

Wideband (380-6000MHz) 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** (both size and weight) for given performance on the market
- **Made in USA**

Specifications

(for commonly used frequencies)

| Frequency (MHz) | 380-512 | 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 | <2.6:1 | <1.7:1 | <1.6:1 | <1.2:1 | <1.2:1 | <1.3:1 | <1.4:1 | <1.5:1 |
| 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 | UCS00 (w/ type N connector); UCS01 (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 |

For inquiries email us: sales@fractenna.com

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

Antenna Power Patterns For Common Frequencies

400MHz

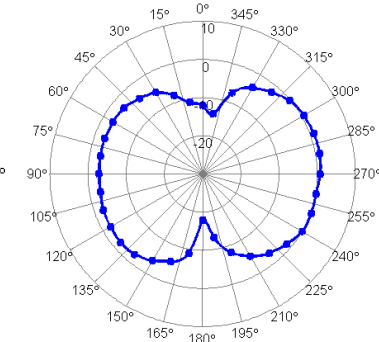
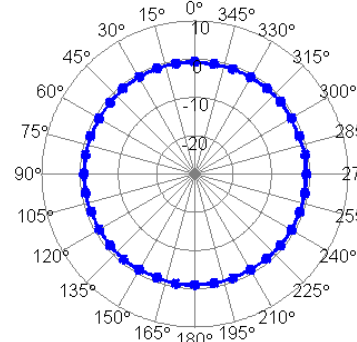
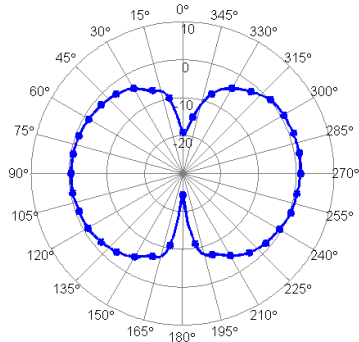
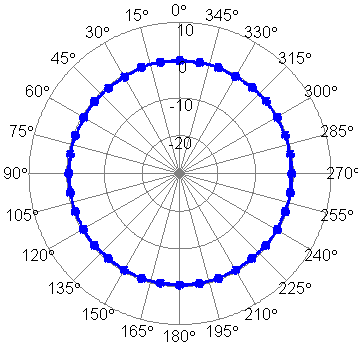
512MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



698MHz

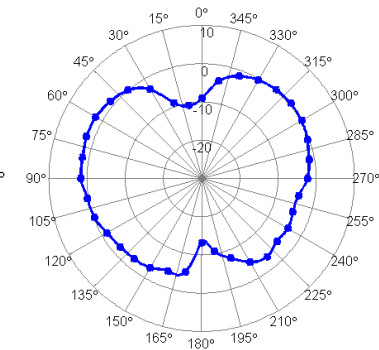
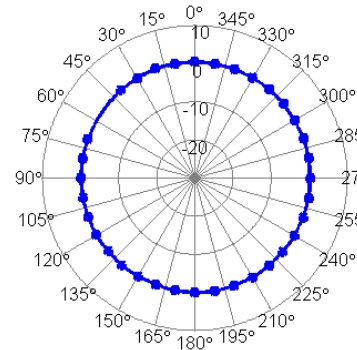
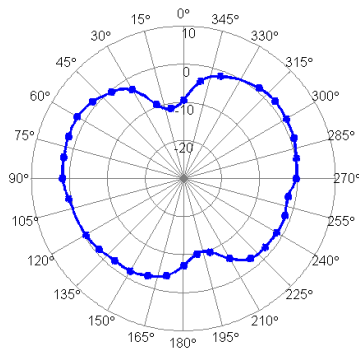
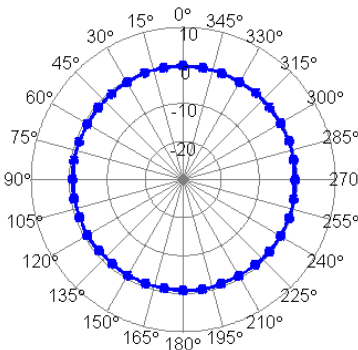
750MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)



850MHz

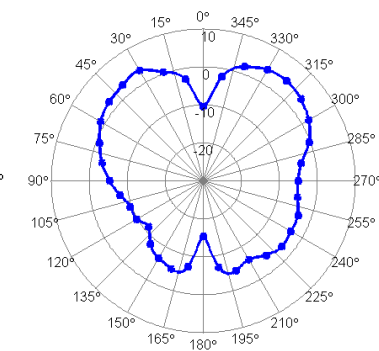
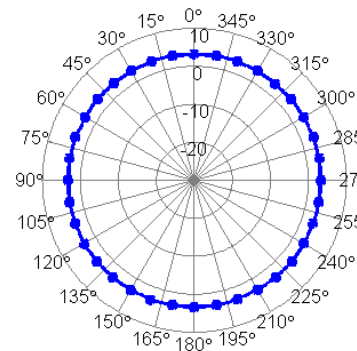
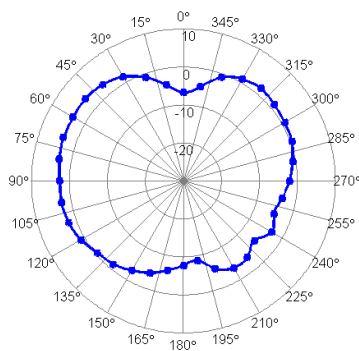
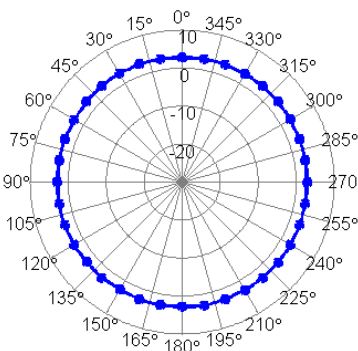
1395MHz

Azimuth Plane 90° EL (dBi)

Elevation Plane (dBi)

Azimuth Plane 90° EL (dBi)

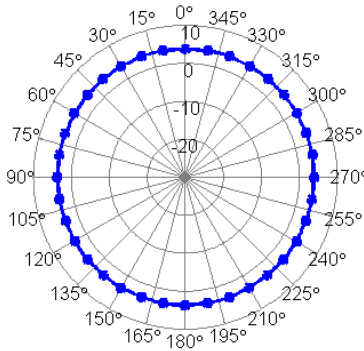
Elevation Plane (dBi)



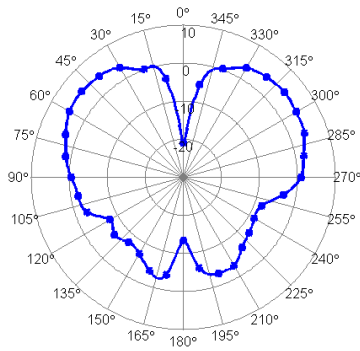
Antenna Power Patterns For Common Frequencies

1750MHz

Azimuth Plane 90° EL (dBi)

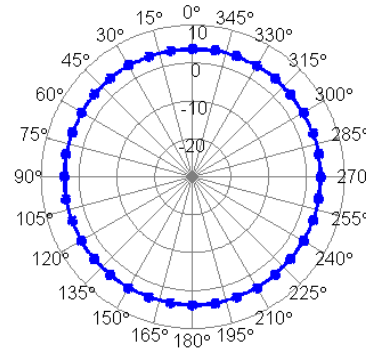


Elevation Plane (dBi)

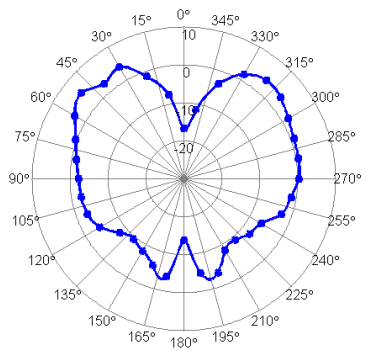


2200MHz

Azimuth Plane 90° EL (dBi)

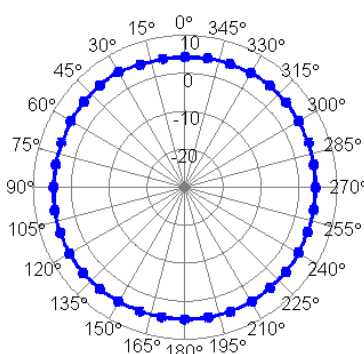


Elevation Plane (dBi)

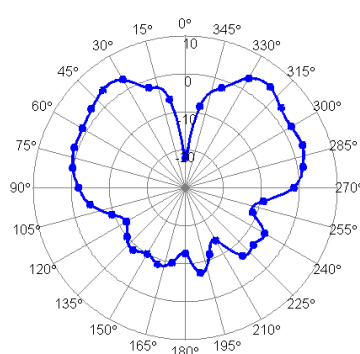


2700MHz

Azimuth Plane 90° EL (dBi)

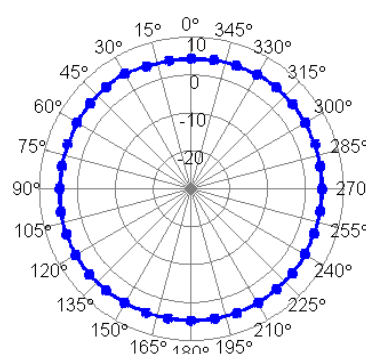


Elevation Plane (dBi)

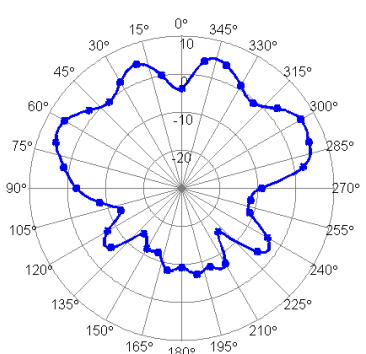


3600MHz

Azimuth Plane 90° EL (dBi)

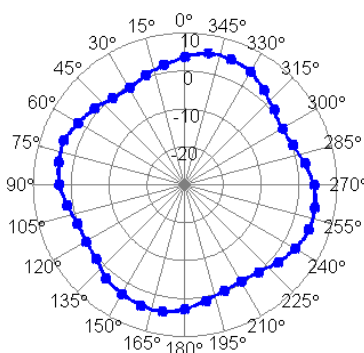


Elevation Plane (dBi)

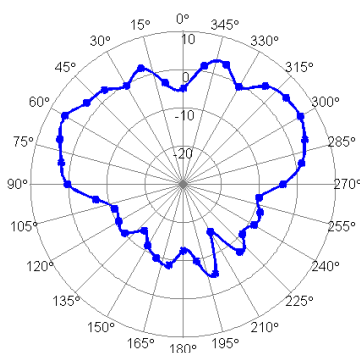


5200MHz

Azimuth Plane 90° EL (dBi)

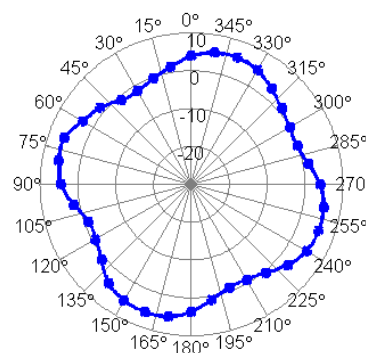


Elevation Plane (dBi)



5900MHz

Azimuth Plane 90° EL (dBi)



Elevation Plane (dBi)

