

## Wideband (450-6000MHz) Omni In-Building Antenna



**The UACM-S™ is Fractal Antenna System's flagship wideband antenna** for ceiling mounted in-building Public Safety & DAS applications. Using our proprietary and patented FRACTAL technologies, the UACM-S™ 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 performance** with ultra-wide bandwidth
- **Smallest form factor** for given performance on the market
- **Made in USA** of US and imported parts

### Specifications

(for commonly used frequencies)

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
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	<b>UCS00</b> (w/ type N connector); <b>UCS01</b> (w/ 18" pigtail 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](mailto:sales@fractenna.com)**

Applicable Fractal Antenna Systems Patents: 7,190,318; 7,701,396; 9,825,368; and Patents Pending

### Antenna Power Patterns For Common Frequencies

#### 400MHz

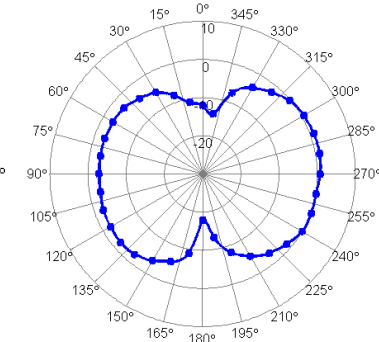
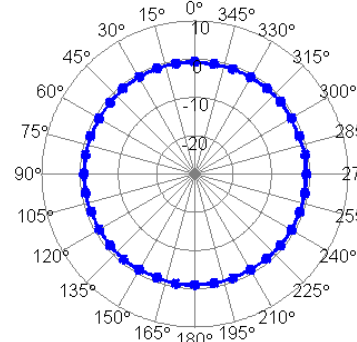
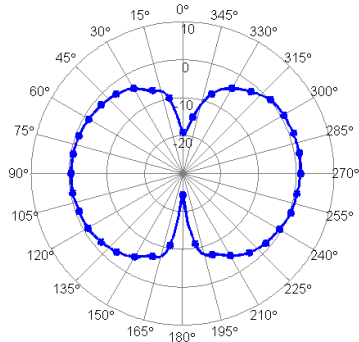
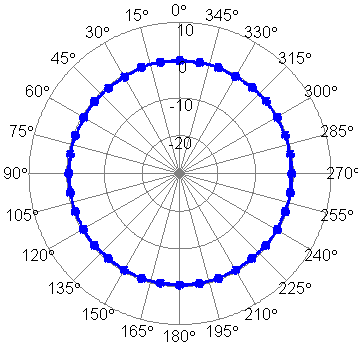
#### 512MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



#### 698MHz

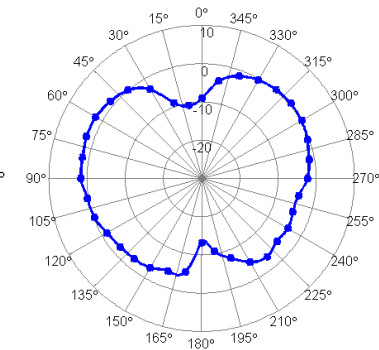
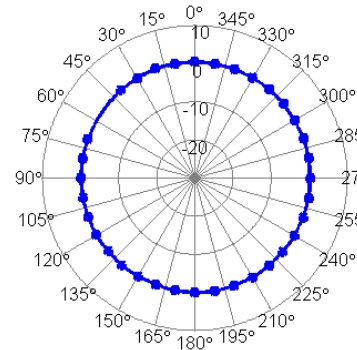
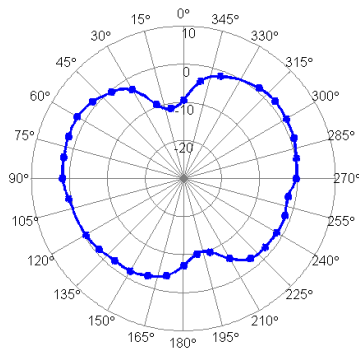
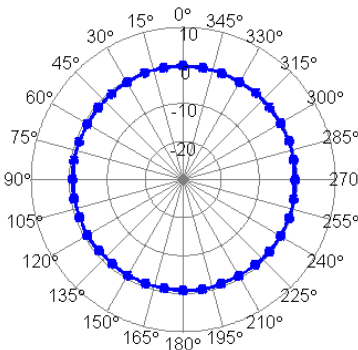
#### 750MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



#### 850MHz

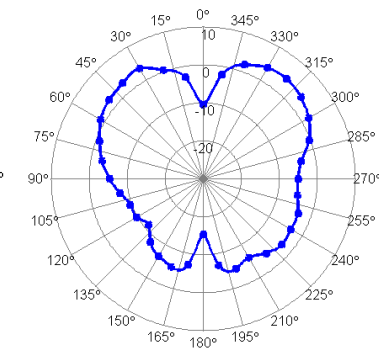
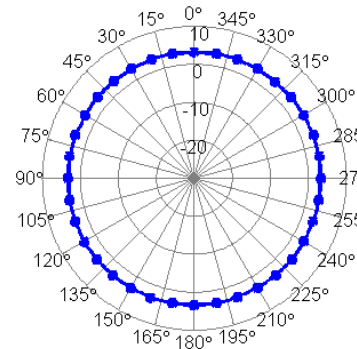
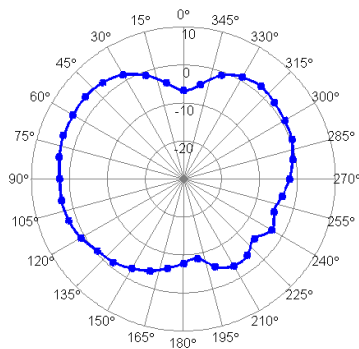
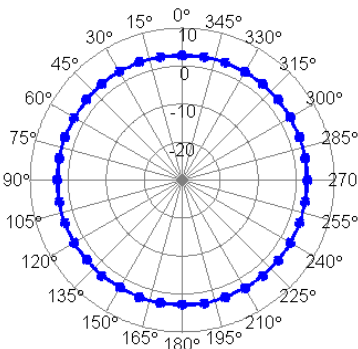
#### 1395MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

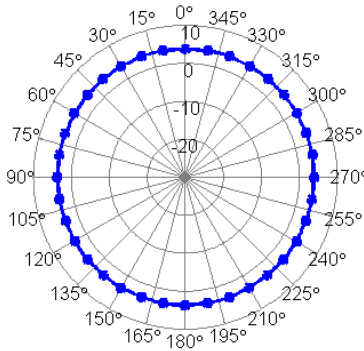
Elevation Plane (dBi)



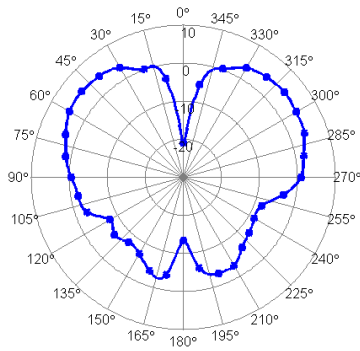
### Antenna Power Patterns For Common Frequencies

#### 1750MHz

Azimuth Plane 90° EL (dBi)

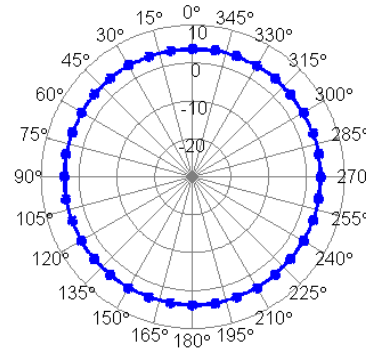


Elevation Plane (dBi)

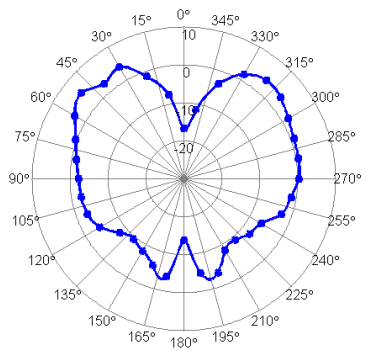


#### 2200MHz

Azimuth Plane 90° EL (dBi)

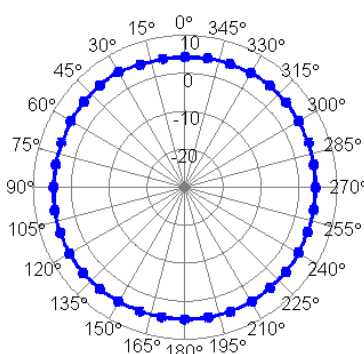


Elevation Plane (dBi)

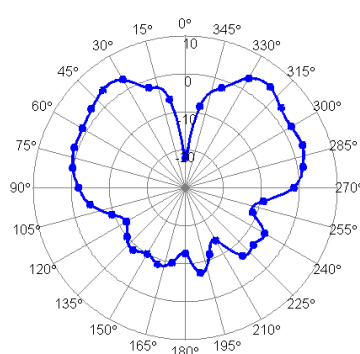


#### 2700MHz

Azimuth Plane 90° EL (dBi)

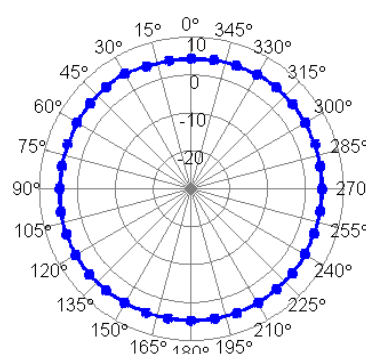


Elevation Plane (dBi)

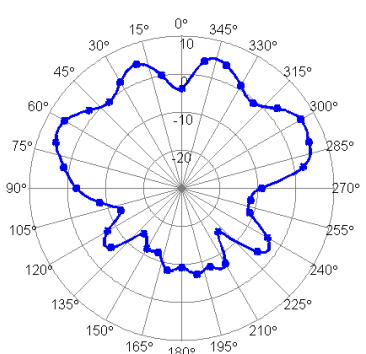


#### 3600MHz

Azimuth Plane 90° EL (dBi)

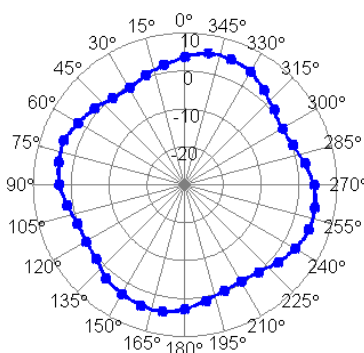


Elevation Plane (dBi)

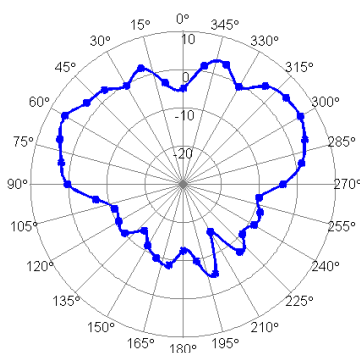


#### 5200MHz

Azimuth Plane 90° EL (dBi)

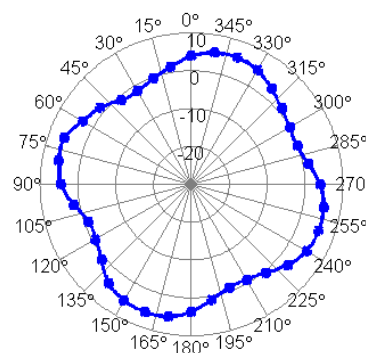


Elevation Plane (dBi)



#### 5900MHz

Azimuth Plane 90° EL (dBi)



Elevation Plane (dBi)

