



### LB-12-20-A Standard Gain Horn Antenna 60-90GHz 20dB Gain Rectangular Waveguide Interface

Standard Gain Horn Antenna Operating From 60GHz to 90GHz With a Nominal 20dB Gain With Rectangular Waveguide Interface

## Product Information

|     |            |
|-----|------------|
| SKU | LB-12-20-A |
|-----|------------|

## Description

Standard Gain Horn Antenna LB-12-20-A, operating from 60 to 90GHz with a nominal 20dB gain and low VSWR 1.1:1 with FUGP740 output. The model LB-12-20-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 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

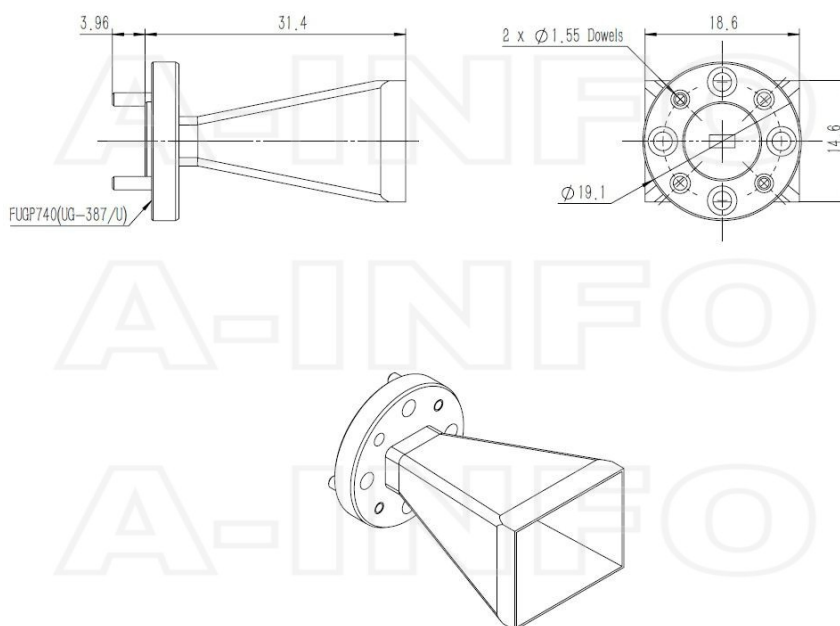
| Electrical Specification           |             | Interface                |                   |
|------------------------------------|-------------|--------------------------|-------------------|
| Frequency, Min (GHz)               | 60          | Output Type              | Waveguide         |
| Frequency, Max (GHz)               | 90          | Flange Style             | Round             |
| Waveguide Type                     | Rectangular | Flange Type              | Cover             |
| Waveguide Size EIA WR              | WR12        | Flange Designation       | FUGP740(UG-387/U) |
| Gain, Typ (dBi)                    | 20          | Mechanical Specification |                   |
| Polarization                       | Linear      | Figure                   | A Type            |
| 3dB Beamwidth, E-Plane, Typ (Deg.) | 15          | Body Material            | Cu                |
| 3dB Beamwidth, H-Plane, Typ (Deg.) | 16          | Finish                   | Gold Plated       |
| Cross Pol. Isolation, Typ (dB)     | 35          | Size, W (mm)             | 19.1              |
| VSWR, Typ                          | 1.1:1       | Size, H (mm)             | 19.1              |
|                                    |             | Size, L (mm)             | 31.4              |
|                                    |             | Weight, (kg)             | 0.02              |

## Additional Information

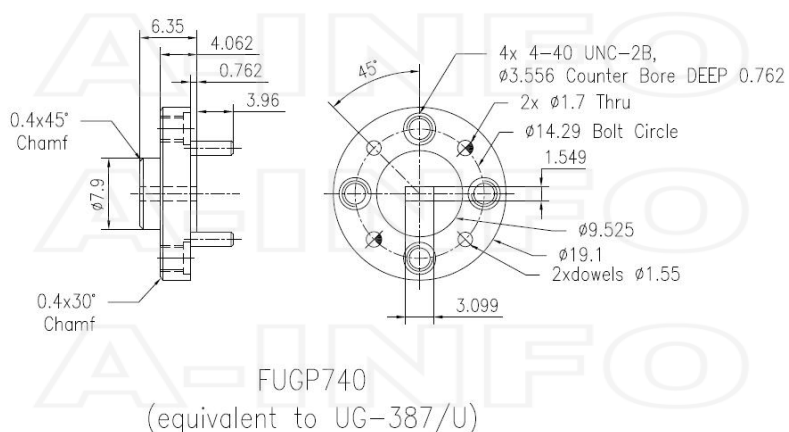
|             |                                         |              |                                                                                                                                 |
|-------------|-----------------------------------------|--------------|-----------------------------------------------------------------------------------------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

FUGP740 Output (P/N: LB-12-20-A)

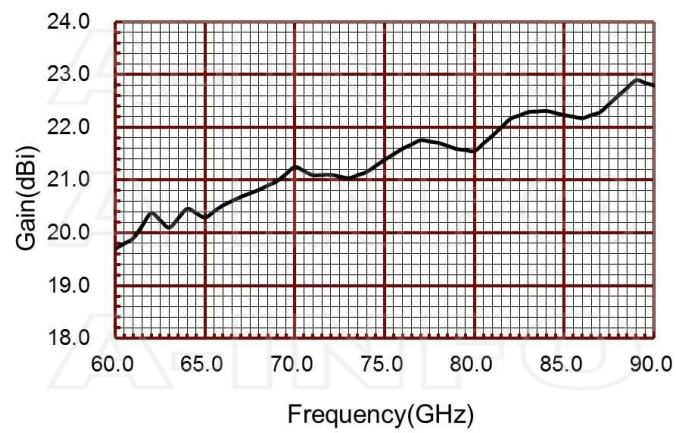


## Flange Drawing

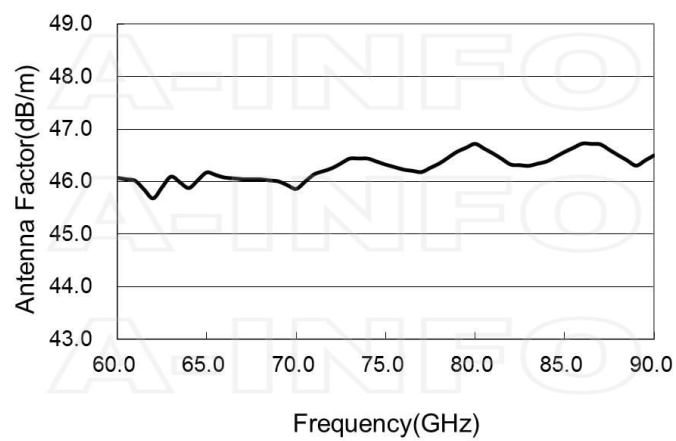


## Typical Test Results

### Gain



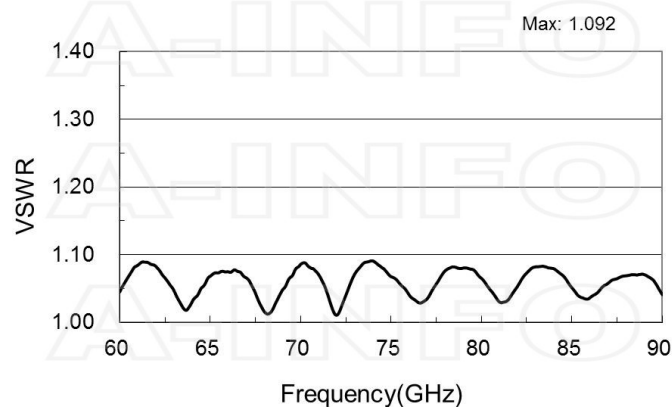
### Antenna Factor



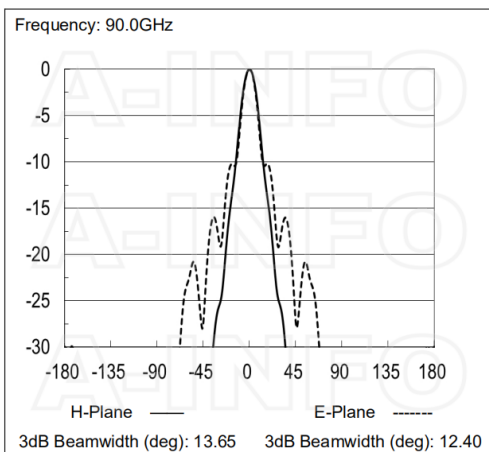
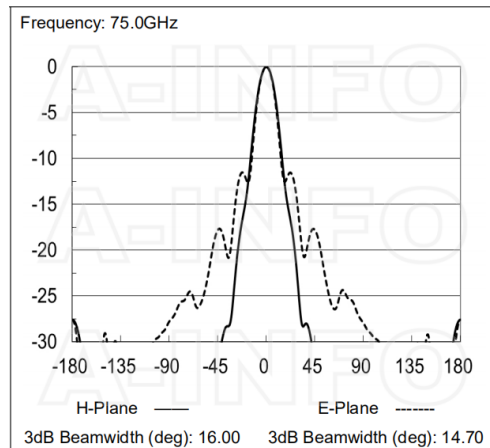
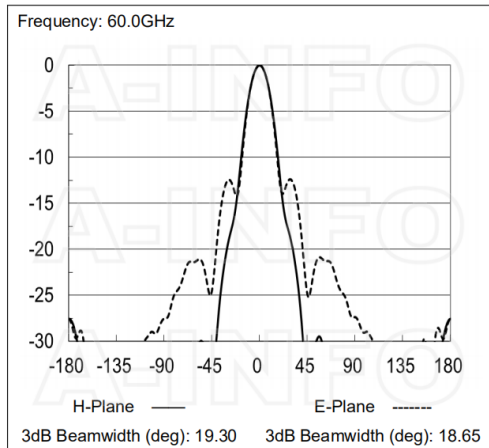
Antenna Factor (Table)

| Frequency(GHz) | Gain(dBi) | Antenna Factor(dB/m) |
|----------------|-----------|----------------------|
| 60             | 19.70     | 46.07                |
| 61             | 19.90     | 46.02                |
| 62             | 20.37     | 45.68                |
| 63             | 20.10     | 46.10                |
| 64             | 20.45     | 45.88                |
| 65             | 20.29     | 46.18                |
| 66             | 20.52     | 46.08                |
| 67             | 20.68     | 46.05                |
| 68             | 20.82     | 46.04                |
| 69             | 20.98     | 46.01                |
| 70             | 21.25     | 45.86                |
| 71             | 21.10     | 46.14                |
| 72             | 21.10     | 46.26                |
| 73             | 21.04     | 46.44                |
| 74             | 21.15     | 46.44                |
| 75             | 21.39     | 46.33                |
| 76             | 21.60     | 46.23                |
| 77             | 21.76     | 46.18                |
| 78             | 21.70     | 46.35                |
| 79             | 21.59     | 46.57                |
| 80             | 21.55     | 46.72                |
| 81             | 21.84     | 46.54                |
| 82             | 22.16     | 46.33                |
| 83             | 22.29     | 46.30                |
| 84             | 22.31     | 46.39                |
| 85             | 22.23     | 46.57                |
| 86             | 22.17     | 46.73                |
| 87             | 22.29     | 46.71                |
| 88             | 22.60     | 46.50                |
| 89             | 22.89     | 46.31                |
| 90             | 22.79     | 46.50                |

VSWR



## Pattern



## Related Products



12WCA1.0\_Cu Right Angle Rectangular Waveguide to Coaxial Adapter 60-90GHz WR12 to 1.0mm Female



12WCA1.0M\_Cu Right Angle Rectangular Waveguide to Coaxial Adapter 60-90GHz WR12 to 1.0mm Male



12WECA1.0\_Cu Endlaunch Rectangular Waveguide to Coaxial Adapter 60-90GHz WR12 to 1.0mm Female



12WECA1.0M\_Cu Endlaunch Rectangular Waveguide to Coaxial Adapter 60-90GHz WR12 to 1.0mm Male



HSCS\_4-40UNC\_Pack Assembly  
Pack

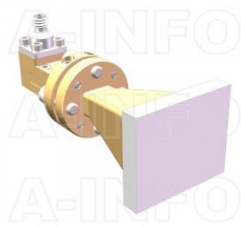
Similar Products



LB-12-20-ASPO Standard Gain  
Horn Antenna 60-90GHz 20dB  
Gain Rectangular Waveguide  
Interface



LB-12-20-C-1.0F Standard Gain  
Horn Antenna 60-90GHz 20dB  
Gain 1.0mm Female



LB-12-20-C-1.0FSPO Standard  
Gain Horn Antenna 60-90GHz  
20dB Gain 1.0mm Female



LB-12-20-C-E1.0F Standard Gain  
Horn Antenna 60-90GHz 20dB  
Gain Endlaunch 1.0mm Female

About this Datasheet

|                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                              |                                                                                                                                                         |
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| <ul style="list-style-type: none"><li>● Product Information</li></ul> <p>Product Link:<br/><a href="https://www.ainfoinc.com/lb-12-15-a-standard-gain-horn-antenna-60-90-ghz-15db-gain-fugp740-922">https://www.ainfoinc.com/lb-12-15-a-standard-gain-horn-antenna-60-90-ghz-15db-gain-fugp740-922</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:<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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