

2440-2460MHz

* Agilent 10:52:18 Jul 8, 2003

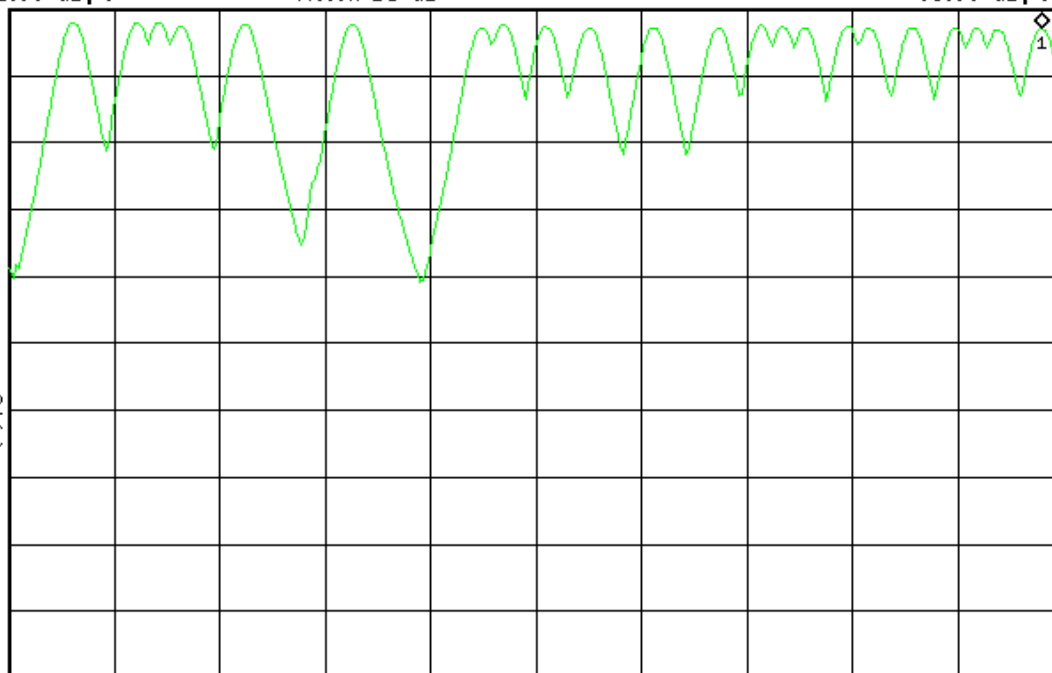
R L

Table 3

Ref 95.99 dB μ V

#Atten 15 dB

Mkr1 2.45921 GHz

93.08 dB μ VPeak
Log
10
dB/V1 S2
S3 FC

Start 2.44 GHz

#Res BW 300 kHz

VBW 300 kHz

Stop 2.46 GHz

Sweep 4 ms (401 pts)

2460-2483MHz

* Agilent 10:56:51 Jul 8, 2003

R L

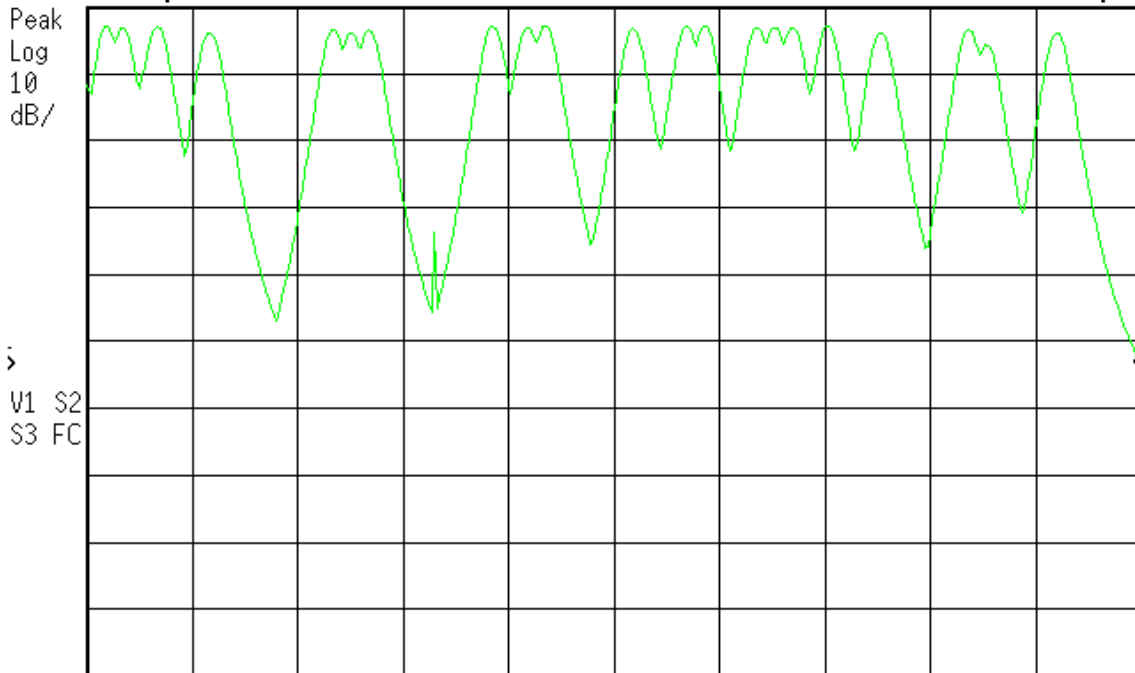
Table 4

Mkr1 2.48350 GHz

Ref 95.99 dBμV

#Atten 15 dB

41.85 dBμV



Start 2.46 GHz

Stop 2.483 GHz

#Res BW 300 kHz

VBW 300 kHz

Sweep 4 ms (401 pts)

Note: The product will always employ a hopping table of 83 channels. At the time that these measurements were taken, five different “random” hopping tables had been prepared. The hopping tables could be different in the final version of the product due to restrictions on the lowest and highest channel allowed (based on low/high band edge measurements).

Time of Occupancy (Dwell Time)

REQUIREMENT

"The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed" [15.247(a)(1)(iii)]

$$0.4s * 83 = 33.2s$$

MEASUREMENTS

Individual dwell time = 0.025s

Number of individual dwells within a 33.2s window = 8 (see plot on following page)

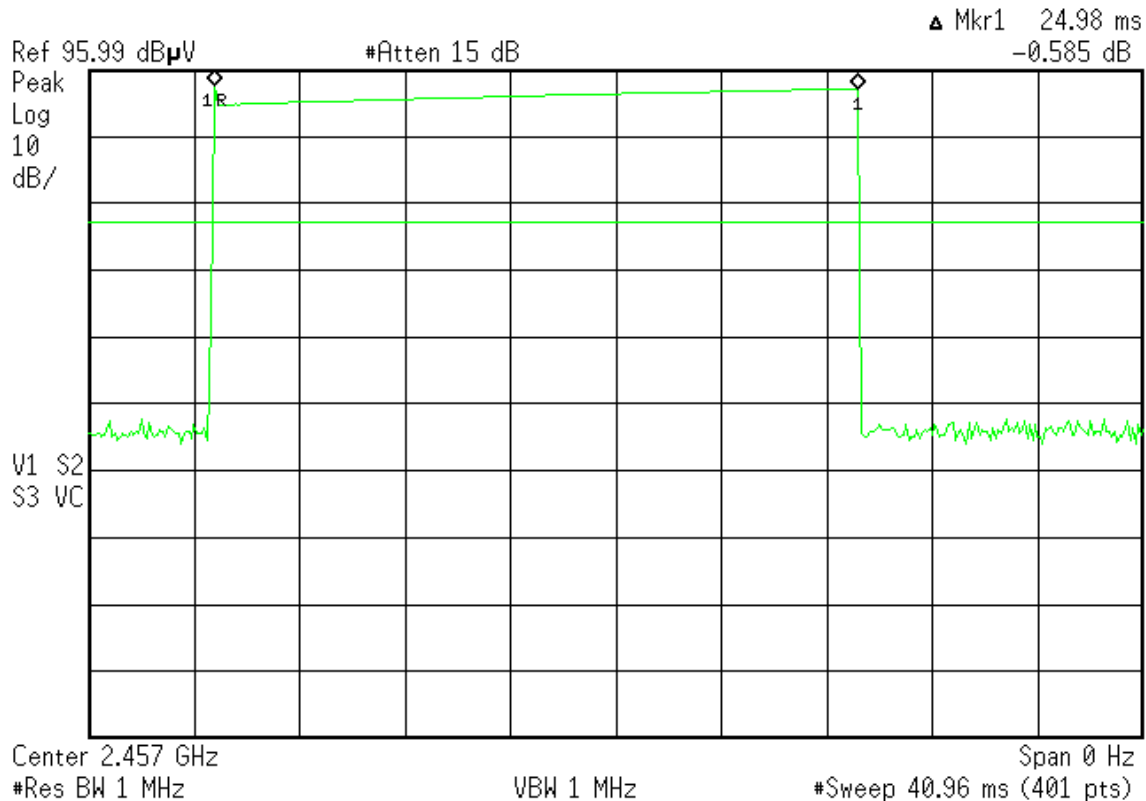
Total dwell time within 33.2s = $0.025s * 8 = 0.2s$

ANALYZER PLOTS

Individual Dwell Time

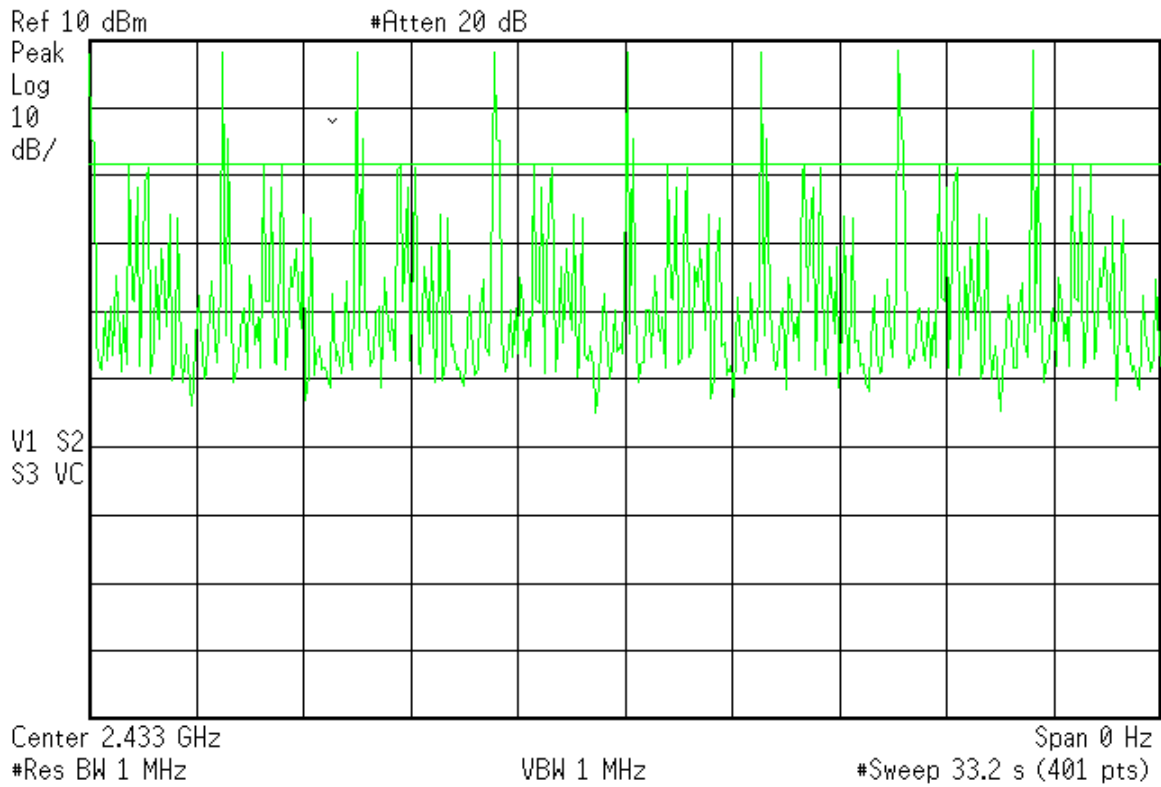
Agilent 11:12:25 Jul 8, 2003

R L



Number of Individual Dwells Within 33.2s

Agilent 11:01:29 Jul 23, 2003



Peak Output Power

LIMIT

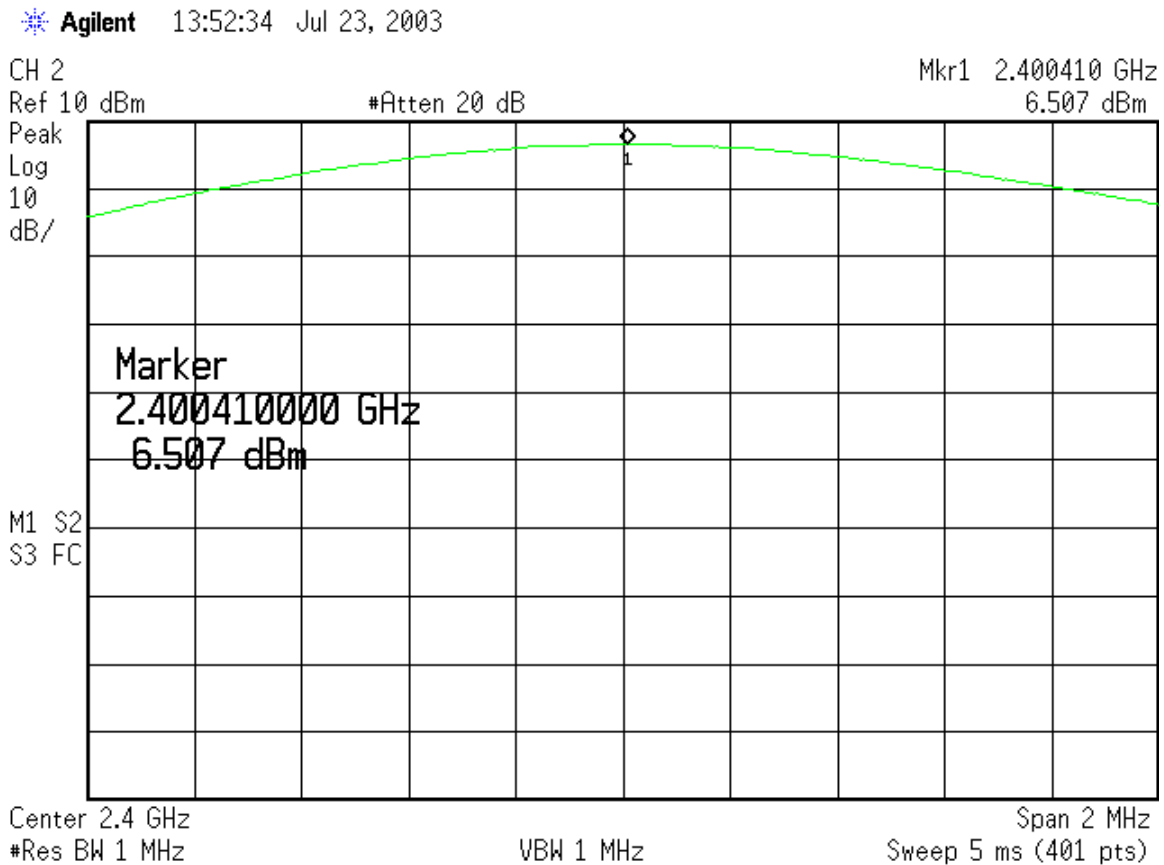
"The maximum peak output power of...systems in the 2400-2483.5 MHz band employing at least 75 hopping channels...: 1 Watt." [15.247(b)(1)]

MEASUREMENTS

Peak Output Power						Curtis-Straus LLC		
Date: 23-Jul-03		Engineer: Evan Gould			Work Order: D0522			
Company: Seimac		EUT: Solid Link		Fundamental Frequencies: 2400-2483.5MHz				
Test Site: "A"				Cable: 142LL#5				
Attenuator: PE7019-20				Analyzer: Orange				
Measurement: Conducted				Resolution BW: 1MHz				
Detector Type: Peak				Video BW: 1MHz				
Notes: Power level setting = 1470								
Channel Number	Frequency (MHz)	Reading (dBm)	142LL #5 Factor (dB)	PE7019-20 Factor (dB)	Adjusted Reading (dBm)	47 CFR 15.247(b)(1)		
						Limit (dBm)	Margin (dB)	Result (Pass/Fail)
2	2400.4	6.5	1.9	19.9	28.3	30.0	-1.7	Pass
100	2439.6	6.8	1.9	19.9	28.6	30.0	-1.4	Pass
206	2482.0	2.6	1.9	19.9	24.4	30.0	-5.6	Pass

ANALYZER PLOTS

Channel 2



Channel 100

Agilent 13:50:57 Jul 23, 2003

CH 100

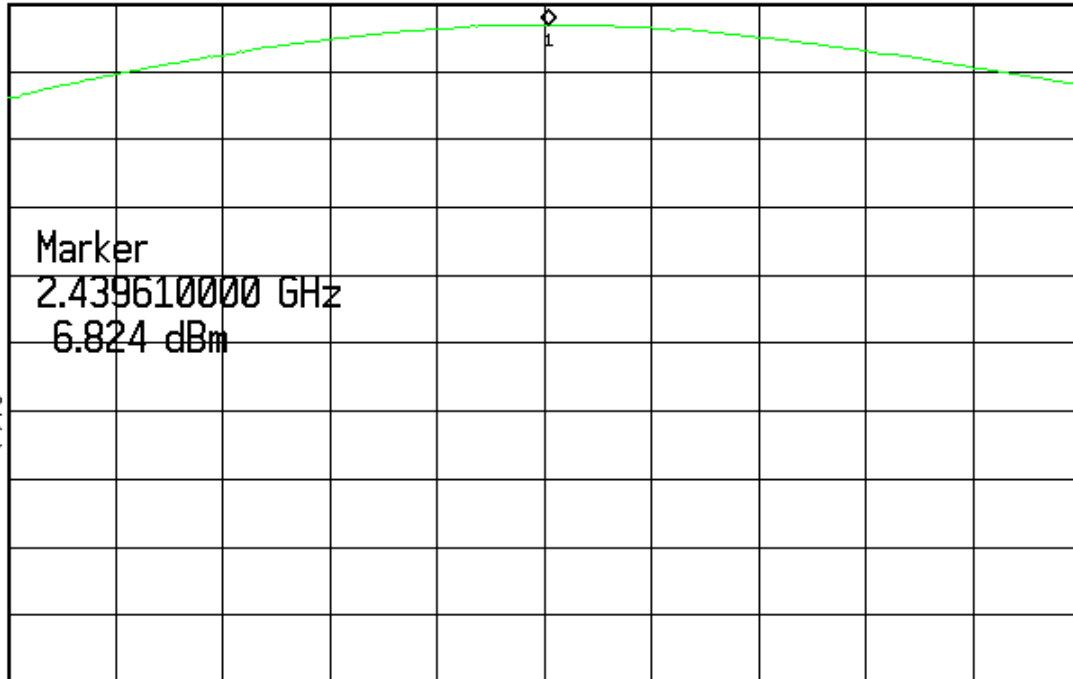
Ref 10 dBm

#Atten 20 dB

Mkr1 2.439610 GHz

6.824 dBm

Peak
Log
10
dB/



M1 S2
S3 FC

Center 2.44 GHz

#Res BW 1 MHz

VBW 1 MHz

Span 2 MHz

Sweep 5 ms (401 pts)

Channel 206

* Agilent 13:55:43 Jul 23, 2003

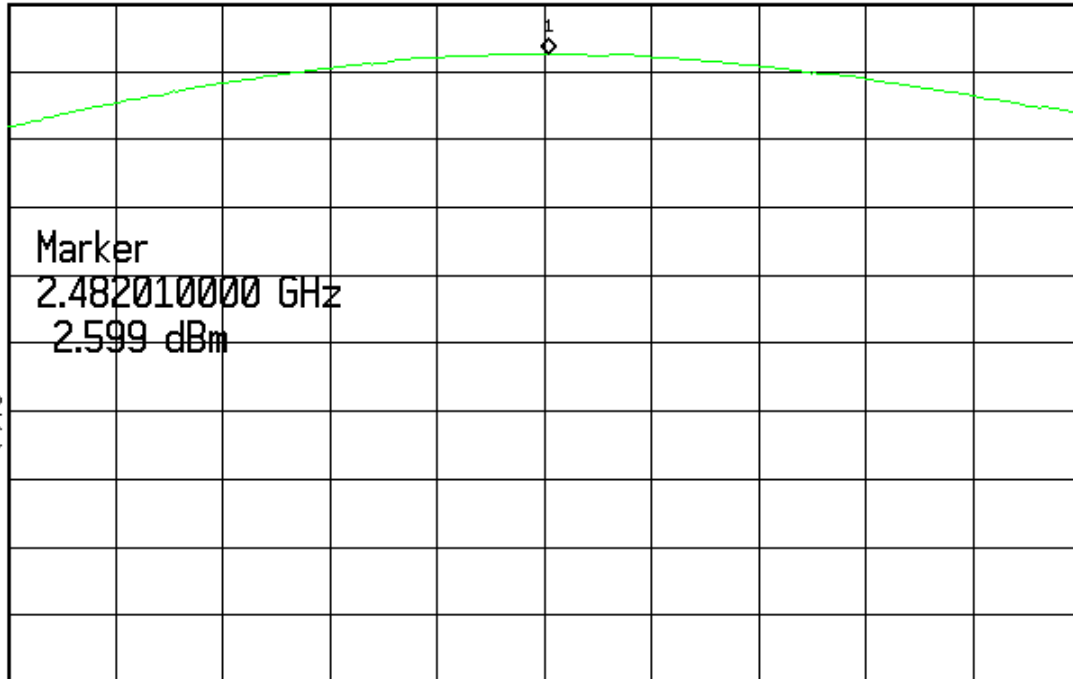
CH 206

Mkr1 2.482010 GHz

Ref 10 dBm

#Atten 20 dB

2.599 dBm

Peak
Log
10
dB/M1 S2
S3 FC

Center 2.482 GHz

Span 2 MHz

#Res BW 1 MHz

VBW 1 MHz

Sweep 5 ms (401 pts)

Note: Based on the measurements in this section, the highest power level setting allowed is 1470.

Output Power Settings

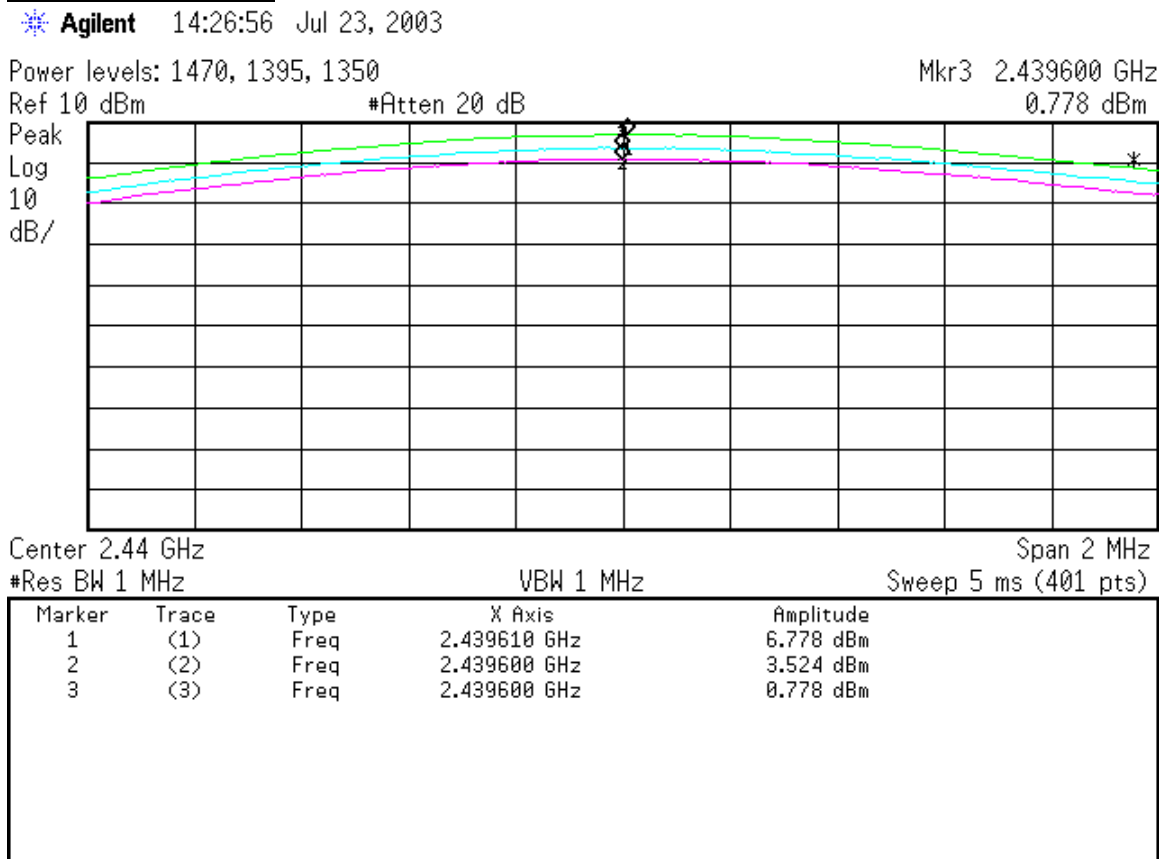
REQUIREMENT

"Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi." [15.247(4)(i)]

RESULTS

Three types of antennas are supported by this product: omnidirectional, yagi, and parabolic. There are two of each type available, with the highest directional gains being 6dBi, 16dBi, and 24dBi respectively. The highest power setting for the 6dBi omnidirectional antenna was determined to be **1470** in the previous section. The output power for the 16dBi Dual-Yagi must be 3.3dB lower than the maximum (power setting = **1395**), and the output power for the 24dBi Parabolic must be 6dB lower than the maximum (power setting = **1350**). See plot below.

ANALYZER PLOT



Conducted Spurious Emissions

LIMIT

Peak: 20dB down from fundamental [15.247(c)]

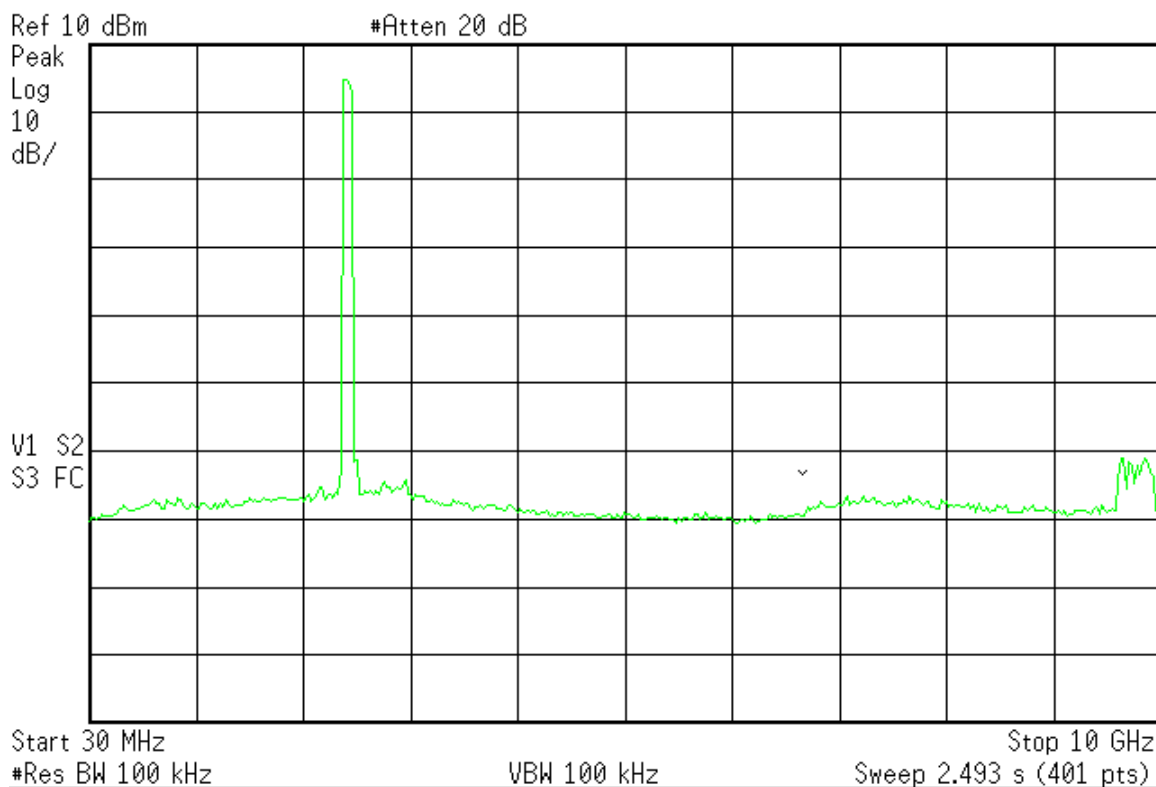
MEASUREMENTS

No conducted spurious emissions were detected. See the plots below.

ANALYZER PLOT

30MHz – 10GHz

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10GHz – 18GHz

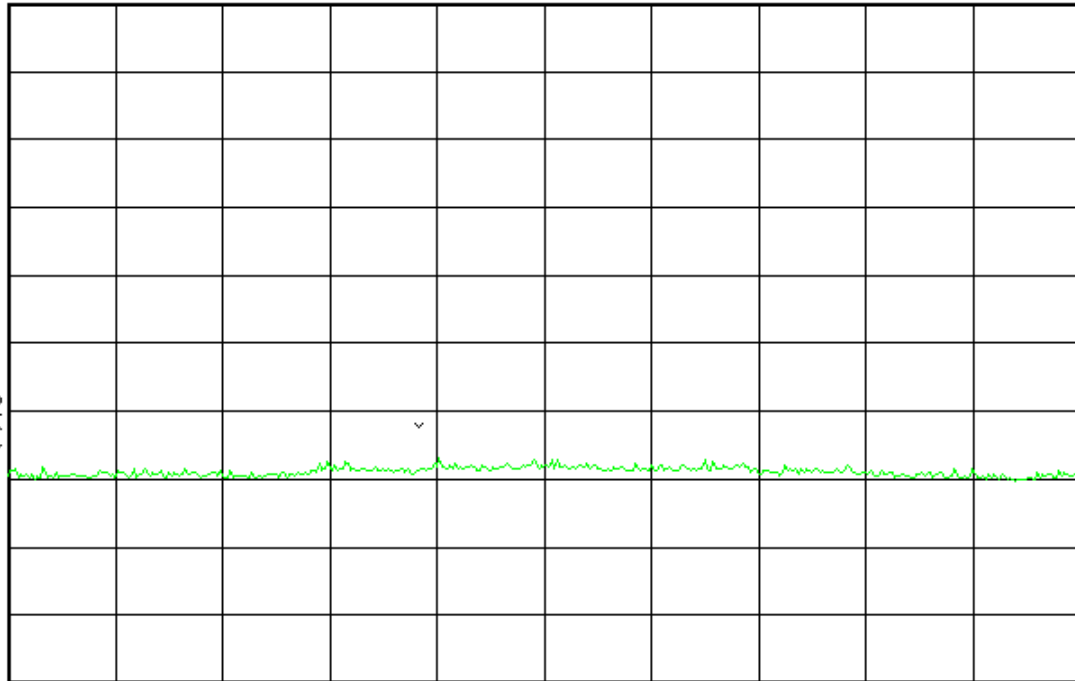
Agilent 14:52:25 Jul 23, 2003

Ref 10 dBm

#Atten 20 dB

Peak
Log
10
dB/

V1 S2
S3 FC



Start 10 GHz

Stop 18 GHz

#Res BW 100 kHz

VBW 100 kHz

Sweep 2 s (401 pts)

18GHz – 26GHz

Agilent 14:48:06 Jul 23, 2003

