

## Super Wideband (150-6000MHz) Omni In-Building Antenna



The UACM-V™ is Fractal Antenna System's flagship wideband antenna for ceiling mounted in-building Public Safety & DAS applications that require VHF coverage. Using our proprietary and patented FRACTAL technologies, the UACM-V™ 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** and **super wide bandwidth** that covers **VHF**
- **Smallest form factor** (both **size and weight**) for given performance on the market
- **Made in USA**

### Specifications

(for commonly used frequencies)

| Frequency    | 150-174  | 380-512 | 617-806 | 806-960 | 1350-1435 | 1670-2200 | 2200-3500 | 3500-4200 | 4200-6000 |
|--------------|--|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|
| Max Gain     | -13.6  | 2.2     | 1.4     | 3.4     | 7.5       | 9.2       | 9.2       | 10        | 8.4       |
| Avg Gain     | -16  | 1.2     | 1       | 2.5     | 4.5       | 5.5       | 5.5       | 5.5       | 6         |
| Avg VSWR     | <3:1   | <2.6:1  | <1.7:1  | <1.5:1  | <1.2:1    | <1.3:1    | <1.3:1    | <1.4:1    | <1.5:1    |
| Impedance    | 50 Ω   |         |         |         |           |           |           |           |           |
| Polarization | Vertical                                       |         |         |         |           |           |           |           |           |
| Beamwidth    | Omni (360°)                                    |         |         |         |           |           |           |           |           |
| Max Power    | 20 Watts                                       |         |         |         |           |           |           |           |           |
| Connector    | Single input, single output - Type N-Connector |         |         |         |           |           |           |           |           |

### Mechanical Specifications

|                  |  |
|------------------|--|
| Unit Number      | <b>UCV00</b> (w/ type N connector); <b>UCV01</b> (w/ 12" 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  |

Fulfilled by:

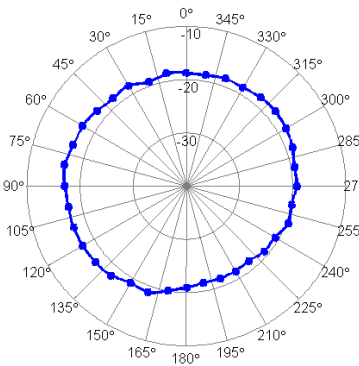


**Call (800) 435-1636**

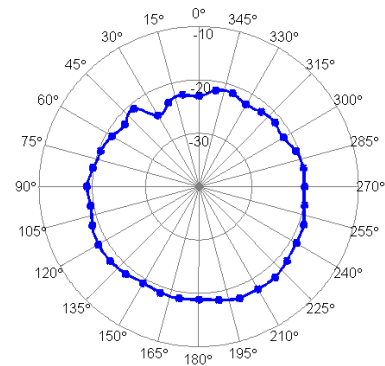
### Antenna Power Patterns For Common Frequencies

#### 155MHz

Azimuth Plane 90° EL (dBi)

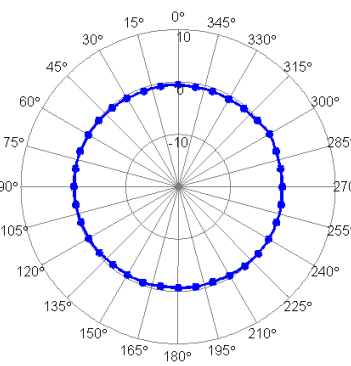


Elevation Plane (dBi)

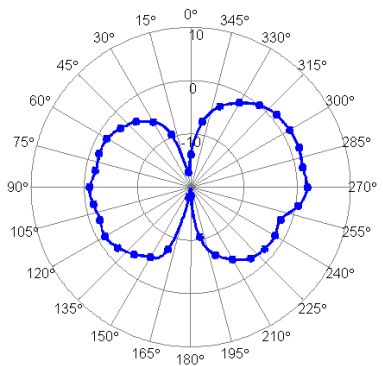


#### 400MHz

Azimuth Plane 90° EL (dBi)

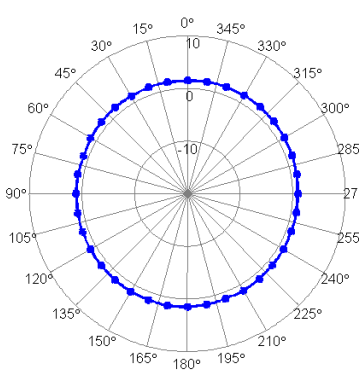


Elevation Plane (dBi)

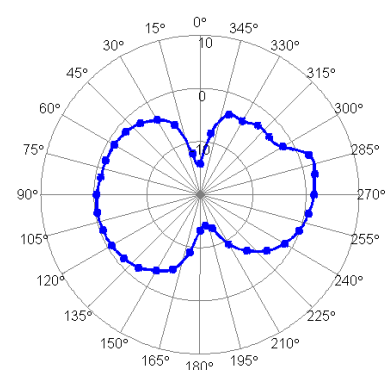


#### 512MHz

Azimuth Plane 90° EL (dBi)

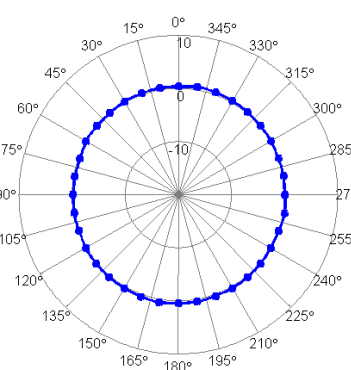


Elevation Plane (dBi)

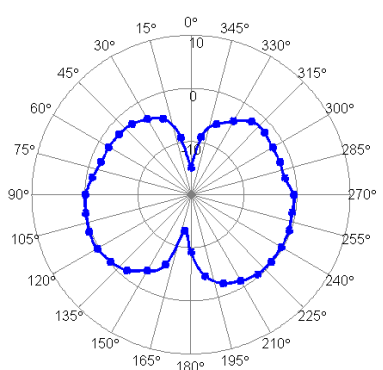


#### 698MHz

Azimuth Plane 90° EL (dBi)

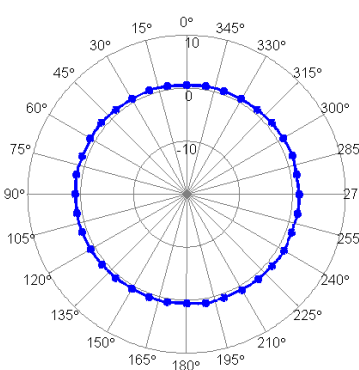


Elevation Plane (dBi)

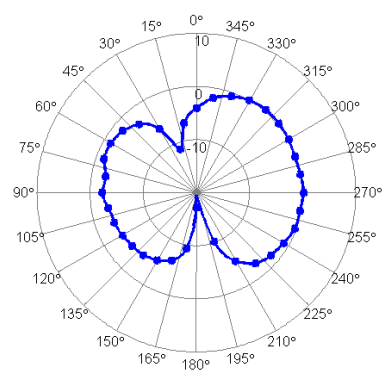


#### 750MHz

Azimuth Plane 90° EL (dBi)

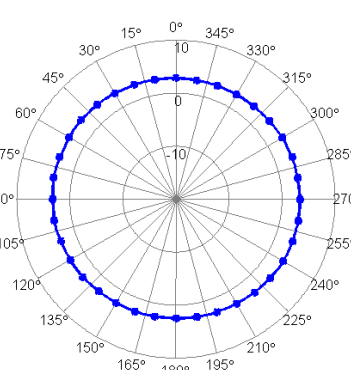


Elevation Plane (dBi)

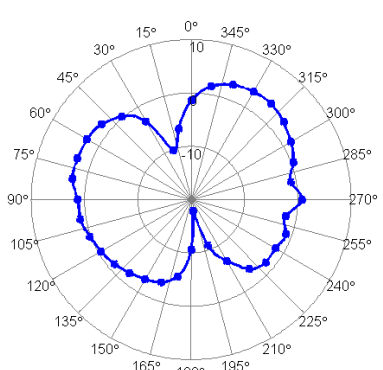


#### 850MHz

Azimuth Plane 90° EL (dBi)



Elevation Plane (dBi)



### Antenna Power Patterns For Common Frequencies

#### 1395MHz

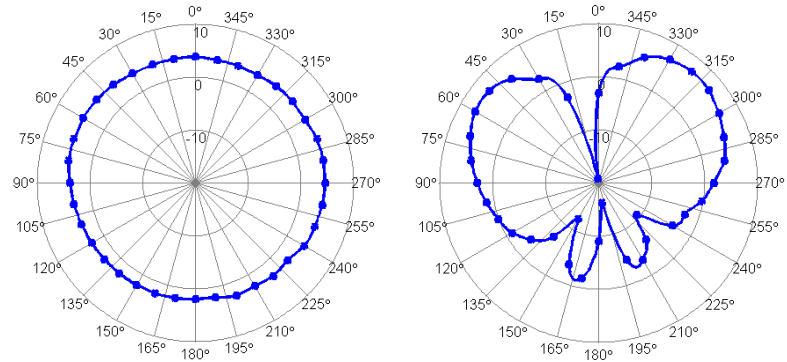
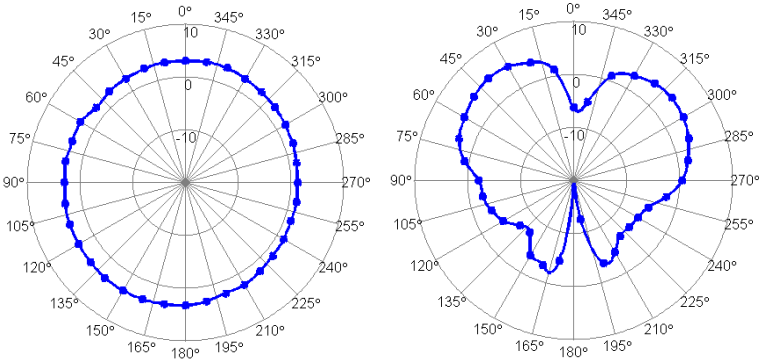
#### 1750MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



#### 2200MHz

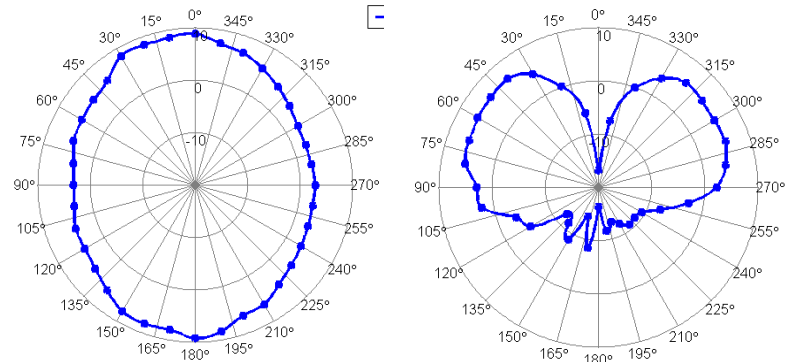
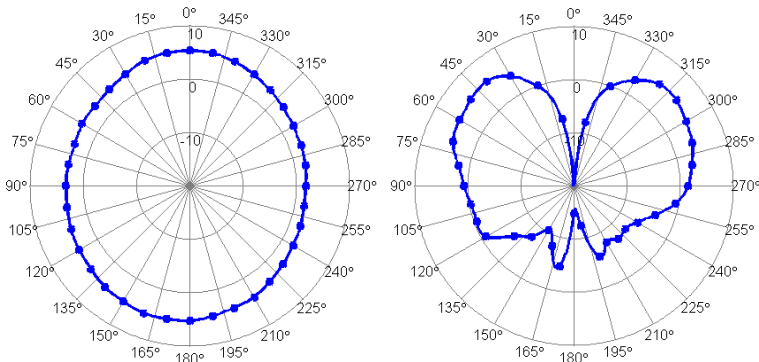
#### 2700MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



#### 3600MHz

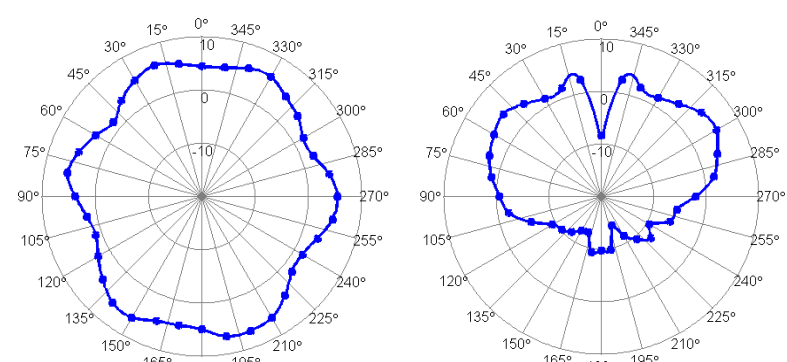
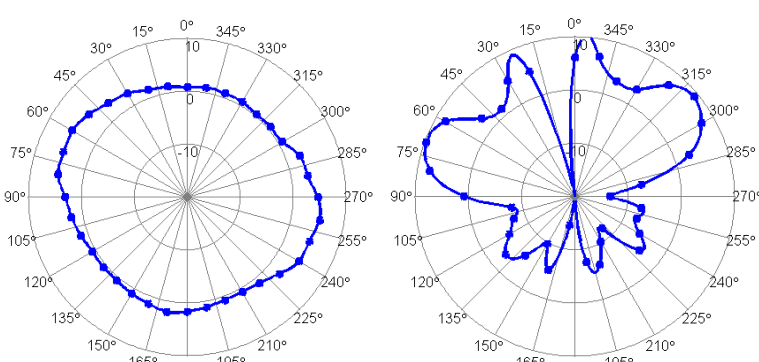
#### 5200MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

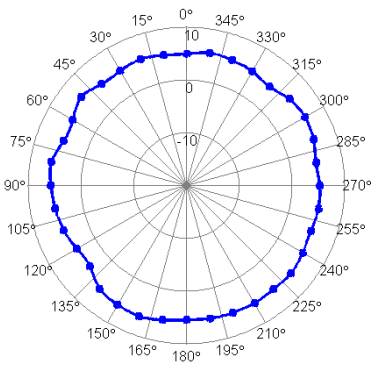




### Antenna Power Patterns For Common Frequencies

#### 5900MHz

Azimuth Plane 90° EL (dBi)



Elevation Plane (dBi)

