

MiMo Directional Antenna + GPS/GNSS

WMM8GG-7-38

PANORAMA ANTENNAS



- Provides 2x2 MiMo antenna system for 4G/5G
- Two wideband directional elements with high gain
- Durable housing for external or internal use
- Suitable for mast, wall and desk mounting
- Integral GPS/GNSS antenna

The WMM8GG antenna provides an innovative and future proof solution for 3G/4G and 3.4-3.8GHz 5G networks. Incorporating two separately fed, ultra wideband elements in a single housing, it provides a client side 2x2 MiMo antenna system for the networks of today and tomorrow.

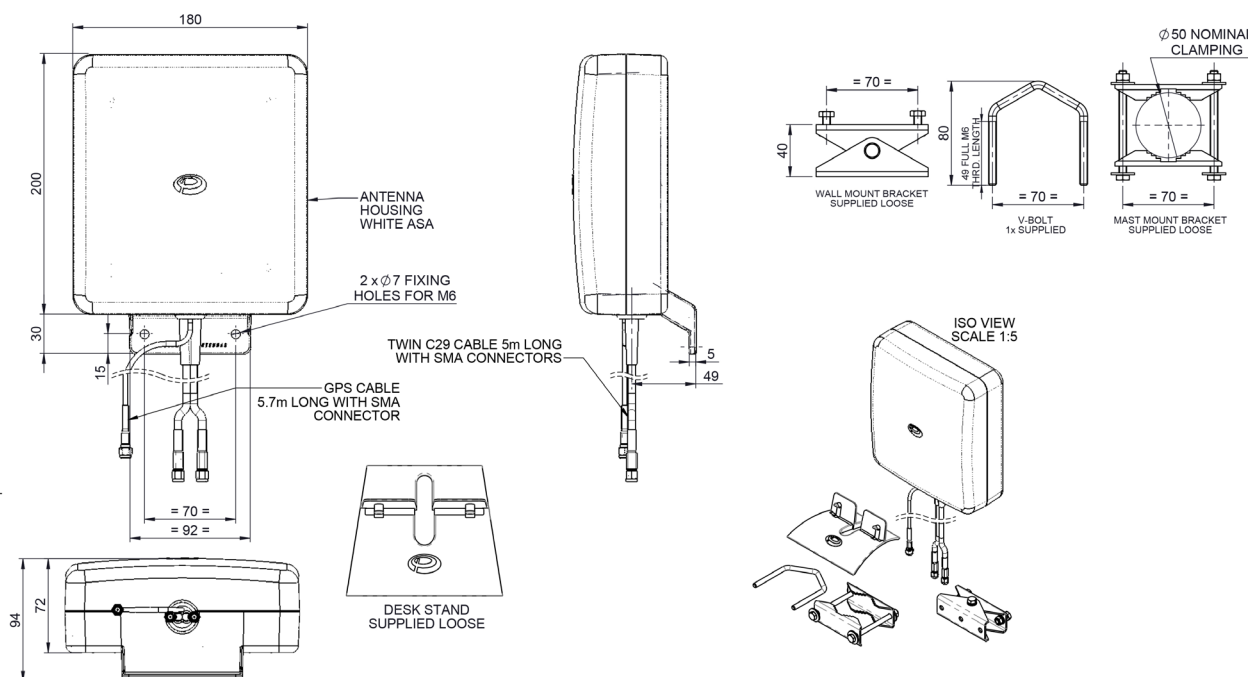
With between 6-9dBi gain in the range 698-3800MHz, the WMM8GG gives great performance, whilst maintaining a wide beam pattern which is ideal for metro and urban areas. A GNSS antenna with 26dB gain LNA is integrated and is compatible with GPS/GLONASS/Galileo and BeiDou systems.

The rugged, weatherproof housing is designed for wall or mast mounting and hardware is provided. A desk stand is also included to enable the antenna to be positioned on a window sill if preferred. The antenna is supplied with integral "tinned" CS29 coaxial cable. WMM8GG-7-38-5SP version has 5m length, fitted with sma plug connectors for a simple 'plug & play' installation.

WMM8GG-7-38-03NJ version has 30cm length, fitted with N socket connectors, which enables use of lower loss cable types for longer runs. The WMM8GG is a cost effective value added product for network operators and service providers ensuring a stable network connection with improved data rates for subscribers, improving satisfaction and retention.

Technical Drawing

WMM8GG-7-38-5SP Shown



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Product Data

Part No.

WMM8GG-7-38-5SP

WMM8GG-7-38-03NJ

Electrical Data

Frequency Range (MHz)	Antenna 1	698-960/1710-2700/3400-3800
	Antenna 2	698-960/1710-2700/3400-3800
Operational bands	2G / 3G / 4G / 5G	
Radiation pattern	Directional	
Nominal Polarisation	+/- 45deg Vertical	
Peak Gain (excl cable loss)+	698-960 MHz	6dBi
	1710-2170 MHz	9dBi
	2396-2700 MHz	9dBi
	3400-3800MHz	9dBi
Efficiency - excluding cable loss (all bands)	> 60%	
Correlation co-efficient (all bands)	< 0.1	
Max input power (W)	20 Watts	
Nominal Impedance	50Ω	

GPS Data

Frequency Range (MHz)	1562-1612
LNA Gain (dB)	26
Polarisation	RHCP
Operating Voltage	3-5VDC
Current	<20ma

Mechanical Data

Dimensions (mm)	Height	230 (9")
	Width	180 (7.1")
	Depth	94 (3.7")
Operating temp (°C)	-45° / +80°C (-49° / 176°F)	
Material	U.V. stable, impact resistant ASA	
Colour	RAL9010 (Pure White)	
Weight (g)	955	
Ingress Protection	IP65	

Mounting Data

Fixing	Wall mount / mast mount / desk mount
Mounting bracket material	Stainless steel / Aluminium
Pole diameter (mm)	20-50 / (0.78 - 1.96")

Cable Data

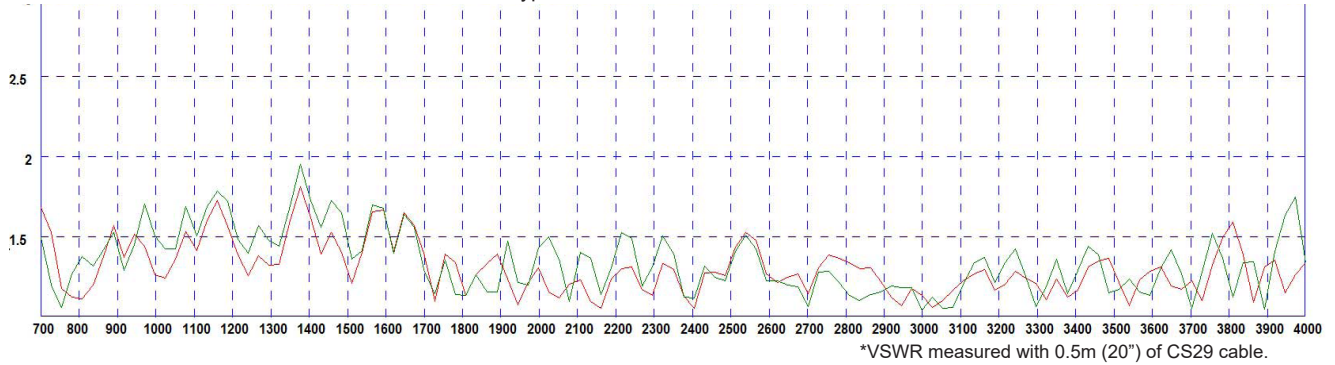
Type	2 x CS29 (LTE) 1x RG174 (GNSS)	2 x CS29 (LTE) 1x RG174 (GNSS)
Diameter (mm)	5 (0.2") - CS29 3 (0.1") - RG174	5 (0.2") - CS29 3 (0.1") - RG174
Length (m)	5 (16')	0.3 (12")
Termination	3 × SMA (m)	3 × N(f)

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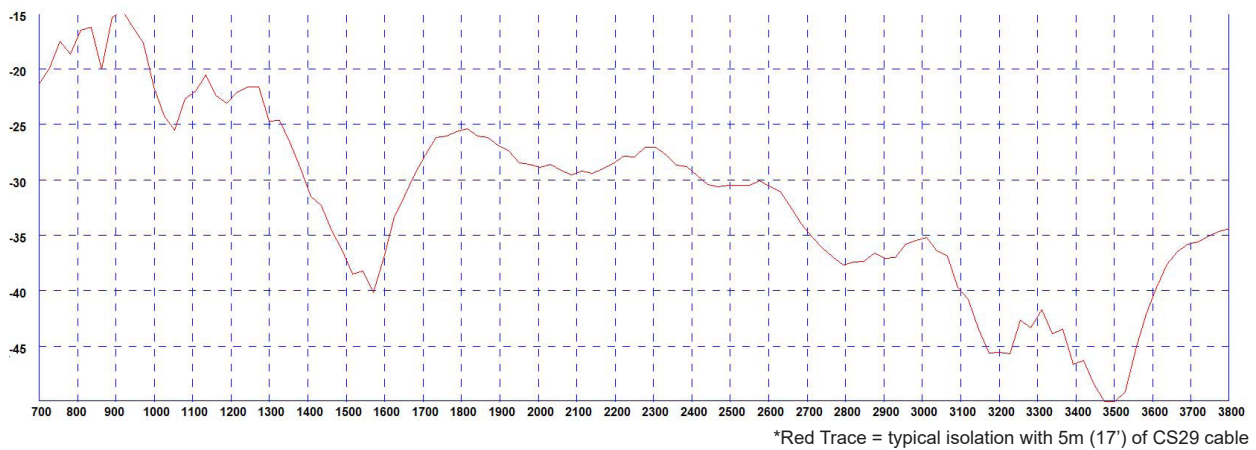
WMM8GG-7-38

Electrical Data - Cell

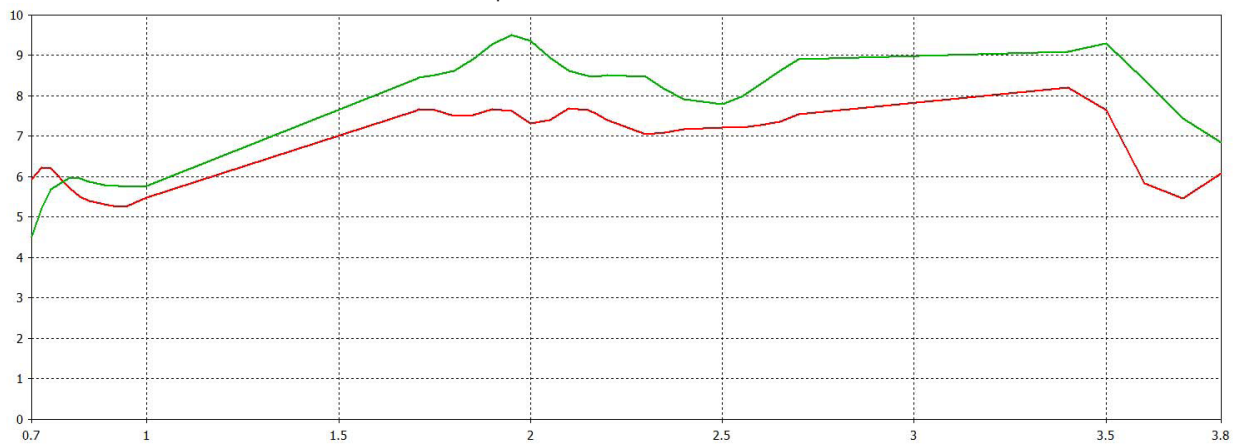
Typical VSWR Elements 1 & 2 *



Typical Isolation Elements 1 & 2 *



Swept Peak Gain Elements 1 & 2 *

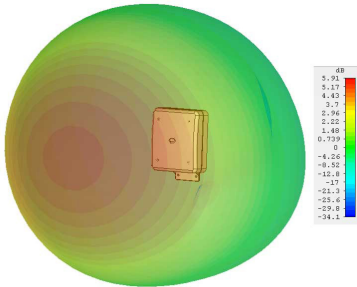


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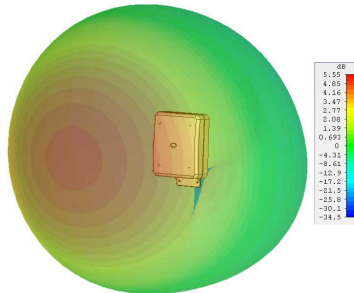
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3D Patterns - Cell

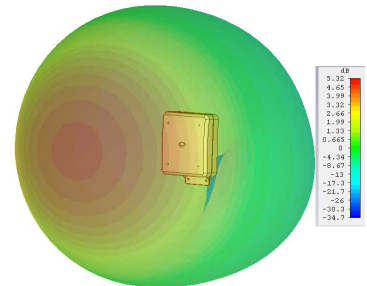
3D Gain Plot (750MHz)



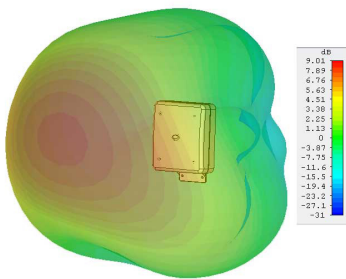
3D Gain Plot (850MHz)



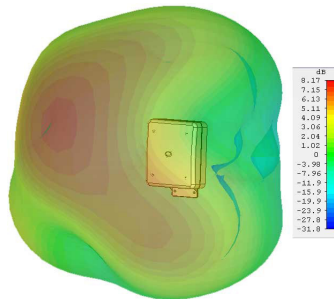
3D Gain Plot (950MHz)



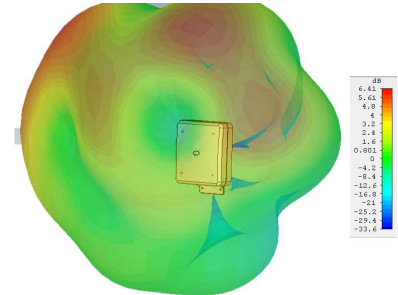
3D Gain Plot (1800MHz)



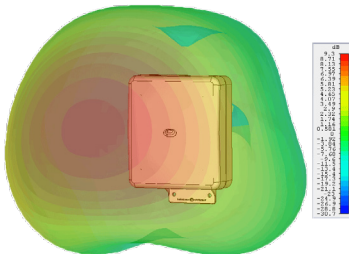
3D Gain Plot (2000 MHz)



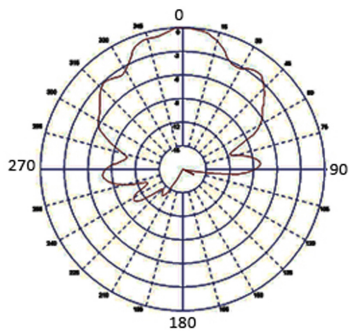
3D Gain Plot (2600 MHz)



3D Gain Plot (3600MHz)



GPS/GNSS Typical E Plane Pattern (1602MHz)



*WMM8GG-7-38 3D LTE Patterns show realised gain both elements fed modelled in CST Microwave Studio without additional cable. Typical 2D GPS E-Plane pattern measured in free space