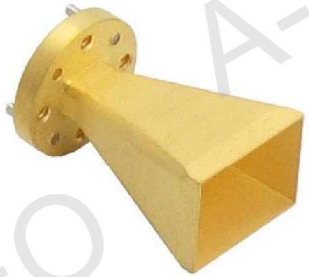
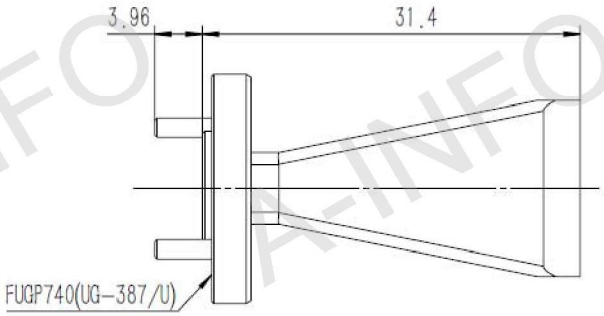
## Technical Specification

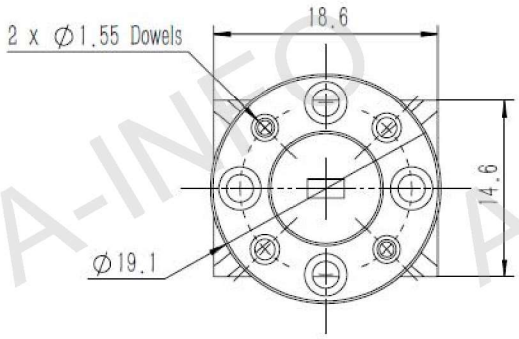


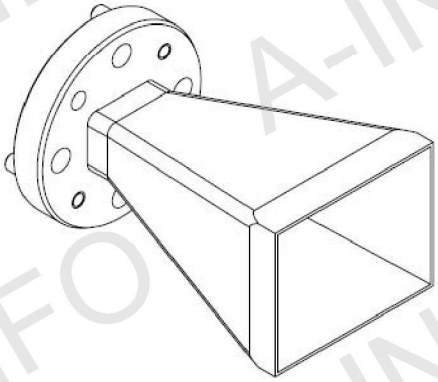
| | |
|---|---|
| Frequency Range(GHz) | 60.0 - 90.0 |
| Waveguide | WR12 |
| Gain(dBi) | 20 Typ. |
| Polarization | Linear |
| 3dB Beamwidth(deg) | 18 Typ. |
| VSWR | 1.10:1 Typ. |
| Output | FUGP740(UG-387/U) |
| Material | Cu |
| Size(mm) | 19.1 x 19.1 x 31.4 |
| Net Weight(Kg) | 0.02 Around |

## Outline Drawing (Size: mm)

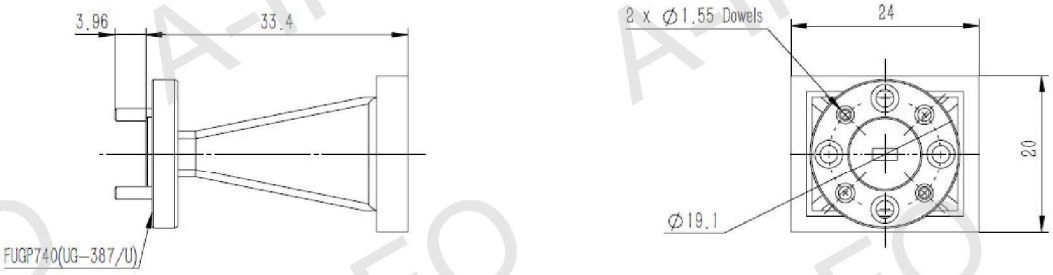
A Type (With FUGP740 Output)

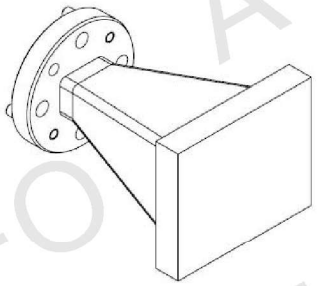


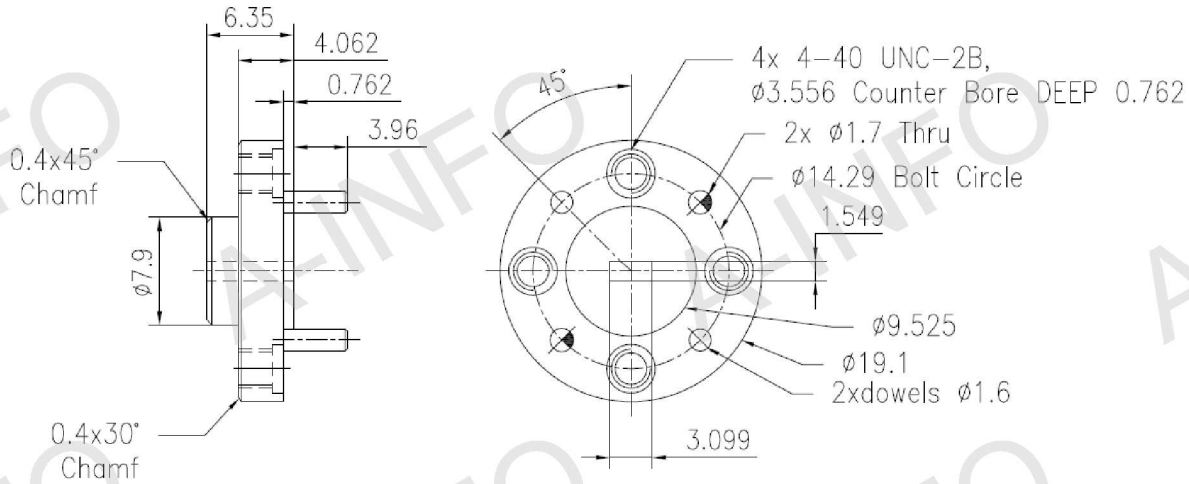



A Type(With Radome)



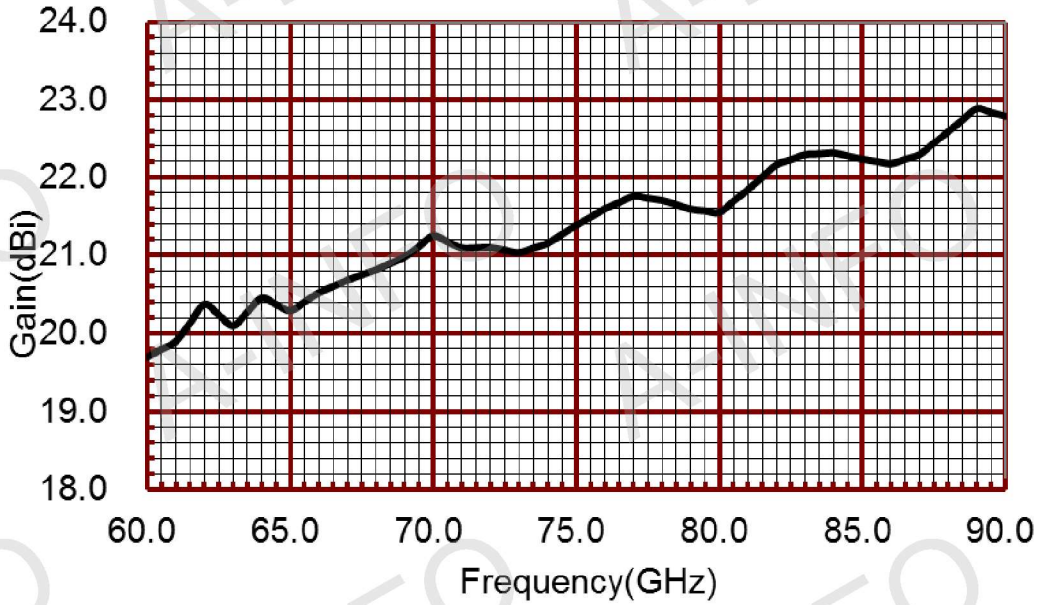
**Flange Drawing (Size: mm)**

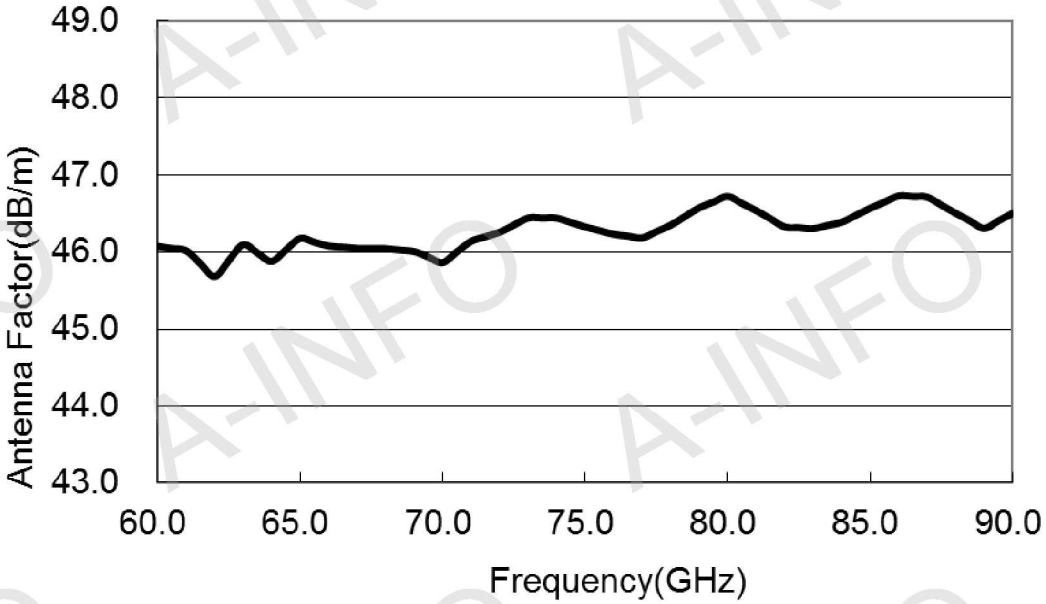



FUGP740
(equivalent to UG-387/U)

## Test Results

### Gain & Antenna Factor

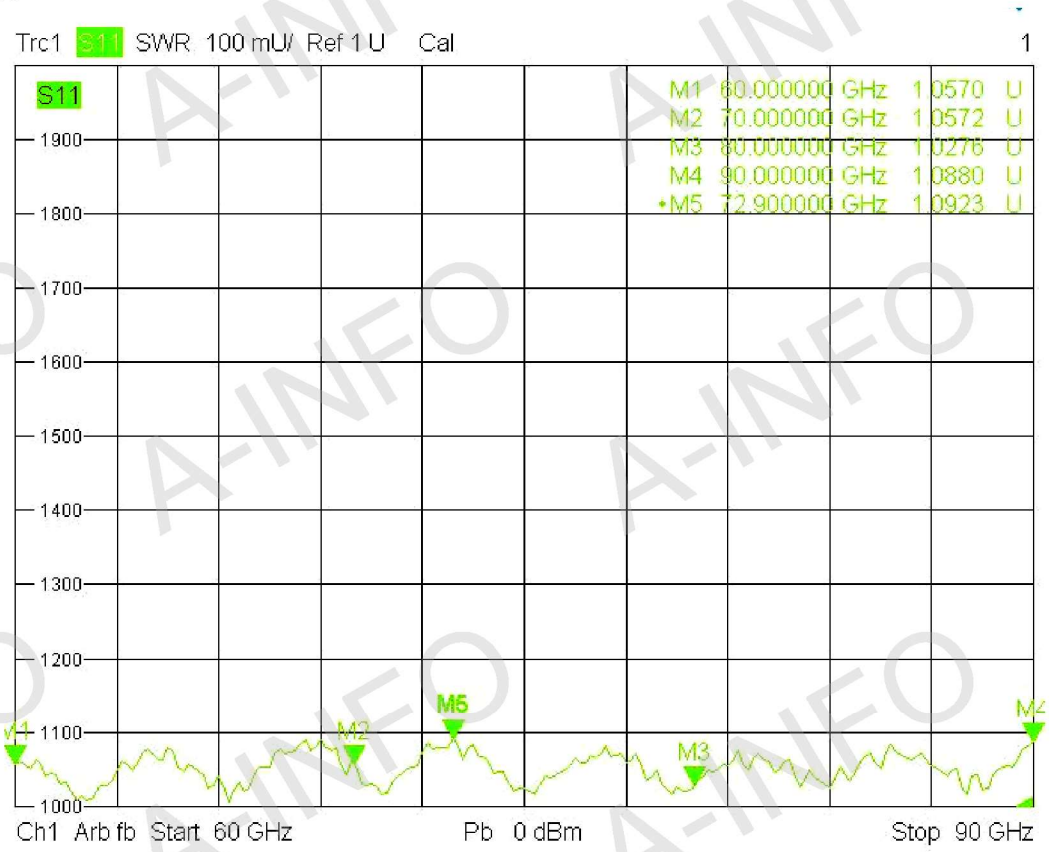


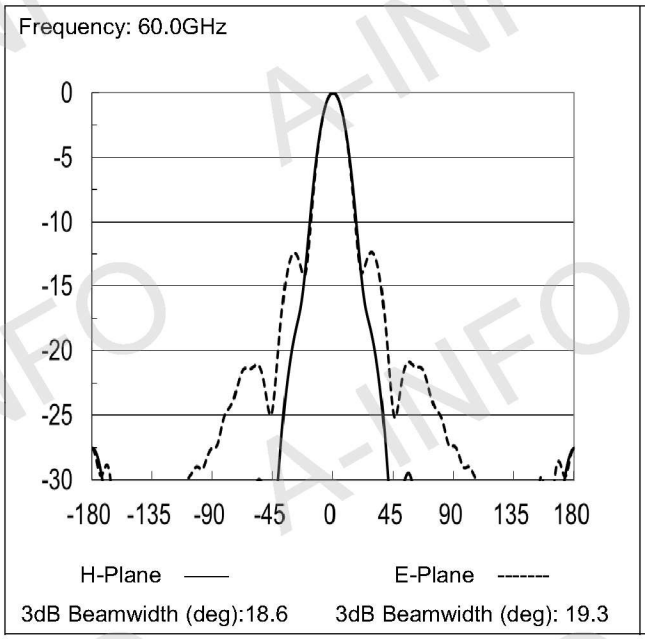
| Frequency(GHz) | Gain(dB) | Antenna Factor(dB/m) |
|---|---|---|
| 60 | 19.70 | 46.07 |
| 61 | 19.90 | 46.02 |
| 62 | 20.37 | 45.68 |
| 63 | 20.10 | 46.10 |
| 64 | 20.45 | 45.88 |
| 65 | 20.29 | 46.18 |
| 66 | 20.52 | 46.08 |
| 67 | 20.68 | 46.05 |
| 68 | 20.82 | 46.04 |
| 69 | 20.98 | 46.01 |
| 70 | 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 |

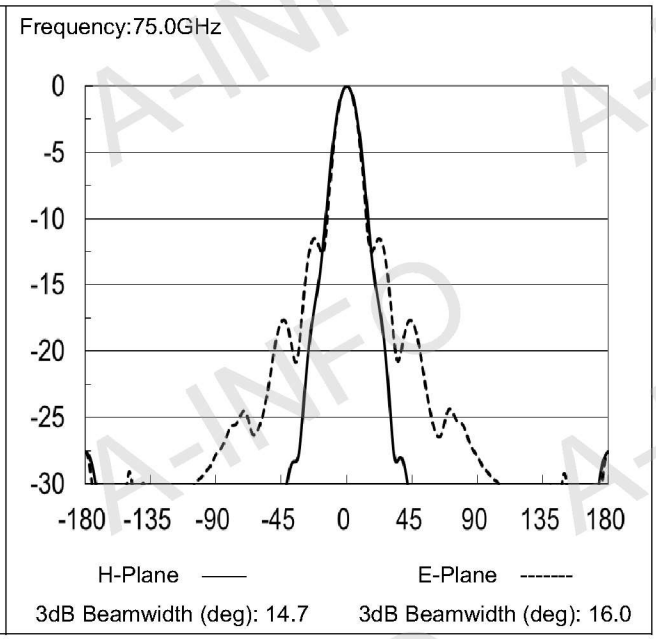
Distributed by: Reliant EMC LLC, 3311 Lewis Ave, Signal Hill CA 90755, 408-916-5750, www.reliantemc.com

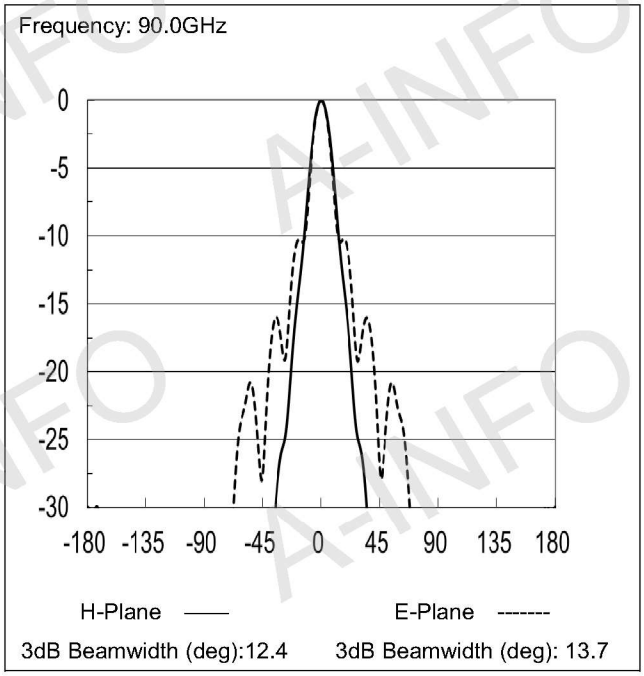
## 2. VSWR


Trc1 S11 SWR 100 mU/ Ref 1 U Cal
1
S11
M1 60.000000 GHz 1.0570 U
M2 70.000000 GHz 1.0572 U
M3 80.000000 GHz 1.0276 U
M4 90.000000 GHz 1.0880 U
•M5 72.900000 GHz 1.0923 U
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
M1
M2
M5
M3
M4
Ch1 Arb fb Start 60 GHz
Pb 0 dBm
Stop 90 GHz

## 3. Pattern


Frequency: 60.0GHz
0
-5
-10
-15
-20
-25
-30
-180 -135 -90 -45 0 45 90 135 180
H-Plane ——
E-Plane -------
3dB Beamwidth (deg):18.6
3dB Beamwidth (deg): 19.3


Frequency:75.0GHz
0
-5
-10
-15
-20
-25
-30
-180 -135 -90 -45 0 45 90 135 180
H-Plane ——
E-Plane -------
3dB Beamwidth (deg): 14.7
3dB Beamwidth (deg): 16.0


Frequency: 90.0GHz
0
-5
-10
-15
-20
-25
-30
-180 -135 -90 -45 0 45 90 135 180
H-Plane ——
E-Plane -------
3dB Beamwidth (deg):12.4
3dB Beamwidth (deg): 13.7