



PowerBeam[®]

High-Performance airMAX[®] Bridge

Models: PBE-M5-620, PBE-M5-400, PBE-M5-300, PBE-M2-400

Uniform Beamwidth Maximizes Noise Immunity

Innovative Mechanical Design

High-Speed Processor for Superior Performance



Overview

Starting with the first-generation NanoBridge®, Ubiquiti Networks pioneered the all-in-one design for an airMAX® product functioning as a CPE (Customer Premises Equipment). Now Ubiquiti Networks launches the latest generation of CPE, the PowerBeam®.

Improved Noise Immunity

The PowerBeam directs RF energy in a tighter beamwidth. With the focus in one direction, the PowerBeam blocks or spatially filters out noise, so noise immunity is improved. This feature is especially important in an area crowded with other RF signals of the same or similar frequency.

Integrated Design

Ubiquiti's InnerFeed® technology integrates the radio into the feedhorn of an antenna, so there is no need for a cable. This improves performance because it eliminates cable losses.

Providing high performance and innovative mechanical design at a low cost, the PowerBeam is extremely versatile and cost-effective to deploy.

airMAX Technology Included

Unlike standard Wi-Fi protocol, Ubiquiti's Time Division Multiple Access (TDMA) airMAX protocol allows each client to send and receive data using pre-designated time slots scheduled by an intelligent AP controller.

This time slot method eliminates hidden node collisions and maximizes airtime efficiency. It provides significant performance improvements in latency, throughput, and scalability compared to all other outdoor systems in its class.

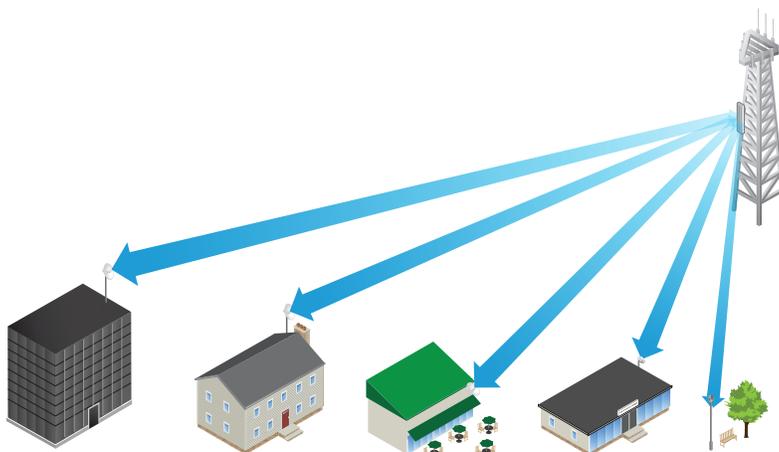
Intelligent QoS Priority is given to voice/video for seamless streaming.

Scalability High capacity and scalability.

Long Distance Capable of high-speed, carrier-class links.

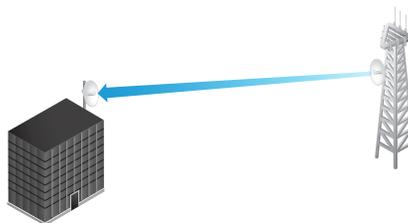
Application Examples

PtMP Client Links



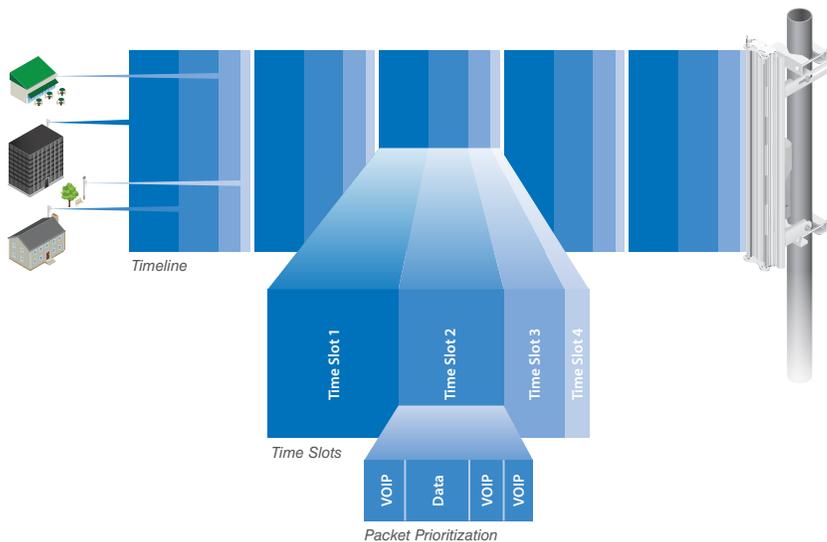
The PowerBeam used as a CPE device for each client in an airMAX PtMP network.

PtP Link



Use a PowerBeam on each side of a PtP link.

airMAX TDMA Technology



Up to 100 airMAX stations can be connected to an airMAX Sector; four airMAX stations are shown to illustrate the general concept.

Software

airOS®

airOS® is an intuitive, versatile, highly developed Ubiquiti firmware technology. It is exceptionally intuitive and was designed to require no training to operate. Behind the user interface is a powerful firmware architecture, which enables high-performance, outdoor multi-point networking.

- Protocol Support
- Ubiquiti Channelization
- Spectral Width Adjustment
- ACK Auto-Timing
- AAP Technology
- Multi-Language Support

airView®

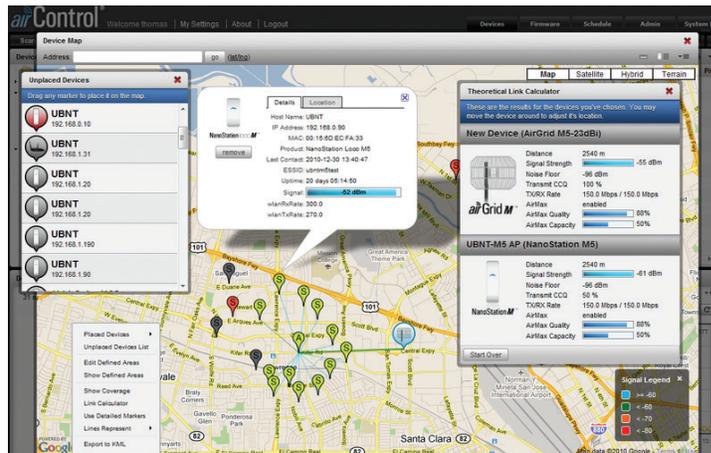
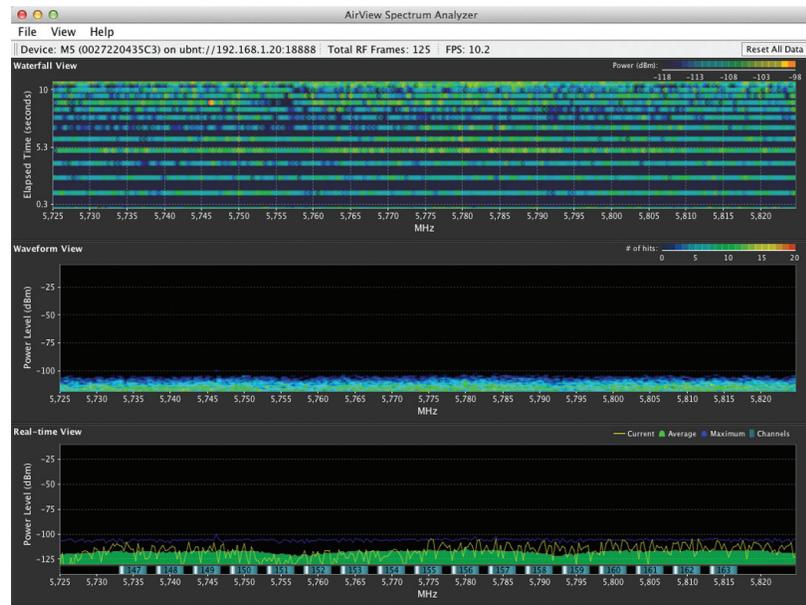
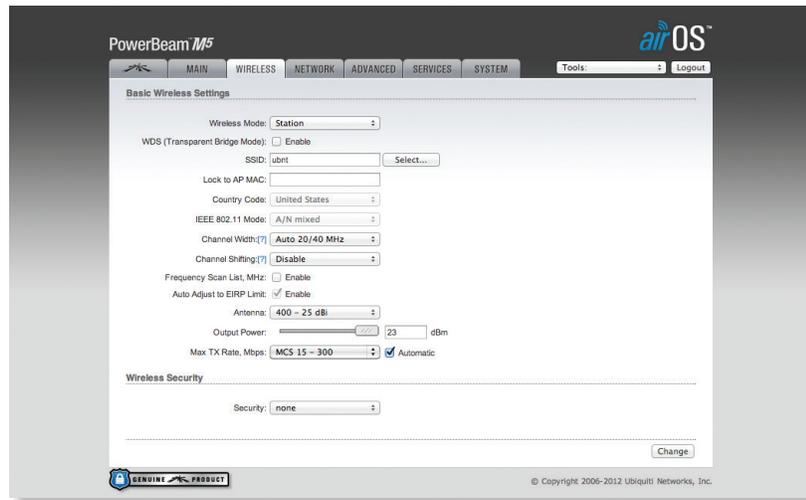
Integrated on all Ubiquiti M products, airView® provides advanced spectrum analyzer functionality: waterfall, waveform, and real-time spectral views allow operators to identify noise signatures and plan their networks to minimize noise interference.

- **Waterfall** Aggregate energy over time for each frequency.
- **Waveform** Aggregate energy collected.
- **Real-time** Energy is shown in real time as a function of frequency.
- **Recording** Automate airView to record and report results.

airControl®

airControl® is a powerful and intuitive, web-based server network management application, which allows operators to centrally manage entire networks of Ubiquiti devices.

- Network Map
- Monitor Device Status
- Mass Firmware Upgrade
- Web UI Access
- Manage Groups of Devices
- Task Scheduling



Hardware Overview

Innovative Mechanical Design

- **Built-in mechanical tilt** The mounting bracket conveniently offers 20° of up-tilt and up to 20° of down-tilt.
- **Quick assembly** The number of fasteners was reduced to simplify assembly. Tools are required only when the technician mounts the PowerBeam on the pole.
- **Easy removal** The antenna feed can be detached with the push of a button.

Corrosion Resistance

- **Fasteners** GEOMET-coated for improved corrosion resistance when compared with zinc-plated fasteners.
- **Dish and brackets** Made of galvanized steel that is powder-coated for superior corrosion resistance. The redesigned pole bracket for the 400 mm dish and fender washers for the 300 mm dish prevent paint from being removed from the metal brackets for improved corrosion resistance.

Model Comparison

| | PBE-M5-620 | PBE-M5-400 | PBE-M5-300 | PBE-M2-400 |
|-------------------|-------------|-------------|------------|------------|
| Frequency Band | 5 GHz | 5 GHz | 5 GHz | 2.4 GHz |
| Antenna Gain | 29 dBi | 25 dBi | 22 dBi | 18 dBi |
| Dish Reflector | 620 mm | 400 mm | 300 mm | 400 mm |
| Throughput | 150+ Mbps | 150+ Mbps | 150+ Mbps | 150+ Mbps |
| Network Interface | 10/100/1000 | 10/100/1000 | 10/100 | 10/100 |



PowerBeam® M 400 mm Radome

| Model | PBE-M2-400 | PBE-M5-400 | PBE-M5-300 |
|-------------|------------|------------|------------|
| PBE-RAD-400 | ✓ | ✓ | N/A |

A protective radome is available as an optional accessory for the PBE-M2-400 and PBE-M5-400.

PowerBeam® Accessories IsoBeam™

Model: ISO-BEAM-620



The IsoBeam™ is an isolator radome that is available as an optional accessory for the PBE-M5-620 and other models:

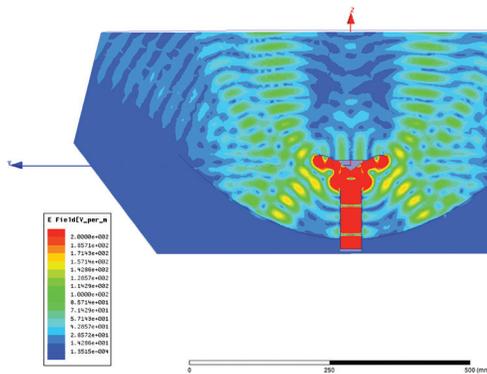
- airFiber® AF-5G30-S45
- PowerBeam PBE-5AC-620
- RocketDish™ RD-5G30-LW

The innovative RF-choke perimeter of the IsoBeam delivers superior noise immunity in co-location deployments; its perimeter corrugation provides enhanced RF shielding. Compare the two near-field plots below, and note the breakthrough isolation performance of the IsoBeam.

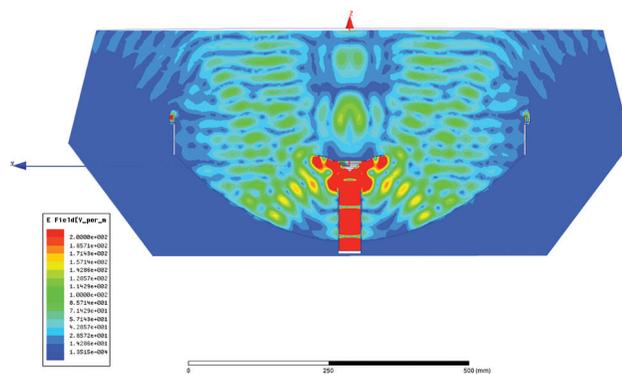
Both near-field plots are displayed in watts and use a linear scale. The strength of the electromagnetic field is color-coded:

- Red: Highest strength
- Green: Medium strength
- Indigo: Lowest strength

Without IsoBeam



With IsoBeam



Precision Alignment Kit

Model: PAK-620



The Precision Alignment Kit is available as an optional accessory for the PBE-M5-620. It features 15° of azimuth adjustment and 15° of elevation adjustment to enable extremely accurate aiming for optimal PtP link performance.

The Precision Alignment Kit is also compatible with other dish antennas:

- airFiber AF-5G30-S45
- PowerBeam PBE-5AC-620
- RocketDish RD-5G30-LW

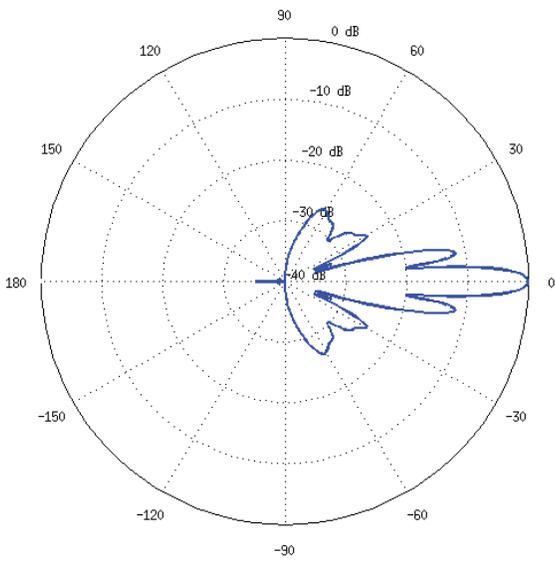
Specifications

| PBE-M5-620 | | | | | |
|------------------------|---|------------------|------------------|------------------|------------------|
| Dimensions | 620 x 620 x 386 mm (24.41 x 24.41 x 15.2") | | | | |
| Weight | 6.4 kg (14.11 lb) | | | | |
| Power Supply | 24V, 0.5A Gigabit PoE | | | | |
| Max. Power Consumption | 8.5W | | | | |
| Operating Frequency | Worldwide | USA: U-NII-1 | USA: U-NII-2A | USA: U-NII-2C | USA: U-NII-3 |
| | 5150 - 5875 MHz | 5150 - 5250 MHz* | 5250 - 5350 MHz* | 5470 - 5725 MHz* | 5725 - 5850 MHz* |
| Gain | 29 dBi | | | | |
| Networking Interface | (1) 10/100/1000 Ethernet Port | | | | |
| Processor Specs | Atheros MIPS 74Kc, 560 MHz | | | | |
| Memory | 64 MB DDR2, 8 MB Flash | | | | |
| LEDs | (1) Power, (1) LAN, (4) WLAN | | | | |
| Signal Strength LEDs | Software-Adjustable to Correspond to Custom RSSI Levels | | | | |
| Max. VSWR | 1.6:1 | | | | |
| Channel Sizes | 5/8/10/20/30/40 MHz | | | | |
| Polarization | Dual Linear | | | | |
| Enclosure | Outdoor UV Stabilized Plastic | | | | |
| Mounting | Pole-Mount (Kit Included) | | | | |
| Wind Loading | 1510 N @200 km/h (340 lbf @125 mph) | | | | |
| Wind Survivability | 200 km/h (125 mph) | | | | |
| ESD/EMP Protection | Air: ± 24 kV, Contact: ± 24 kV | | | | |
| Operating Temperature | -40 to 70° C (-40 to 158° F) | | | | |
| Operating Humidity | 5 to 95% Noncondensing | | | | |
| Wireless Approvals | FCC, IC, CE | | | | |
| RoHS Compliance | Yes | | | | |
| Salt Fog Test | IEC 68-2-11 (ASTM B117), Equivalent: MIL-STD-810 G Method 509.5 | | | | |
| Vibration Test | IEC 68-2-6 | | | | |
| Temperature Shock Test | IEC 68-2-14 | | | | |
| UV Test | IEC 68-2-5 at 40° C (104° F), Equivalent: ETS 300 019-1-4 | | | | |
| Wind-Driven Rain Test | ETS 300 019-1-4, Equivalent: MIL-STD-810 G Method 506.5 | | | | |

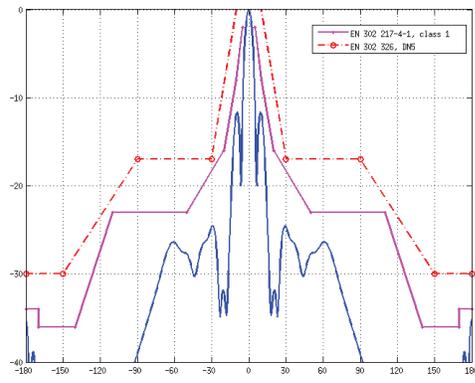
| PBE-M5-620 Output Power: 24 dBm | | | | | | | |
|---------------------------------|-------------|---------|-----------|-------------------------|-------------|--------------|-----------|
| TX Power Specifications | | | | RX Power Specifications | | | |
| Modulation | Data Rate | Avg. TX | Tolerance | Modulation | Data Rate | Sensitivity | Tolerance |
| 802.11a | 6 - 24 Mbps | 24 dBm | ± 2 dB | 802.11a | 6 - 24 Mbps | -94 dBm Min. | ± 2 dB |
| | 36 Mbps | 24 dBm | ± 2 dB | | 36 Mbps | -80 dBm | ± 2 dB |
| | 48 Mbps | 23 dBm | ± 2 dB | | 48 Mbps | -77 dBm | ± 2 dB |
| | 54 Mbps | 22 dBm | ± 2 dB | | 54 Mbps | -75 dBm | ± 2 dB |
| 802.11n/airMAX | MCS0 | 24 dBm | ± 2 dB | 802.11n/airMAX | MCS0 | -96 dBm | ± 2 dB |
| | MCS1 | 24 dBm | ± 2 dB | | MCS1 | -95 dBm | ± 2 dB |
| | MCS2 | 23 dBm | ± 2 dB | | MCS2 | -92 dBm | ± 2 dB |
| | MCS3 | 23 dBm | ± 2 dB | | MCS3 | -90 dBm | ± 2 dB |
| | MCS4 | 22 dBm | ± 2 dB | | MCS4 | -86 dBm | ± 2 dB |
| | MCS5 | 21 dBm | ± 2 dB | | MCS5 | -83 dBm | ± 2 dB |
| | MCS6 | 20 dBm | ± 2 dB | | MCS6 | -77 dBm | ± 2 dB |
| | MCS7 | 20 dBm | ± 2 dB | | MCS7 | -74 dBm | ± 2 dB |
| | MCS8 | 24 dBm | ± 2 dB | | MCS8 | -96 dBm | ± 2 dB |
| | MCS9 | 24 dBm | ± 2 dB | | MCS9 | -95 dBm | ± 2 dB |
| | MCS10 | 23 dBm | ± 2 dB | | MCS10 | -92 dBm | ± 2 dB |
| | MCS11 | 23 dBm | ± 2 dB | | MCS11 | -90 dBm | ± 2 dB |
| | MCS12 | 22 dBm | ± 2 dB | | MCS12 | -86 dBm | ± 2 dB |
| | MCS13 | 21 dBm | ± 2 dB | | MCS13 | -83 dBm | ± 2 dB |
| | MCS14 | 20 dBm | ± 2 dB | | MCS14 | -77 dBm | ± 2 dB |
| MCS15 | 20 dBm | ± 2 dB | MCS15 | -74 dBm | ± 2 dB | | |

* Some frequencies may require activation; visit: <https://www.ubnt.com/fcclabelrequest>

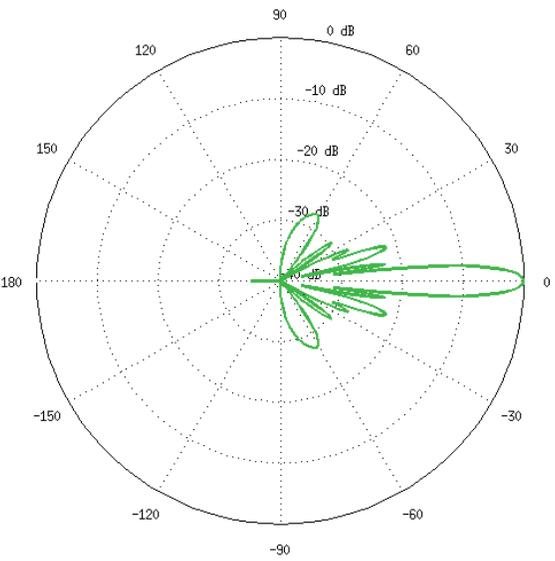
E-Plane



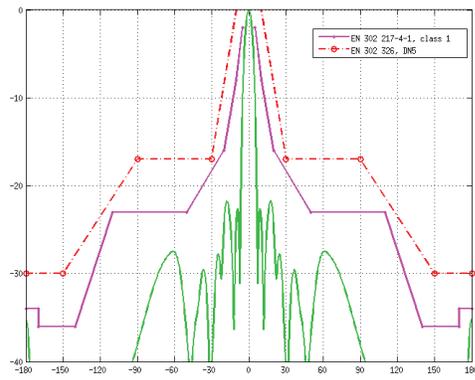
E-Plane Specs



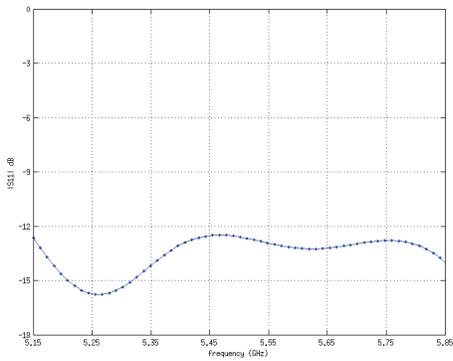
H-Plane



H-Plane Specs



Return Loss



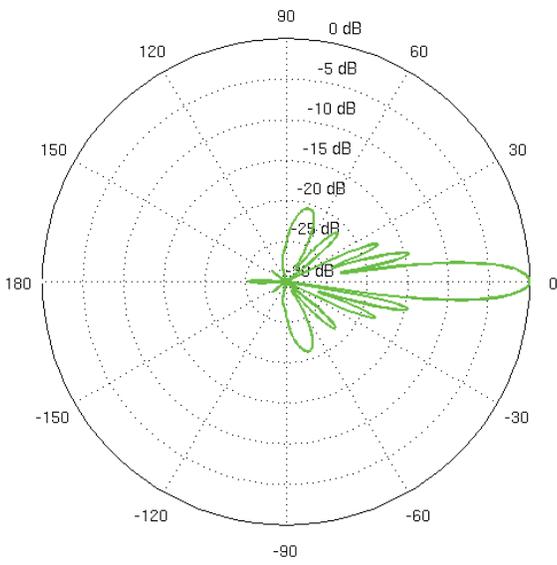
Specifications

| PBE-M5-400 | | | | | |
|------------------------|---|------------------|------------------|------------------|------------------|
| Dimensions | 420 x 420 x 275 mm (16.54 x 16.54 x 10.83") | | | | |
| Weight | 1.753 kg (3.87 lb) | | | | |
| Power Supply | 24V, 0.5A Gigabit PoE | | | | |
| Max. Power Consumption | 8W | | | | |
| Operating Frequency | Worldwide | USA: U-NII-1 | USA: U-NII-2A | USA: U-NII-2C | USA: U-NII-3 |
| | 5150 - 5875 MHz | 5150 - 5250 MHz* | 5250 - 5350 MHz* | 5470 - 5725 MHz* | 5725 - 5850 MHz* |
| Gain | 25 dBi | | | | |
| Networking Interface | (1) 10/100/1000 Ethernet Port | | | | |
| Processor Specs | Atheros MIPS 74Kc, 560 MHz | | | | |
| Memory | 64 MB DDR2, 8 MB Flash | | | | |
| LEDs | (1) Power, (1) LAN, (4) WLAN | | | | |
| Signal Strength LEDs | Software-Adjustable to Correspond to Custom RSSI Levels | | | | |
| Max. VSWR | 1.5:1 | | | | |
| Channel Sizes | 5/8/10/20/30/40 MHz | | | | |
| Polarization | Dual Linear | | | | |
| Enclosure | Outdoor UV Stabilized Plastic | | | | |
| Mounting | Pole-Mount (Kit Included) | | | | |
| Wind Loading | 278.4 N @ 120 km/h (63 lbf @ 75 mph) | | | | |
| Wind Survivability | 120 km/h (75 mph) | | | | |
| ESD/EMP Protection | Air: ± 24 kV, Contact: ± 24 kV | | | | |
| Operating Temperature | -40 to 70° C (-40 to 158° F) | | | | |
| Operating Humidity | 5 to 95% Noncondensing | | | | |
| Wireless Approvals | FCC, IC, CE | | | | |
| RoHS Compliance | Yes | | | | |
| Salt Fog Test | IEC 68-2-11 (ASTM B117), Equivalent: MIL-STD-810 G Method 509.5 | | | | |
| Vibration Test | IEC 68-2-6 | | | | |
| Temperature Shock Test | IEC 68-2-14 | | | | |
| UV Test | IEC 68-2-5 at 40° C (104° F), Equivalent: ETS 300 019-1-4 | | | | |
| Wind-Driven Rain Test | ETS 300 019-1-4, Equivalent: MIL-STD-810 G Method 506.5 | | | | |

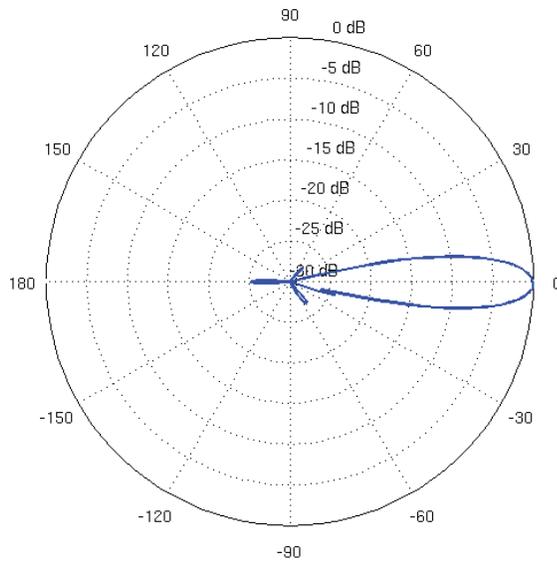
| PBE-M5-400 Output Power: 26 dBm | | | | | | | |
|---------------------------------|-------------|---------|-----------|-------------------------|-------------|--------------|-----------|
| TX Power Specifications | | | | RX Power Specifications | | | |
| Modulation | Data Rate | Avg. TX | Tolerance | Modulation | Data Rate | Sensitivity | Tolerance |
| 802.11a | 6 - 24 Mbps | 26 dBm | ± 2 dB | 802.11a | 6 - 24 Mbps | -94 dBm Min. | ± 2 dB |
| | 36 Mbps | 25 dBm | ± 2 dB | | 36 Mbps | -80 dBm | ± 2 dB |
| | 48 Mbps | 24 dBm | ± 2 dB | | 48 Mbps | -77 dBm | ± 2 dB |
| | 54 Mbps | 23 dBm | ± 2 dB | | 54 Mbps | -75 dBm | ± 2 dB |
| 802.11n/airMAX | MCS0 | 26 dBm | ± 2 dB | 802.11n/airMAX | MCS0 | -96 dBm | ± 2 dB |
| | MCS1 | 25 dBm | ± 2 dB | | MCS1 | -95 dBm | ± 2 dB |
| | MCS2 | 25 dBm | ± 2 dB | | MCS2 | -92 dBm | ± 2 dB |
| | MCS3 | 25 dBm | ± 2 dB | | MCS3 | -90 dBm | ± 2 dB |
| | MCS4 | 24 dBm | ± 2 dB | | MCS4 | -86 dBm | ± 2 dB |
| | MCS5 | 23 dBm | ± 2 dB | | MCS5 | -83 dBm | ± 2 dB |
| | MCS6 | 23 dBm | ± 2 dB | | MCS6 | -77 dBm | ± 2 dB |
| | MCS7 | 23 dBm | ± 2 dB | | MCS7 | -74 dBm | ± 2 dB |
| | MCS8 | 26 dBm | ± 2 dB | | MCS8 | -95 dBm | ± 2 dB |
| | MCS9 | 25 dBm | ± 2 dB | | MCS9 | -93 dBm | ± 2 dB |
| | MCS10 | 25 dBm | ± 2 dB | | MCS10 | -90 dBm | ± 2 dB |
| | MCS11 | 25 dBm | ± 2 dB | | MCS11 | -87 dBm | ± 2 dB |
| | MCS12 | 24 dBm | ± 2 dB | | MCS12 | -84 dBm | ± 2 dB |
| | MCS13 | 23 dBm | ± 2 dB | | MCS13 | -79 dBm | ± 2 dB |
| | MCS14 | 23 dBm | ± 2 dB | | MCS14 | -78 dBm | ± 2 dB |
| MCS15 | 23 dBm | ± 2 dB | MCS15 | -75 dBm | ± 2 dB | | |

* Some frequencies may require activation; visit: <https://www.ubnt.com/fcclabelrequest>

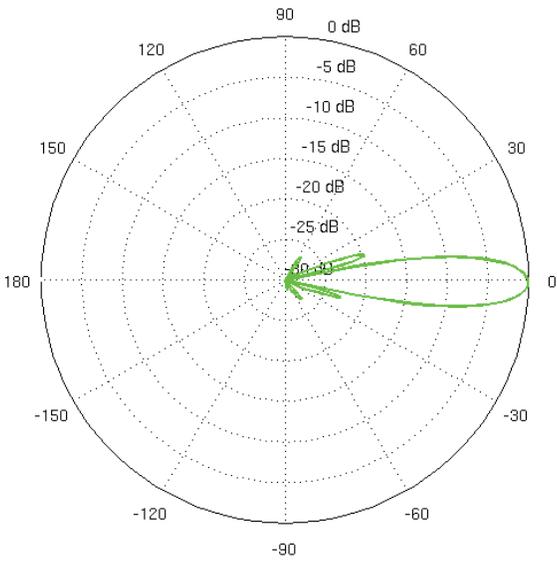
Vertical Azimuth



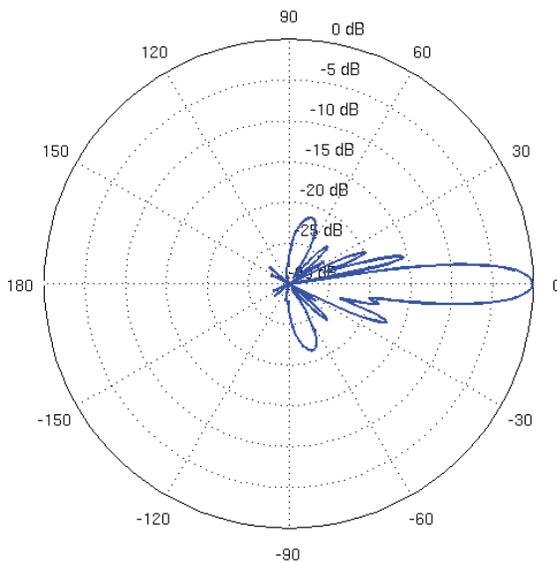
Vertical Elevation



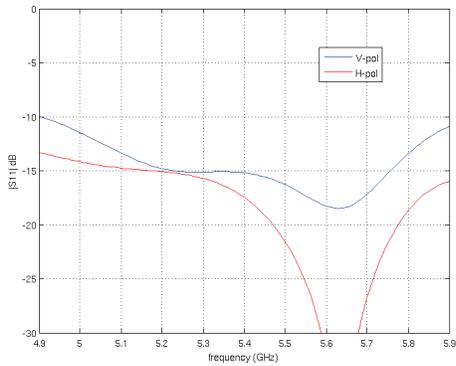
Horizontal Azimuth



Horizontal Elevation



Return Loss



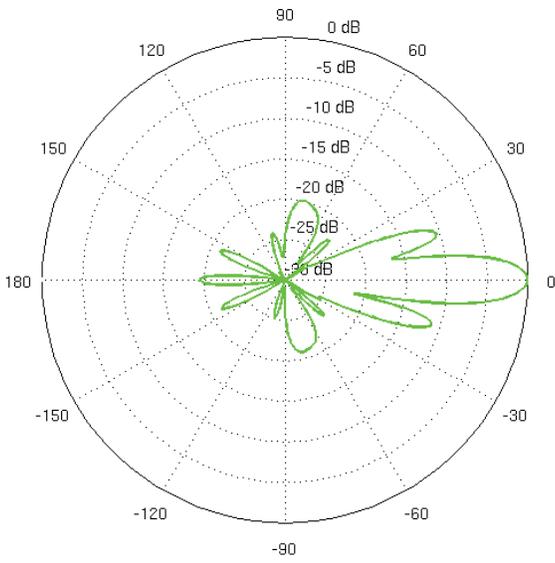
Specifications

| PBE-M5-300 | | | | | |
|------------------------|---|------------------|------------------|------------------|------------------|
| Dimensions | 325 x 325 x 256 mm (12.80 x 12.80 x 10.08") | | | | |
| Weight | 1.203 kg (2.65 lb) | | | | |
| Power Supply | 24V, 0.5A PoE | | | | |
| Max. Power Consumption | 6W | | | | |
| Operating Frequency | Worldwide | USA: U-NII-1 | USA: U-NII-2A | USA: U-NII-2C | USA: U-NII-3 |
| | 5150 - 5875 MHz | 5150 - 5250 MHz* | 5250 - 5350 MHz* | 5470 - 5725 MHz* | 5725 - 5850 MHz* |
| Gain | 22 dBi | | | | |
| Networking Interface | (1) 10/100 Ethernet Port | | | | |
| Processor Specs | Atheros MIPS 74Kc, 560 MHz | | | | |
| Memory | 64 MB DDR2, 8 MB Flash | | | | |
| LEDs | (1) Power, (1) LAN, (4) WLAN | | | | |
| Signal Strength LEDs | Software-Adjustable to Correspond to Custom RSSI Levels | | | | |
| Max. VSWR | 1.5:1 | | | | |
| Channel Sizes | 5/8/10/20/30/40 MHz | | | | |
| Polarization | Dual Linear | | | | |
| Enclosure | Outdoor UV Stabilized Plastic | | | | |
| Mounting | Pole-Mount (Kit Included) | | | | |
| Wind Loading | 145.2 N @ 120 km/h (33 lbf @ 75 mph) | | | | |
| Wind Survivability | 120 km/h (75 mph) | | | | |
| ESD/EMP Protection | Air: ± 24 kV, Contact: ± 24 kV | | | | |
| Operating Temperature | -40 to 70° C (-40 to 158° F) | | | | |
| Operating Humidity | 5 to 95% Noncondensing | | | | |
| Wireless Approvals | FCC, IC, CE | | | | |
| RoHS Compliance | Yes | | | | |
| Salt Fog Test | IEC 68-2-11 (ASTM B117), Equivalent: MIL-STD-810 G Method 509.5 | | | | |
| Vibration Test | IEC 68-2-6 | | | | |
| Temperature Shock Test | IEC 68-2-14 | | | | |
| UV Test | IEC 68-2-5 at 40° C (104° F), Equivalent: ETS 300 019-1-4 | | | | |
| Wind-Driven Rain Test | ETS 300 019-1-4, Equivalent: MIL-STD-810 G Method 506.5 | | | | |

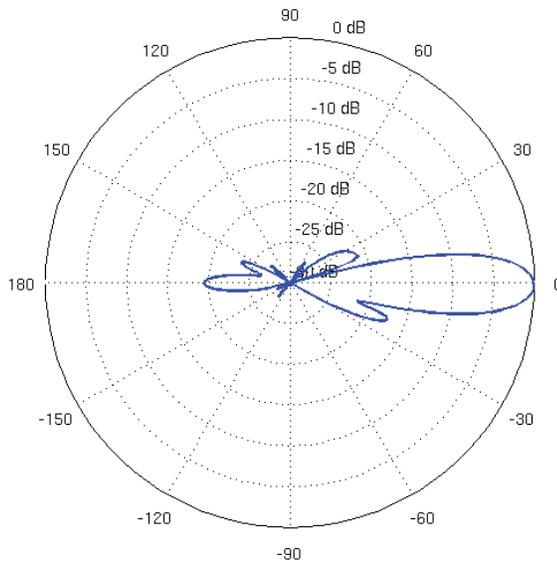
| PBE-M5-300 Output Power: 26 dBm | | | | | | | |
|---------------------------------|-------------|---------|-----------|-------------------------|-------------|--------------|-----------|
| TX Power Specifications | | | | RX Power Specifications | | | |
| Modulation | Data Rate | Avg. TX | Tolerance | Modulation | Data Rate | Sensitivity | Tolerance |
| 802.11a | 6 - 24 Mbps | 26 dBm | ± 2 dB | 802.11a | 6 - 24 Mbps | -94 dBm Min. | ± 2 dB |
| | 36 Mbps | 25 dBm | ± 2 dB | | 36 Mbps | -80 dBm | ± 2 dB |
| | 48 Mbps | 24 dBm | ± 2 dB | | 48 Mbps | -77 dBm | ± 2 dB |
| | 54 Mbps | 23 dBm | ± 2 dB | | 54 Mbps | -75 dBm | ± 2 dB |
| 802.11n/airMAX | MCS0 | 26 dBm | ± 2 dB | 802.11n/airMAX | MCS0 | -96 dBm | ± 2 dB |
| | MCS1 | 25 dBm | ± 2 dB | | MCS1 | -95 dBm | ± 2 dB |
| | MCS2 | 25 dBm | ± 2 dB | | MCS2 | -92 dBm | ± 2 dB |
| | MCS3 | 25 dBm | ± 2 dB | | MCS3 | -90 dBm | ± 2 dB |
| | MCS4 | 24 dBm | ± 2 dB | | MCS4 | -86 dBm | ± 2 dB |
| | MCS5 | 23 dBm | ± 2 dB | | MCS5 | -83 dBm | ± 2 dB |
| | MCS6 | 23 dBm | ± 2 dB | | MCS6 | -77 dBm | ± 2 dB |
| | MCS7 | 23 dBm | ± 2 dB | | MCS7 | -74 dBm | ± 2 dB |
| | MCS8 | 26 dBm | ± 2 dB | | MCS8 | -95 dBm | ± 2 dB |
| | MCS9 | 25 dBm | ± 2 dB | | MCS9 | -93 dBm | ± 2 dB |
| | MCS10 | 25 dBm | ± 2 dB | | MCS10 | -90 dBm | ± 2 dB |
| | MCS11 | 25 dBm | ± 2 dB | | MCS11 | -87 dBm | ± 2 dB |
| | MCS12 | 24 dBm | ± 2 dB | | MCS12 | -84 dBm | ± 2 dB |
| | MCS13 | 23 dBm | ± 2 dB | | MCS13 | -79 dBm | ± 2 dB |
| | MCS14 | 23 dBm | ± 2 dB | | MCS14 | -78 dBm | ± 2 dB |
| MCS15 | 23 dBm | ± 2 dB | MCS15 | -75 dBm | ± 2 dB | | |

* Some frequencies may require activation; visit: <https://www.ubnt.com/fcclabelrequest>

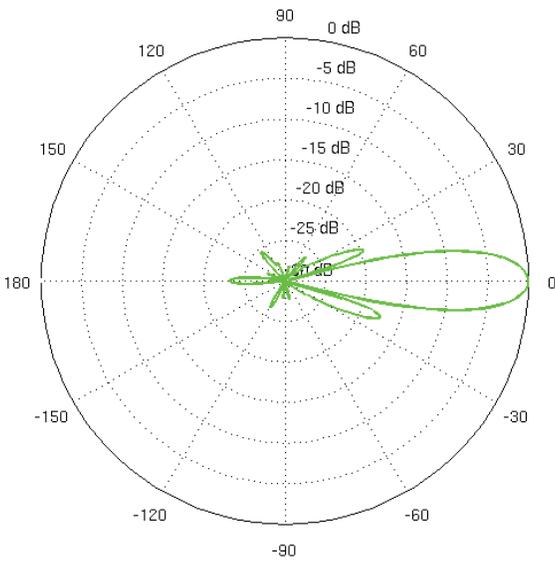
Vertical Azimuth



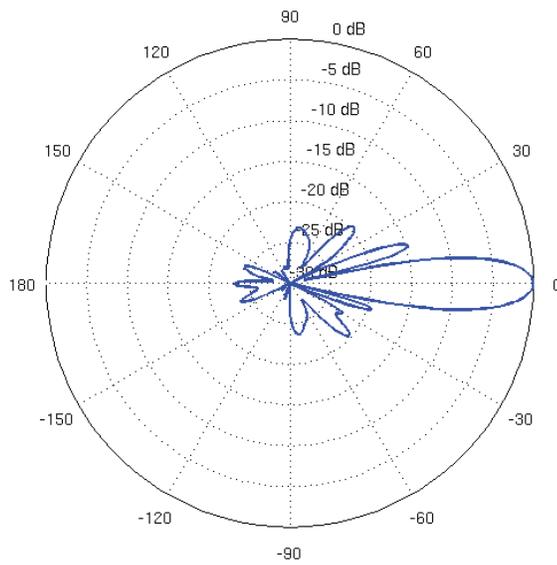
Vertical Elevation



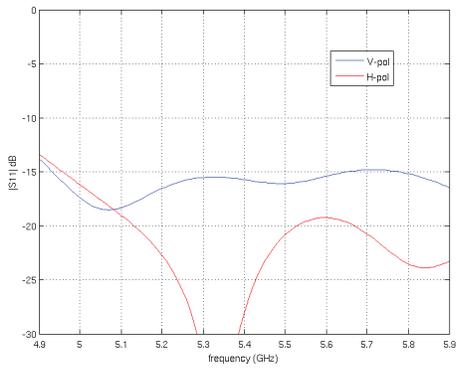
Horizontal Azimuth



Horizontal Elevation



Return Loss

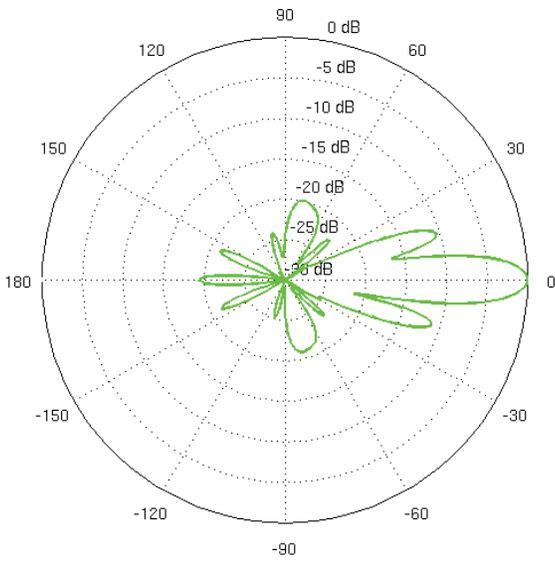


Specifications

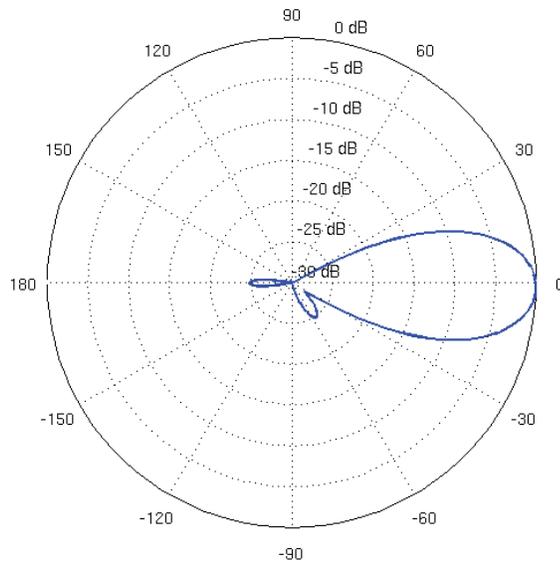
| PBE-M2-400 | |
|------------------------|---|
| Dimensions | 420 x 420 x 289 mm (16.54 x 16.54 x 11.38") |
| Weight | 1.795 kg (3.96 lb) |
| Power Supply | 24V, 0.5A PoE |
| Max. Power Consumption | 6W |
| Operating Frequency | 2405-2475 MHz |
| Gain | 18 dBi |
| Networking Interface | (1) 10/100 Ethernet Port |
| Processor Specs | Atheros MIPS 74Kc, 560 MHz |
| Memory | 64 MB DDR2, 8 MB Flash |
| LEDs | (1) Power, (1) LAN, (4) WLAN |
| Signal Strength LEDs | Software-Adjustable to Correspond to Custom RSSI Levels |
| Max. VSWR | 1.5:1 |
| Channel Sizes | 5/8/10/20/30/40 MHz |
| Polarization | Dual Linear |
| Enclosure | Outdoor UV Stabilized Plastic |
| Mounting | Pole-Mount (Kit Included) |
| Wind Loading | 278.4 N @ 120 km/h (63 lbf @ 75 mph) |
| Wind Survivability | 120 km/h (75 mph) |
| ESD/EMP Protection | Air: ± 24 kV, Contact: ± 24 kV |
| Operating Temperature | -40 to 70° C (-40 to 158° F) |
| Operating Humidity | 5 to 95% Noncondensing |
| Wireless Approvals | FCC, IC, CE |
| RoHS Compliance | Yes |
| Salt Fog Test | IEC 68-2-11 (ASTM B117), Equivalent: MIL-STD-810 G Method 509.5 |
| Vibration Test | IEC 68-2-6 |
| Temperature Shock Test | IEC 68-2-14 |
| UV Test | IEC 68-2-5 at 40° C (104° F), Equivalent: ETS 300 019-1-4 |
| Wind-Driven Rain Test | ETS 300 019-1-4, Equivalent: MIL-STD-810 G Method 506.5 |

| PBE-M2-400 Output Power: 28 dBm | | | | | | | |
|---------------------------------|-------------|---------|-----------|-------------------------|-------------|--------------|-----------|
| TX Power Specifications | | | | RX Power Specifications | | | |
| Modulation | Data Rate | Avg. TX | Tolerance | Modulation | Data Rate | Sensitivity | Tolerance |
| 802.11g | 1 - 24 Mbps | 28 dBm | ± 2 dB | 802.11g | 1 - 24 Mbps | -97 dBm Min. | ± 2 dB |
| | 36 Mbps | 26 dBm | ± 2 dB | | 36 Mbps | -80 dBm | ± 2 dB |
| | 48 Mbps | 25 dBm | ± 2 dB | | 48 Mbps | -77 dBm | ± 2 dB |
| | 54 Mbps | 24 dBm | ± 2 dB | | 54 Mbps | -75 dBm | ± 2 dB |
| 802.11n/airMAX | MCS0 | 28 dBm | ± 2 dB | 802.11n/airMAX | MCS0 | -96 dBm | ± 2 dB |
| | MCS1 | 28 dBm | ± 2 dB | | MCS1 | -95 dBm | ± 2 dB |
| | MCS2 | 28 dBm | ± 2 dB | | MCS2 | -92 dBm | ± 2 dB |
| | MCS3 | 28 dBm | ± 2 dB | | MCS3 | -90 dBm | ± 2 dB |
| | MCS4 | 27 dBm | ± 2 dB | | MCS4 | -86 dBm | ± 2 dB |
| | MCS5 | 25 dBm | ± 2 dB | | MCS5 | -83 dBm | ± 2 dB |
| | MCS6 | 23 dBm | ± 2 dB | | MCS6 | -77 dBm | ± 2 dB |
| | MCS7 | 22 dBm | ± 2 dB | | MCS7 | -74 dBm | ± 2 dB |
| | MCS8 | 28 dBm | ± 2 dB | | MCS8 | -95 dBm | ± 2 dB |
| | MCS9 | 28 dBm | ± 2 dB | | MCS9 | -93 dBm | ± 2 dB |
| | MCS10 | 28 dBm | ± 2 dB | | MCS10 | -90 dBm | ± 2 dB |
| | MCS11 | 28 dBm | ± 2 dB | | MCS11 | -87 dBm | ± 2 dB |
| | MCS12 | 27 dBm | ± 2 dB | | MCS12 | -84 dBm | ± 2 dB |
| | MCS13 | 25 dBm | ± 2 dB | | MCS13 | -79 dBm | ± 2 dB |
| | MCS14 | 23 dBm | ± 2 dB | | MCS14 | -78 dBm | ± 2 dB |
| MCS15 | 22 dBm | ± 2 dB | MCS15 | -75 dBm | ± 2 dB | | |

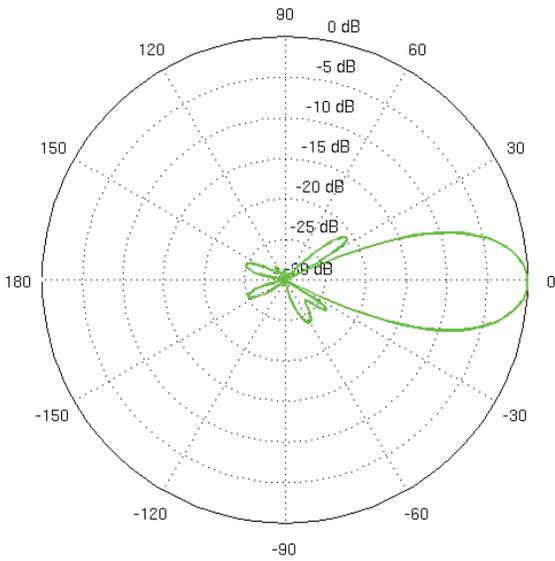
Vertical Azimuth



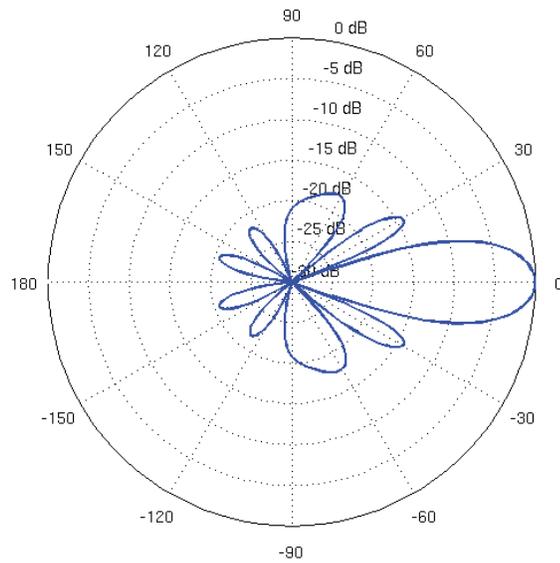
Vertical Elevation



Horizontal Azimuth



Horizontal Elevation



Return Loss

