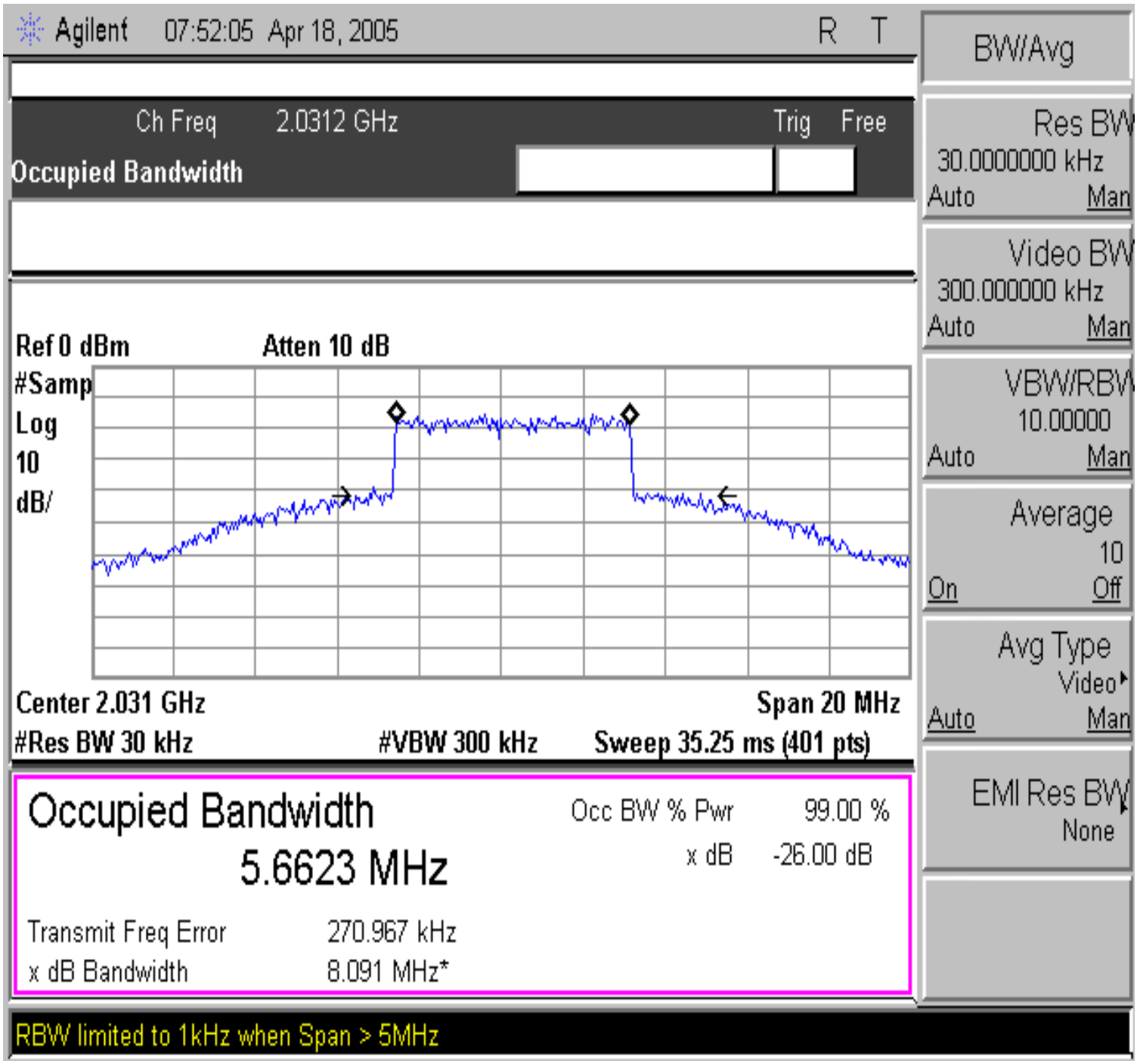
1

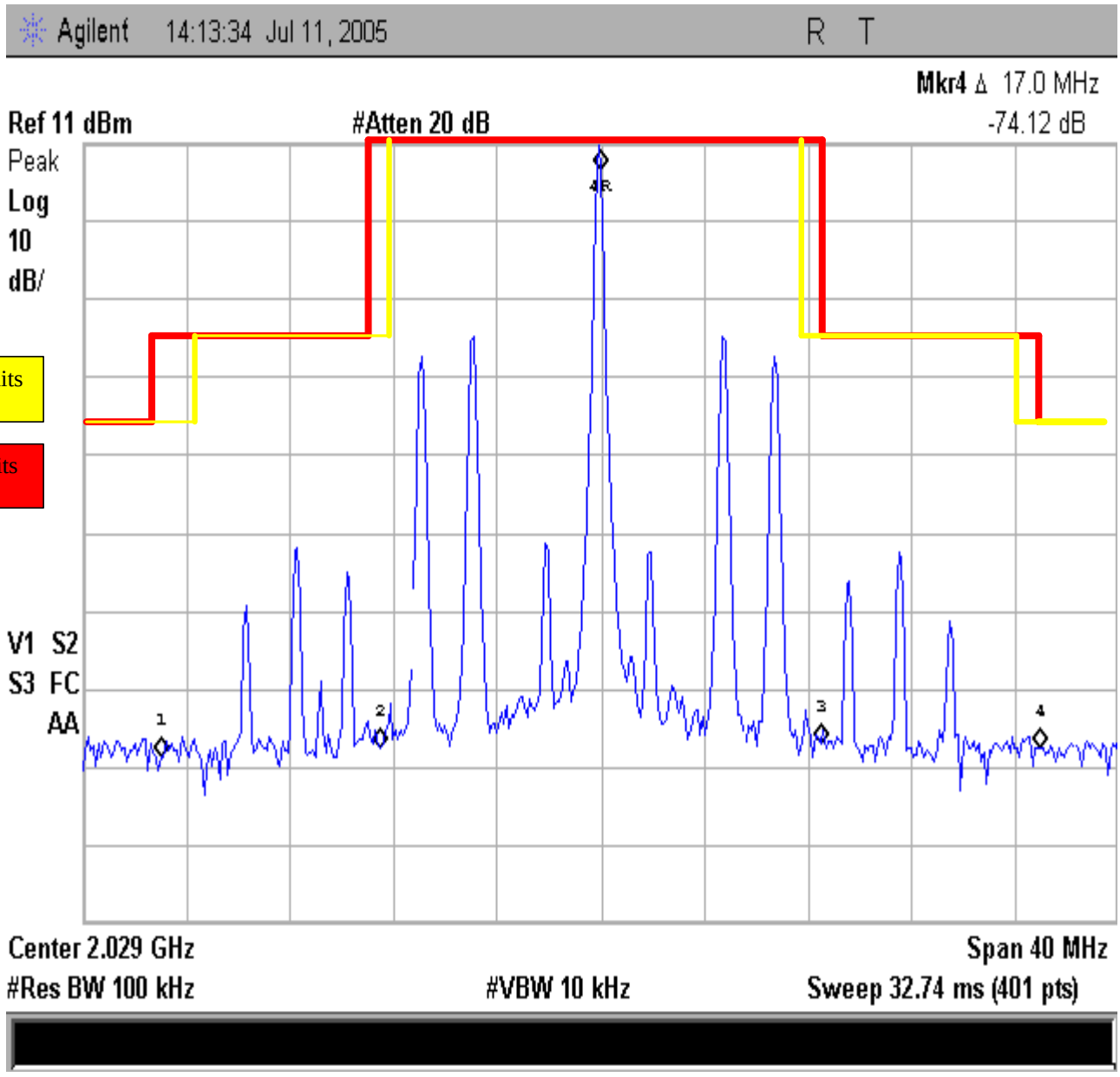
6MHZ BANDWIDTH SETTING



Analog spectral plots

Analog Application:

"When using frequency modulation:
(i) On any frequency removed from the assigned (center) frequency by more than 50 % up to and including 100 % of the authorized bandwidth: At least 25 db in any 100 KHz reference bandwidth (Bref):
(ii) On any frequency removed from the assigned (center) frequency by more than 100% up to and including 250% of the authorized bandwidth: At least 35 db in any 100 KHz reference bandwidth.



Digital/Analog Emission
Bandwidth Measurements

Developing the Spectral Mask for an Analog Application

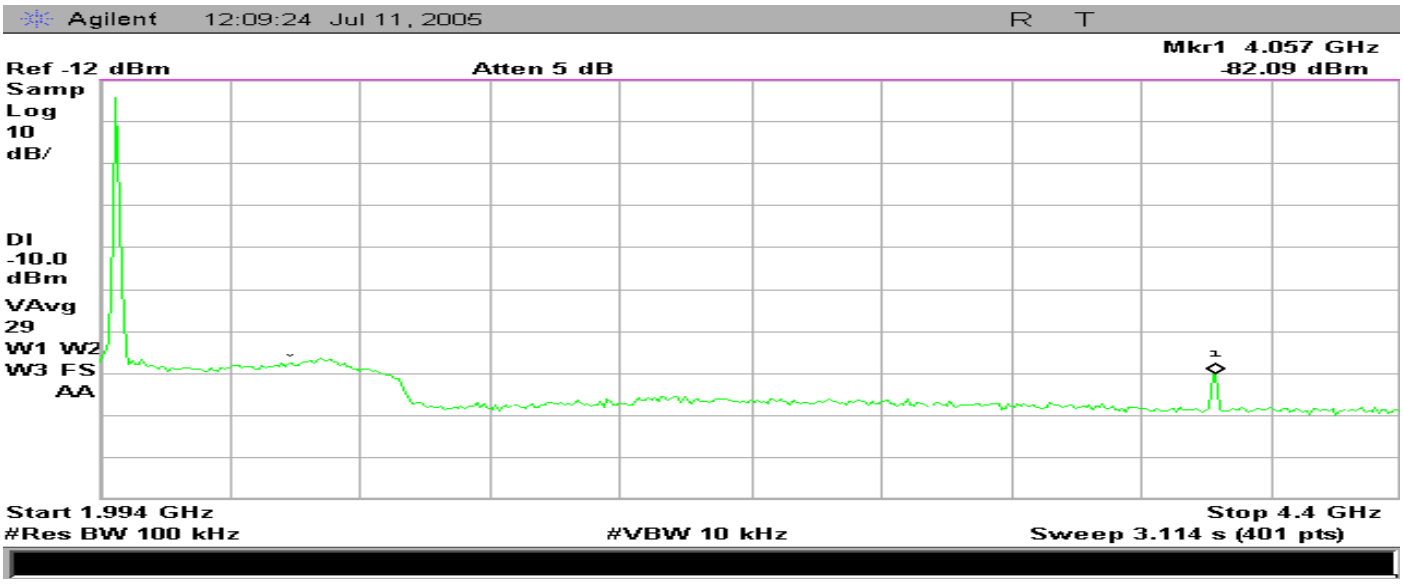
Given this equation, the following spectral mask can be generated in a graphical format per figure 3 below which is tabulated in table #2.

Figure 3 shows the relationship of the above equation as a function of frequency offset from the center of the 12 MHz channel. The x-axis shows the frequency delta in MHz while the y-axis shows the required attenuation below the 0 db mean output power reference in db.

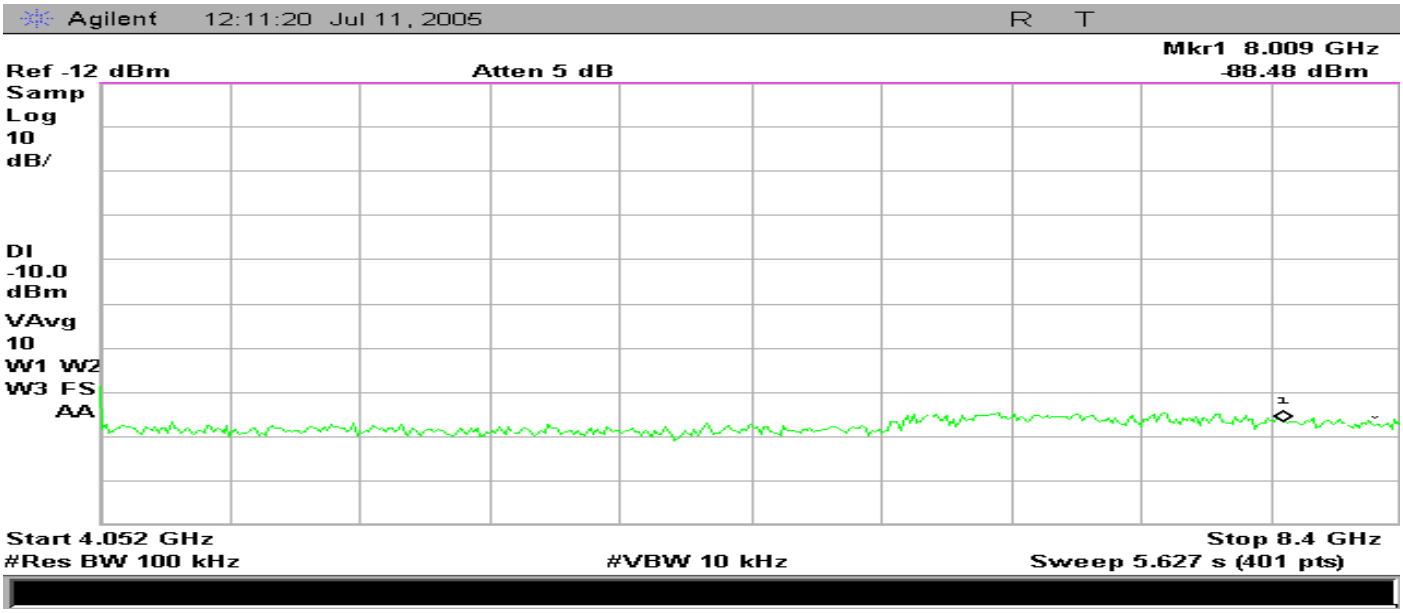
Offset		
G(%)	**Frequency (MHz)**	**A (db)**
50	6.0	25.00
55	6.6	25.00
60	7.2	25.00
65	7.8	25.00
70	8.4	25.00
75	9.0	25.00
80	9.6	25.00
85	10.2	25.00
90	10.8	25.00
95	11.4	25.00
100	12.0	25.00
105	12.6	35.00
110	13.2	35.00

Table #2

SPURIOUS OUPUT AT THE ANTENNA PORT- conducted

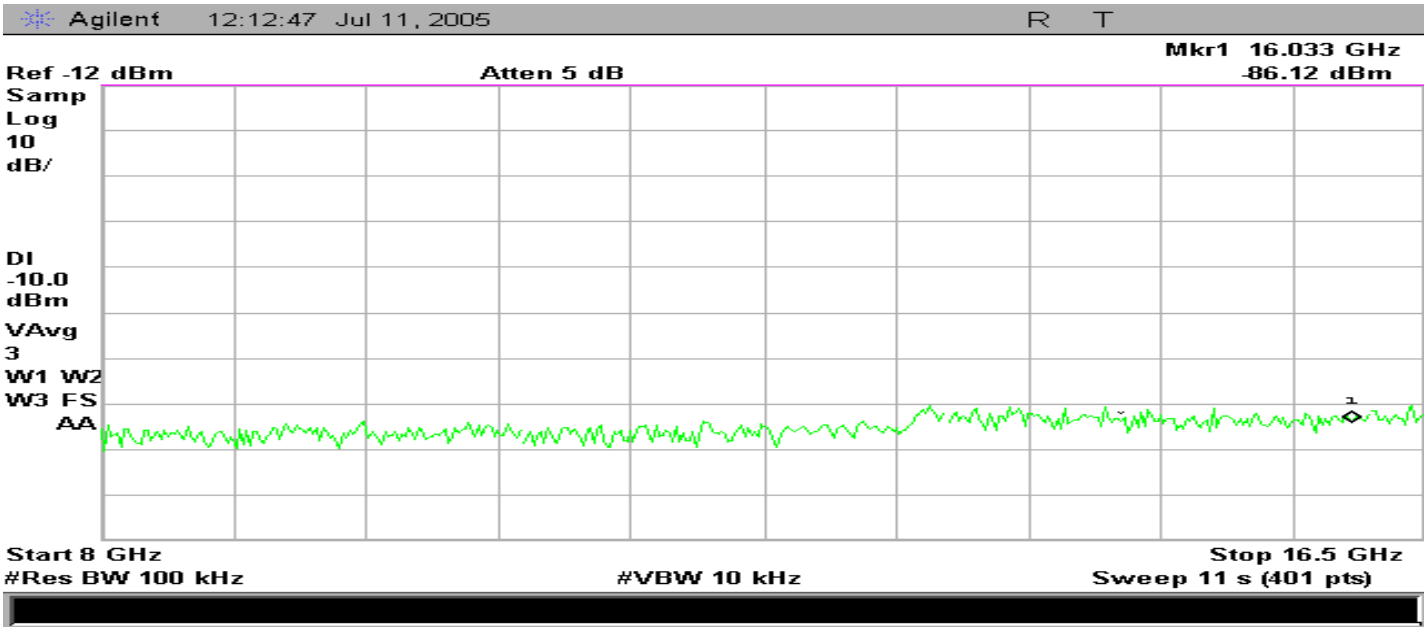


4 to 8 GHz conducted

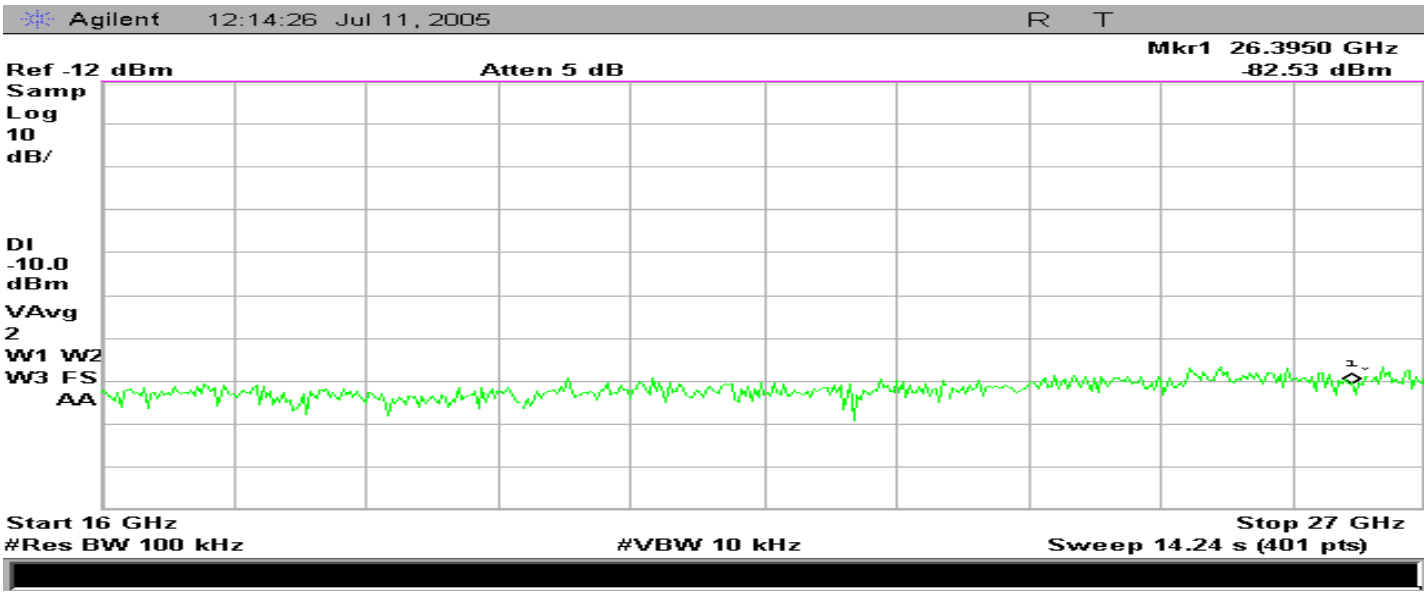


1

to 16 GHz conducted



6 to 27 GHz conducted

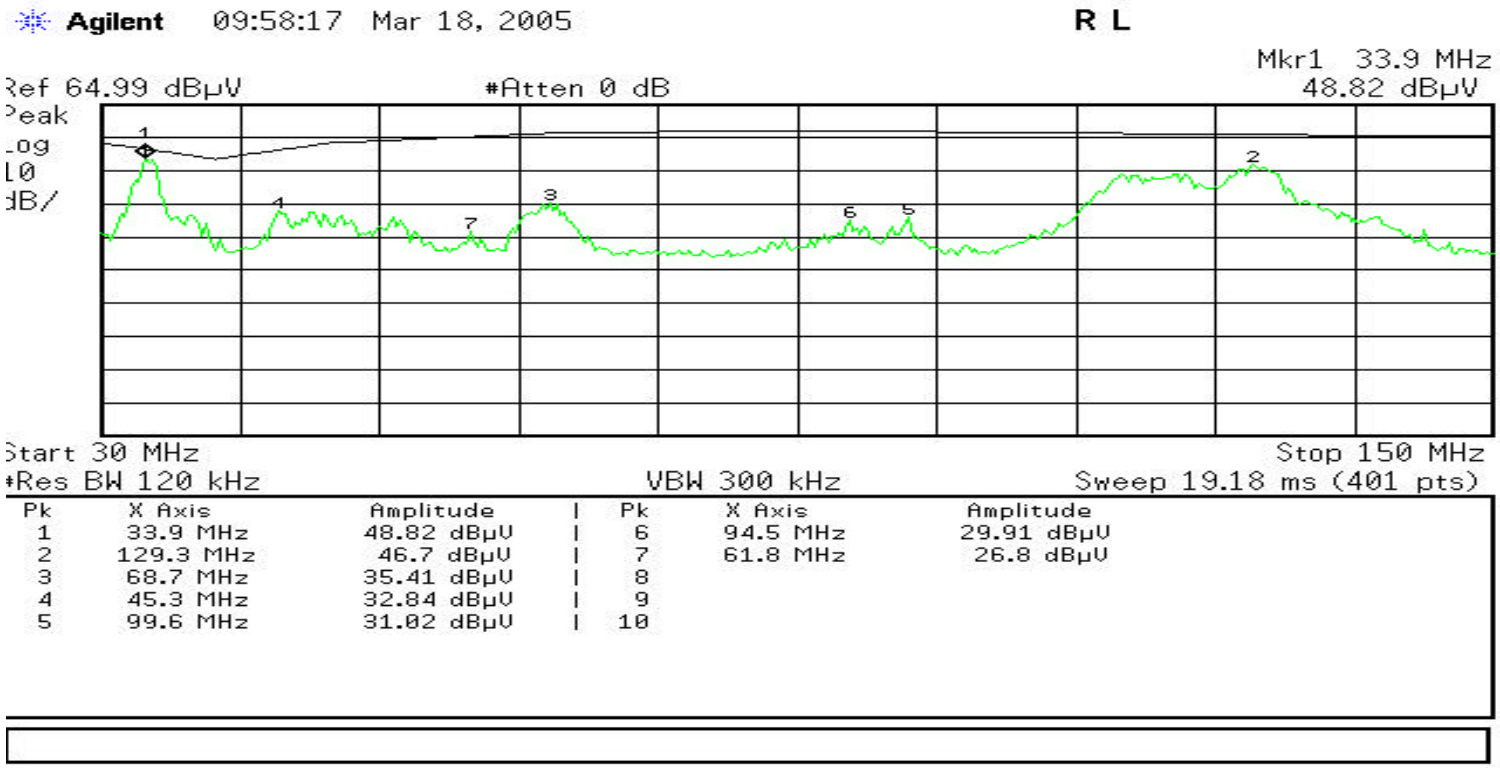


:ASE RADIATED EMISSIONS
et up courtesy of Curtis Straus

2 GHz Coderunner RF unit antenna port terminated with 30dbm 50 ohm load
IDU outside shielded chamber

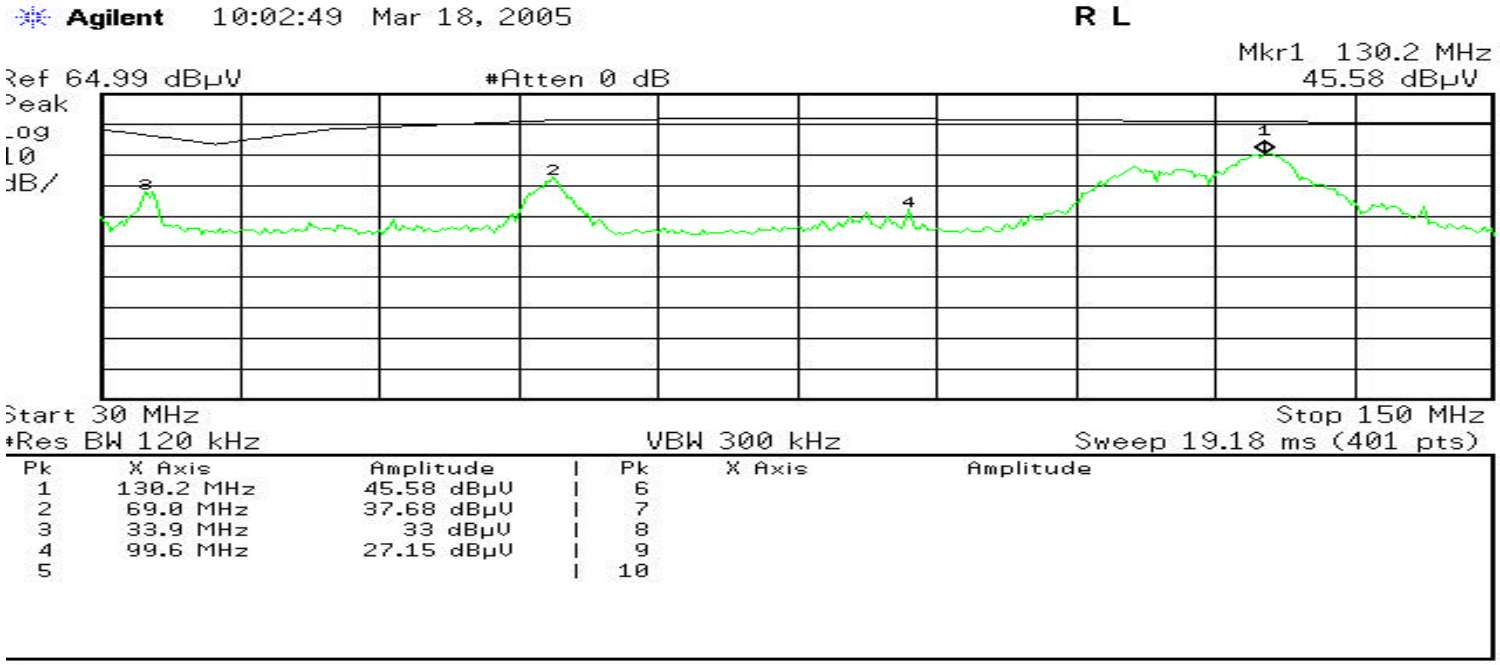
1

0 to 150 MHz vertically polarized



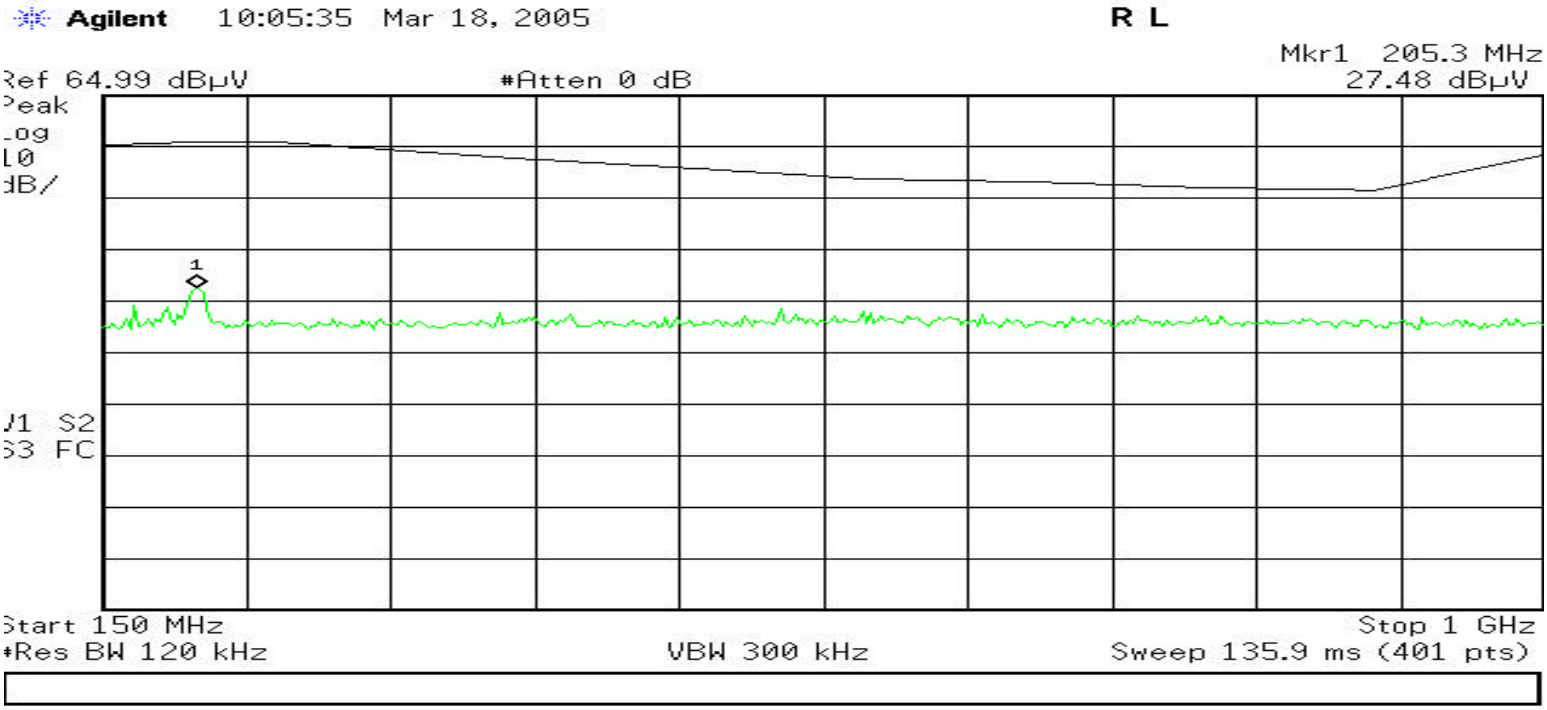
Pk	X Axis	Amplitude	Pk	X Axis	Amplitude
1	33.9 MHz	48.82 dBµV	6	94.5 MHz	29.91 dBµV
2	129.3 MHz	46.7 dBµV	7	61.8 MHz	26.8 dBµV
3	68.7 MHz	35.41 dBµV	8		
4	45.3 MHz	32.84 dBµV	9		
5	99.6 MHz	31.02 dBµV	10		

orizontal polarization

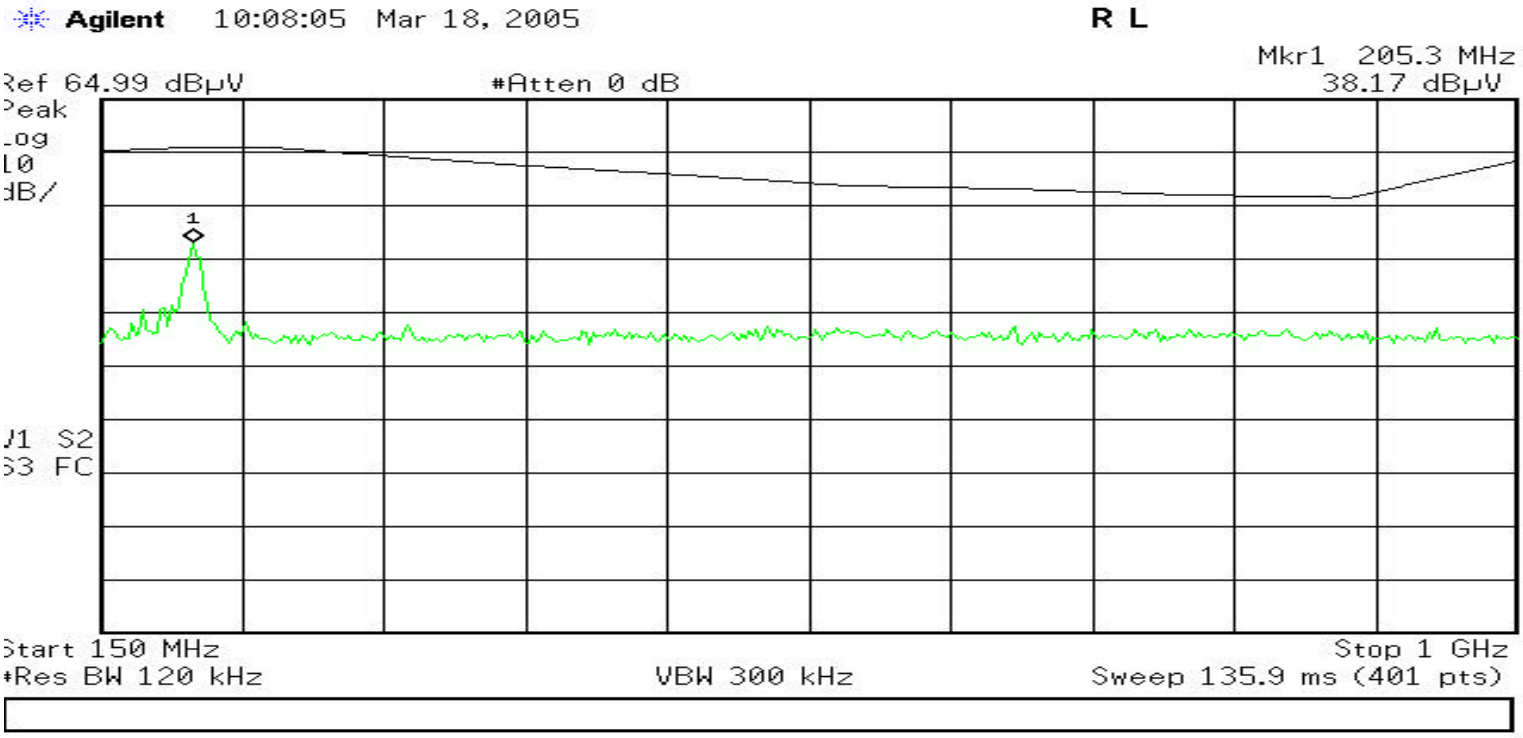


Pk	X Axis	Amplitude	Pk	X Axis	Amplitude
1	130.2 MHz	45.58 dBµV	6		
2	69.0 MHz	37.68 dBµV	7		
3	33.9 MHz	33 dBµV	8		
4	99.6 MHz	27.15 dBµV	9		
5			10		

50 MHz to 1GHz vertical polarization



Horazontal



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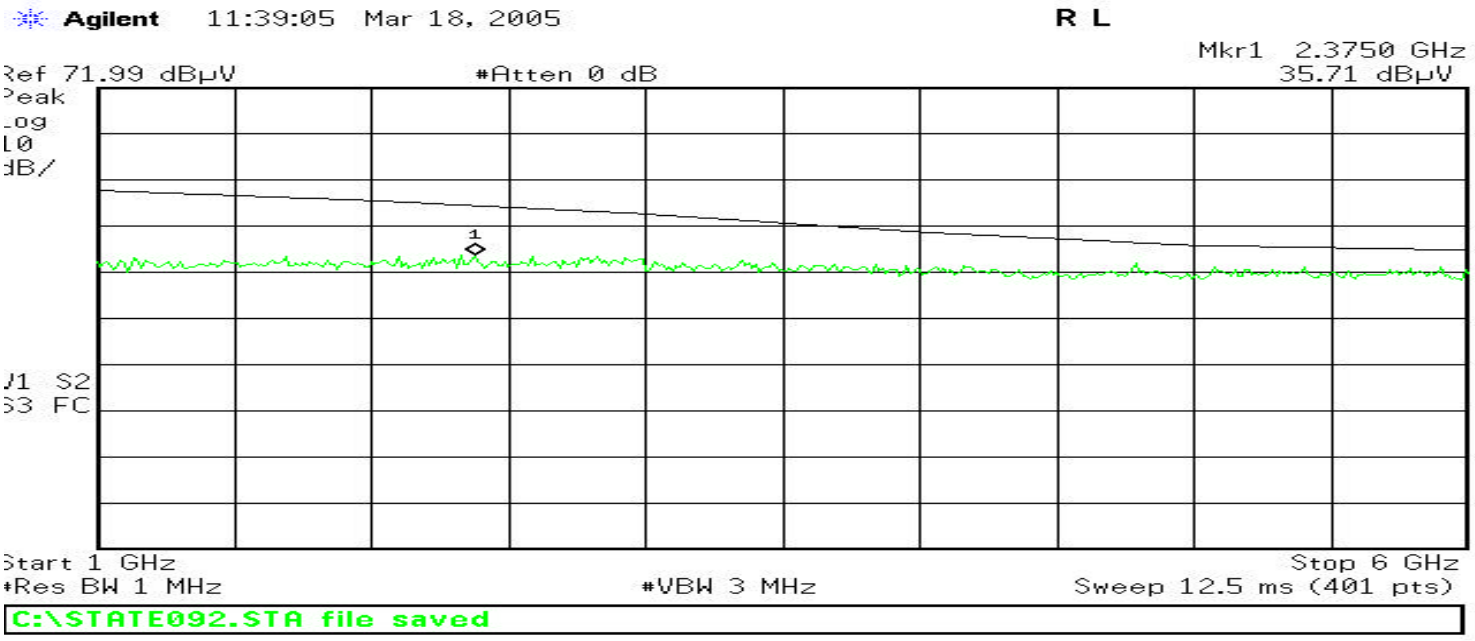
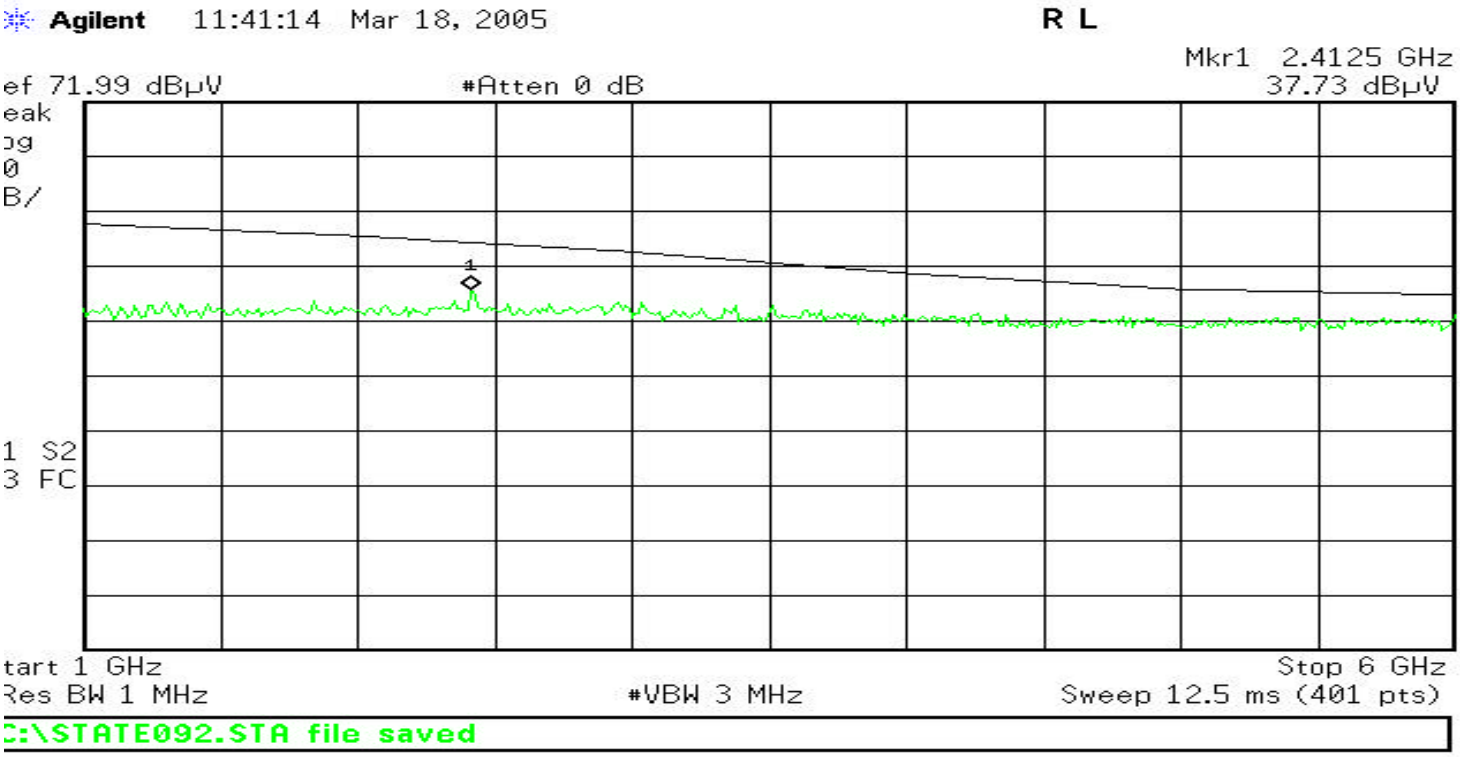
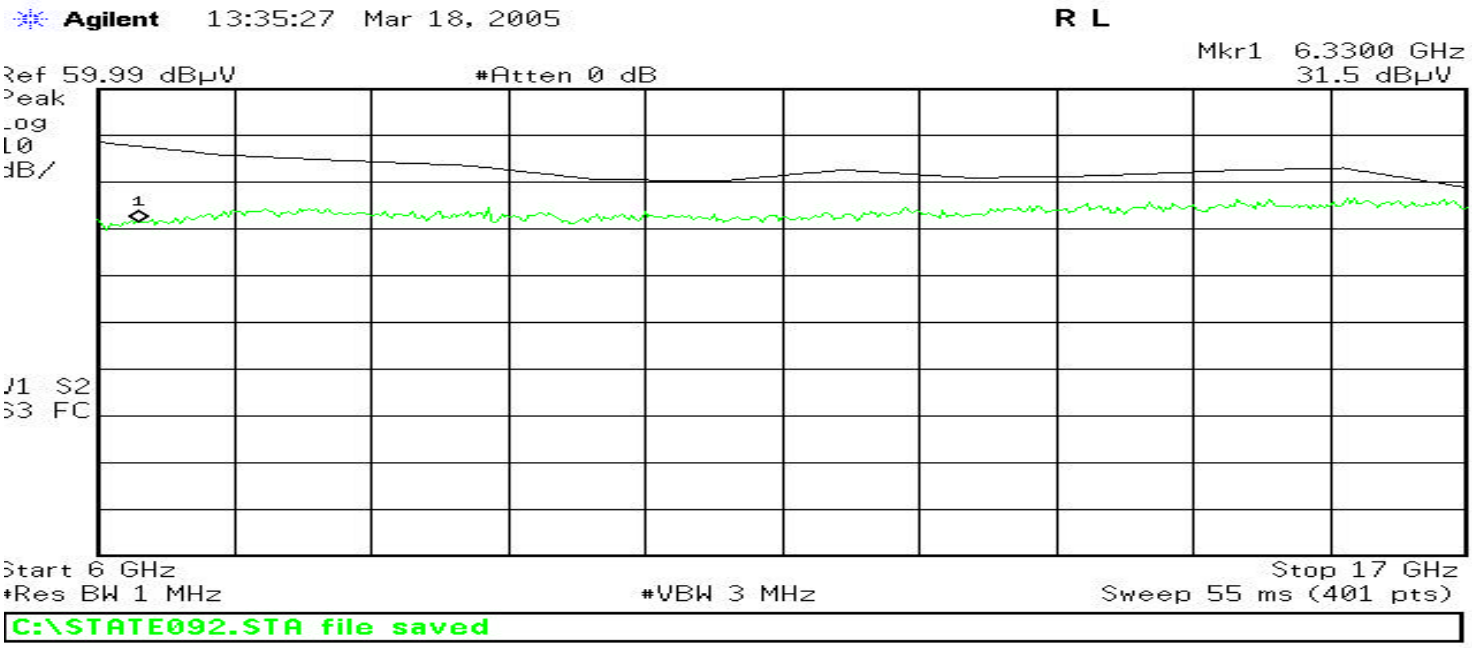
to 6GHz horizontal



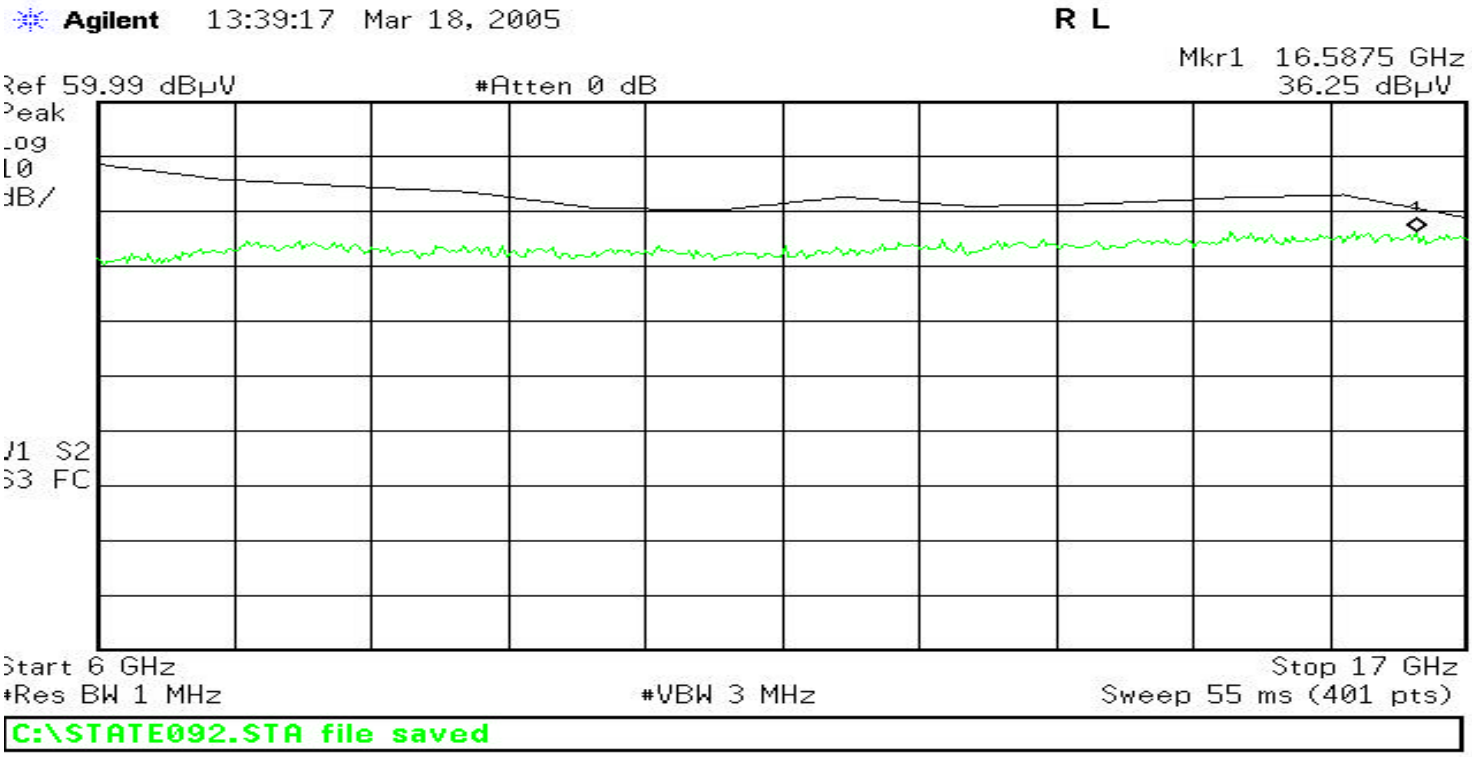
ertical



to 17GHz horizontal



Vertical



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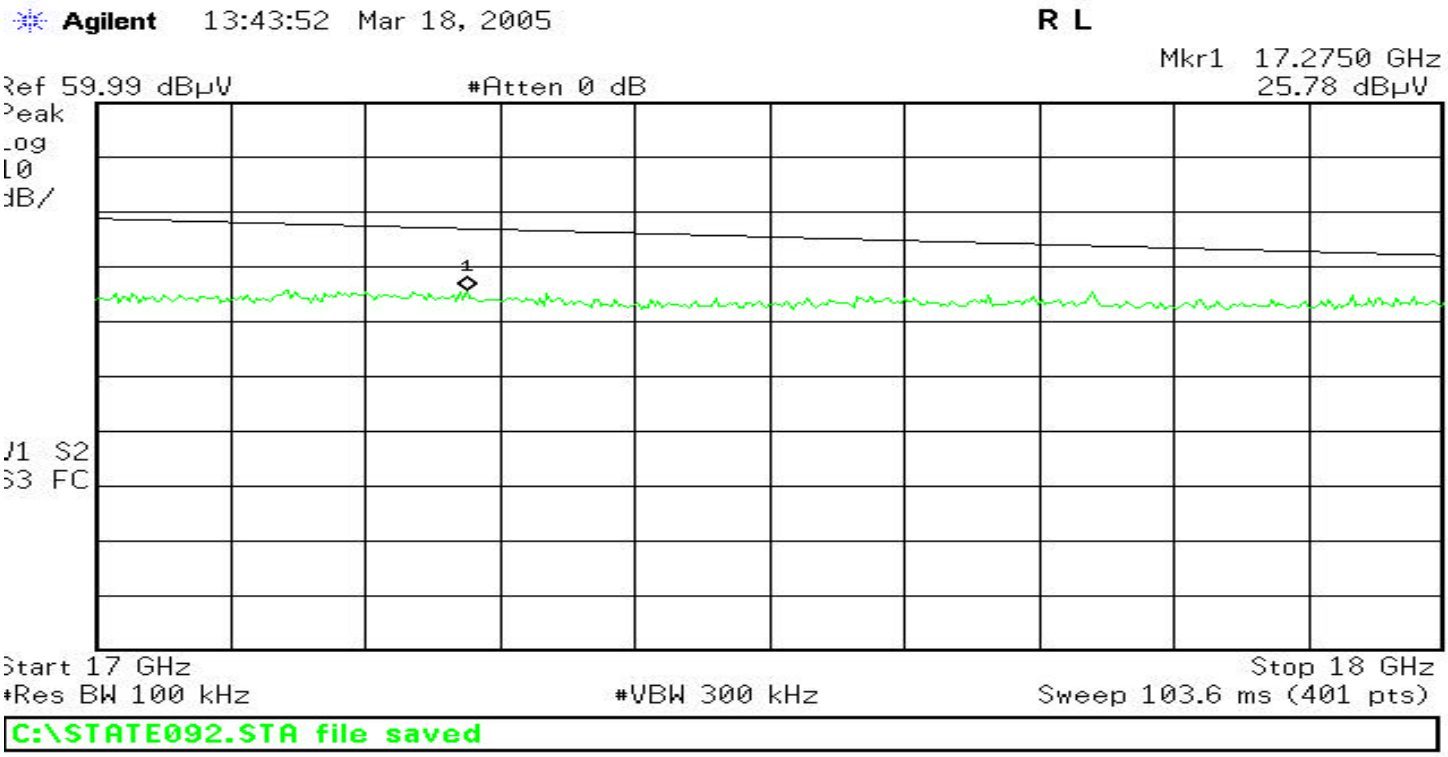
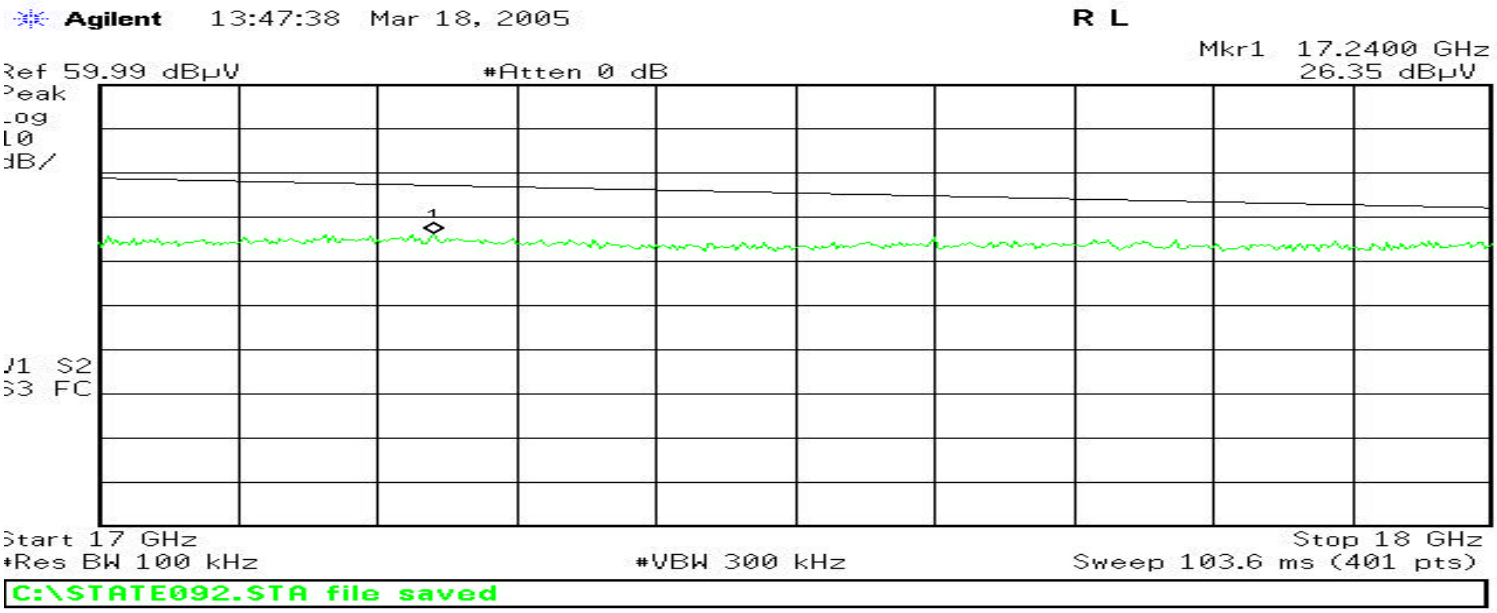
7 to 18GHz vertical



7 to 18GHz horizontal



t up for high frequency gain horn

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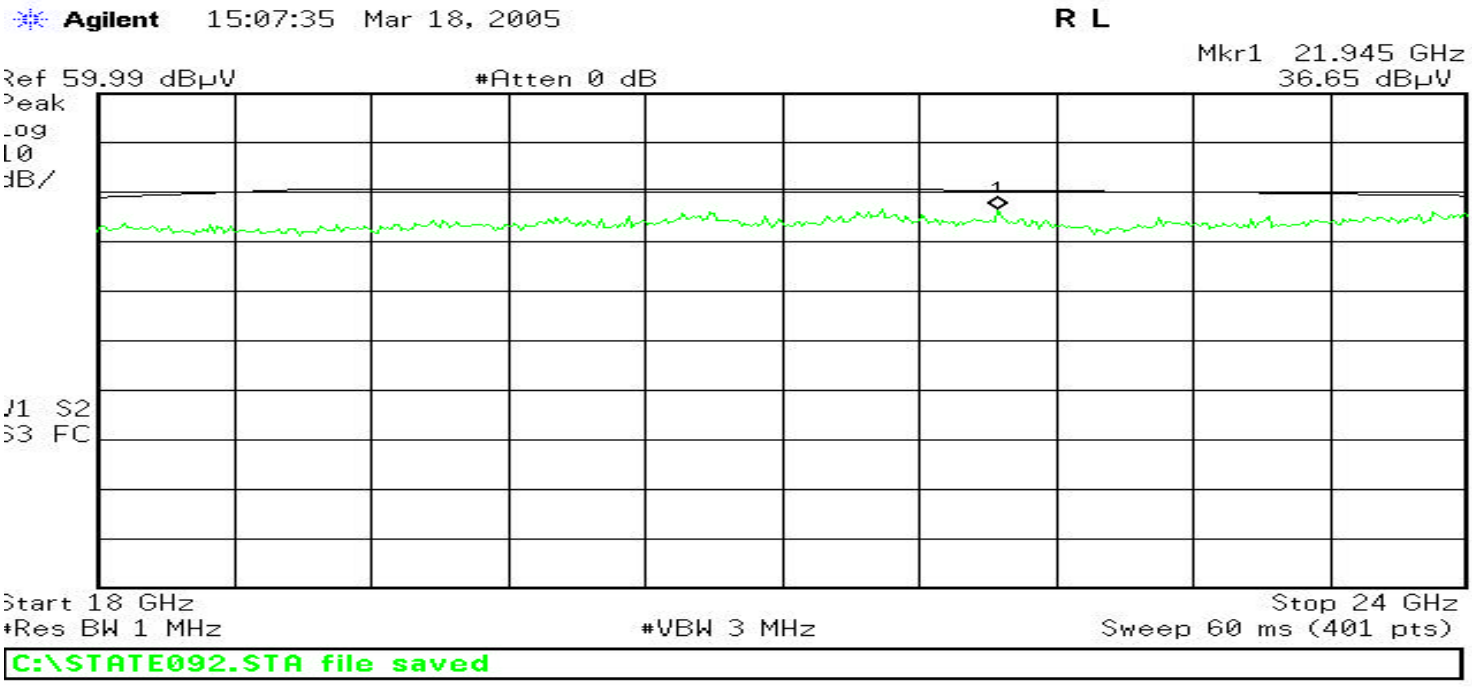
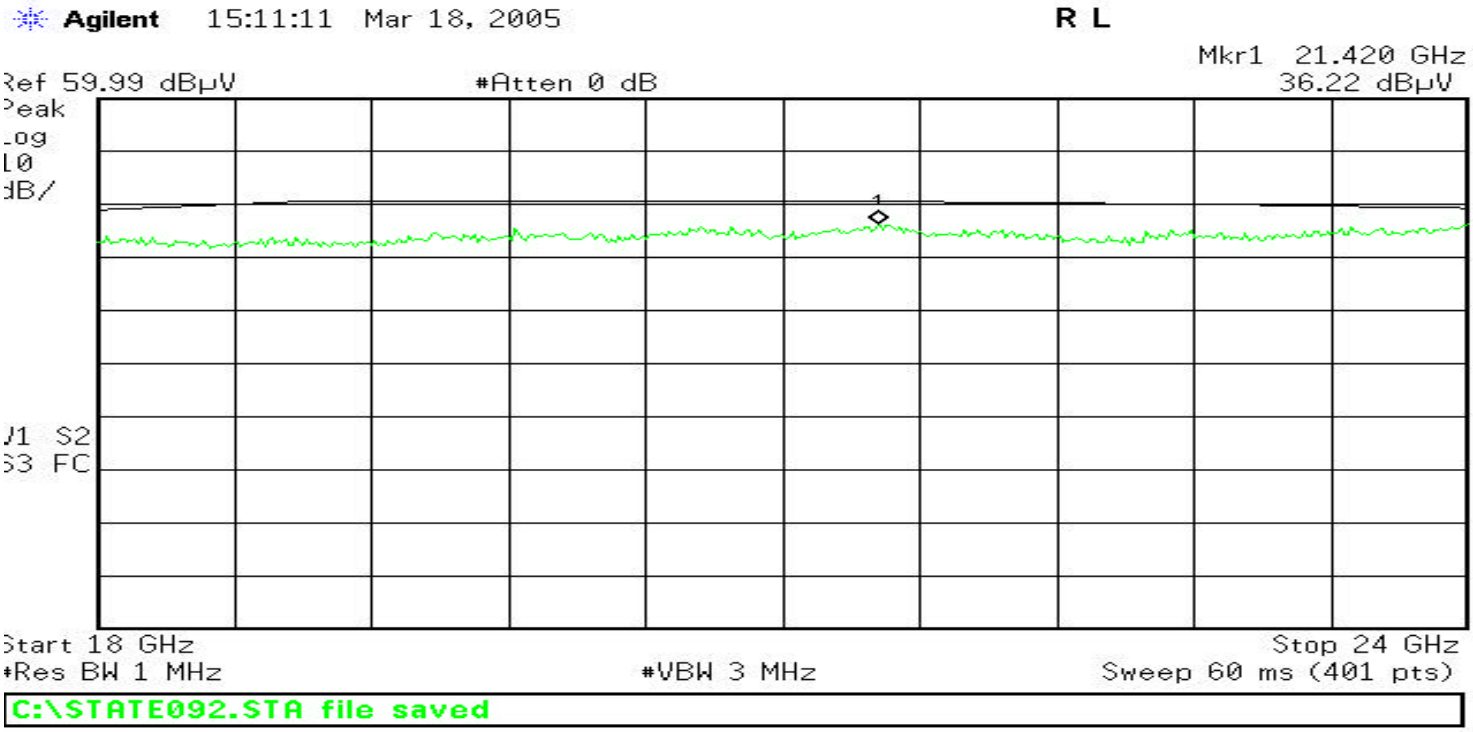
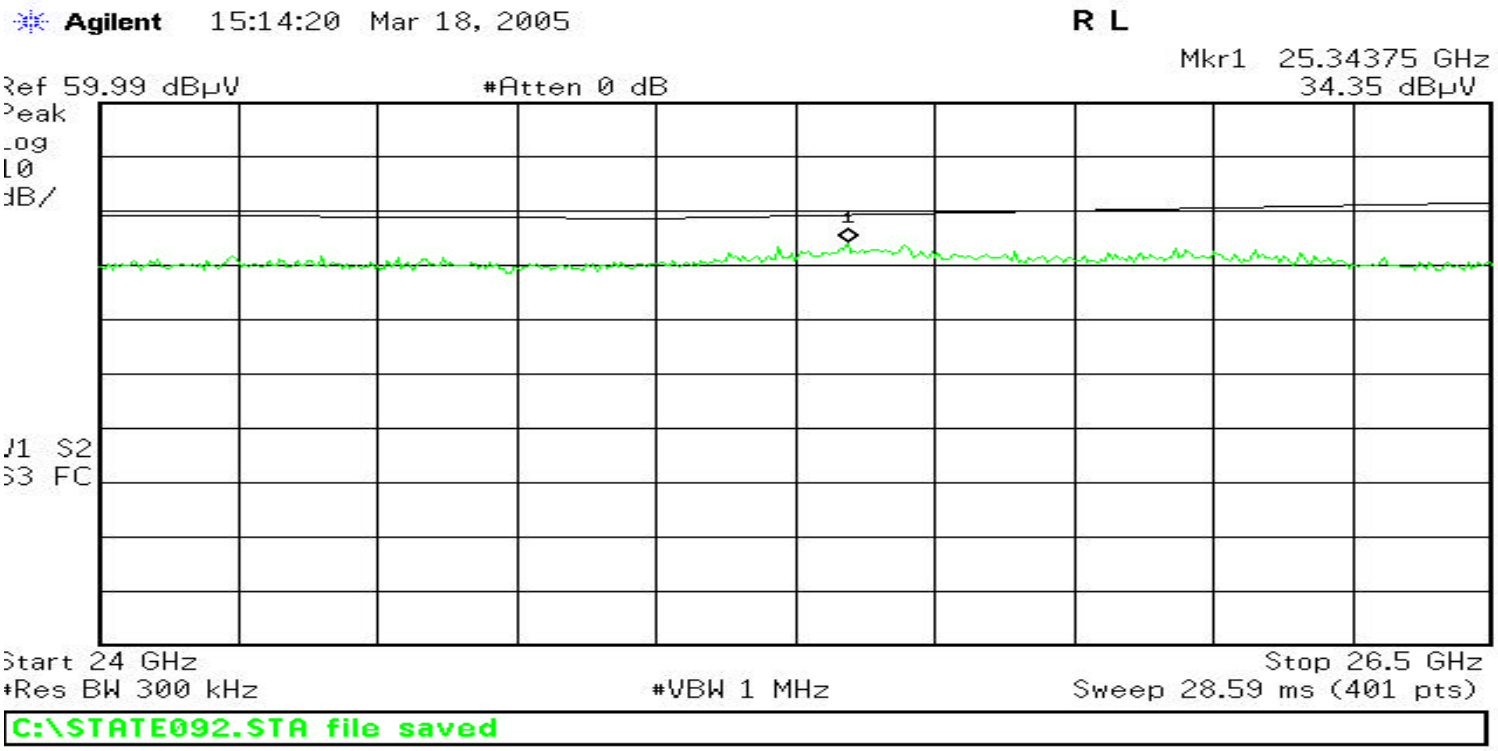
8 to 24 GHz vertical



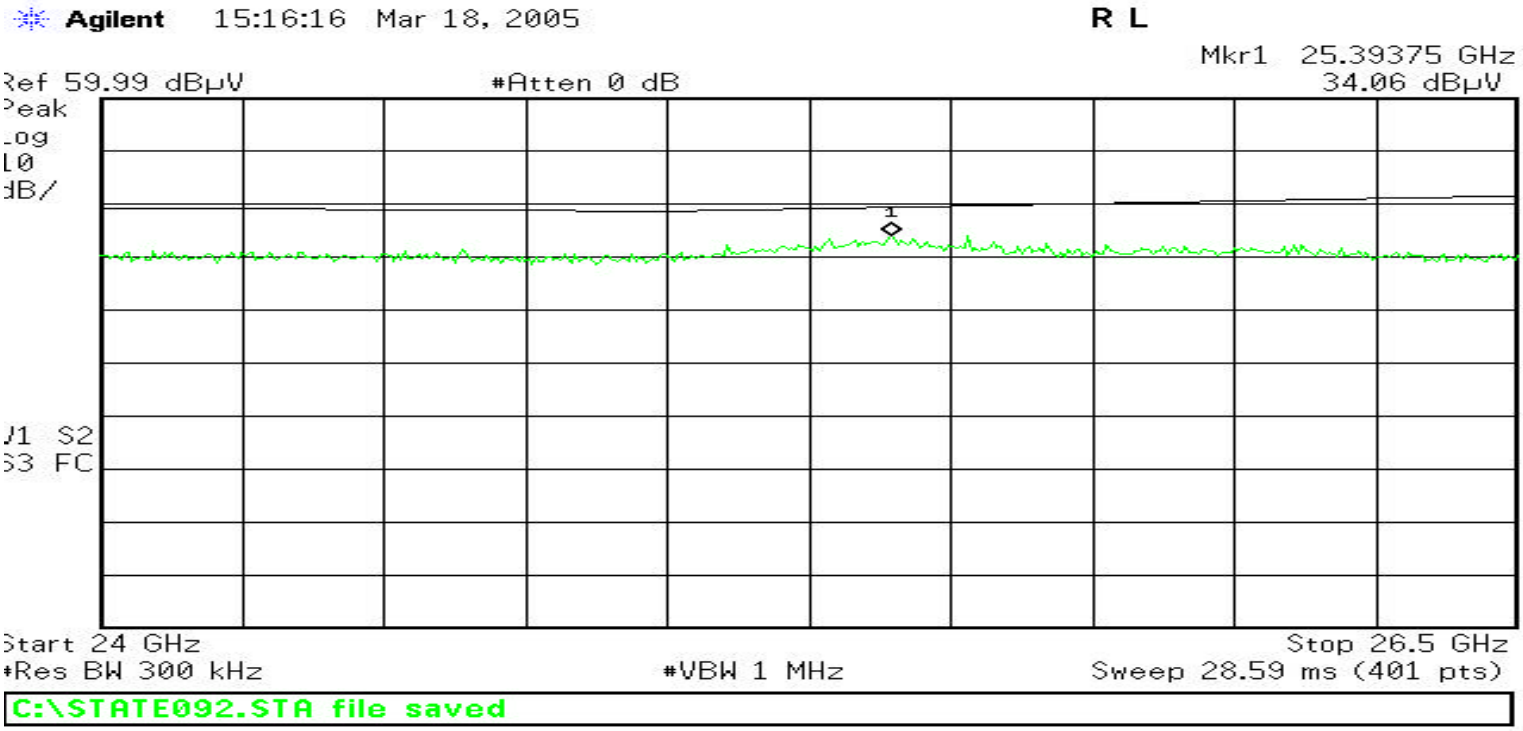
8 to 24 horazontal



4 to 26 GHz vertical



4 to 26 GHz horizontal

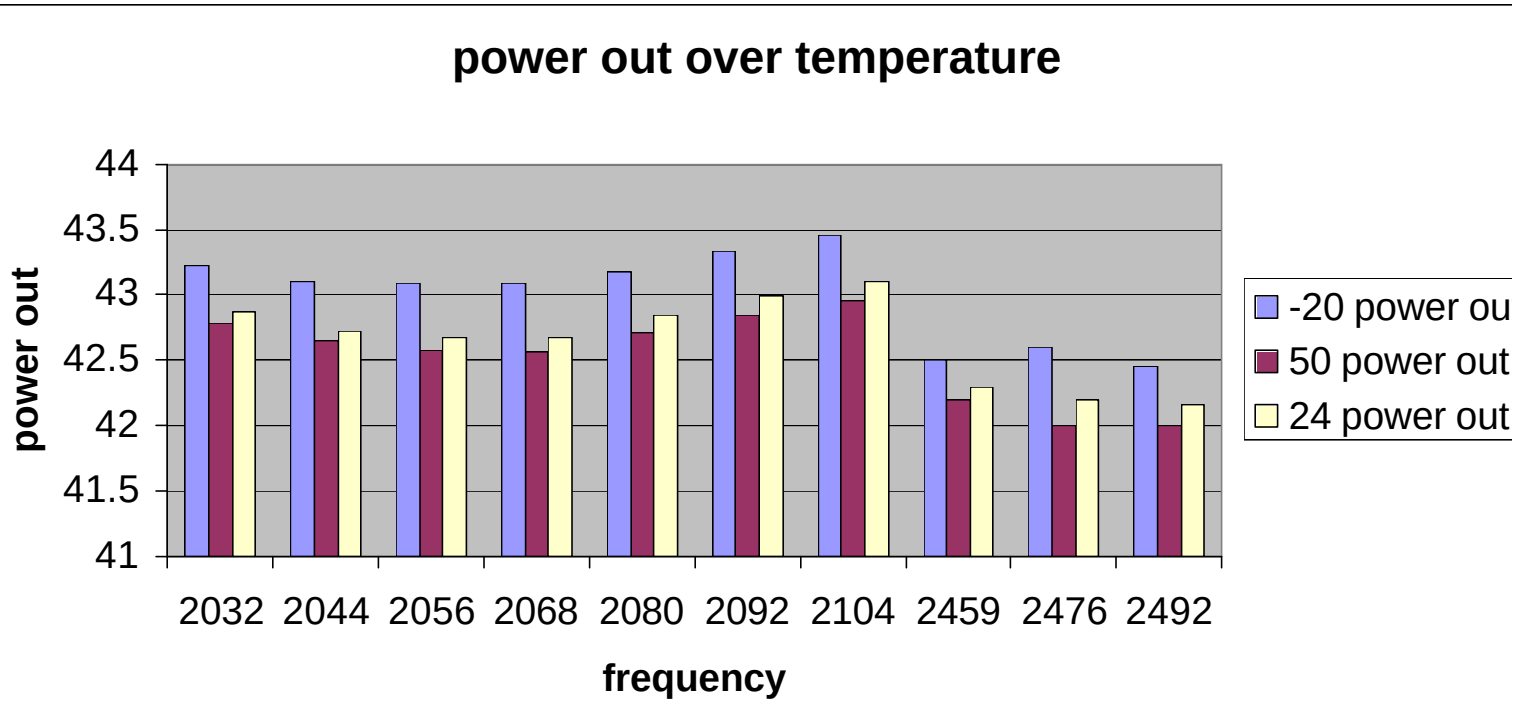


1

POWER OUT OVER TEMPERATURE AND CHANNEL PLAN

2031.5	43.22	42.78	42.87
2043.5	43.1	42.65	42.72
2055.5	43.09	42.58	42.68
2067.5	43.09	42.56	42.67
2079.5	43.18	42.71	42.84
2091.5	43.33	42.84	42.99
2103.5	43.46	42.96	43.1
2458.5	42.5	42.2	42.3
2475.5	42.6	42	42.19
2491.5	42.45	42	42.16
	-20	50	24

These power measurements are made using a CW if signal in the analog mode. Digital power measurements include the necessary attenuation to meet the requirements of the QPSK modulation of 20dmc IMR



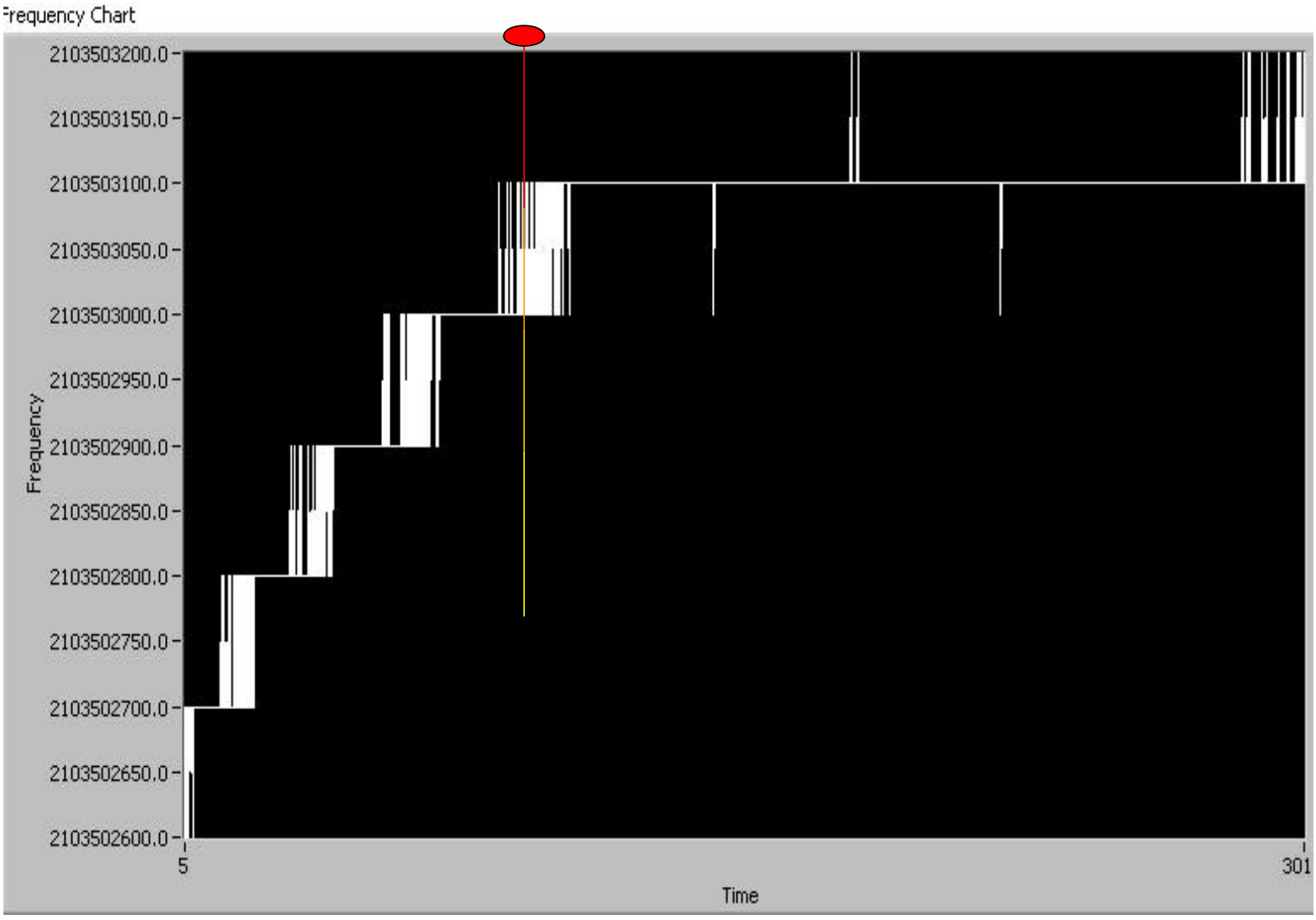
Set up:

Using an HP 5343A microwave frequency counter controlled by a labview

Virtual instrument created a frequency over time histogram. The histogram is plotted to a graph with a resolution of 100Hz.

After one hour a pause was imposed and the case temperature of the device was raised to 50 and the histogram begun again. The preceding sequence was repeated at minus 20 degrees C. During this process the ac input to the IDU was varied +/- 15% @ 120vac and 220 vac no degradation of performance measured device maintains better than 2ppm frequency stability. Voltage variances +/- 20 % trigger a software alarm that disables the transmitter output

Ambient temperature 50degrees C ramp time 15 minutes Max deviation 600Hz



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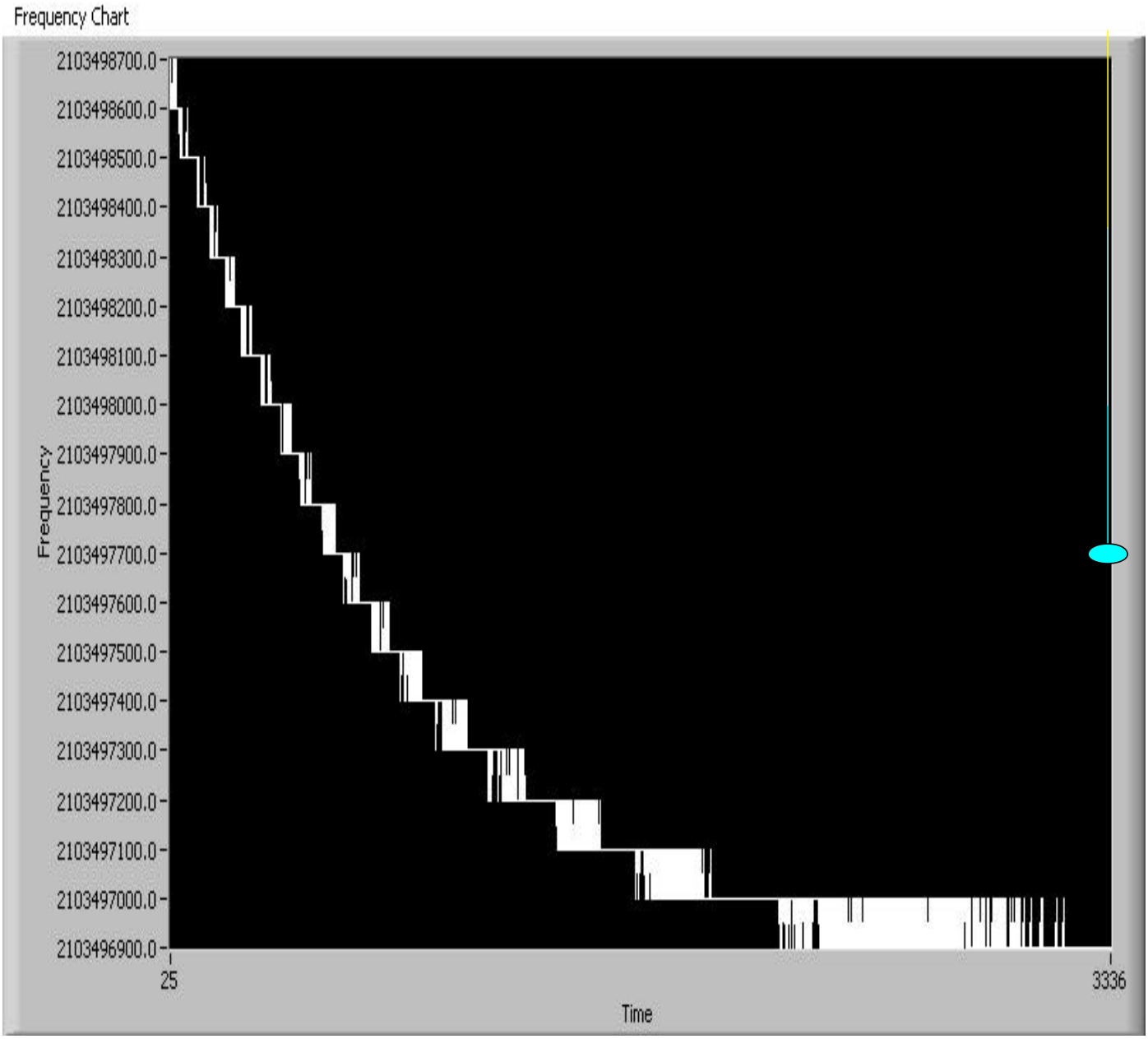
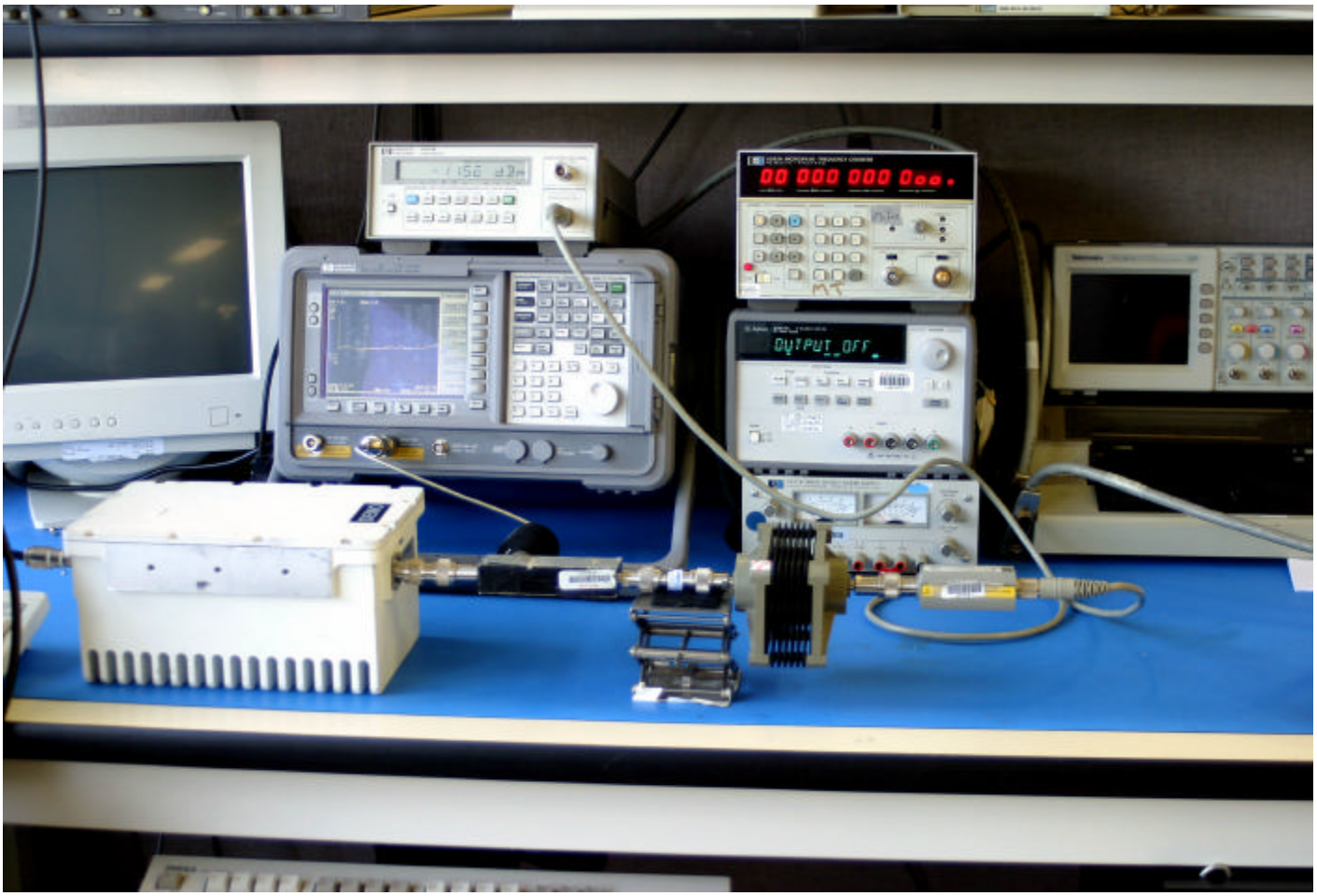
Ambient temperature -20 degrees C Max deviation 1.8KHz



t station spurious conducted emissions at the antenna port



1

FCC LABEL LOCATION

FCC LABEL MATERIAL SPECIFICATION

Z-Ultimate® Select 3000 White
Thermal Transfer Material

Description:

A gloss topcoated, white, polyester, thermal transfer material that is specifically designed to be a fanfold labelstock. The Z-Ultimate Select 3000 White offers unique static dissipating properties that reduce the amount of dust that causes print voids. The high tack, high-strength, permanent acrylic-based adhesive displays superior adhesion and strength on an extensive variety of surfaces. This combination of Z-Ultimate Select 3000 White and Zebra's 4100, 5095 and 5100 resin ribbons provides excellent scratch and smear resistance and print quality for a thermal transfer label.

Z-Ultimate Select 3000 White media printed with 4100, 5095 and 5100 ribbons is a UL Recognized Component for Indoor and Outdoor use (UL Recognized Component when printed with any Zebra printer).

Z-Ultimate Select 3000 White

Suggested Applications

- Fanfoldable applications
- Shelf or scan pallet labels
- UL Required Information labeling
- Water-immersed labels
- Labels in contact with moving parts or friction conveyor drives
- Labels exposed to acid or alkali solutions; top side printed circuit board applications

Suggested Contacts

- Using Departments
- Engineering Department
- Product Manager
- Quality Control Manager
- Purchasing Department

Technical Specifications

	Description		Caliper
Facestock	White, gloss topcoated polyester		2.0 mil
Adhesive	Permanent, acrylic-based		0.8 mil
Liner	50 lb. semi-bleached, kraft stock		3.0 mil
		Total	5.8 mil

Recommended Zebra Ribbons:	4100, 5095, 5100
Minimum Application Temperature:	10°F (-12°C)
Service Temperature Range:	-40°F to 356°F (-40°C to 180°C)
Recommended Storage Conditions:	32°F to 70°F (0°C to 21°C) at 35% to 50% RH

Note: All products should be pre-tested to ensure that they meet all intended requirements of specific end use applications. For testing of this material please order SAM5219.

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