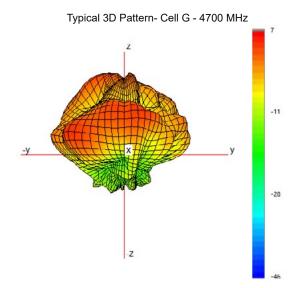


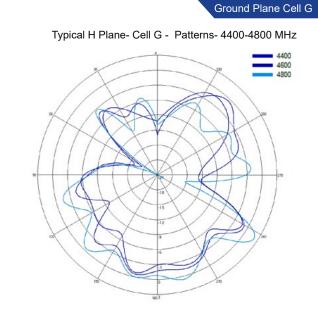
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3D Pattern Data on

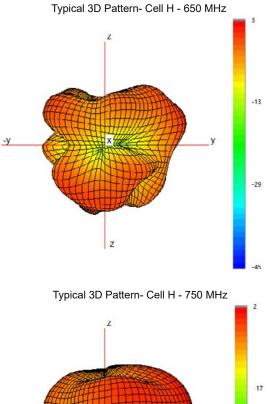
Megalodon 4G/5G Antenna

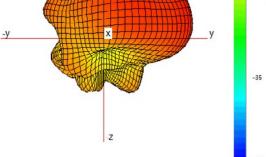




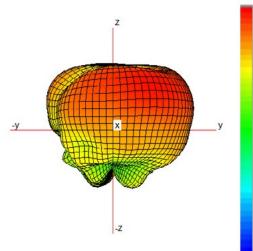
# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

#### 3D Pattern Data on Ground Plane Cell H

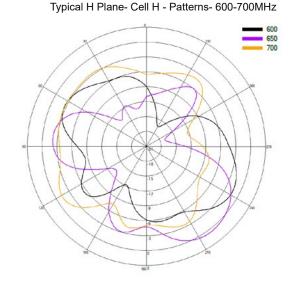




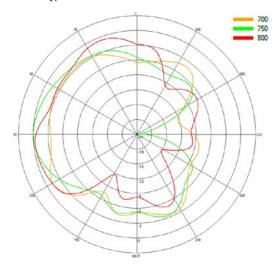
Typical 3D Pattern- Cell H - 850 MHz



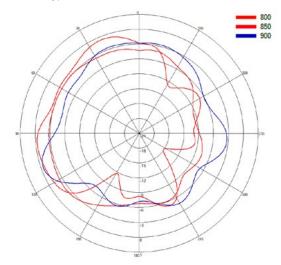
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Typical H Plane- Cell H - Patterns- 700-800MHz



Typical H Plane- Cell H- Patterns- 800-900MHz



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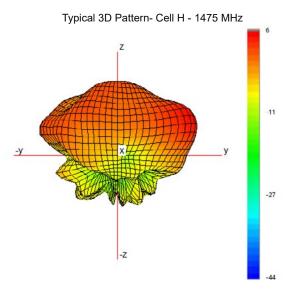
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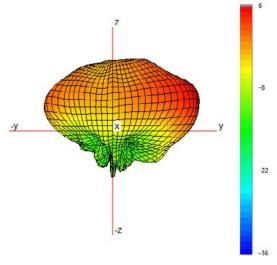
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3D Pattern Data on Ground Plane Cell H

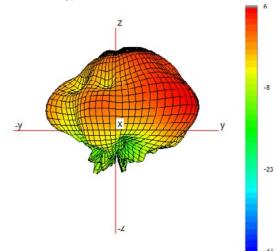
Megalodon 4G/5G Antenna

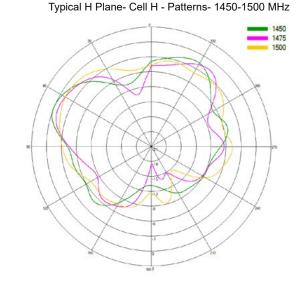


Typical 3D Pattern- Cell H- 1800 MHz

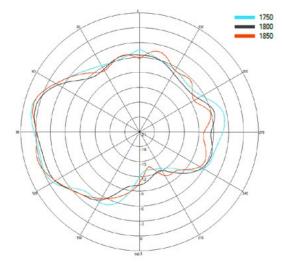


Typical 3D Pattern- Cell H - 2150 MHz

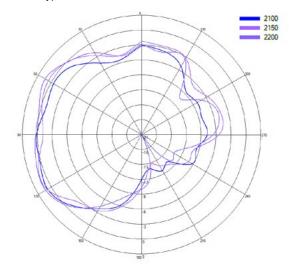




Typical H Plane- Cell H- Patterns- 1750-1850 MHz



Typical H Plane- Cell H- Patterns- 2100-2200 MHz



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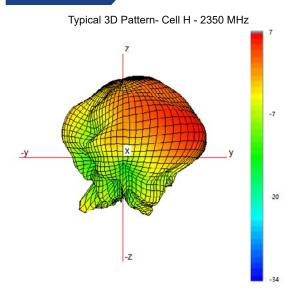
L[X]M[X]M8-6-60 09/08/2024 V3

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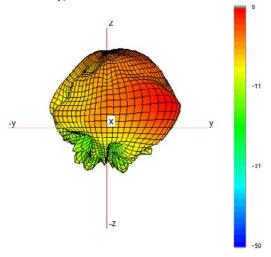
Page 40

Megalodon 4G/5G Antenna

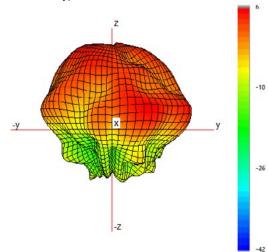
#### 3D Pattern Data on Ground Plane Cell H



Typical 3D Pattern- Cell H - 2650 MHz

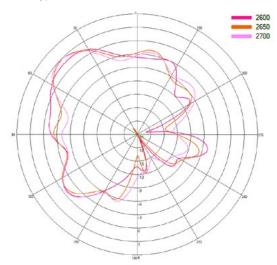


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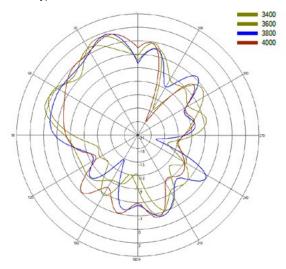


2300 2350 2400

Typical H Plane- Cell H - Patterns- 2600-2700 MHz



Typical H Plane- Cell H - Patterns- 3400-4000 MHz



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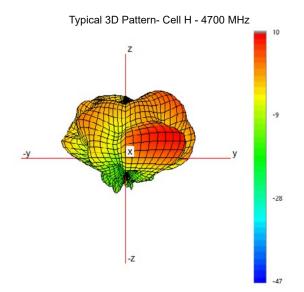
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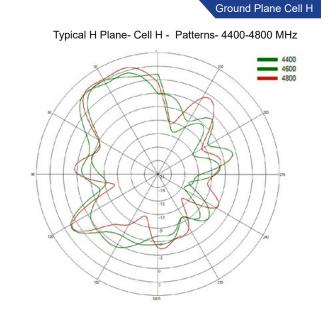
#### Typical H Plane- Cell H - Patterns- 2300-2400 MHz

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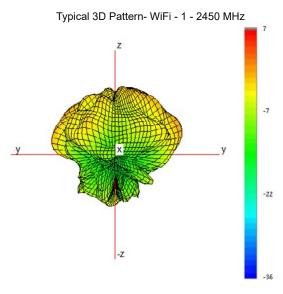
Megalodon 4G/5G Antenna



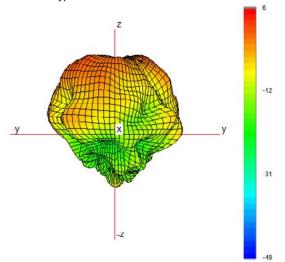


Megalodon 4G/5G Antenna

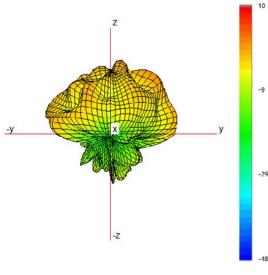
#### 3D Pattern Data on Ground Plane WIFI - 1



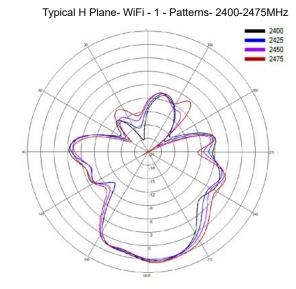
Typical 3D Pattern- WiFi - 1 - 5500 MHz



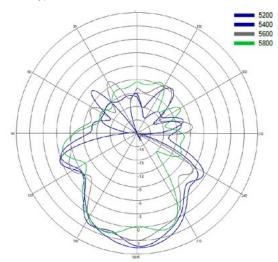
Typical 3D Pattern- WiFi - 1 - 6500 MHz



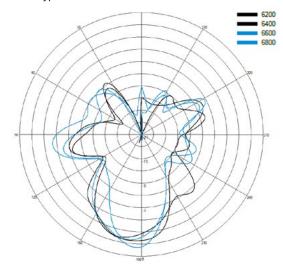
Panorama Antennas Ltd Frogmore, London, SW18 1HF, United Kingdom T: +44 (0)20 8877 4444 | F: +44 (0)20 8877 4477 E: sales@panorama-antennas.com W: www.panorama-antennas.com



Typical H Plane- WiFi - 1 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 1 - Patterns- 6200-6800MHz



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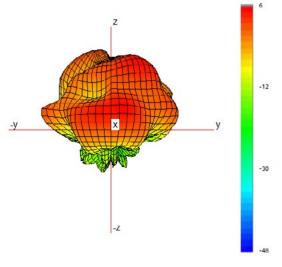
Typical H Plane- WiFi - 2 - Patterns- 2400-2475MHz

3D Pattern Data on Ground Plane WIFI- 2

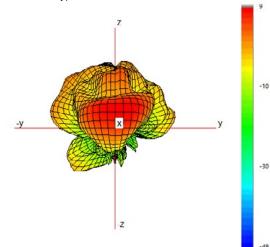
Megalodon 4G/5G Antenna

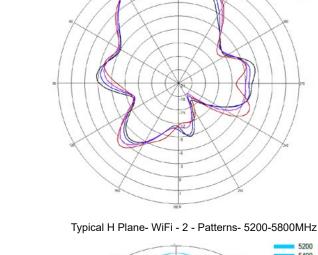
Typical 3D Pattern- WiFi - 2 - 2450 MHz y } -24 -7

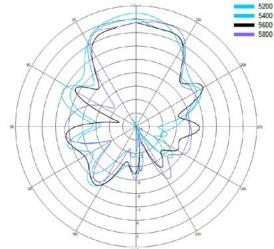
Typical 3D Pattern- WiFi - 2 - 5500 MHz



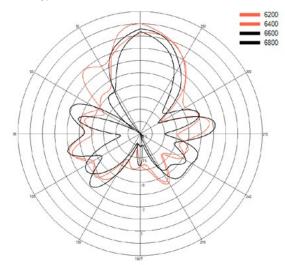
Typical 3D Pattern- WiFi - 2 - 6500 MHz







Typical H Plane- WiFi - 2 - Patterns- 6200-6800MHz

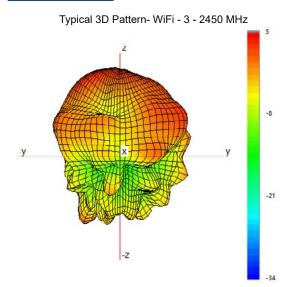


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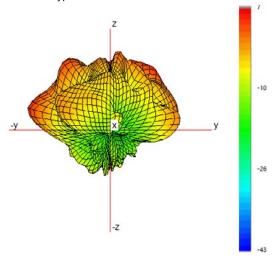
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# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

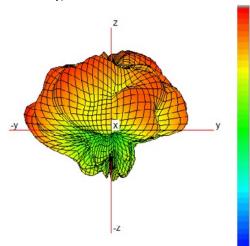
#### 3D Pattern Data on Ground Plane WIFI- 3



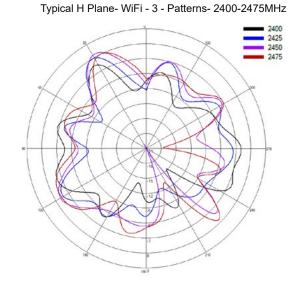
Typical 3D Pattern- WiFi - 3 - 5500 MHz



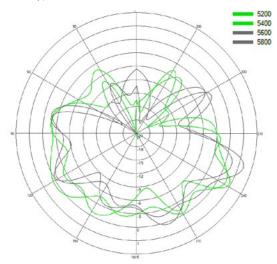
Typical 3D Pattern- WiFi - 3 - 6500 MHz



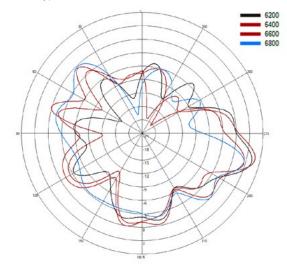
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Typical H Plane- WiFi - 3 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 3 - Patterns- 6200-6800MHz



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Typical H Plane- WiFi - 4 - Patterns- 2400-2475MHz

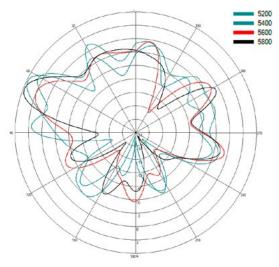
3D Pattern Data on Ground Plane WIFI- 4

Megalodon 4G/5G Antenna

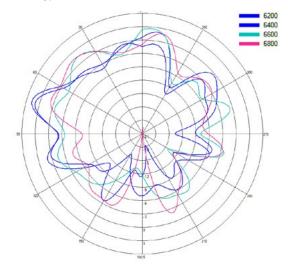
Typical 3D Pattern- WiFi - 4 - 2450 MHz -21 -Z - 22 Typical 3D Pattern- WiFi - 4 - 5500 MHz -14 -33 -53 Typical 3D Pattern- WiFi - 4 - 6500 MHz Z -13 X -32

2400 2425 2475

Typical H Plane- WiFi - 4 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 4 - Patterns- 6200-6800MHz

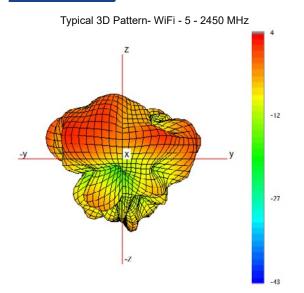


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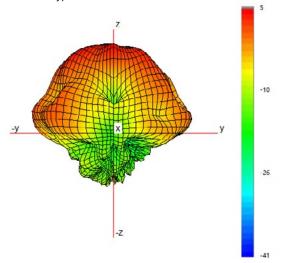
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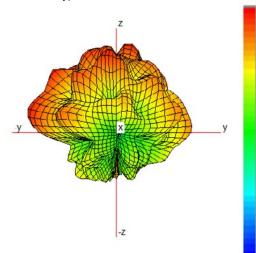
#### 3D Pattern Data on Ground Plane WIFI- 5



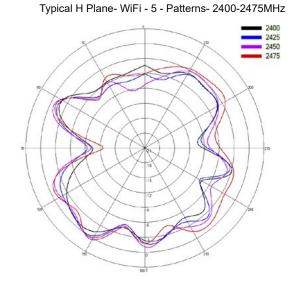
Typical 3D Pattern- WiFi - 5 - 5500 MHz



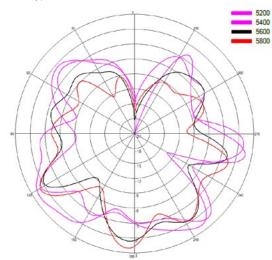
Typical 3D Pattern- WiFi - 5 - 6500 MHz



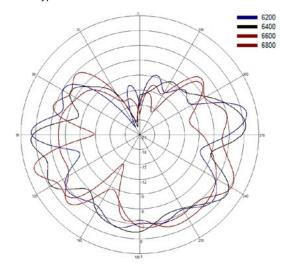
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Typical H Plane- WiFi - 5 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 5 - Patterns- 6200-6800MHz



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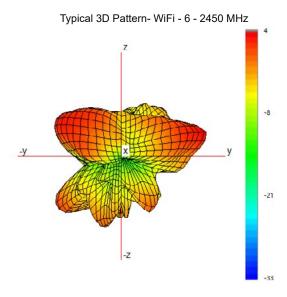
L[X]M[X]M8-6-60 09/08/2024 V3 Page 47

-22

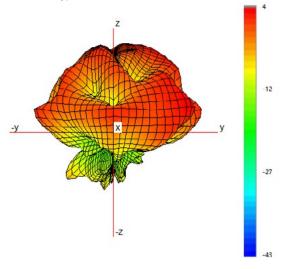
Typical H Plane- WiFi - 6 - Patterns- 2400-2475MHz

Megalodon 4G/5G Antenna

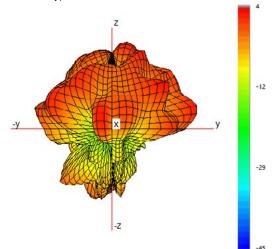
3D Pattern Data on Ground Plane WIFI -6



Typical 3D Pattern- WiFi - 6 - 5500 MHz

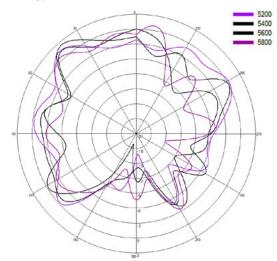


Typical 3D Pattern- WiFi - 6 - 6500 MHz

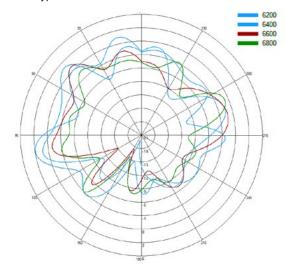


2400 2450 2475

Typical H Plane- WiFi - 6 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 6 - Patterns- 6200-6800MHz



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Megalodon 4G/5G Antenna

#### Electrical Data Cell -Free Space

Measurement Conditions	4G/5G Antennas					
LGMHM8-6-60 measured in free space with 0.5m (1.6') of CS30 Cable	Frequency Range (MHz)	LTE/NR Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)	
+		74 405	Cell A	2.3	59	
	617-698	71, 105	Cell B	1.4	42	
			Cell C	1.2	50	
			Cell D	0.9	36	
	699-798	12,13, 14 17,28	Cell A	2.3	63	
			Cell B	1.9	48	
			Cell C	1.5	49	
			Cell D	0.9	40	
	807-862	5,19,20,26,27	Cell A	3.3	59	
		0,10,20,20,2	Cell B	3.2	47	
			Cell C	2.0	50	
			Cell D	2.0	46	
	880-960	8	Cell A	3.1	64	
			Cell B	3.4	50	
			Cell C	1.8	56	
		44 04 74 75 70	Cell D	3.2	53	
	1427-1518	11, 21, 74,75,76	Cell A Cell B	3.2 4.4	60 60	
			Cell C	2.2	52	
			Cell D	2.4	49	
			Cell A	2.4	49 56	
	1710-1920	2,3,4,9,25,35,39,66	Cell B	3.9	56	
			Cell C	3.0	46	
			Cell D	3.9	50	
		1,23	Cell A	3.8	58	
	1920-2170		Cell B	4.5	61	
			Cell C	4.0	55	
			Cell D	4.4	62	
			Cell A	5.3	67	
	2300-2400	30,40	Cell B	5.2	68	
			Cell C	5.8	61	
			Cell D	5.2	68	
	2406 2600	7 20 44	Cell A	4.5	61	
	2496-2690	7,38,41	Cell B	5.6	61	
			Cell C	4.6	48	
			Cell D	5.1	61	
	3300-4200	22,42,43,48,77,78	Cell A	6.2	60	
			Cell B	7.1	53	
			Cell C	6.4	50	
			Cell D	7.2	64	
	4400-5000	79	Cell A	5.7	54	
			Cell B	7.5	49	
			Cell C	5.5	50	
			Cell D	7.6	61	

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Megalodon 4G/5G Antenna

4G/5G Antennas **Measurement Conditions** LGMHM8-6-60 measured in free space with 0.5m (1.6') of Efficiency (%) Frequency Range (MHz) CS30 Cable Cell E 1.6 47 617-698 71, 105 Cell F 0.9 36 Cell G 1.7 47 Cell H 2.0 39 Cell E 2.3 54 699-798 12,13, 14 17,28 Cell F 0.9 41 Cell G 50 0.9 Cell H 1.8 40 Cell E 2.3 52 5,19,20,26,27 807-862 Cell F 1.2 44 Cell G 0.9 49 Cell H 22 44 Cell E 1.7 56 880-960 8 Cell F 48 2.8 Cell G 1.3 55 Cell H 3.2 52 11, 21, 74,75,76 Cell E 56 3.5 1427-1518 Cell F 3.4 59 Cell G 1.8 53 Cell H 49 2.3 Cell E 55 3.2 1710-1920 2,3,4,9,25,35,39,66 Cell F 3.5 55 Cell G 3.1 48 Cell H 3.3 49 Cell E 4.9 57 1920-2170 1.23 Cell F 4.0 59 Cell G 3.6 55 Cell H 60 4.4 Cell E 6.4 69 2300-2400 30.40 Cell F 5.3 67 Cell G 5.4 58 Cell H 6.2 64 Cell E 5.2 64 2496-2690 7,38,41 Cell F 60 5.3 Cell G 4.2 48 Cell H 60 5.6 Cell E 6.1 57 3300-4200 22,42,43,48,77,78 Cell F 6.9 53 Cell G 6.3 51 Cell H 7.4 61 Cell E 6.4 51 4400-5000 79 Cell F 6.6 45 Cell G 5.2 49 Cell H 8.2 58

L[X]M[X]M8-6-60 09/08/2024 V3 Page 50

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Electrical Data Cell -Free Space

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Megalodon 4G/5G Antenna

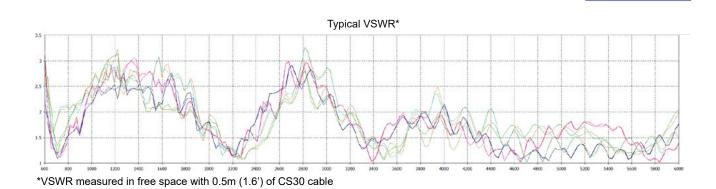
#### Electrical Data WiFi -Free Space

Measurement Conditions	WiFi Antennas					
LGMHM8-6-60 measured in free space with 0.5m (1.6') of CS30 Cable	Frequency Range (MHz)	WiFi Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)	
4	2396-2485	2.4GHz	WiFi 1	4.7	56	
	2390-2485	2.4GHZ	WiFi 2	5.3	59	
			WiFi 3	5.4	50	
			WiFi 4	6.1	49	
	5150-5250	UNII-1	WiFi 1	5.7	44	
			WiFi 2	6.0	43	
			WiFi 3	6.0	50	
			WiFi 4	5.9	51	
and the second s	5250-5350	UNII-2A	WiFi 1	5.7	43	
			WiFi 2	5.9	42	
			WiFi 3	5.9	48	
			WiFi 4	5.7	49	
TETAS S	5350-5470	UNII-2B	WiFi 1	6.0	41	
THE MAN			WiFi 2	5.3	41	
			WiFi 3	5.5	47	
			WiFi 4	5.7	48	
MARKA MARKA	5470-5725	UNII-2C	WiFi 1	6.0	41	
			WiFi 2	6.2	42	
			WiFi 3	5.1	43	
	5725-5850	UNII-3	WiFi 4	4.7	42	
			WiFi 1	6.0	42	
			WiFi 2	6.1	43 42	
			WiFi 3 WiFi 4	4.5 4.7	42	
			WiFi 4	5.4	42	
	5850-5925	UNII-4	WiFi 2	6.1	41	
			WiFi 2 WiFi 3	4.5	42	
			WiFi 4	3.9	42	
		UNII-5	WiFi 1	6.7	44	
	5925-6425		WiFi 2	6.8	43	
			WiFi 3	5.8	48	
			WiFi 4	6.3	48	
			WiFi 1	6.4	44	
	6425-6525	UNII-6	WiFi 2	6.9	43	
			WiFi 3	5.6	49	
			WiFi 4	5.8	49	
	6525-6875	UNII-7	WiFi 1	7.2	42	
			WiFi 2	7.3	39	
			WiFi 3	6.2	47	
			WiFi 4	5.0	47	
	6875-7125	UNII-8	WiFi 1	6.8	44	
			WiFi 2	5.8	39	
			WiFi 3	4.2	42	
			WiFi 4	4.6	44	
			*****	7.0	17	

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### Megalodon 4G/5G Antenna

				'	ree Space		
Measurement Conditions	WiFi Antennas						
LGMHM8-6-60 measured in free space with 0.5m (1.6') of CS30 Cable	Frequency Range (MHz)	WiFi Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)		
	2396-2485	2.4GHz	WiFi 5	3.6	41		
			WiFi 6	3.1	38		
	5150-5250	UNII-1	WiFi 5	5.6	50		
			WiFi 6	6.5	49		
	5250-5350	UNII-2A	WiFi 5	5.0	49		
			WiFi 6	6.0	47		
	5350-5470		WiFi 5	5.1	47		
		UNII-2B	WiFi 6	5.3	46		
	5470-5725		WiFi 5	4.7	43		
		UNII-2C	WiFi 6	4.7	41		
	5725-5850	UNII-3	WiFi 5	4.8	40		
			WiFi 6	4.5	38		
	5850-5925	UNII-4	WiFi 5	4.6	38		
			WiFi 6	4.2	37		
	5925-6425	UNII-5	WiFi 5	5.1	43		
			WiFi 6	4.5	42		
	6425-6525	UNII-6	WiFi 5	5.1	45		
			WiFi 6	3.5	43		
	6525-6875	UNII-7	WiFi 5	4.9	42		
			WiFi 6	3.5	41		
	6875-7125	UNII-8	WiFi 5	4.6	44		
			WiFi 6	3.6	41		



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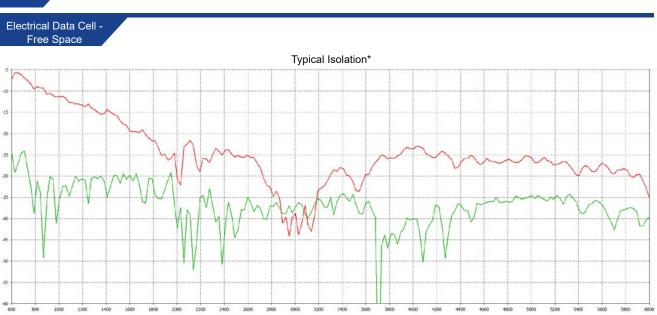
Electrical Data Cell -Free Space

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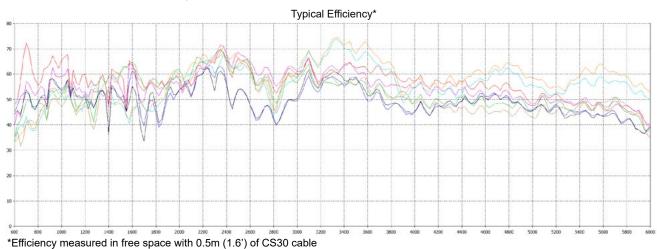
Electrical Data WiFi -

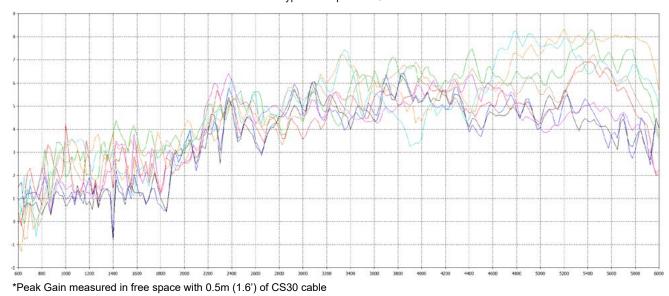
# **8x8 MiMo 4G/5G Dome Combination Antenna Range** Megalodon 4G/5G Antenna

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\*Isolation measured in free space with 0.5m (1.6') of CS30 cable . Green trace = best case isolation between element pairs. Red trace worst case isolation between element pairs.



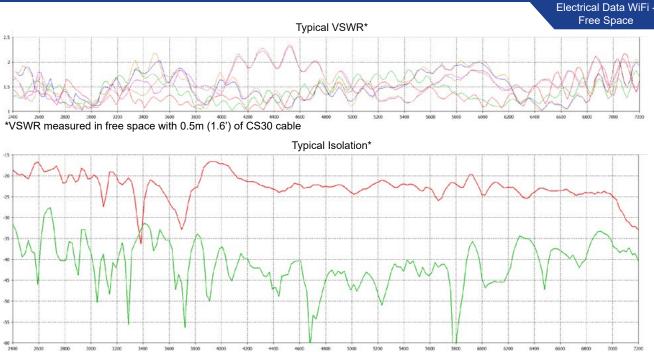


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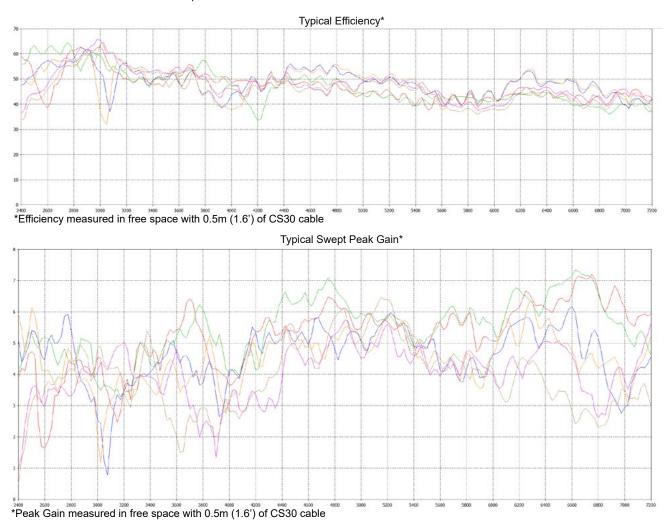
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Megalodon 4G/5G Antenna



\*Isolation measured in free space with 0.5m (1.6') of CS30 cable . Green trace = best case isolation between element pairs. Red trace worst case isolation between element pairs.



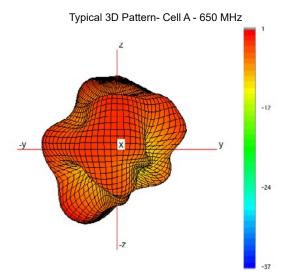
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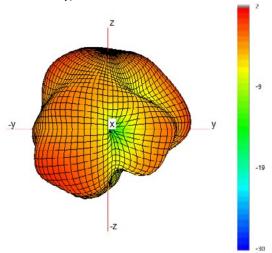
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Megalodon 4G/5G Antenna

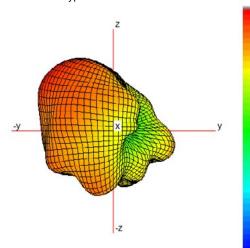
#### 3D Pattern Data in Free Space Cell A



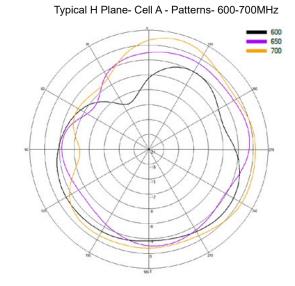
Typical 3D Pattern- Cell A - 750 MHz



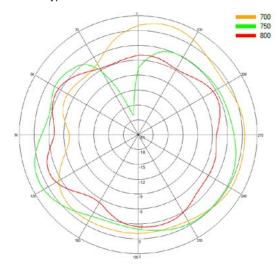
Typical 3D Pattern- Cell A - 850 MHz



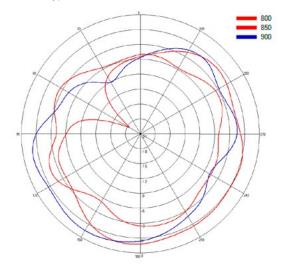




Typical H Plane- Cell A - Patterns- 700-800MHz



Typical H Plane- Cell A - Patterns- 800-900MHz



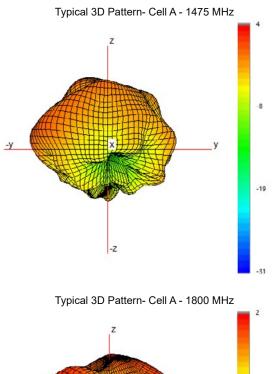
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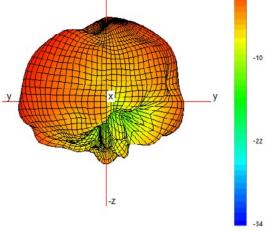
L[X]M[X]M8-6-60 09/08/2024 V3 Page 55

-21

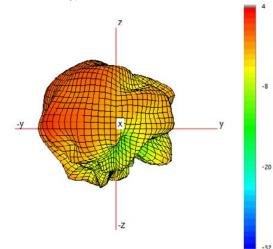
3D Pattern Data in Free Space Cell A

Megalodon 4G/5G Antenna

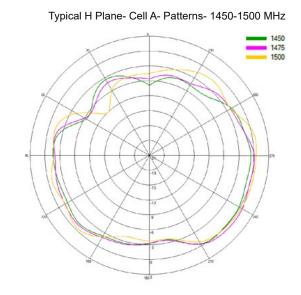




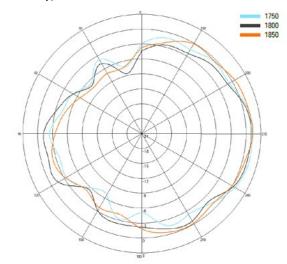
Typical 3D Pattern- Cell A - 2150 MHz



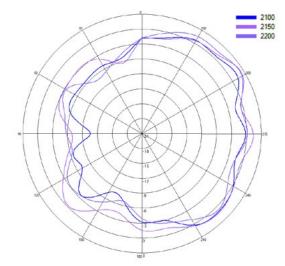




Typical H Plane- Cell A- Patterns- 1750-1850 MHz



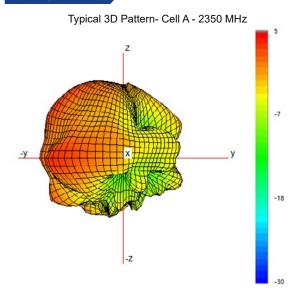
Typical H Plane- Cell A- Patterns- 2100-2200 MHz



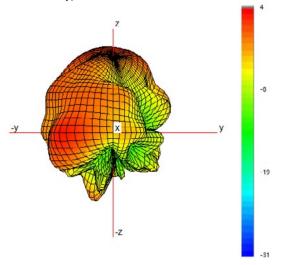
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Megalodon 4G/5G Antenna

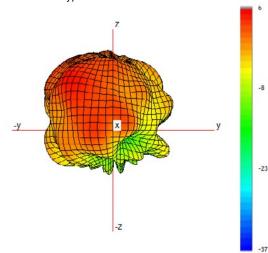
#### 3D Pattern Data in Free Space Cell A



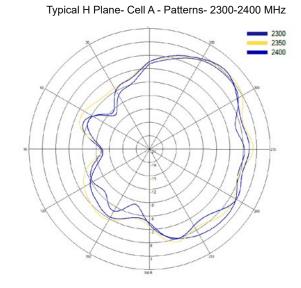
Typical 3D Pattern- Cell A - 2650 MHz



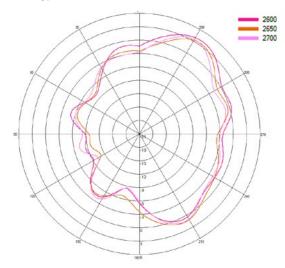
Typical 3D Pattern- Cell A - 3600 MHz



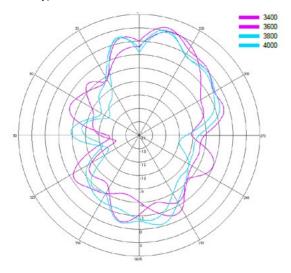
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Typical H Plane- Cell A - Patterns- 2600-2700 MHz



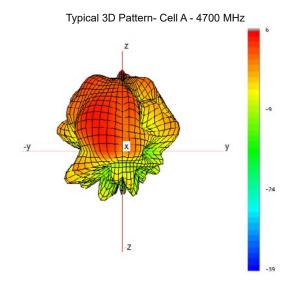
Typical H Plane- Cell A - Patterns- 3400-4000 MHz

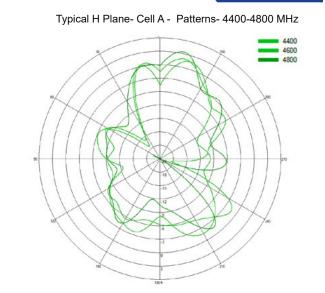


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3D Pattern Data in Free Space Cell A

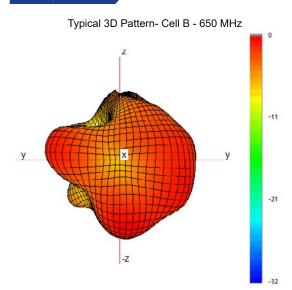
Megalodon 4G/5G Antenna



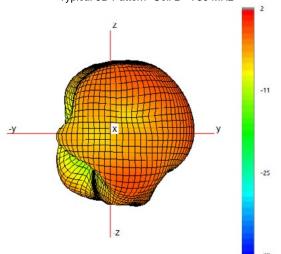


# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

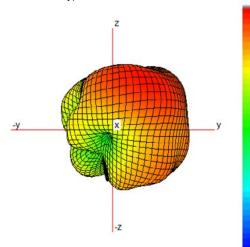
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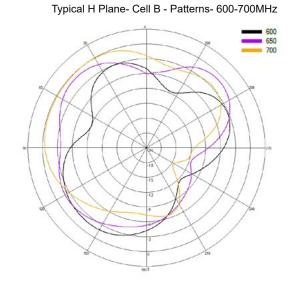
Typical 3D Pattern- Cell B - 750 MHz



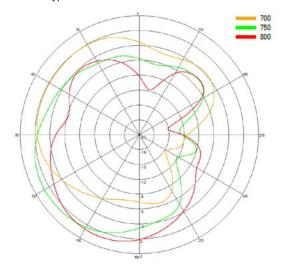
Typical 3D Pattern- Cell B - 850 MHz



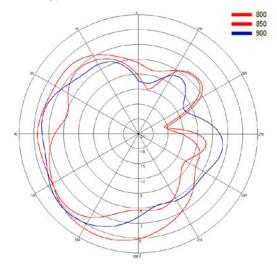
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Typical H Plane- Cell B - Patterns- 700-800MHz



Typical H Plane- Cell B - Patterns- 800-900MHz



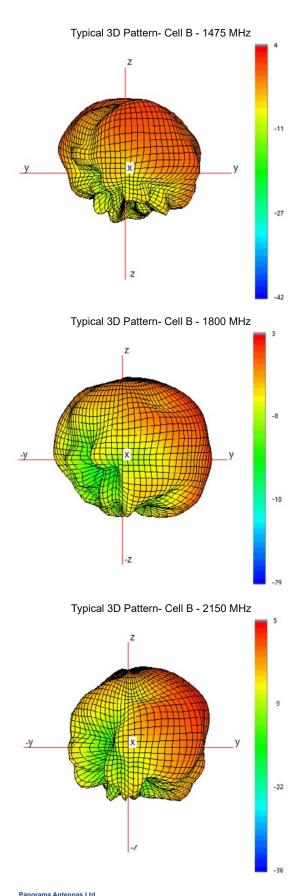
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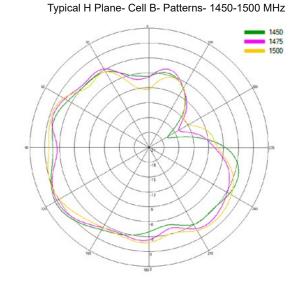
L[X]M[X]M8-6-60 09/08/2024 V3 Page 59

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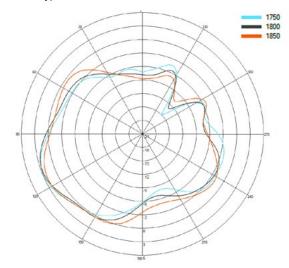
3D Pattern Data in Free Space Cell B

Megalodon 4G/5G Antenna

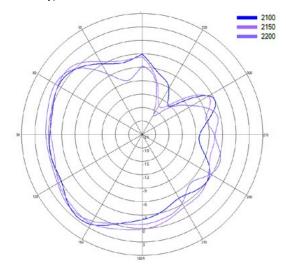




Typical H Plane- Cell B- Patterns- 1750-1850 MHz



Typical H Plane- Cell B- Patterns- 2100-2200 MHz

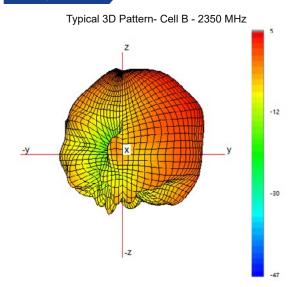


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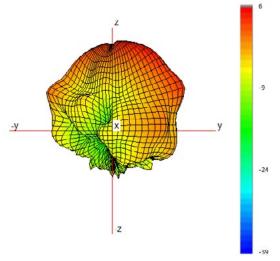
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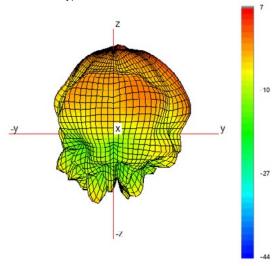
#### 3D Pattern Data in Free Space Cell B

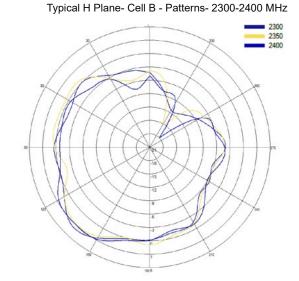


Typical 3D Pattern- Cell B - 2650 MHz

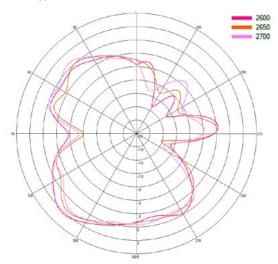


Typical 3D Pattern- Cell B - 3600 MHz

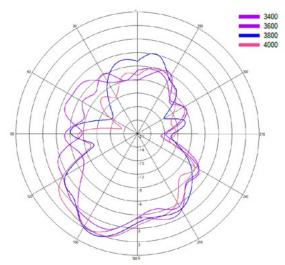




Typical H Plane- Cell B - Patterns- 2600-2700 MHz



Typical H Plane- Cell B - Patterns- 3400-4000 MHz



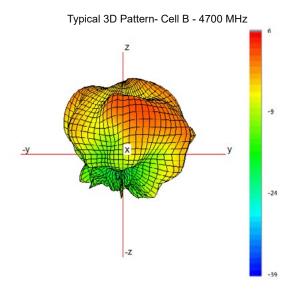
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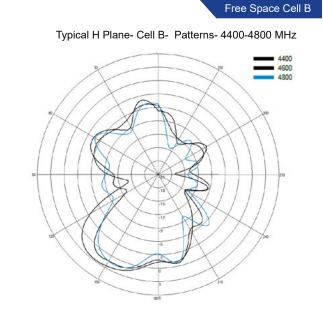
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3D Pattern Data in

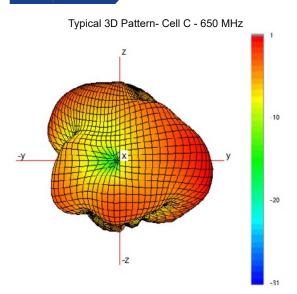
Megalodon 4G/5G Antenna



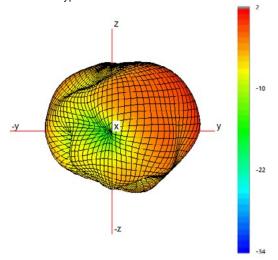


# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

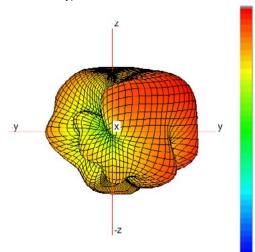
#### 3D Pattern Data in Free Space Cell C



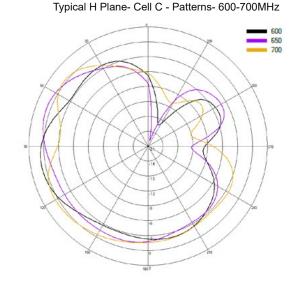
Typical 3D Pattern- Cell C - 750 MHz



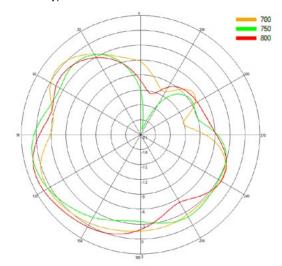
Typical 3D Pattern- Cell C - 850 MHz



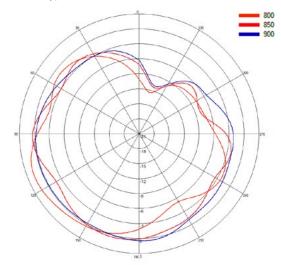




Typical H Plane- Cell C - Patterns- 700-800MHz



Typical H Plane- Cell C - Patterns- 800-900MHz



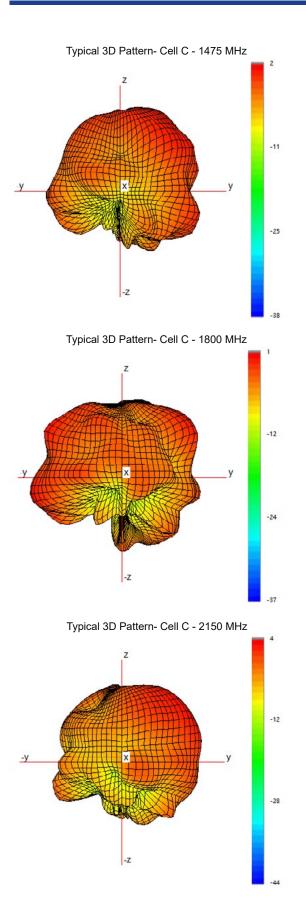
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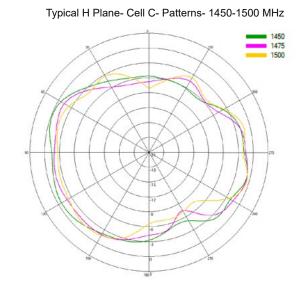
L[X]M[X]M8-6-60 09/08/2024 V3 Page 63

-21

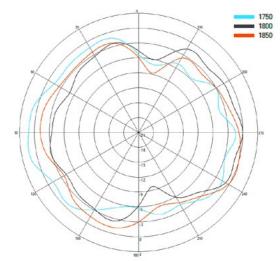
3D Pattern Data in Free Space Cell C

Megalodon 4G/5G Antenna

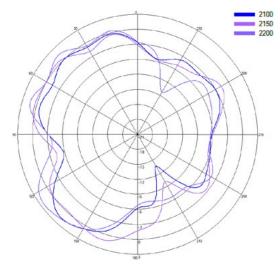




Typical H Plane- Cell C- Patterns- 1750-1850 MHz



Typical H Plane- Cell C- Patterns- 2100-2200 MHz



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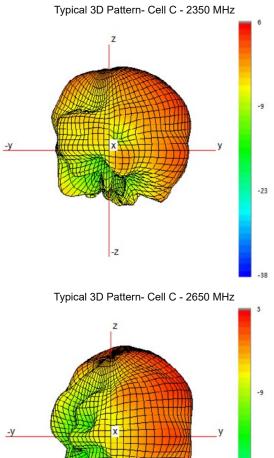
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Typical H Plane- Cell C - Patterns- 2300-2400 MHz

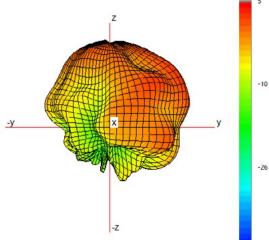
Megalodon 4G/5G Antenna

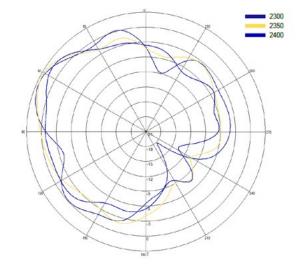
#### 3D Pattern Data in Free Space Cell C



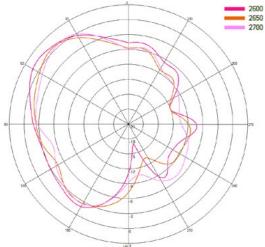
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Typical 3D Pattern- Cell C - 3600 MHz

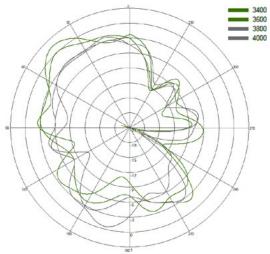




Typical H Plane- Cell C - Patterns- 2600-2700 MHz



Typical H Plane- Cell C - Patterns- 3400-4000 MHz



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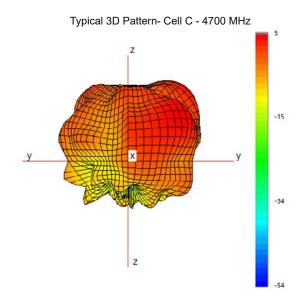
L[X]M[X]M8-6-60 09/08/2024 V3 Page 65

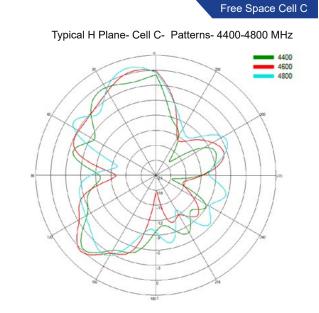
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3D Pattern Data in

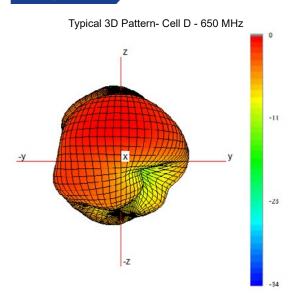
Megalodon 4G/5G Antenna



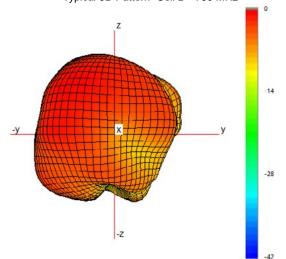


# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

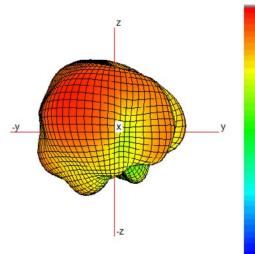
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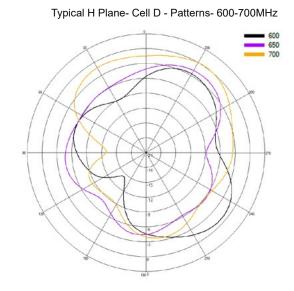
Typical 3D Pattern- Cell D - 750 MHz



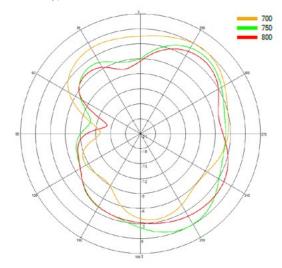
Typical 3D Pattern- Cell D - 850 MHz



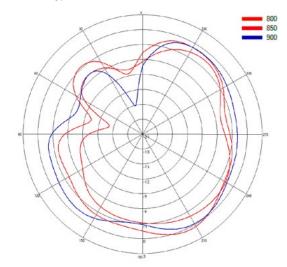
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Typical H Plane- Cell D - Patterns- 700-800MHz



Typical H Plane- Cell D- Patterns- 800-900MHz



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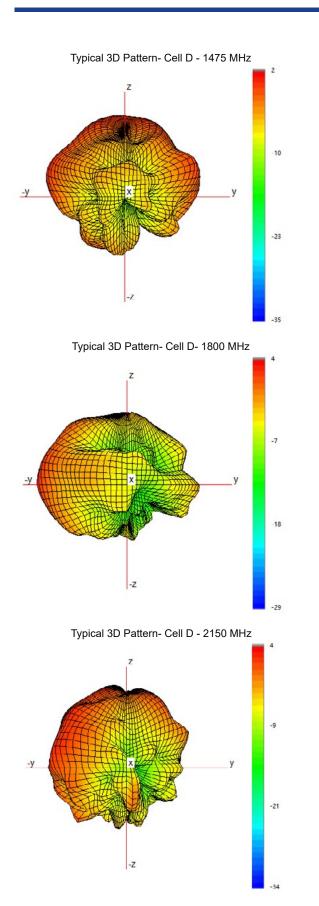
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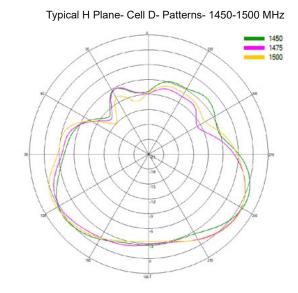
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3D Pattern Data in Free Space Cell D

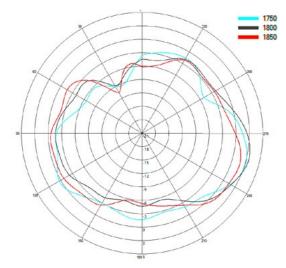
Megalodon 4G/5G Antenna



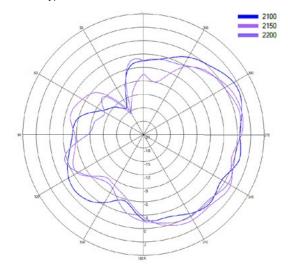
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Typical H Plane- Cell D- Patterns- 1750-1850 MHz



Typical H Plane- Cell D- Patterns- 2100-2200 MHz

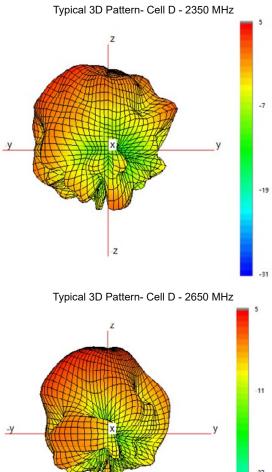


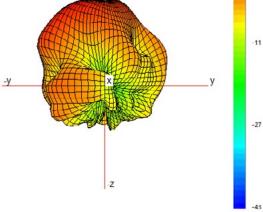
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Typical H Plane- Cell D - Patterns- 2300-2400 MHz

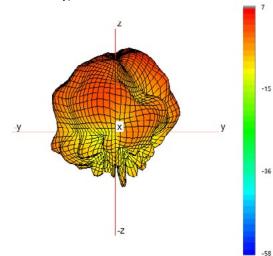
Megalodon 4G/5G Antenna

#### 3D Pattern Data in Free Space Cell D



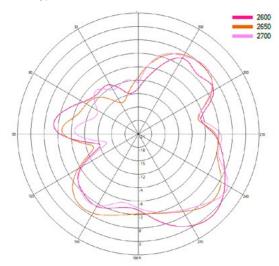


Typical 3D Pattern- Cell D - 3600 MHz

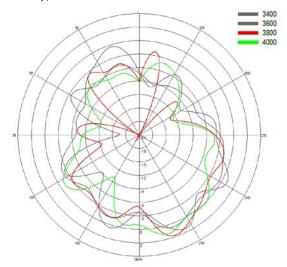


2300 2350 2400

Typical H Plane- Cell D - Patterns- 2600-2700 MHz



Typical H Plane- Cell D - Patterns- 3400-4000 MHz



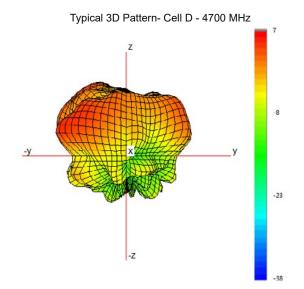
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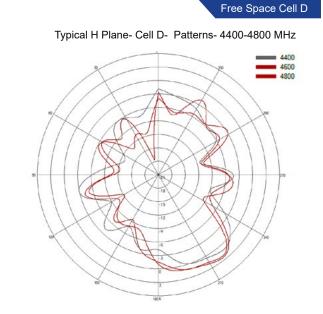
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3D Pattern Data in

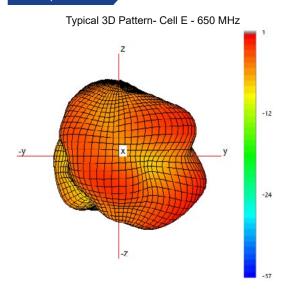
Megalodon 4G/5G Antenna



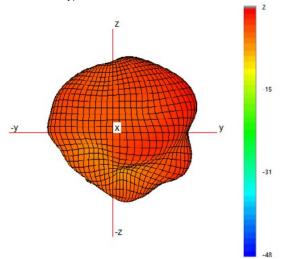


# **8x8 MiMo 4G/5G Dome Combination Antenna Range**PANORAMA A ANTENNAS Megalodon 4G/5G Antenna

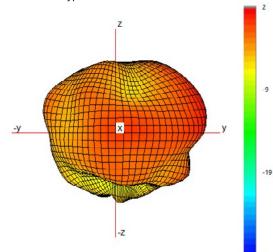
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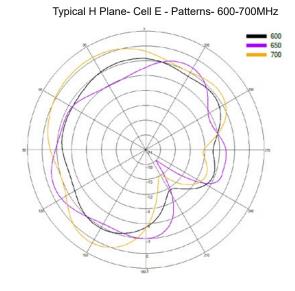
Typical 3D Pattern- Cell E - 750 MHz



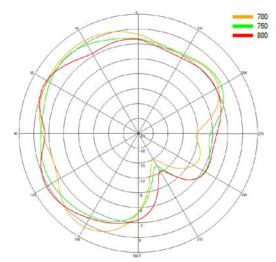
Typical 3D Pattern- Cell E - 850 MHz



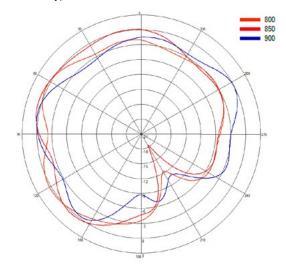




Typical H Plane- Cell E - Patterns- 700-800MHz



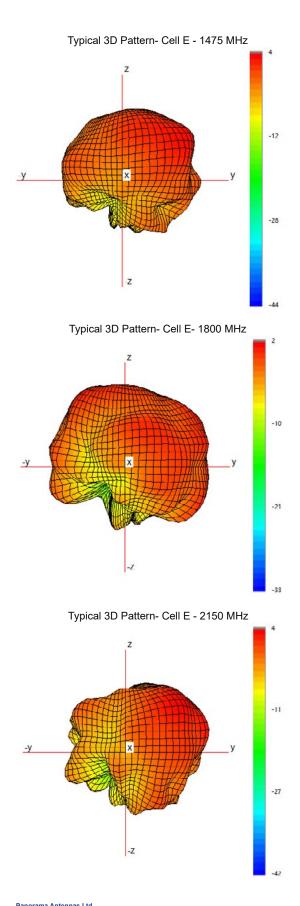
Typical H Plane- Cell E- Patterns- 800-900MHz

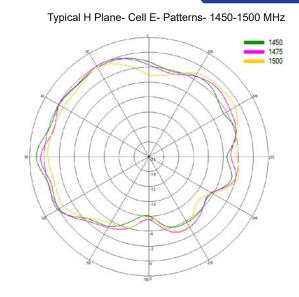


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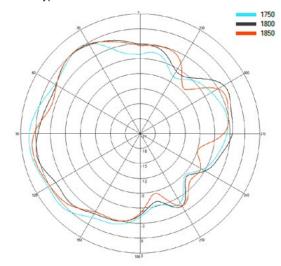
3D Pattern Data in Free Space Cell E

Megalodon 4G/5G Antenna

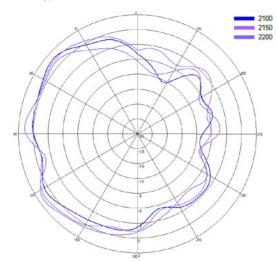




Typical H Plane- Cell E- Patterns- 1750-1850 MHz



Typical H Plane- Cell E- Patterns- 2100-2200 MHz

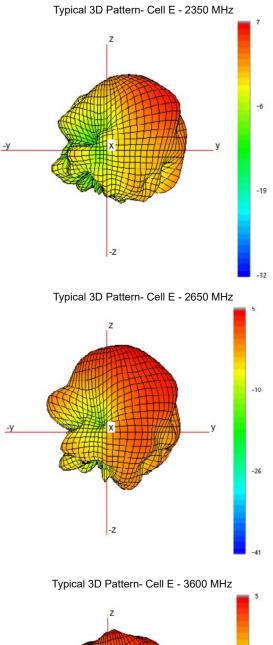


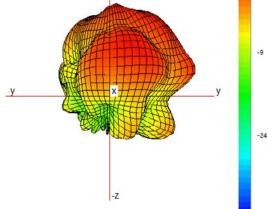
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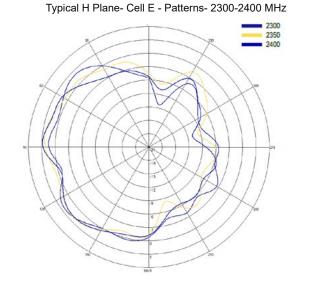
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Megalodon 4G/5G Antenna

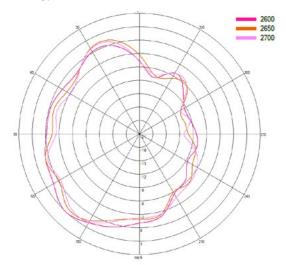
### 3D Pattern Data in Free Space Cell E



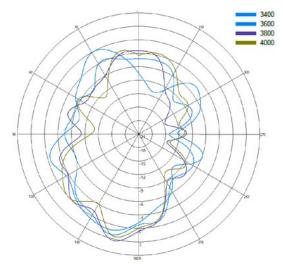




Typical H Plane- Cell E - Patterns- 2600-2700 MHz



Typical H Plane- Cell E - Patterns- 3400-4000 MHz



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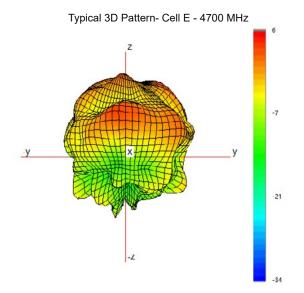
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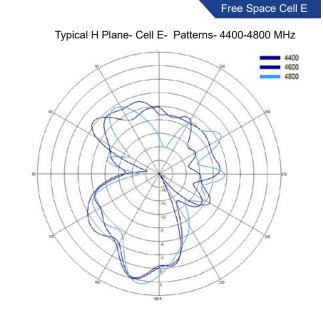
### 8x8 MiMo 4G/5G Dome Combination Antenna Range

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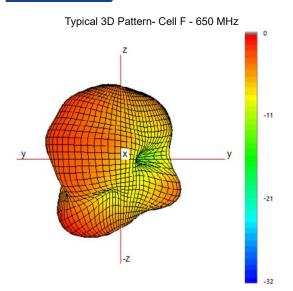
3D Pattern Data in

Megalodon 4G/5G Antenna

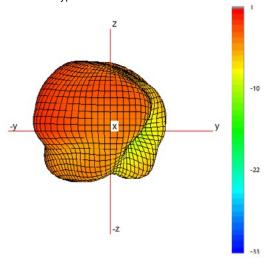




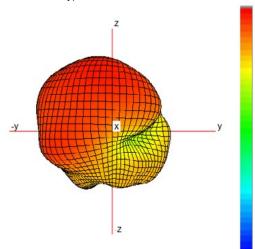
### 3D Pattern Data in Free Space Cell F



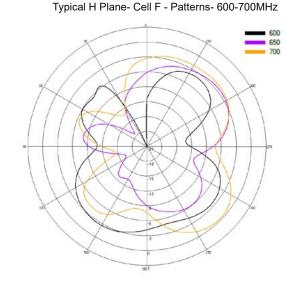
Typical 3D Pattern- Cell F - 750 MHz



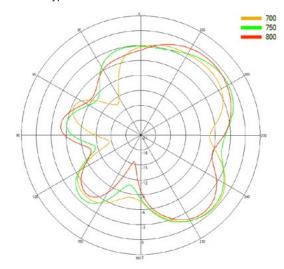
Typical 3D Pattern- Cell F - 850 MHz



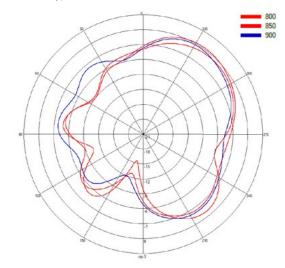
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Typical H Plane- Cell F - Patterns- 700-800MHz



Typical H Plane- Cell F- Patterns- 800-900MHz



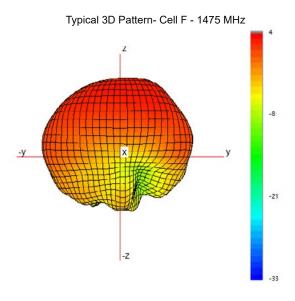
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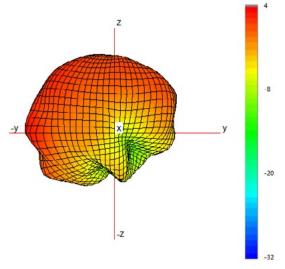
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3D Pattern Data in Free Space Cell F

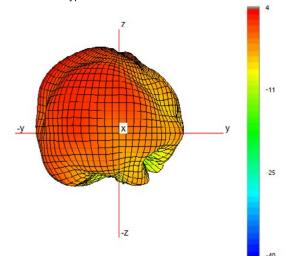
Megalodon 4G/5G Antenna

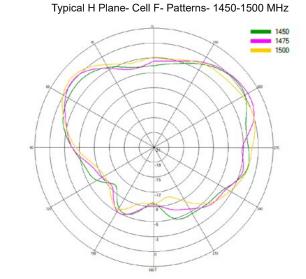


Typical 3D Pattern- Cell F- 1800 MHz

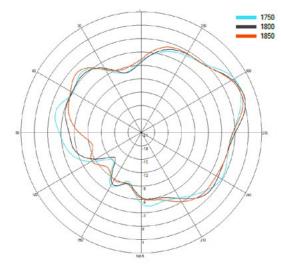


Typical 3D Pattern- Cell F - 2150 MHz

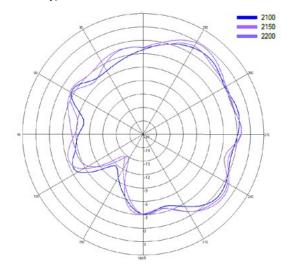




Typical H Plane- Cell F- Patterns- 1750-1850 MHz



Typical H Plane- Cell F- Patterns- 2100-2200 MHz



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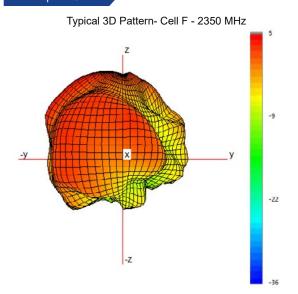
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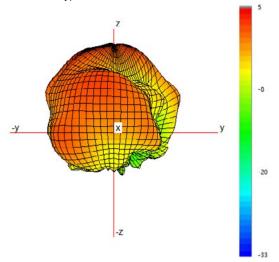
Typical H Plane- Cell F - Patterns- 2300-2400 MHz

Megalodon 4G/5G Antenna

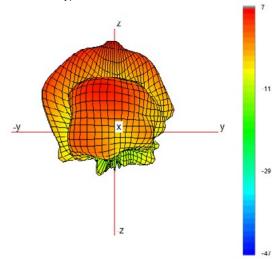
### 3D Pattern Data in Free Space Cell F



Typical 3D Pattern- Cell F - 2650 MHz

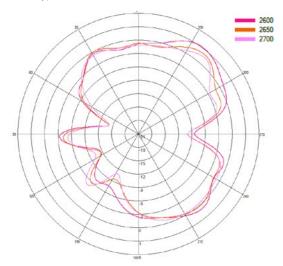


Typical 3D Pattern- Cell F - 3600 MHz

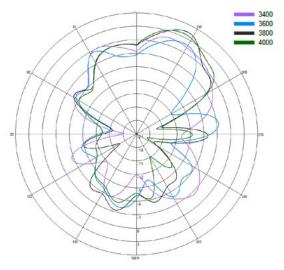


2300 2350 2400

Typical H Plane- Cell F - Patterns- 2600-2700 MHz



Typical H Plane- Cell F - Patterns- 3400-4000 MHz



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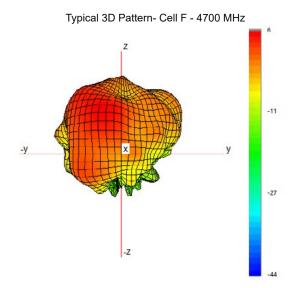
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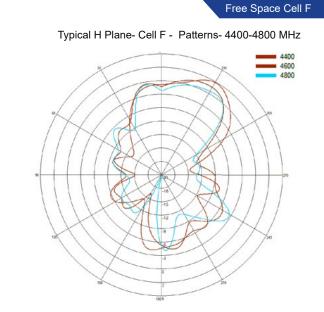
### 8x8 MiMo 4G/5G Dome Combination Antenna Range

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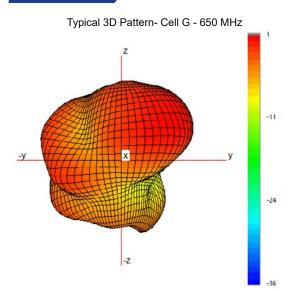
3D Pattern Data in

Megalodon 4G/5G Antenna

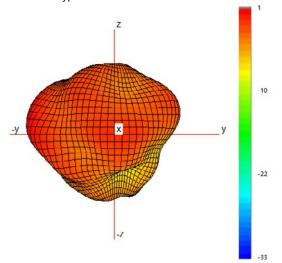




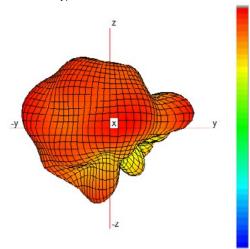
### 3D Pattern Data in Free Space Cell G



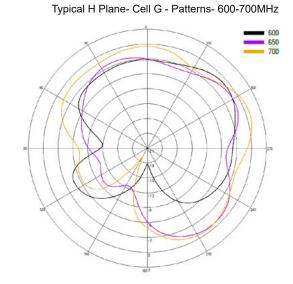
Typical 3D Pattern- Cell G - 750 MHz



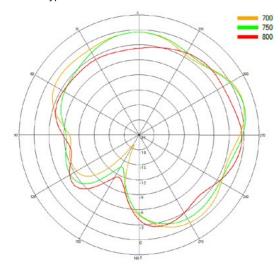
Typical 3D Pattern- Cell G - 850 MHz



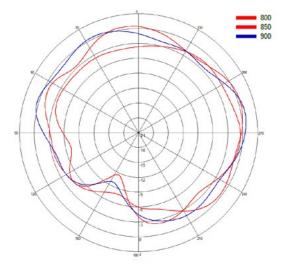




Typical H Plane- Cell G - Patterns- 700-800MHz



Typical H Plane- Cell G- Patterns- 800-900MHz

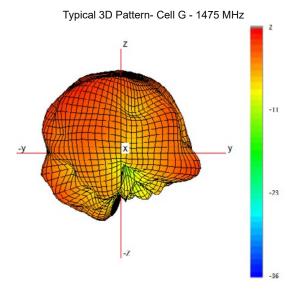


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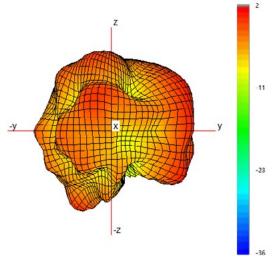
L[X]M[X]M8-6-60 09/08/2024 V3 Page 79

3D Pattern Data in Free Space Cell G

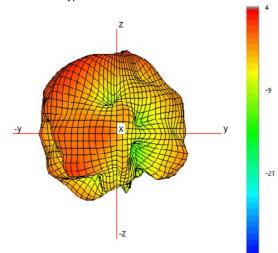
Megalodon 4G/5G Antenna



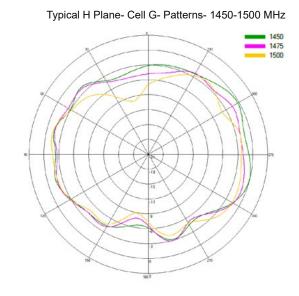
Typical 3D Pattern- Cell G- 1800 MHz



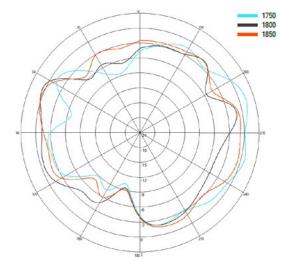
Typical 3D Pattern- Cell G - 2150 MHz



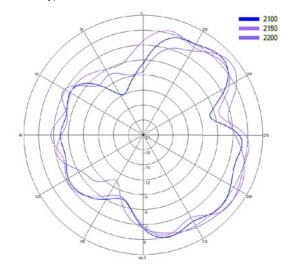
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Typical H Plane- Cell G- Patterns- 1750-1850 MHz



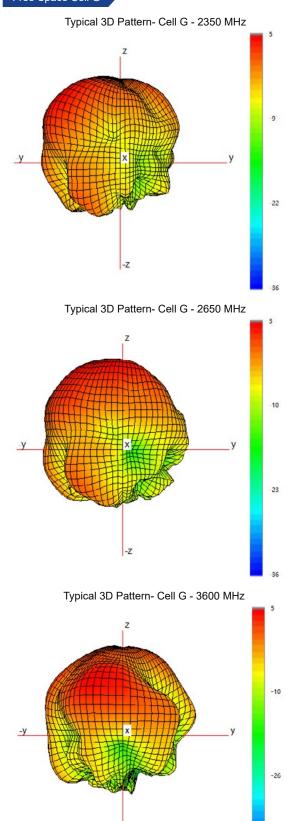
Typical H Plane- Cell G- Patterns- 2100-2200 MHz



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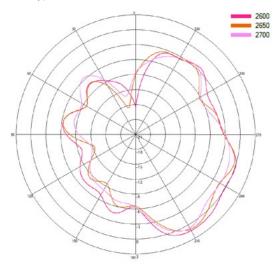
Megalodon 4G/5G Antenna

### 3D Pattern Data in Free Space Cell G

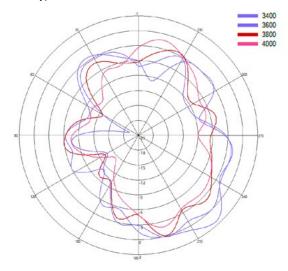


Typical H Plane- Cell G - Patterns- 2300-2400 MHz 2300 2350 2400

Typical H Plane- Cell G - Patterns- 2600-2700 MHz



Typical H Plane- Cell G - Patterns- 3400-4000 MHz



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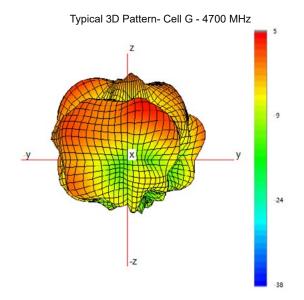
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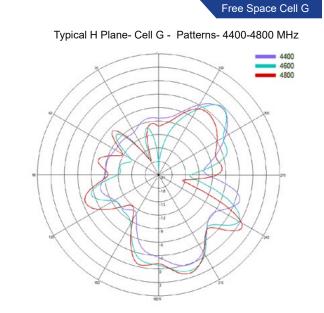
### 8x8 MiMo 4G/5G Dome Combination Antenna Range

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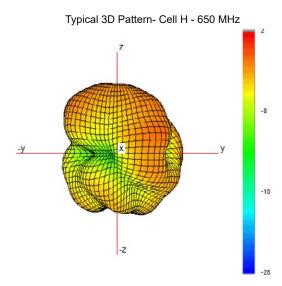
3D Pattern Data in

Megalodon 4G/5G Antenna

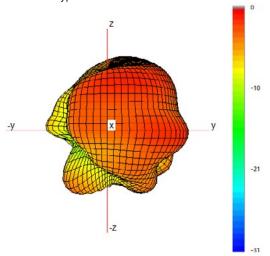




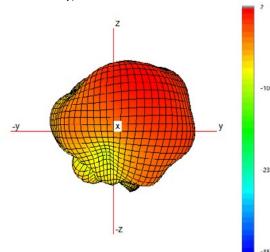
### 3D Pattern Data in Free Space Cell H



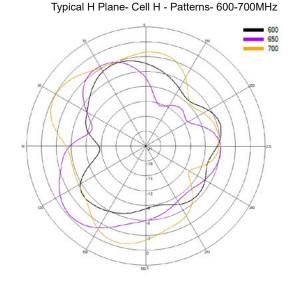
Typical 3D Pattern- Cell H - 750 MHz



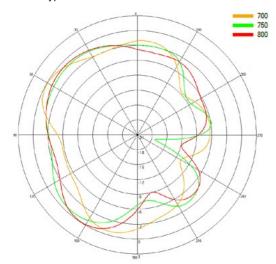
Typical 3D Pattern- Cell H - 850 MHz



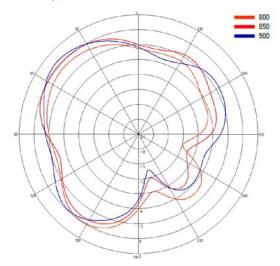
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Typical H Plane- Cell H - Patterns- 700-800MHz



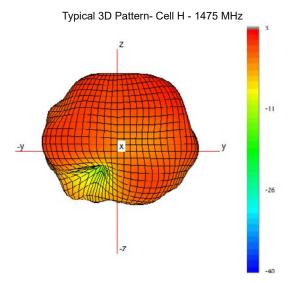
Typical H Plane- Cell H- Patterns- 800-900MHz



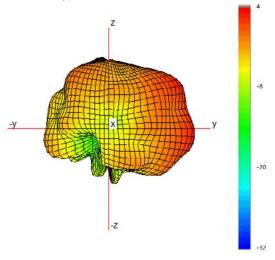
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3D Pattern Data in Free Space Cell H

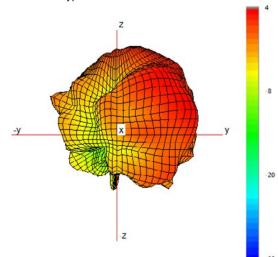
Megalodon 4G/5G Antenna



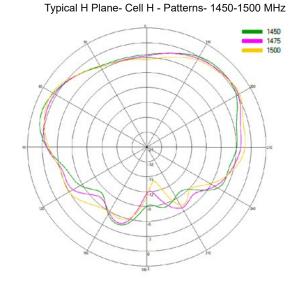
Typical 3D Pattern- Cell H- 1800 MHz



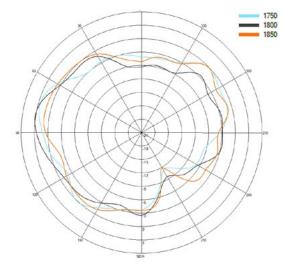
Typical 3D Pattern- Cell H - 2150 MHz



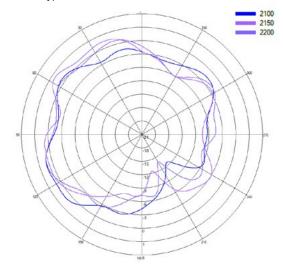
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Typical H Plane- Cell H- Patterns- 1750-1850 MHz



Typical H Plane- Cell H- Patterns- 2100-2200 MHz

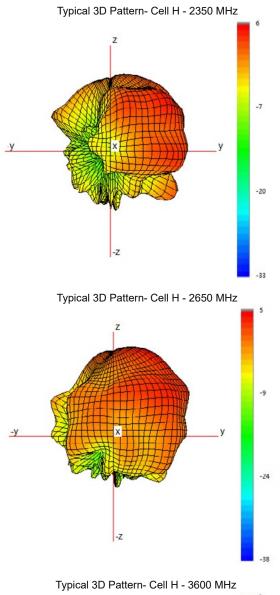


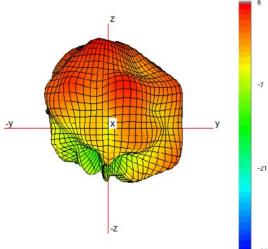
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Typical H Plane- Cell H - Patterns- 2300-2400 MHz

Megalodon 4G/5G Antenna

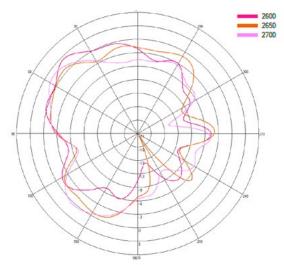
### 3D Pattern Data in Free Space Cell H



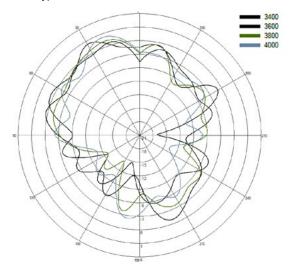


2300 2350 2400

Typical H Plane- Cell H - Patterns- 2600-2700 MHz



Typical H Plane- Cell H - Patterns- 3400-4000 MHz

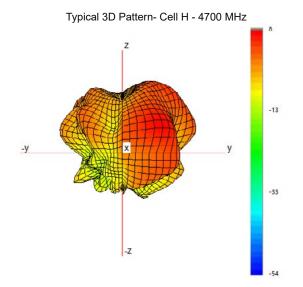


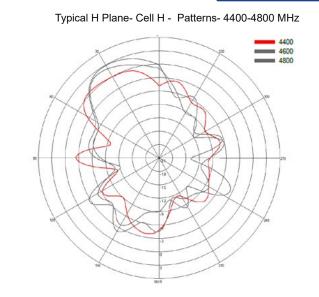
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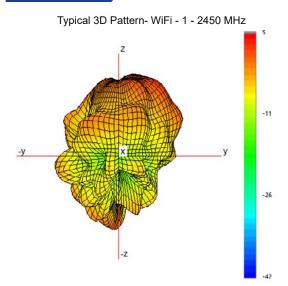
3D Pattern Data in Free Space Cell H

Megalodon 4G/5G Antenna

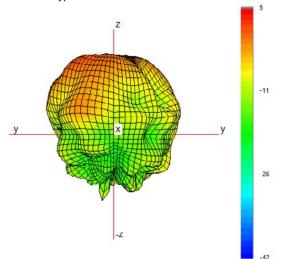




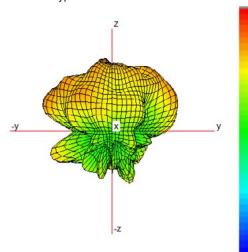
### 3D Pattern Data in Free Space WIFI - 1



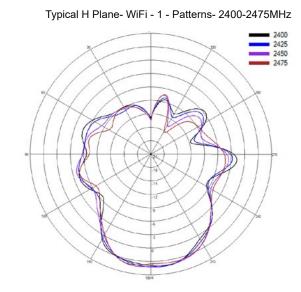
Typical 3D Pattern- WiFi - 1 - 5500 MHz



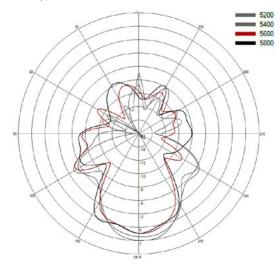
Typical 3D Pattern- WiFi - 1 - 6500 MHz



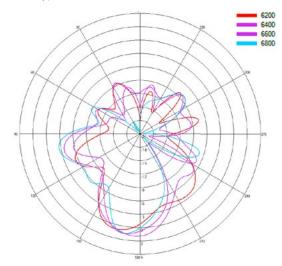




Typical H Plane- WiFi - 1 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 1 - Patterns- 6200-6800MHz



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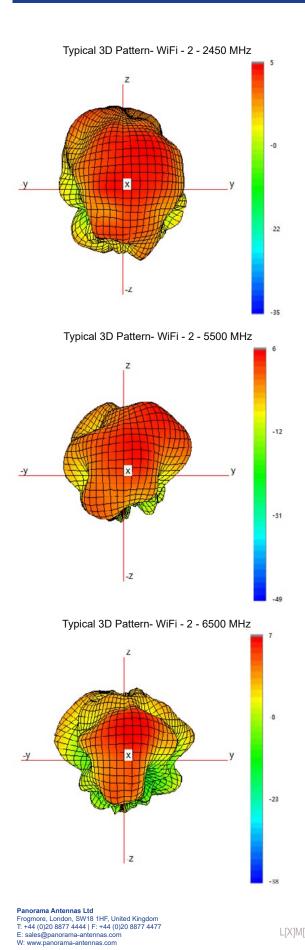
L[X]M[X]M8-6-60 09/08/2024 V3 Page 87

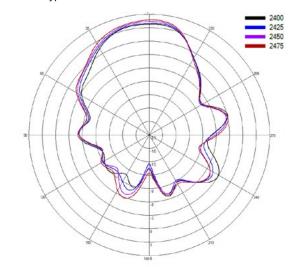
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Typical H Plane- WiFi - 2 - Patterns- 2400-2475MHz

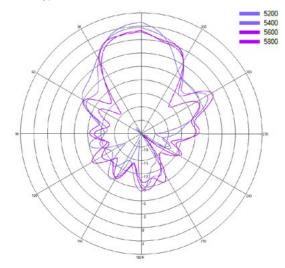
3D Pattern Data in Free Space WIFI - 2

Megalodon 4G/5G Antenna

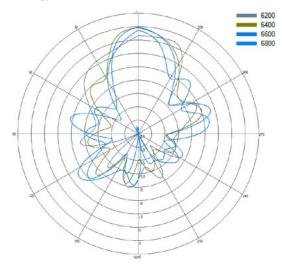




Typical H Plane- WiFi - 2 - Patterns- 5200-5800MHz

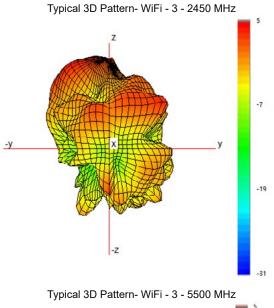


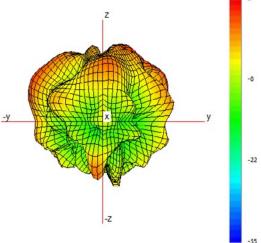
Typical H Plane- WiFi - 2 - Patterns- 6200-6800MHz



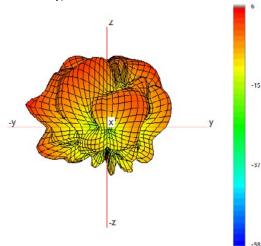
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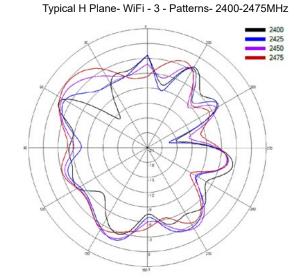
### 3D Pattern Data in Free Space WIFI - 3



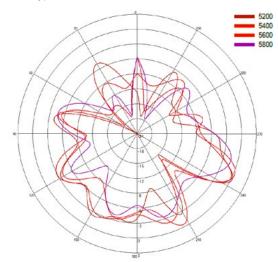


Typical 3D Pattern- WiFi - 3 - 6500 MHz

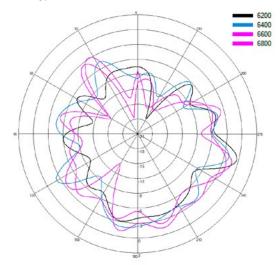




Typical H Plane- WiFi - 3 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 3 - Patterns- 6200-6800MHz



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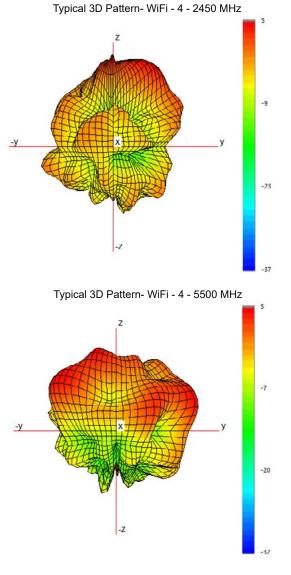
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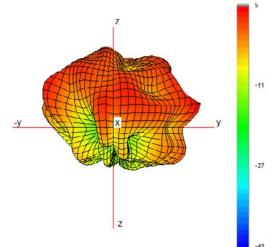
Page 89

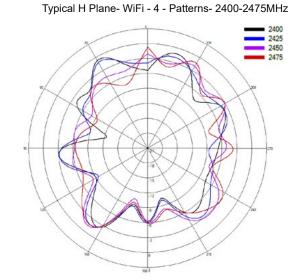
Megalodon 4G/5G Antenna

3D Pattern Data in Free Space WIFI - 4

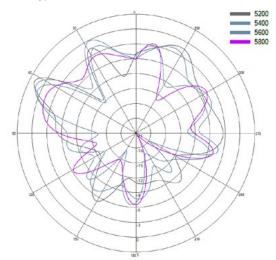


Typical 3D Pattern- WiFi - 4 - 6500 MHz

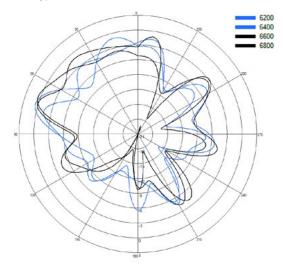




Typical H Plane- WiFi - 4 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 4 - Patterns- 6200-6800MHz

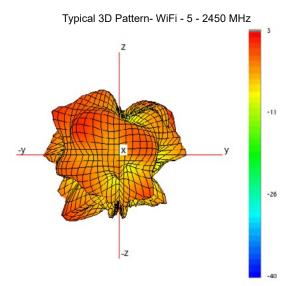


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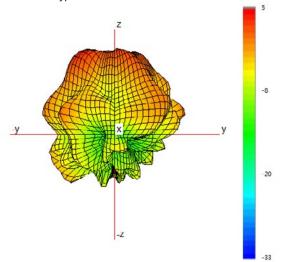
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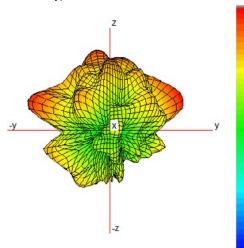
### 3D Pattern Data in Free Space WIFI - 5



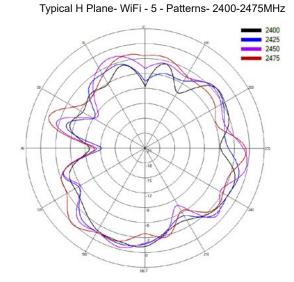
Typical 3D Pattern- WiFi - 5 - 5500 MHz



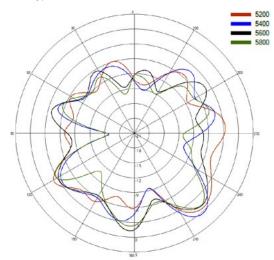
Typical 3D Pattern- WiFi - 5 - 6500 MHz



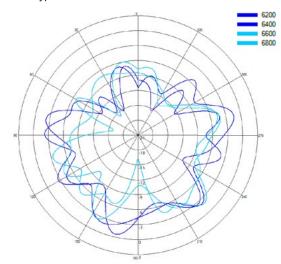
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Typical H Plane- WiFi - 5 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 5 - Patterns- 6200-6800MHz



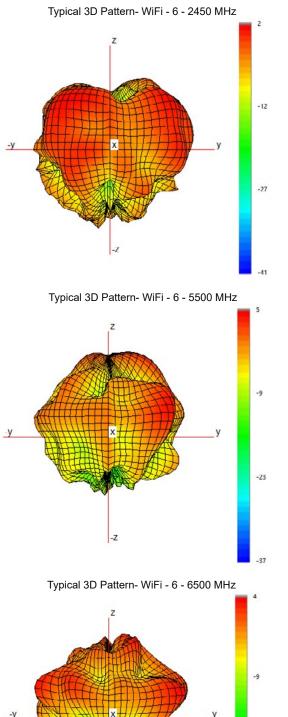
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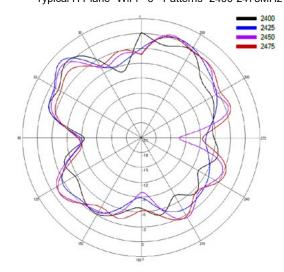
-7

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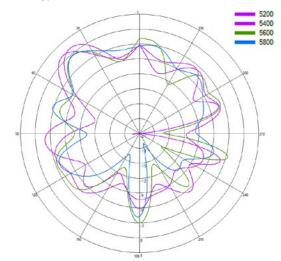
3D Pattern Data in Free Space WIFI - 6



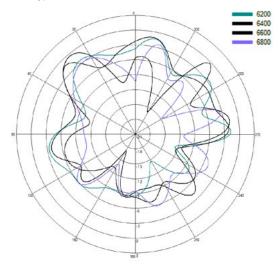
Typical H Plane- WiFi - 6 - Patterns- 2400-2475MHz



Typical H Plane- WiFi - 6 - Patterns- 5200-5800MHz



Typical H Plane- WiFi - 6 - Patterns- 6200-6800MHz



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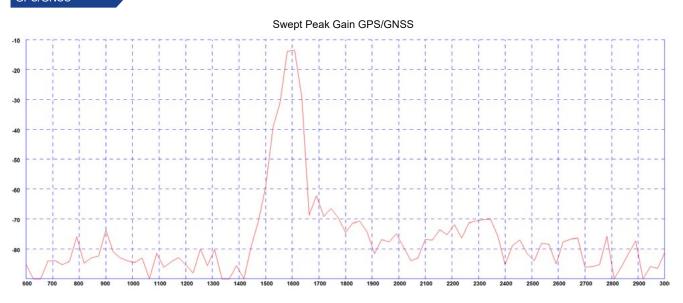
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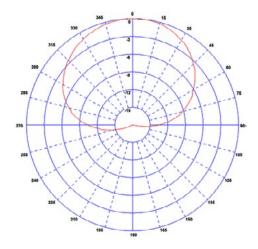
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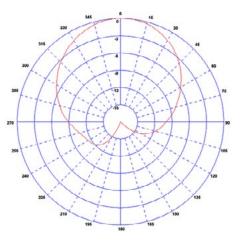
### Electrical Data- L1 **GPS/GNSS**



### Typical E Plane Pattern - GPS/GNSS 1575 MHz

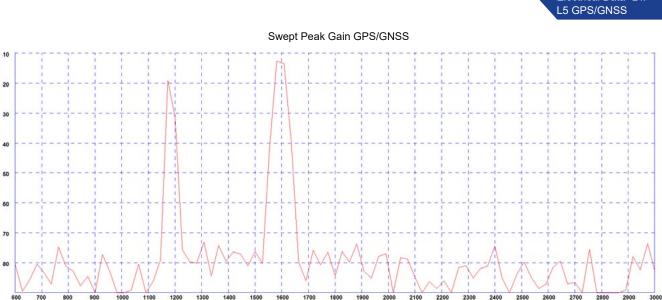


Typical E Plane Pattern - GPS/GNSS 1602 MHz

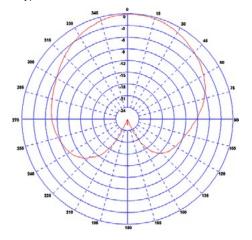


GPS/GNSS Measurements taken on 190x190mm (7.4" x 7.4") ground plane excluding cable loss

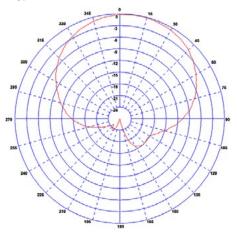
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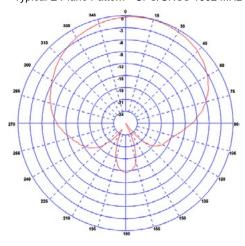
Typical E Plane Pattern - GPS/GNSS 1575 MHz



Typical E Plane Pattern - GPS/GNSS 1176 MHz



Typical E Plane Pattern - GPS/GNSS 1602 MHz



GPS/GNSS Measurements taken on 190x190mm (7.4" x 7.4") ground plane excluding cable loss

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Electrical Data- L1/