

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

Megalodon 4G/5G Antenna

PANORAMA ANTENNAS

- 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).

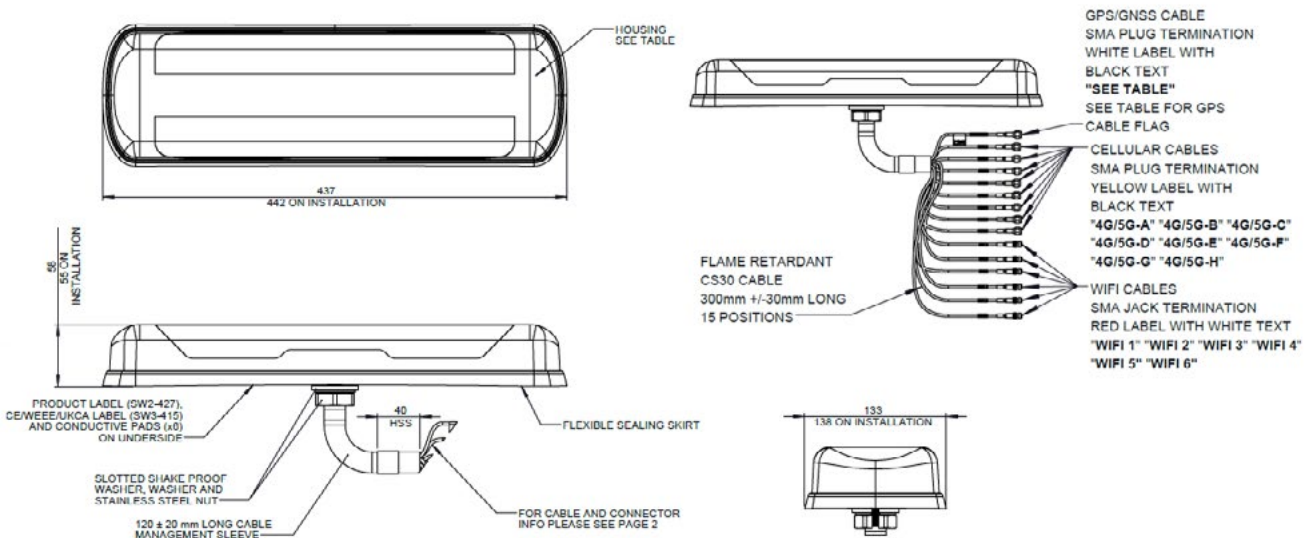
The antenna is designed to be panel mounted and can be fitted on a conductive or non-conductive panel. Supplied with integrated flame retardant low-loss CS30 cables (Compliant to UN ECE R118) and a halogen free, flame retardant radome, the antenna is suitable for many environments and applications, including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



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## Product Data

Part No.		LGMOM8[B]-6-60	LGMHM8[B]-6-60	LGMQM8[B]-6-60	LGMDM8[B]-6-60	LGMM8[B]-6-60
<b>Electrical Data</b>						
Frequency Range (MHz)	4G/5G Elements	8x 617-960 / 1427-6000				
	WiFi Elements	8x 2.4/5.1-7.2GHz	6x 2.4/5.1-7.2GHz	4x 2.4/5.1-7.2GHz	2x 2.4/5.1-7.2GHz	-
Typical VSWR*	All Elements	<3:1 (4G/5G elements) / <2:1 (WiFi Elements)				
Peak Gain: Isotropic : (dBi)	4G/5G Elements	617-960MHz	3.4			
		1427-4200MHz	7.4			
		4400-6000MHz	8.2			
	WiFi Elements	2.4 GHz	6			
		5.1-7.2GHz	7			
		617-960MHz	49%			
Typical Efficiency **	4G/5G Elements	1427-2170MHz	55%			
		2300-4200MHz	60%			
		4400-6000MHz	52%			
	WiFi Elements	2.4-7.2GHz	44%			
Nominal Impedance	50Ω					
<b>GPS/GNSS Data</b>						
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 (typical)					
<b>Mechanical Data</b>						
Dimensions (mm)	Height	55( 2.1")				
	Length	437 (17.2")				
	Width	133 (5.2")				
Operating Temp (°C)	-40° / +80°C (-40° / +176°F )					
Colour	White / [Black]					
Ingress Protection / Impact Resistance	IP69K / IK10					
<b>Mounting Data</b>						
Mounting type	Panel mount					
Max panel thickness (mm)	7 (0.27")					
Mounting hole (mm)	25(1")					
<b>Cable Data</b>						
All Cables	Type	comms cables - CS30   GPS cable/s FR RG174 ( all cables UN ECE R118 Compliant)				
	Diameter (mm)	2.8 (0.1")				
	Length (m)	0.3 (1')				
<b>Terminations</b>						
4G/5G	8x SMA Plug (m)					
WiFi	8x SMA Jack (f)	6x SMA Jack (f)	4x SMA Jack (f)	2x SMA Jack (f)	-	
GPS/GNSS	1x 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.

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

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## Product Data

Part No.

LG5MOM8[B]-6-60 LG5MHM8[B]-6-60 LG5MQM8[B]-6-60 LG5MDM8[B]-6-60 LG5MM8[B]-6-60

## Electrical Data

Frequency Range (MHz)	4G/5G Elements	8x 617-960 / 1427-6000				
	WiFi Elements	8x 2.4/5.1-7.2GHz	6x 2.4/5.1-7.2GHz	4x 2.4/5.1-7.2GHz	2x 2.4/5.1-7.2GHz	-
Typical VSWR*	All Elements	<3:1 (4G/5G elements) / <2:1 (WiFi Elements)				
Peak Gain: Isotropic : (dBi)†	4G/5G Elements	617-960MHz	3			
		1427-4200MHz	7			
		4400-6000MHz	8			
	WiFi Elements	2.4 GHz	6			
		5.1-7.2GHz	7			
Typical Efficiency **	4G/5G Elements	617-960MHz	49%			
		1427-2170MHz	55%			
		2300-4200MHz	60%			
	WiFi Elements	4400-6000MHz	52%			
		2.4-7.2GHz	44%			
Nominal Impedance	50Ω					

## GPS/GNSS Data

Frequency Range (MHz)	1164-1189 / 1559-1612
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 (typical)

## Mechanical Data

Dimensions (mm)	Height	55 (2.1")
	Length	437 (17.2")
	Width	133 (5.2")
Operating Temp (°C)	-40° / +80°C (-40° / +176°F )	
Colour	White / [Black]	
Ingress Protection / Impact Resistance	IP69K / IK10	

## Mounting Data

Mounting type	Panel mount
Max panel thickness (mm)	7 (0.27")
Mounting hole (mm)	25(1")

## Cable Data

All Cables	Type	comms cables - CS30   GPS cable/s FR RG174 ( all cables UN ECE R118 Compliant)				
	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)	-
GPS/GNSS	1x 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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# 8x8 MiMo 4G/5G Dome Combination Antenna Range

Megalodon 4G/5G Antenna

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## Product Data

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