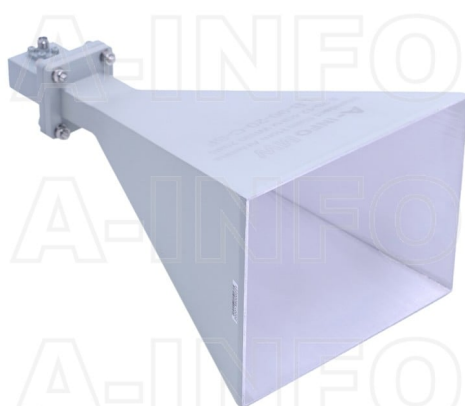




LB-90-20-C-SF Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain SMA Female

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

## Product Information

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

## Description

Standard Gain Horn Antenna LB-90-20-C-SF, operating from 8.2 to 12.4GHz with a nominal 20dB gain and low VSWR 1.25:1 with SMA Female connector output. The model LB-90-20-C-SF has uniform gain through its frequency span, providing efficient performance characteristics and directionality. It can handle 50W continuously and 3000W peak power. Constructed of lightweight corrosion-resistant aluminum, the antenna will provide years of trouble-free indoor and outdoor service. 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

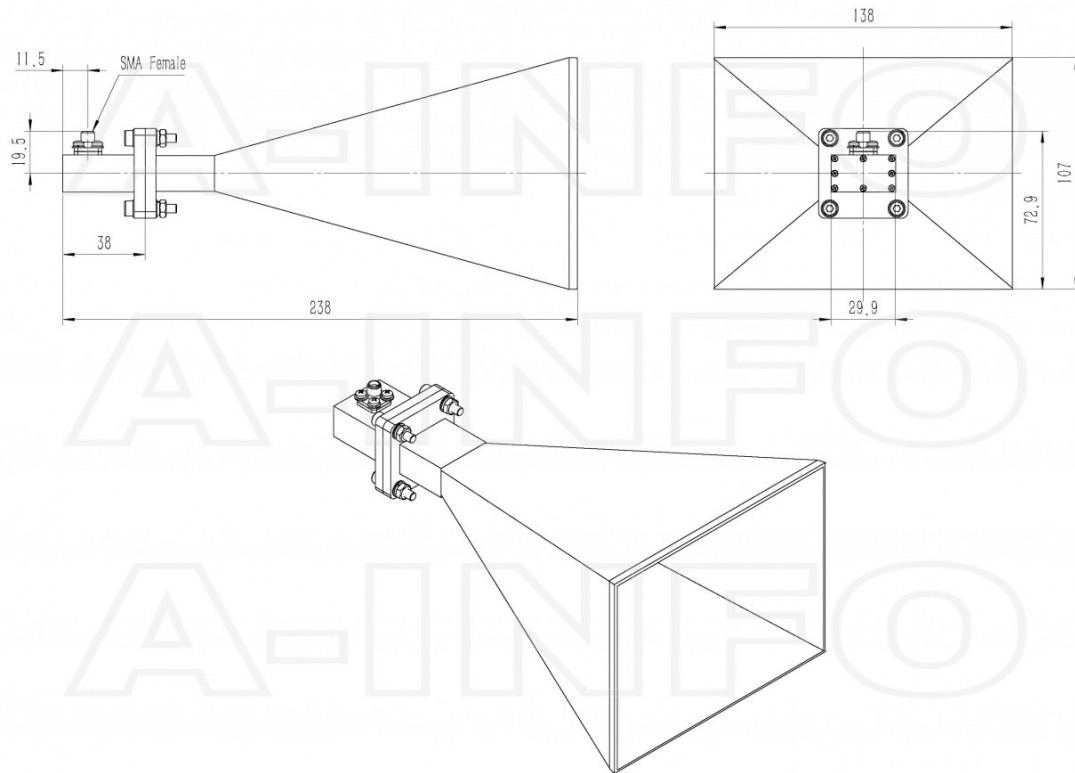
| Electrical Specification           |             | Interface                |                                         |
|------------------------------------|-------------|--------------------------|-----------------------------------------|
| Frequency, Min (GHz)               | 8.2         | Output Type              | Coaxial                                 |
| Frequency, Max (GHz)               | 12.4        | Connector                | SMA                                     |
| 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)             | 138                                     |
| Cross Pol. Isolation, Typ (dB)     | 45          | Size, H (mm)             | 107                                     |
| VSWR, Typ                          | 1.25:1      | Size, L (mm)             | 238                                     |
| Impedance, (Ohm)                   | 50          | Weight, (kg)             | 0.45                                    |
| Power Handling, CW, (W)            | 50          |                          |                                         |
| Power Handling, Peak, (W)          | 3000        |                          |                                         |

## Additional Information

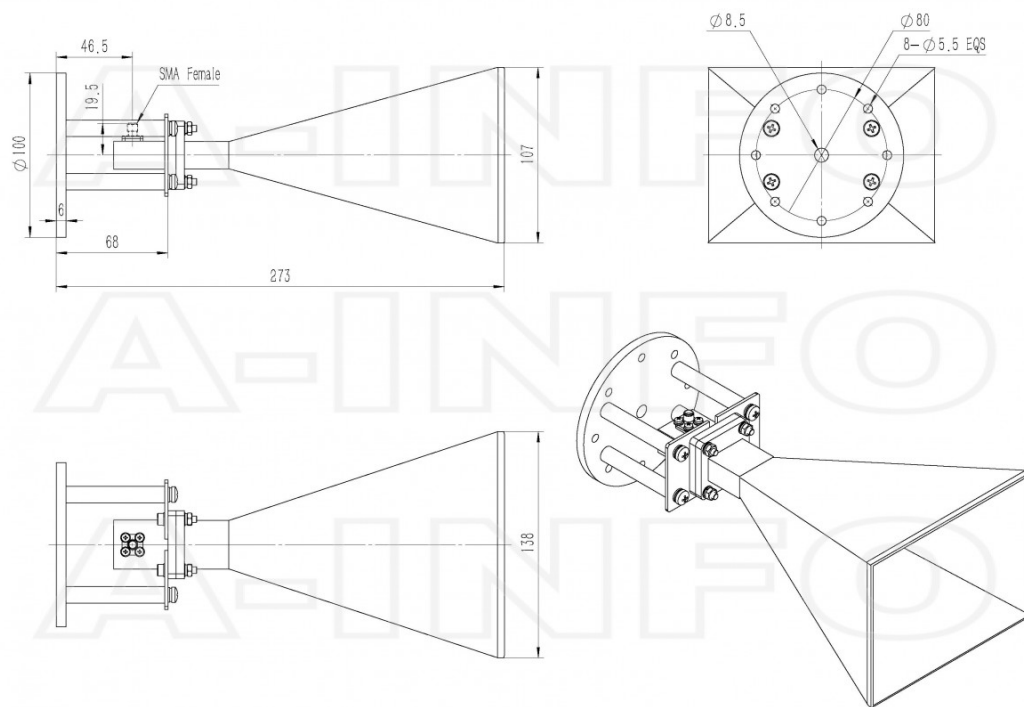
|             |                                         |              |                                                                                                                                 |
|-------------|-----------------------------------------|--------------|-----------------------------------------------------------------------------------------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

## Outline Drawing

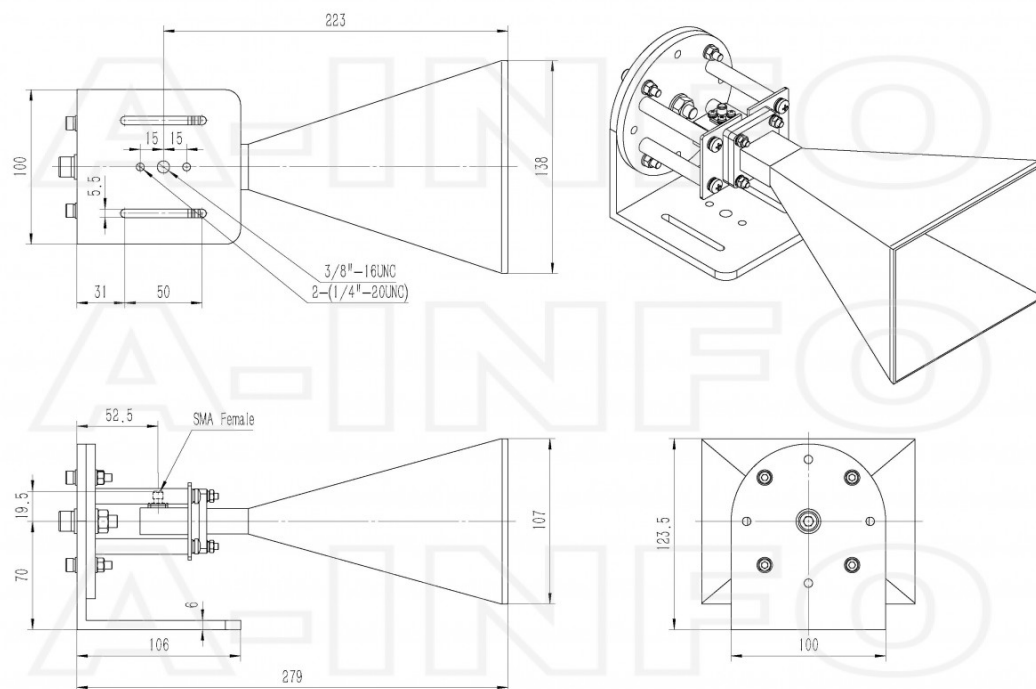
SMA Female Output (P/N: LB-90-20-C-SF)



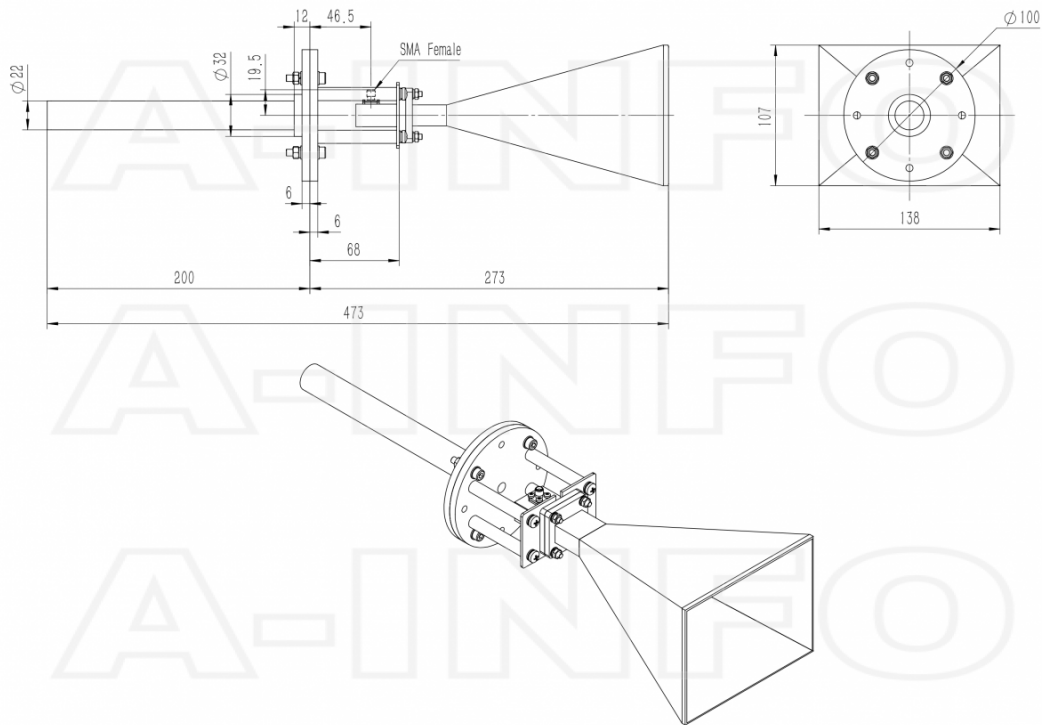
SMA Female Output with Round Mounting Bracket (Option, P/N: LB-90-10-C-MB)



SMA Female Output with L Type Mounting Bracket (Option, P/N: LB-90-10-C-MBL)

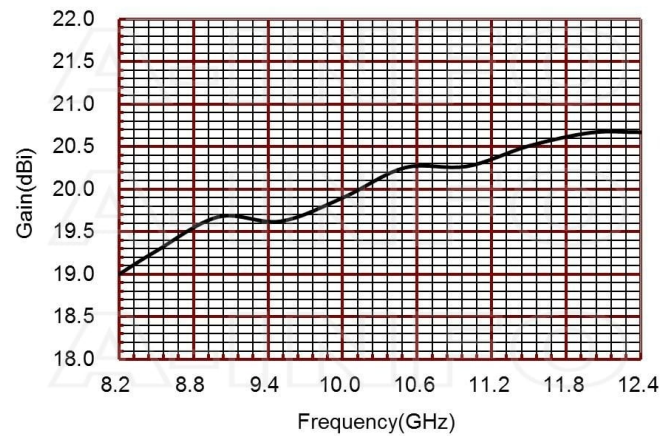


SMA Female Output with Stinger Type Mounting Bracket (Option, P/N: LB-90-10-C-MA)



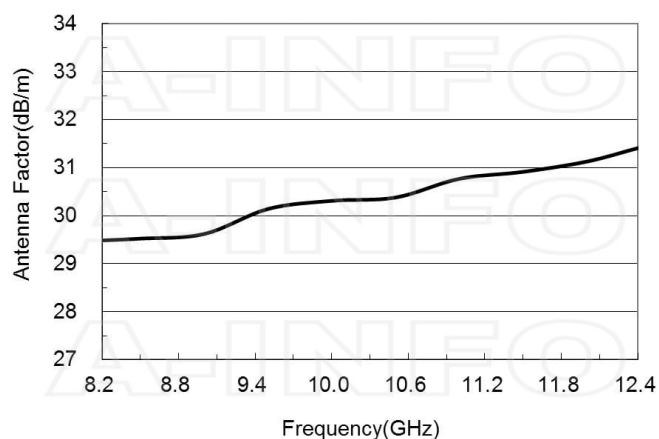
### Typical Test Results

Gain





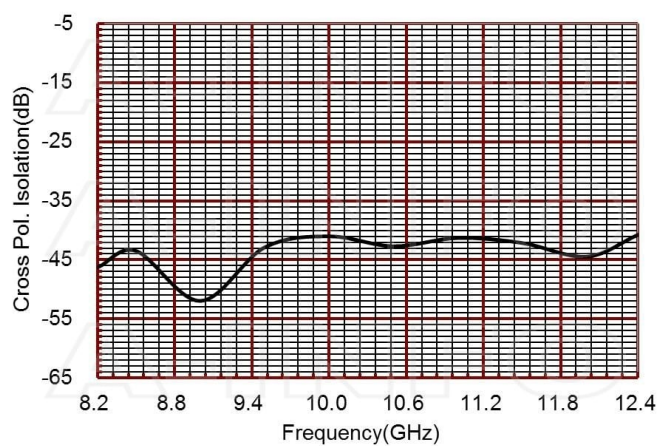
### Antenna Factor



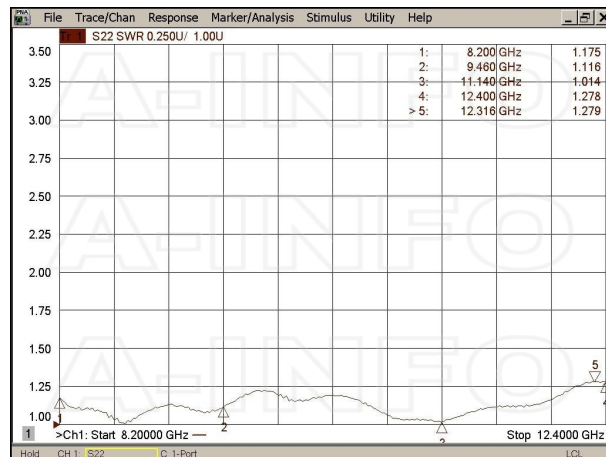
### Antenna Factor (Table)

| Frequency(GHz) | Gain(dBi) | Antenna Factor(dB/m) |
|----------------|-----------|----------------------|
| 8.2            | 19.00     | 29.49                |
| 8.5            | 19.27     | 29.52                |
| 9.0            | 19.68     | 29.62                |
| 9.5            | 19.62     | 30.14                |
| 10.0           | 19.90     | 30.31                |
| 10.5           | 20.25     | 30.38                |
| 11.0           | 20.27     | 30.77                |
| 11.5           | 20.51     | 30.91                |
| 12.0           | 20.67     | 31.13                |
| 12.4           | 20.67     | 31.41                |

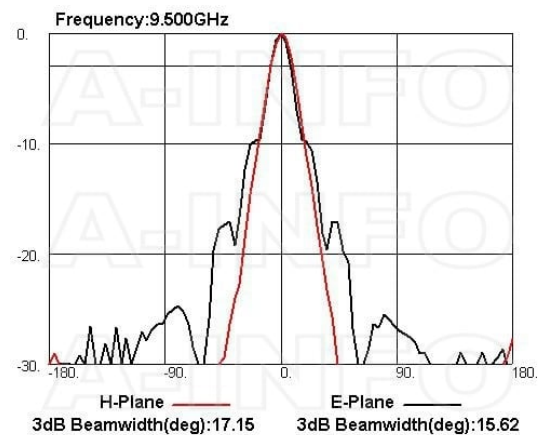
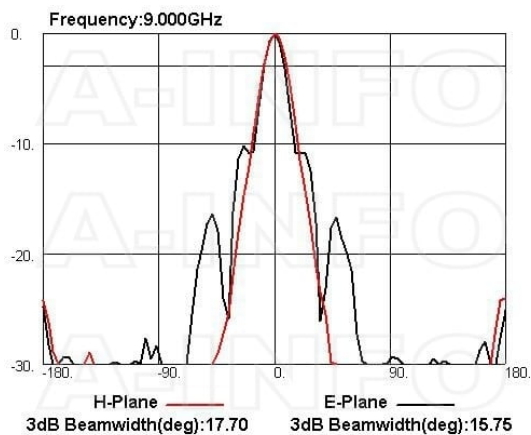
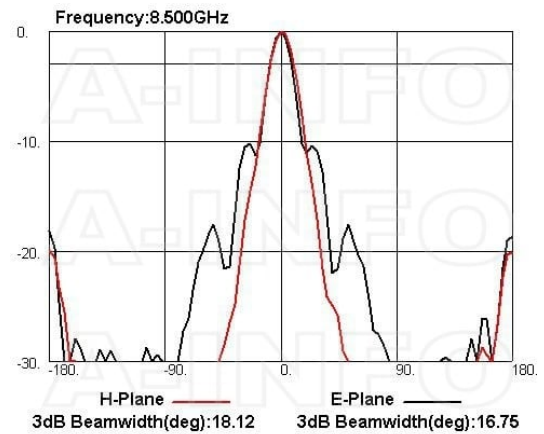
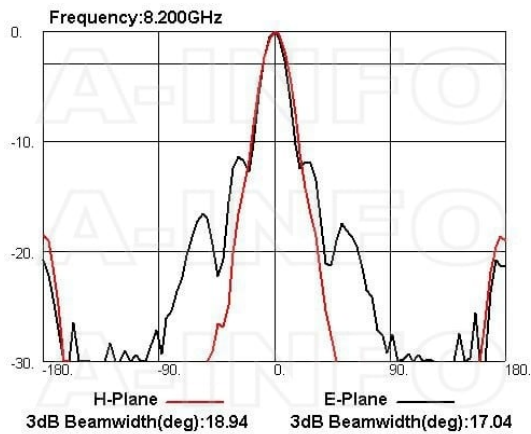
### Cross Polarization Isolation

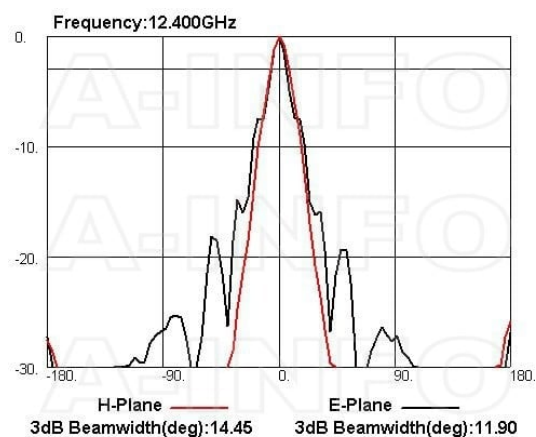
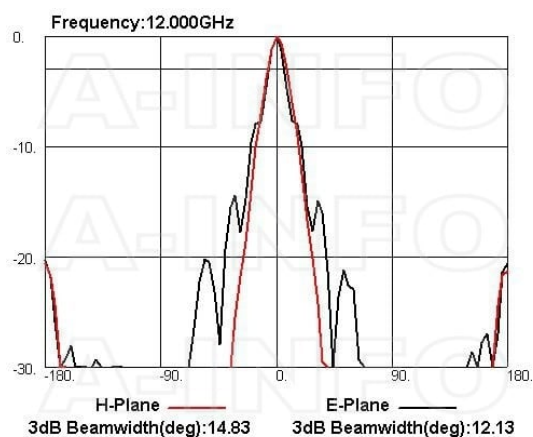
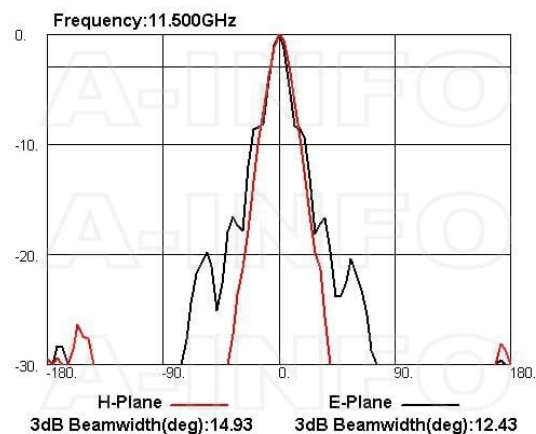
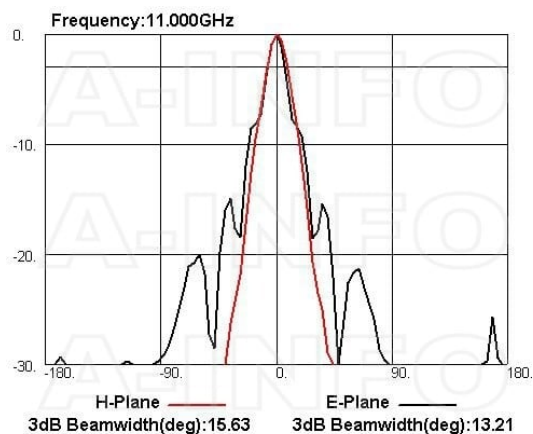
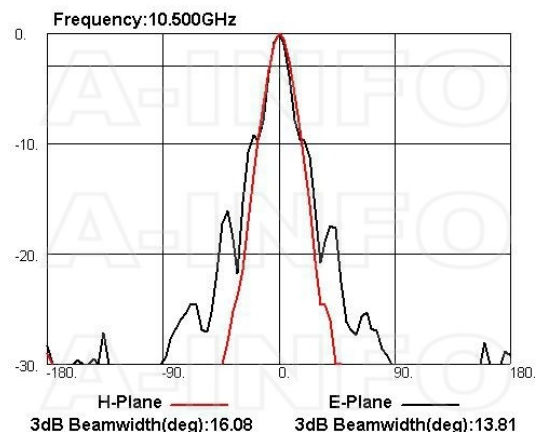
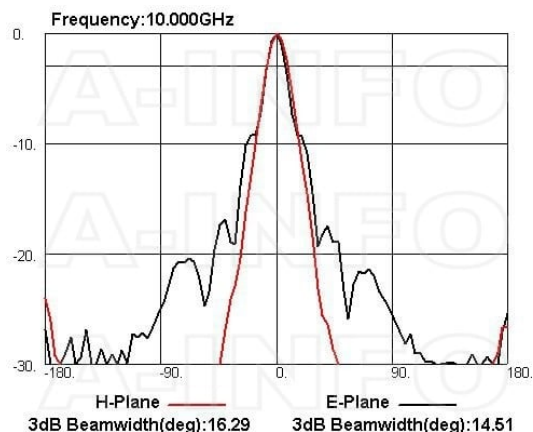


### VSWR



### 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



SM-SM-A050-1000 Flexible Cable Assembly 1000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-1500 Flexible Cable Assembly 1500mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-2000 Flexible Cable Assembly 2000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-3000 Flexible Cable Assembly 3000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-5000 Flexible Cable Assembly 5000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A050-10000 Flexible Cable Assembly 10000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-1000 Flexible Cable Assembly 1000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-1500 Flexible Cable Assembly 1500mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-2000 Flexible Cable Assembly 2000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-3000 Flexible Cable Assembly 3000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-5000 Flexible Cable Assembly 5000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-10000 Flexible Cable Assembly 10000mm DC- 26.5GHz SMA Male to SMA Male



SM-SM-A080-20000 Flexible Cable Assembly 20000mm DC- 26.5GHz SMA Male to SMA 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-SFSP0 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-NFSP0 Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain N Type Female



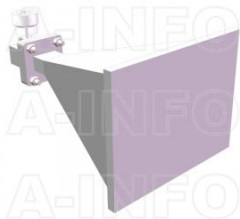
LB-90-20-C-TF Standard Gain Horn Antenna 8.2-12.4GHz 20dB Gain TNC Female



LB-90-20-C-TFSP0 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

|                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                |                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>● Product Information</li></ul> <p>Product Link:<br/><a href="https://www.ainfoinc.com/lb-90-20-c-sf-standard-gain-horn-antenna-8-2-12-4-ghz-20db-gain-sma-female">https://www.ainfoinc.com/lb-90-20-c-sf-standard-gain-horn-antenna-8-2-12-4-ghz-20db-gain-sma-female</a><br/>Data subject to change without notice.<br/>© A-INFO INC. 2023. All Rights Reserved</p> | <ul style="list-style-type: none"><li>● Contact Us</li></ul> <p>Address:dd<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>● Phone &amp; Fax</li></ul> <p>Phone:<br/>+1-949-639-9688<br/>+1-949-639-9608</p> <p>Fax:<br/>+1-949-639-9670</p> |
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