



DWMM4[G]-6-60

- 4x4 MiMo 4G/5G Omni-Directional Antenna Solution
- Mast, Wall or Desk Mount
- Optional GPS/GNSS - 26dB LNA
- Integral FRZH Rated Coaxial Cables

The DWMM4[G]-6-60 antenna provides a 4x4 MiMo omnidirectional antenna solution for global 4G/5G networks covering 617-6000MHz. It features four separately fed ultra-wideband elements in a single housing and is suitable for a wide range of fixed-site Branch Office and Enterprise failover applications.

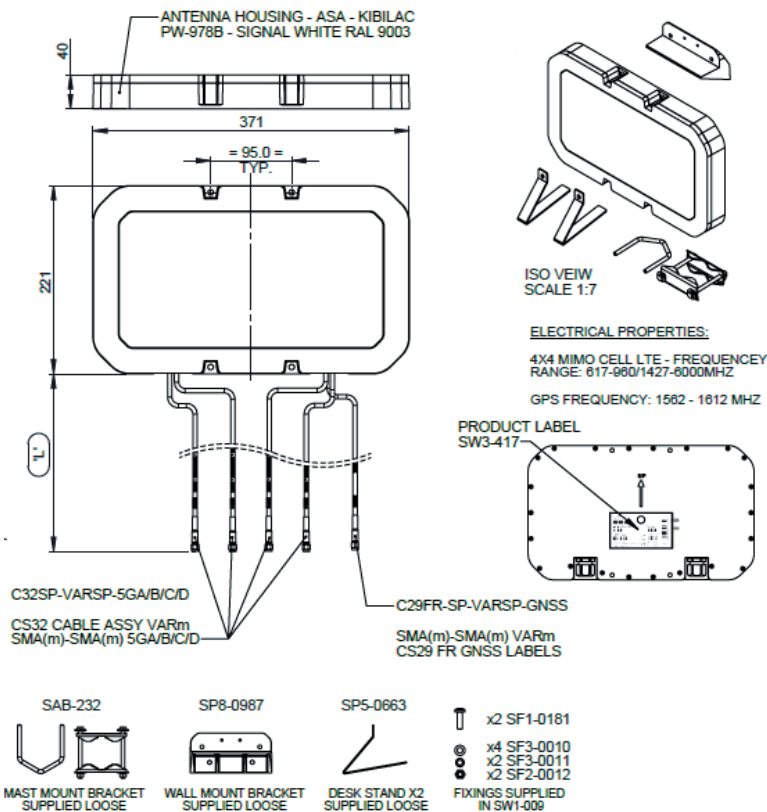
The supplied mounting bracket enables mast mounting using the supplied clamp assembly or it can be wall-mounted using the supplied screws and wall plugs. The antenna can be fitted directly to non-conductive panels or internal walls and mounting feet are supplied to allow it to be stood on a desk or window sill.

The Omni-directional radiation pattern allows easy placement of the antenna without consideration of directional alignment and makes it ideal where access to multiple network sites is required. The DWMM4G version incorporates an integral GPS/GNSS antenna with 26dB LNA gain and advanced filtering for resilient operation.

The antenna has integral flame retardant coaxial cables, which eliminates or reduces exposed connector joints and simplify installation.

Technical Drawing

DWMM4G-6-60-5SP Shown



4x4 MiMo 4G/5G Antenna

DWMM4[G]-6-60

Part No.		DWMM4-6-60-5SP	DWMM4-6-60-5FKJ	DWMM4-6-60-5NP	DWMM4-6-60-05NJ
Electrical Data					
Frequency Range (MHz)	Elements 1-4	617-960 / 1427-6000			
Operational Band	Elements 1-4	2G/3G/4G/5G			
Peak Realised Gain: Isotropic* Elements 1-4	617-960MHz	3.5dBi			
	1427-2700MHz	5dBi			
	3400-4200MHz	6dBi			
	4900-6000MHz	7dBi			
Typical VSWR**	<2.5:1				
Nominal Radiated Efficiency*	> 70%				
Correlation Co-efficient	< 0.1				
Polarisation	+/-45 degrees				
Pattern	Hybrid				
Impedance	50Ω				
Max Input Power (W)	10				
Mechanical Data					
Dimensions (mm)	Length	371 (14.6")			
	Height Excl Brkt	221 (8.7")			
	Depth	40 (1.57")			
Operating Temp (°C)	-40° / +85°C (-40° / 185°F)				
Radome Material	ASA				
Material Approvals	Radome ASA Material - UL 746C F1, UL 94-HB				
Colour	White				
Ingress Protection	IP66				
Mounting Data					
Fixing	Wall, Mast, Rail or Panel Mount				
Max Mast / Rail Diameter (mm)	50 (1.96")				
Cable Data					
4G/5G Cables	Type	CS32 (EN45545-2)			
	Diameter (mm)	5 (0.19")			
	Length (m)	5 (16' 4")	5 (16' 4")	5 (16' 4")	0.5 (1' 6")
	Termination	SMA (m)	FAKRA D Jack	N (m)	N(f)

* Peak gain and efficiency simulated in CST microwave studio for each element in free space excluding cable loss ** Typical VSWR measured with 0.5m (1.5') of cable in free space.

4x4 MiMo 4G/5G Antenna

DWMM4[G]-6-60

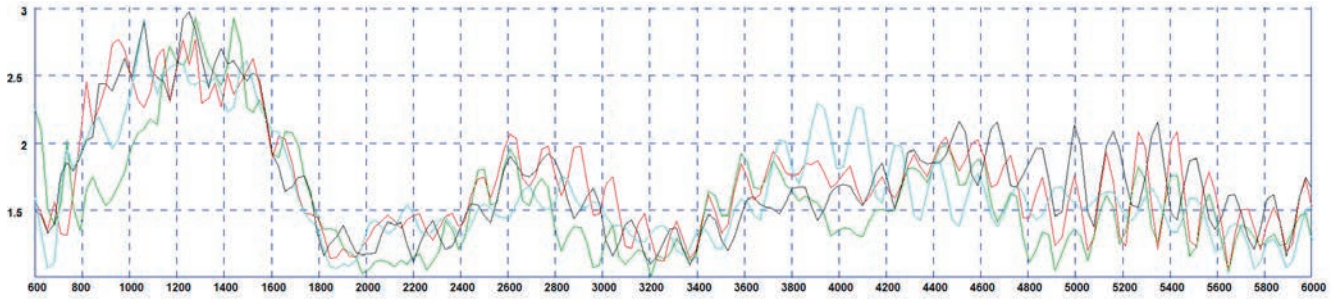
Product Data

Part No.		DWMM4G-6-60-5SP	DWMM4G-6-60-5FKJ	DWMM4G-6-60-5NP	DWMM4G-6-60-05NJ
Electrical Data					
Frequency Range (MHz)	Elements 1-4	617-960 / 1427-6000			
	Element 5	1559-1612			
Operational Band	Elements 1-4	2G/3G/4G/5G			
	Element 5	GPS/GNSS			
Peak Realised Gain: Isotropic* Elements 1-4	617-960MHz	3.5dBi			
	1427-2700MHz	5dBi			
	3400-4200MHz	6dBi			
	4900-6000MHz	7dBi			
Typical VSWR**		<2.5:1			
Nominal Radiated Efficiency*		> 70%			
Correlation Co-efficient		< 0.1			
Polarisation		+/-45 degrees			
Pattern		Hybrid			
Impedance		50Ω			
Max Input Power (W)		10			
GPS/GNSS Data					
Frequency Range (MHz)		1559-1612			
Typical VSWR		<2.5:1			
LNA Gain		26dB (+/-3)			
Polarisation		RHCP			
Operating Voltage		3-5 VDC <20ma			
Mechanical Data					
Dimensions (mm)	Length	371 (14.6")			
	Height Excl Brkt	221 (8.7")			
	Depth	40 (1.57")			
Operating Temp (°C)		-40° / +85°C (-40° / 185°F)			
Radome Material		ASA			
Material Approvals		Radome ASA Material - UL 746C F1, UL 94-HB			
Colour		White			
Ingress Protection		IP66			
Mounting Data					
Fixing		Wall, Mast, Rail or Panel Mount			
Max Mast Diameter (mm)		50 (1.96")			
Cable Data					
4G/5G Cables	Type	CS32 (EN45545-2 Compliant)			
	Diameter (mm)	5 (0.19")			
	Length (m)	5 (16' 4")	5 (16' 4")	5 (16' 4")	0.5 (1' 6")
	Termination	SMA (m)	FAKRA D Jack	N (m)	N(f)
GPS/GNSS Cables	Type	CS29 FR (EN45545-2 Compliant)			
	Diameter (mm)	5 (0.19")			
	Length (m)	5 (16' 4")	5 (16' 4")	5 (16' 4")	0.5 (1' 6")
	Termination	SMA (m)	FAKRA C Jack	N (m)	N(f)

* Peak gain and efficiency simulated in CST microwave studio for each element in free space excluding cable loss ** Typical VSWR measured with 0.5m (1.5') of cable in free space.

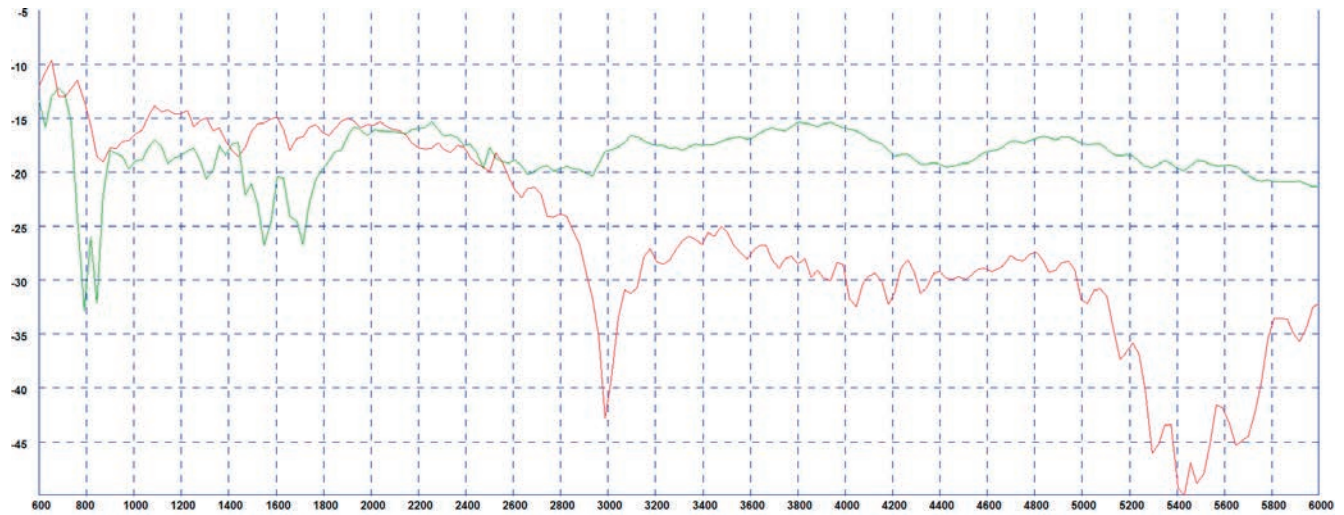
Electrical Data

Typical VSWR*



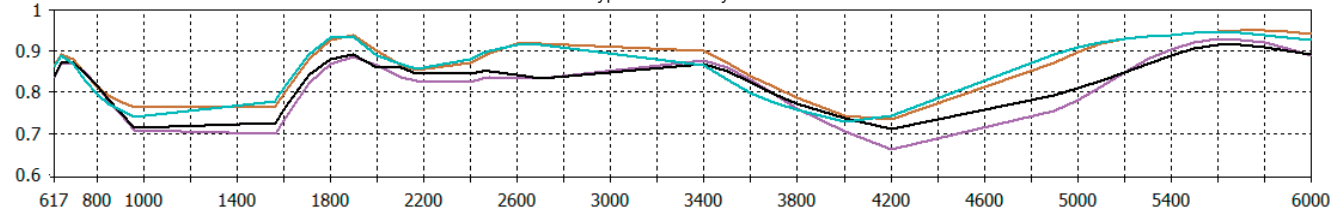
*Typical VSWR for elements 1-4 measured in free space with 0.5m (1.5') of CS32 cable.

Typical Isolation*



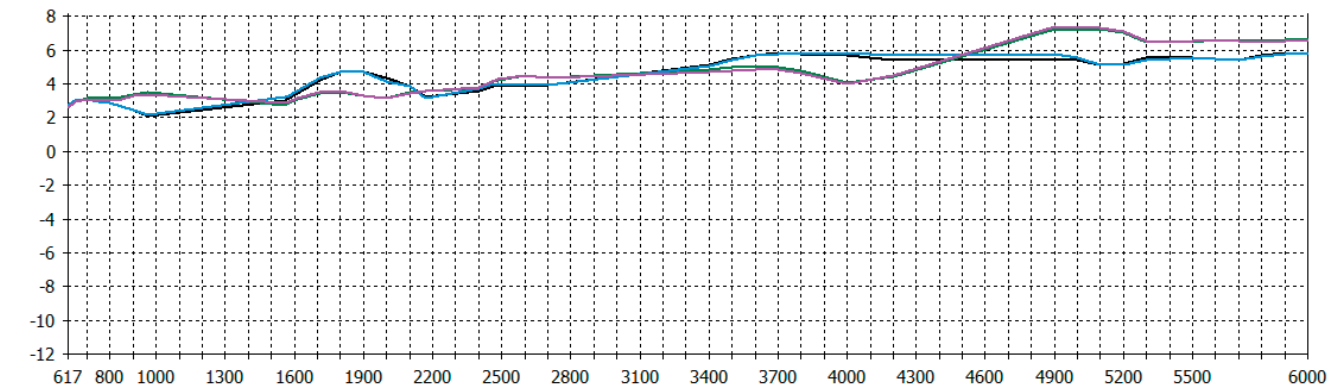
*Red Plot = Worst case isolation - element B to element C 0.5m (1.5') of cable Green Plot = Best case isolation - element A to element B- 0.5m (1.5') of cable

Typical Efficiency*



*Typical efficiency simulated in CST Microwave Studio in free space without cable.

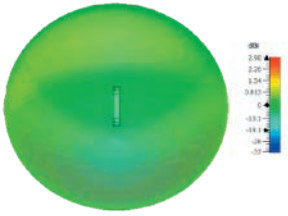
Typical Swept Peak Gain*



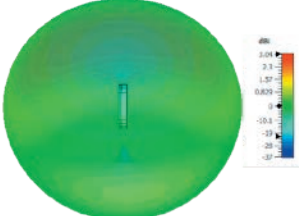
* Peak gain simulated in CST Microwave Studio in free space without cable.

3D Patterns - 4G/5G Side

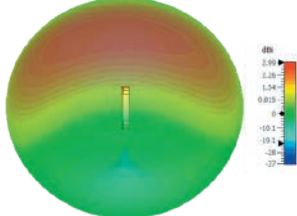
3D Plot Element A Side (650 MHz)



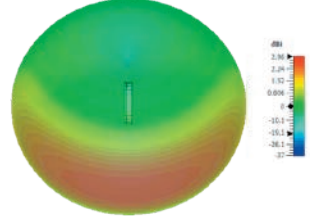
3D Plot Element B Side (650 MHz)



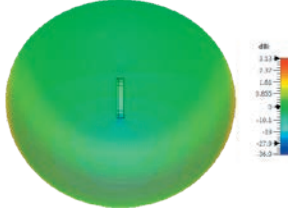
3D Plot Element C Side (650 MHz)



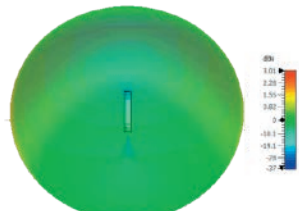
3D Plot Element D Side (650 MHz)



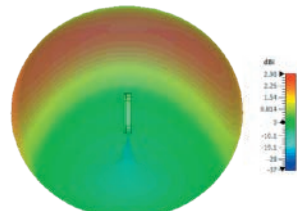
3D Plot Element A Side (750 MHz)



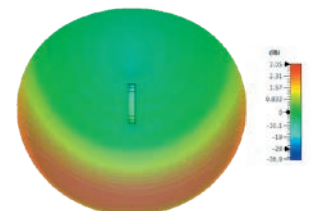
3D Plot Element B Side (750 MHz)



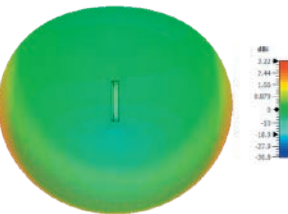
3D Plot Element C Side (750 MHz)



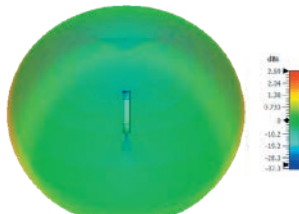
3D Plot Element D Side (750 MHz)



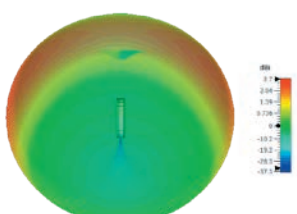
3D Plot Element A Side (850 MHz)



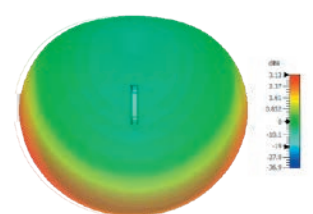
3D Plot Element B Side (850 MHz)



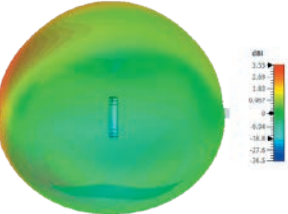
3D Plot Element C Side (850 MHz)



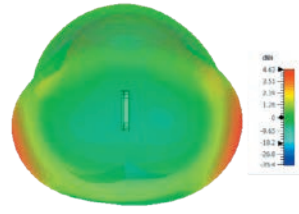
3D Plot Element D Side (850 MHz)



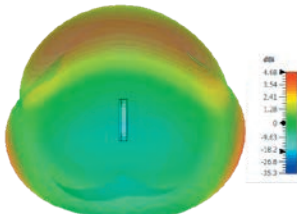
3D Plot Element A Side (1800 MHz)



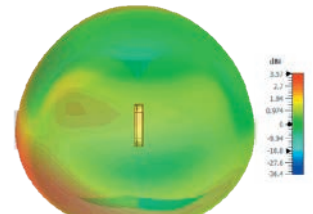
3D Plot Element B Side (1800 MHz)



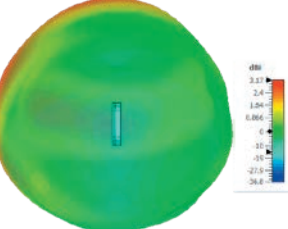
3D Plot Element C Side (1800 MHz)



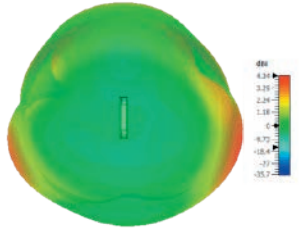
3D Plot Element D Side (1800 MHz)



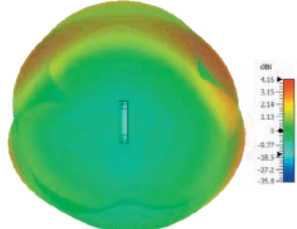
3D Plot Element A Side (2000MHz)



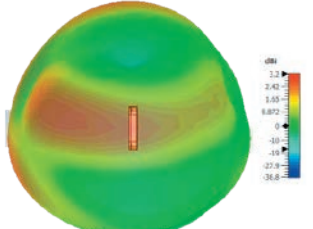
3D Plot Element B Side (2000 MHz)



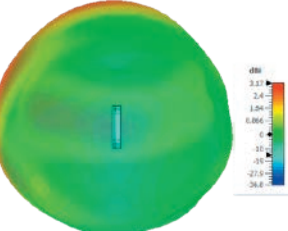
3D Plot Element C Side (2000 MHz)



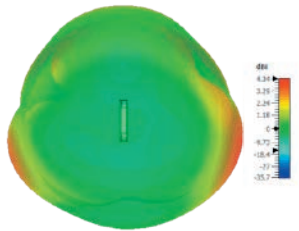
3D Plot Element D Side (2000 MHz)



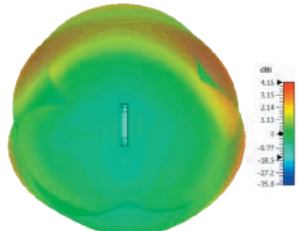
3D Plot Element A Side (2600MHz)



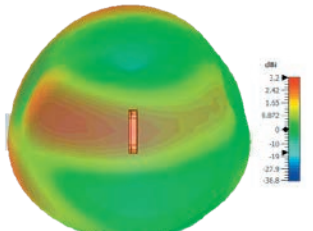
3D Plot Element B Side (2600 MHz)



3D Plot Element C Side (2600 MHz)



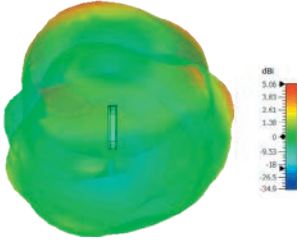
3D Plot Element D Side (2600 MHz)



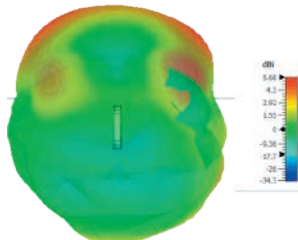
* 3D patterns simulated for each element in CST microwave studio in free space excluding cable loss

3D Patterns - 4G/5G
Side

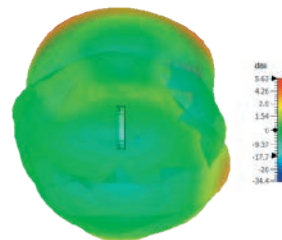
3D Plot Element A Side (3600MHz)



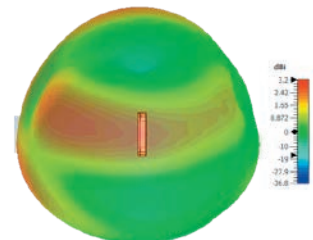
3D Plot Element B Side (3600 MHz)



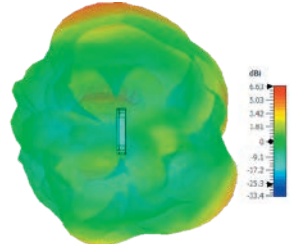
3D Plot Element C Side (3600 MHz)



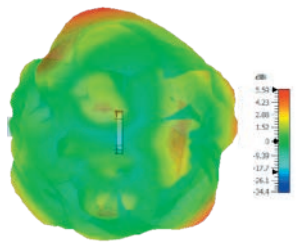
3D Plot Element D Side (3600 MHz)



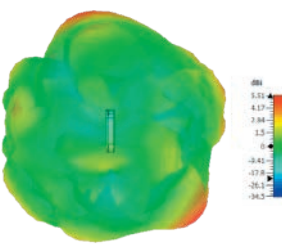
3D Plot Element A Side (5400MHz)



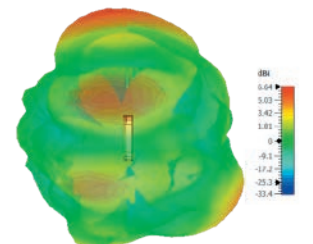
3D Plot Element B Side (5400 MHz)



3D Plot Element C Side (5400 MHz)



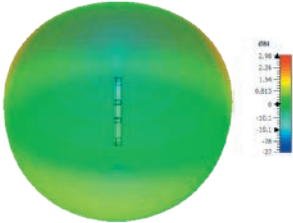
3D Plot Element D Side (5400 MHz)



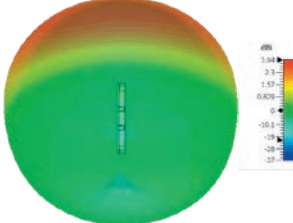
* 3D patterns simulated for each element in CST microwave studio in free space excluding cable loss

3D Patterns - 4G/5G Top

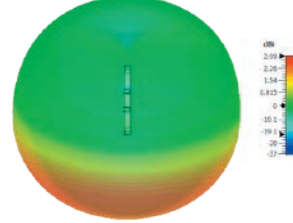
3D Plot Element A Top (650 MHz)



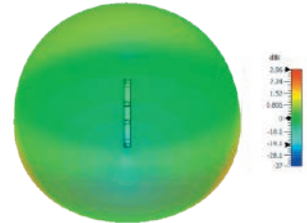
3D Plot Element B Top (650 MHz)



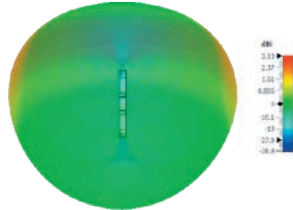
3D Plot Element C Top (650 MHz)



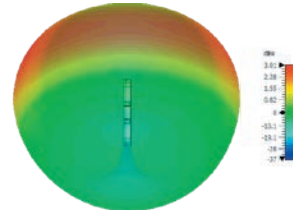
3D Plot Element D Top (650 MHz)



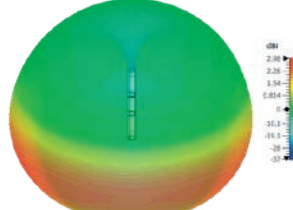
3D Plot Element A Top (750 MHz)



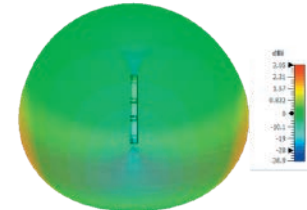
3D Plot Element B Top (750 MHz)



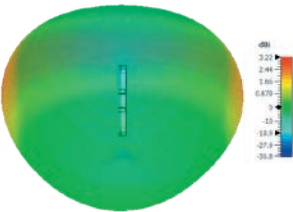
3D Plot Element C Top (750 MHz)



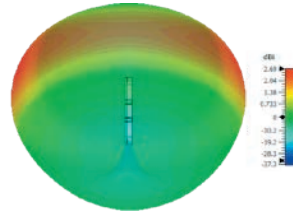
3D Plot Element D Top (750 MHz)



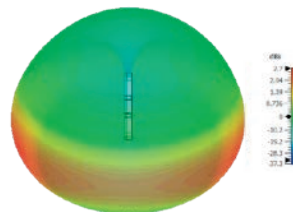
3D Plot Element A Top (850 MHz)



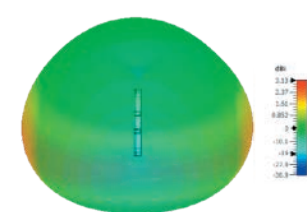
3D Plot Element B Top (850 MHz)



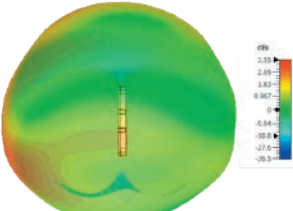
3D Plot Element C Top (850 MHz)



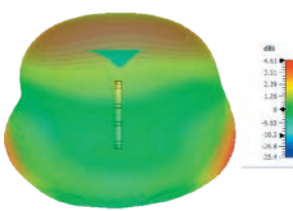
3D Plot Element D Top (850 MHz)



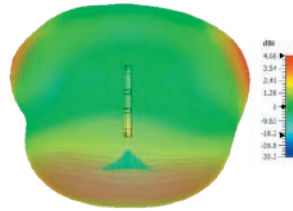
3D Plot Element A Top (1800 MHz)



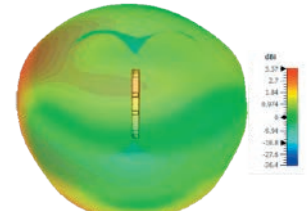
3D Plot Element B Top (1800 MHz)



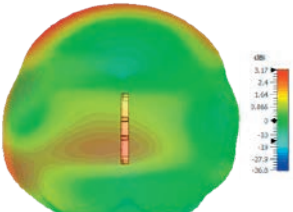
3D Plot Element C Top (1800 MHz)



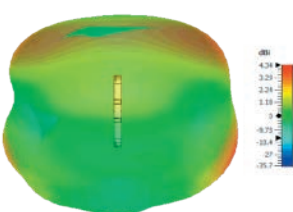
3D Plot Element D Top (1800 MHz)



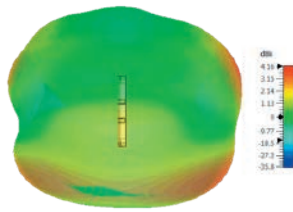
3D Plot Element A Side (2000MHz)



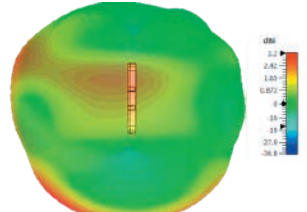
3D Plot Element B Side (2000 MHz)



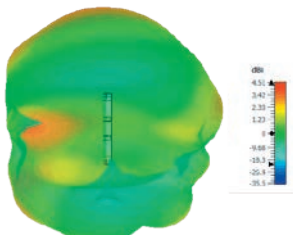
3D Plot Element C Side (2000 MHz)



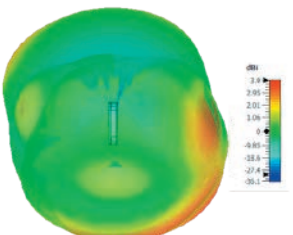
3D Plot Element D Side (2000 MHz)



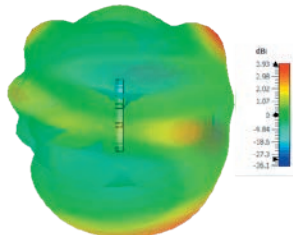
3D Plot Element A Top (2600MHz)



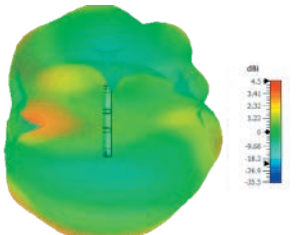
3D Plot Element B Top (2600 MHz)



3D Plot Element C Top (2600 MHz)



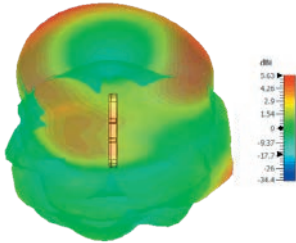
3D Plot Element D Top (2600 MHz)



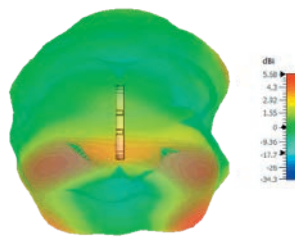
* 3D patterns simulated for each element in CST microwave studio in free space excluding cable loss

3D Patterns - 4G/5G
Top

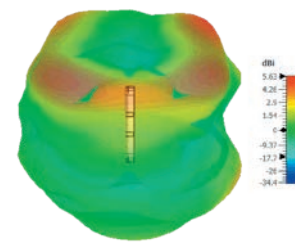
3D Plot Element A Top (3600MHz)



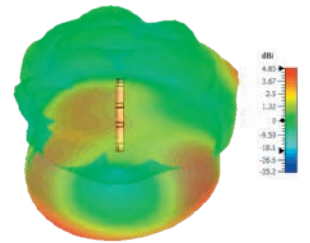
3D Plot Element B Top (3600 MHz)



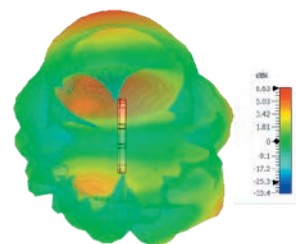
3D Plot Element C Top (3600 MHz)



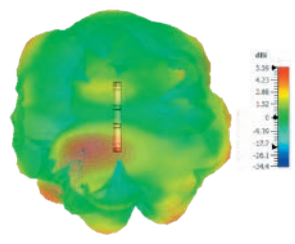
3D Plot Element D Top (3600 MHz)



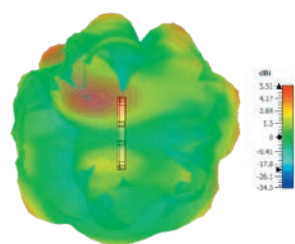
3D Plot Element A Top (5400MHz)



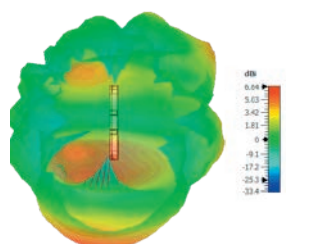
3D Plot Element B Top (5400 MHz)



3D Plot Element C Top (5400 MHz)



3D Plot Element D Top (5400 MHz)



* 3D patterns simulated for each element in CST microwave studio in free space excluding cable loss