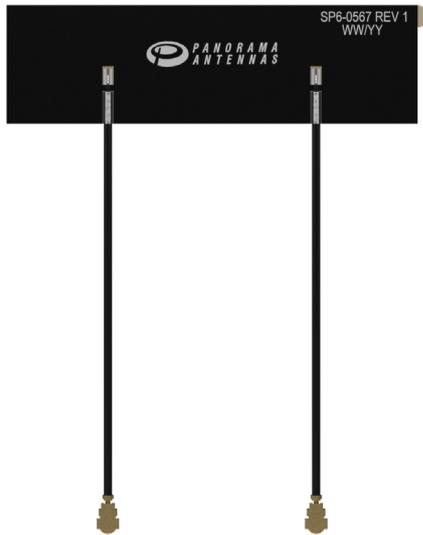


2x2 MiMo WiFi Embedded Antenna

TFM2-24-58-72[-X]



- 2x2 MiMo WiFi 6e/7 FPCB dipole antenna
- Supports WiFi 2.4/5.0/7.2GHz
- Ultra-flexible adhesive mount antenna
- Fitted 1.13 coax cable with UFL plug

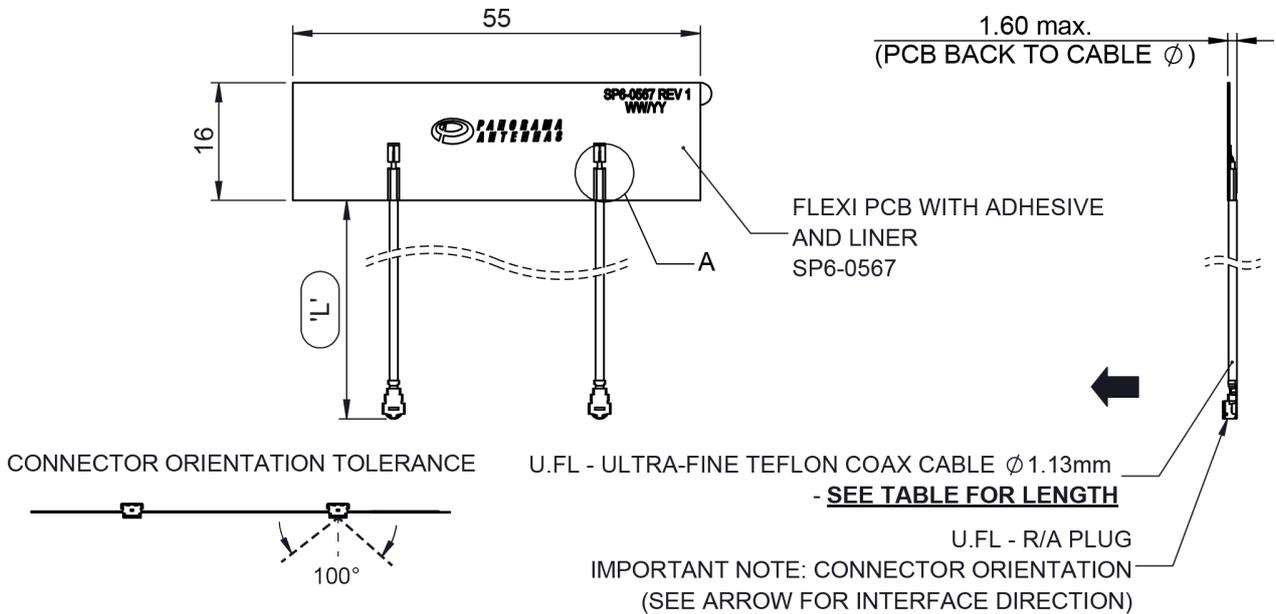
The TFM2-24-58-72[-X] antenna is a ground plane independent flexible PCB (FPCB) dipole antenna covering WiFi 6e/7 (2400-2485/5150-7125MHz) developed for embedded applications.

Using a 2x2 MiMo antenna instead of two SiSo antennas helps reduce space requirements while controlling performance and simplifies the installation process.

Designed for mounting on non-conductive surfaces the TFM2-24-58-72[-X] range is installed via a high performance adhesive backing layer and is supplied with integrated C113 cable fitted with a right angle UFL plug.

Technical Drawing

TFM2-24-58-72-VARUFL Shown



2x2 MiMo WiFi Embedded Antenna

TFM2-24-58-72[-X]

Product Data

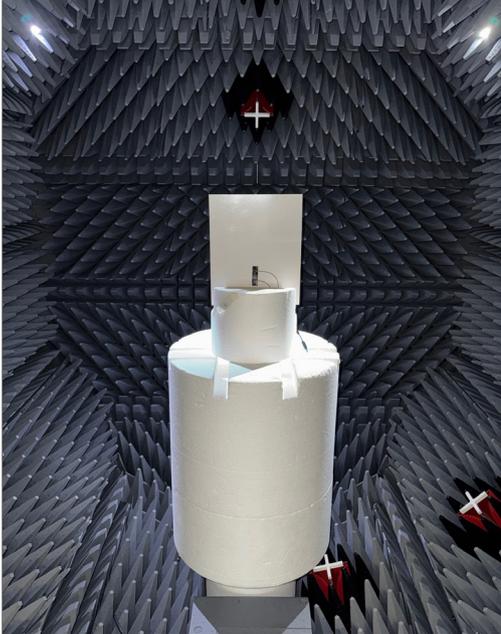
Part No.		TFM2-24-58-72-005UFL	TFM2-24-58-72-01UFL	TFM2-24-58-72-02UFL
Electrical Data				
Frequency Range (MHz)		2400-2485/5150-7125		
Typical VSWR		≤2.5:1		
Typical Peak Gain		3.1 (2400-2485MHz) / 6.0 (5150-7125MHz)		
Typical Efficiency		74% (2400-2485MHz) / 72% (5150-7125MHz)		
Polarisation		Vertical		
Pattern		Omni-directional		
Impedance		50Ω		
Max Input Power (W)		5		
Mechanical Data				
Dimensions (mm)	Length	55 (2.2")		
	Width	16 (0.6")		
	Thickness	1.6 (0.1")		
Material		Flexible PCB substrate with adhesive backing		
Operating Temp (°C)		-40° / 176°F (-40° / +80°C)		
Colour		Black		
Cable Data				
Type		C113		
Diameter (mm)		1.13 (0.04")		
Length (mm)		50 (2")	100 (4")	200 (8")
Termination		R/A UFL Plug		

*VSWR, peak gain and efficiency measured on 2.5mm (0.1") ABS sheet with 100mm (4") cable. Efficiency is average across stated bands.

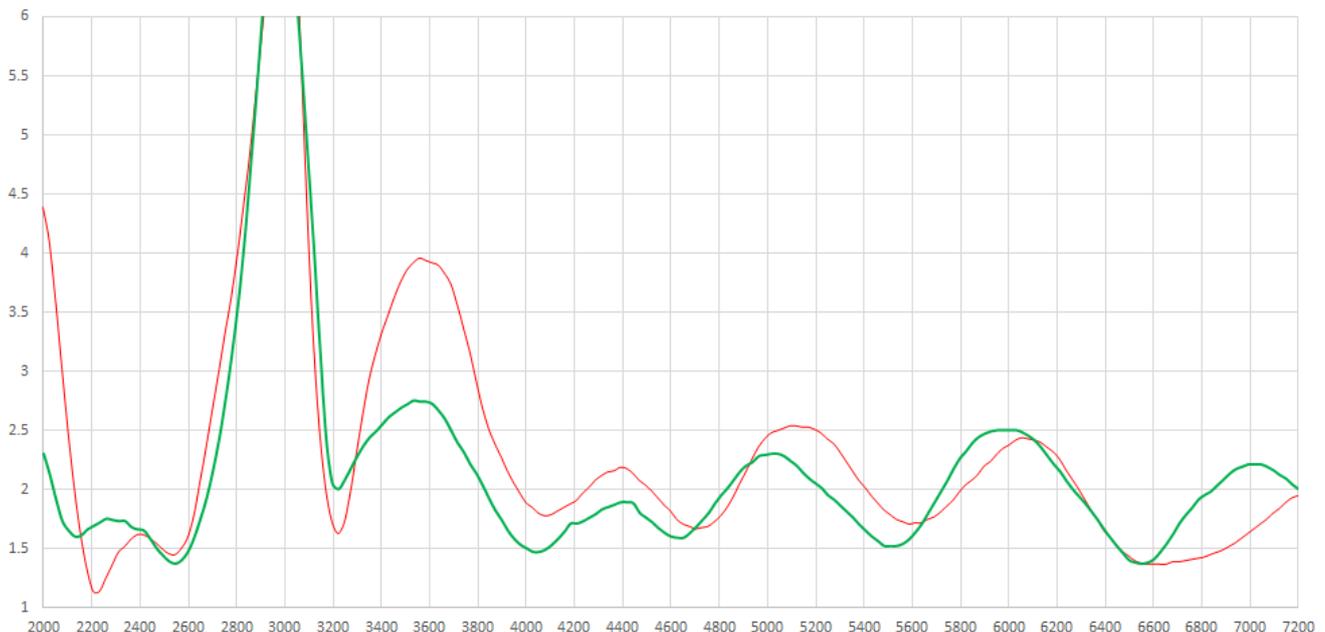
2x2 MiMo WiFi Embedded Antenna

TFM2-24-58-72[-X]

Electrical Data in
Free Space - WiFi

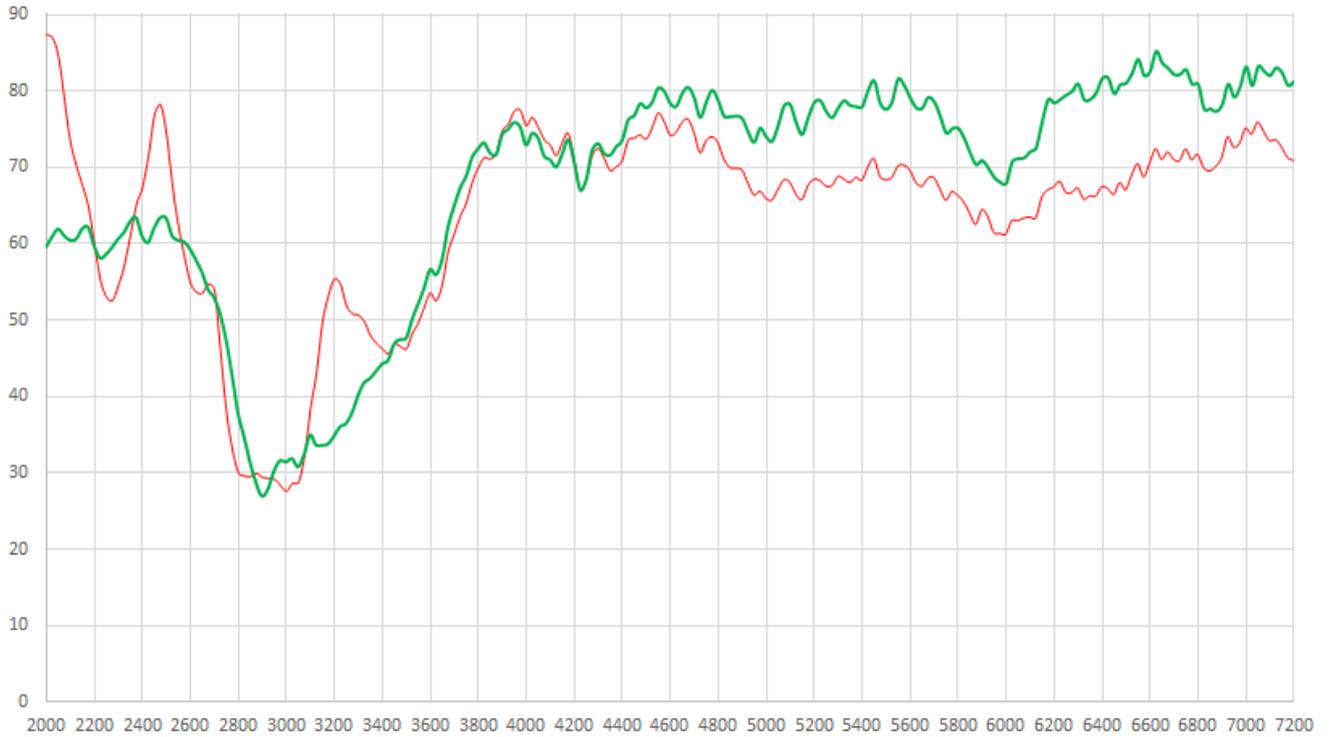
Measurement Conditions	WiFi Antennas				
TFM2-24-58-72[-X] measured in free space on 2.5mm (0.1") ABS sheet with 100mm (4") cable.	Frequency Range (MHz)	WiFi Bands	Antenna Element	Peak Gain (dBi)	Efficiency (%)
	2396-2485	2.4GHz	WiFi 1	3.1	74
			WiFi 2	1.7	62
	5150-5250	UNII-1	WiFi 1	4.9	68
			WiFi 2	5.2	77
	5250-5350	UNII-2A	WiFi 1	5.0	68
			WiFi 2	5.6	78
	5350-5470	UNII-2B	WiFi 1	5.7	69
			WiFi 2	5.9	79
	5470-5725	UNII-2C	WiFi 1	5.8	69
			WiFi 2	6.0	79
	5725-5850	UNII-3	WiFi 1	5.0	66
			WiFi 2	5.6	75
	5850-5925	UNII-4	WiFi 1	4.7	64
			WiFi 2	4.9	71
	5925-6425	UNII-5	WiFi 1	5.9	65
			WiFi 2	5.9	76
6425-6525	UNII-6	WiFi 1	5.7	68	
		WiFi 2	5.9	81	
6525-6875	UNII-7	WiFi 1	5.6	71	
		WiFi 2	6.0	82	
6875-7125	UNII-8	WiFi 1	5.7	73	
		WiFi 2	6.0	81	

Typical VSWR*



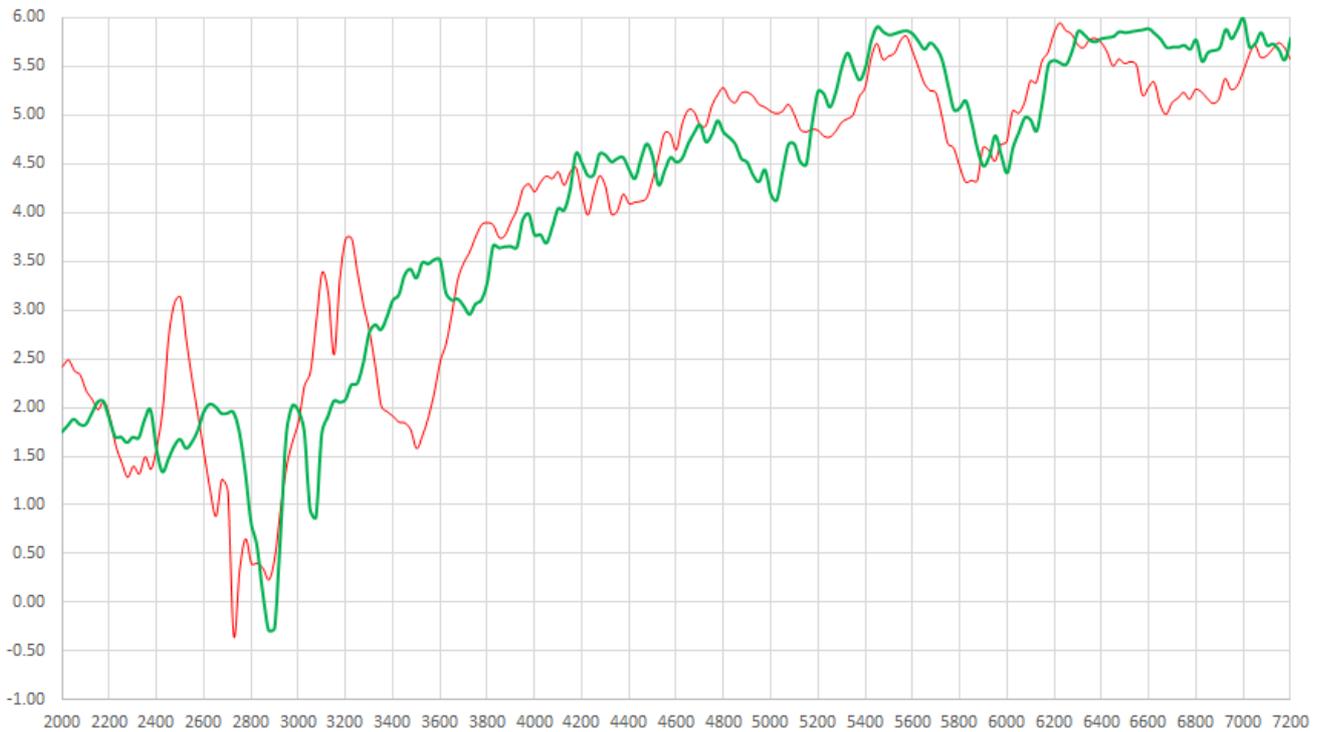
*VSWR measured on 2.5mm (0.1") ABS sheet with 100mm (4") cable

Typical Efficiency*



*Efficiency measured on 2.5mm (0.1") ABS sheet with 100mm (4") cable

Typical Peak Gain*



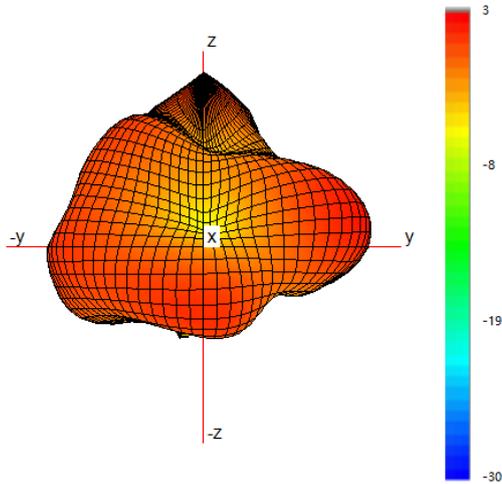
*Peak gain measured on 2.5mm (0.1") ABS sheet with 100mm (4") cable

2x2 MiMo WiFi Embedded Antenna

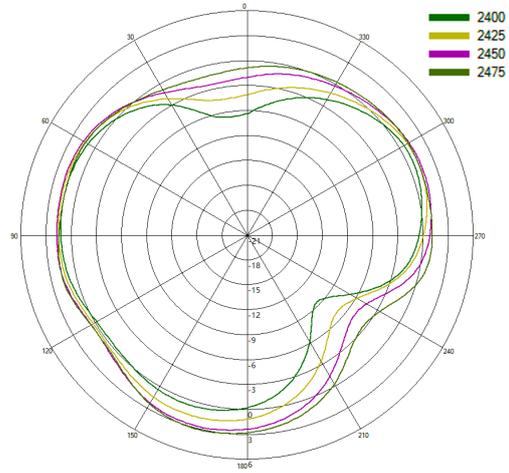
TFM2-24-58-72[-X]

Electrical Data in
Free Space - WiFi 1

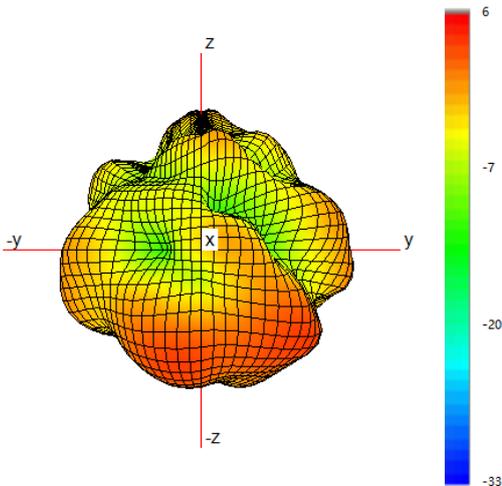
Typical 3D Pattern - 2450 MHz



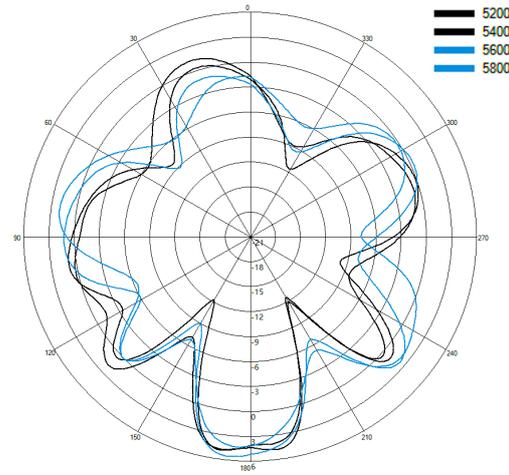
Typical H Plane Patterns- 2400-2500MHz



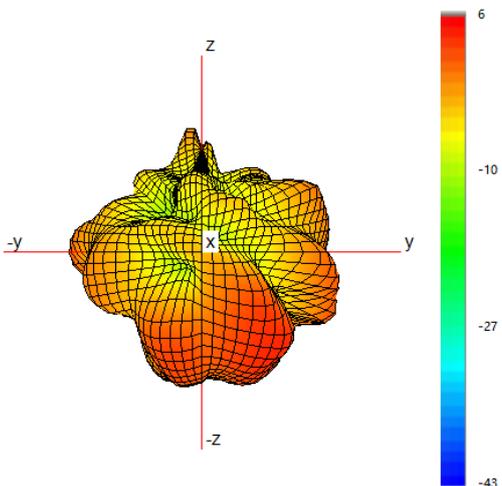
Typical 3D Pattern - 5500 MHz



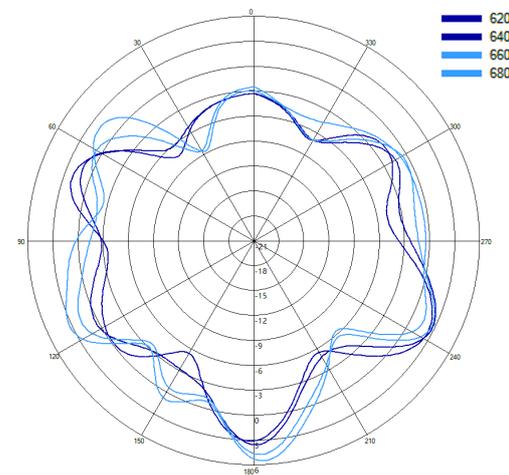
Typical H Plane Patterns- 5200-5800MHz



Typical 3D Pattern - 6500 MHz



Typical H Plane Patterns- 6200-6800MHz

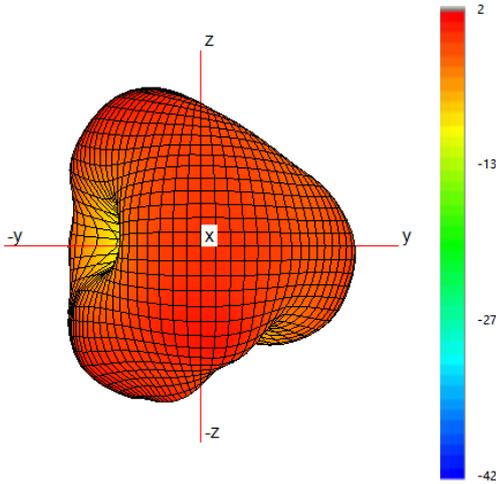


2x2 MiMo WiFi Embedded Antenna

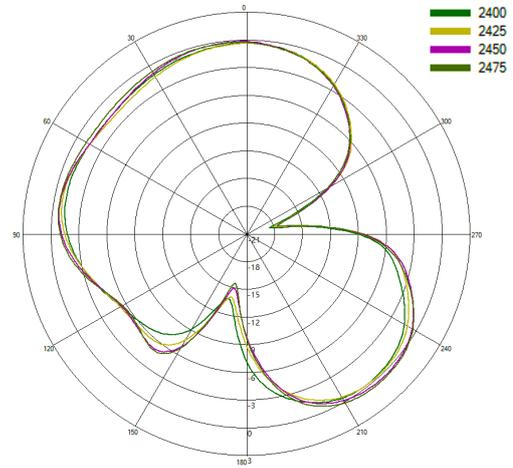
TFM2-24-58-72[-X]

3D Pattern Data in
Free space - WiFi 2

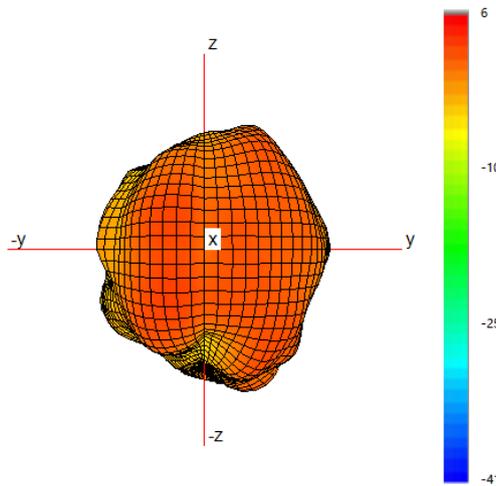
Typical 3D Pattern - 2450 MHz



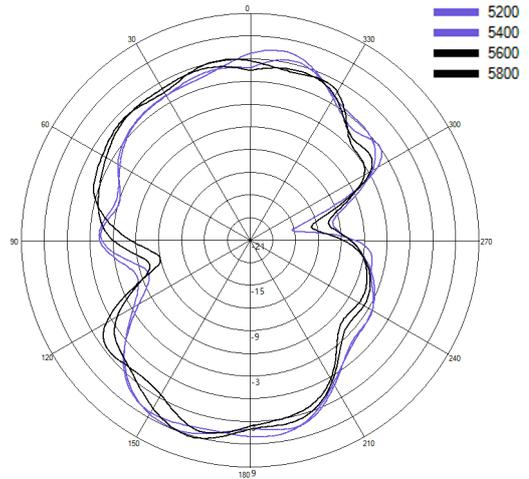
Typical H Plane Patterns- 2400-2500MHz



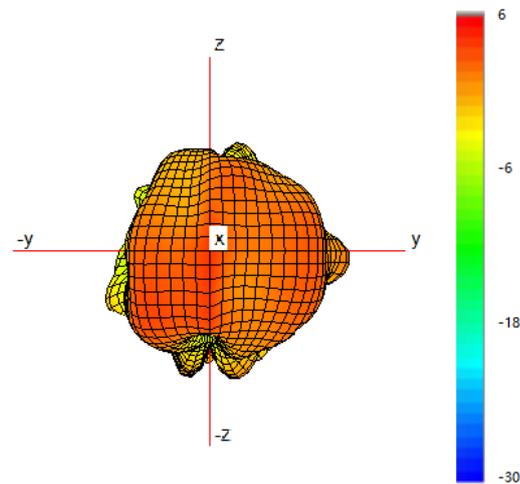
Typical 3D Pattern - 5500 MHz



Typical H Plane Patterns- 5200-5800MHz



Typical 3D Pattern - 6500 MHz



Typical H Plane Patterns- 6200-6800MHz

