

### LB-58160-10-A Multi Octave Horn Antenna 5.8-16GHz 10dB Gain Double Ridge Waveguide Interface



Multi Octave Horn Antenna From 5.8GHz to 16GHz With a Nominal 10dB Gain With Double Ridge Waveguide Interface

## Product Information

|     |               |
|-----|---------------|
| SKU | LB-58160-10-A |
|-----|---------------|

## Description

Multi octave horn antenna LB-58160-10-A, operating from 5.8 to 16GHz with a nominal 10dB gain and low VSWR 1.5:1 with FPWRD580D28 output. The model LB-58160-10-A has uniform gain through its frequency span, providing efficient performance characteristics and directionality. Constructed of lightweight corrosion-resistant aluminum, the antenna will provide years of trouble-free indoor and outdoor service. This multi octave horn antenna is linearly polarized and ideally suited for EMI testing, direction finding, surveillance, antenna gain and pattern measurements and other applications.

## Technical Specification

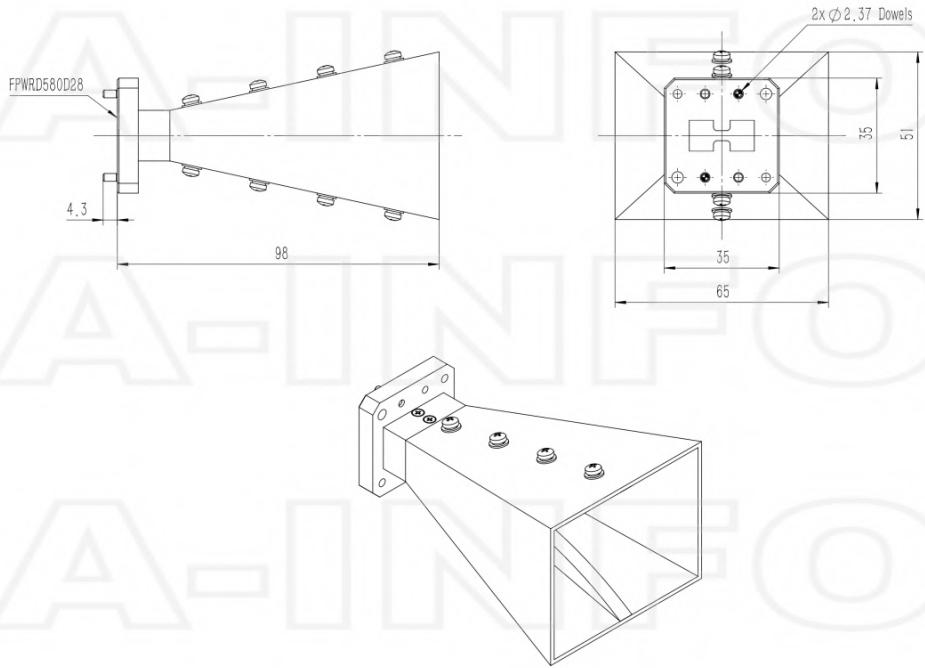
| Electrical Specification           |              | Interface                |   |
|------------------------------------|--------------|--------------------------|---|
| Frequency, Min (GHz)               | 5.8          | Output Type              | Waveguide                               |
| Frequency, Max (GHz)               | 16           | Flange Designation, WRD  | FPWRD580D28                             |
| Waveguide Type                     | Double Ridge | Mechanical Specification |   |
| Waveguide Size EIA WRD             | WRD580       | Figure                   | A Type                                  |
| Gain, Typ (dBi)                    | 10           | Body Material            | Al                                      |
| Polarization                       | Linear       | Finish                   | Chemical Conversion Coating, Gray Paint |
| 3dB Beamwidth, E-Plane, Min (Deg.) | 18           | Size, W (mm)             | 65                                      |
| 3dB Beamwidth, E-Plane, Max (Deg.) | 58           | Size, H (mm)             | 51                                      |
| 3dB Beamwidth, H-Plane, Min (Deg.) | 21           | Size, L (mm)             | 98                                      |
| 3dB Beamwidth, H-Plane, Max (Deg.) | 58           | Weight, (kg)             | 0.09                                    |
| Cross Pol. Isolation, Typ (dB)     | 40           |                          |   |
| VSWR, Typ                          | 1.5:1        |                          |   |

## Additional Information

|             |   |              |   |
|-------------|---|--------------|---|
| Application | General Purpose Indoor & Outdoor, Fixed | Solution for | Gain Reference<br>Antenna Measurement<br>Far-field Measurement<br>System Intergration |
|-------------|---|--------------|---|

## Outline Drawing

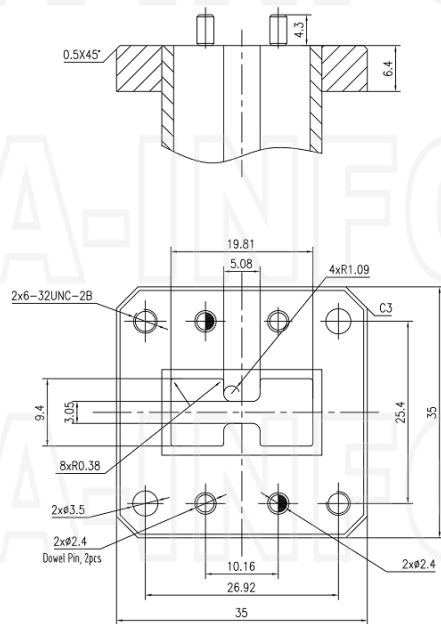
FPWRD580D28 Output (P/N: LB-58160-10-A)



Flange Drawing

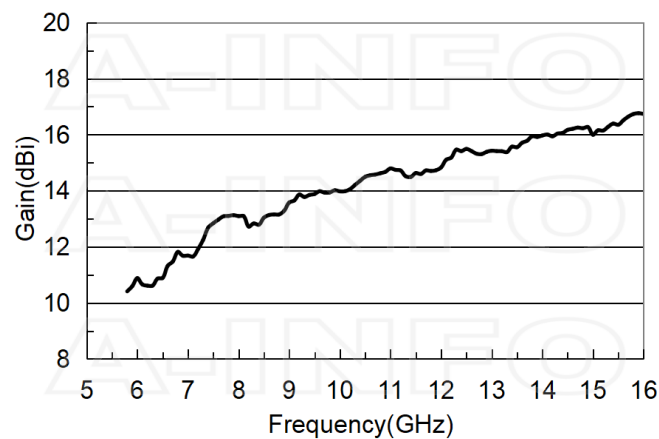
FPWRD580D28

(With two through mounting holes and two screws holes)

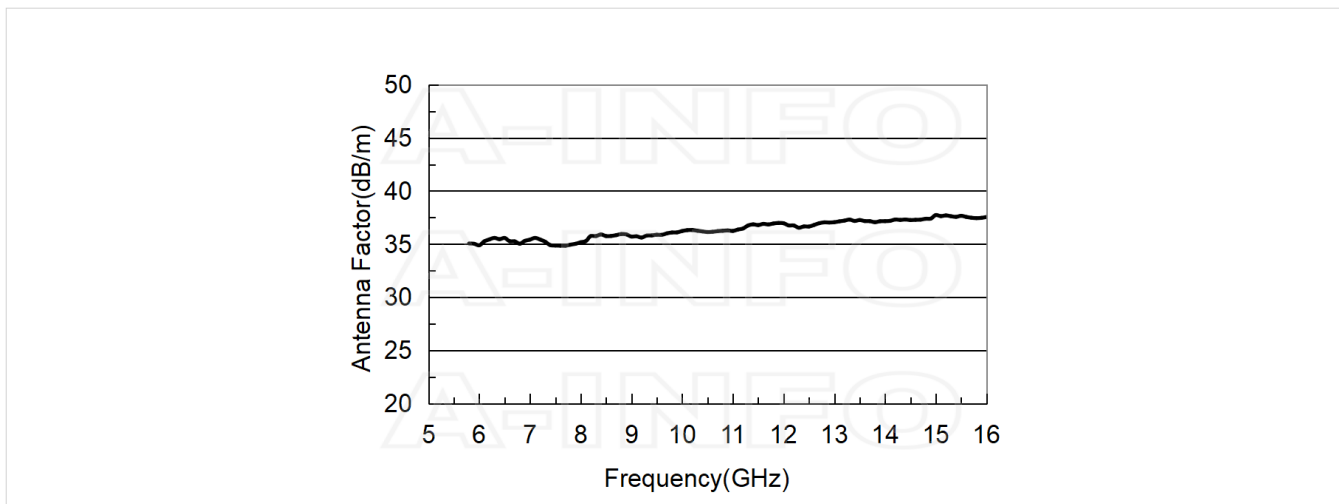


Typical Test Results

Gain



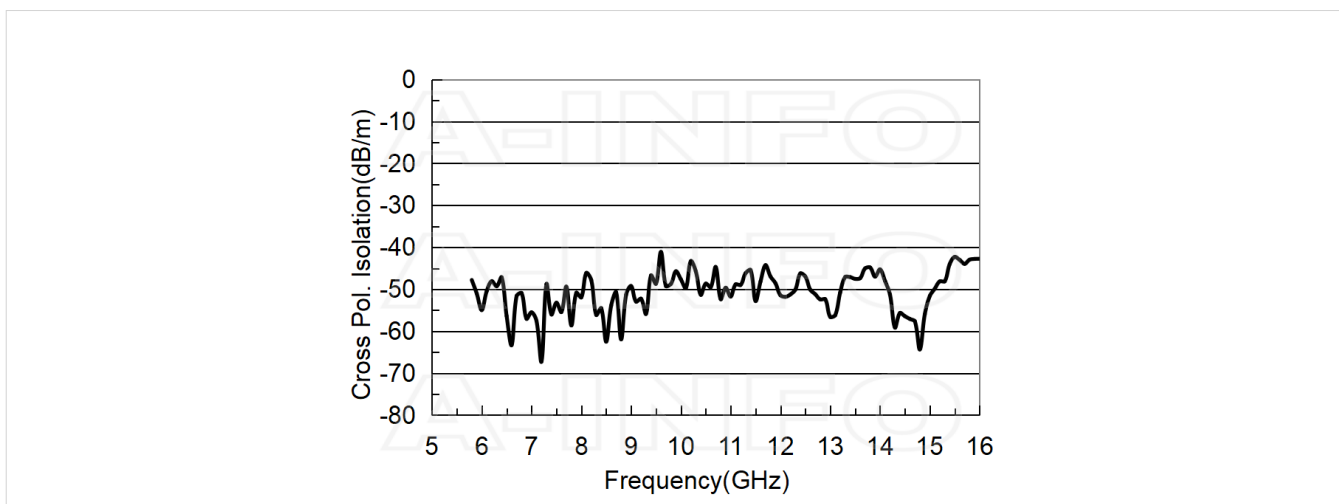
## Antenna Factor



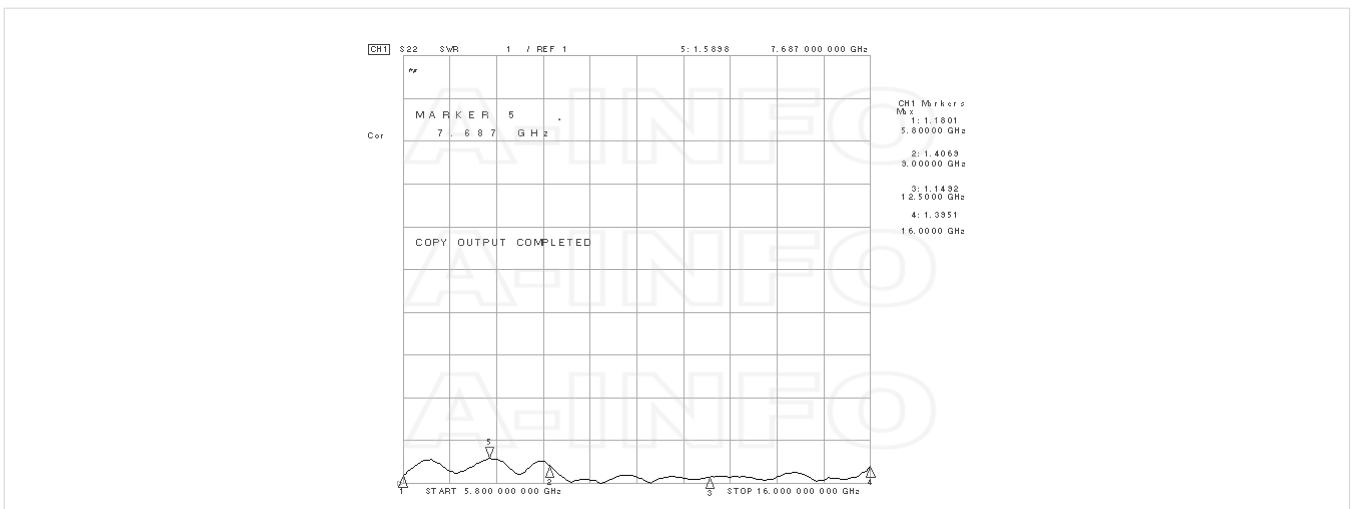
## Antenna Factor (Table)

| Frequency(GHz) | Gain(dBi) | AF(dB/m) |
|----------------|-----------|----------|
| 5.8            | 10.41     | 35.07    |
| 6.0            | 10.88     | 34.89    |
| 7.0            | 11.69     | 35.43    |
| 8.0            | 13.10     | 35.18    |
| 9.0            | 13.58     | 35.72    |
| 10.0           | 13.98     | 36.23    |
| 11.0           | 14.79     | 36.24    |
| 12.0           | 14.83     | 36.96    |
| 13.0           | 15.43     | 37.06    |
| 14.0           | 15.97     | 37.16    |
| 15.0           | 16.00     | 37.73    |
| 16.0           | 16.74     | 37.55    |

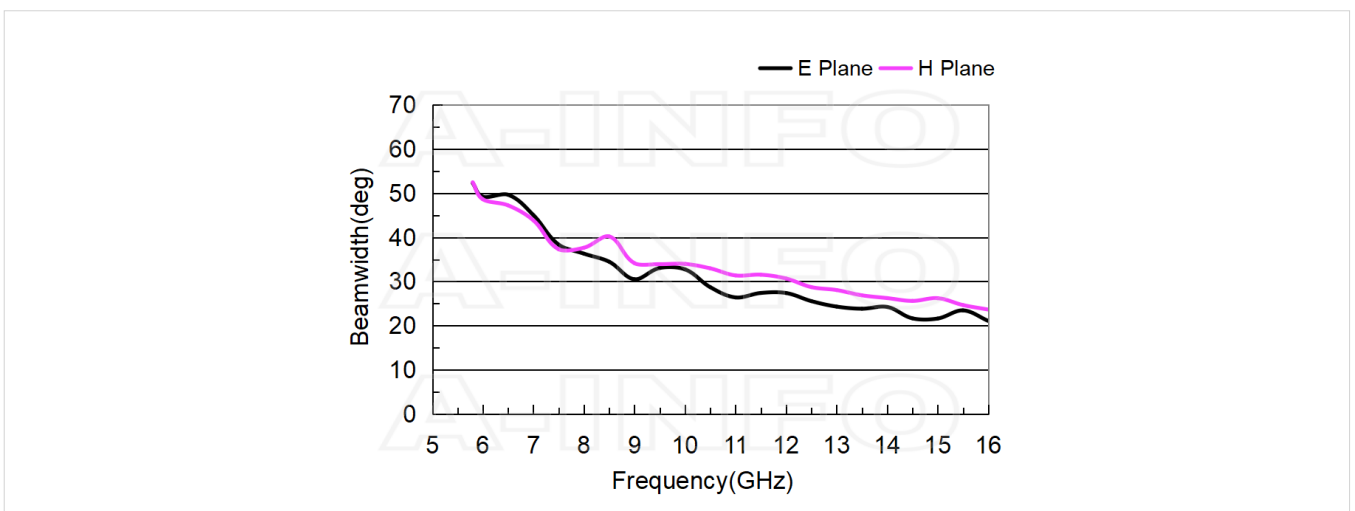
## Cross Polarization Isolation



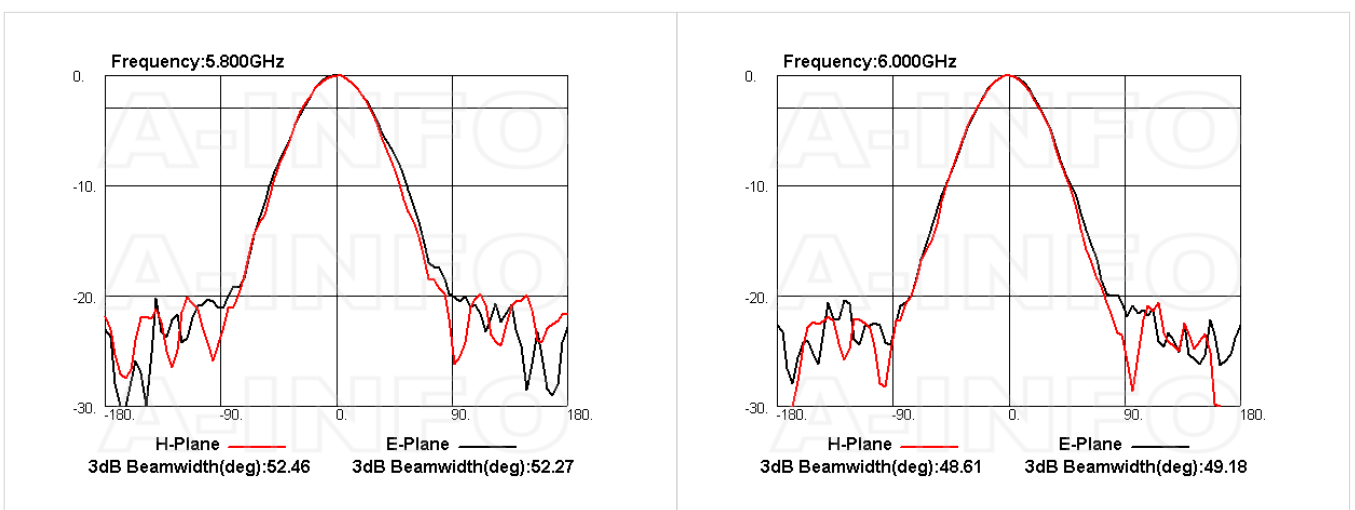
## VSWR

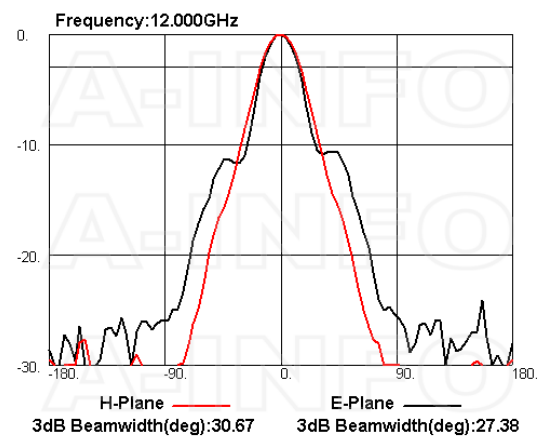
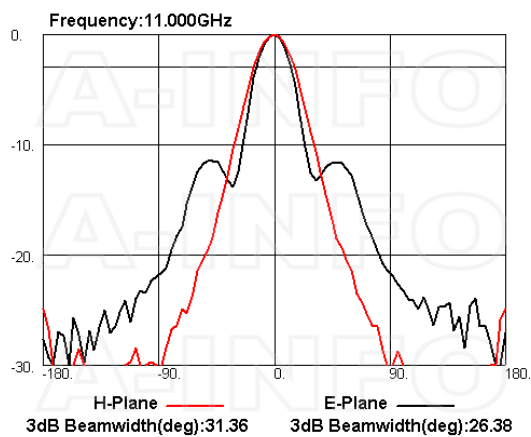
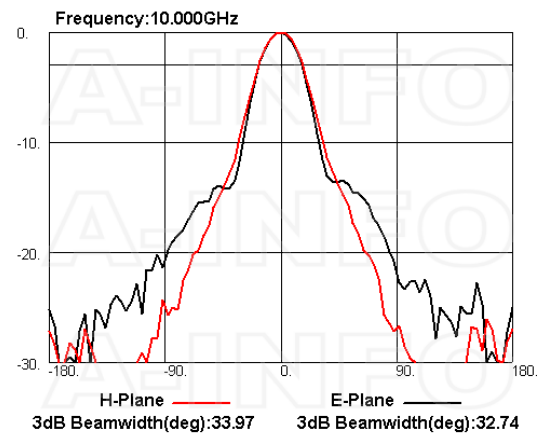
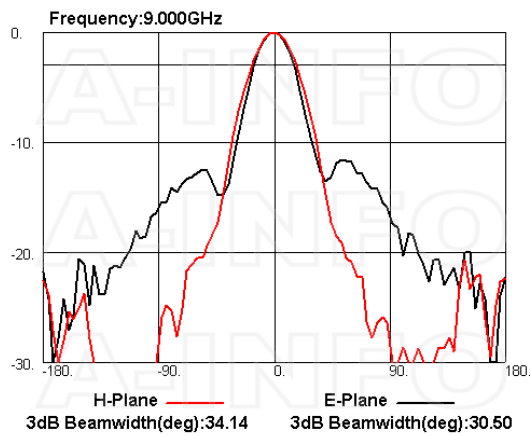
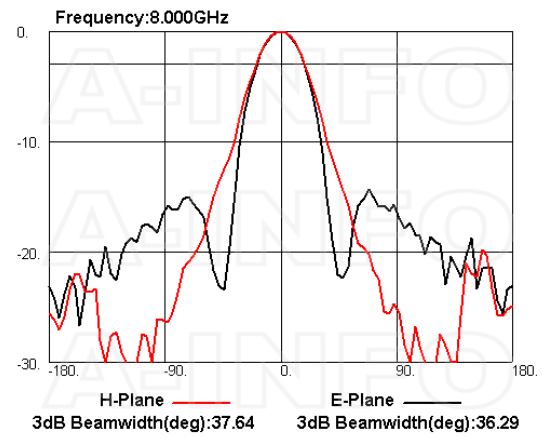
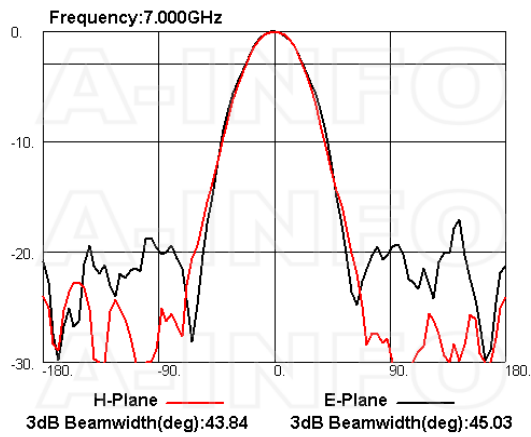


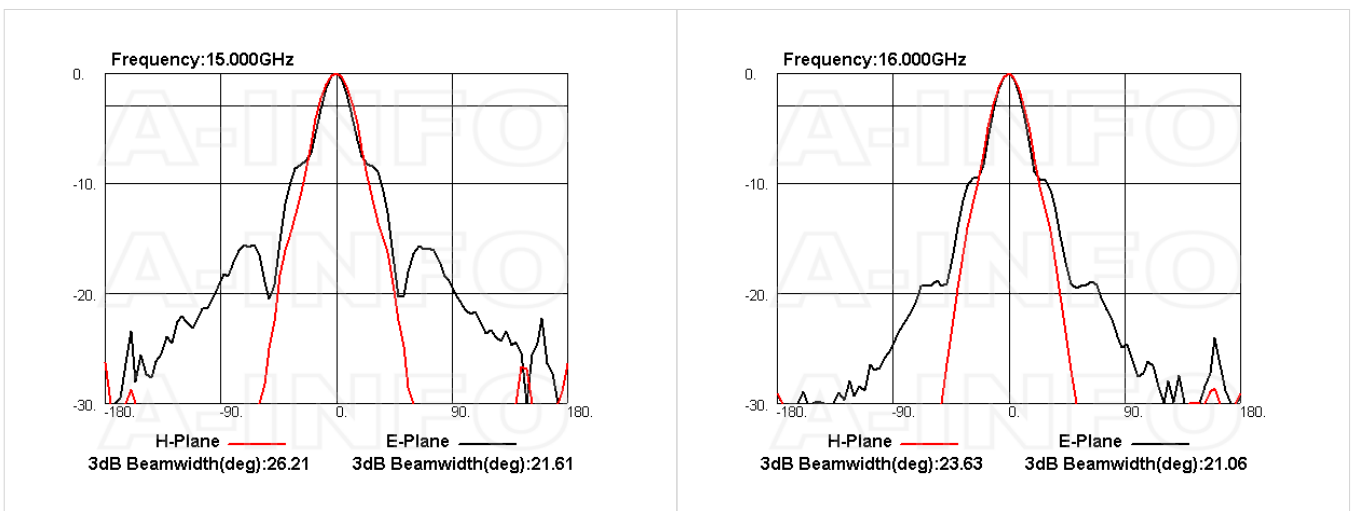
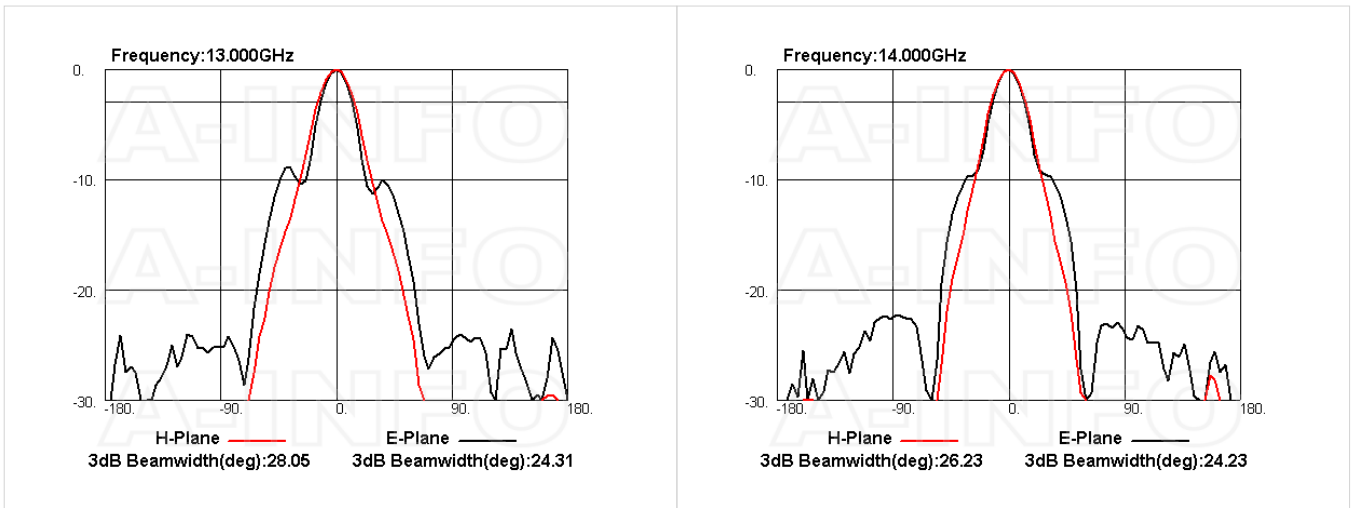
## Beamwidth



## Pattern







## Related Products



580DRWCAN\_Cu Right Angle Double Ridge Waveguide to Coaxial Adapter 5.8-16GHz WRD580 to N Type Female



580DRWCAS\_Cu Right Angle Double Ridge Waveguide to Coaxial Adapter 5.8-16GHz WRD580 to SMA Female



580DRWECAN\_Cu Endlaunch Double Ridge Waveguide to Coaxial Adapter 5.8-16GHz WRD580 to N Type Female

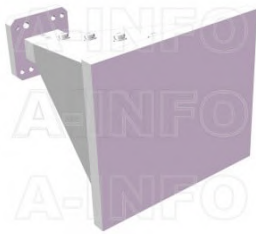


580DRWECAS\_Cu Endlaunch Double Ridge Waveguide to Coaxial Adapter 5.8-16GHz WRD580 to SMA Female



580DRWHCAN\_Cu Right Angle  
High Power Double Ridge  
Waveguide to Coaxial Adapter  
5.8-16GHz WRD580 to N Type  
Female

## Similar Products



LB-58160-10-ASPO Multi Octave  
Horn Antenna 5.8-16GHz 10dB  
Gain Double Ridge Waveguide  
Interface



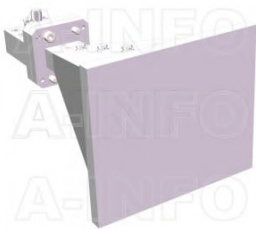
LB-58160-10-C-NF Multi Octave  
Horn Antenna 5.8-16GHz 10dB  
Gain N Type Female



LB-58160-10-C-NFSPO Multi  
Octave Horn Antenna 5.8-16GHz  
10dB Gain N Type Female



LB-58160-10-C-SF Multi Octave  
Horn Antenna 5.8-16GHz 10dB  
Gain SMA Female



LB-58160-10-C-SFSPO Multi  
Octave Horn Antenna 5.8-16GHz  
10dB Gain SMA Female

## About this Datasheet

|  |   |  |
|--|---|--|
| <ul style="list-style-type: none"><li>● <b>Product Information</b></li></ul> <p>Product Link:<br/><a href="https://www.ainfoinc.com/lb-58160-10-a-multi-octave-horn-antenna-5-8-16-ghz-10db-gain-fpwr580d28">https://www.ainfoinc.com/lb-58160-10-a-multi-octave-horn-antenna-5-8-16-ghz-10db-gain-fpwr580d28</a><br/>Data subject to change without notice.<br/>© A-INFO INC. 2024. All Rights Reserved</p> | <ul style="list-style-type: none"><li>● <b>Contact Us</b></li></ul> <p>Address:<br/>60 Tesla, Irvine, CA 92618,<br/>USA</p> <p>Website:<br/><a href="http://www.ainfoinc.com">www.ainfoinc.com</a></p> <p>Email:<br/><a href="mailto:sales@ainfoinc.com">sales@ainfoinc.com</a></p> | <ul style="list-style-type: none"><li>● <b>Phone &amp; Fax</b></li></ul> <p>Phone:<br/>+1-949-639-9688<br/>+1-949-639-9608</p> <p>Fax:<br/>+1-949-639-9670</p> |
|--|---|--|