



## ValuLine Vision™ 2 ft Antenna

Newly re-engineered 2 ft antenna designed with superior RF pattern performance

When re-engineering and re-designing the VHLP(X)2 family of antennas we considered everything, right down to the box in which it is packaged. The result is an evolutionary 2 ft (0.6 m) microwave antenna that delivers superior RF performance, lowers shipping costs, and lowers total cost of ownership.

Better RF performance, easier to install and maintain, less expensive to ship, quicker to get. At Andrew, value is so much more than price. Everyday, we're expanding our vision of what value can be. The VHLP(X)2 is proof positive.

Using Andrew Solutions patented Pattern Control Ring™ technology, the VHLP(X)2 antennas have a robust electrical design that delivers consistent and highly-controlled electrical performance. RF patterns are compliant to appropriate global regulatory standards giving smooth, reliable deployment and proven performance for years to come, no matter how your network evolves.

The antenna mount design allows unencumbered access to the rear of the antenna. So the VHLP(X)2 makes installing components such as radio equipment easier and simplifies the routing of waveguides and cables. The antenna mount allows gradual and smooth adjustment that simplifies alignment, even under the most adverse weather conditions.

The innovation in design even extends to the packaging of the antenna. By reconfiguring the shipping carton, we've reduced overall volume. So the VHLP(X)2 is less expensive to ship and to warehouse. And that's good to know, considering the 2 ft (0.6 m) antenna is the most requested size in the industry.

Perhaps most importantly, the new VHLP(X)2 is now being manufactured at Andrew locations around the world. Our worldwide manufacturing network means your shipping costs are lower, lead times are shorter, and inventory carrying costs are reduced. In short, the ValuLine Vision® VHLP(X)2 may just be the most value-packed 2 ft (0.6 m) antenna you can buy.

- Superior RF performance
- Easier installation and maintenance
- Reduces shipping and inventory costs
- Manufactured globally

## VHLPX2-23-1GR/B

**0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, dual-polarized, 21.200–23.600 GHz, UG-595/U modified, gray antenna, polymer gray radome without flash, standard pack—one-piece reflector**

### General Specifications

|                        |  |
|------------------------|--|
| Antenna Type           | VHLPX - ValuLine® High Performance Low Profile Antenna, dual-polarized |
| Diameter, nominal      | 0.6 m   2 ft   |
| Packing                | Compact pack   |
| Radome Color           | Gray   |
| Radome Material        | Polymer  |
| Reflector Construction | One-piece reflector  |
| Antenna Input          | UG-595/U Modified  |
| Antenna Color          | Gray   |
| Antenna Type           | VHLPX - ValuLine® High Performance Low Profile Antenna, dual-polarized |
| Diameter, nominal      | 0.6 m   2 ft   |
| Flash Included         | No   |
| Polarization           | Dual   |

### Electrical Specifications

|  |  |
|--|--|
| Operating Frequency Band                   | 21.200 – 23.600 GHz  |
| Beamwidth, Horizontal                      | 1.7 °  |
| Beamwidth, Vertical                        | 1.7 °  |
| Cross Polarization Discrimination (XPD)    | 30 dB  |
| Electrical Compliance                      | Brazil Anatel Class 2   Canada SRSP 321.8 Part A   ETSI 302 217 Class 3   US FCC Part 101A |
| Front-to-Back Ratio                        | 65 dB  |
| Gain, Low Band                             | 40.0 dBi   |
| Gain, Mid Band                             | 40.5 dBi   |
| Gain, Top Band                             | 41.0 dBi   |
| Operating Frequency Band                   | 21.200 – 23.600 GHz  |
| Radiation Pattern Envelope Reference (RPE) | 7217B  |
| Return Loss                                | 17.7 dB  |
| VSWR                                       | 1.30   |

### Mechanical Specifications

|                               |                              |
|-------------------------------|------------------------------|
| Fine Azimuth Adjustment       | ±15°                         |
| Fine Elevation Adjustment     | ±15°                         |
| Mounting Pipe Diameter        | 48 mm–115 mm   1.9 in–4.5 in |
| Net Weight                    | 11 kg   25 lb                |
| Side Struts, Included         | 0                            |
| Side Struts, Optional         | 0                            |
| Wind Velocity Operational     | 200 km/h   124 mph           |
| Wind Velocity Survival Rating | 250 km/h   155 mph           |

### Wind Forces At Wind Velocity Survival Rating

|                  |                  |
|------------------|------------------|
| Axial Force (FA) | 1272 N   286 lbf |
|------------------|------------------|

|                                       |                 |
|---------------------------------------|-----------------|
| VHLPX2-23-1GR/B                       |                 |
| Side Force (FS)                       | 630 N   142 lbf |
| Twisting Moment (MT)                  | 473 N•m         |
| Weight with 1/2 in (12 mm) Radial Ice | 17 kg   37 lb   |
| Zcg with 1/2 in (12 mm) Radial Ice    | 162 mm   6 in   |
| Zcg without Ice                       | 157 mm   6 in   |

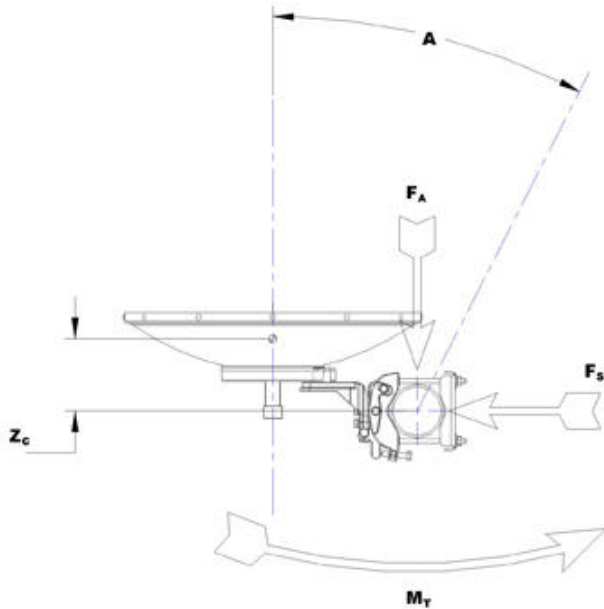


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## Wind Forces At Wind Velocity Survival Rating Image



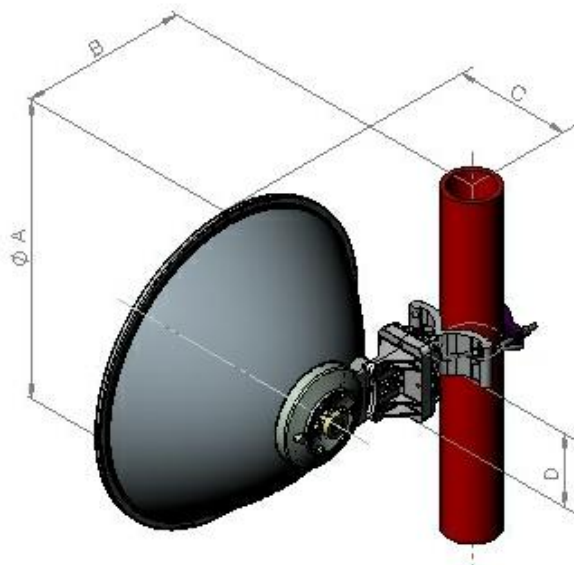
## Packed Dimensions

|                              |                    |  |         |
|------------------------------|--------------------|--|---------|
| Gross Weight, Packed Antenna | 16.0 kg            |  | 35.3 lb |
| Height                       | 330.0 mm           |  | 13.0 in |
| Length                       | 706.0 mm           |  | 27.8 in |
| Volume                       | 0.2 m <sup>3</sup> |  |         |
| Width                        | 798.0 mm           |  | 31.4 in |

VHLPX2-23-1GR/B



## Antenna Dimensions And Mounting Information



| Dimensions in Inches (mm) |            |            |            |           |
|---------------------------|------------|------------|------------|-----------|
| Antenna Size, ft (m)      | A          | B          | C          | D         |
| 2 (0.6)                   | 25.9 (658) | 14.6 (372) | 10.2 (259) | 6.4 (162) |

## Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| 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 standard in totally recyclable cardboard or wire-bound crates (dependent on   |

VHLPX2-23-1GR/B

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product). For your convenience, Andrew offers heavy duty export packing options.

|  |  |
|--|--|
| Radiation Pattern Envelope Reference (RPE) | Radiation patterns determine an antenna's ability to discriminate against unwanted signals under conditions of radio congestion. Radiation patterns are dependent on antenna series, size, and frequency.  |
| 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. |



## VHLPX2-23/B

**0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, dual-polarized, 21.200–23.600 GHz**

### General Specifications

|                   |  |
|-------------------|--|
| Antenna Type      | VHLPX - ValuLine® High Performance Low Profile Antenna, dual-polarized |
| Diameter, nominal | 0.6 m   2 ft   |
| Polarization      | Dual   |

### Electrical Specifications

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| Beamwidth, Horizontal                      | 1.7 °  |
| Beamwidth, Vertical                        | 1.7 °  |
| Cross Polarization Discrimination (XPD)    | 30 dB  |
| Electrical Compliance                      | Brazil Anatel Class 2   Canada SRSP 321.8 Part A   ETSI 302 217 Class 3   US FCC Part 101A |
| Front-to-Back Ratio                        | 65 dB  |
| Gain, Low Band                             | 40.0 dBi   |
| Gain, Mid Band                             | 40.5 dBi   |
| Gain, Top Band                             | 41.0 dBi   |
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| Return Loss                                | 17.7 dB  |
| VSWR                                       | 1.30   |

### Mechanical Specifications

|                               |                              |
|-------------------------------|------------------------------|
| Fine Azimuth Adjustment       | ±15°                         |
| Fine Elevation Adjustment     | ±15°                         |
| Mounting Pipe Diameter        | 48 mm–115 mm   1.9 in–4.5 in |
| Net Weight                    | 11 kg   25 lb                |
| Side Struts, Included         | 0                            |
| Side Struts, Optional         | 0                            |
| Wind Velocity Operational     | 200 km/h   124 mph           |
| Wind Velocity Survival Rating | 250 km/h   155 mph           |

### Wind Forces At Wind Velocity Survival Rating

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| Axial Force (FA)                      | 1272 N   286 lbf |
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VHLPX2-23/B

|                                    |        |  |      |
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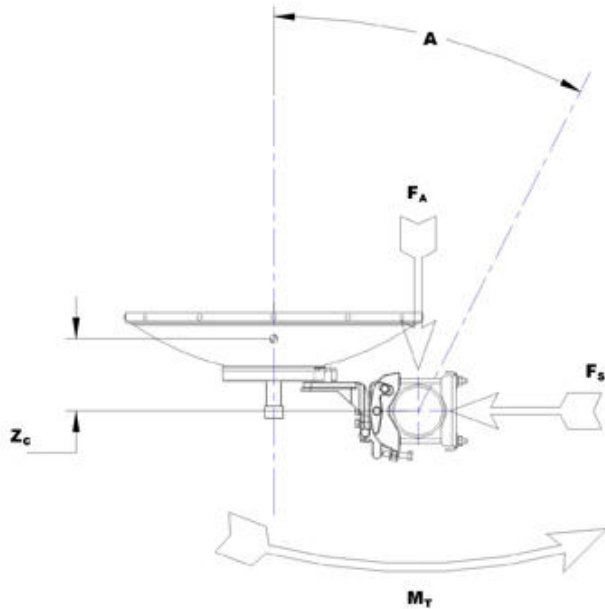


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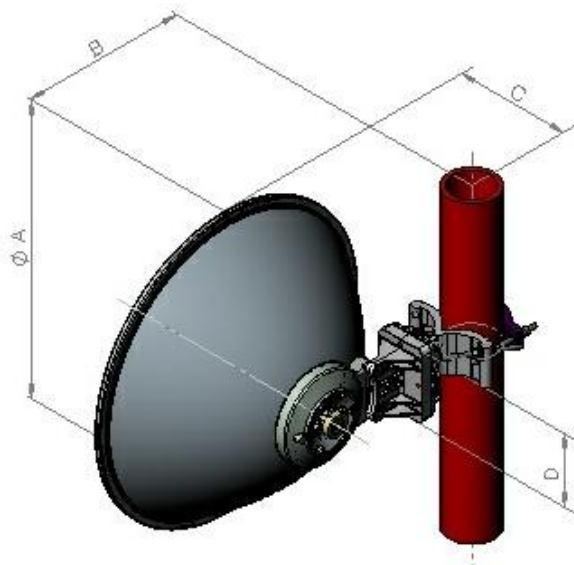
## Wind Forces At Wind Velocity Survival Rating Image



VHLPX2-23/B



## Antenna Dimensions And Mounting Information



| Dimensions in Inches (mm) |            |            |            |           |
|---------------------------|------------|------------|------------|-----------|
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| 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.   |
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| 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  |

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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

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