

Wideband (450-6000MHz) Omni In-Building PIM-rated Antenna



The UACM-SP™ is Fractal Antenna System's flagship wideband PIM-rated antenna for ceiling mounted in-building Public Safety & DAS applications. Using our proprietary and patented FRACTAL technologies, the UACM-SP™ is built with *"future-proof"* ultra-wide bandwidth and excellent RF performance in the smallest & lightest form factor available

Applications & Markets

- Public safety indoor DAS
- Cellular indoor DAS
- Neutral host provider systems
- Small cell systems

The Fractal Advantage™

- Ultra-wide bandwidth for essentially **all frequency applications** in **single antenna**
- *"Future proof"* design ready for **LTE, FirstNet, indoor 5G, CBRS**, and other spectrum rollouts
- Excellent **RF & PIM performance** with ultra-wide bandwidth
- **Smallest form factor** (both **size and weight**) for given performance on the market
- **Made in USA**

Specifications

Frequency (MHz)	450-512	617-806	806-960	1350-1435	1670-2200	2200-3500	3500-4200	4200-6000
Max Gain (dBi)	1.3	1.6	4.3	4.5	5.1	6.2	6.4	7.2
Avg Gain (dBi)	1.0	1.0	3.5	3.5	4.5	5.5	5.5	6.0
Avg VSWR	<3:1	<3:1	<2.5:1	<2:1	<2:1	<2:1	<2:1	<2:1
PIM, 3rd Order	N/A	<-153 dBc		N/A	<-153 dBc	N/A		
Impedance	50 Ω							
Polarization	Vertical							
Beamwidth	Omni (360°)							
Max Power	20 Watts							
Input Connect.	Single input, single output - Type N-Connector							

Mechanical Specifications

Unit Number	UCSP0 (w/ type N connector)
Antenna Weight	1.22 lbs (.55 kg)
Antenna Height	4.75 inches
Antenna Diameter	11.6 inches
Operating Temp.	-40°F to 130°F
Radome Material	Kydex, UL94 V-0 rating, White color

For inquiries email us: sales@fractenna.com

Antenna Power Patterns For Common Frequencies

400MHz

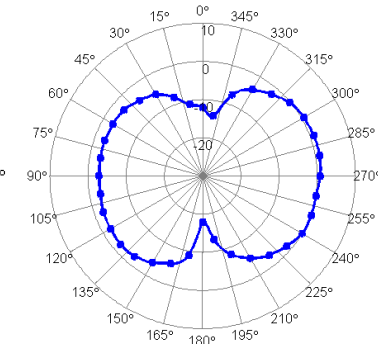
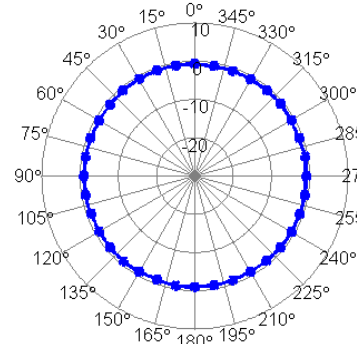
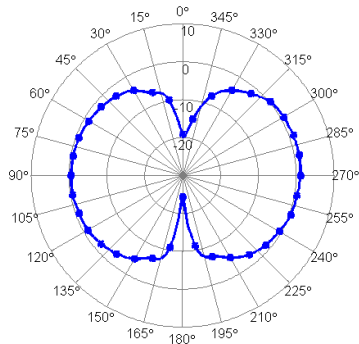
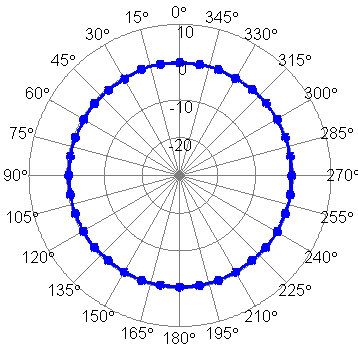
512MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



698MHz

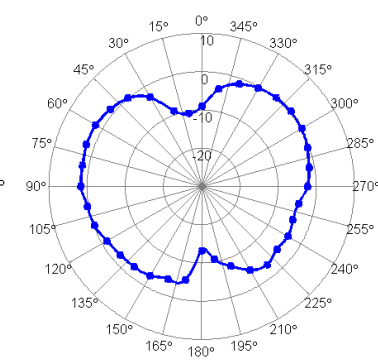
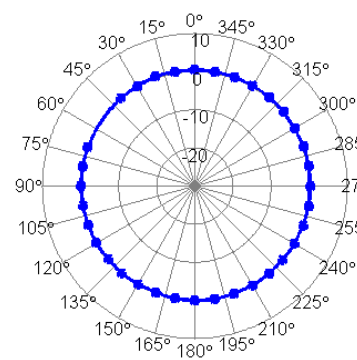
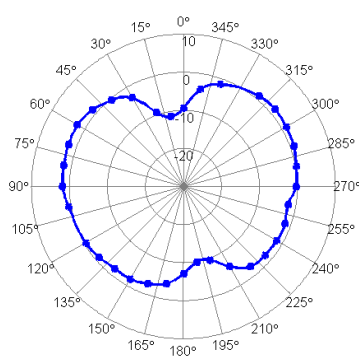
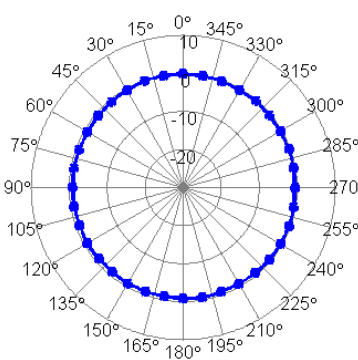
750MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



850MHz

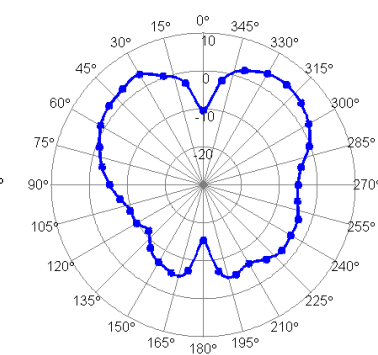
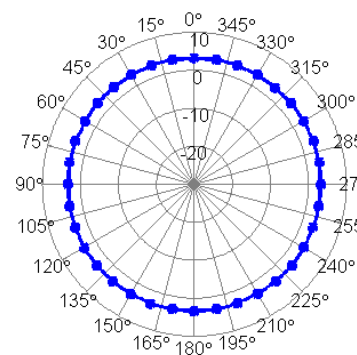
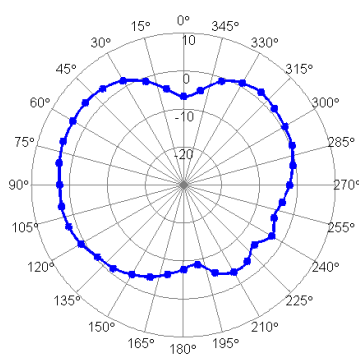
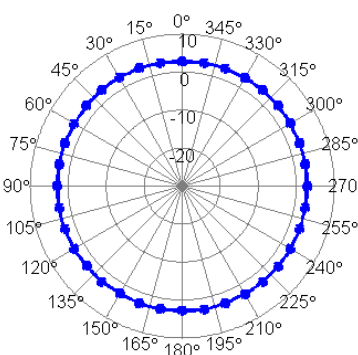
1395MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

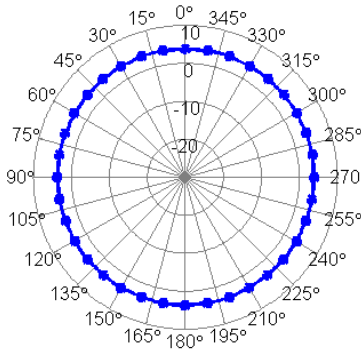
Elevation Plane (dBi)



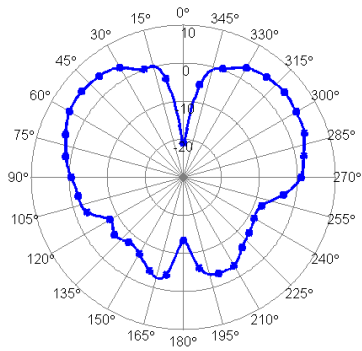
Antenna Power Patterns For Common Frequencies

1750MHz

Azimuth Plane 90° EL (dBi)

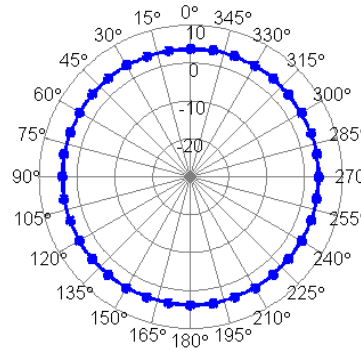


Elevation Plane (dBi)

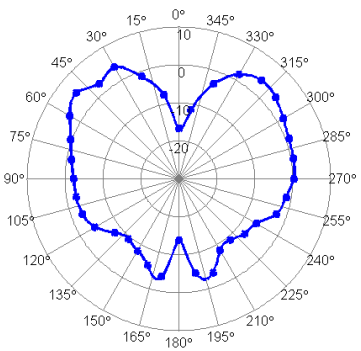


2200MHz

Azimuth Plane 90° EL (dBi)

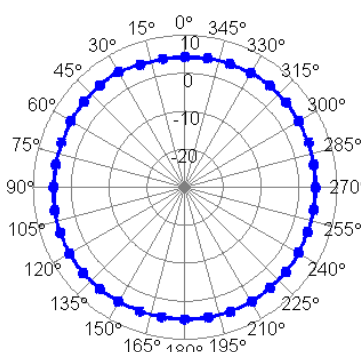


Elevation Plane (dBi)

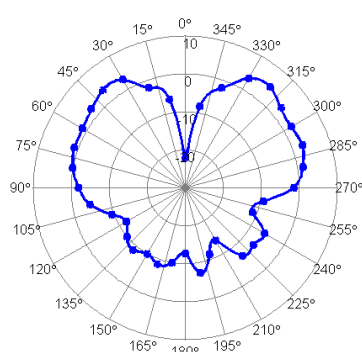


2700MHz

Azimuth Plane 90° EL (dBi)

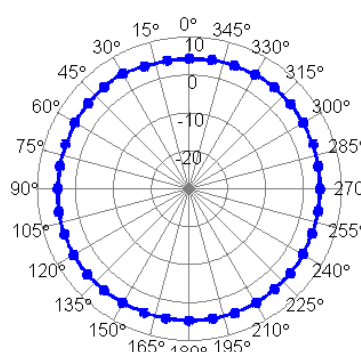


Elevation Plane (dBi)

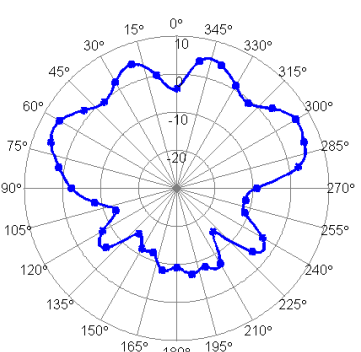


3600MHz

Azimuth Plane 90° EL (dBi)

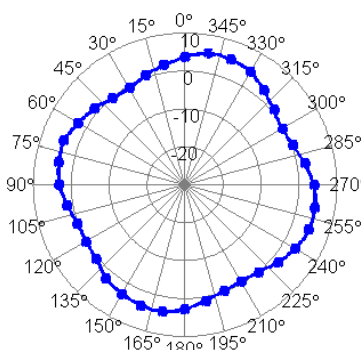


Elevation Plane (dBi)

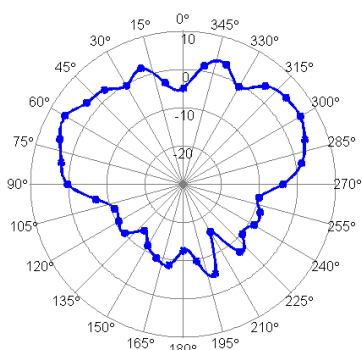


5200MHz

Azimuth Plane 90° EL (dBi)

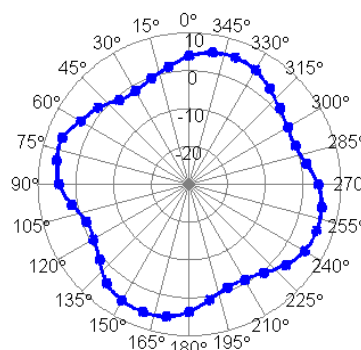


Elevation Plane (dBi)



5900MHz

Azimuth Plane 90° EL (dBi)



Elevation Plane (dBi)

