



### LB-90-20-C-NFSPO Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain N Type Female

Standard Gain Horn Antenna Operating From 8.2GHz to 12.4GHz With a Nominal 20dB Gain With N Type Female Connector

## Product Information

|     |                  |         |                          |
|-----|------------------|---------|--------------------------|
| SKU | LB-90-20-C-NFSPO | Patents | ZL201830355569.9 (China) |
|-----|------------------|---------|--------------------------|

## Description

Standard Gain Horn Antenna LB-90-20-C-NFSPO, operating from 8.2 to 12.4GHz with a nominal 20dB gain and low VSWR 1.25:1 with N Type Female connector output. The model LB-90-20-C-NFSPO has uniform gain through its frequency span, providing efficient performance characteristics and directionality. It can handle 150W continuously and 3000W 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

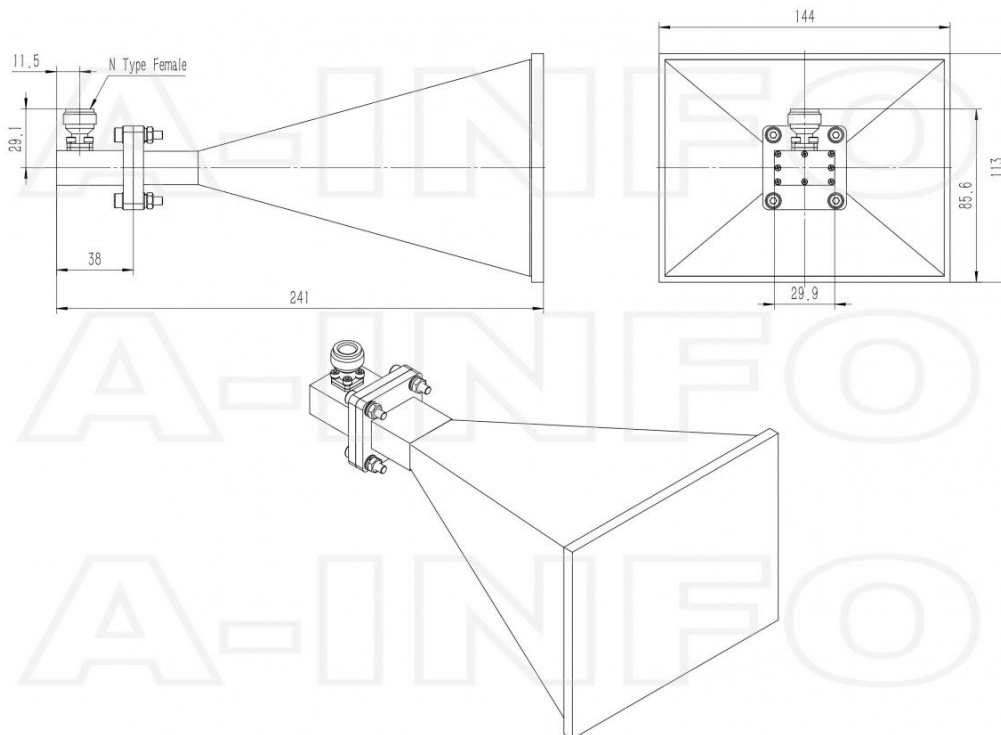
| Electrical Specification           |             | Interface                |                                         |
|------------------------------------|-------------|--------------------------|-----------------------------------------|
| Frequency, Min (GHz)               | 8.2         | Output Type              | Coaxial                                 |
| Frequency, Max (GHz)               | 12.4        | Connector                | N Type                                  |
| Waveguide Type                     | Rectangular | Connector Gender         | Female                                  |
| Waveguide Size EIA WR              | WR90        | Mechanical Specification |                                         |
| Gain, Typ (dBi)                    | 20          | Figure                   | C Type                                  |
| Polarization                       | Linear      | Body Material            | Al                                      |
| 3dB Beamwidth, E-Plane, Typ (Deg.) | 14          | Finish                   | Chemical Conversion Coating, Gray Paint |
| 3dB Beamwidth, H-Plane, Typ (Deg.) | 16          | Size, W (mm)             | 144                                     |
| Cross Pol. Isolation, Typ (dB)     | 45          | Size, H (mm)             | 113                                     |
| VSWR, Typ                          | 1.25:1      | Size, L (mm)             | 241                                     |
| Impedance, (Ohm)                   | 50          | Weight, (kg)             | 0.47                                    |
| Power Handling, CW, (W)            | 150         |                          |                                         |
| Power Handling, Peak, (W)          | 3000        |                          |                                         |

### Additional Information

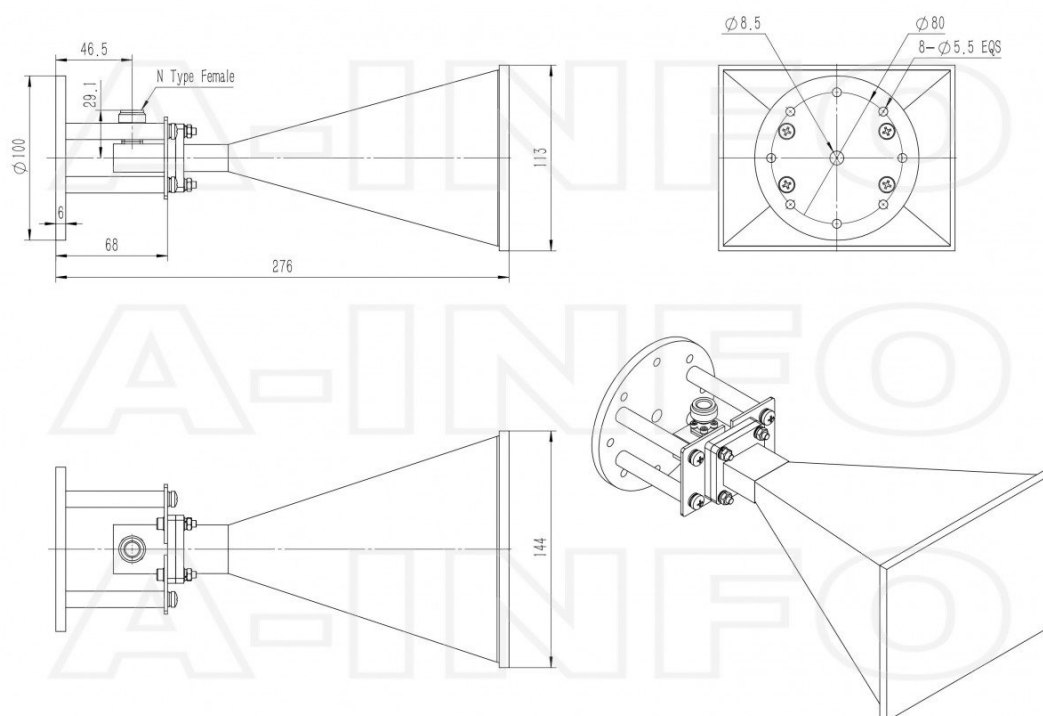
|             |                                          |              |                                                                                                                                 |
|-------------|------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------|
| 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

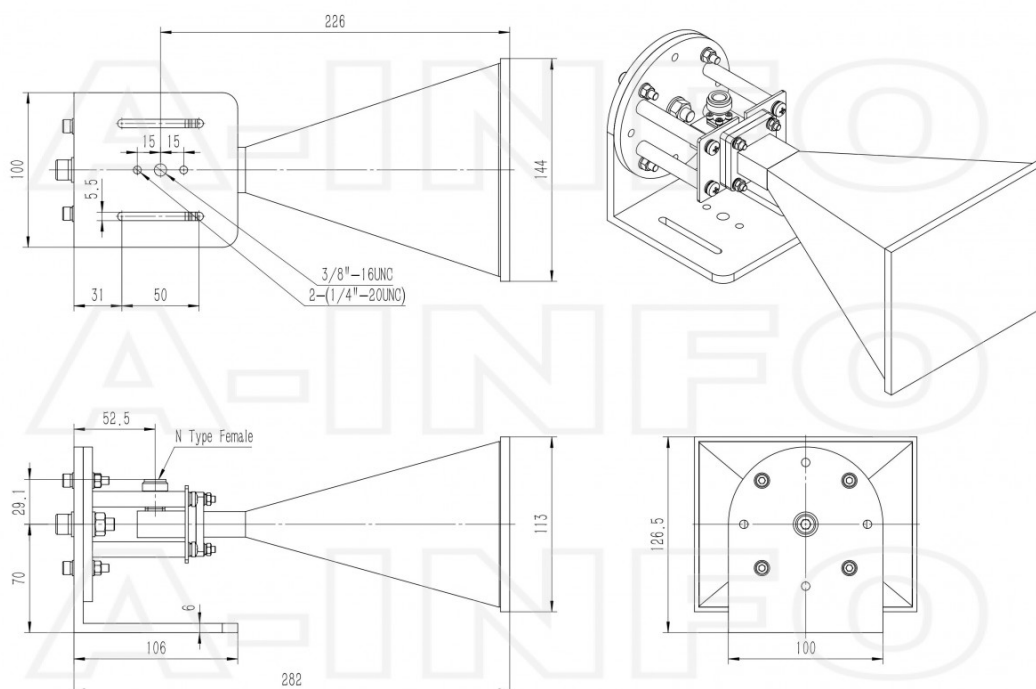
N Type Female Output with Radome (Option, P/N: LB-90-20-C-NFSPO, Outdoor Application)



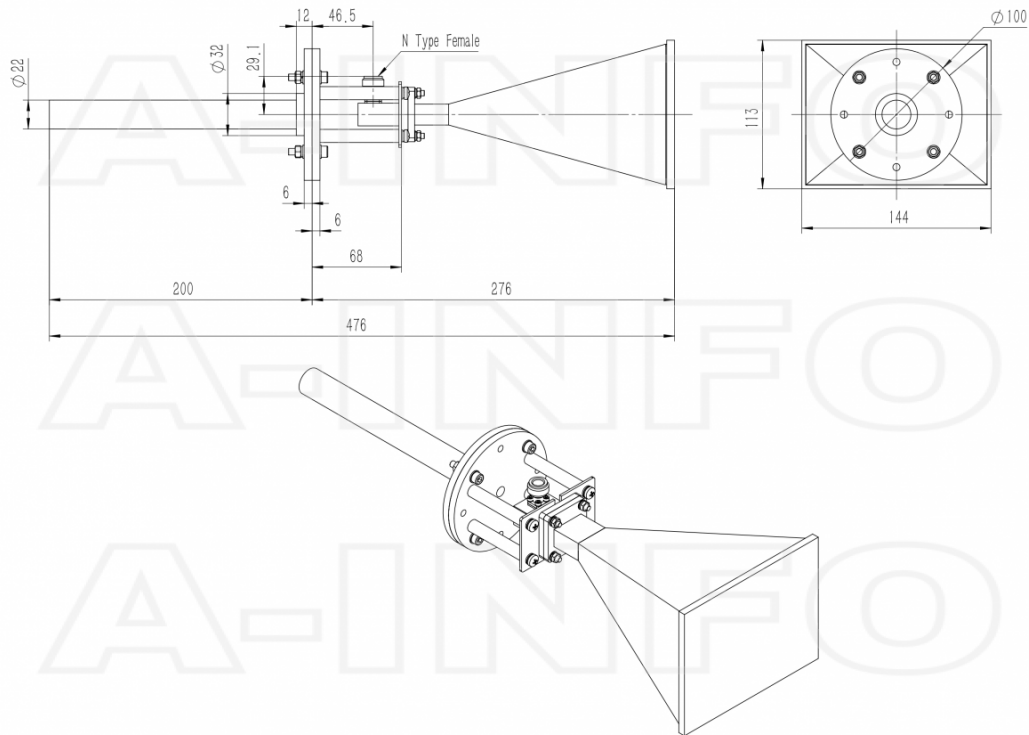
N Type Female Output with Round Mounting Bracket & Radome (Option, P/N: LB-90-10-C-MB & LB-90-20-C-NFSPO, Outdoor Application)



N Type Female Output with L Type Mounting Bracket & Radome (Option, P/N: LB-90-10-C-MBL & LB-90-20-C-NFSPO, Outdoor Application)

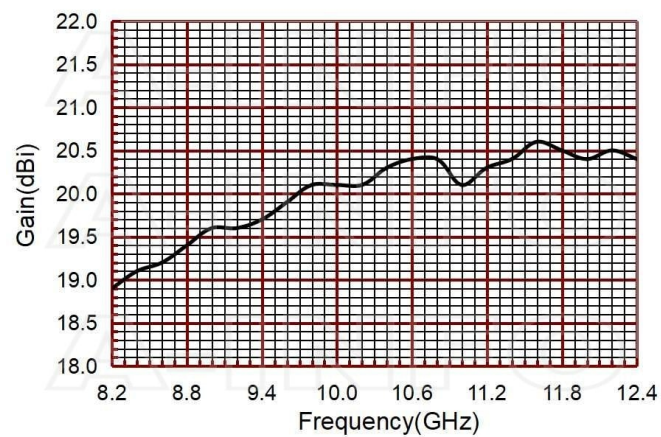


N Type Female Output with Stinger Type Mounting Bracket & Radome (Option, P/N: LB-90-10-C-MA & LB-90-20-C-NFSPO, Outdoor Application)



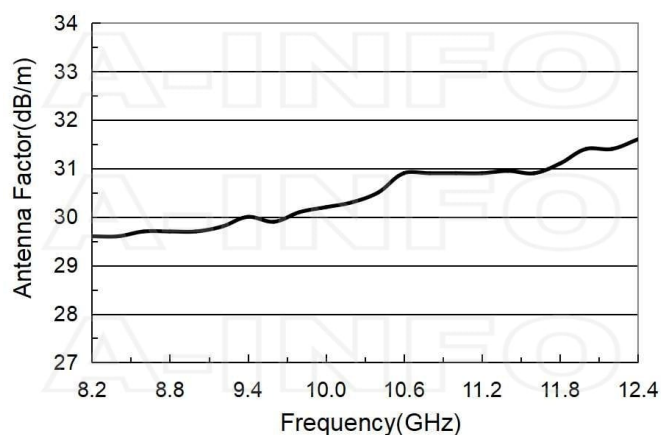
### Typical Test Results

#### Gain





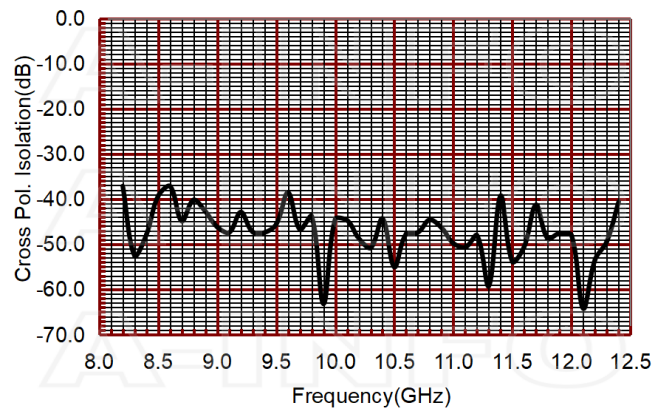
## Antenna Factor



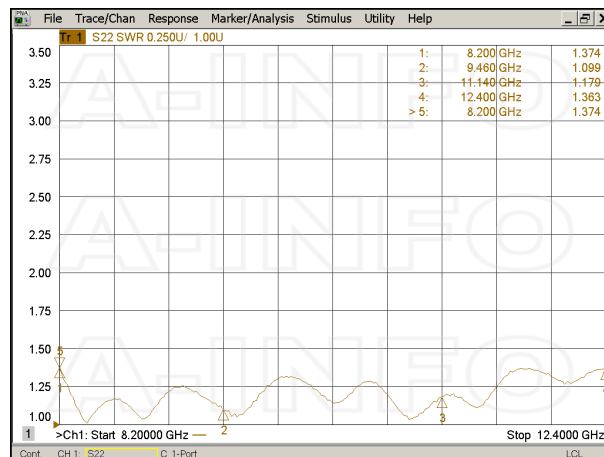
## Antenna Factor (Table)

| Frequency(GHz) | Gain(dB) | Antenna Factor(dB/m) |
|----------------|----------|----------------------|
| 8.20           | 18.90    | 29.60                |
| 8.40           | 19.10    | 29.60                |
| 8.60           | 19.20    | 29.70                |
| 8.80           | 19.40    | 29.70                |
| 9.00           | 19.60    | 29.70                |
| 9.20           | 19.60    | 29.80                |
| 9.40           | 19.70    | 30.00                |
| 9.60           | 19.90    | 29.90                |
| 9.80           | 20.10    | 30.10                |
| 10.00          | 20.10    | 30.20                |
| 10.20          | 20.10    | 30.30                |
| 10.40          | 20.30    | 30.50                |
| 10.60          | 20.40    | 30.90                |
| 10.80          | 20.40    | 30.90                |
| 11.00          | 20.10    | 30.90                |
| 11.20          | 20.30    | 30.90                |
| 11.40          | 20.40    | 30.95                |
| 11.60          | 20.60    | 30.90                |
| 11.80          | 20.50    | 31.10                |
| 12.00          | 20.40    | 31.40                |
| 12.20          | 20.50    | 31.40                |
| 12.40          | 20.4     | 31.6                 |

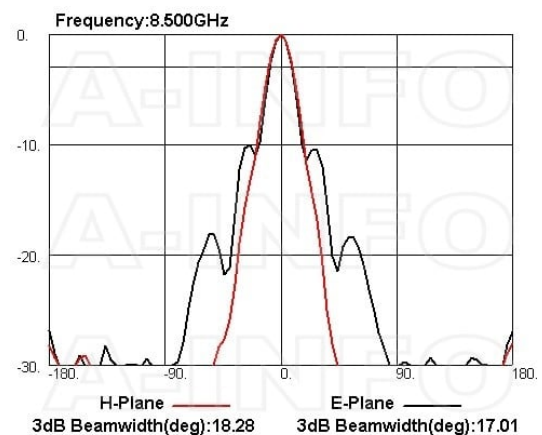
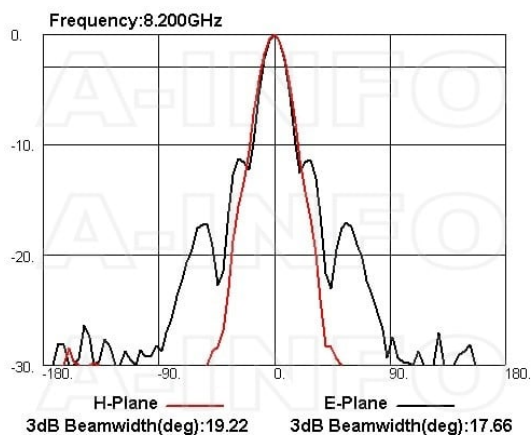
### Cross Polarization Isolation

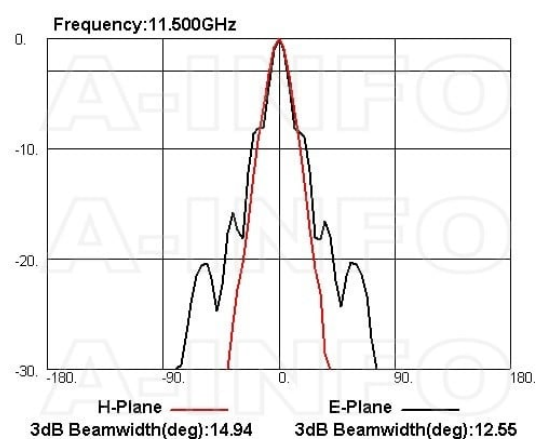
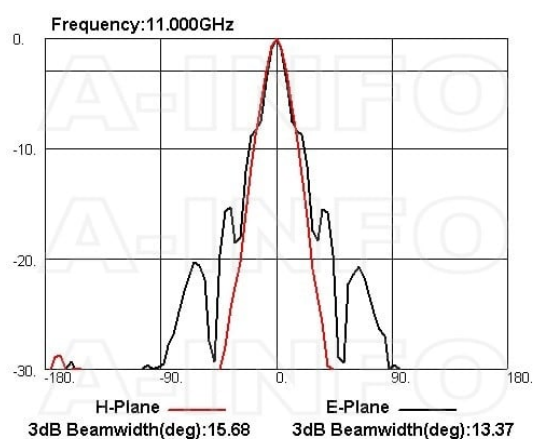
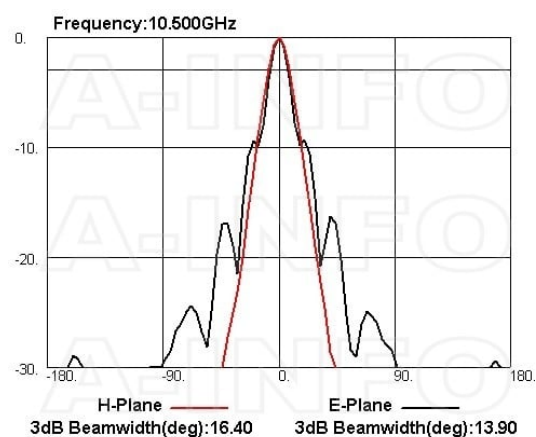
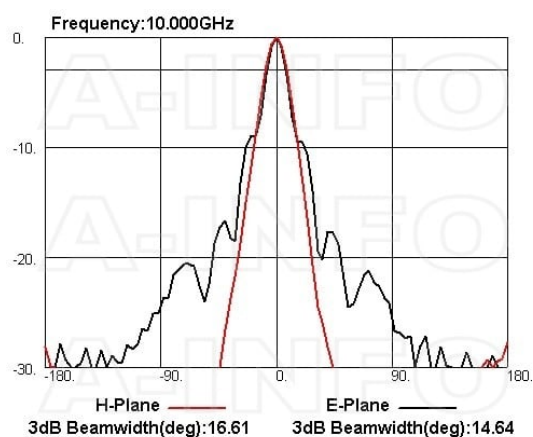
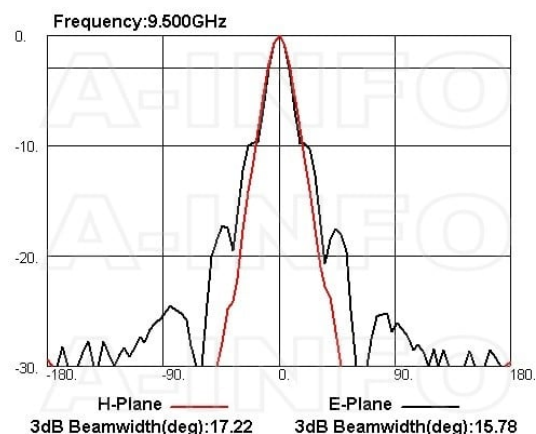
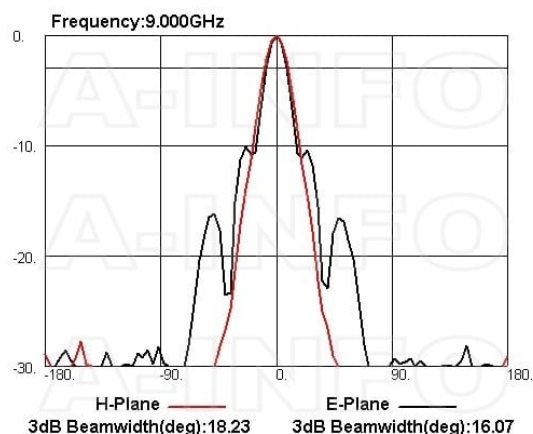


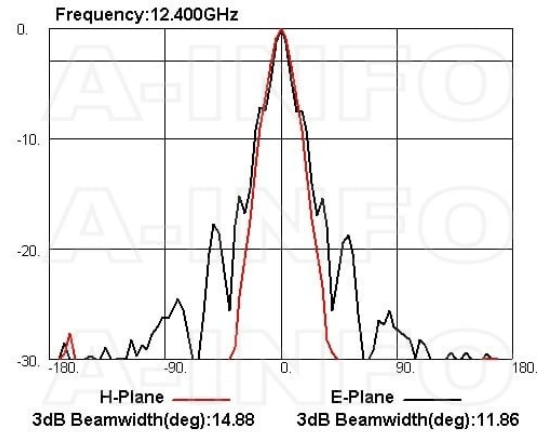
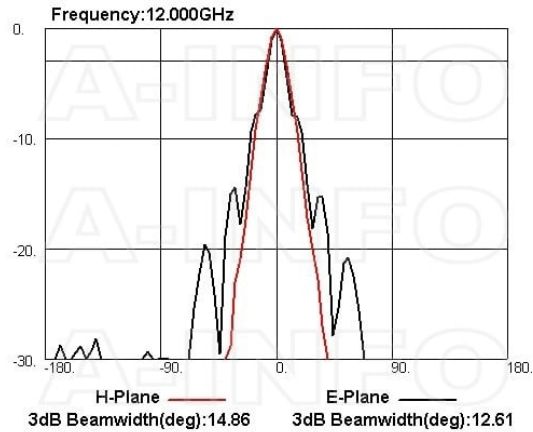
### VSWR



### 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-90-20-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



NM-NM-A050-1000 Flexible Cable Assembly 1000mm DC-18GHz N Male to N Male



NM-NM-A050-1500 Flexible Cable Assembly 1500mm DC-18GHz N Male to N Male



NM-NM-A050-2000 Flexible Cable Assembly 2000mm DC-18GHz N Male to N Male



NM-NM-A050-3000 Flexible Cable Assembly 3000mm DC-18GHz N Male to N Male



NM-NM-A050-5000 Flexible Cable Assembly 5000mm DC-18GHz N Male to N Male



NM-NM-A050-10000 Flexible Cable Assembly 10000mm DC-18GHz N Male to N Male



NM-NM-A050-20000 Flexible Cable Assembly 20000mm DC-18GHz N Male to N Male



NM-NM-A100-1000 Flexible Cable Assembly 1000mm DC-18GHz N Male to N Male



NM-NM-A100-1500 Flexible Cable Assembly 1500mm DC-18GHz N Male to N Male



NM-NM-A100-2000 Flexible Cable Assembly 2000mm DC-18GHz N Male to N Male



NM-NM-A100-3000 Flexible Cable Assembly 3000mm DC-18GHz N Male to N Male



NM-NM-A100-5000 Flexible Cable Assembly 5000mm DC-18GHz N Male to N Male



NM-NM-A100-10000 Flexible Cable Assembly 10000mm DC-18GHz N Male to N Male



NM-NM-A100-20000 Flexible Cable Assembly 20000mm DC-18GHz N Male to N Male

### Similar Products



LB-90-20-A Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain Rectangular Waveguide Interface



LB-90-20-ASPO Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain Rectangular Waveguide Interface



LB-90-20-C-SF Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain SMA Female



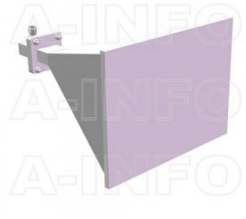
LB-90-20-C-SFSPO Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain SMA Female



LB-90-20-C-NF Standard Gain  
Horn Antenna 8.2-12.4GHz 20dB  
Gain N Type Female



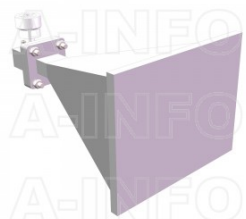
LB-90-20-C-TF Standard Gain  
Horn Antenna 8.2-12.4GHz 20dB  
Gain TNC Female



LB-90-20-C-TFSPO Standard Gain  
Horn Antenna 8.2-12.4GHz 20dB  
Gain TNC Female



LB-90-20-C-7 Standard Gain Horn  
Antenna 8.2-12.4GHz 20dB Gain  
7mm



LB-90-20-C-7SPO Standard Gain  
Horn Antenna 8.2-12.4GHz 20dB  
Gain 7mm



LB-90-20-C-3.5F Standard Gain  
Horn Antenna 8.2-12.4GHz 20dB  
Gain 3.5mm Female



LB-90-20-C-3.5FSPO Standard  
Gain Horn Antenna 8.2-12.4GHz  
20dB Gain 3.5mm Female

### About this Datasheet

|                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                               |                                                                                                                      |
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| <p>● <b>Product Information</b><br/>Product Link:<br/><a href="https://www.ainfoinc.com/lb-90-20-c-nfspo-standard-gain-horn-antenna-8-2-12-4-ghz-20db-gain-n-type-female">https://www.ainfoinc.com/lb-90-20-c-nfspo-standard-gain-horn-antenna-8-2-12-4-ghz-20db-gain-n-type-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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