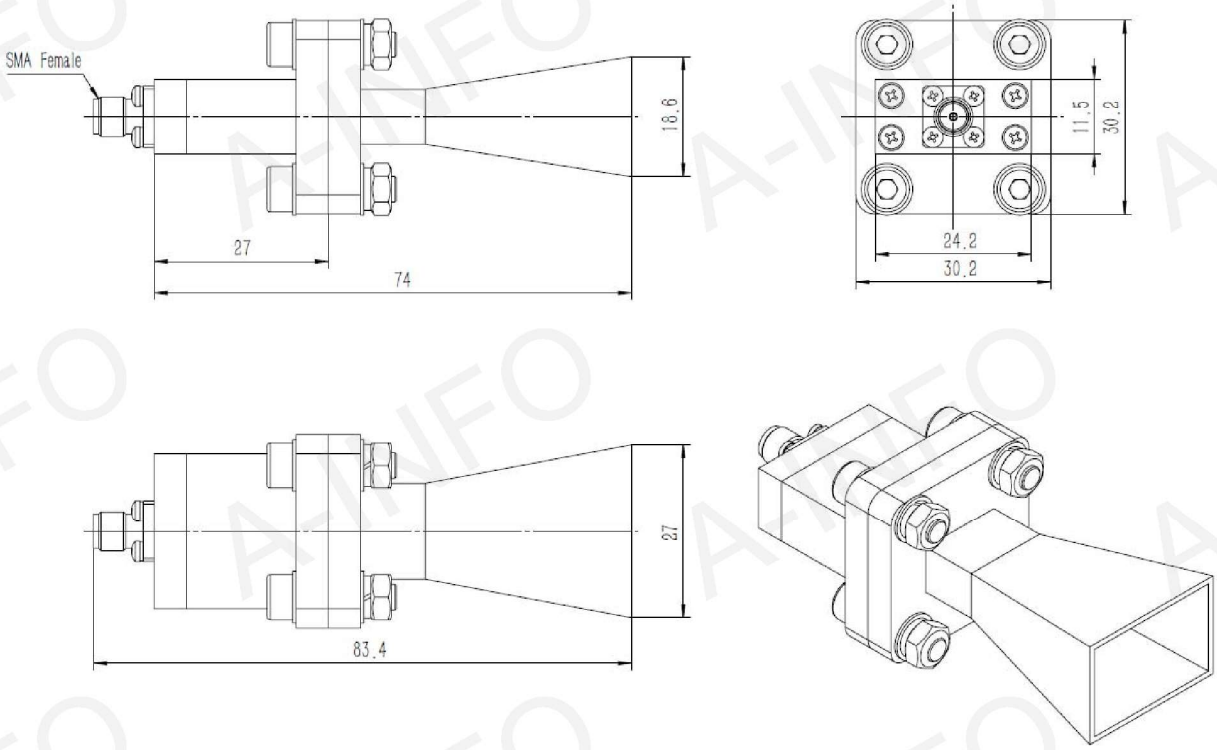
Technical Specification

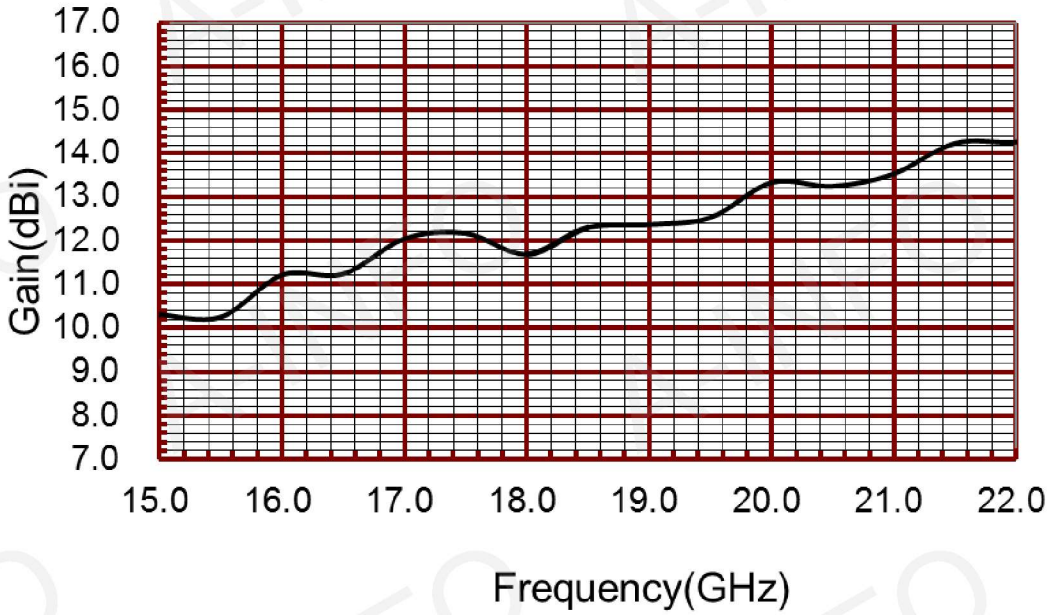
Frequency Range(GHz)	15.0 - 22.0
Waveguide	WR51
Gain(dBi)	10 Typ.
Polarization	Linear
3dB Beamwidth(deg)	55 Typ.
Cross Pol. Isolation(dB)	35 Typ.
VSWR	1.25:1 Typ.
Output	Endlaunch SMA-Female
Material	Cu
Size(mm)	30.2 x 30.2 x 83.4
Net Weight(Kg)	0.15 Around

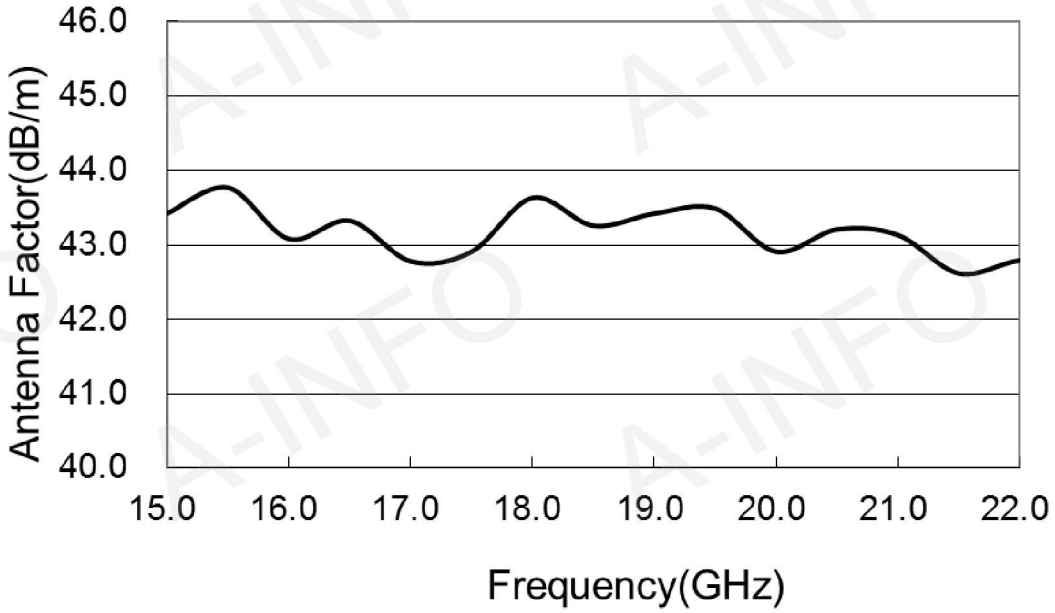
Outline Drawing (Size: mm)



Test Results

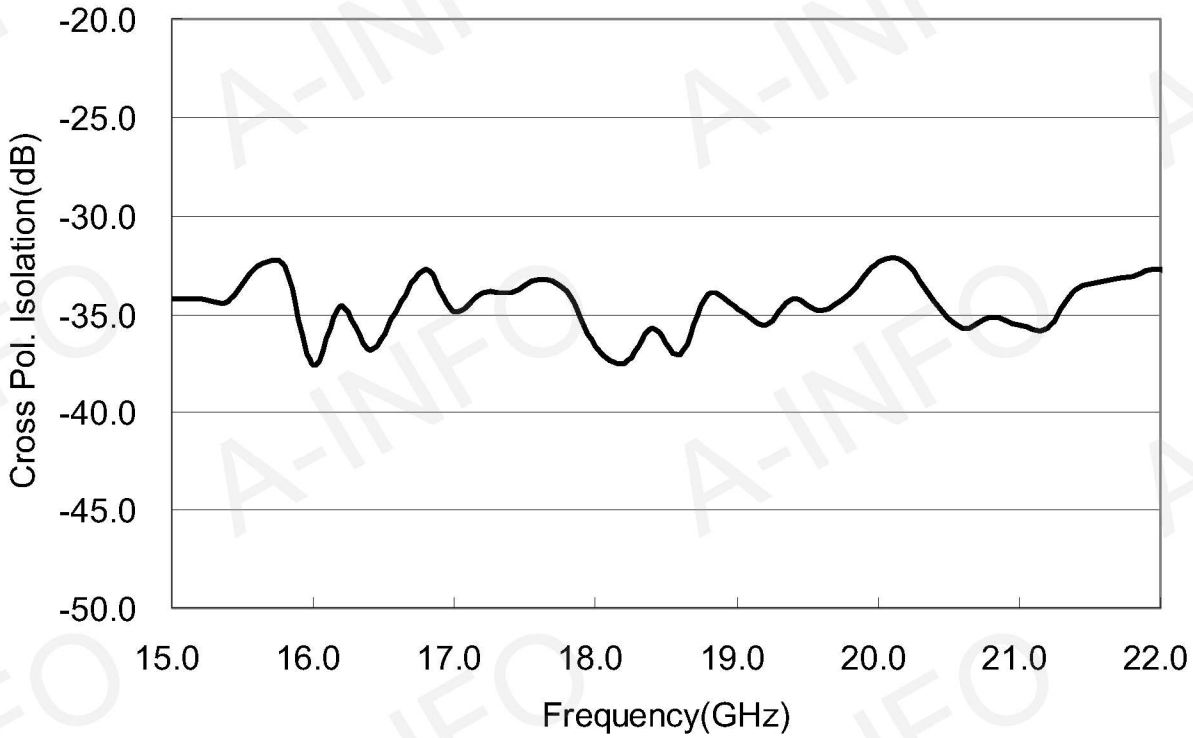
1. Gain and Antenna Factor



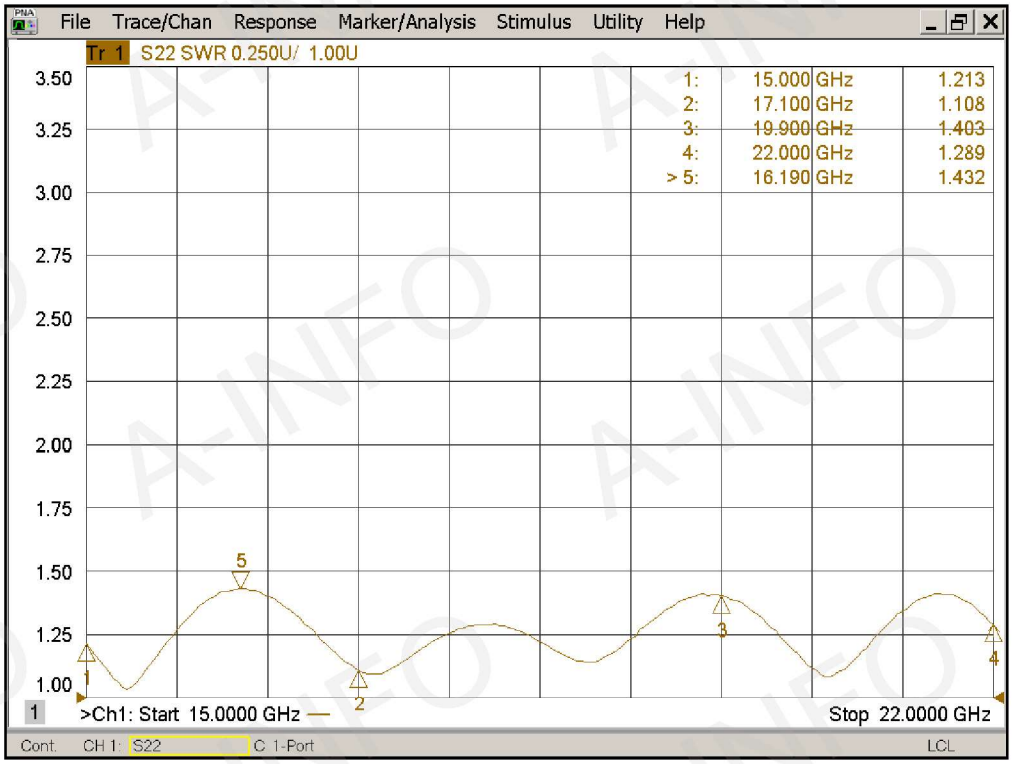


Frequency(GHz)	Gain(dBi)	Antenna Factor(dB/m)
15.0	10.31	43.42
15.5	10.25	43.77
16.0	11.21	43.08
16.5	11.23	43.32
17.0	12.04	42.78
17.5	12.16	42.91
18.0	11.68	43.63
18.5	12.30	43.26
19.0	12.36	43.42
19.5	12.52	43.49
20.0	13.32	42.91
20.5	13.24	43.21
21.0	13.52	43.13
21.5	14.24	42.62
22.0	14.27	42.79

2. Cross Polarization Isolation

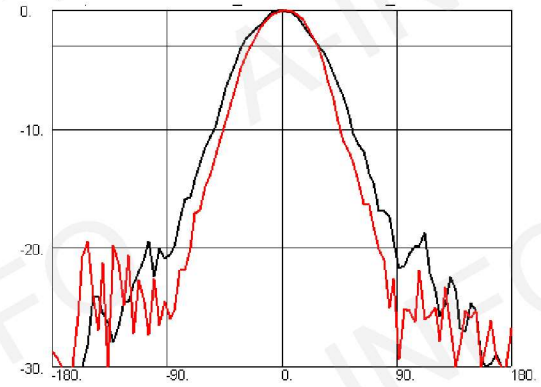


3. VSWR


File Trace/Chan Response Marker/Analysis Stimulus Utility Help
Tr 1 S22 SWR 0.250U/ 1.00U
1: 15.000 GHz 1.213
2: 17.100 GHz 1.108
3: 19.900 GHz 1.403
4: 22.000 GHz 1.289
> 5: 16.190 GHz 1.432
3.50
3.25
3.00
2.75
2.50
2.25
2.00
1.75
1.50
1.25
1.00
>Ch1: Start 15.0000 GHz
Stop 22.0000 GHz
Cont. CH 1: S22 C 1-Port LCL

4. Pattern

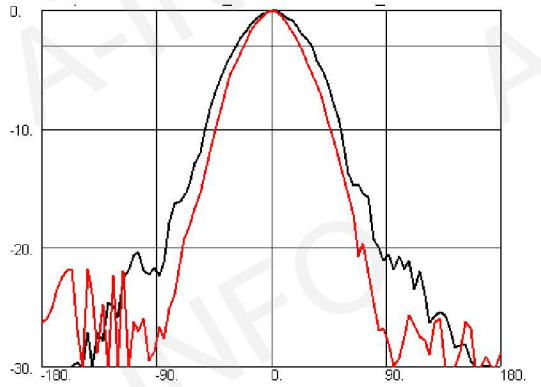
Frequency: 15.0GHz



H-Plane —— E-Plane ——

3dB Beamwidth (deg): 52.26 3dB Beamwidth (deg): 59.95

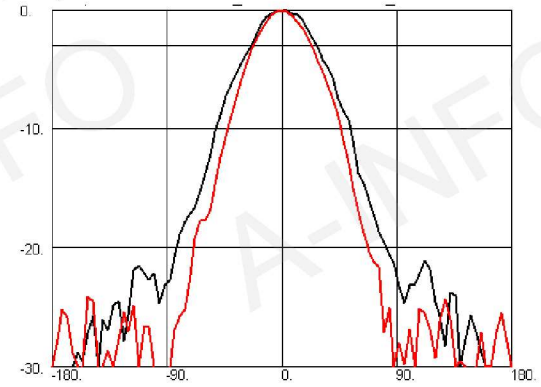
Frequency: 15.5GHz



H-Plane —— E-Plane ——

3dB Beamwidth (deg): 44.27 3dB Beamwidth (deg): 59.11

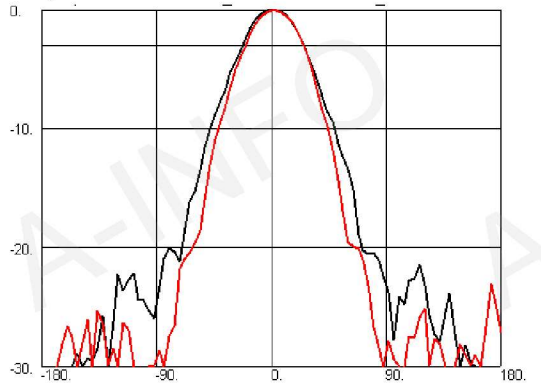
Frequency: 16.0GHz



H-Plane —— E-Plane ——

3dB Beamwidth (deg): 46.35 3dB Beamwidth (deg): 51.67

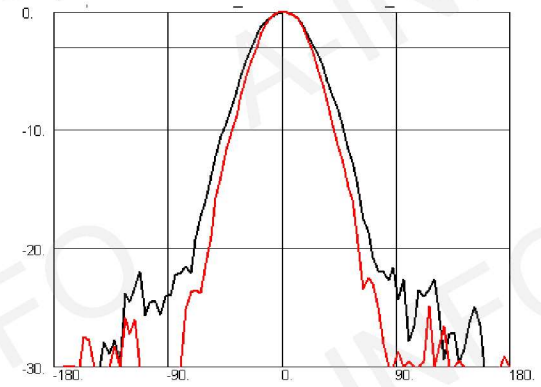
Frequency: 16.5GHz



H-Plane —— E-Plane ——

3dB Beamwidth (deg): 45.87 3dB Beamwidth (deg): 48.24

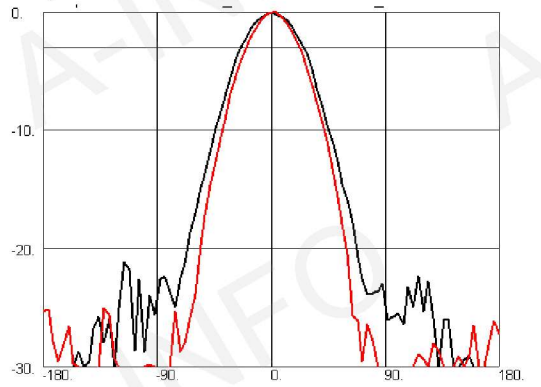
Frequency: 17.0GHz



H-Plane —— E-Plane ——

3dB Beamwidth (deg): 43.19 3dB Beamwidth (deg): 49.81

Frequency: 17.5GHz



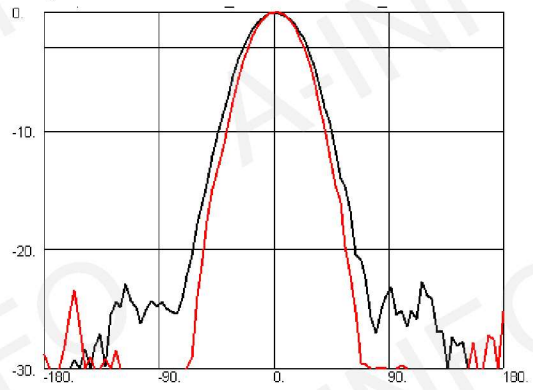
H-Plane —— E-Plane ——

3dB Beamwidth (deg): 42.51 3dB Beamwidth (deg): 50.06

A-INFO

LB-51-10-C-ESF
15.0 - 22.0GHz Standard Gain Horn Antenna

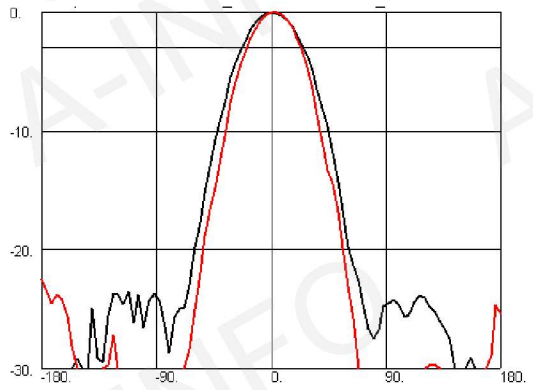
Frequency: 18.0GHz



H-Plane — E-Plane —

3dB Beamwidth (deg): 44.50 3dB Beamwidth (deg): 50.15

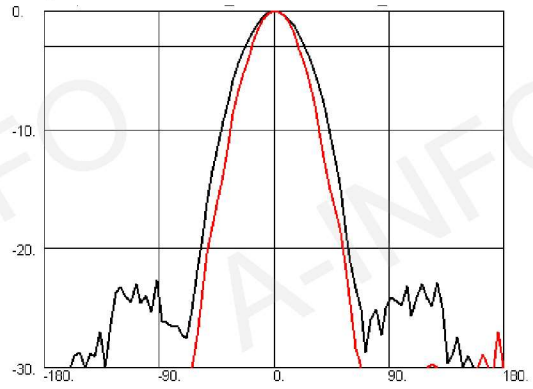
Frequency: 18.5GHz



H-Plane — E-Plane —

3dB Beamwidth (deg): 42.58 3dB Beamwidth (deg): 48.26

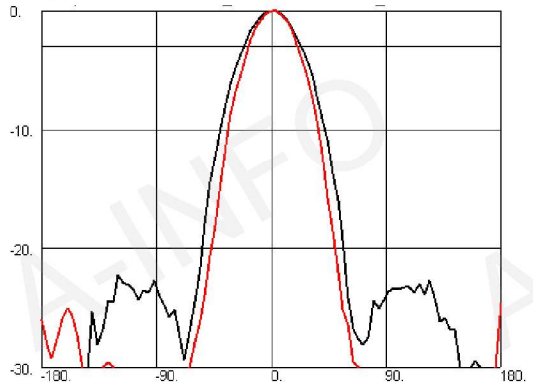
Frequency: 19.0GHz



H-Plane — E-Plane —

3dB Beamwidth (deg): 36.33 3dB Beamwidth (deg): 46.63

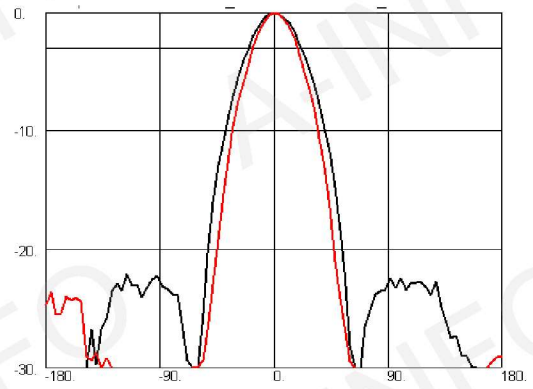
Frequency: 19.5GHz



H-Plane — E-Plane —

3dB Beamwidth (deg): 38.41 3dB Beamwidth (deg): 45.34

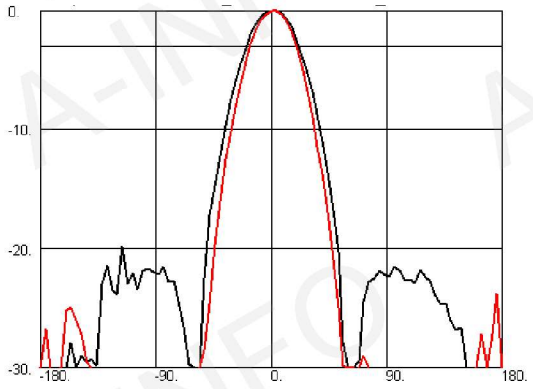
Frequency: 20.0GHz



H-Plane — E-Plane —

3dB Beamwidth (deg): 35.33 3dB Beamwidth (deg): 42.10

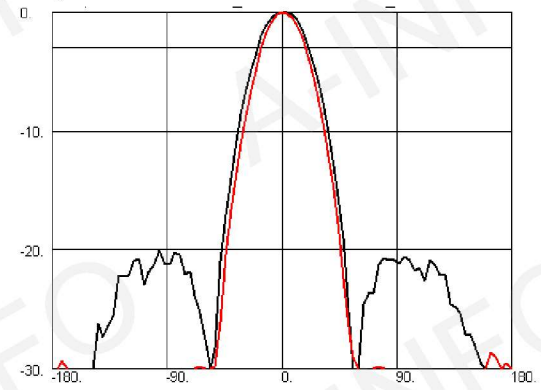
Frequency: 20.5GHz



H-Plane — E-Plane —

3dB Beamwidth (deg): 36.45 3dB Beamwidth (deg): 41.21

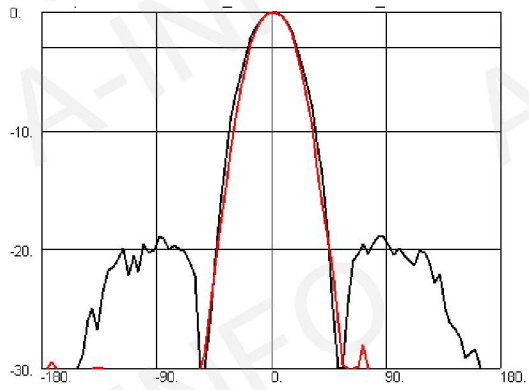
Frequency: 21.0GHz



H-Plane E-Plane

3dB Beamwidth (deg): 34.53 3dB Beamwidth (deg): 40.09

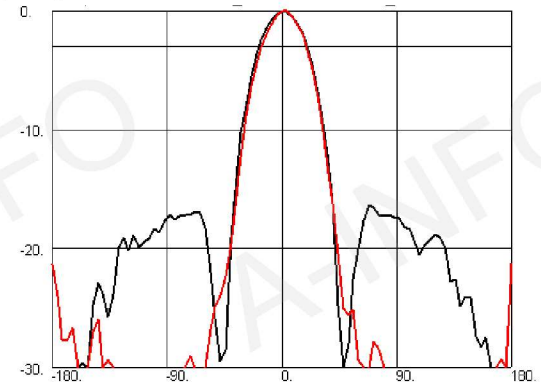
Frequency: 21.5GHz



H-Plane E-Plane

3dB Beamwidth (deg): 35.52 3dB Beamwidth (deg): 38.86

Frequency: 22.0GHz



H-Plane E-Plane

3dB Beamwidth (deg): 34.86 3dB Beamwidth (deg): 38.05