



2~18GHz Coaxial Horn Quad-Ridge Antenna Double Line Polarization

Electrical and Environmental Specifications:

Frequency Range:	2.0-18.0GHz
Antenna Gain:	20dB (typ.)
Power:	100W CW
VSWR:	3.0 : 1 max.
Isolation:	20dB min
Connector:	SMA-Female
Impedance:	50 ohm
Operational Temp. :	-55°C~+85° C
Storage Temp. :	-55°C~+100° C

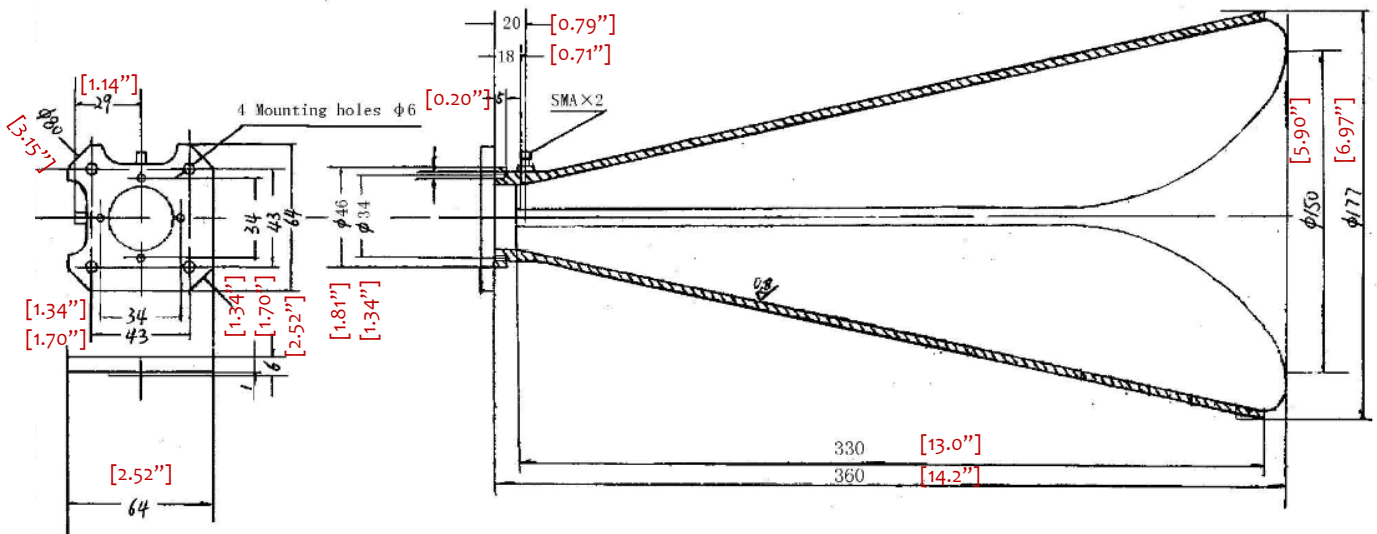


Summary:

- . High power operational up to 100W CW
- . compacted package in high gain cross band.
- . Wide bandwidth, flat frequency response
- . MIL-E-5400 standard
- . Customized unit is available upon request.

f (GHz)	G ₀ (dB)	ΔG(dB)	G(dB)
2.0	16.73	8.15	8.58
2.3	17.63	9.2	8.43
3.9	18.8	8.6	10.2
4.9	20.28	8.47	11.81
5.9	21.05	7.64	13.41
7.0	19.65	5.01	14.64
8.5	20.57	4.33	16.24
10.0	21.2	4.58	16.62
12.5	22.31	4.29	18.02
15.0	22.84	3.71	19.13
17.0	18.65	0.71	17.94
18.0	19	0.34	18.66

$G = G_0 - \Delta G$
 $G = 2\sim 18\text{GHz Gain of Polarization Horn}$
 $G_0 = \text{the standard gain of the polarization horn}$
 $\Delta G = P_1 - P_2$
 $P_1 = \text{the receiving power level of standard horn}$
 $P_2 = \text{the receiving power level of } 2\sim 18\text{GHz Polarization Horn}$





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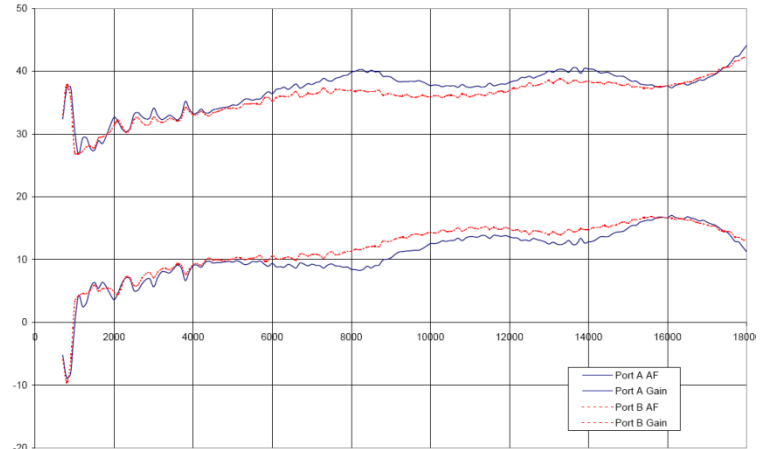
The power beyond expectations

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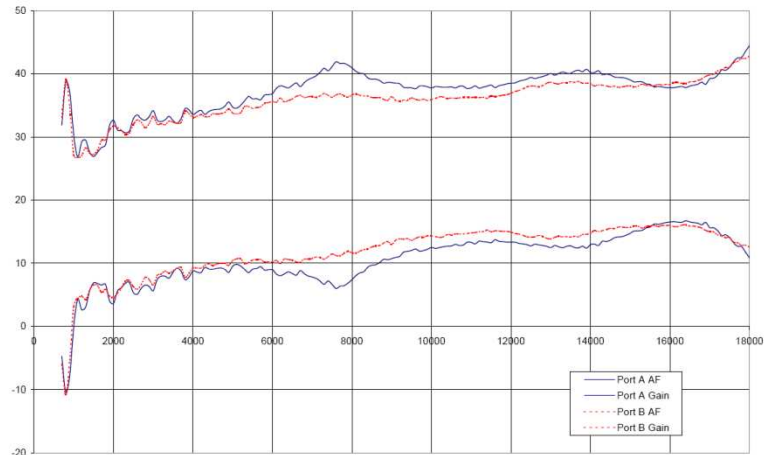
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Frequency (GHz)	1st Port Reflection Ratio (db)	2nd Port Reflection Ratio (db)	Gain (dB)
1	-4.3	-1.9	7.46
2	-11.3	-16.5	8.44
3	-15.5	-11.7	10.02
4	-22.5	-15.2	12.88
5	-20.3	-15.9	12.99
6	-15.8	-13.4	13.81
7	-11.9	-16.3	13.9
8	-10.1	-20.7	15.28
9	-10.5	-12.4	17.23
10	-9.4	-7.8	15.87
11	-7.8	-9.1	21.97
12	-7.9	-6.4	22.22
13	-10.7	-7.8	23.23
14	-12.0	-9.8	23.77
15	-13.8	-23.2	24.02
16	-9.8	-21.5	24.69
17	-11.3	-17.6	22.61
18	-10.5	-4.9	20.88

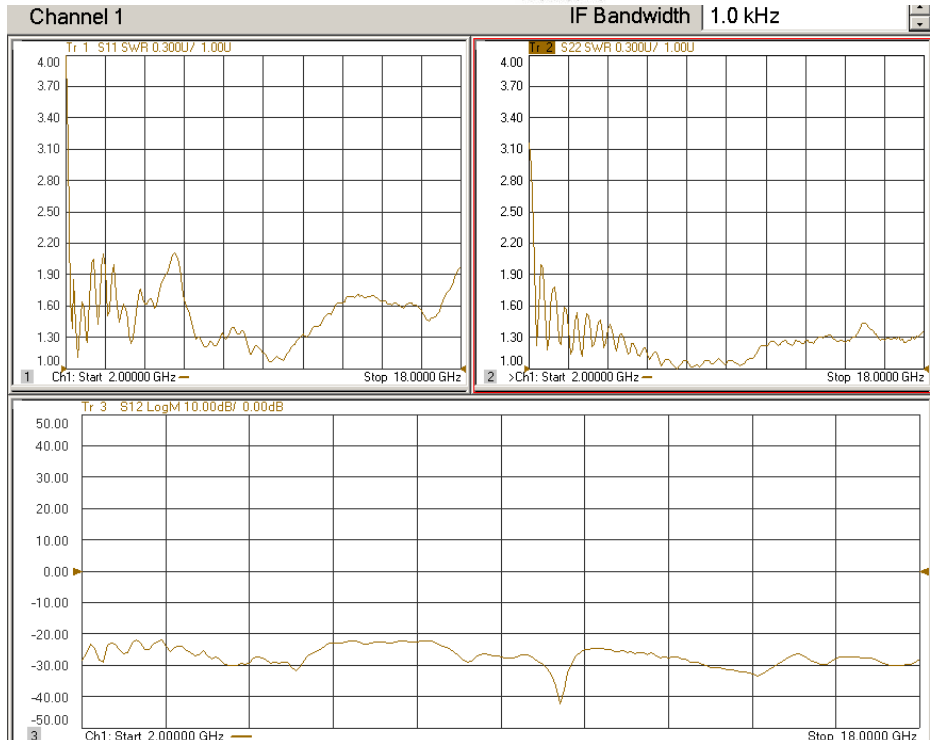
Horizontal Antenna Data
Quad Ridge Horn

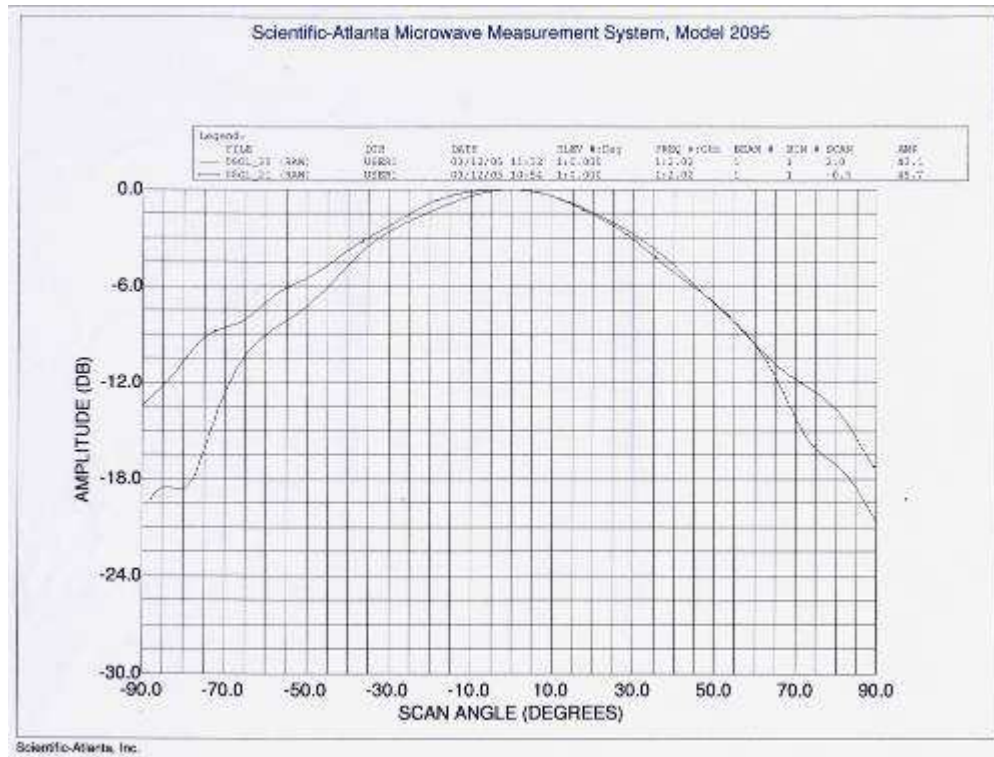


Vertical Antenna Data
Quad Ridge Horn

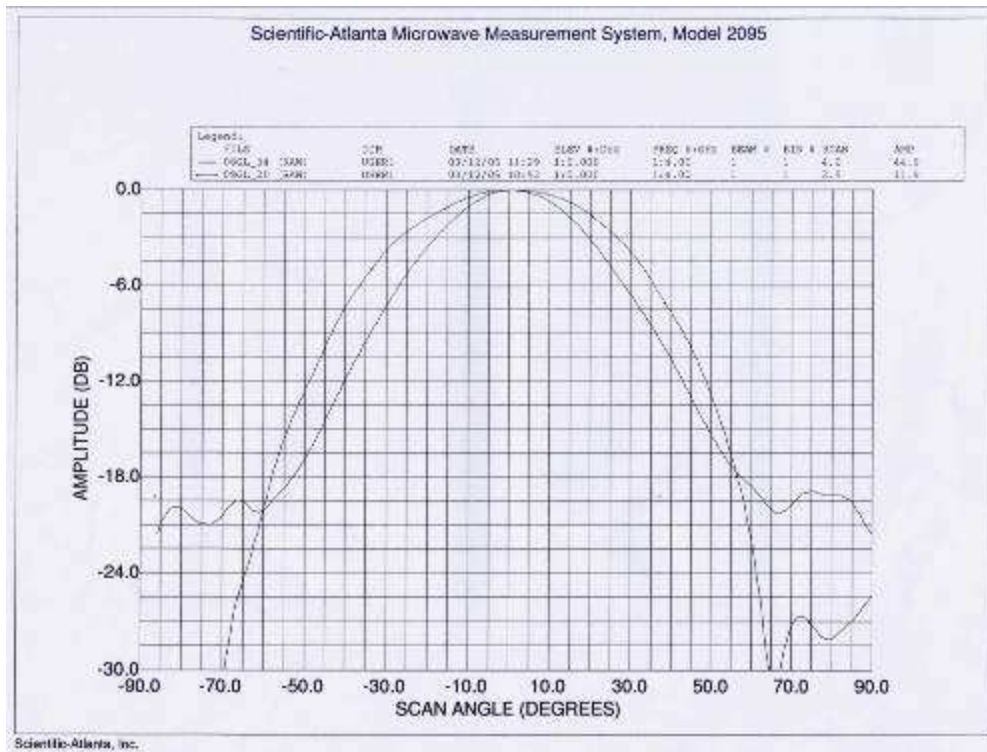


Actual Field Testing Data
(After narrow tuning for 4-18GHz)

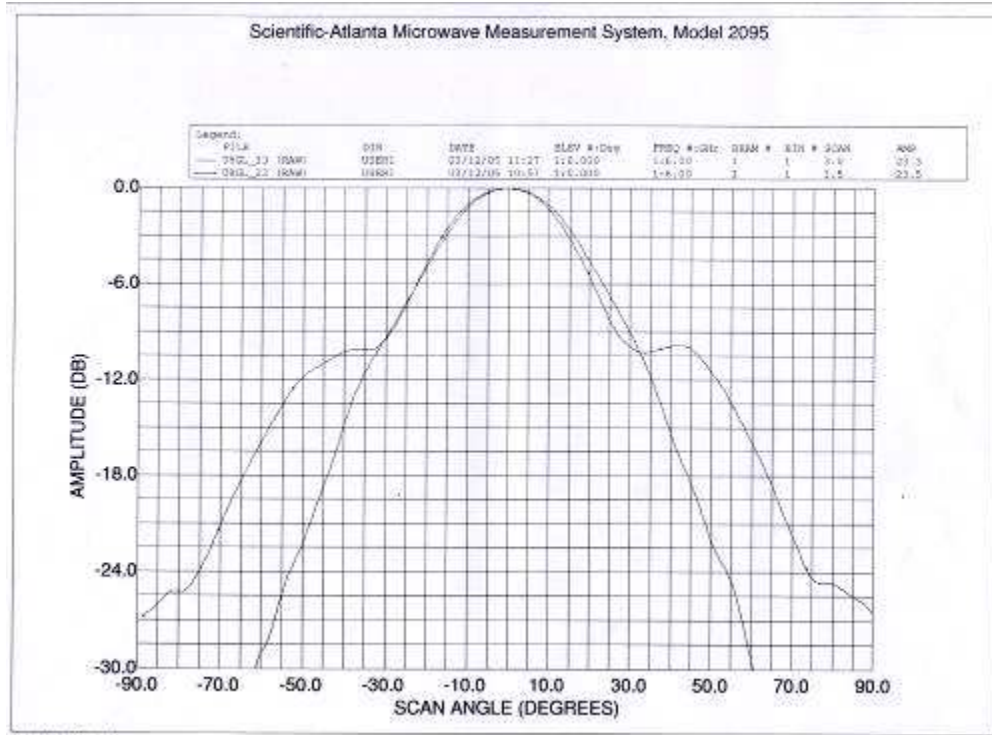




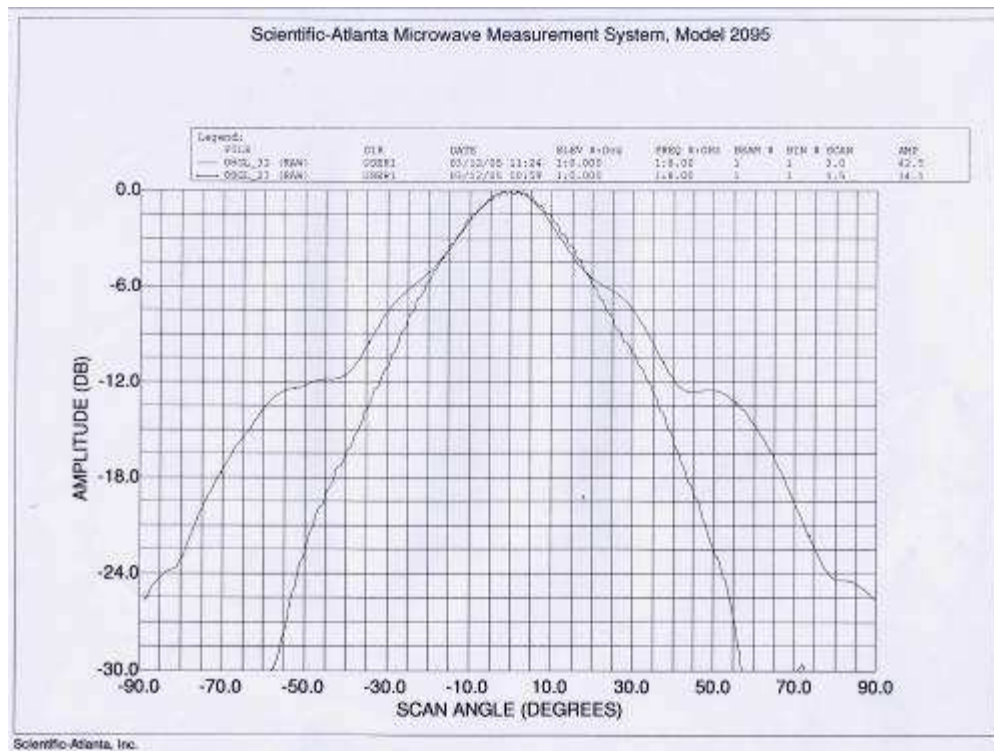
Frequency 2GHz Horizontal and Vertical Plane



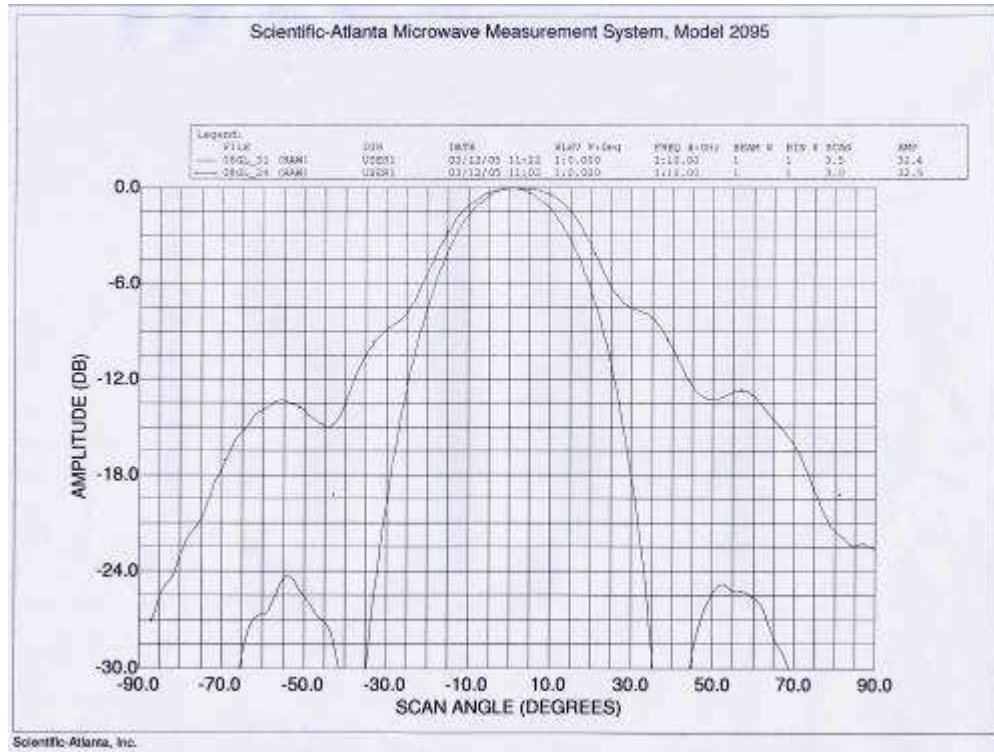
Frequency 4GHz Horizontal and Vertical Plane



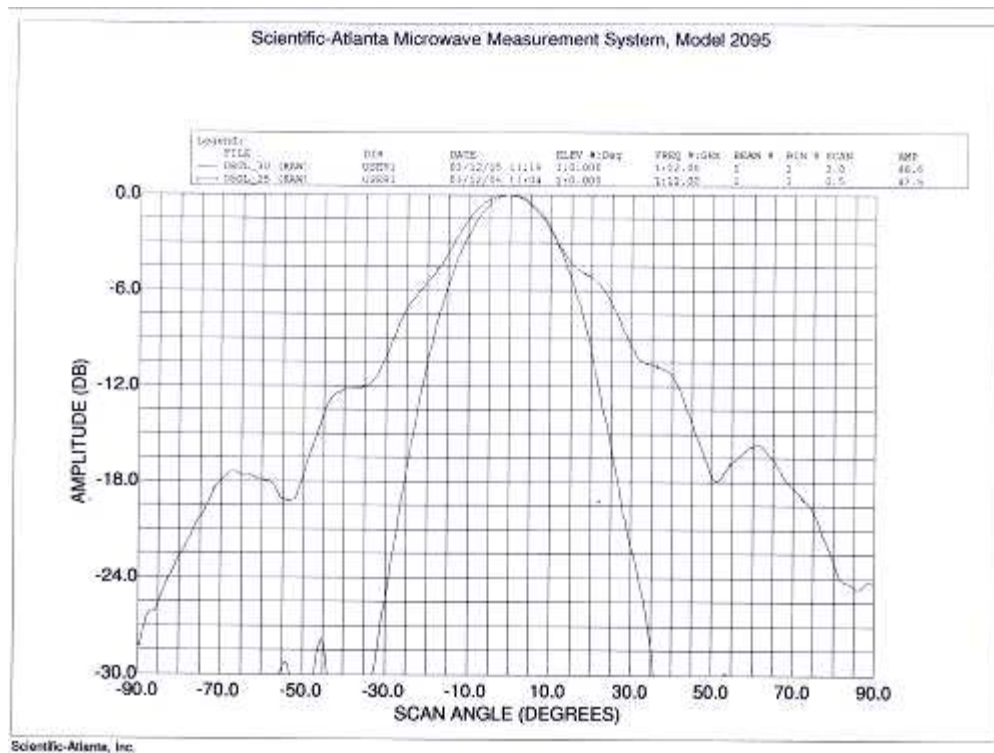
Frequency 6GHz Horizontal and Vertical Plane



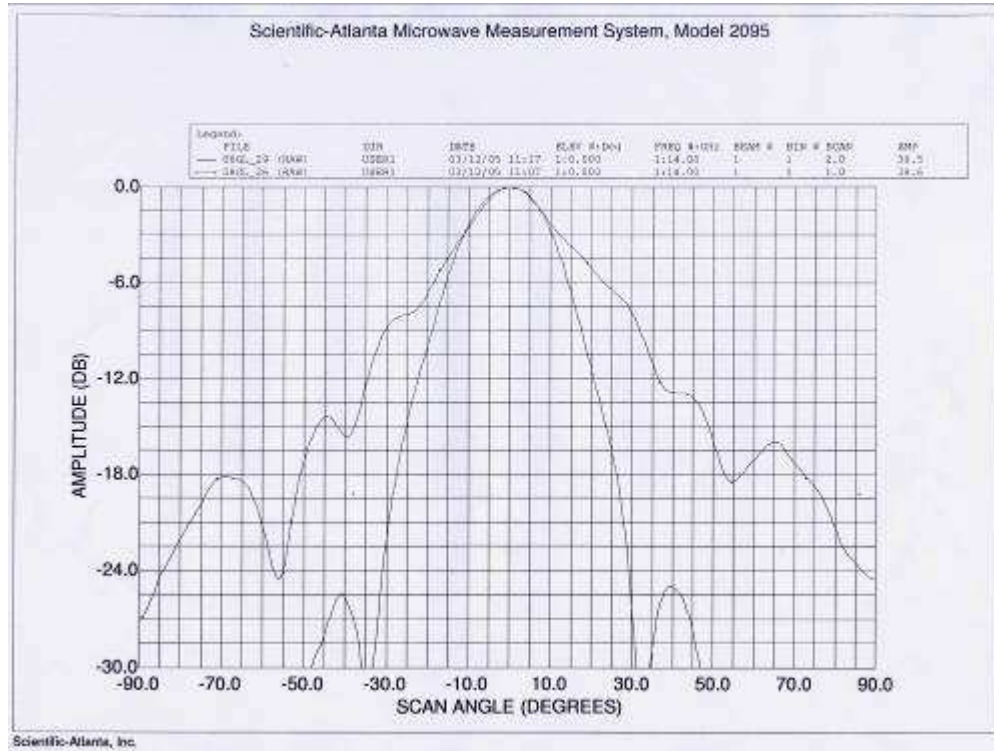
Frequency 8GHz Horizontal and Vertical Plane



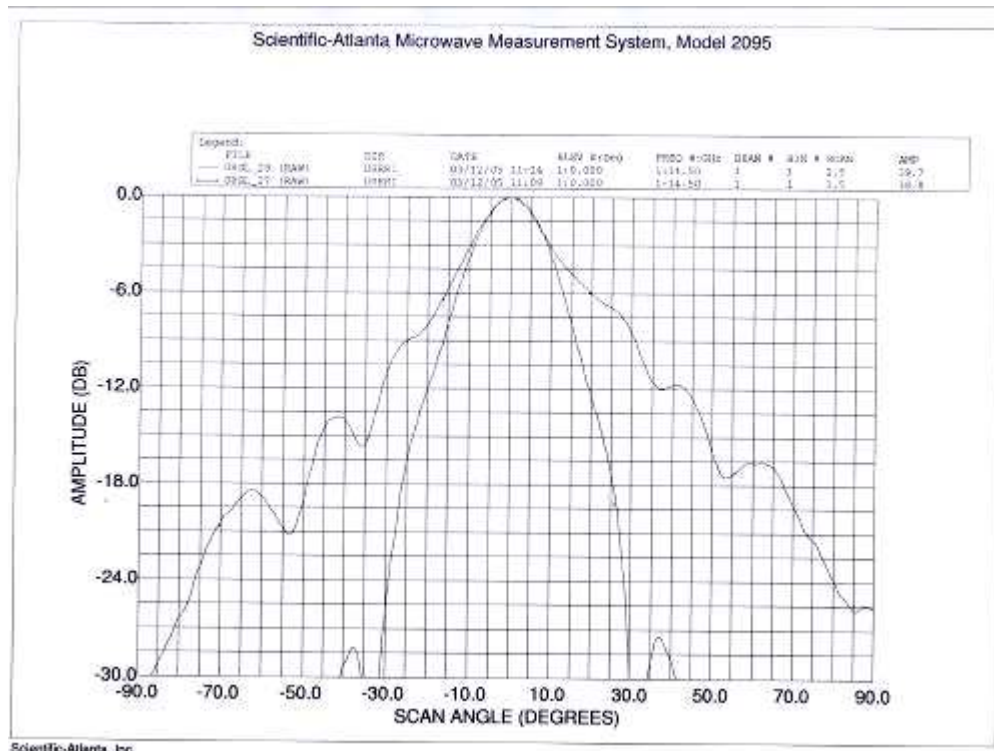
Frequency 10GHz Horizontal and Vertical Plane



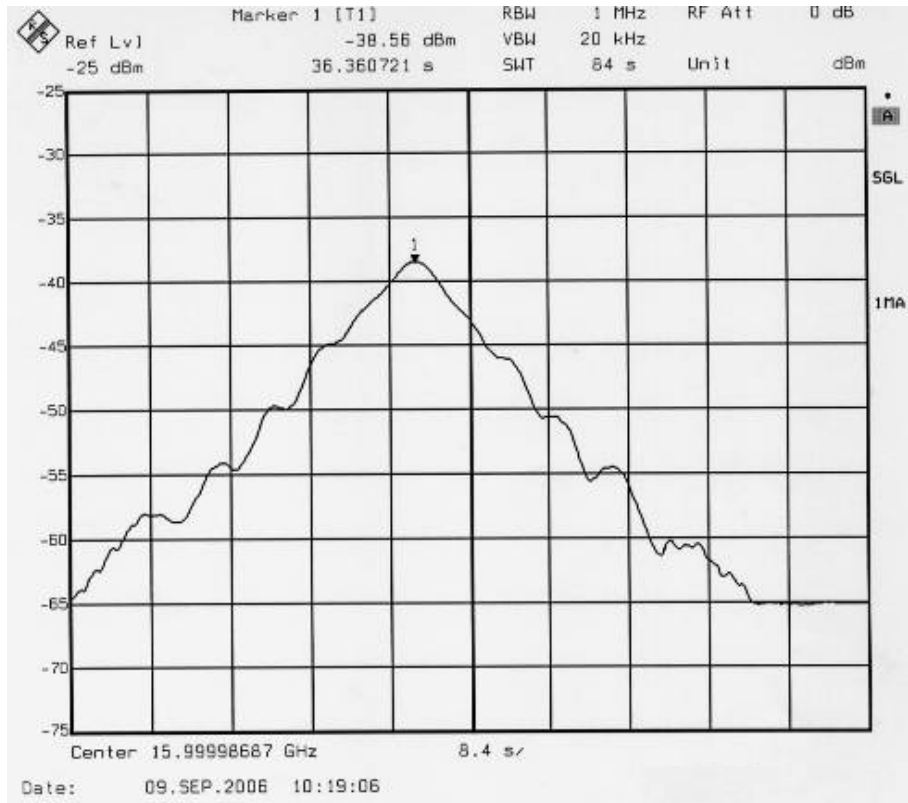
Frequency 12GHz Horizontal and Vertical Plane



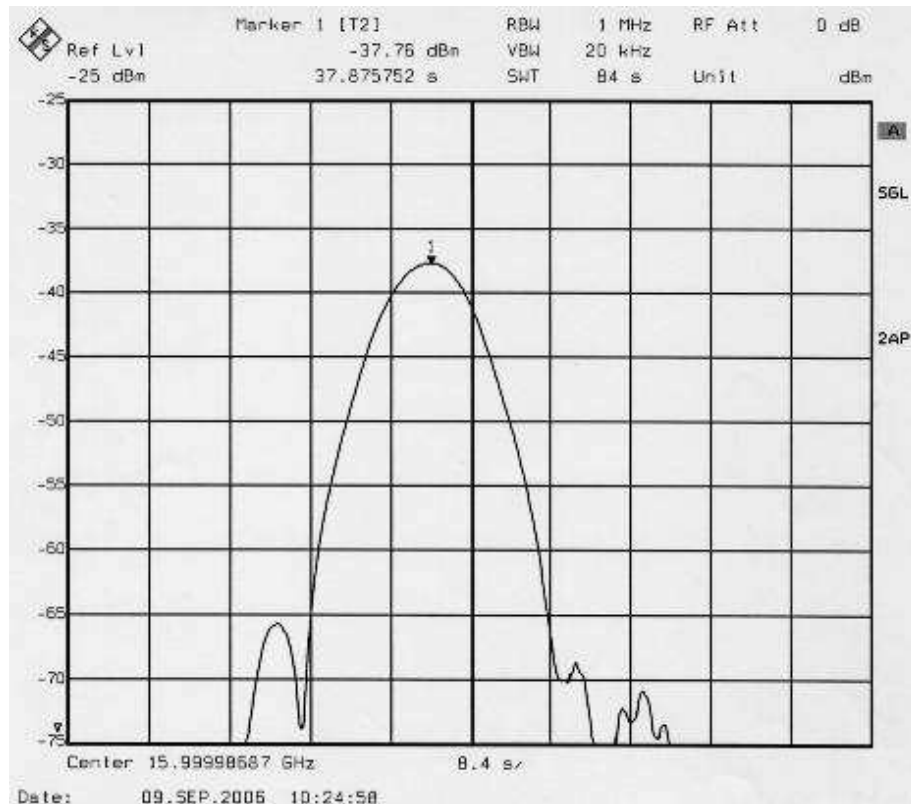
Frequency 14GHz Horizontal and Vertical Plane



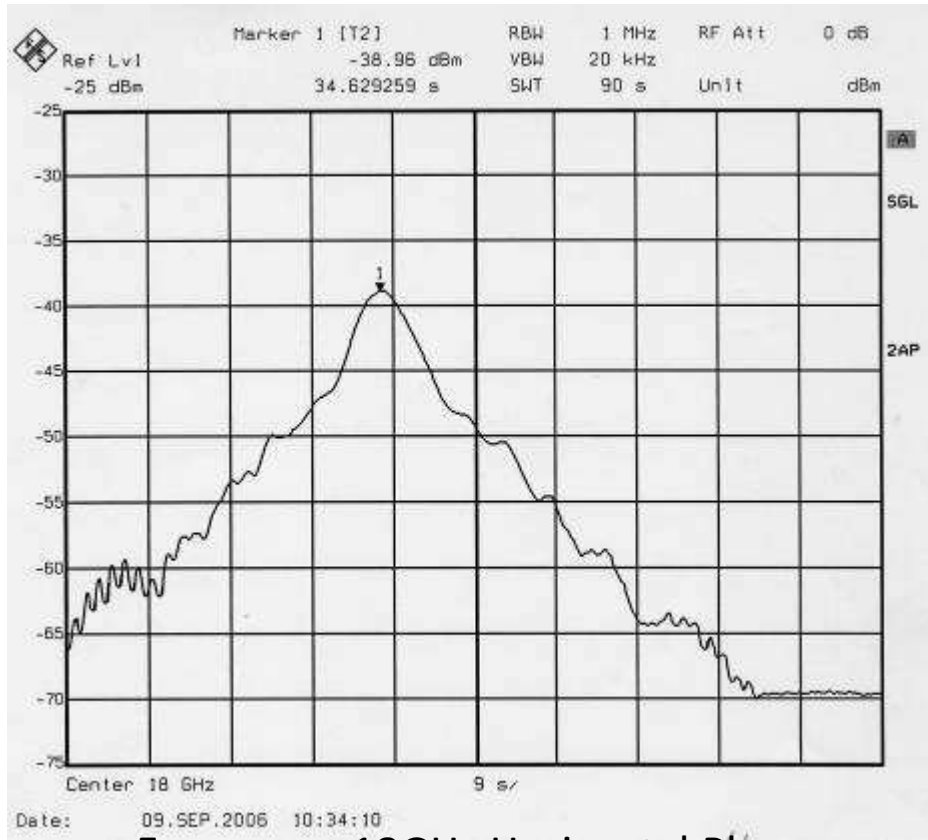
Frequency 14.5GHz Horizontal and Vertical Plane



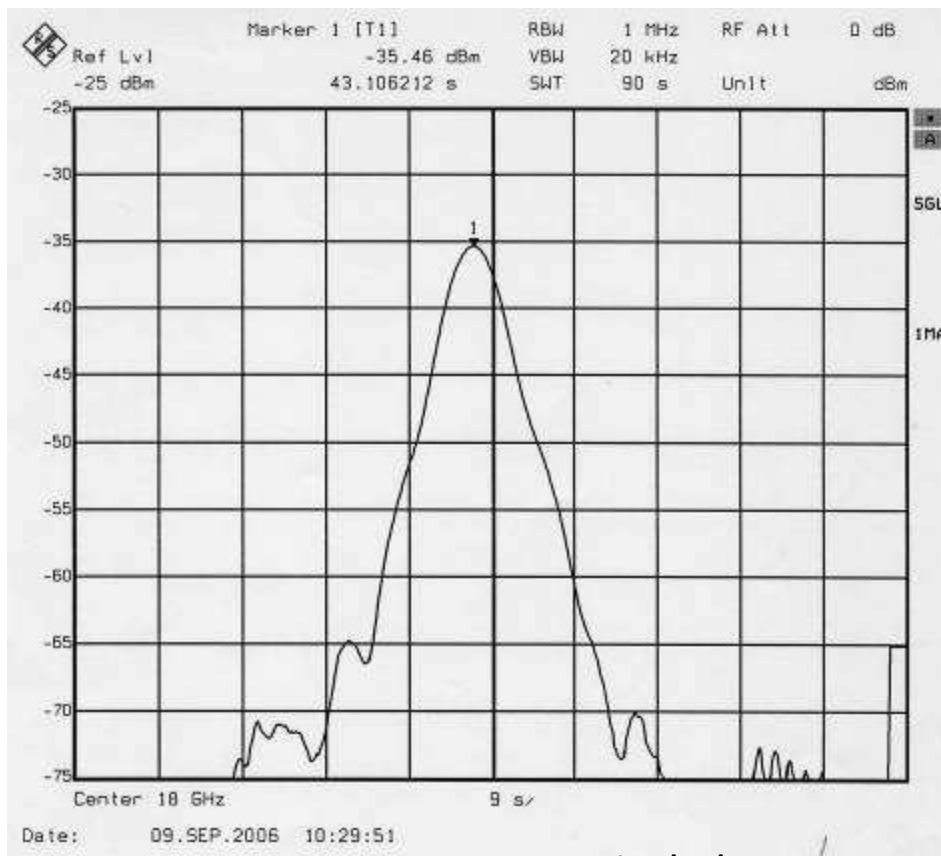
Frequency 16GHz Horizontal Plane



Frequency 16GHz Vertical Plane



Frequency 18GHz Horizontal Plane



Frequency 18GHz Vertical Plane



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The power beyond expectations

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