



RF-LAMBDA

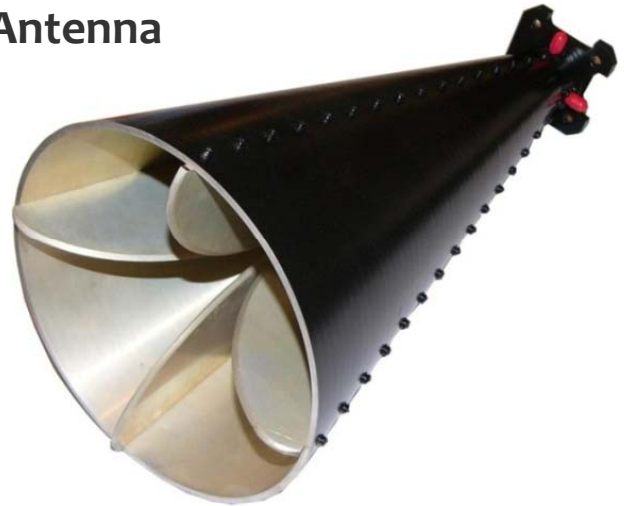
The power beyond expectations

RCDLPHA4G20

4~20GHz Coaxial Horn Quad-Ridge Antenna Double Line Polarization

Electrical and Environmental Specifications:

Frequency Range:	4.0-20.0GHz
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

$$G = G_0 - \Delta G$$

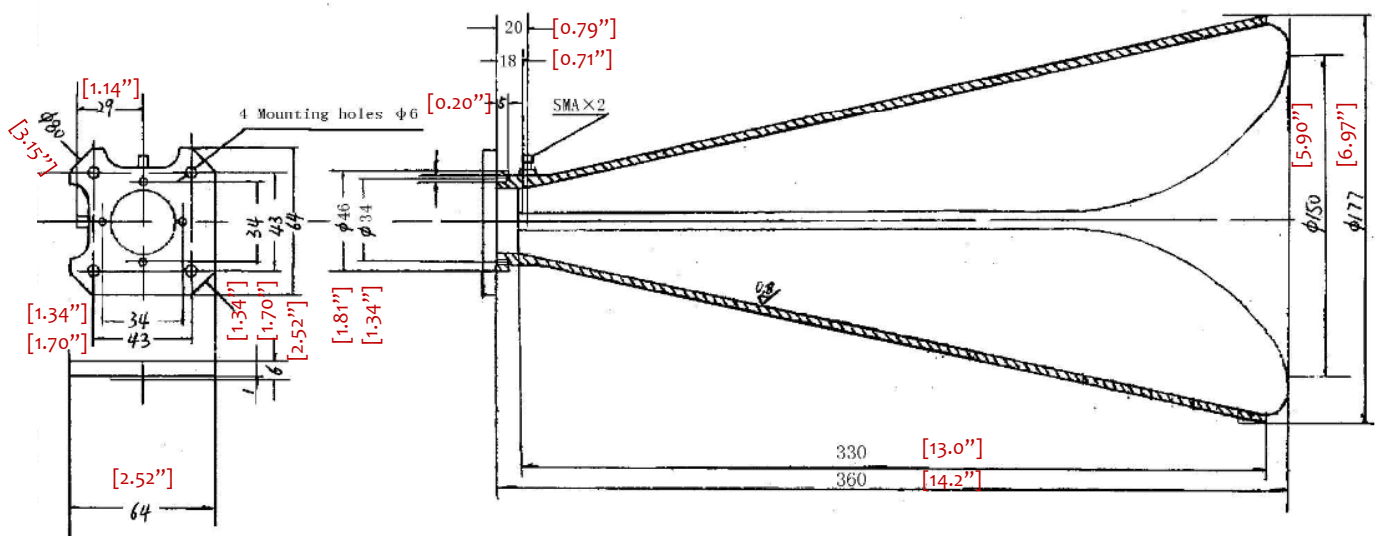
G=4~20GHz Gain of Polarization Horn

G₀= the standard gain of the polarization horn

$$\Delta G = P_1 - P_2$$

P₁= the receiving power level of standard horn

P₂= the receiving power level of 4~20GHz Polarization Horn



4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization



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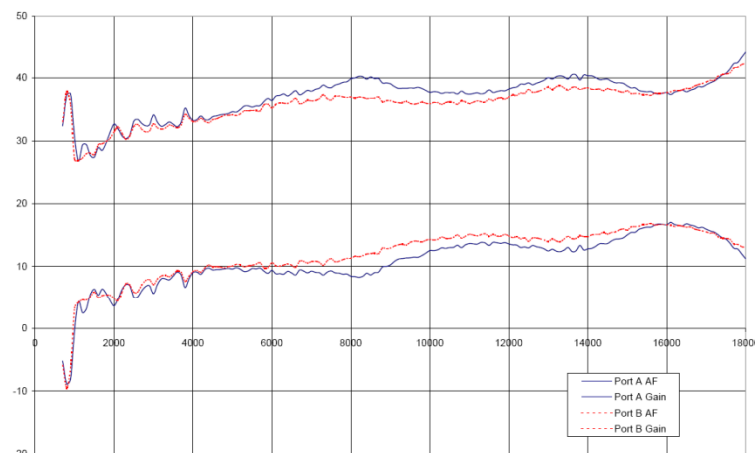
The power beyond expectations

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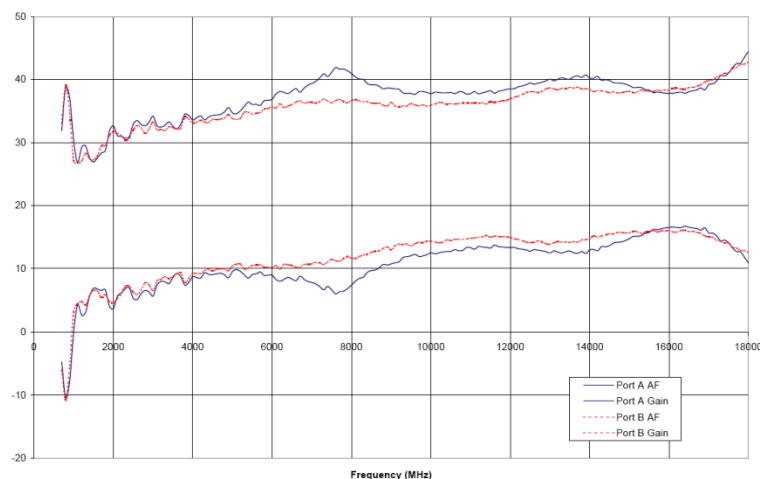
Actual Field Testing Data
(After narrow tuning for
4-18GHz)

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



4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization

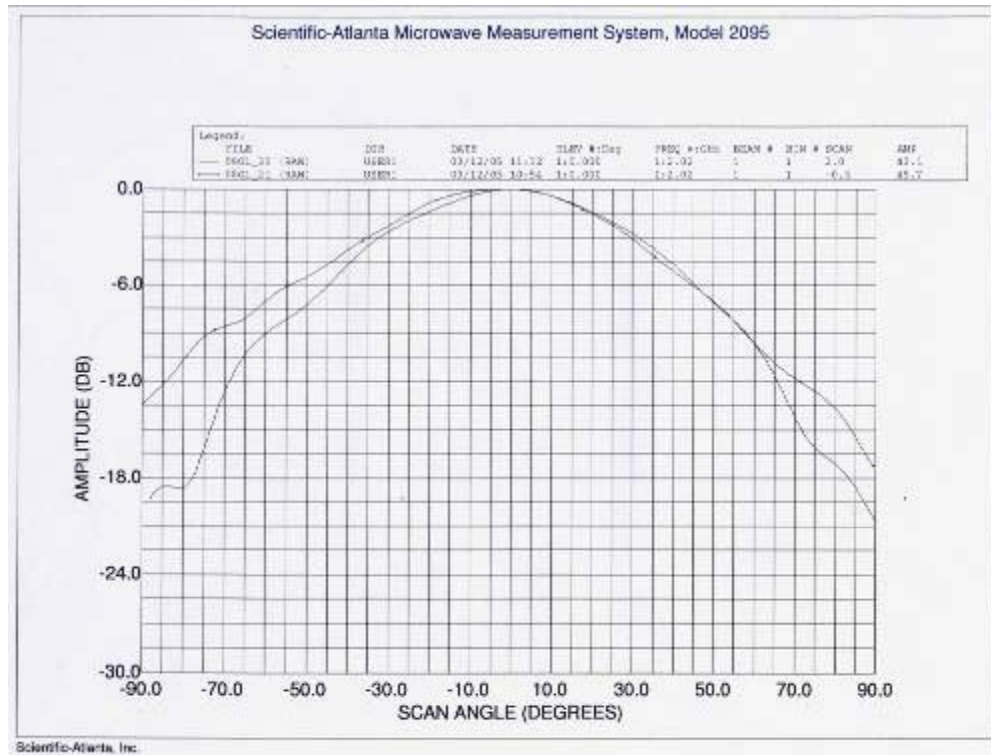


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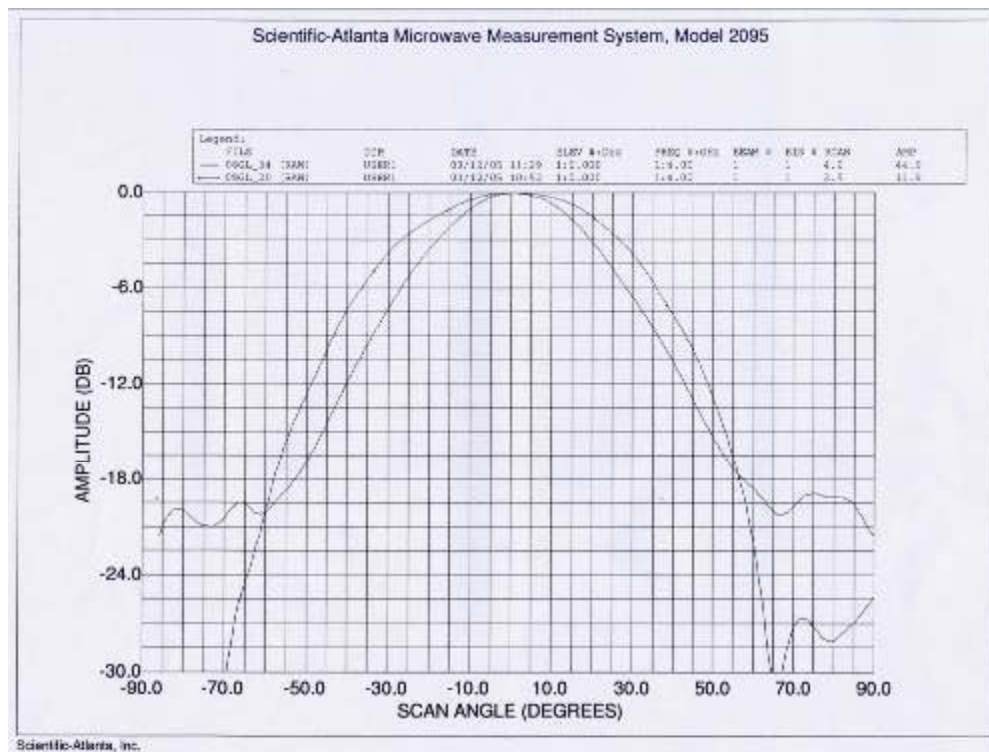
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4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization



Frequency 2GHz Horizontal and Vertical Plane



Frequency 4GHz Horizontal and Vertical Plane

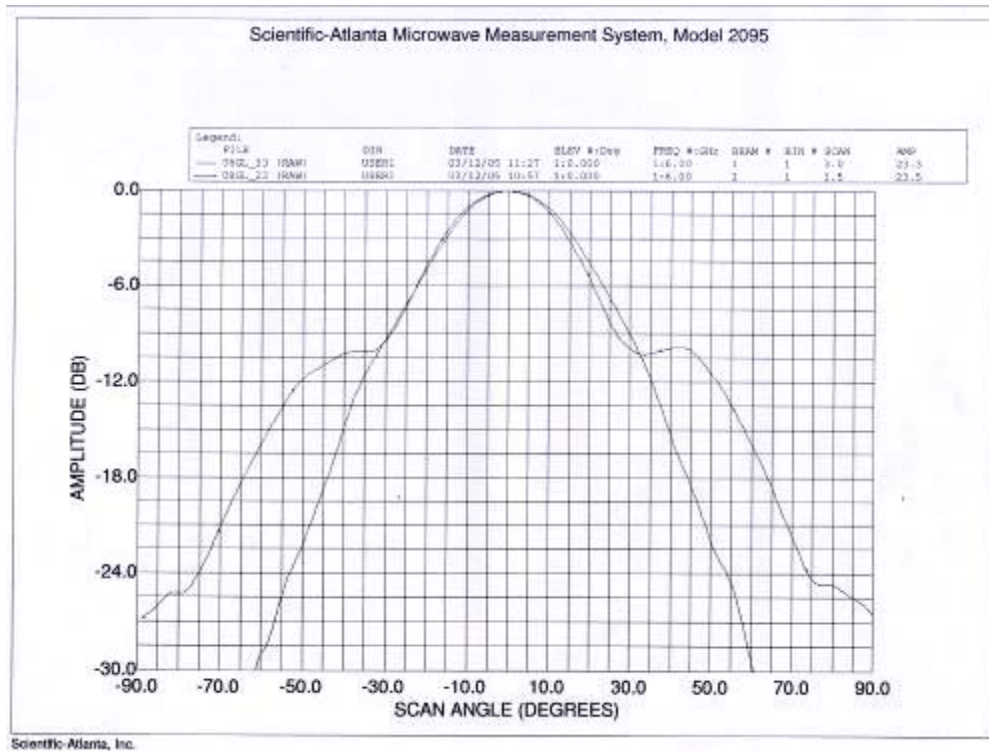


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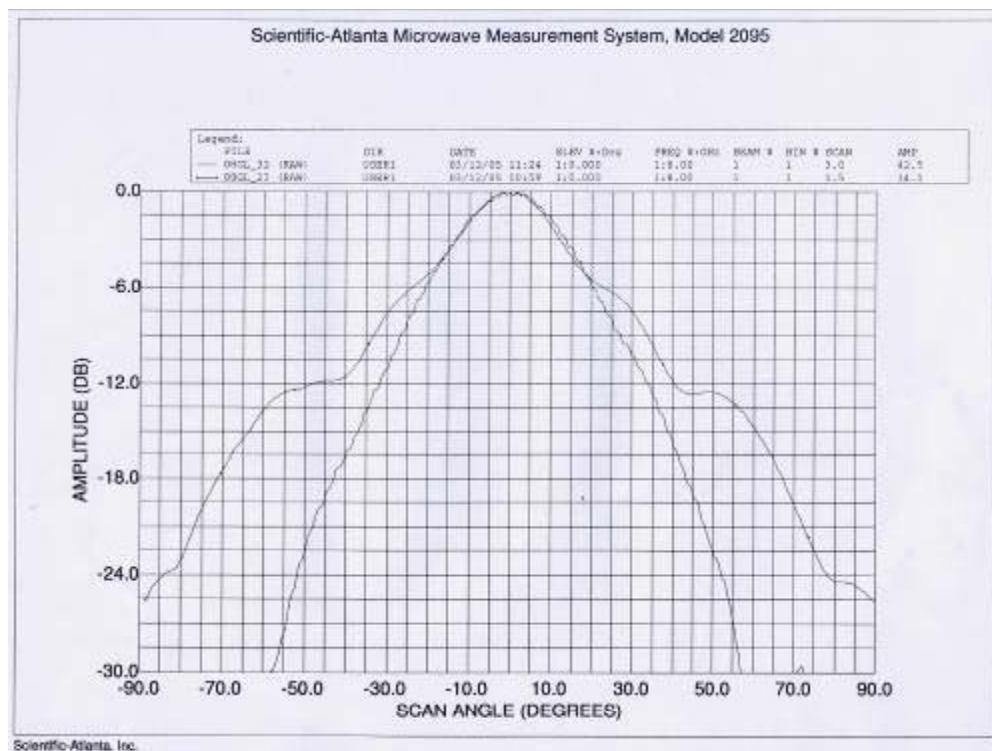
The power beyond expectations

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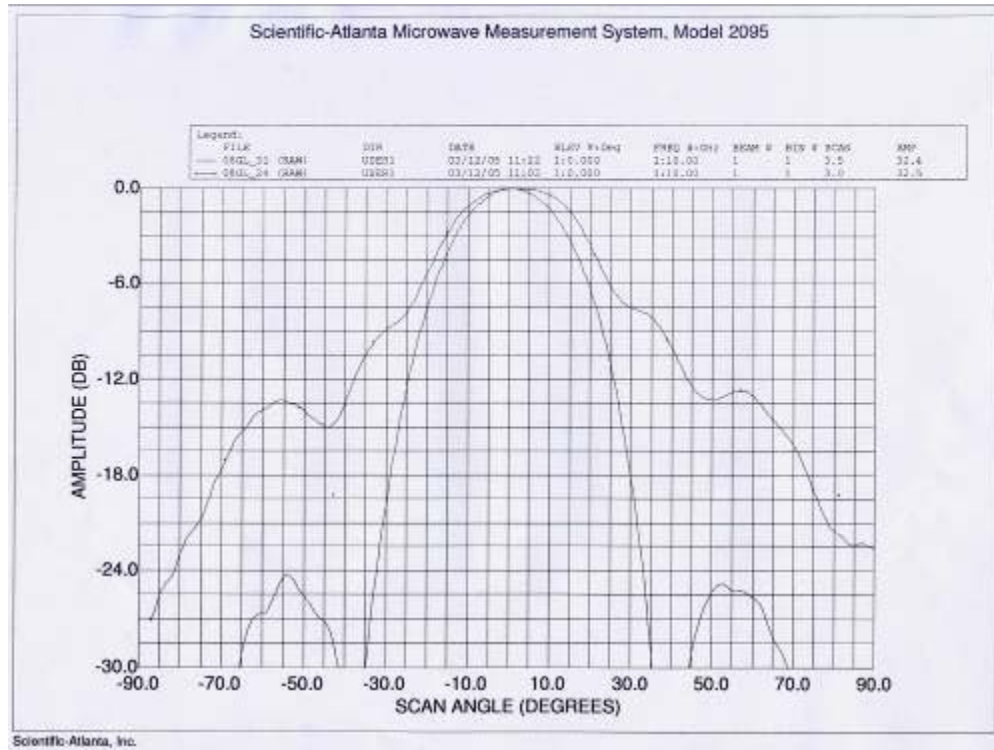
4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization



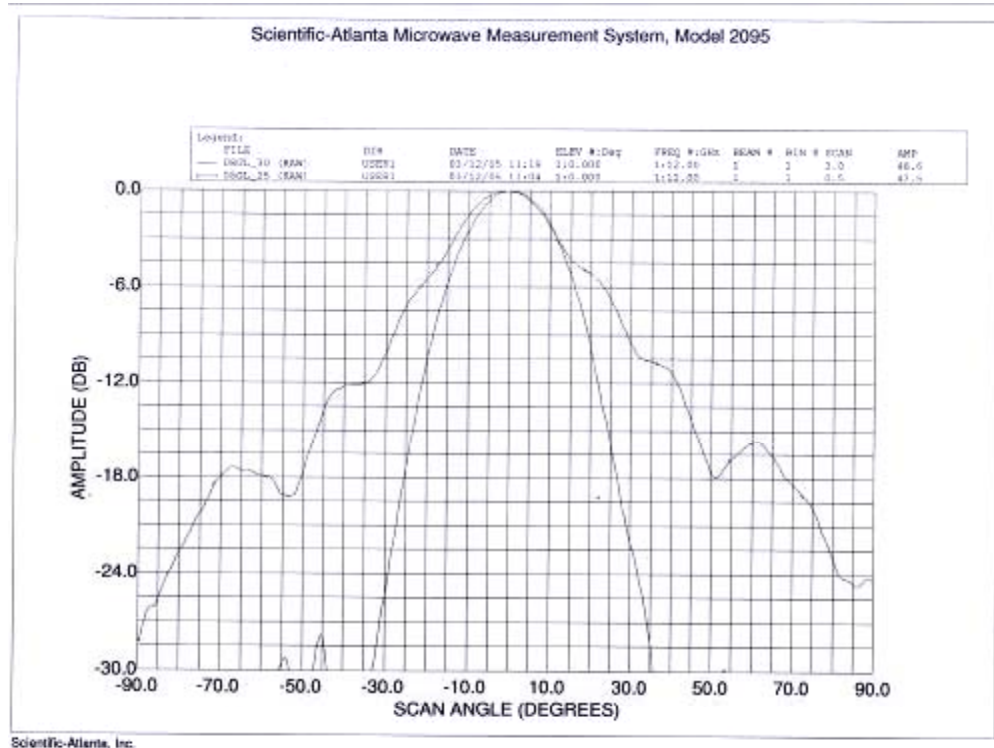
Frequency 6GHz Horizontal and Vertical Plane



Frequency 8GHz Horizontal and Vertical Plane



Frequency 10GHz Horizontal and Vertical Plane



Frequency 12GHz Horizontal and Vertical Plane

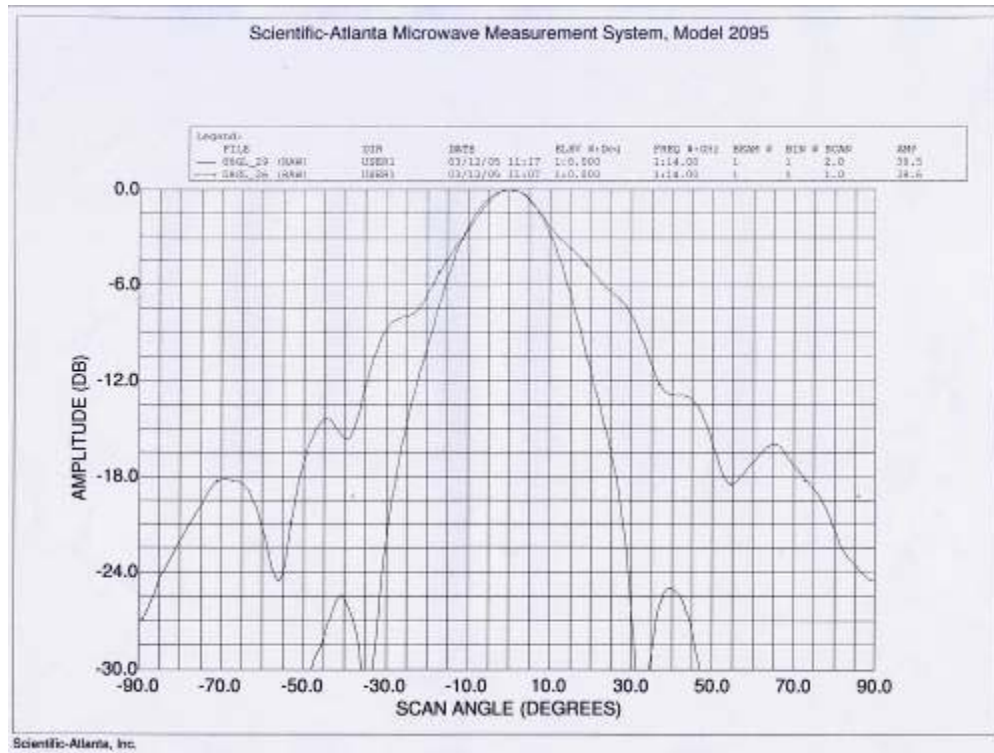


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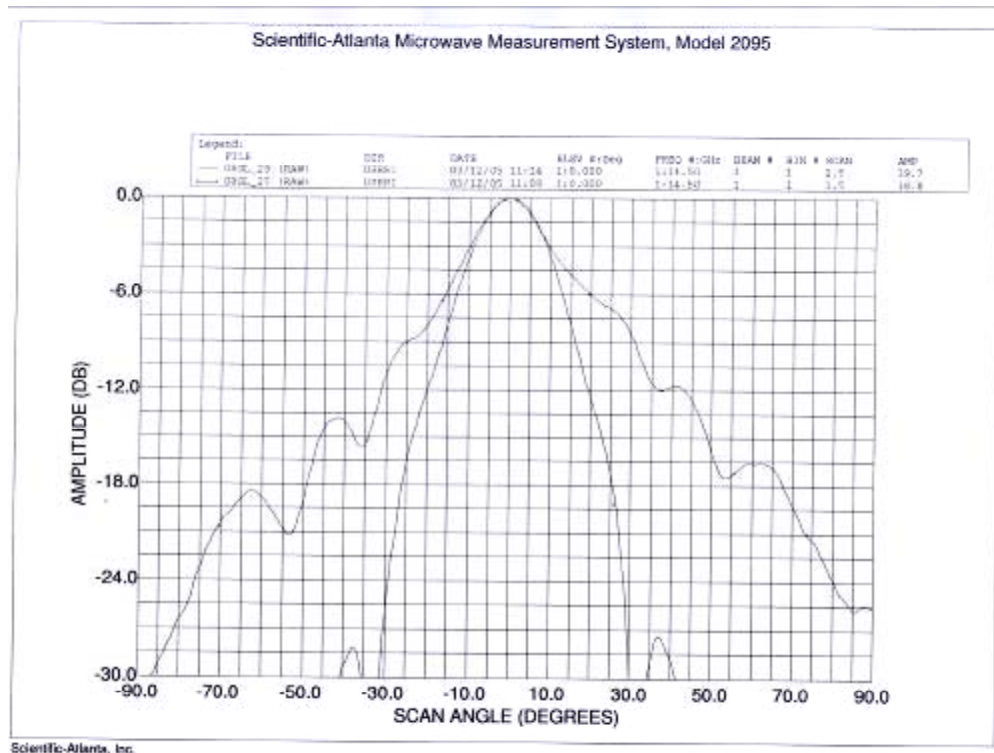
The power beyond expectations

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4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization



Frequency 14GHz Horizontal and Vertical Plane



Frequency 14.5GHz Horizontal and Vertical Plane

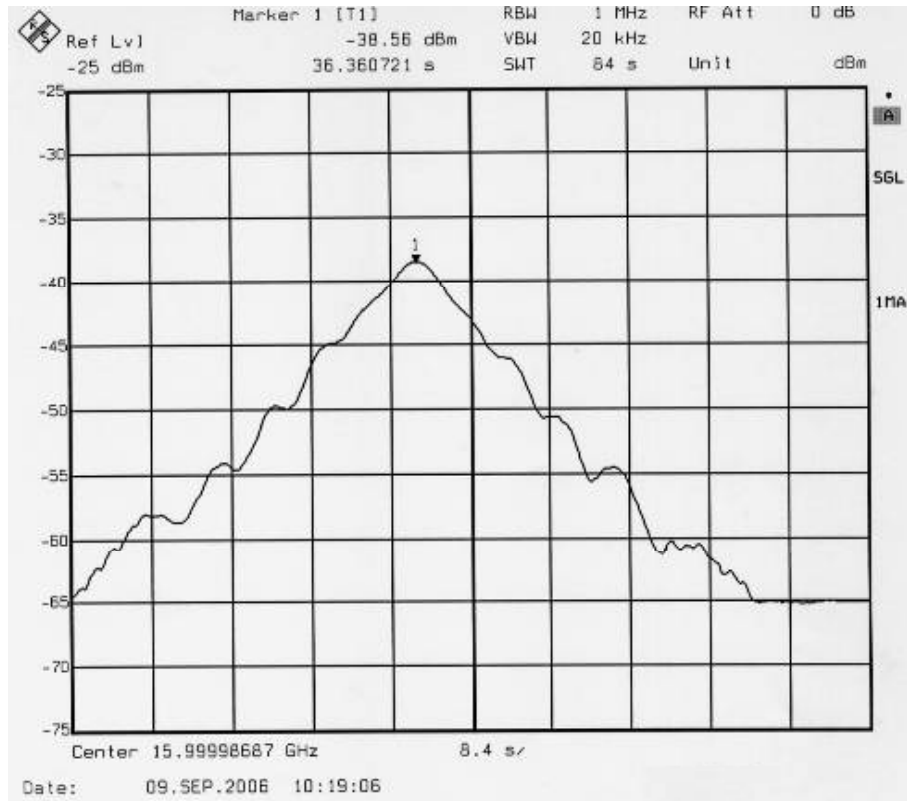


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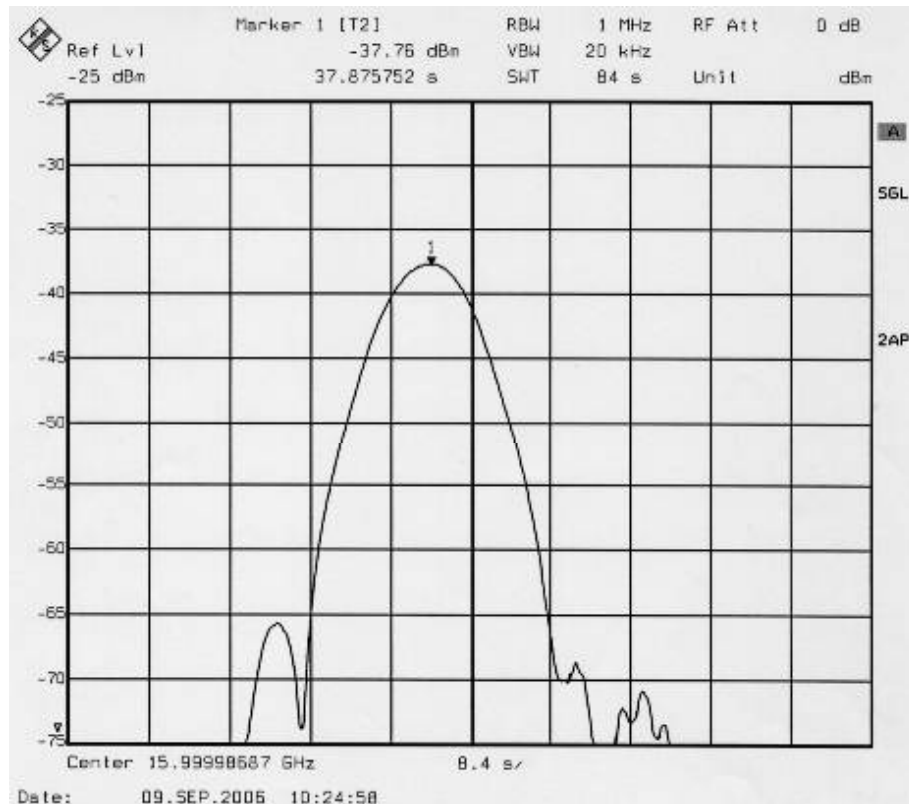
The power beyond expectations

RCDLPHA4G20

4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization



Frequency 16GHz Horizontal Plane



Frequency 16GHz Vertical Plane

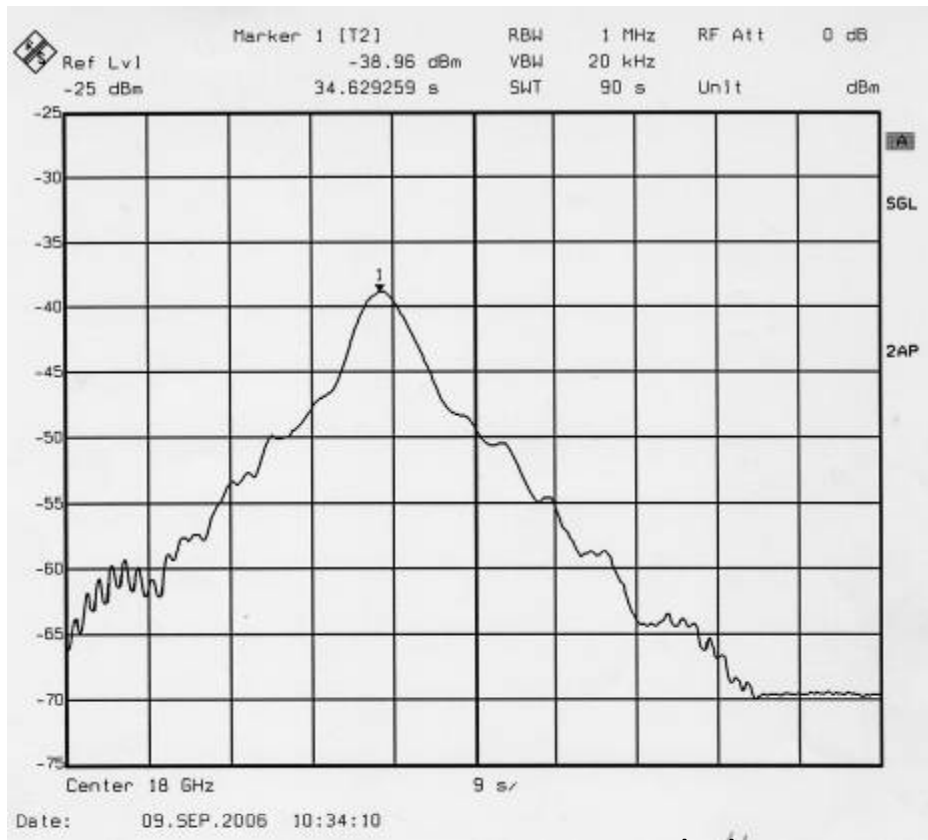


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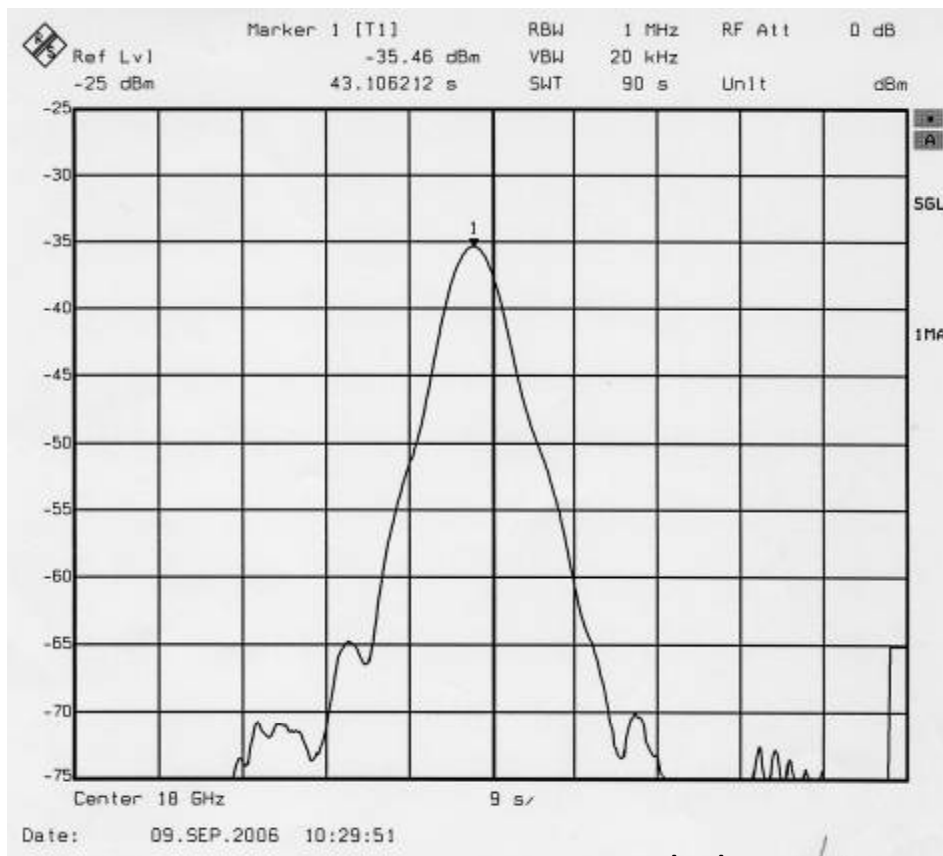
The power beyond expectations

RCDLPHA4G20

4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization



Frequency 18GHz Horizontal Plane



Frequency 18GHz Vertical Plane



RF-LAMBDA

The power beyond expectations

RCDLPHA4G20

4~20GHz Coaxial Horn Antenna Quad-Ridge Double Line Polarization

