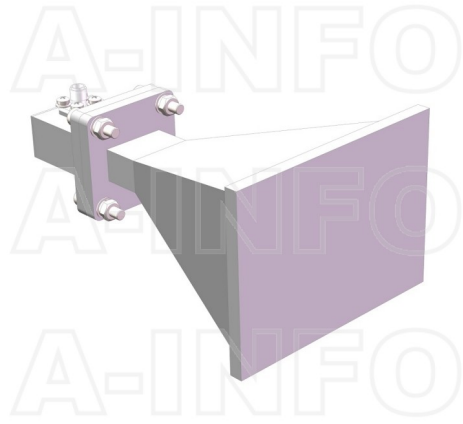


LB-90-15-C-3.5FSPO Standard Gain Horn Antenna 8.2-12.4GHz 15dB  
Gain 3.5mm Female



Standard Gain Horn Antenna Operating From 8.2GHz to 12.4GHz With a  
Nominal 15dB Gain With 3.5mm Female Connector

## Product Information

|     |                    |
|-----|--------------------|
| SKU | LB-90-15-C-3.5FSPO |
|-----|--------------------|

## Description

Standard Gain Horn Antenna LB-90-15-C-3.5FSPO, operating from 8.2 to 12.4GHz with a nominal 15dB gain and low VSWR 1.25:1 with 3.5mm Female connector output. The model LB-90-15-C-3.5FSPO has uniform gain through its frequency span, providing efficient performance characteristics and directionality. It can handle 50W continuously and 100W peak power. Constructed of lightweight corrosion-resistant aluminum, the horn comes with a specially designed weatherproof radome which provides excellent protection against the rain and dust but has very little loss across the full operating frequency band. This standard gain horn antenna is linearly polarized and ideally suited for EMI testing, direction finding, surveillance, antenna gain and pattern measurements and other applications.

## Technical Specification

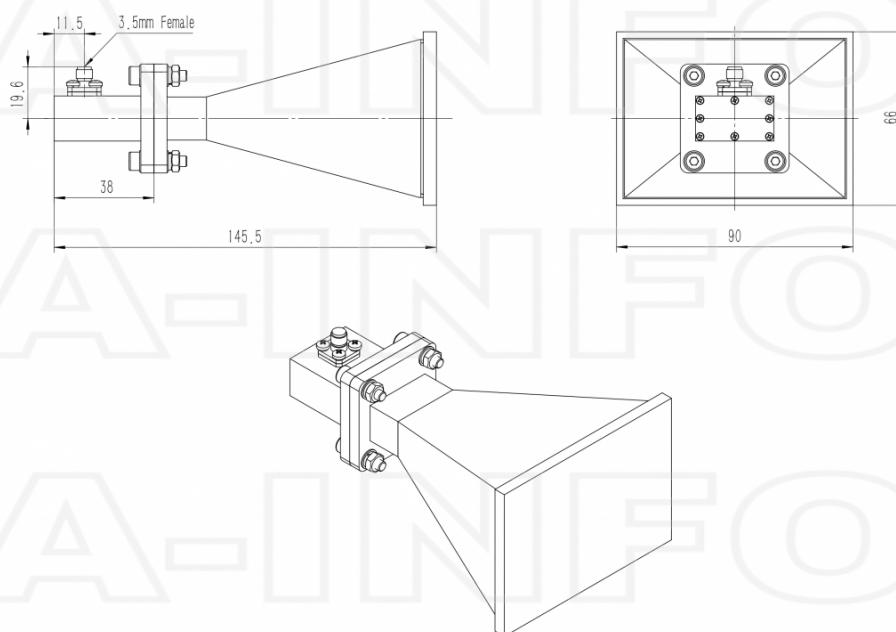
| Electrical Specification           |             | Interface                |                                         |
|------------------------------------|-------------|--------------------------|-----------------------------------------|
| Frequency, Min (GHz)               | 8.2         | Output Type              | Coaxial                                 |
| Frequency, Max (GHz)               | 12.4        | Connector                | 3.5mm                                   |
| Waveguide Type                     | Rectangular | Connector Gender         | Female                                  |
| Waveguide Size EIA WR              | WR90        | Mechanical Specification |                                         |
| Gain, Typ (dBi)                    | 15          | Figure                   | C Type                                  |
| Polarization                       | Linear      | Body Material            | Al                                      |
| 3dB Beamwidth, E-Plane, Typ (Deg.) | 28          | Finish                   | Chemical Conversion Coating, Gray Paint |
| 3dB Beamwidth, H-Plane, Typ (Deg.) | 26          | Size, W (mm)             | 90                                      |
| Cross Pol. Isolation, Typ (dB)     | 35          | Size, H (mm)             | 66                                      |
| VSWR, Typ                          | 1.25:1      | Size, L (mm)             | 145.5                                   |
| Impedance, (Ohm)                   | 50          | Weight, (kg)             | 0.16                                    |
| Power Handling, CW, (W)            | 50          |                          |                                         |
| Power Handling, Peak, (W)          | 100         |                          |                                         |

## Additional Information

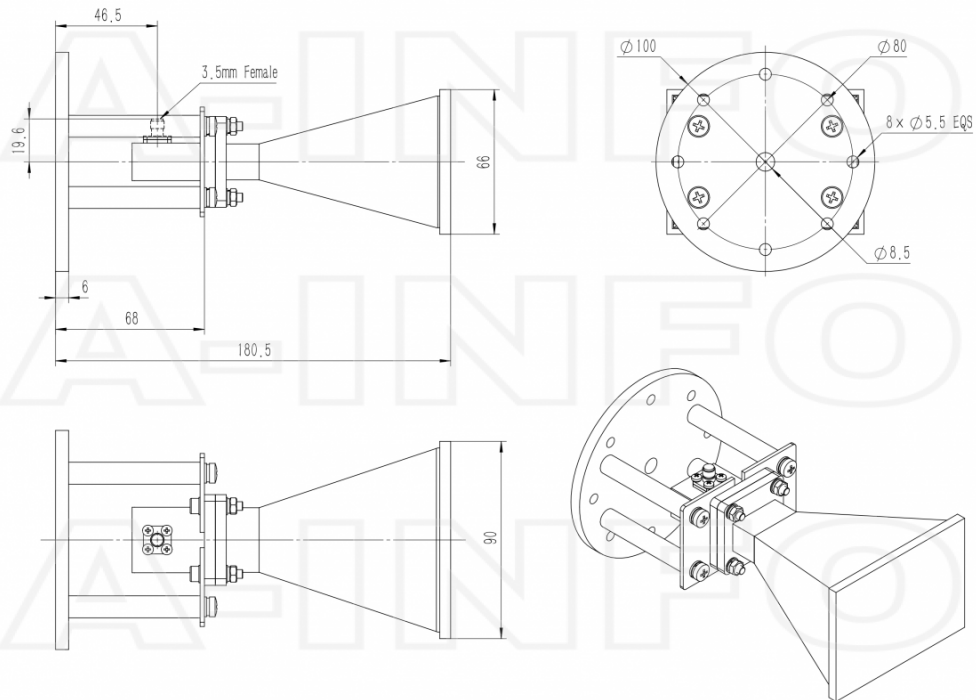
|             |                                          |              |                                                                                                                                 |
|-------------|------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------|
| Application | Outdoor, Waterproof and Dustproof, Fixed | Solution for | Gain Reference<br>Antenna Measurement<br>Reflector Feed<br>Far-field Measurement<br>System Intergration<br>Material Measurement |
|-------------|------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------|

## Outline Drawing

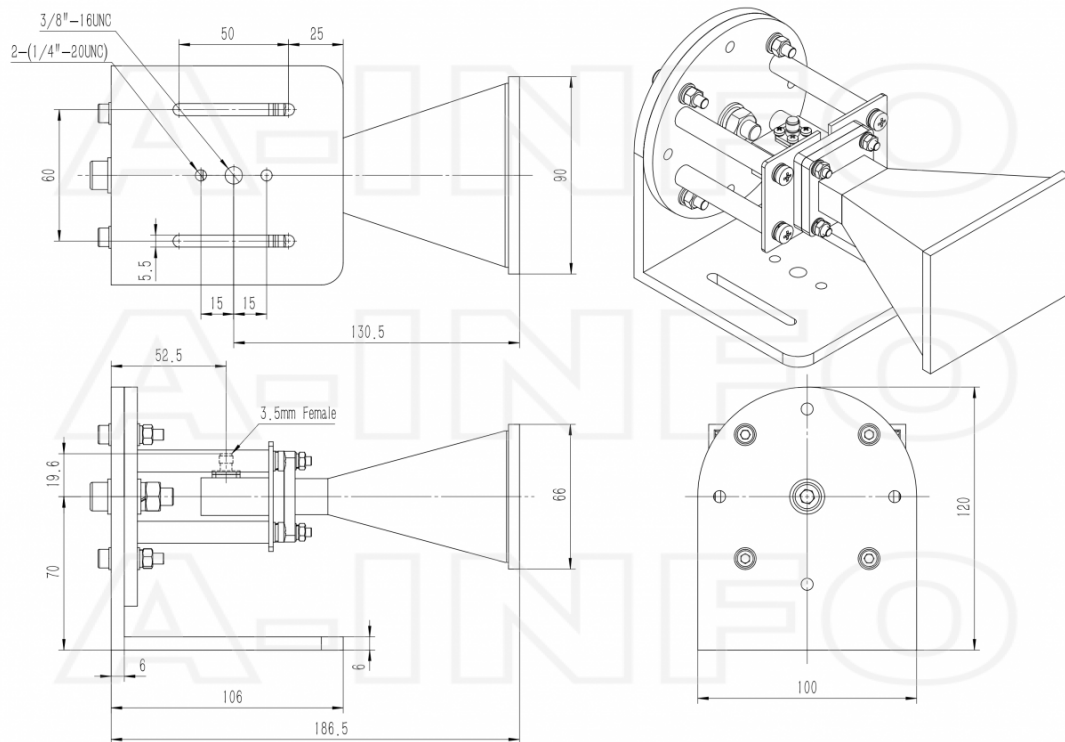
3.5mm Female Output with Radome (Option, P/N: LB-90-15-C-3.5FSPO, Outdoor Application)



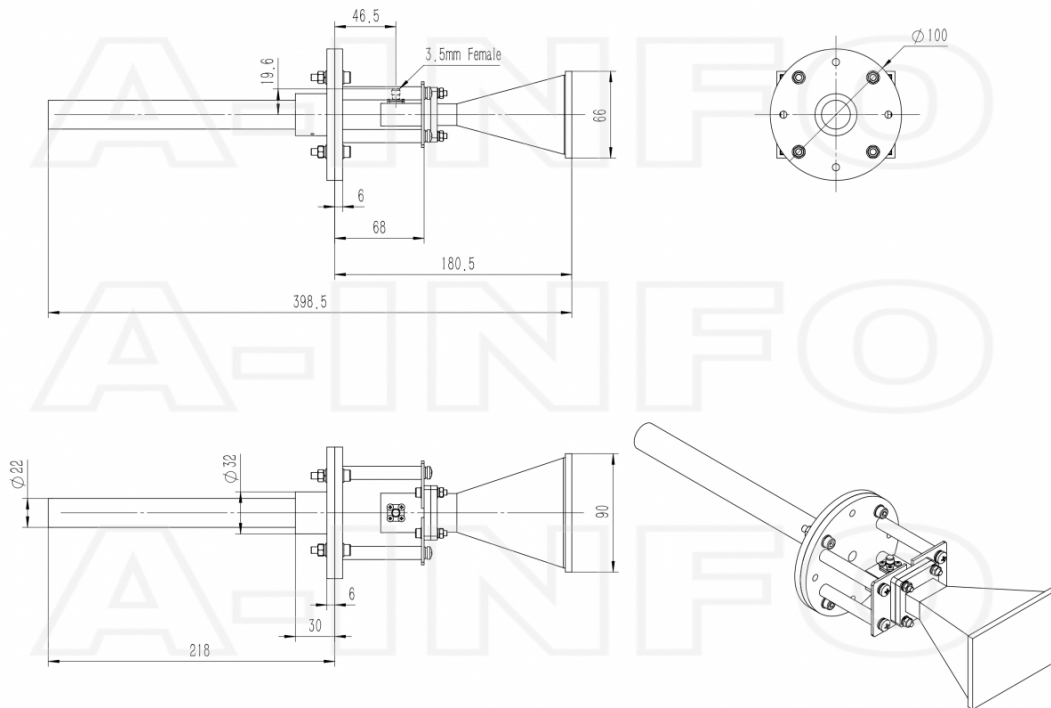
3.5mm Female Output with Round Mounting Bracket & Radome (Option, P/N: LB-90-10-C-MB & LB-90-15-C-3.5FSPO, Outdoor Application)



3.5mm Female Output with L Type Mounting Bracket & Radome (Option, P/N: LB-90-10-C-MBL & LB-90-15-C-3.5FSPO, Outdoor Application)

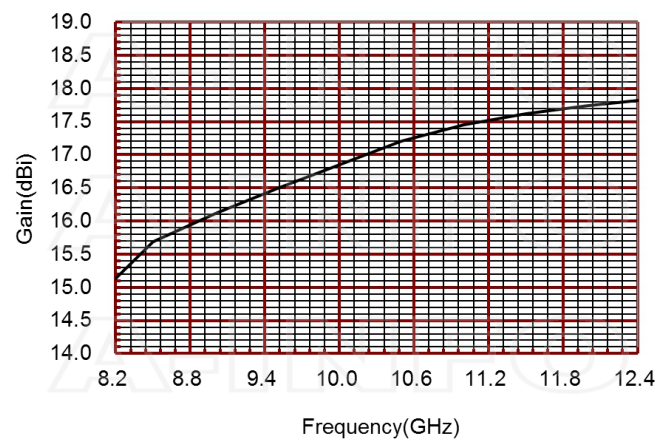


3.5mm Female Output with Stinger Type Mounting Bracket & Radome (Option, P/N: LB-90-10-C-MA & LB-90-15-C-3.5FSPO, Outdoor Application)

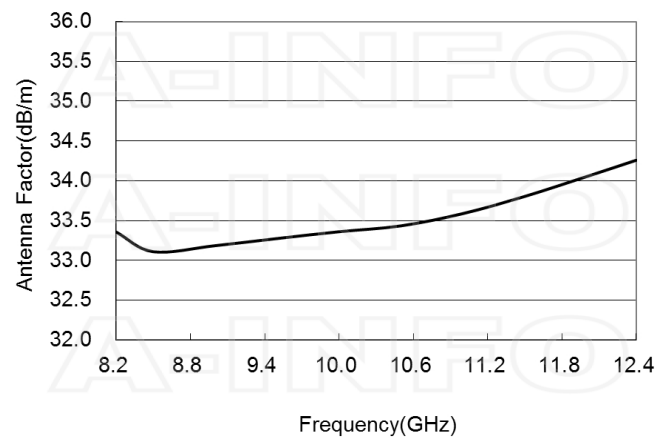


### Typical Test Results

#### Gain



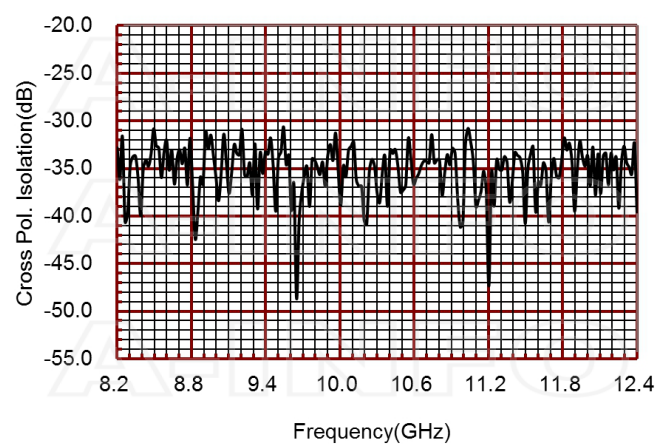
### Antenna Factor



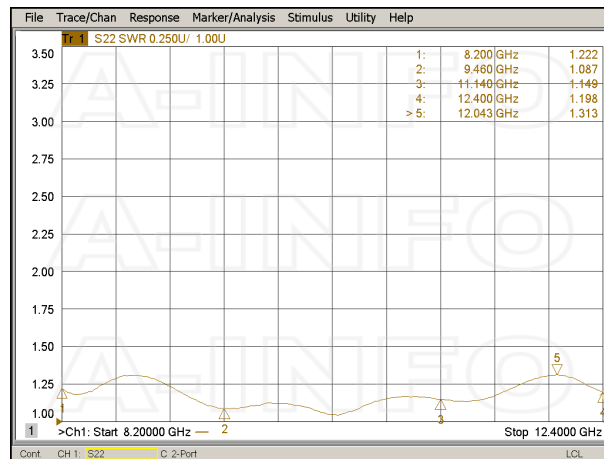
### Antenna Factor (Table)

| Frequency(GHz) | Gain(dBi) | Antenna Factor(dB/m) |
|----------------|-----------|----------------------|
| 8.2            | 15.13     | 33.36                |
| 8.5            | 15.69     | 33.11                |
| 9.0            | 16.11     | 33.18                |
| 9.5            | 16.49     | 33.27                |
| 10.0           | 16.85     | 33.36                |
| 10.5           | 17.20     | 33.43                |
| 11.0           | 17.45     | 33.59                |
| 11.5           | 17.62     | 33.80                |
| 12.0           | 17.74     | 34.05                |
| 12.4           | 17.82     | 34.26                |

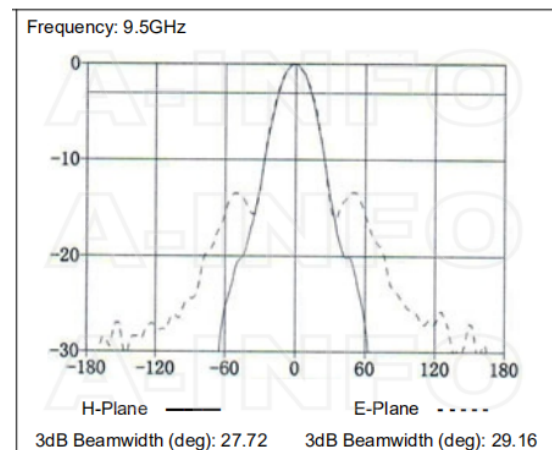
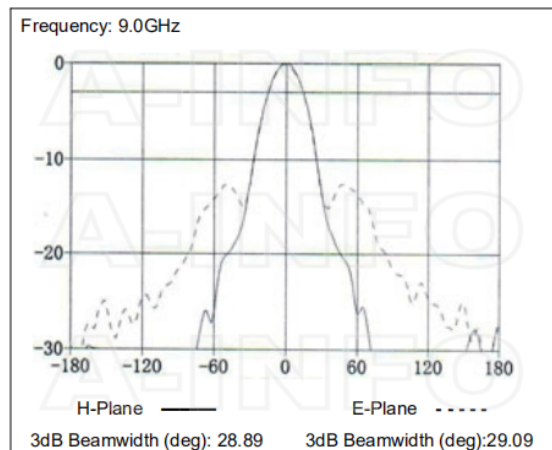
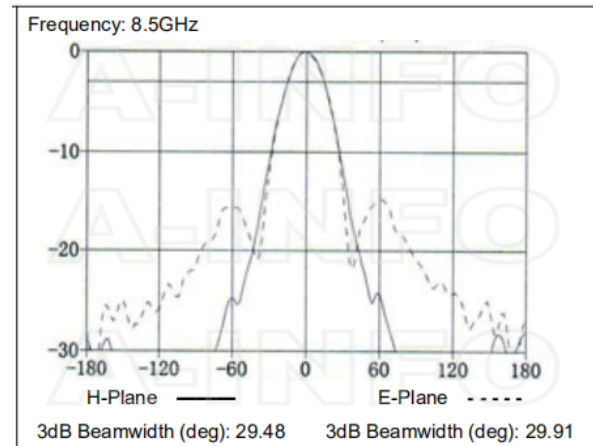
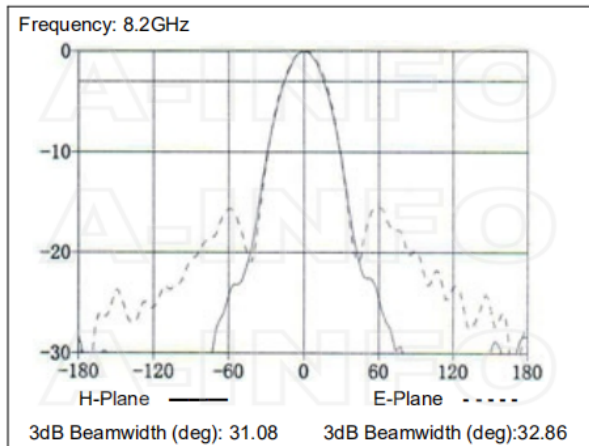
### Cross Polarization Isolation

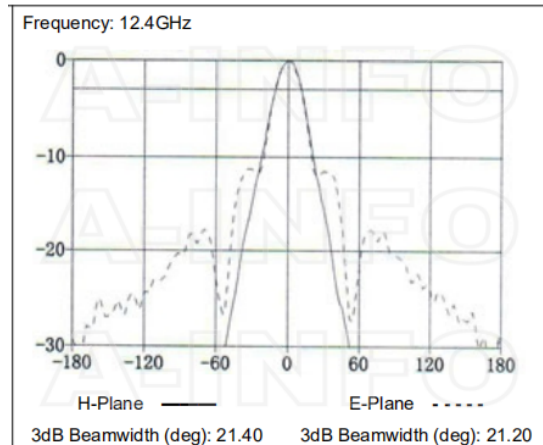
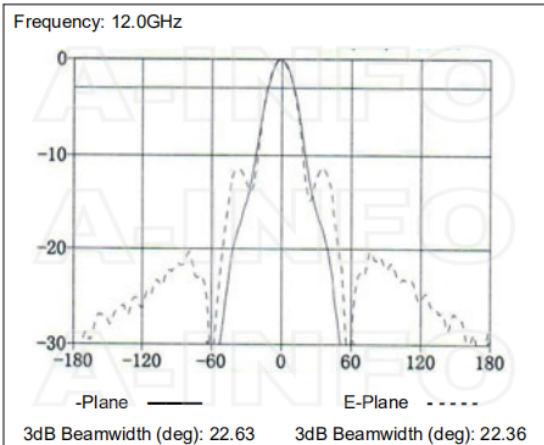
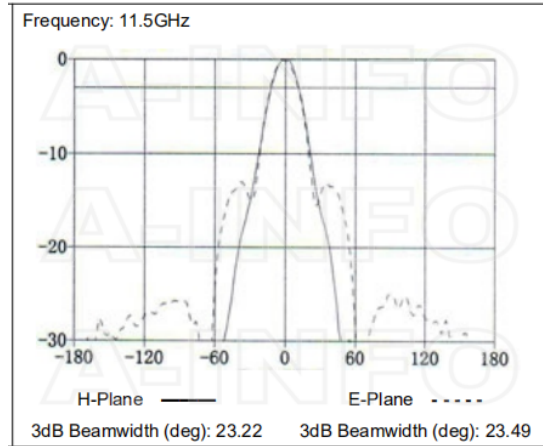
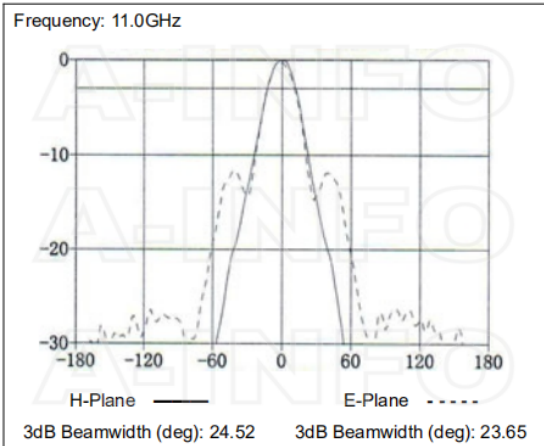
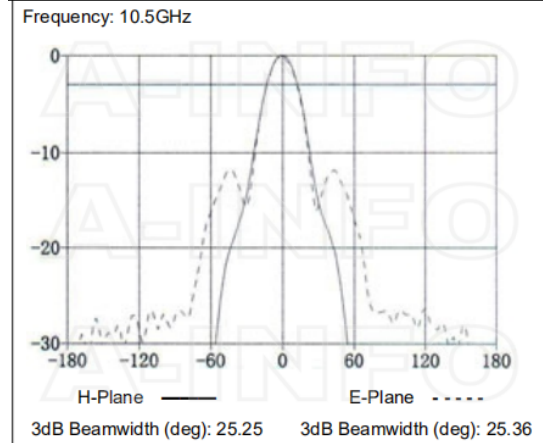
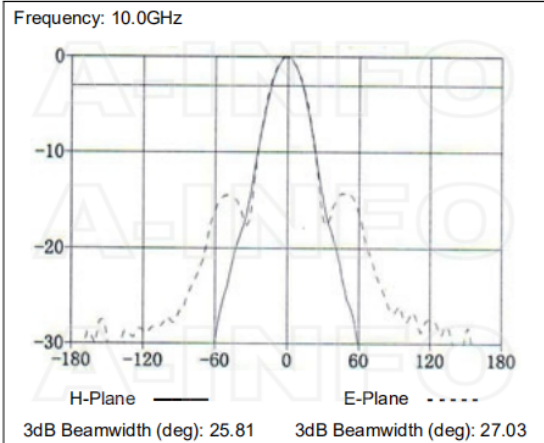


## VSWR



## Pattern





### Related Products



LB-90-10-C-MB Round Type Mounting Bracket



LB-90-10-C-MBL L type mounting bracket



LB-90-10-C-MA Stinger Type Mounting Bracket



Tripod\_15Kg Al Alloy Tripod



3033HL Wooden Tripod



3033QM Wooden Tripod Metalfree



Carrying Case\_LB-90-15-C Al Alloy Carrying Case



M4x12 Hex\_Pack WR51-WR112 Assembly Pack



M4x20 Hex\_Pack WR112- WR51 Flange Assembly Pack



M4x30 Hex\_Pack Log Periodic, DS Assembly Pack

### Similar Products



LB-90-15-A Standard Gain Horn Antenna 8.2-12.4GHz 15dB Gain Rectangular Waveguide Interface



LB-90-15-ASPO Standard Gain Horn Antenna 8.2-12.4GHz 15dB Gain Rectangular Waveguide Interface



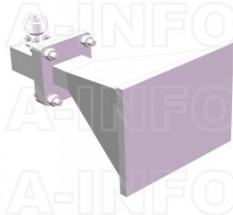
LB-90-15-C-SF Standard Gain Horn Antenna 8.2-12.4GHz 15dB Gain SMA Female



LB-90-15-C-SFSPO Standard Gain Horn Antenna 8.2-12.4GHz 15dB Gain SMA Female



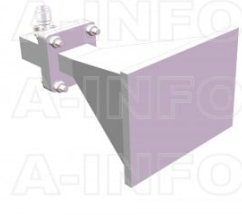
LB-90-15-C-NF Standard Gain  
Horn Antenna 8.2-12.4GHz 15dB  
Gain N Type Female



LB-90-15-C-NFSPO Standard  
Gain Horn Antenna 8.2-12.4GHz  
15dB Gain N Type Female



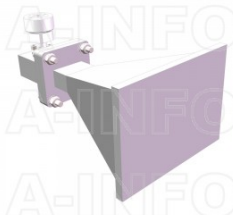
LB-90-15-C-TF Standard Gain  
Horn Antenna 8.2-12.4GHz 15dB  
Gain TNC Female



LB-90-15-C-TFSPO Standard Gain  
Horn Antenna 8.2-12.4GHz 15dB  
Gain TNC Female



LB-90-15-C-7 Standard Gain Horn  
Antenna 8.2-12.4GHz 15dB Gain  
7mm



LB-90-15-C-7SPO Standard Gain  
Horn Antenna 8.2-12.4GHz 15dB  
Gain 7mm



LB-90-15-C-3.5F Standard Gain  
Horn Antenna 8.2-12.4GHz 15dB  
Gain 3.5mm Female

### About this Datasheet

|                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                               |                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <p>● <b>Product Information</b><br/>Product Link:<br/><a href="https://www.ainfoinc.com/lb-90-15-c-3-5fspo-standard-gain-horn-antenna-8-2-12-4-ghz-15db-gain-3-5mm-female">https://www.ainfoinc.com/lb-90-15-c-3-5fspo-standard-gain-horn-antenna-8-2-12-4-ghz-15db-gain-3-5mm-female</a><br/>Data subject to change without notice.<br/>© A-INFO INC. 2023. All Rights Reserved</p> | <p>● <b>Contact Us</b><br/>Address:dd<br/>60 Tesla, Irvine, CA 92618,<br/>USA<br/><br/>Website:<br/><a href="http://www.ainfoinc.com">www.ainfoinc.com</a><br/><br/>Email:<br/><a href="mailto:sales@ainfoinc.com">sales@ainfoinc.com</a></p> | <p>● <b>Phone &amp; Fax</b><br/>Phone:<br/>+1-949-639-9688<br/>+1-949-639-9608<br/><br/>Fax:<br/>+1-949-639-9670</p> |
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