

**Andrew Solutions****UBP300-4-B**

**0.3 m | 1.0 ft Flat Panel Directional Antenna for Unlicensed Band, single-polarized, 4.900–5.875 GHz, Type N Female, gray antenna, plastic gray radome without flash, standard pack—one-piece reflector (bulk pack)**

## General Specifications

|                        |                                                                |
|------------------------|----------------------------------------------------------------|
| Packing                | Standard pack                                                  |
| Radome Color           | Gray                                                           |
| Radome Material        | UV Protected Plastic                                           |
| Reflector Construction | One-piece reflector                                            |
| Antenna Input          | N Female                                                       |
| Antenna Color          | Gray                                                           |
| Antenna Type           | UB - Directional Antenna for Unlicensed Band, single-polarized |
| Diameter, nominal      | 0.3 m   1 ft                                                   |
| Flash Included         | No                                                             |
| Includes               | Mounting kit                                                   |
| Polarization           | Single                                                         |

## Electrical Specifications

|                                         |                                 |
|-----------------------------------------|---------------------------------|
| Beamwidth, Horizontal                   | 9.0 °                           |
| Beamwidth, Vertical                     | 9.0 °                           |
| Cross Polarization Discrimination (XPD) | 23 dB                           |
| Electrical Compliance                   | ETSI 302 326-3 V1.1.2 (2006-03) |
| Front-to-Back Ratio                     | 35 dB                           |
| Gain, Low Band                          | 21.0 dBi                        |
| Gain, Mid Band                          | 21.5 dBi                        |
| Gain, Top Band                          | 22.0 dBi                        |
| Operating Frequency Band                | 4.900 – 5.875 GHz               |
| Return Loss                             | 14.0 dB                         |
| VSWR                                    | 1.50                            |

## Mechanical Specifications

|                                        |                         |
|----------------------------------------|-------------------------|
| Fine Elevation Adjustment              | +40° to -23°            |
| Mounting Pipe Diameter                 | 25 mm–76 mm   1 in–3 in |
| Net Weight, per unit with mounting kit | 2 kg   5 lb             |
| Side Struts, Included                  | 0                       |
| Side Struts, Optional                  | 0                       |
| Wind Velocity Operational              | 160 km/h   99 mph       |
| Wind Velocity Survival Rating          | 220 km/h   137 mph      |

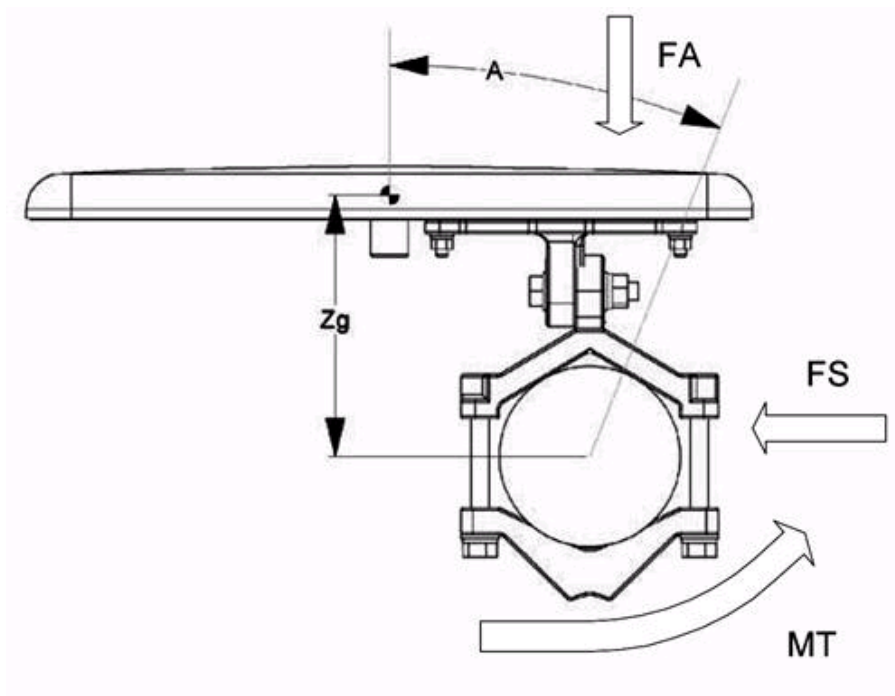
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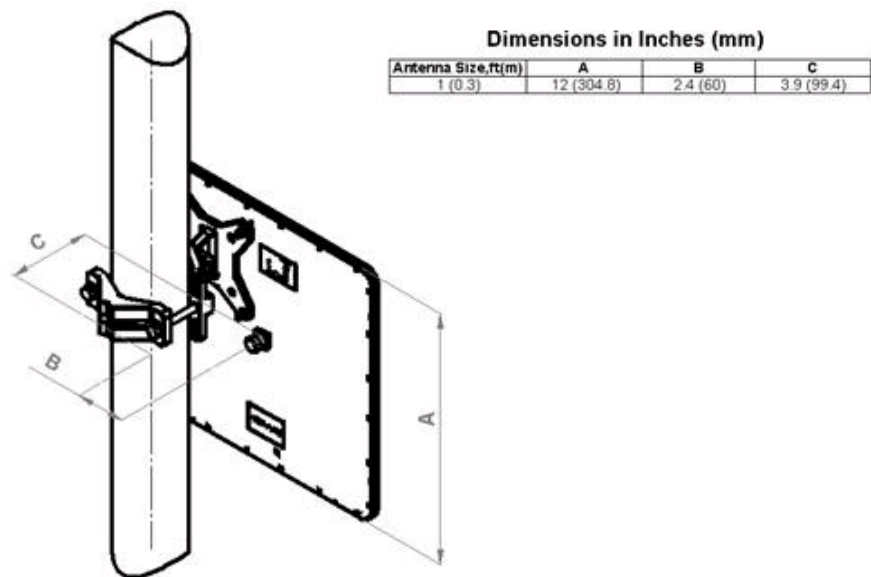
## Wind Forces At Wind Velocity Survival Rating

|                                       |                |
|---------------------------------------|----------------|
| Angle $\alpha$ for MT Max             | 2 °            |
| Axial Force (FA)                      | 263 N   59 lbf |
| Side Force (FS)                       | 13 N   3 lbf   |
| Twisting Moment (MT)                  | 25 N•m         |
| Weight with 1/2 in (12 mm) Radial Ice | 4 kg   9 lb    |
| Zcg with 1/2 in (12 mm) Radial Ice    | 166 mm   7 in  |
| Zcg without Ice                       | 163 mm   6 in  |

## Wind Forces At Wind Velocity Survival Rating Image



## Antenna Dimensions And Mounting Information



## Regulatory Compliance/Certifications

**This part number is supported until:** **Classification**  
RoHS 2002/95/EC Compliant  
ISO 9001:2008 Designed, manufactured and/or distributed under this quality management system



## \* Footnotes

|                                         |                                                                                                                                                                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Axial Force (FA)                        | Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe. |
| Cross Polarization Discrimination (XPD) | The difference between the peak of the co-polarized main beam and the maximum cross-polarized signal over an angle twice the 3 dB beamwidth of the co-polarized main beam.                                                                |
| Front-to-Back Ratio                     | Denotes highest radiation relative to the main beam, at 180° ±40°, across the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.                                                             |
| Gain, Mid Band                          | For a given frequency band, gain is primarily a function of antenna size. The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.                             |
| Operating Frequency Band                | Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.                                                                                            |
| Packing                                 | Andrew standard packing is suitable for export. Antennas are shipped as                                                                                                                                                                   |

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|                               |                                                                                                                                                                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | standard in totally recyclable cardboard or wire-bound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.                                                                                     |
| Return Loss                   | The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.                                                                                                       |
| Side Force (FS)               | Maximum side force exerted on the mounting pipe as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.         |
| Twisting Moment (MT)          | Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.        |
| VSWR                          | Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.                                                                                                                                                           |
| Wind Velocity Operational     | The wind speed where the antenna deflection is equal to or less than 0.1 degrees. In the case of ValuLine antennas, it is defined as a maximum deflection of 0.3 x the 3 dB beam width of the antenna.                                           |
| Wind Velocity Survival Rating | The maximum wind speed the antenna, including mounts and radomes, where applicable, will withstand without permanent deformation. Realignment may be required. This wind speed is applicable to antenna with the specified amount of radial ice. |