FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Coroporativo Lanix S.A. de C.V.

W32

Model Number: W32

FCC ID: ZC4W32

Prepared for : Coroporativo Lanix S.A. de C.V.
Carrterera Hermosillo-Nogales Km 8.5

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
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Report Number : ACS-F13369
Date of Test : Dec.27~30, 2013
Date of Report : Jan.20, 2014

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TEST REPORT CERTIFICATION

Applicant	:	Coroporativo Lanix S.A. de C.V.
Manufacturer	:	SHENZHEN FORTUNESHIP TECHNOLOGY., LTD
EUT Description	:	W32
FCC ID	:	ZC4W32

(A) MODEL NO. : W32
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : DC 3.7V; DC 5V
(D) TEST VOLTAGE : DC 5V From Adapter Input AC 120V/50Hz

Tested for comply with:
FCC Rules and Regulations Part 15 Subpart C: 2012
Test procedure used:
ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Dec.27~ 30, 2013 Report of date: Jan.20, 2014

Prepared by : Lisa Liang
Lisa Liang /Assistant

Reviewed by :
Sunny Lu/ Assistant Manager

AUDIX® 信華科技（深圳）有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: David Jin 1.20

Approved & Authorized Signer :
David Jin / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	**Standard**	**Results**
Power Line Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.10 :2009	PASS
Radiated Emission Test	FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.10 :2009	PASS
Conducted Spurious Emissions	FCC Part 15: 15.247(a)(1) ANSI C63.10 :2009	PASS
Carrier Frequency Separation Test	FCC Part 15: 15.247(a)(1) ANSI C63.10 :2009	PASS
20dB Bandwidth Test	FCC Part 15: 15.215 ANSI C63.10 :2009	PASS
Number Of Hopping Frequency Test	FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 :2009	PASS
Dwell Time Test	FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 :2009	PASS
Maximum Peak Output Power Test	FCC Part 15: 15.247(b)(1)\ ANSI C63.10 :2009	PASS
Band Edge Compliance Test	FCC Part 15: 15.247(d) ANSI C63.10 :2009	PASS
N/A is an abbreviation for Not Applicable.		

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product Name	: W32
Model Number	: W32
FCC ID	: ZC4W32
Radio	: Bluetooth V2.1+EDR
Operation Frequency	: Bluetooth: 2400-2483.5MHz
Channel Number	: Bluetooth V2.1+EDR:79
Modulation Technology	: Bluetooth V2.1+EDR: GFSK, π/4DQPSK, 8-DPSK
Antenna Assembly Gain	: Wire antenna, -2dBi
Applicant	: Coroporativo Lanix S.A. de C.V. Carrterera Hermosillo-Nogales Km 8.5
Manufacturer	: SHENZHEN FORTUNESHIP TECHNOLOGY., LTD Room 401, A-B District, TCL King Electronics company, No.33. Nanhai Road Nanshan District Shenzhen Guangdong, P.R.China
Power Adapter	: Manufacture: LANIX, M/N: W32-C Cable: Shielded, Detachable,0.8m
Earphone Cable	: Unshielded, Detachable,1.0m
Date of Test	: Dec.27~30, 2013
Date of Receipt	: Dec.21, 2013
Sample Type	: Prototype production

2.2. Block diagram of connection between the EUT and simulators

(EUT: W32)

2.3. Test information

The special method was used to control EUT work in Continuous TX mode, and select test channel.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)	Channel	Frequency (MHz)
Tx Mode GFSK modulation	1	Low :CH 0	2402
	1	Middle: CH39	2441
	1	High: CH78	2480
Tx Mode 8-DPSK modulation	3	Low :CH 0	2402
	3	Middle: CH39	2441
	3	High: CH78	2480
Note: π/4DQPSK modulation is same type modulation with 8-DPSK, and according exploratory test, 8-DPSK will have worse emissions, so the final test were only performed with GFSK and 8-DPSK modulation.			

2.4. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park,Nantou, Shenzhen, Guangdong, China

3m Anechoic Chamber : Certificated by FCC, USA
Registration Number: 90454
Valid Date: Feb.22, 2015

3m & 10m Anechoic Chamber : Certificated by FCC, USA
Registration Number: 794232
Valid Date: Oct.31, 2015

EMC Lab. : Certificated by Industry Canada
Registration Number: IC 5183A-1
Valid Date: Jun.13, 2014

Certificated by DAkkS, Germany
Registration No: D-PL-12151-01-01
Valid Date: Feb.01, 2014

Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2014

2.5. Measurement Uncertainty (95% confidence levels, k=2)

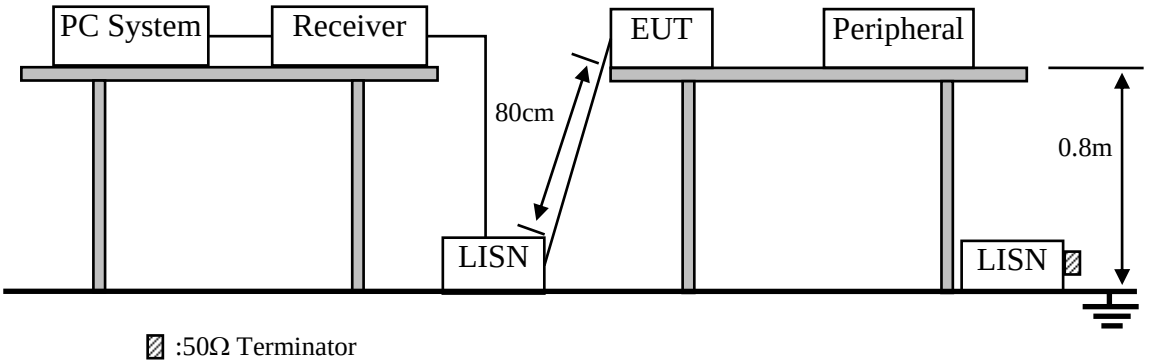
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.08dB(9KHz to 150KHz)
	3.1dB (150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.22 dB(30~200MHz, Polarize: H)
	3.23 dB(30~200MHz, Polarize: V)
	3.49 dB(200M~1GHz, Polarize: H)
	3.39 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	4.97dB (1~6GHz, Distance: 3m)
	4.99 dB (6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57 dB
Uncertainty for Conduction Spurious emission test	2.00 dB
Uncertainty for Output power test	0.73 dB
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

3. POWER LINE CONDUCTED EMISSION MEASUREMENT

3.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 13	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Oct.31, 13	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 13	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 13	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 2	May.08, 13	1 Year
6.	RF Cable	Fujikura	3D-2W	No.1	May.08, 13	1Year
7.	Coaxial Switch	Anritsu	MP59B	M50564	May.08, 13	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 13	1 Year

3.2. Block Diagram of Test Setup



▨ :50Ω Terminator

3.3. Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. W32 (EUT)

Model Number : W32
Serial Number : N/A

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 3.2.

3.5.2. Turn on the power of all equipment.

3.5.3. Let the EUT work in test mode (TX Mode) and measure it.

3.6. Test Procedure

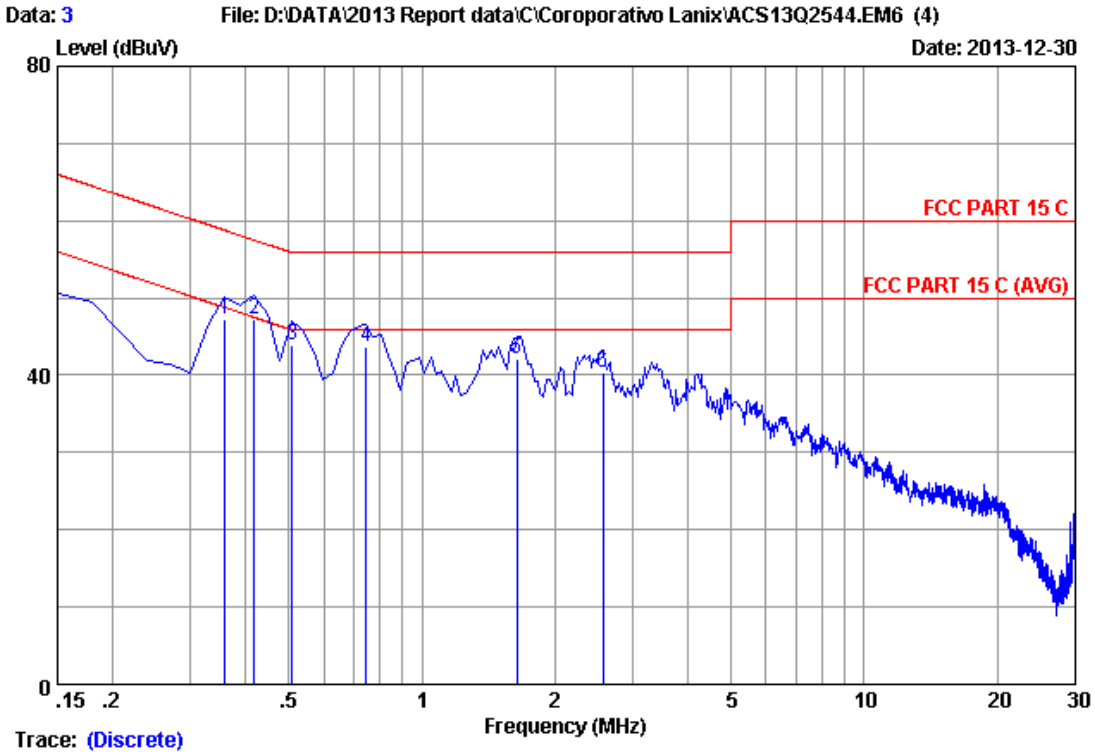
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4-2009 on conducted Emission test.

The bandwidth of test receiver (R&S TEST RECEIVER ESHS10) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked. The test result are reported on Section 3.7.

3.7. Conducted Emission at Mains Terminals Test Results

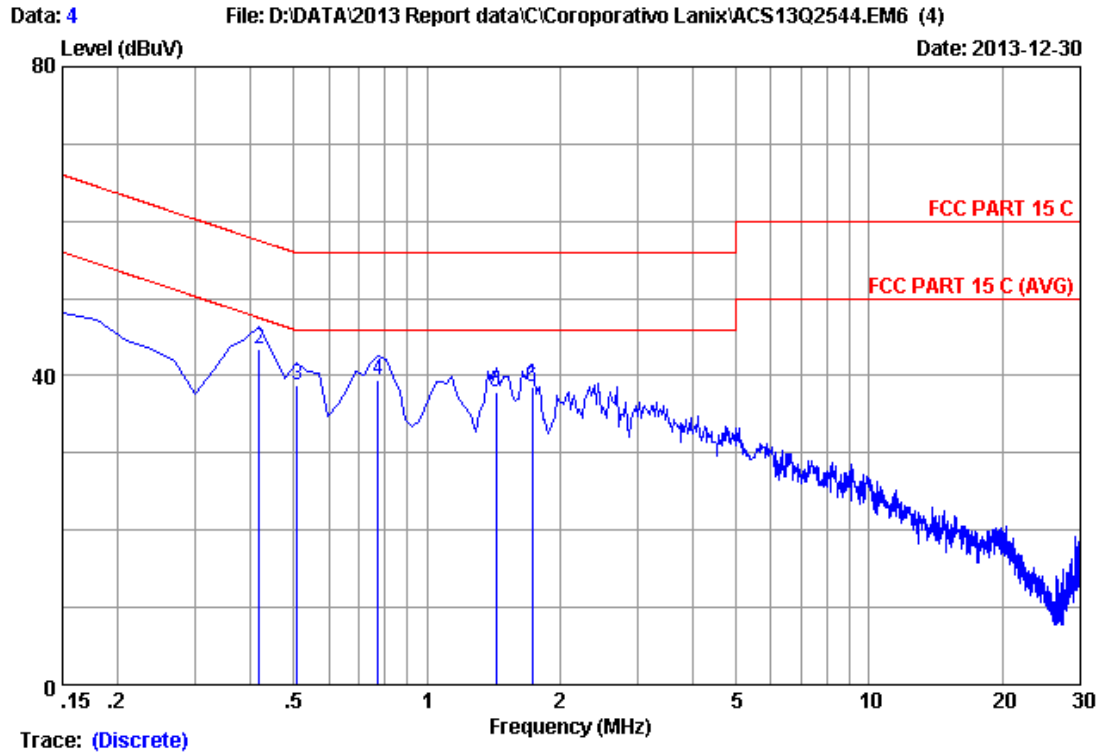
PASS. (All emissions not reported below are too low against the prescribed limits.)



Site no :1#conduction Data No :3
Dis./Ant. :2013 ESH2-Z5 LINE
Limit :FCC PART 15 C
Env./Ins. :23.5*C/65% Engineer :Kevin
EUT :W32
Power Rating :DC 5V From Adapter Input AC 120V/60Hz
Test Mode :Tx Mode(BT)
M/N:W32

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.35895	0.16	0.02	46.96	47.14	58.75	11.61	QP
2	0.41865	0.16	0.02	47.08	47.26	57.47	10.21	QP
3	0.50820	0.16	0.02	43.78	43.96	56.00	12.04	QP
4	0.74700	0.17	0.03	43.41	43.61	56.00	12.39	QP
5	1.643	0.21	0.04	41.85	42.10	56.00	13.90	QP
6	2.568	0.24	0.05	40.01	40.30	56.00	15.70	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.
2.If the average limit is met when useing a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.



Site no :1#conduction Data No :4
Dis./Ant. :2013 ESH2-Z5 NEUTRAL
Limit :FCC PART 15 C
Env./Ins. :23.5*C/65% Engineer :Kevin
EUT :W32
Power Rating :DC 5V From Adapter Input AC 120V/60Hz
Test Mode :Tx Mode(BT)
M/N:W32

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.18	0.01	45.03	45.22	66.00	20.78	QP
2	0.41865	0.22	0.02	43.21	43.45	57.47	14.02	QP
3	0.50820	0.23	0.02	38.47	38.72	56.00	17.28	QP
4	0.77685	0.27	0.03	39.18	39.48	56.00	16.52	QP
5	1.434	0.26	0.03	37.64	37.93	56.00	18.07	QP
6	1.732	0.26	0.04	38.15	38.45	56.00	17.55	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.
2.If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. RADIATED EMISSION MEASUREMENT

4.1.Test Equipment

Frequency rang: 30~1000MHz

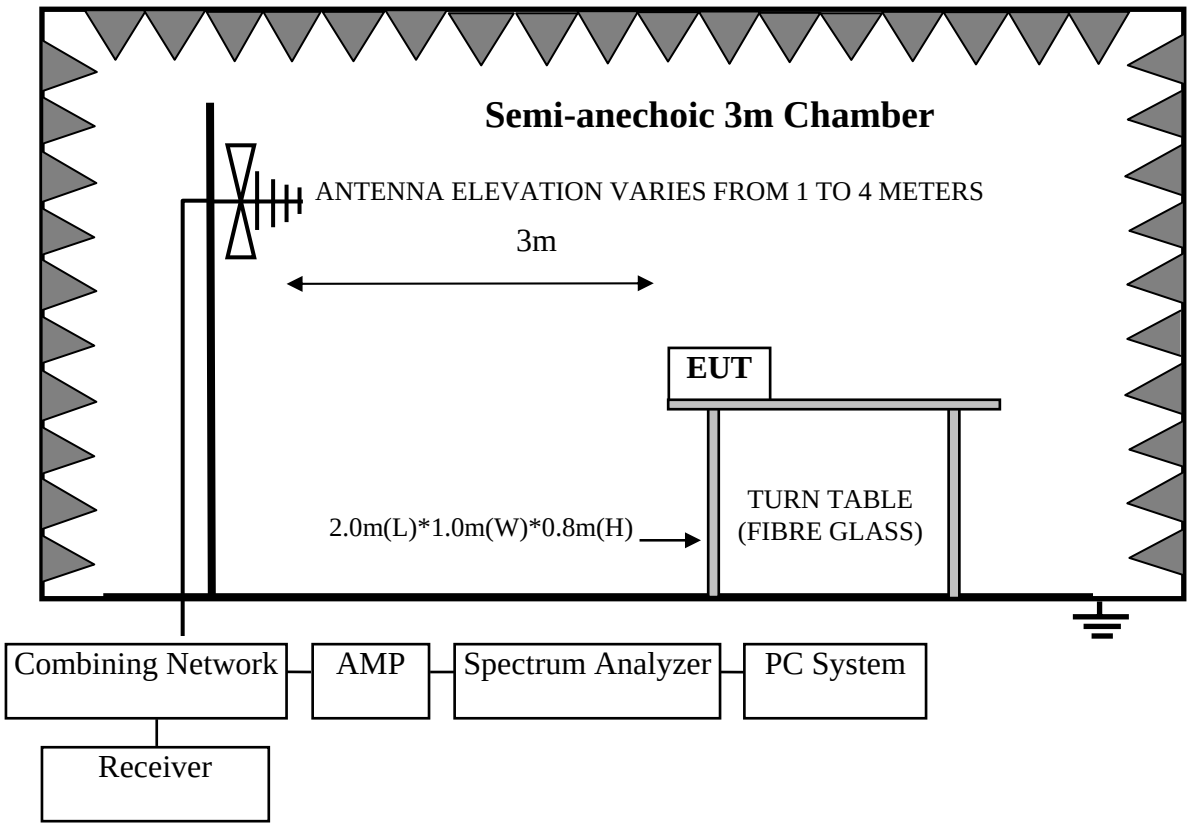
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Nov.24, 13	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 13	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 13	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 13	1 Year
5	Bilog Antenna	TESEQ	CBL6112D	35375	May.30, 13	1 Year
6	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	May.08, 13	1 Year
7	Coaxial Switch	Anritsu	MP59B	M74389	May.08, 13	1 Year

Frequency rang: above 1000MHz

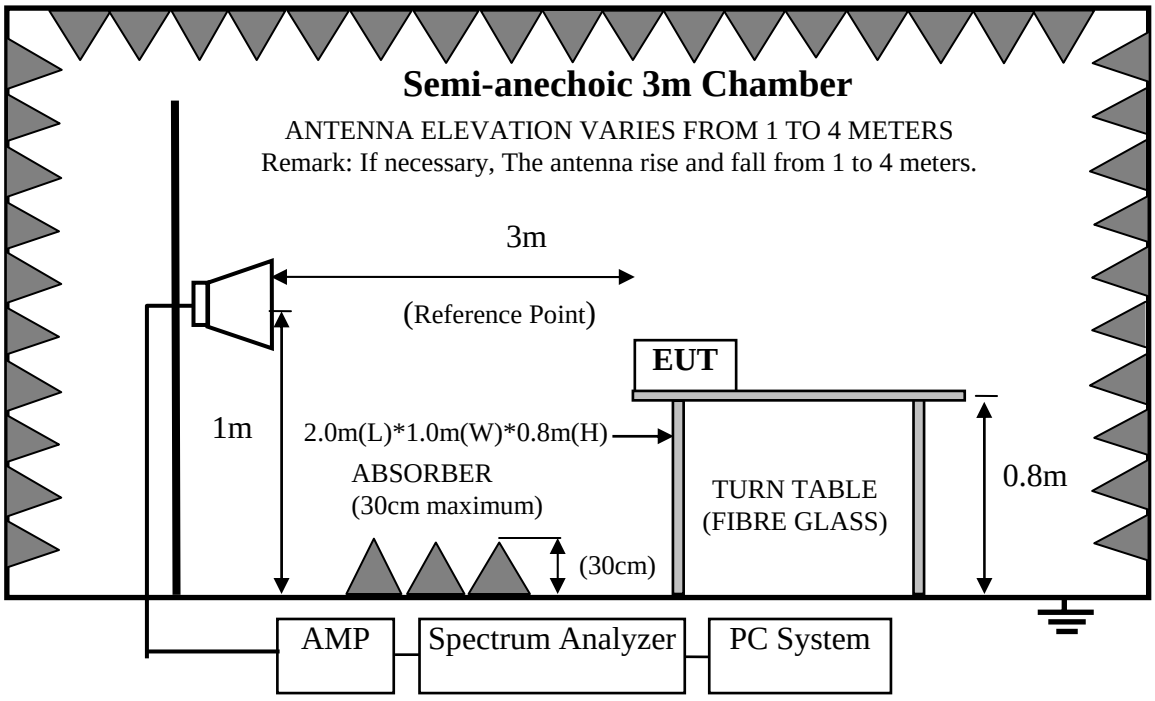
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 13	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	Aug.27, 13	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 13	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	May.08, 13	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX106	28616/2	May.08, 13	1 Year
6	Horn Antenna	EMCO	3116	00060089	Aug.28, 13	1 Year

4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3.Radiated Emission Limit Standard: FCC 15.209

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000MHz	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark： (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

(4) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

4.4.EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.4.1. W32 (EUT)

Model Number : W32
Serial Number : N/A

4.5.Operating Condition of EUT

4.5.1. Setup the EUT and simulator as shown as Section 3.2.

4.5.2. Turned on the power of all equipment.

4.5.3. Let EUT work in Tx mode.

4.6.Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.10-2009 on radiated emission Test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as the test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's RBW is set at 1MHz and VBW is set at 3MHz for peak emissions measurement above 1GHz

This device is pulse Modulated, a duty cycle factor was used to calculated average level based measured peak level.

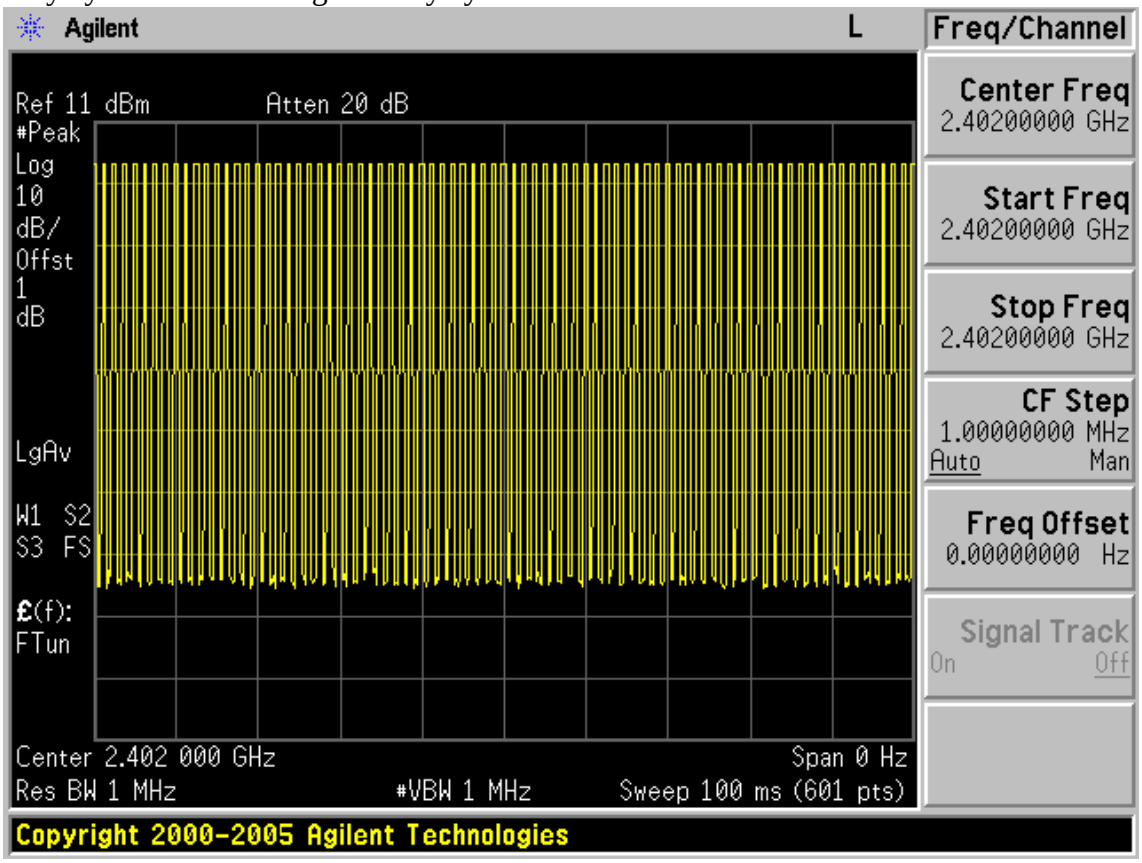
The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

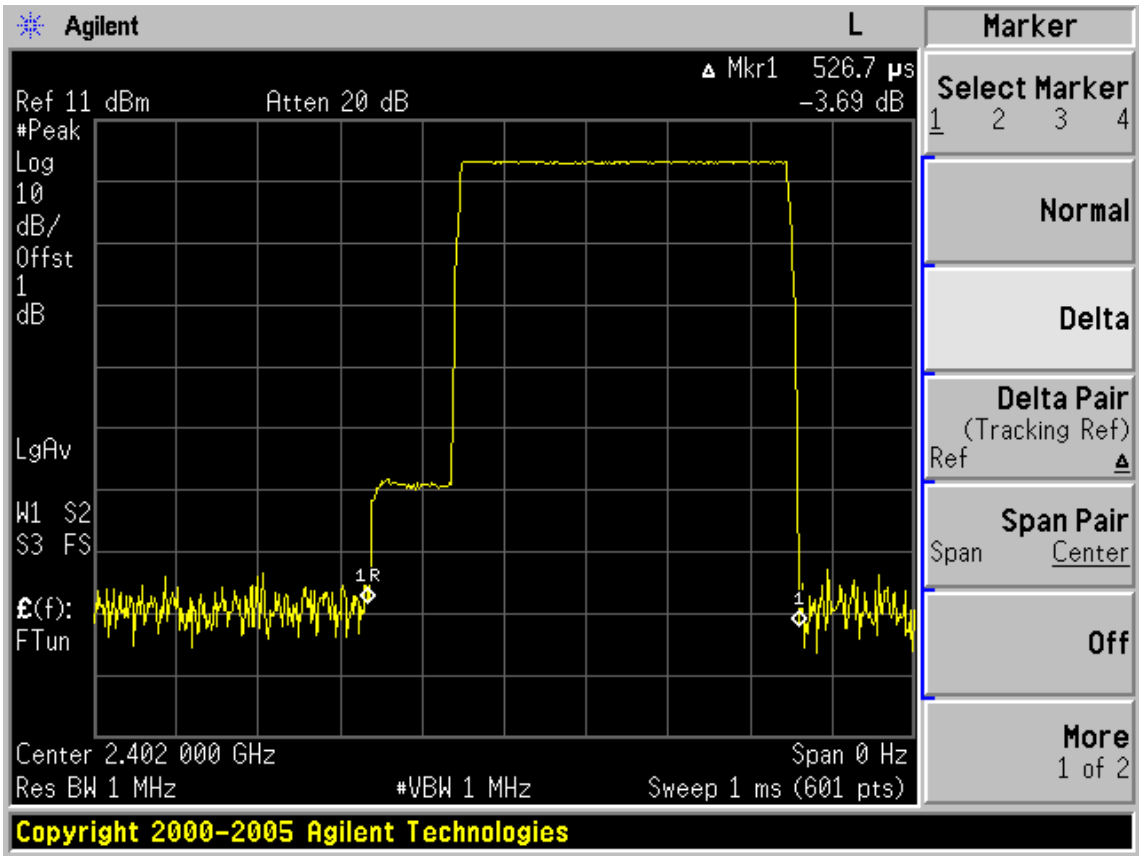
4.7. Radiated Emission Test Results

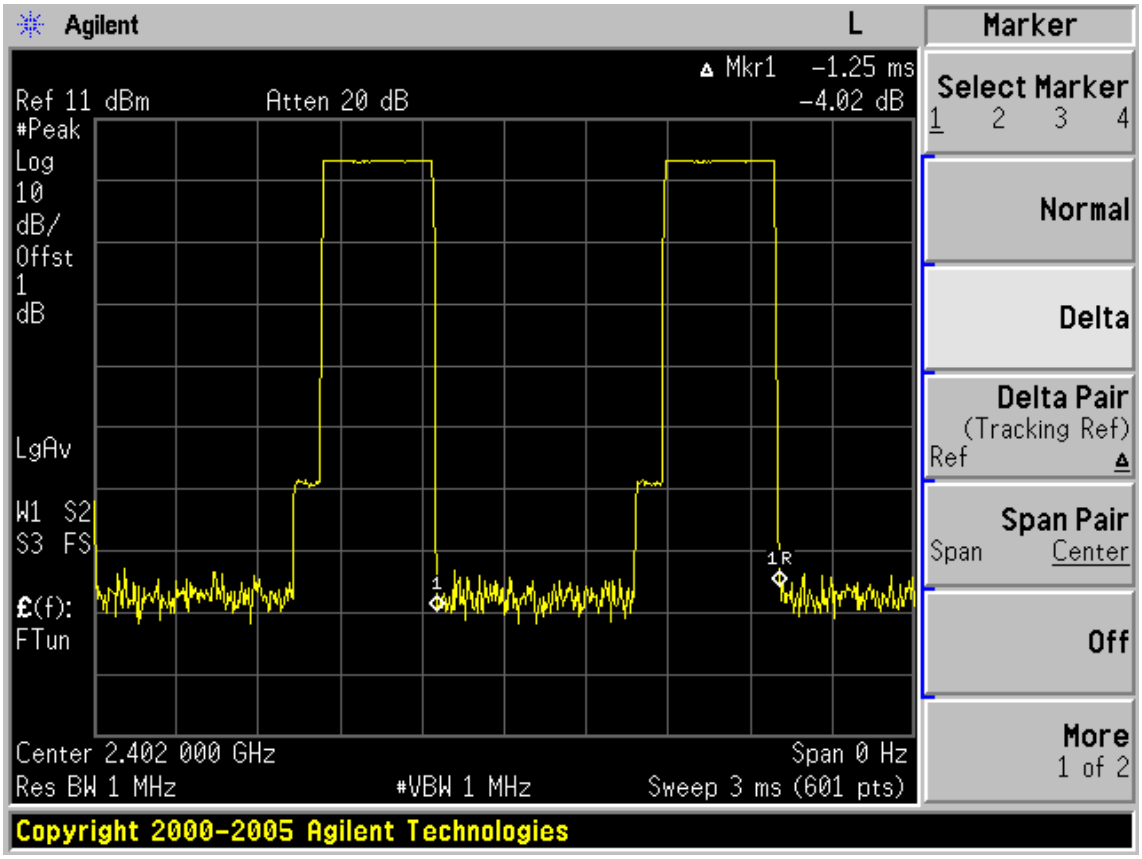
PASS.

All the emissions from 30MHz to 25GHz were comply wit7.5dB, and average limit is 20dB below peak limit, so if peak measured level comply with peak limit, the average level was deemed to comply with average limit.

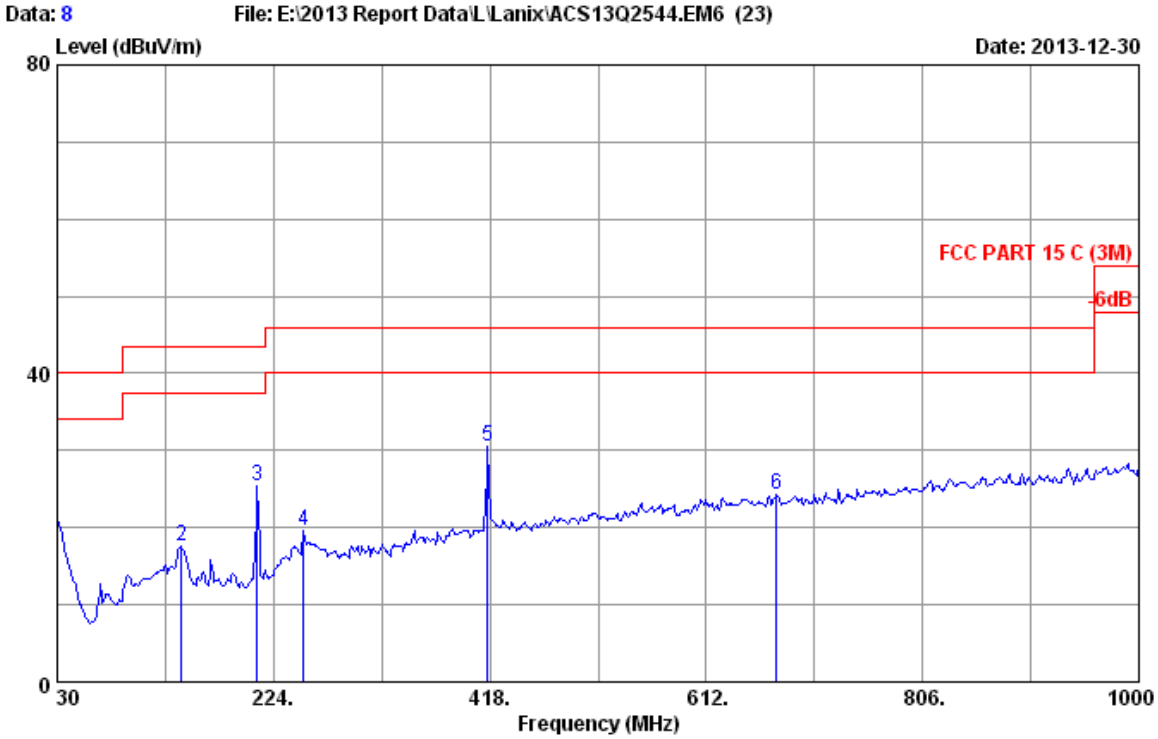
Duty cycle: 0.5267ms /1.25ms *100% = 42%
Duty cycle factor = 20log（1/duty cycle）= 7.5






Agilent
L
Marker
Mkr1 -1.25 ms
-4.02 dB
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 FS
£(f):
FTun
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 2.402 000 GHz
Span 0 Hz
Res BW 1 MHz
#VBW 1 MHz
Sweep 3 ms (601 pts)
Copyright 2000-2005 Agilent Technologies

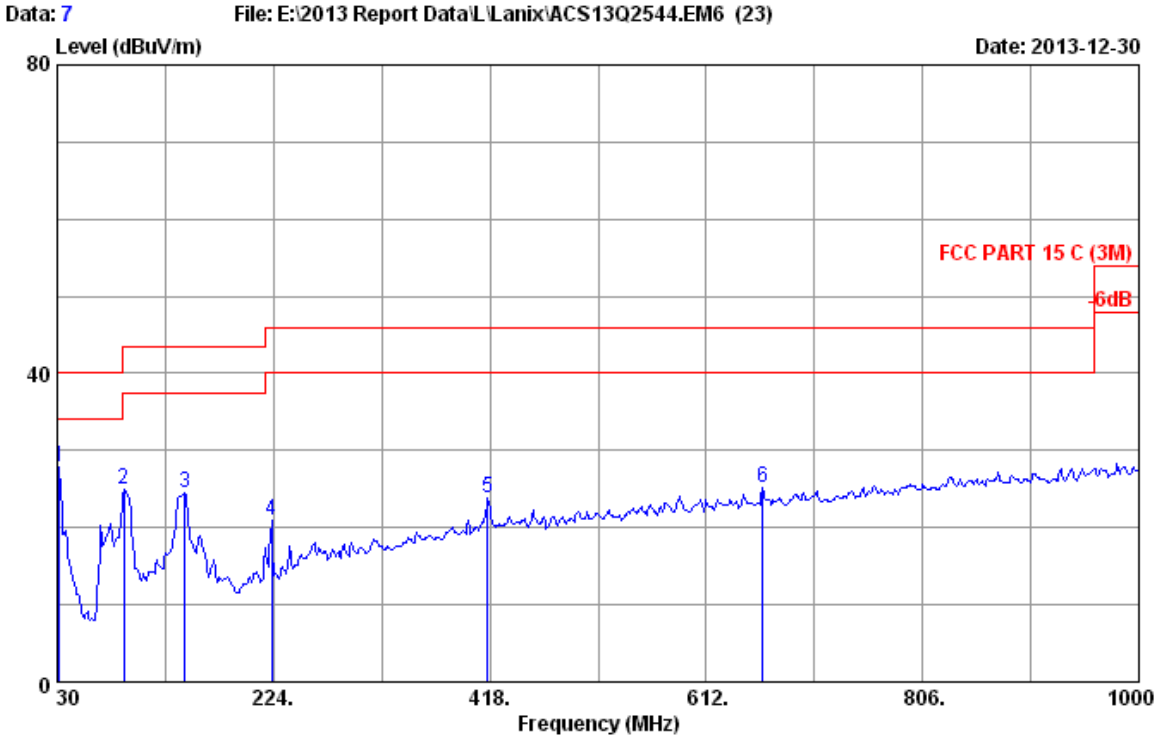
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24*C/65% Engineer : Kevin
EUT : W32
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode
M/N:W32

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.10	0.83	0.13	21.06	40.00	18.94	QP
2	141.550	11.89	1.57	4.13	17.59	43.50	25.91	QP
3	209.450	10.63	1.83	12.97	25.43	43.50	18.07	QP
4	251.160	13.16	1.98	4.36	19.50	46.00	26.50	QP
5	416.060	17.32	2.51	10.78	30.61	46.00	15.39	QP
6	675.050	19.80	3.25	1.35	24.40	46.00	21.60	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

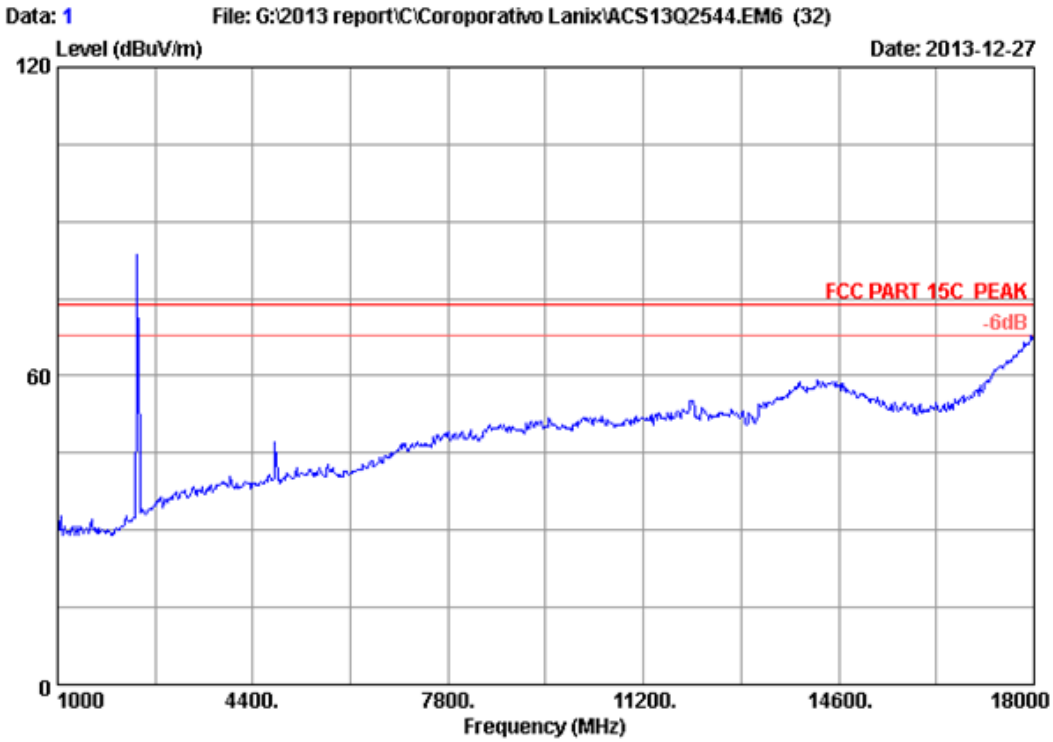


Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24*C/65% Engineer : Kevin
EUT : W32
Power rating : DC 5V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode
M/N:W32

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	31.940	18.84	0.86	8.10	27.80	40.00	12.20	QP
2	90.140	9.43	1.37	14.11	24.91	43.50	18.59	QP
3	144.460	11.65	1.58	11.32	24.55	43.50	18.95	QP
4	222.060	10.70	1.87	8.45	21.02	46.00	24.98	QP
5	416.060	17.32	2.51	4.07	23.90	46.00	22.10	QP
6	662.440	19.65	3.22	2.21	25.08	46.00	20.92	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~18GHz

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Site no.      : 3m Chamber                Data no.   : 1
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : GFSK 2402MHz Tx Mode
M/N           : W32
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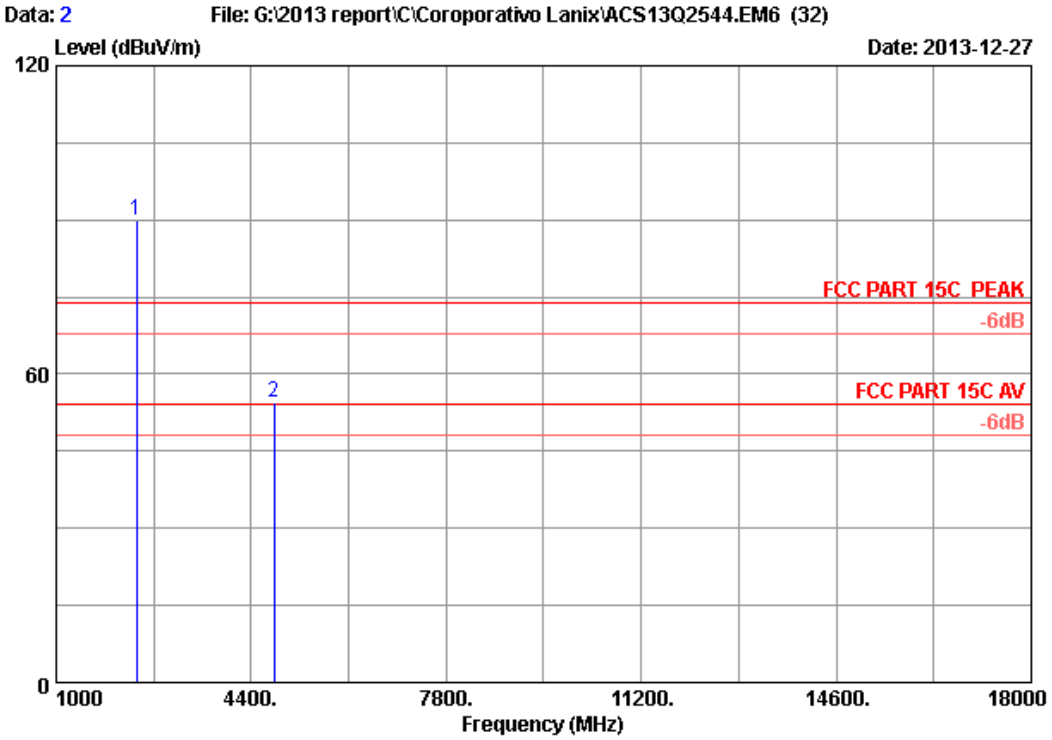
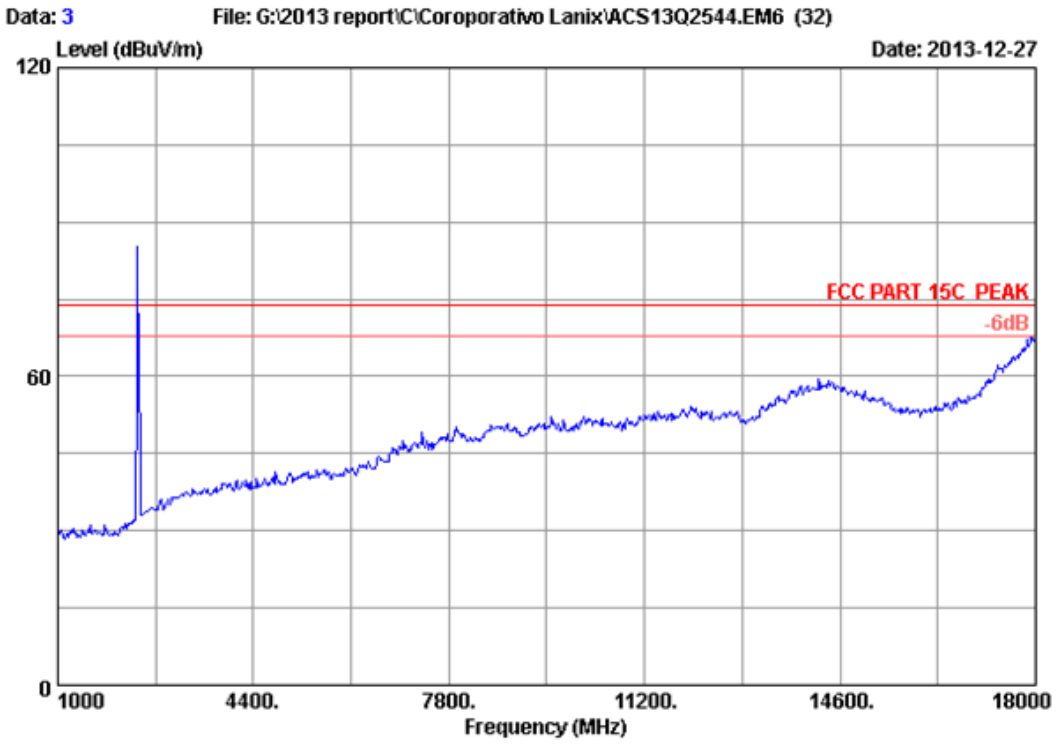


Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2402MHz Tx Mode
M/N : W32

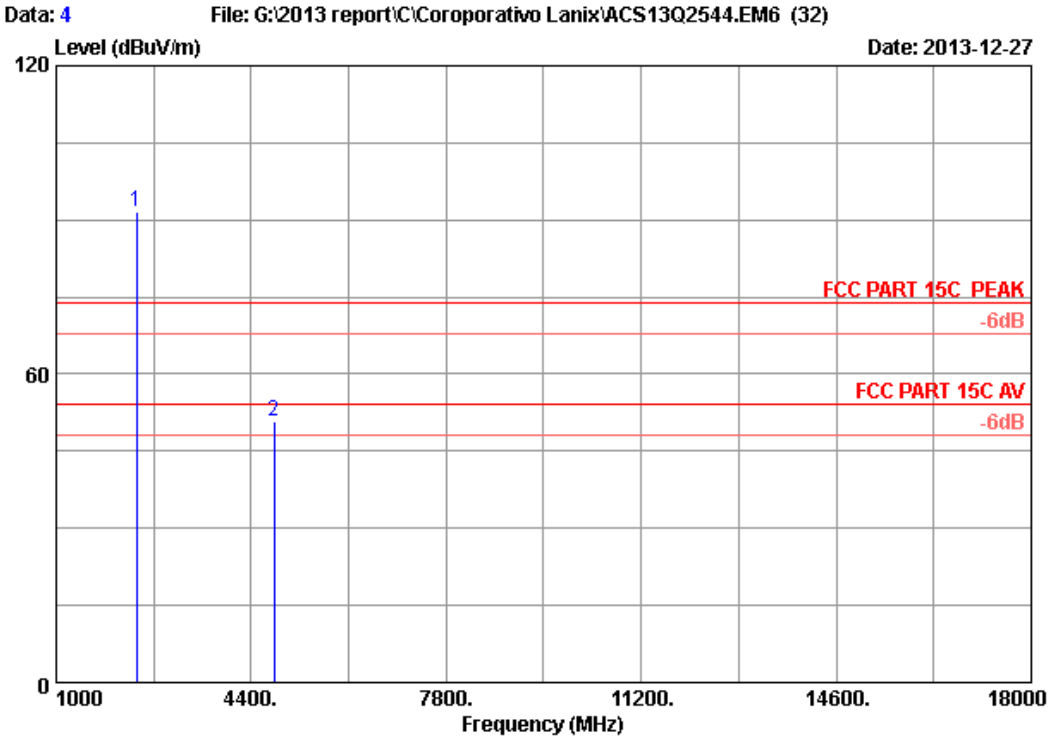
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.18	5.80	35.70	91.63	89.91	74.00	-15.91	Peak
2	4804.000	32.85	8.56	35.70	48.81	54.52	74.00	19.48	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Frequency（MHz）	Peak level（dBuv/m）	Duty cycle factor (dB)	AV level (dBuv/m)	Limit(dBuv/m)	Conclusion
4804.000	54.52	7.5	47.02	54	Pass



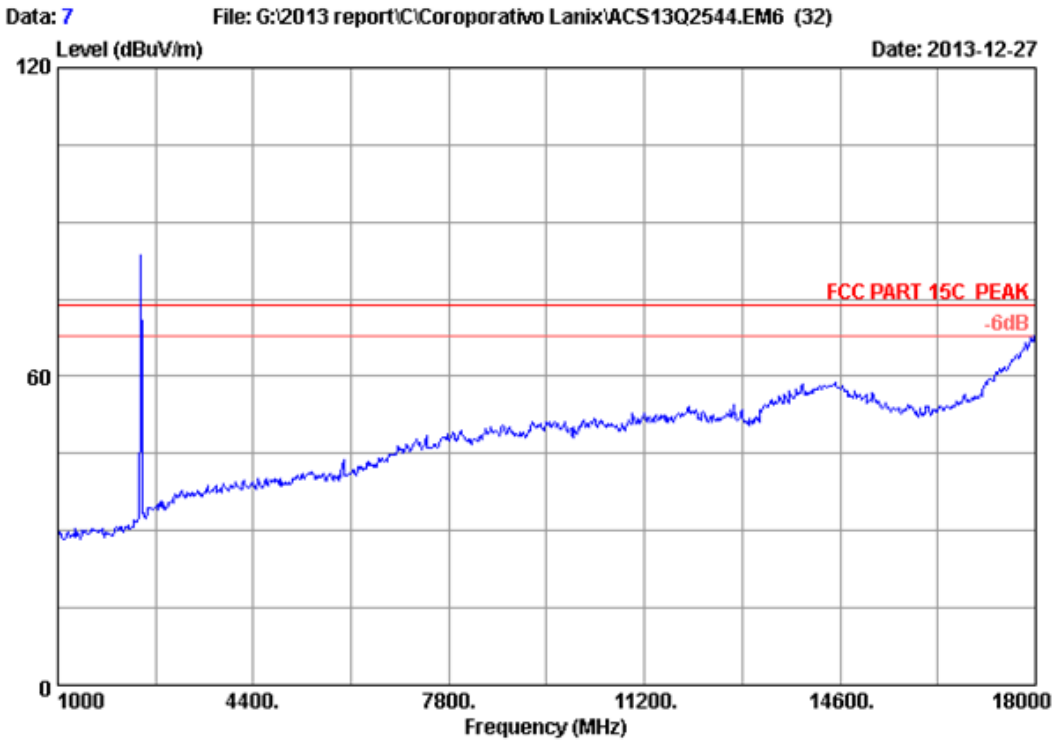

```
Site no.      : 3m Chamber                Data no.   : 3
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : GFSK 2402MHz Tx Mode
M/N           : W32
```



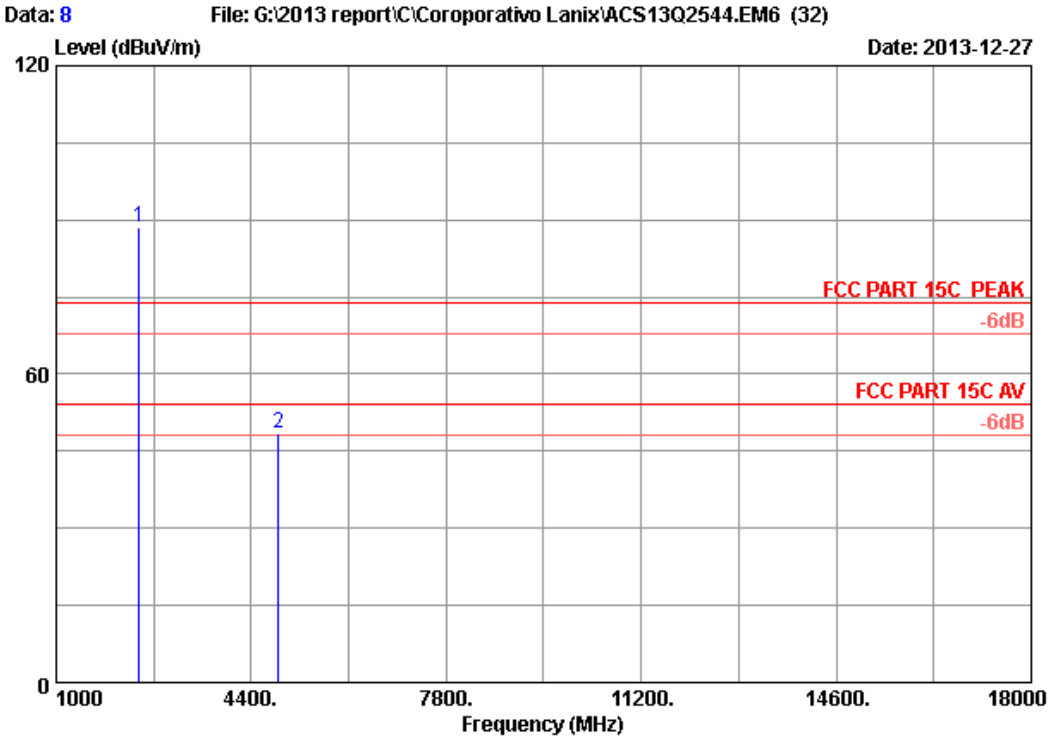
Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2402MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.18	5.80	35.70	93.35	91.63	74.00	-17.63	Peak
2	4804.000	32.85	8.56	35.70	45.16	50.87	74.00	23.13	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



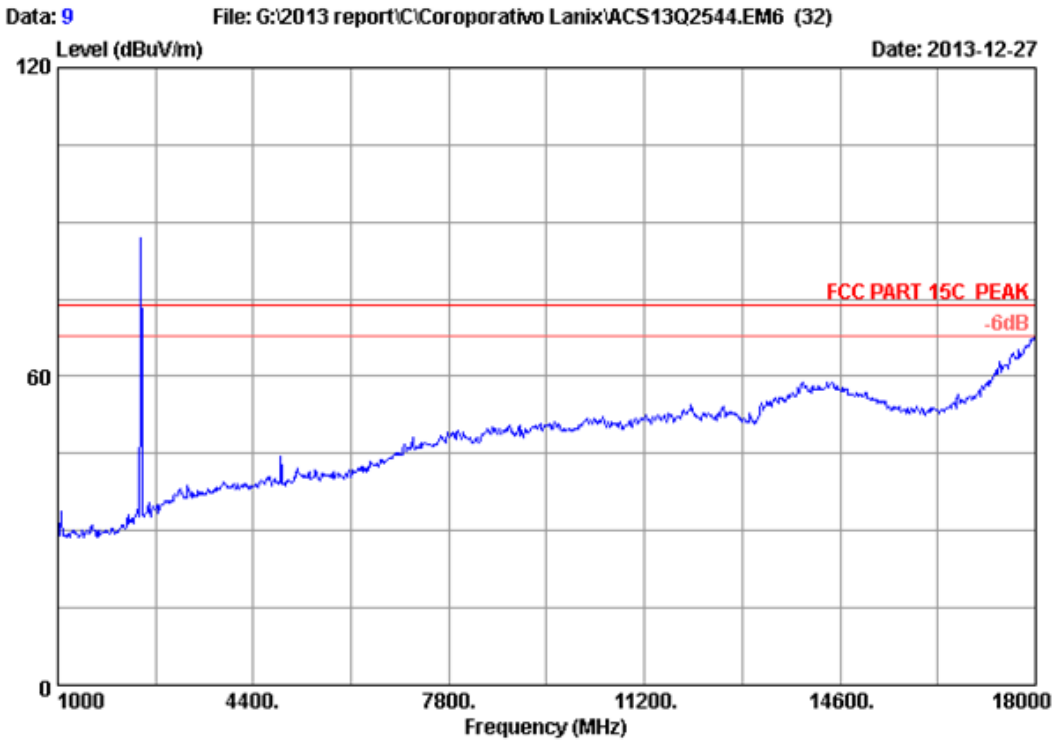
Site no.	: 3m Chamber	Data no.	: 7
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Leo-Li
EUT	: W32		
Power supply	: DC 5V From Adapter Input AC 120V/60Hz		
Test mode	: GFSK 2441MHz Tx Mode		
M/N	: W32		



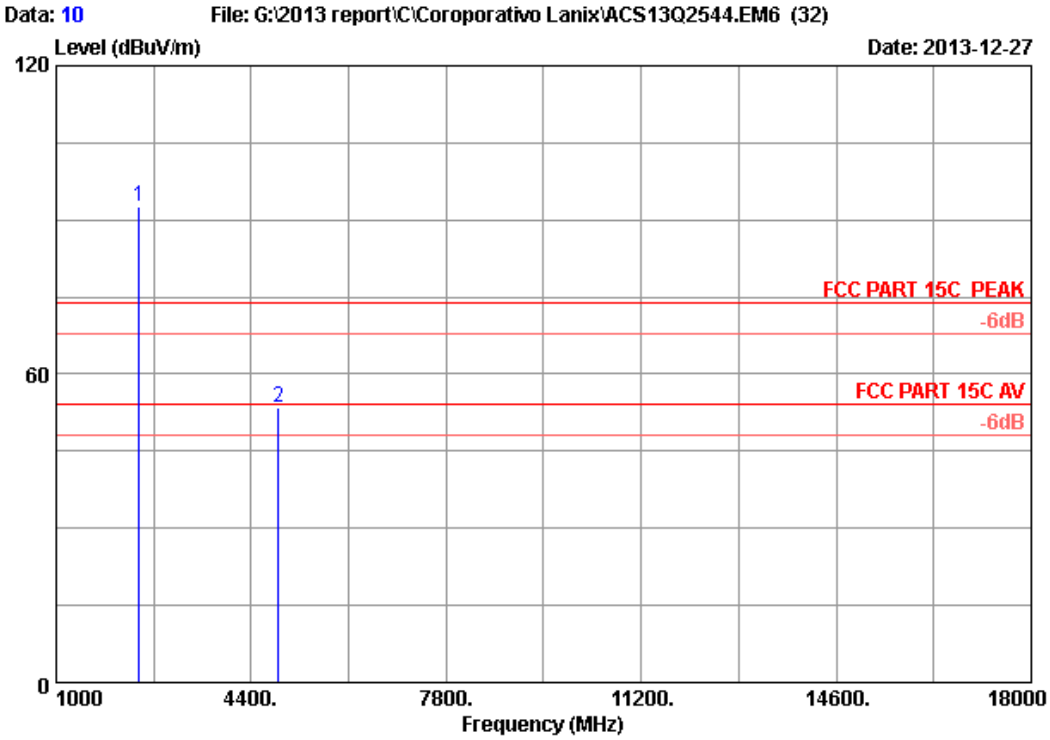
Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2441MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.27	5.86	35.70	90.02	88.45	74.00	-14.45	Peak
2	4882.000	32.99	8.64	35.70	42.65	48.58	74.00	25.42	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



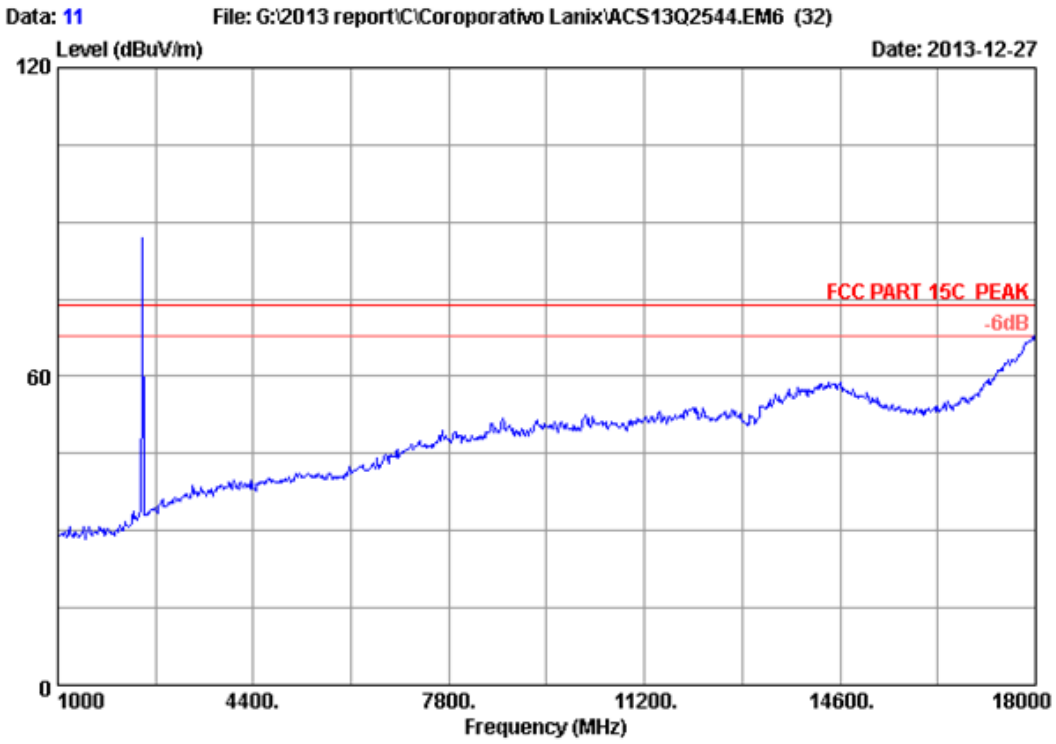

```
Site no.      : 3m Chamber                Data no.   : 9
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : GFSK 2441MHz Tx Mode
M/N           : W32
```



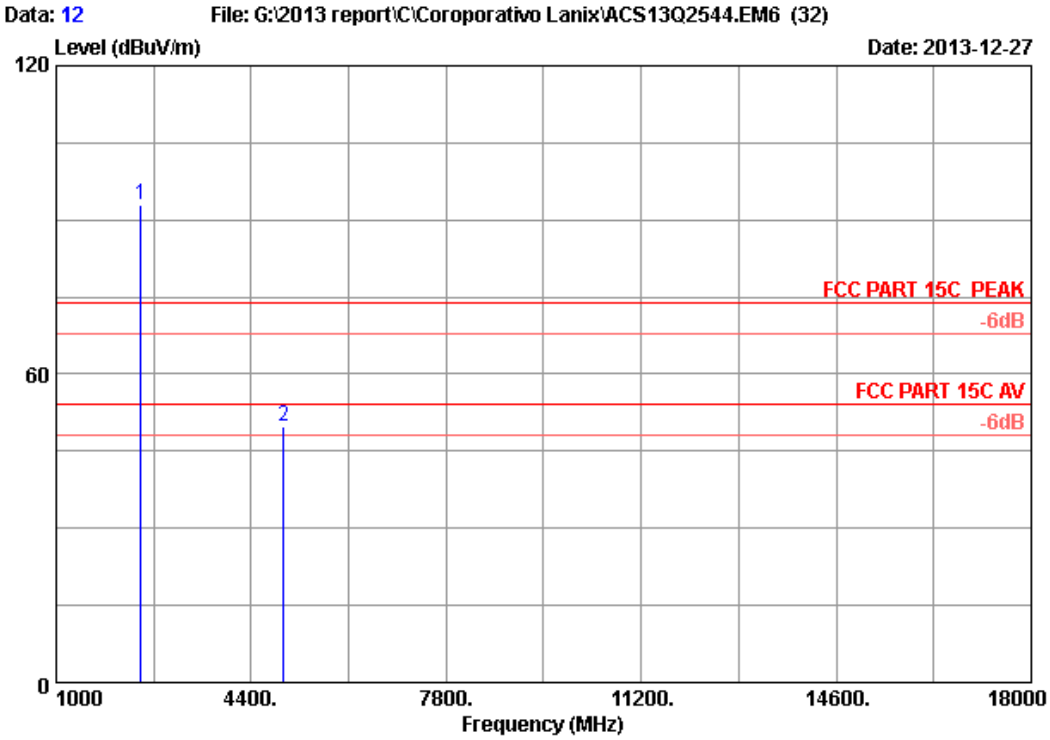
Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2441MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.27	5.86	35.70	94.17	92.60	74.00	-18.60	Peak
2	4882.000	32.99	8.64	35.70	47.68	53.61	74.00	20.39	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



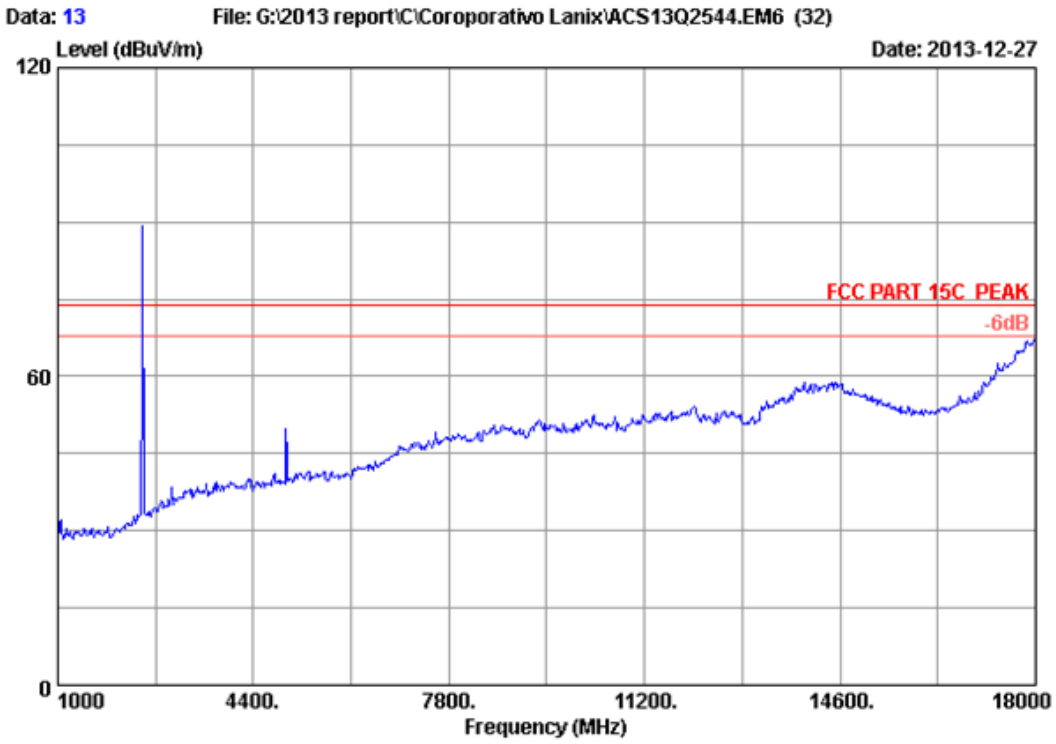
Site no.	: 3m Chamber	Data no.	: 11
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Leo-Li
EUT	: W32		
Power supply	: DC 5V From Adapter Input AC 120V/60Hz		
Test mode	: GFSK 2480MHz Tx Mode		
M/N	: W32		



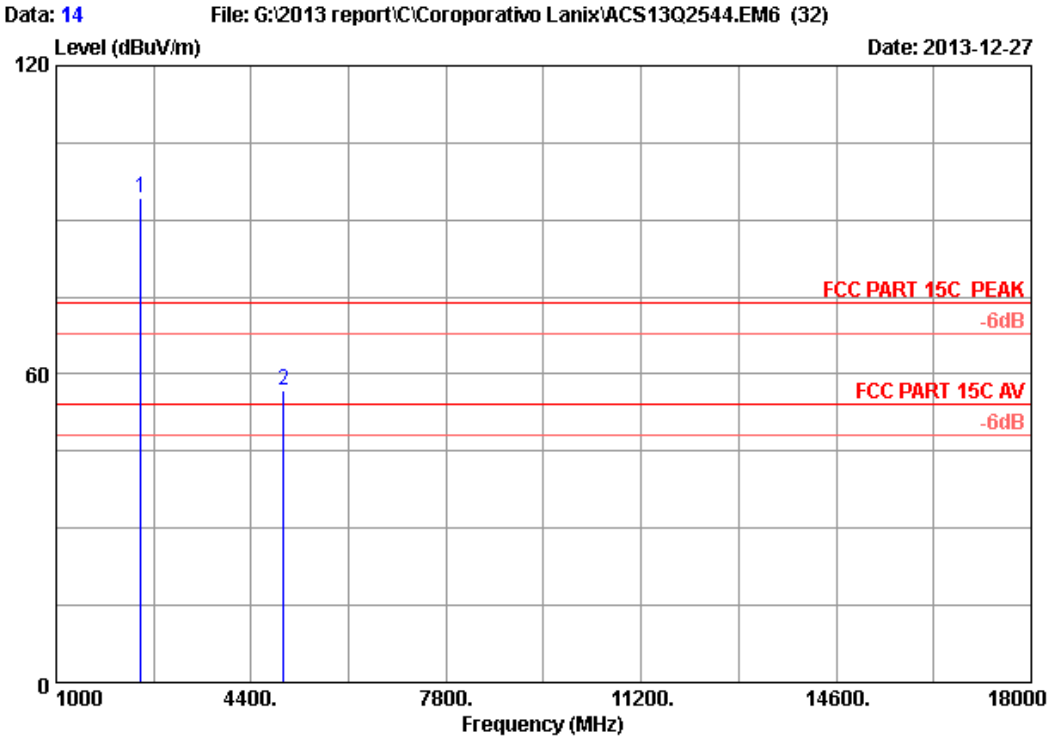
Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2480MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.36	5.91	35.70	94.51	93.08	74.00	-19.08	Peak
2	4960.000	33.13	8.72	35.70	43.67	49.82	74.00	24.18	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no.	: 3m Chamber	Data no.	: 13
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Leo-Li
EUT	: W32		
Power supply	: DC 5V From Adapter Input AC 120V/60Hz		
Test mode	: GFSK 2480MHz Tx Mode		
M/N	: W32		

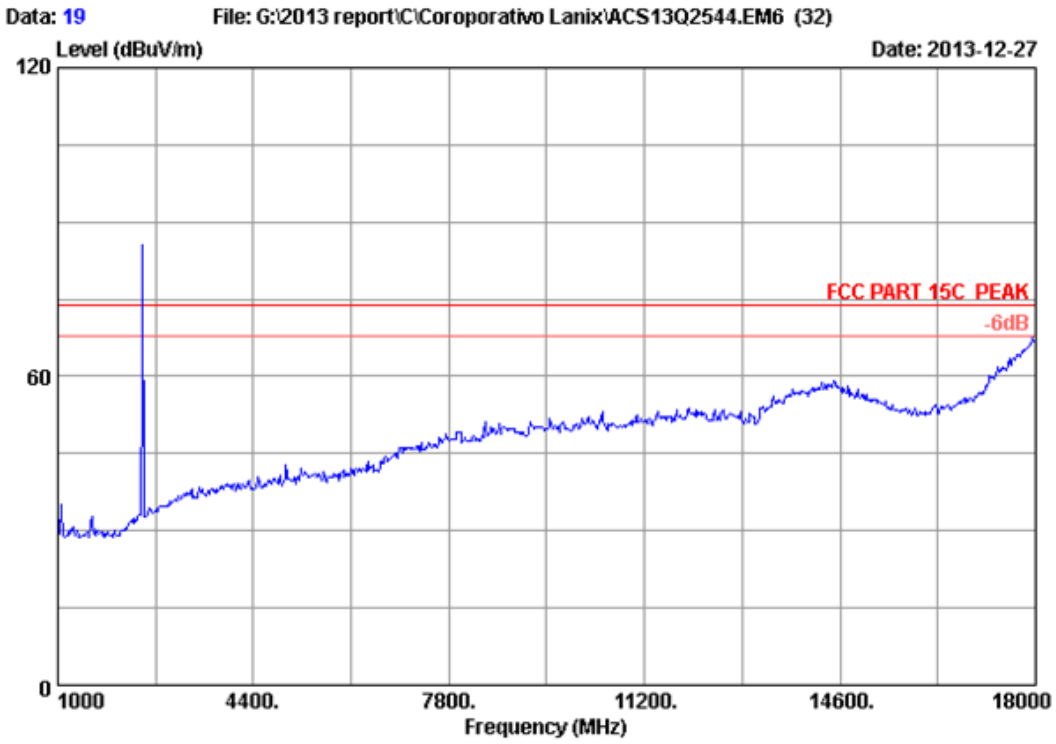



```
Site no.      : 3m Chamber                Data no.   : 14
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : GFSK 2480MHz Tx Mode
M/N           : W32
```

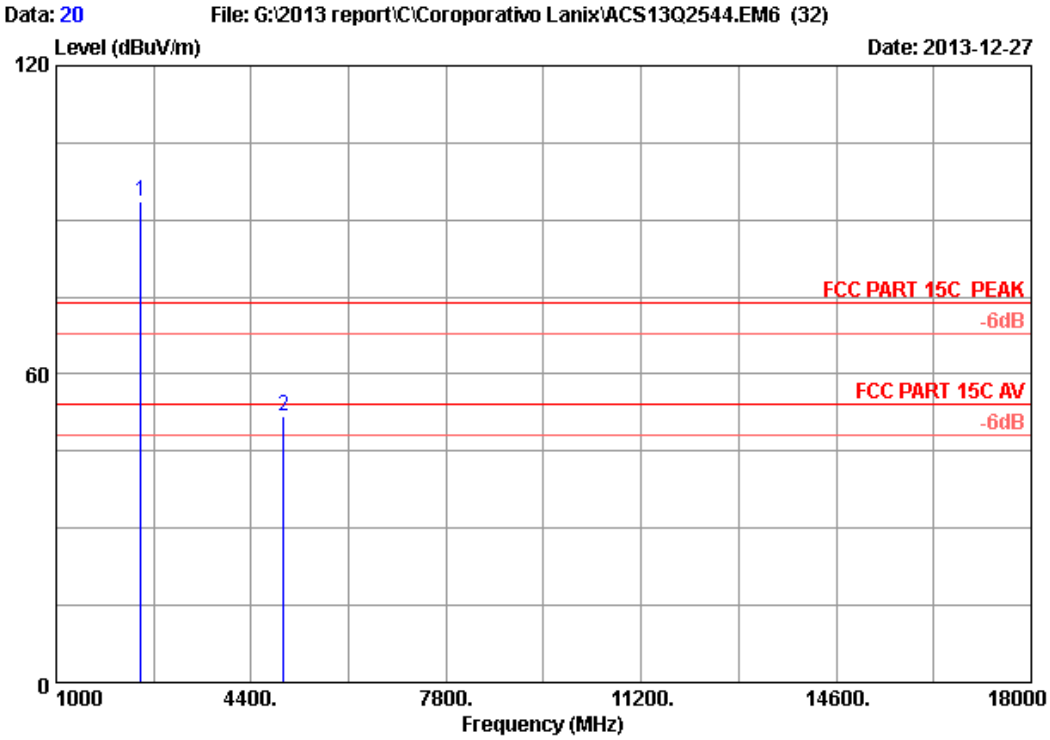
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.36	5.91	35.70	95.76	94.33	74.00	-20.33	Peak
2	4960.000	33.13	8.72	35.70	50.68	56.83	74.00	17.17	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Frequency（MHz）	Peak level（dBuv/m）	Duty cycle factor (dB)	AV level (dBuv/m)	Limit(dBuv/m)	Conclusion
4960.000	56.83	7.5	49.33	54	Pass



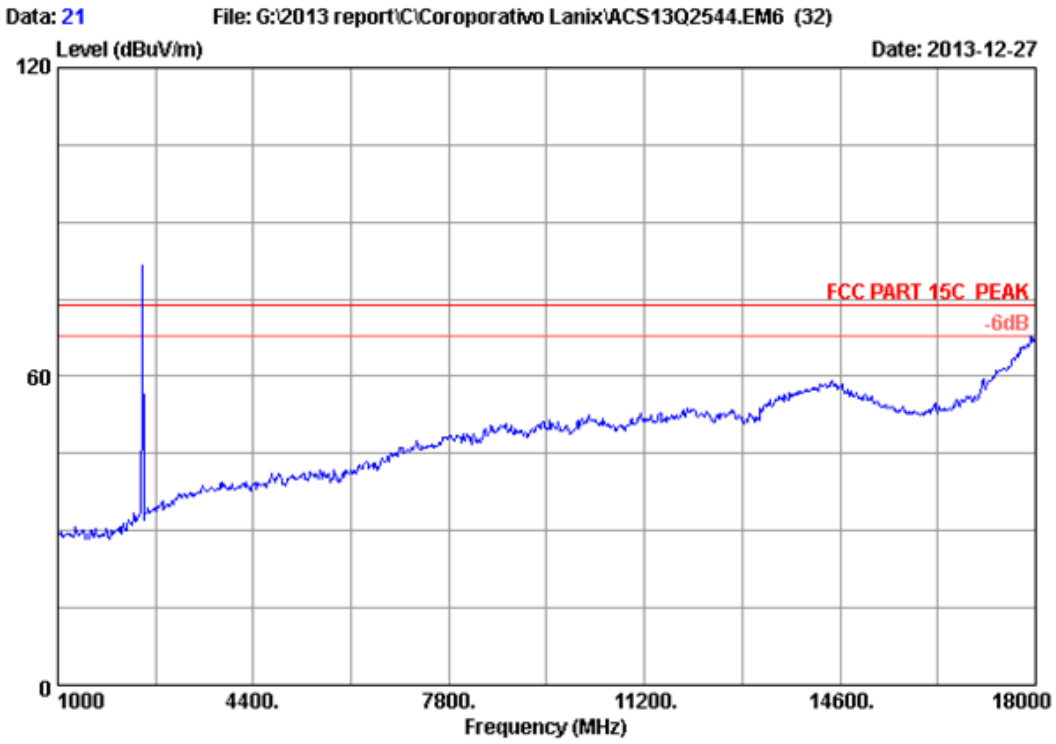

```
Site no.      : 3m Chamber                Data no.   : 19
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : 8-DPSK 2480MHz Tx Mode
M/N           : W32
```



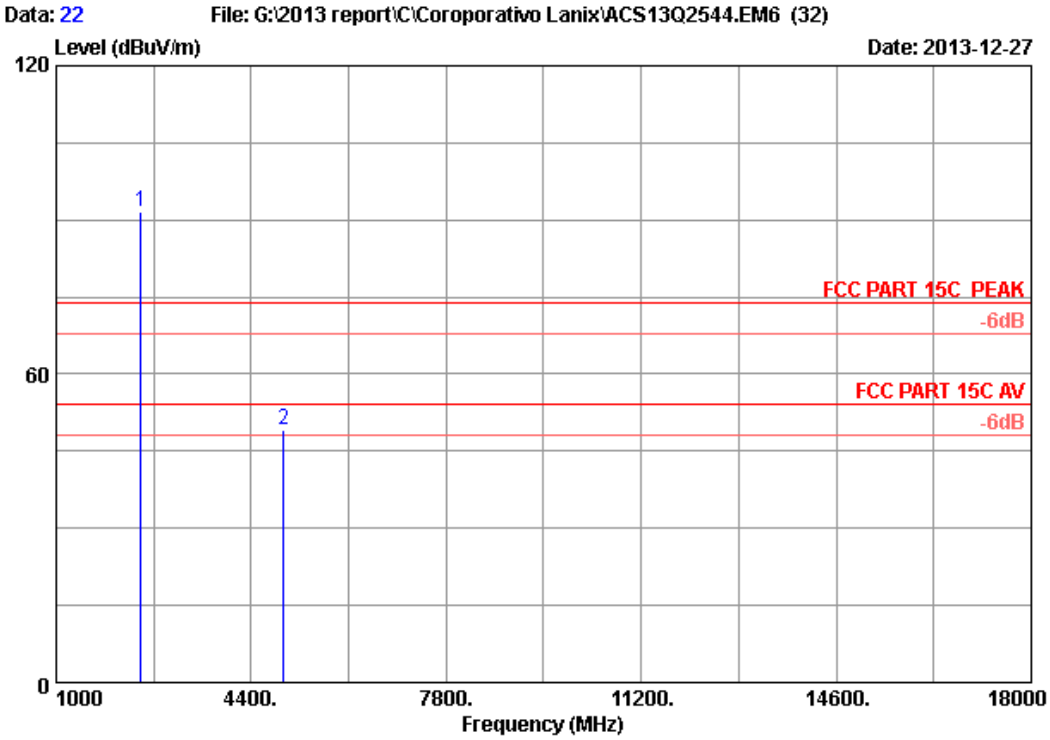
Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2480MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.36	5.91	35.70	94.92	93.49	74.00	-19.49	Peak
2	4960.000	33.13	8.72	35.70	45.72	51.87	74.00	22.13	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



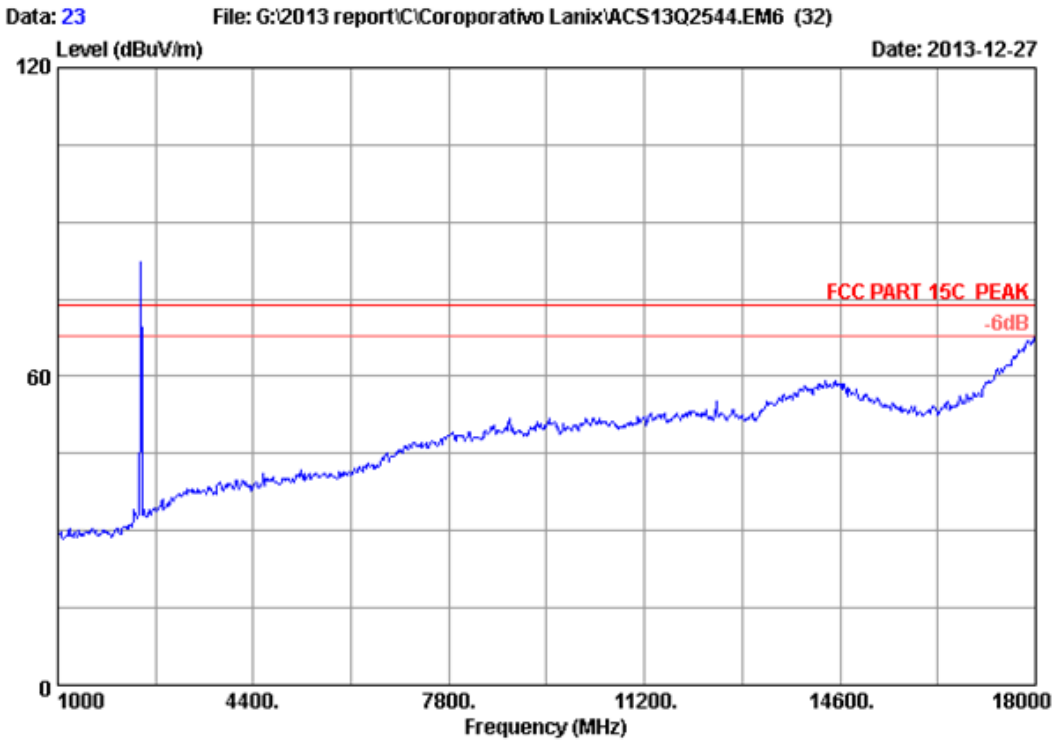
Site no.	: 3m Chamber	Data no.	: 21
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Leo-Li
EUT	: W32		
Power supply	: DC 5V From Adapter Input AC 120V/60Hz		
Test mode	: 8-DPSK 2480MHz Tx Mode		
M/N	: W32		



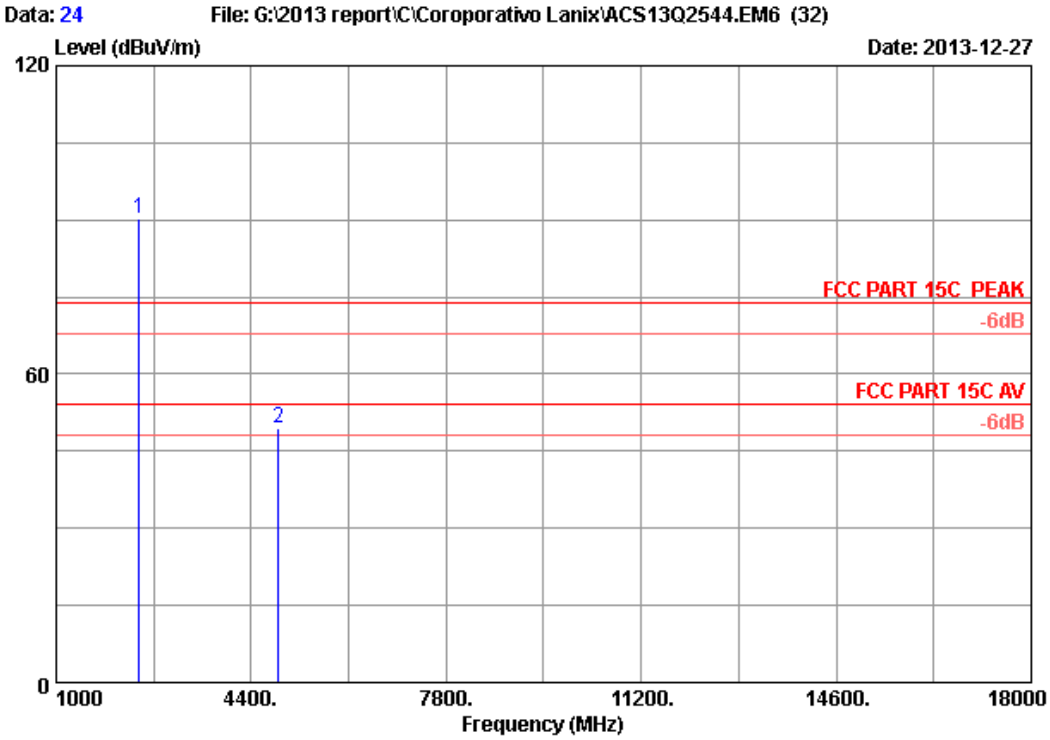
Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2480MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.000	28.36	5.91	35.70	92.99	91.56	74.00	-17.56	Peak
2	4960.000	33.13	8.72	35.70	43.14	49.29	74.00	24.71	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



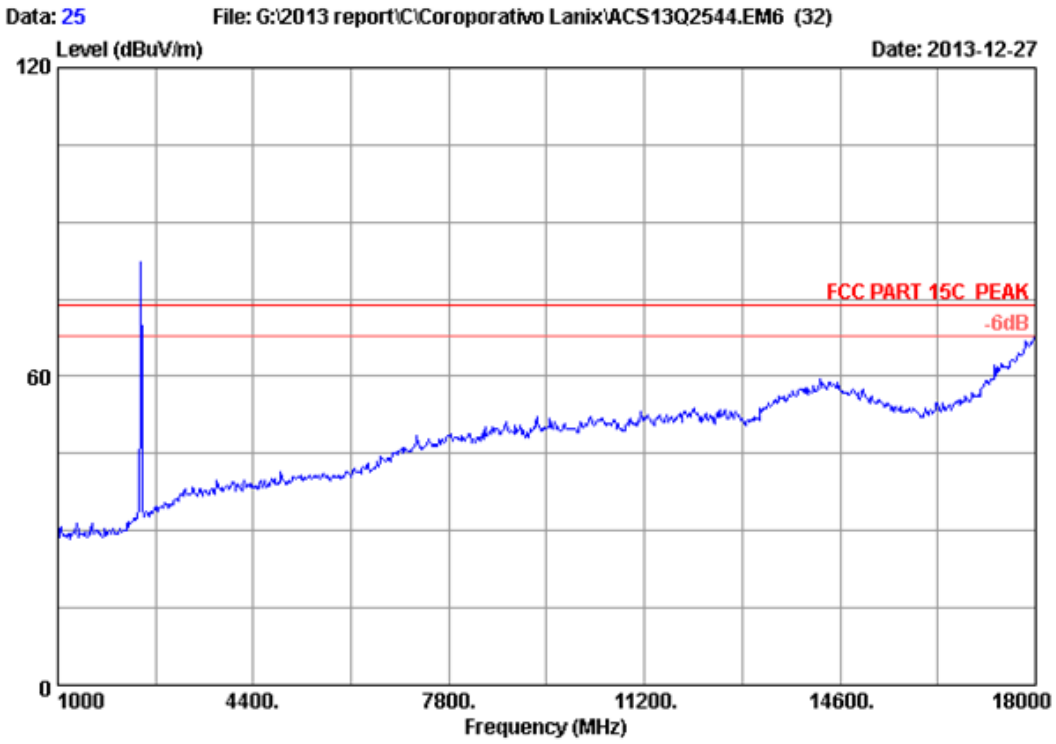

```
Site no.      : 3m Chamber                Data no.   : 23
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : 8-DPSK 2441MHz Tx Mode
M/N           : W32
```



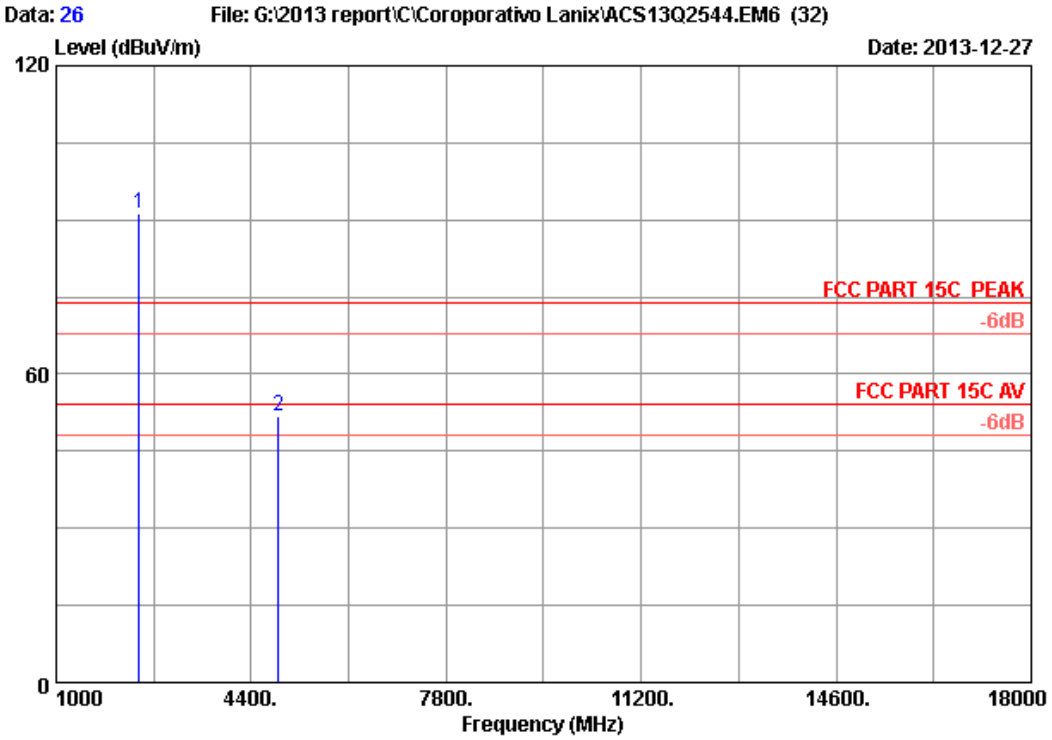
Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2441MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.27	5.86	35.70	91.84	90.27	74.00	-16.27	Peak
2	4882.000	32.99	8.64	35.70	43.58	49.51	74.00	24.49	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



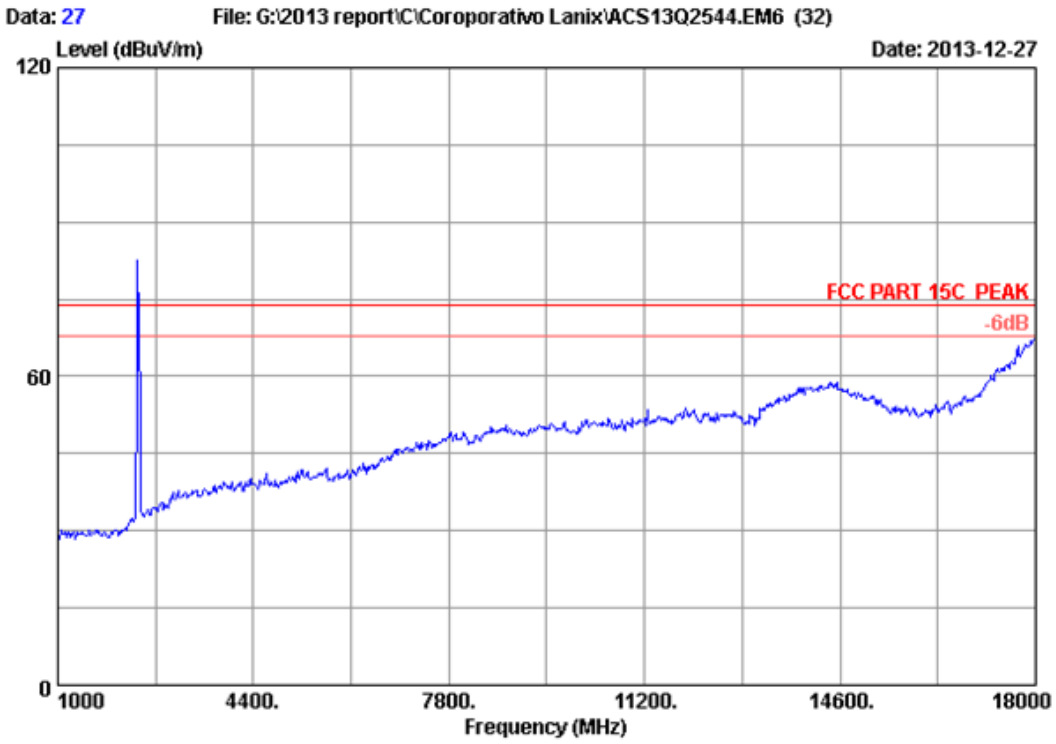

```
Site no.      : 3m Chamber                Data no.   : 25
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : 8-DPSK 2441MHz Tx Mode
M/N           : W32
```



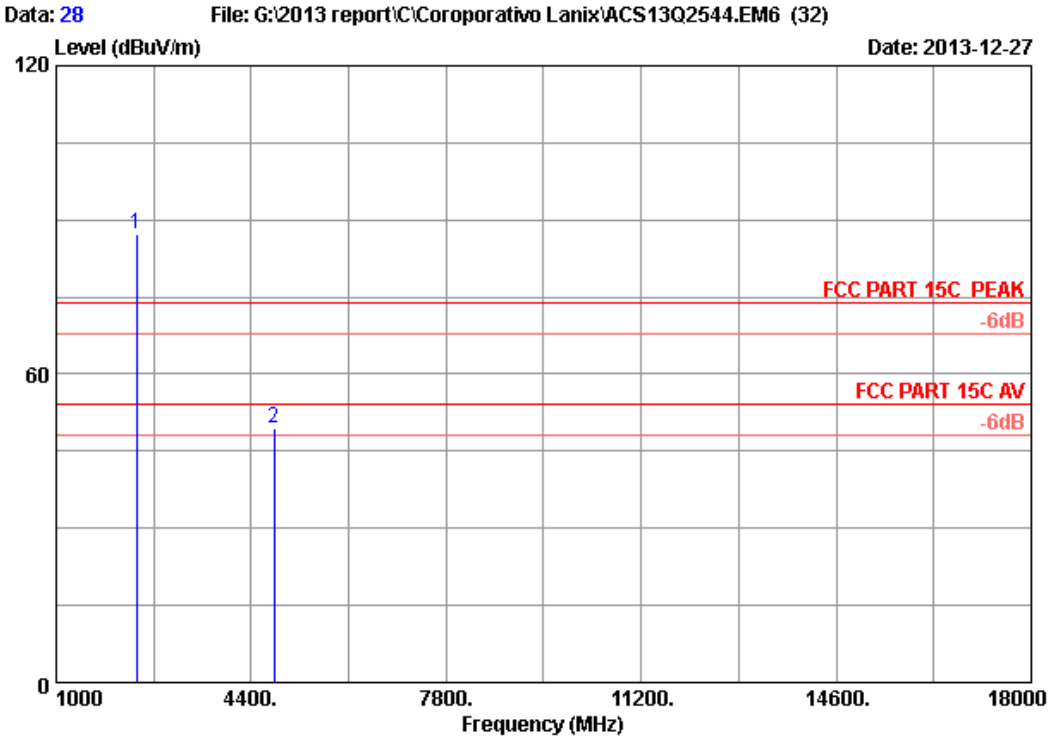
Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2441MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.000	28.27	5.86	35.70	92.92	91.35	74.00	-17.35	Peak
2	4882.000	32.99	8.64	35.70	45.89	51.82	74.00	22.18	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



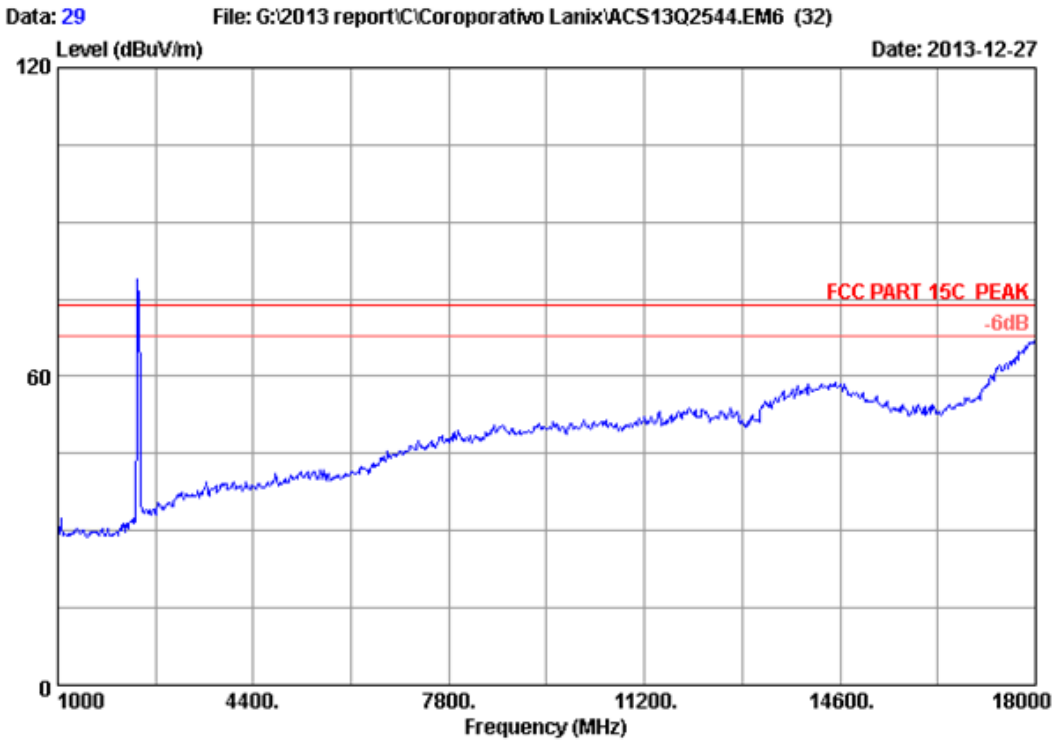

```
Site no.      : 3m Chamber                Data no.   : 27
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : 8-DPSK 2402MHz Tx Mode
M/N           : W32
```



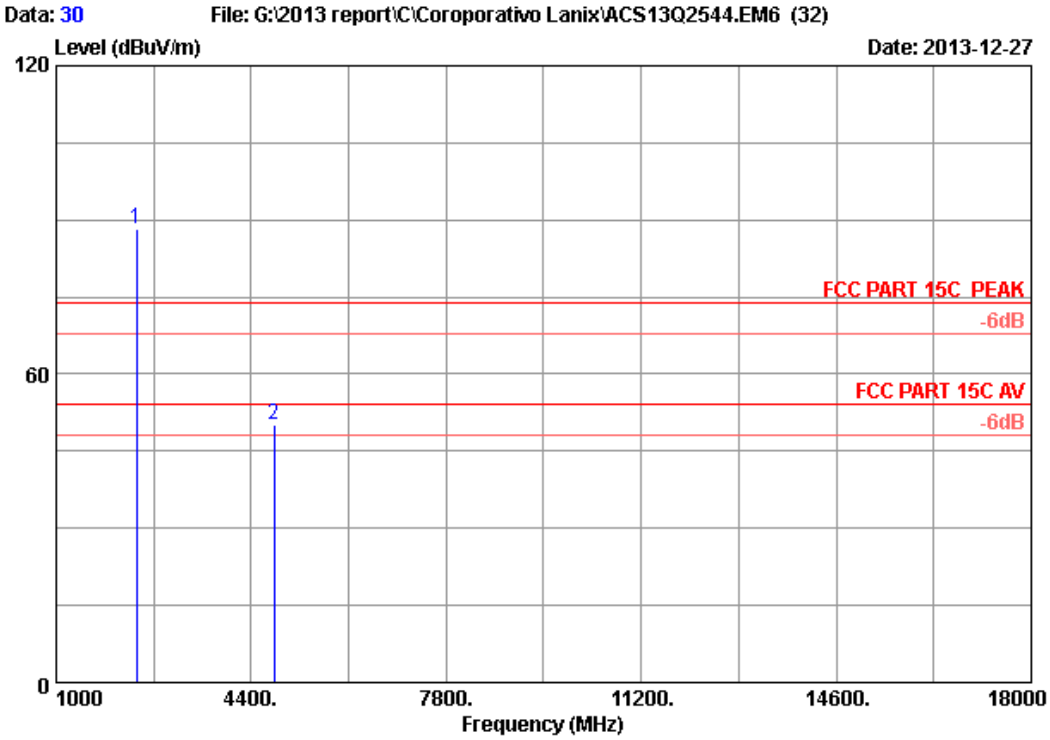
Site no. : 3m Chamber Data no. : 28
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2402MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.18	5.80	35.70	88.89	87.17	74.00	-13.17	Peak
2	4804.000	32.85	8.56	35.70	43.77	49.48	74.00	24.52	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.




```
Site no.      : 3m Chamber                Data no.   : 29
Dis. / Ant.   : 3m   2013 3115 (4580)     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : W32
Power supply  : DC 5V From Adapter Input AC 120V/60Hz
Test mode     : 8-DPSK 2402MHz Tx Mode
M/N           : W32
```



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2402MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.000	28.18	5.80	35.70	90.12	88.40	74.00	-14.40	Peak
2	4804.000	32.85	8.56	35.70	44.53	50.24	74.00	23.76	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 13	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,13	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,13	1 Year

5.2. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

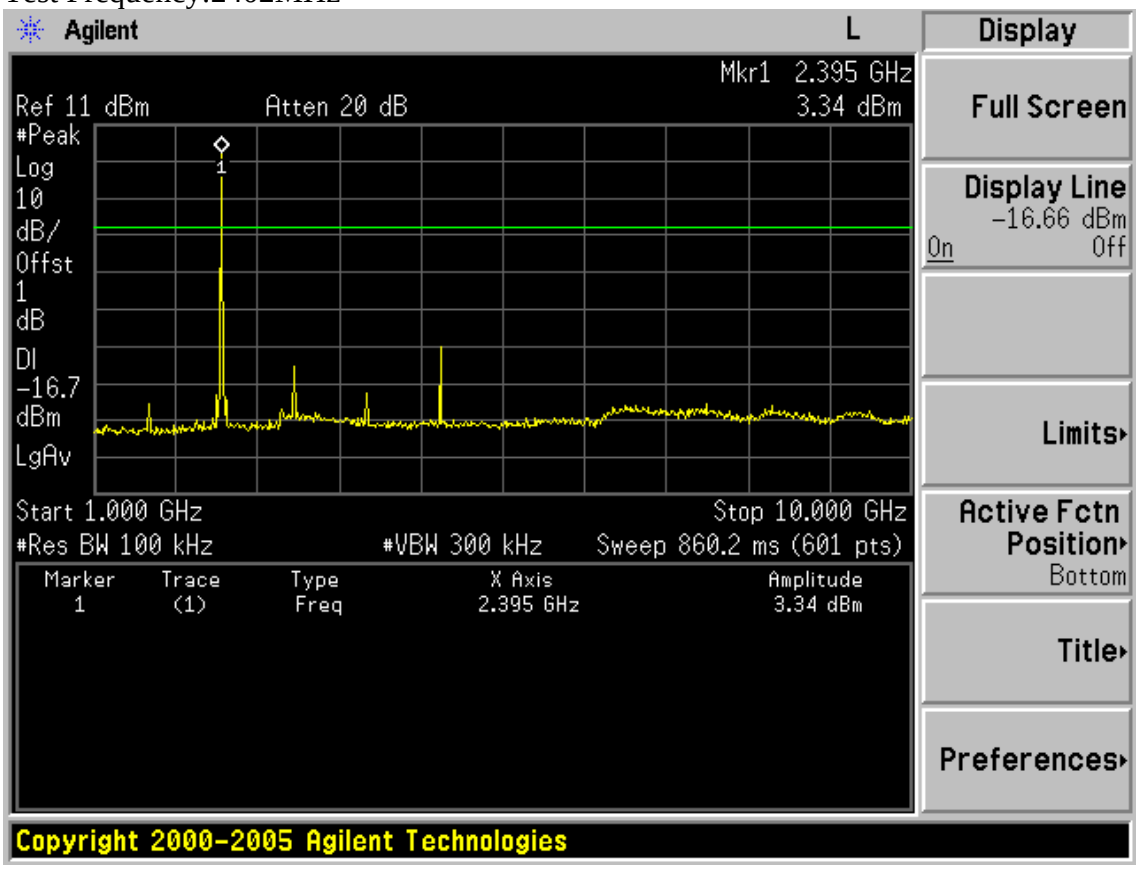
5.3. Test Procedure

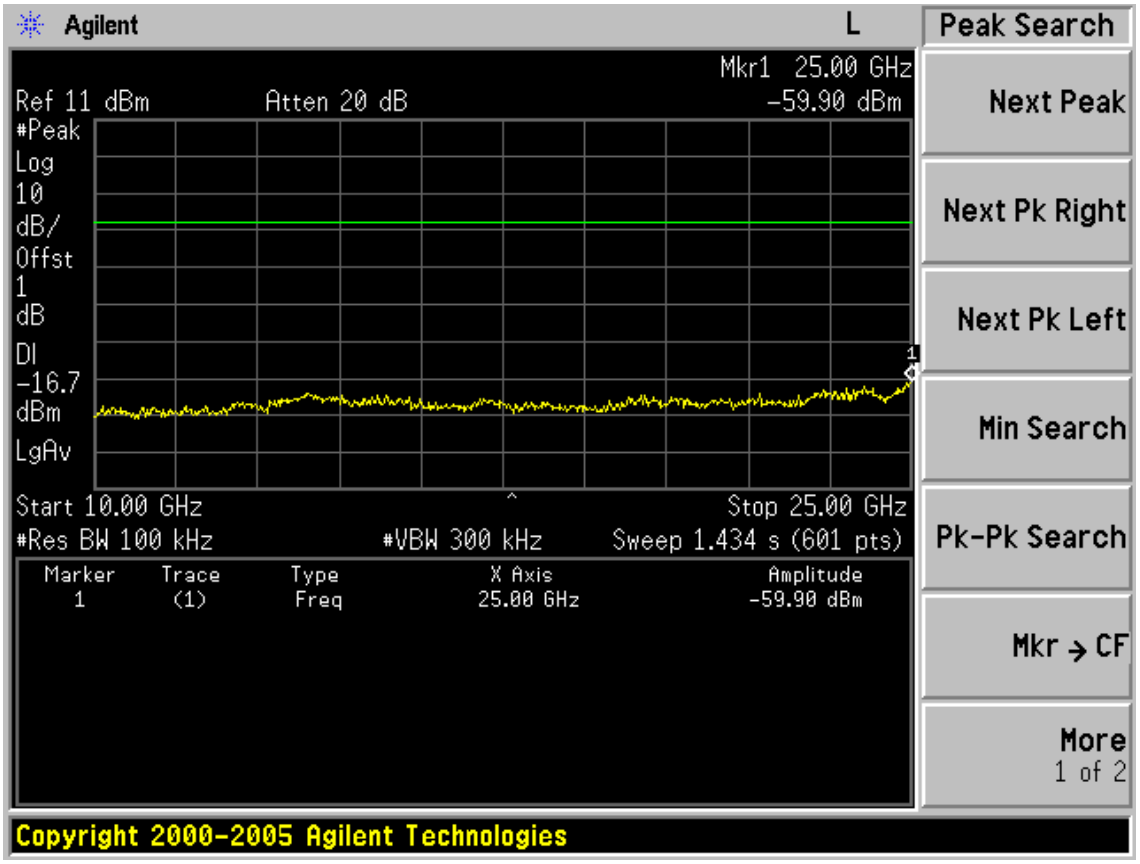
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

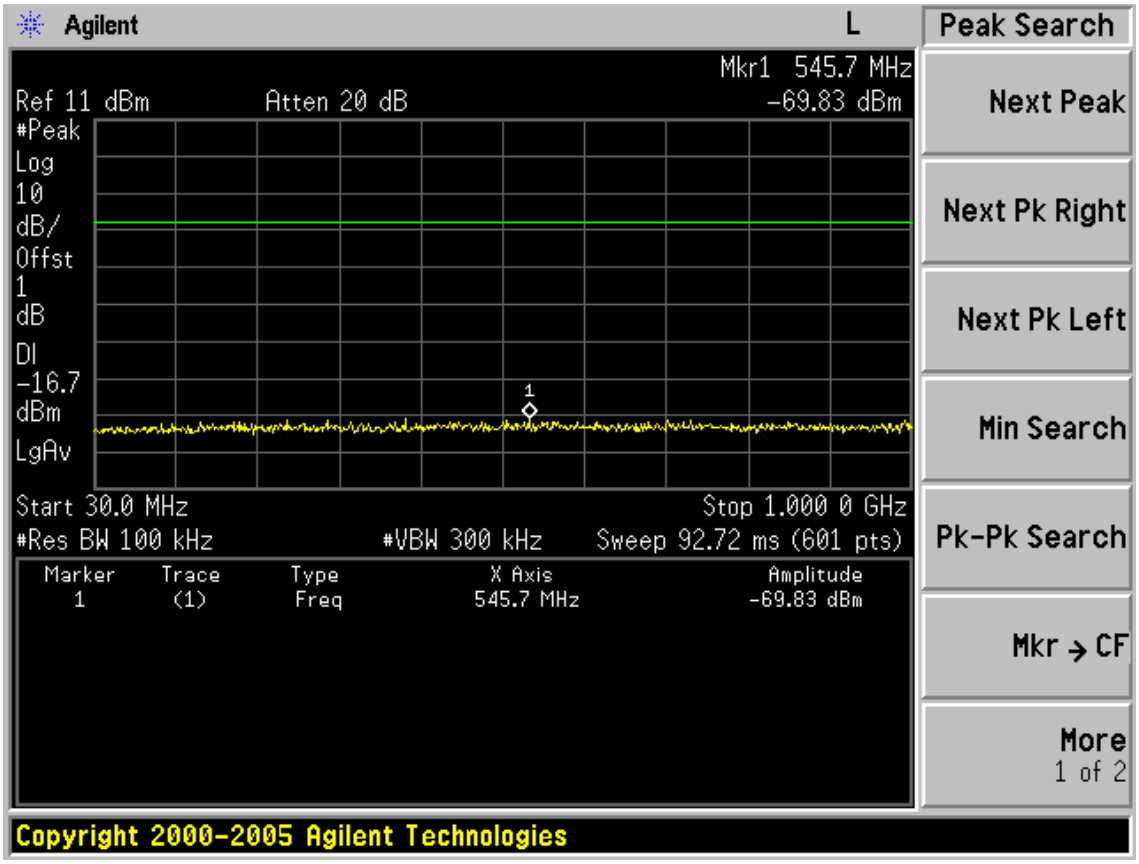
5.4. Test result

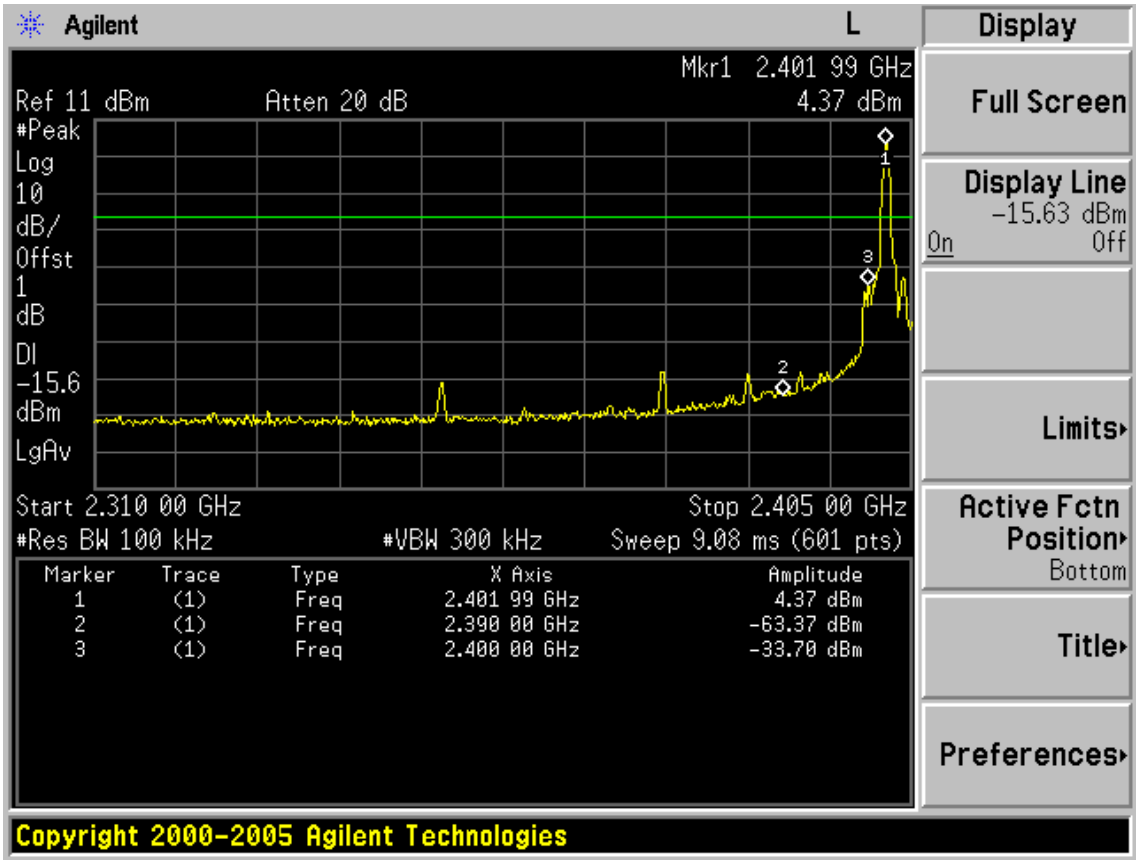
PASS (The testing data was attached in the next pages.)

Hopping Off
GFSK
Test Frequency:2402MHz

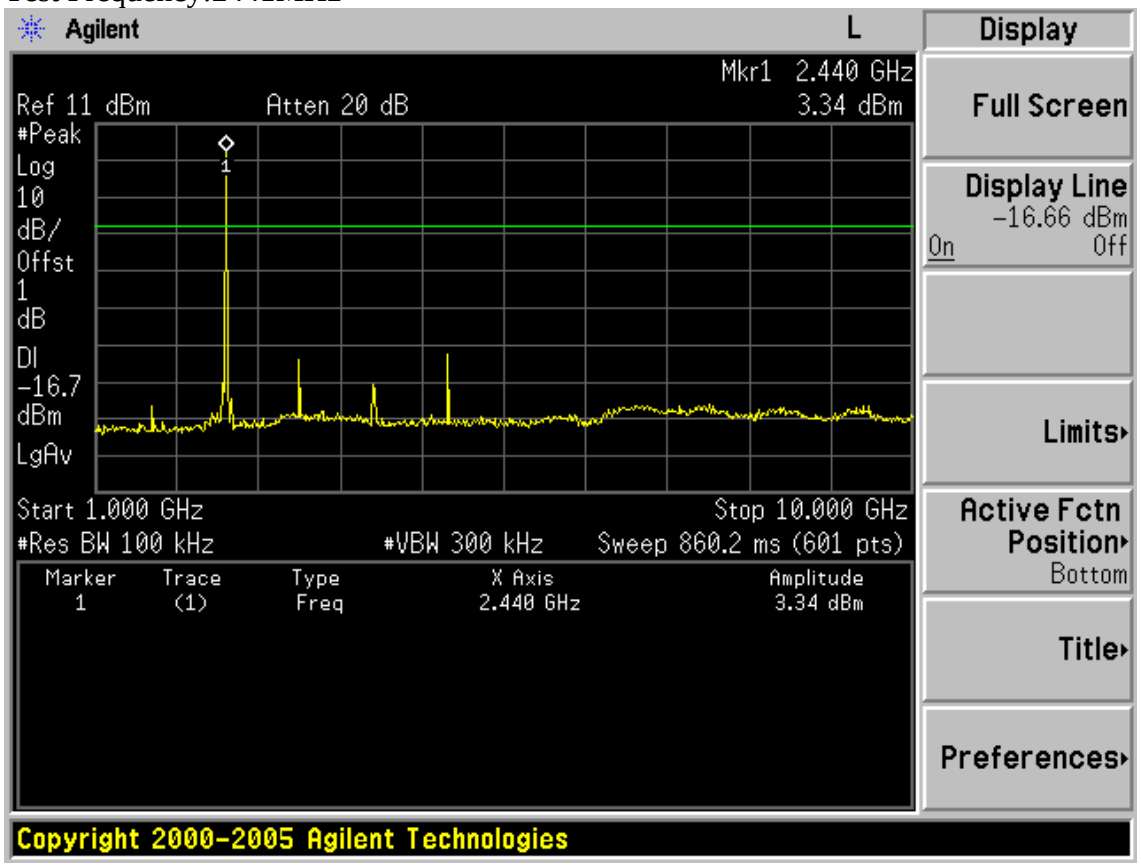


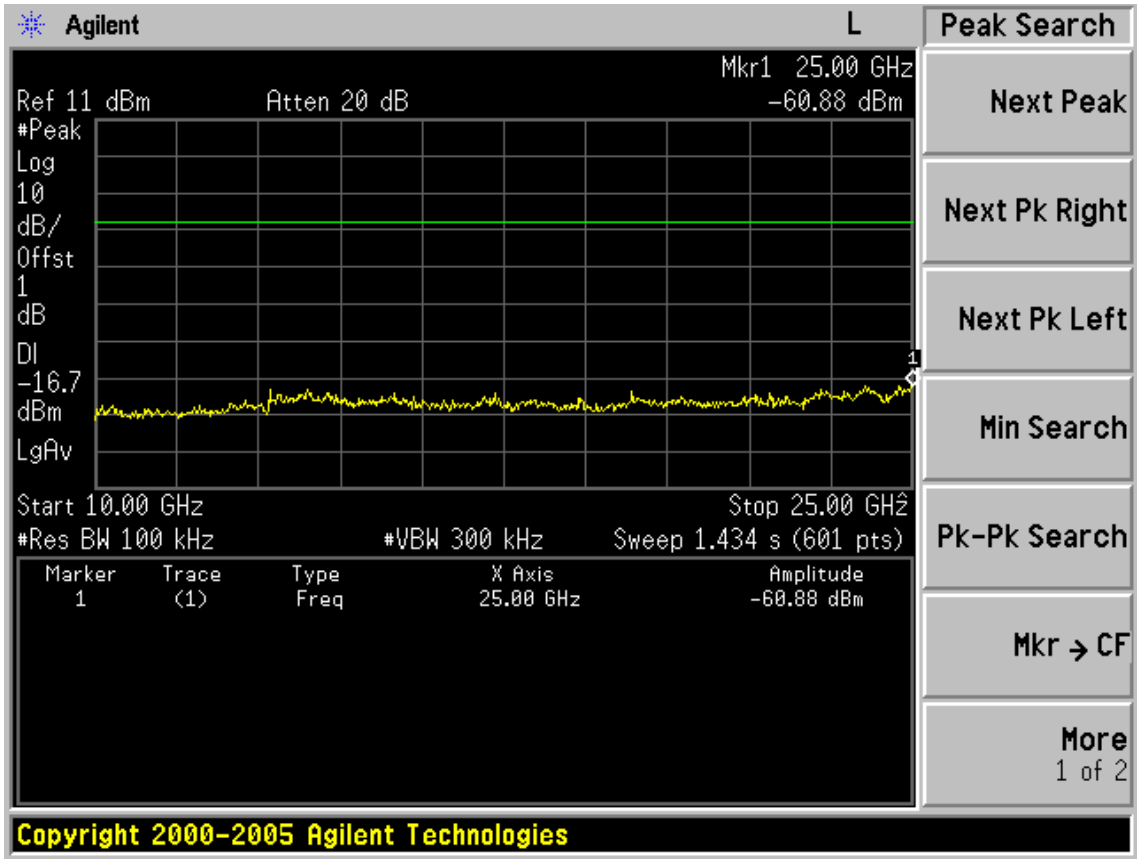


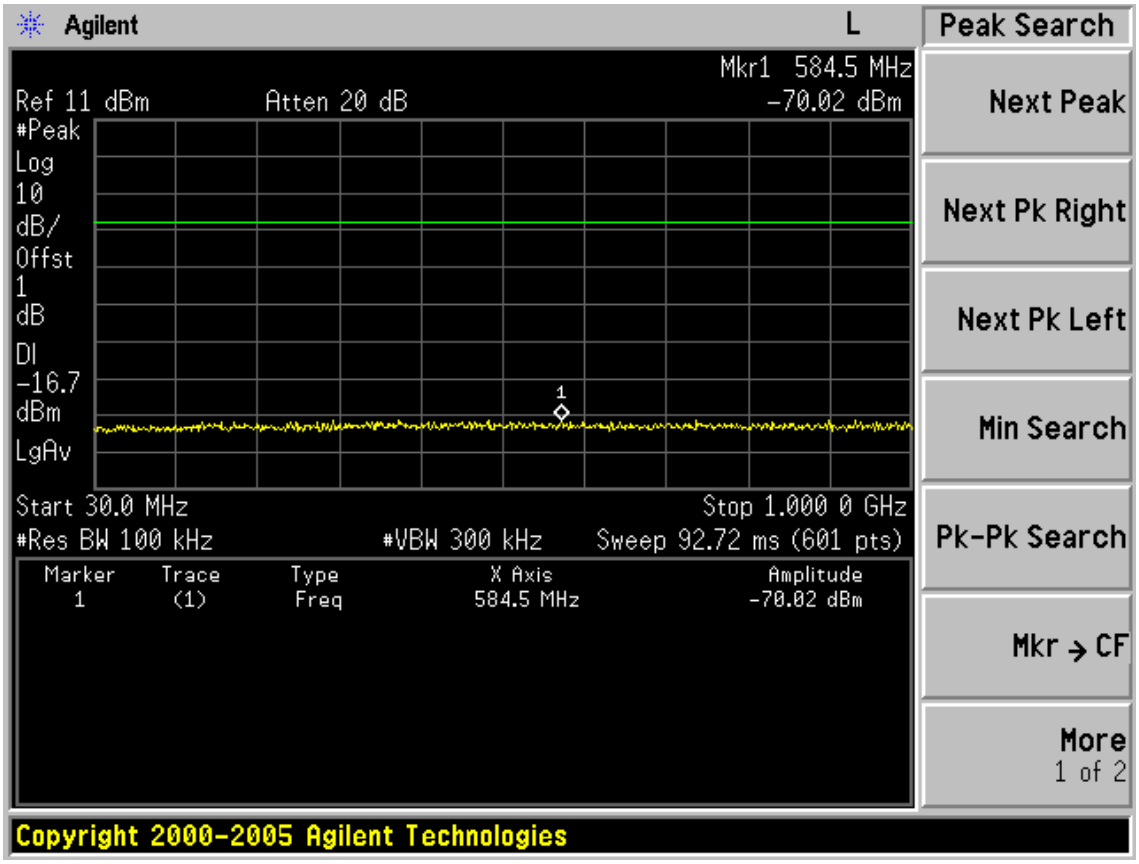

Agilent
L
Peak Search
Mkr1 545.7 MHz
Ref 11 dBm
Atten 20 dB
-69.83 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-16.7
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 545.7 MHz -69.83 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
L
Display
Mkr1 2.401 99 GHz
Ref 11 dBm
Atten 20 dB
4.37 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-15.6
dBm
LgAv
Full Screen
Display Line
-15.63 dBm
On
Off
Limits
Start 2.310 00 GHz
Stop 2.405 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 9.08 ms (601 pts)
Active Fctn
Position
Bottom
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.401 99 GHz 4.37 dBm
2 (1) Freq 2.390 00 GHz -63.37 dBm
3 (1) Freq 2.400 00 GHz -33.70 dBm
Title
Preferences
Copyright 2000-2005 Agilent Technologies

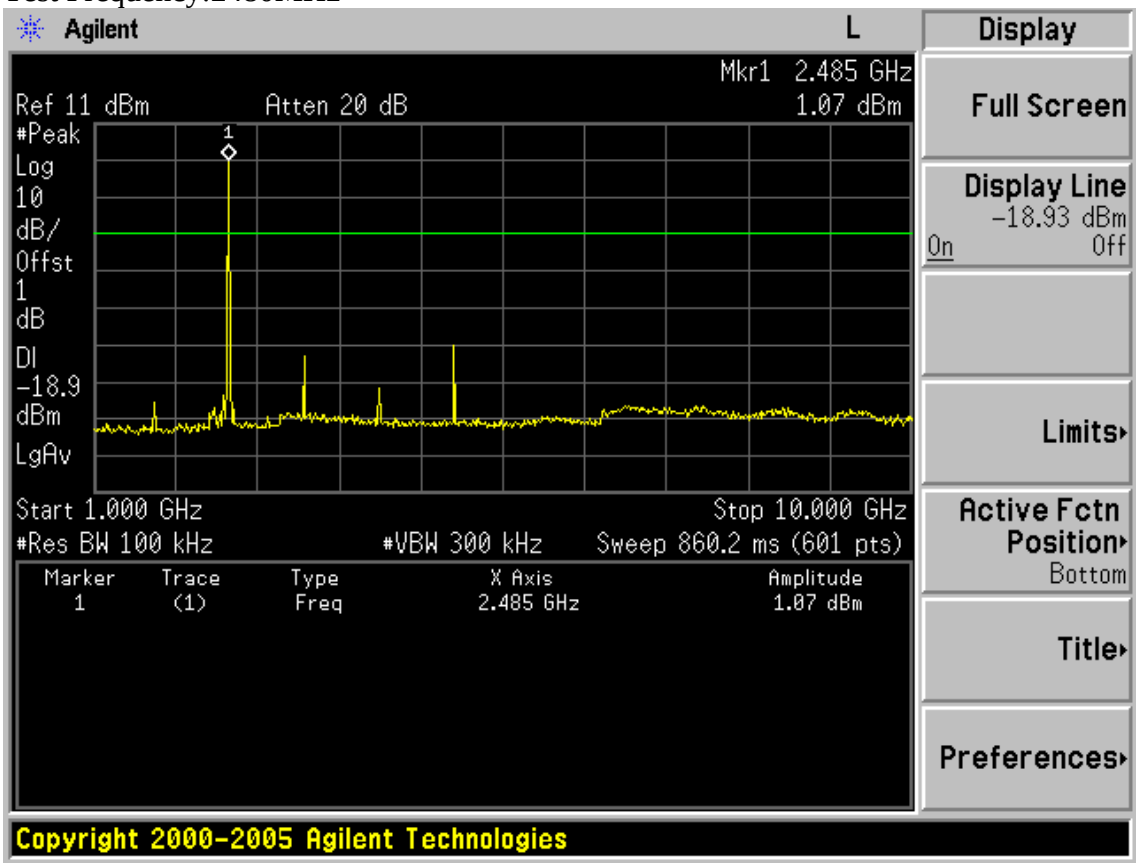
Test Frequency:2441MHz

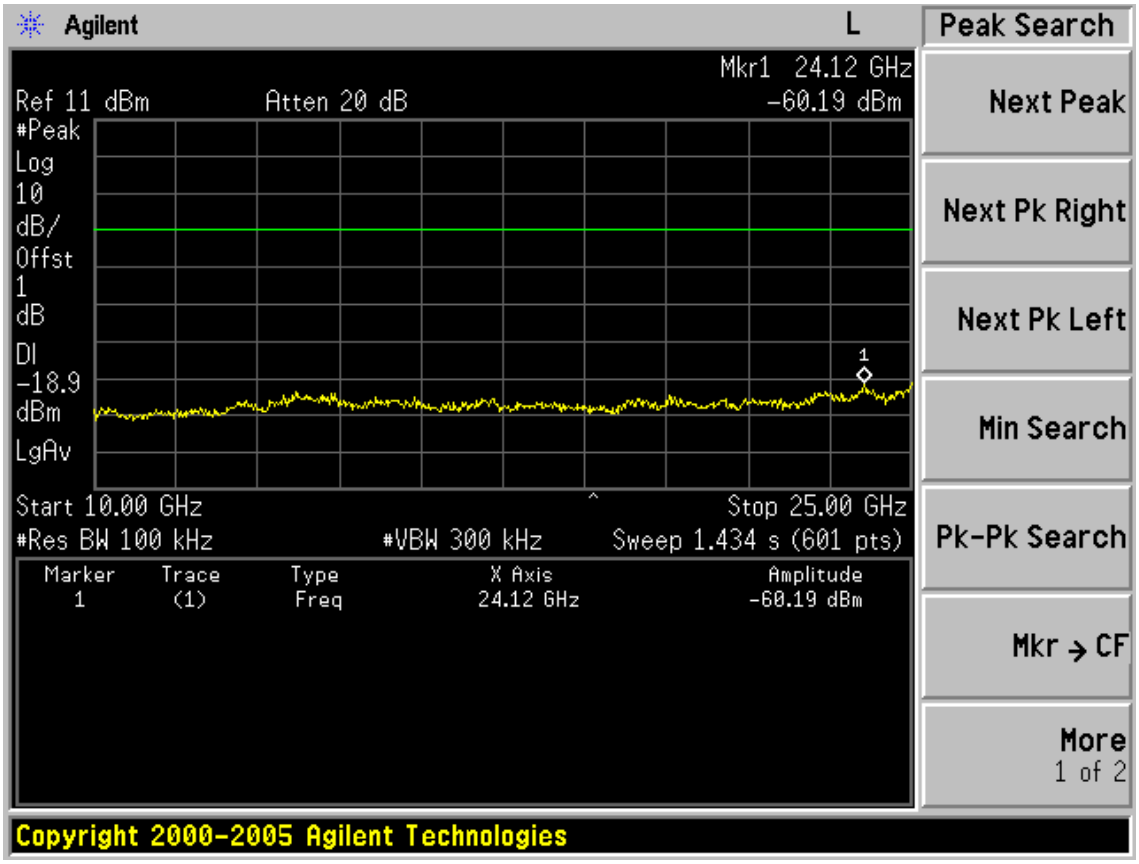


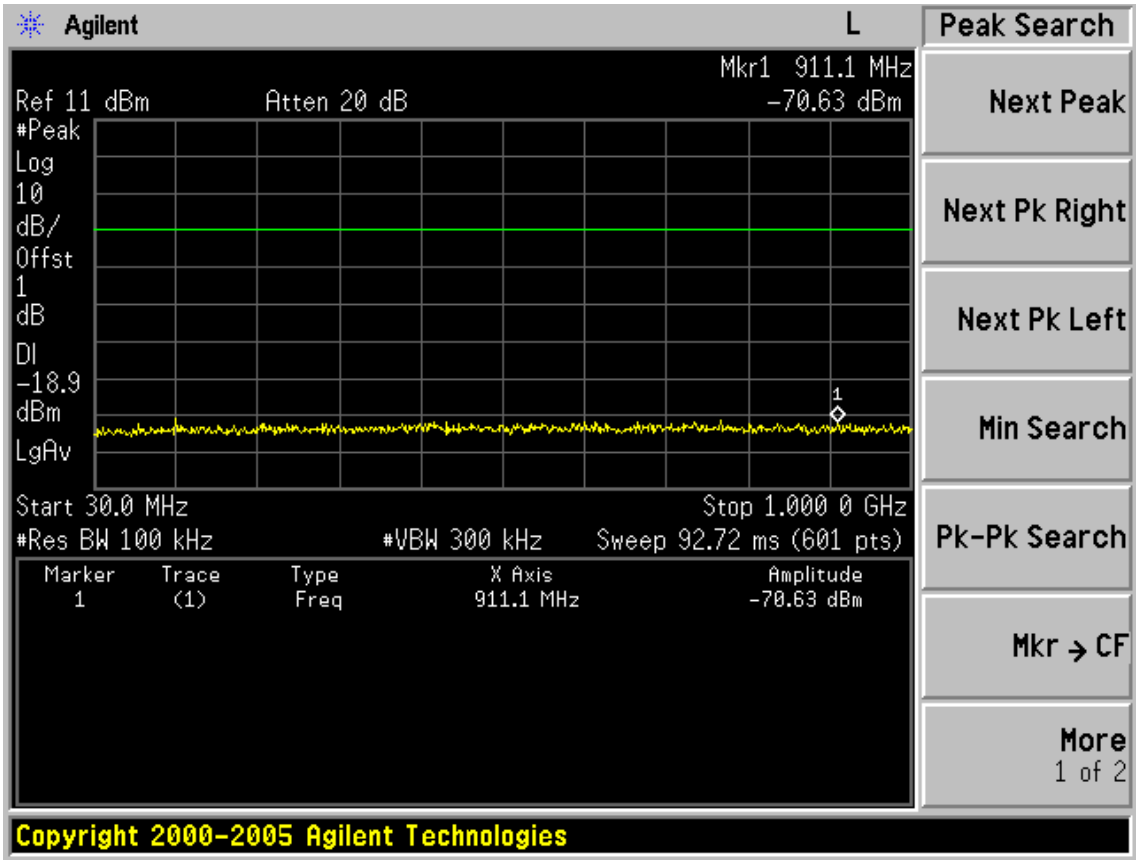


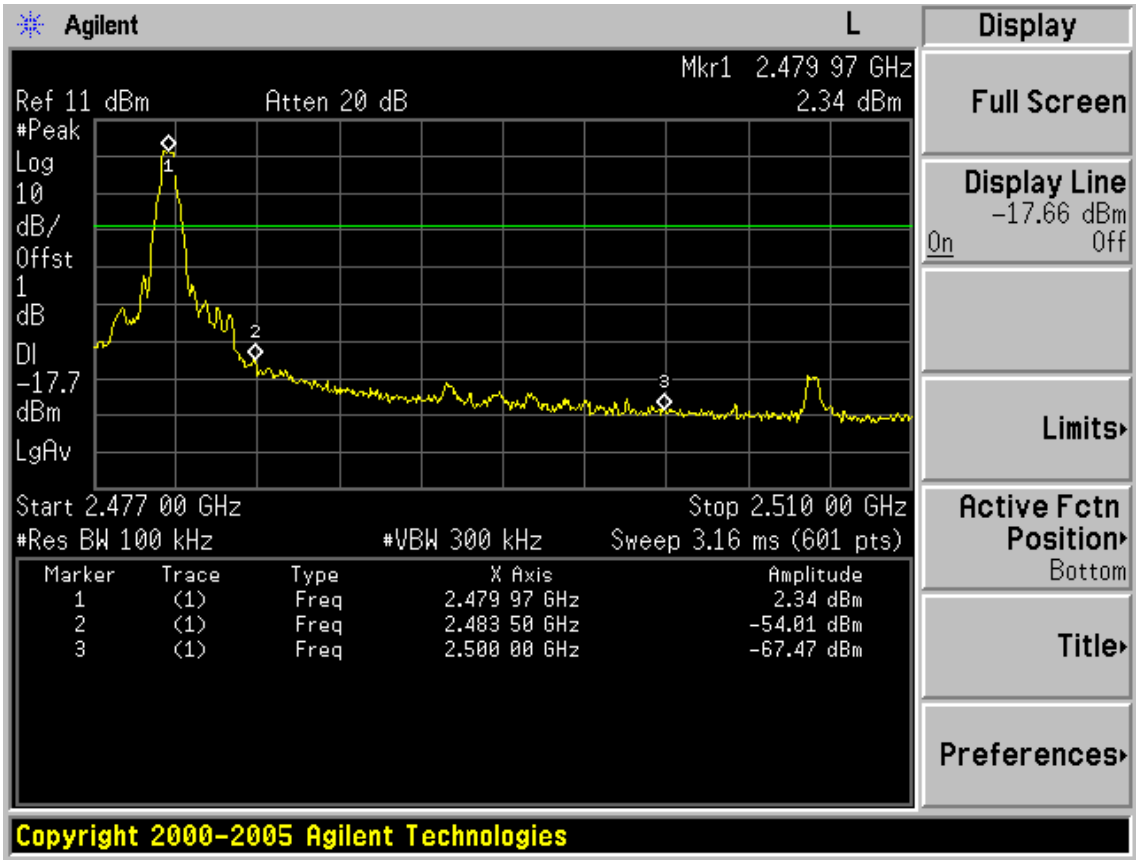


Test Frequency:2480MHz



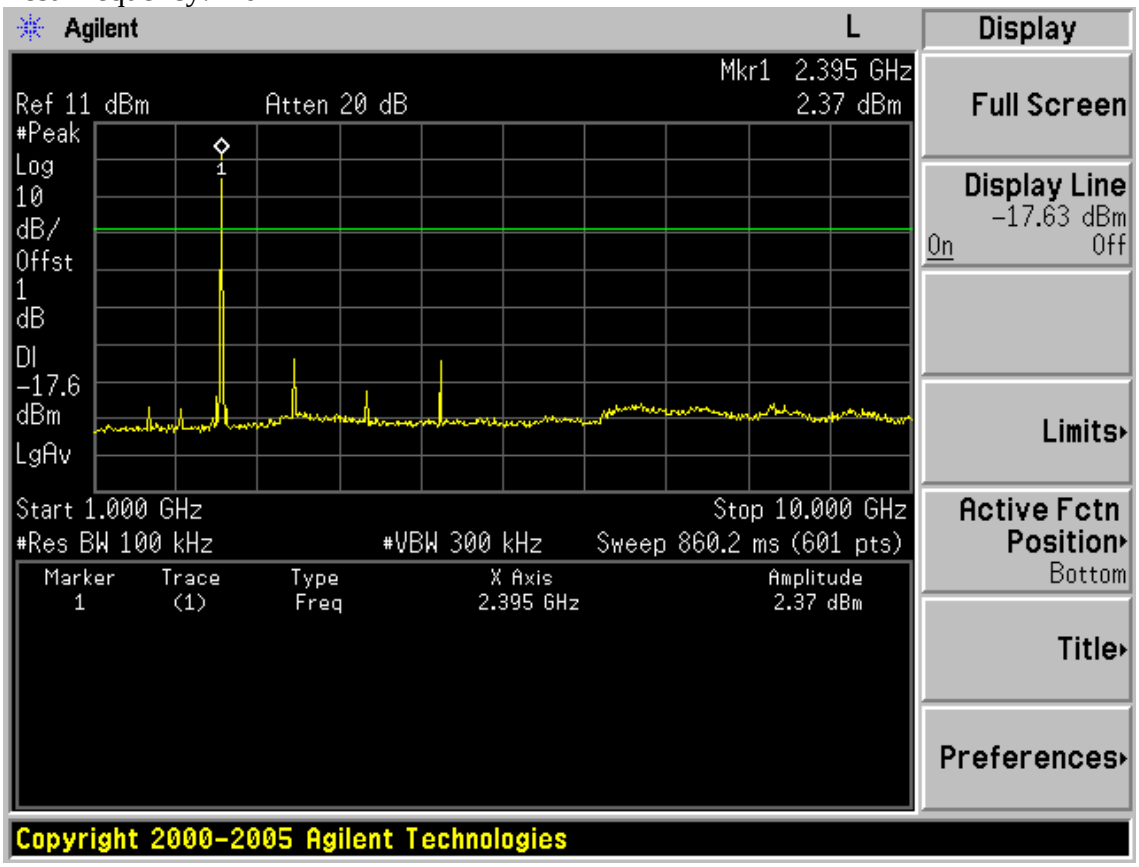

Agilent
L
Peak Search
Mkr1 24.12 GHz
Ref 11 dBm
Atten 20 dB
-60.19 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-18.9
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.12 GHz -60.19 dBm
Copyright 2000-2005 Agilent Technologies

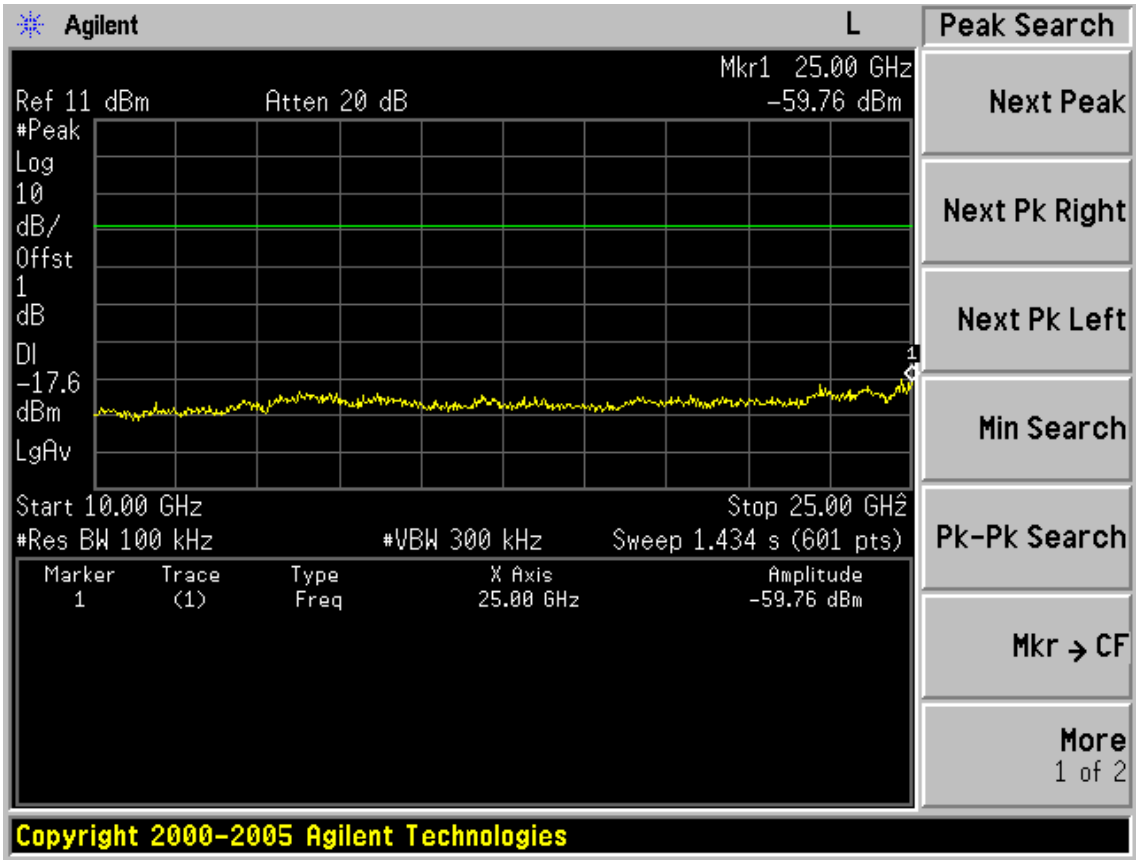

Agilent
L
Peak Search
Mkr1 911.1 MHz
Ref 11 dBm
Atten 20 dB
-70.63 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-18.9
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 911.1 MHz -70.63 dBm
Copyright 2000-2005 Agilent Technologies

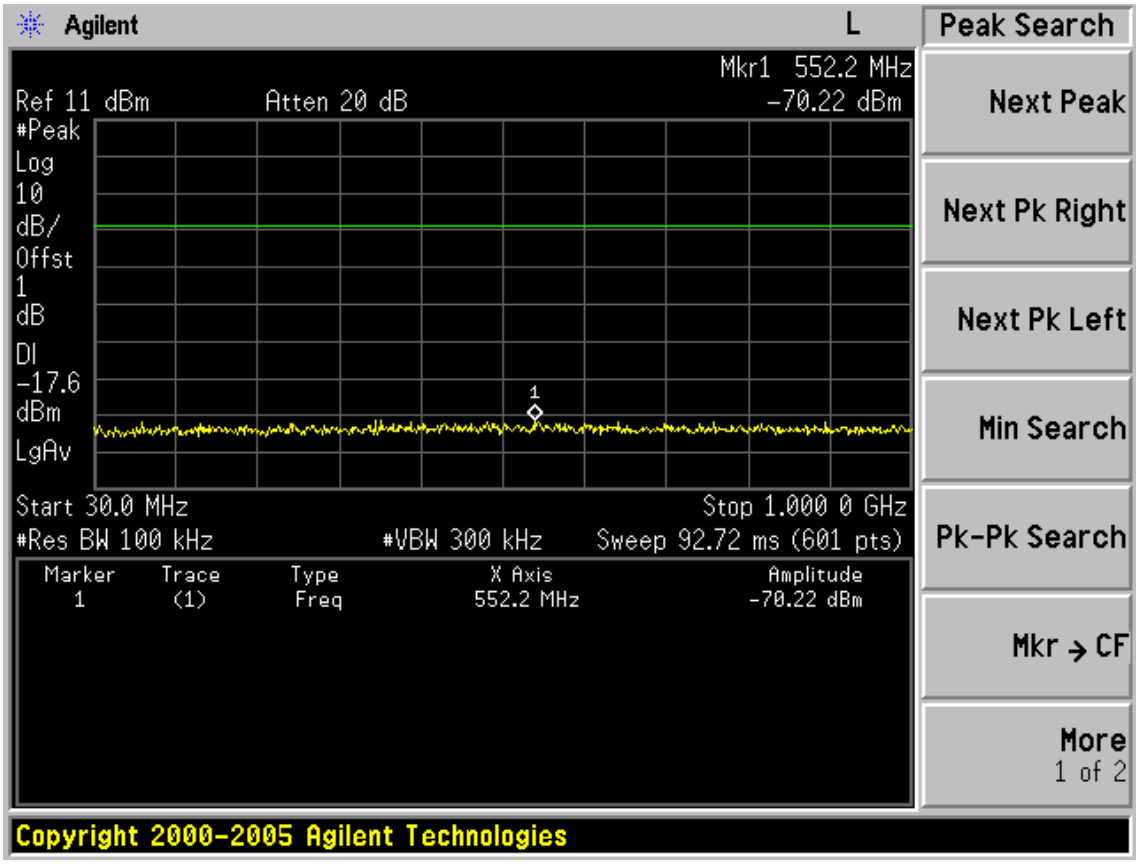


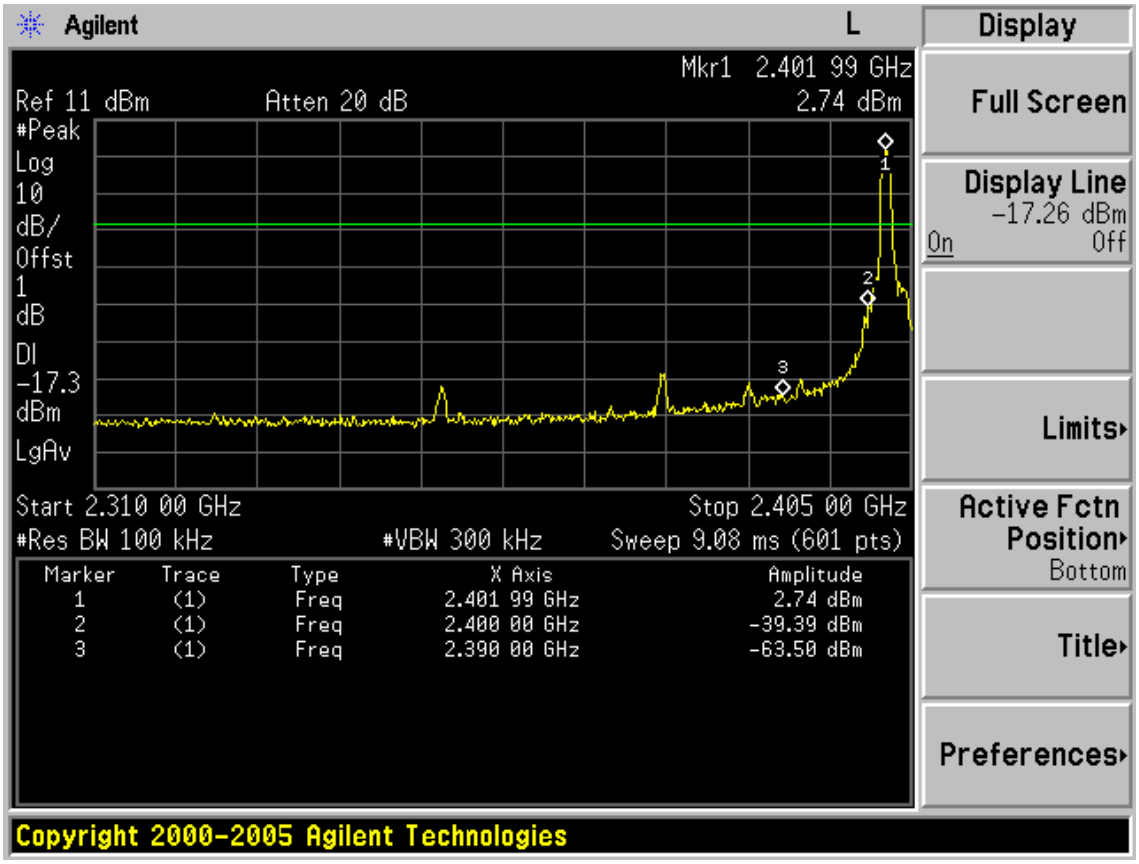
8-DPSK

Test Frequency:2402MHz

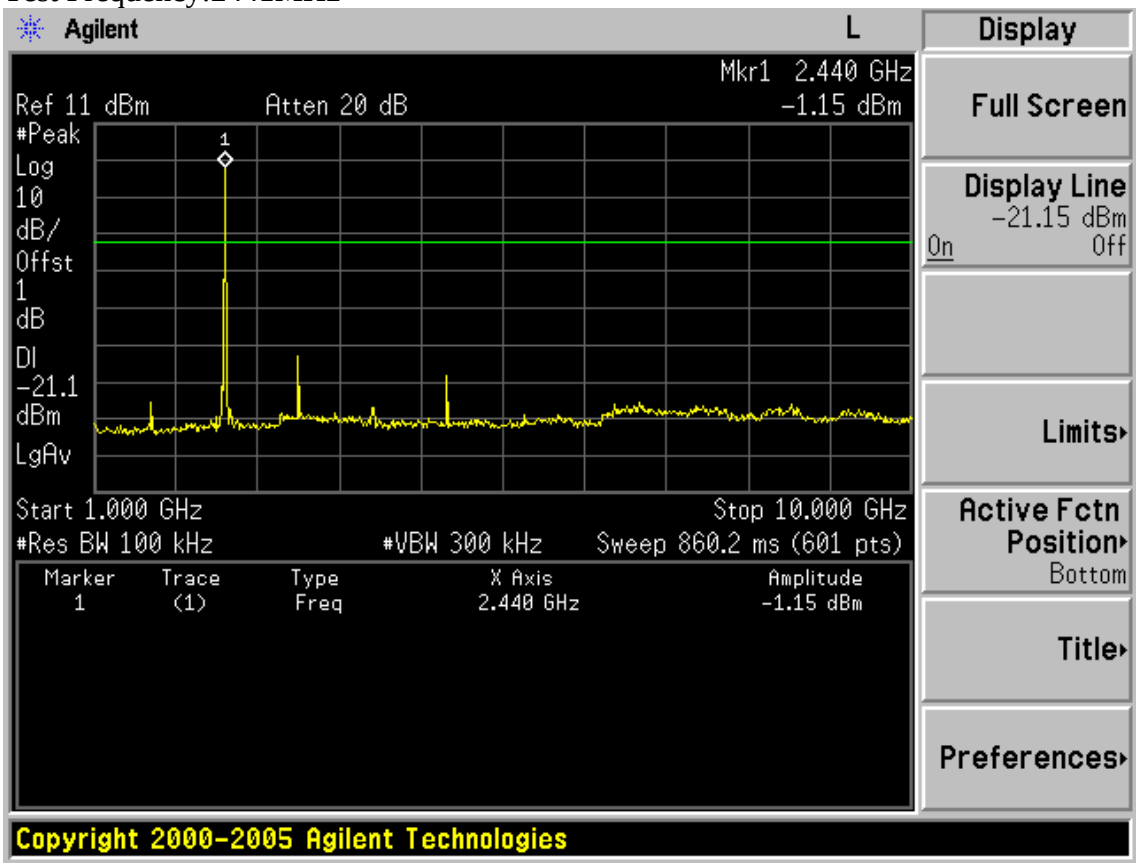


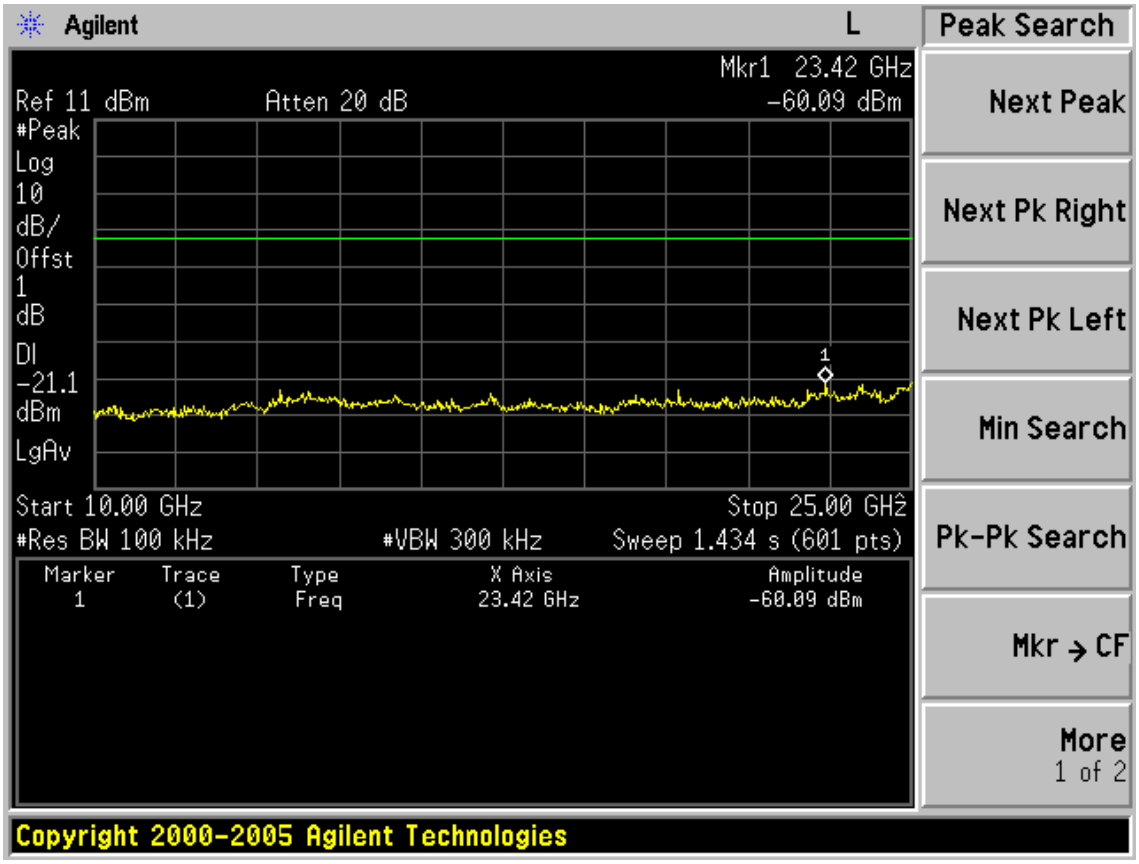

Agilent
L
Peak Search
Mkr1 25.00 GHz
Ref 11 dBm
Atten 20 dB
-59.76 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-17.6
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 25.00 GHz -59.76 dBm
Copyright 2000-2005 Agilent Technologies

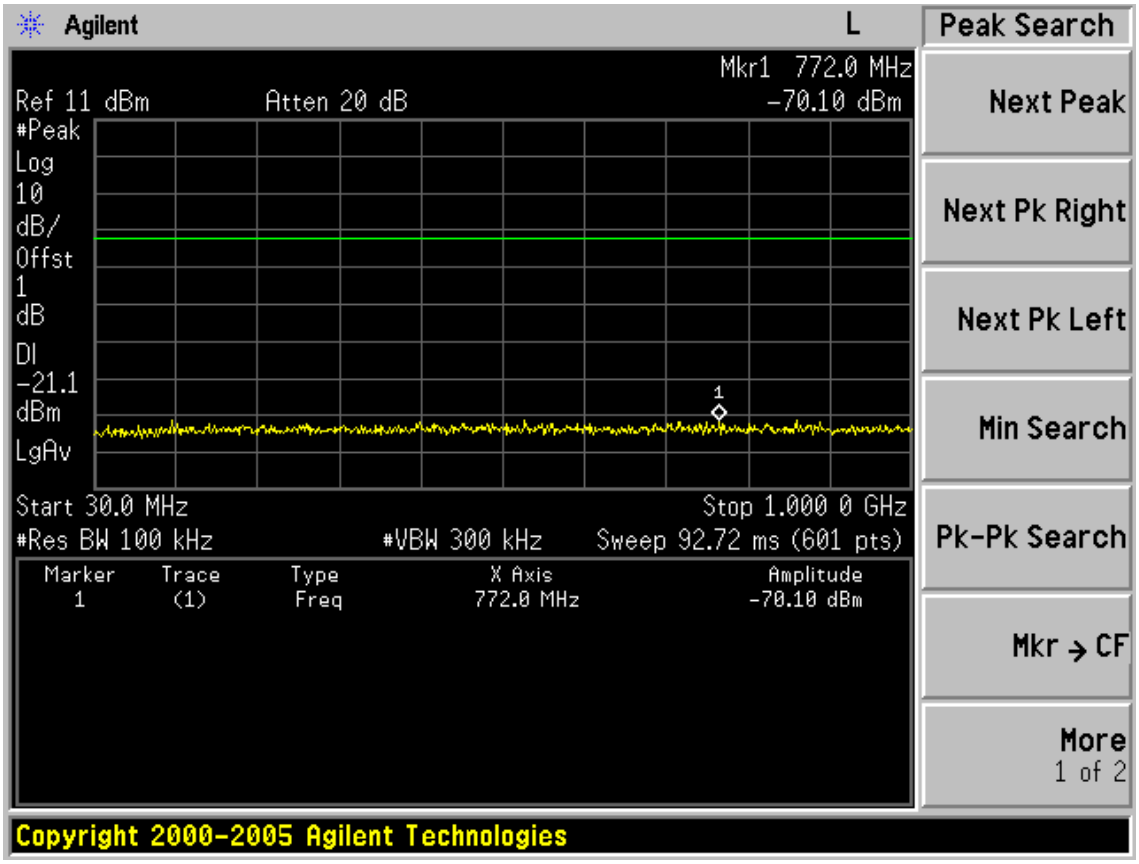

Agilent
L
Peak Search
Mkr1 552.2 MHz
Ref 11 dBm
Atten 20 dB
-70.22 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-17.6
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 552.2 MHz -70.22 dBm
Copyright 2000-2005 Agilent Technologies



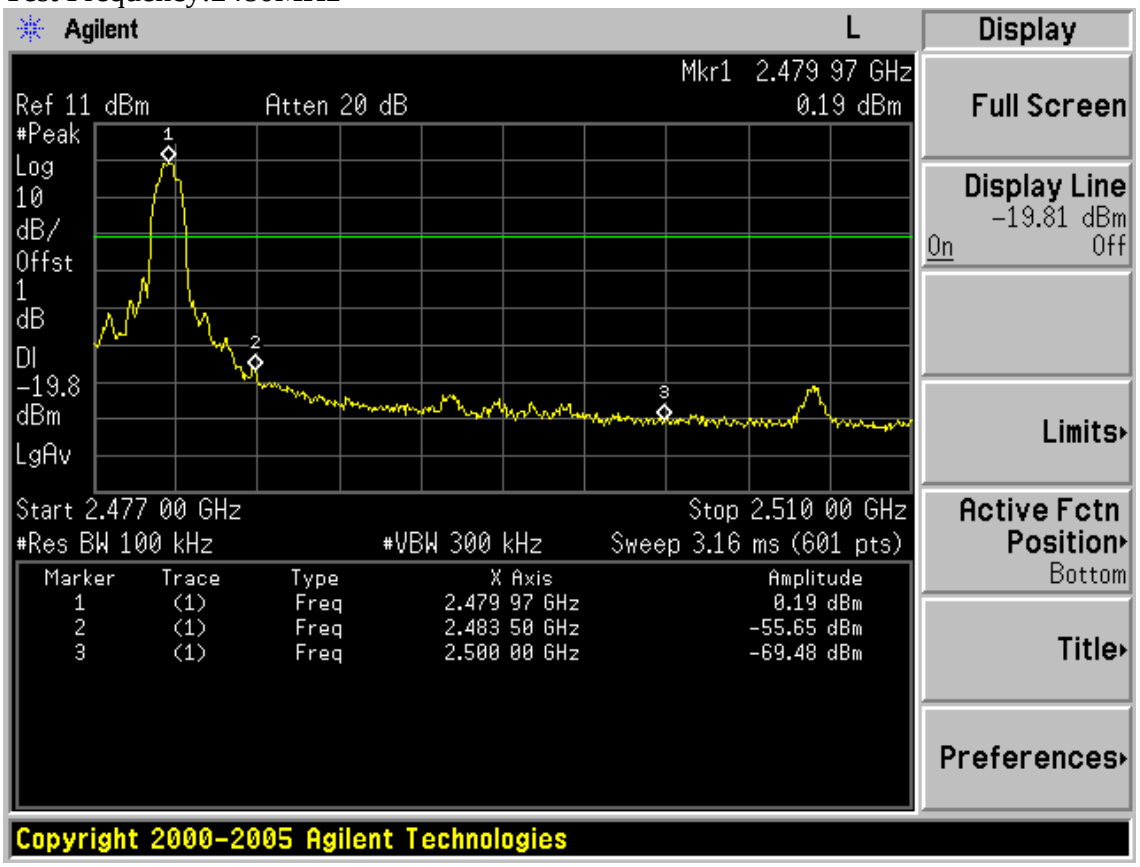
Test Frequency:2441MHz

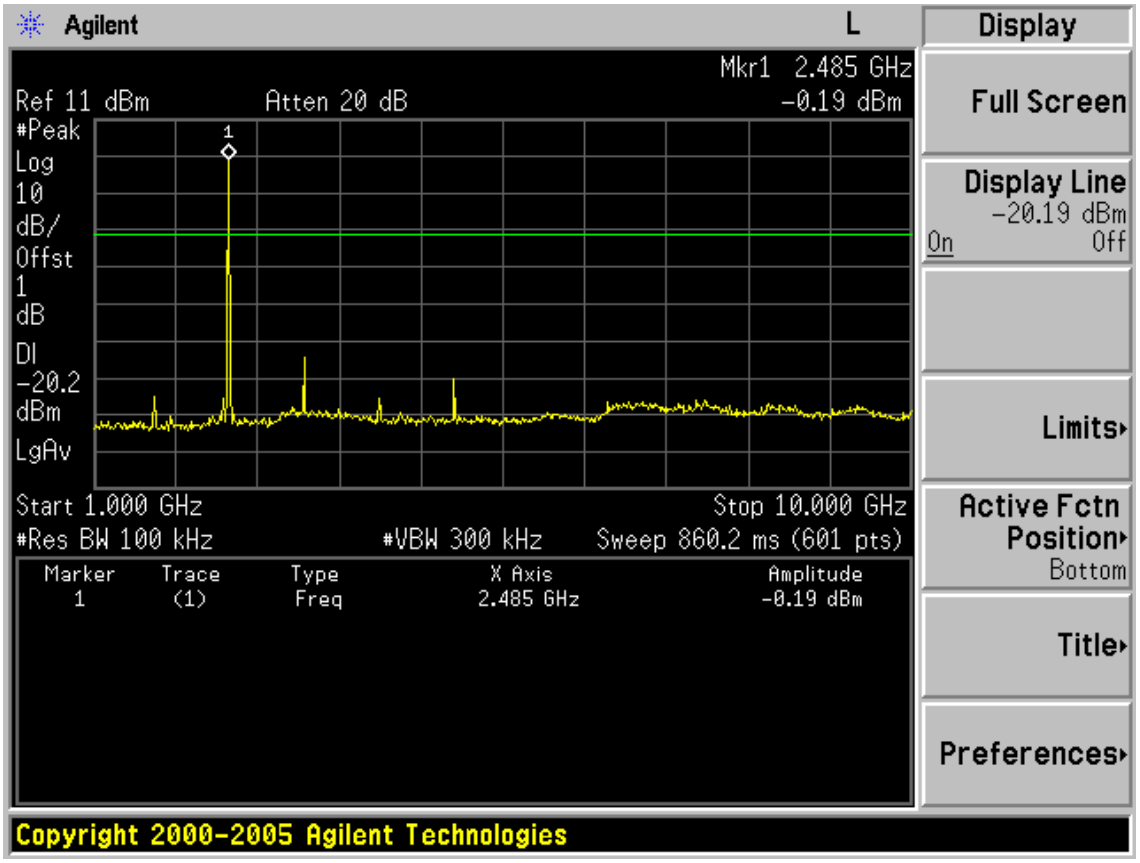


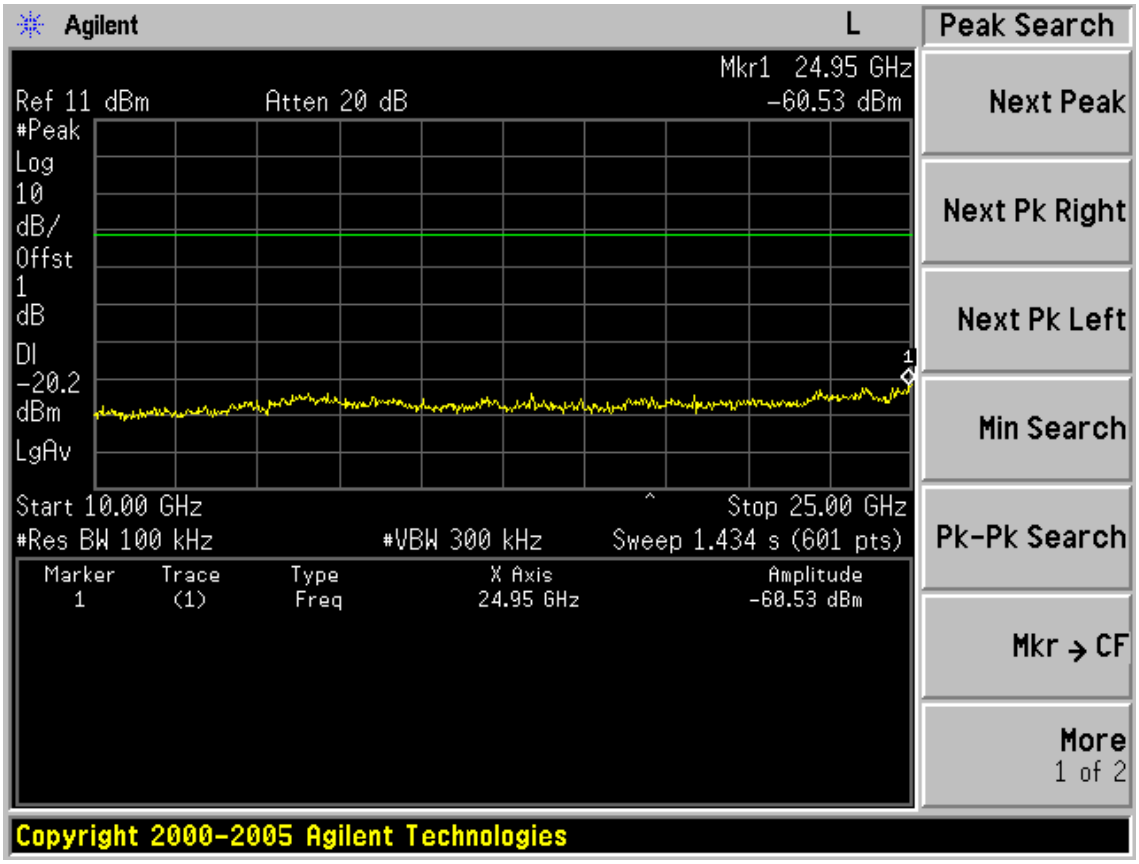

Agilent
L
Peak Search
Mkr1 23.42 GHz
Ref 11 dBm
Atten 20 dB
-60.09 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-21.1
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 23.42 GHz -60.09 dBm
Copyright 2000-2005 Agilent Technologies

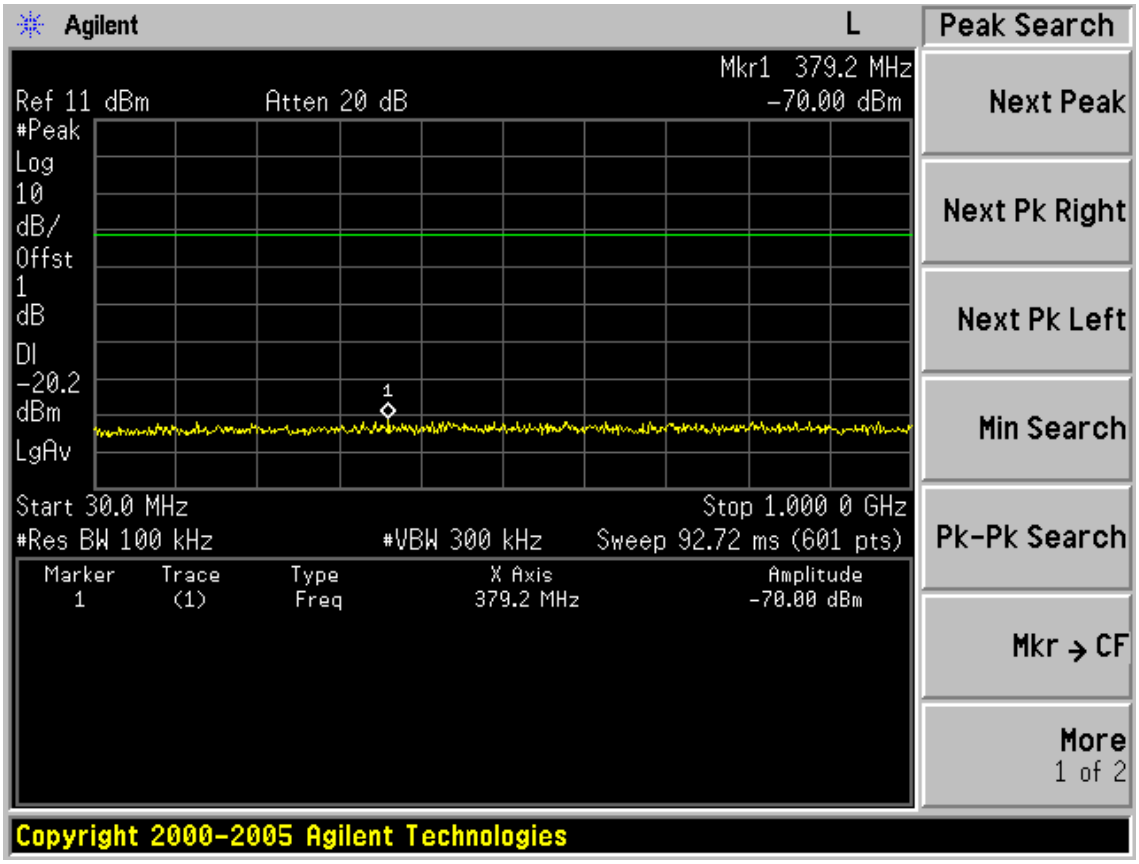

Agilent
L
Peak Search
Mkr1 772.0 MHz
Ref 11 dBm
Atten 20 dB
-70.10 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-21.1
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 772.0 MHz -70.10 dBm
Copyright 2000-2005 Agilent Technologies

Test Frequency:2480MHz



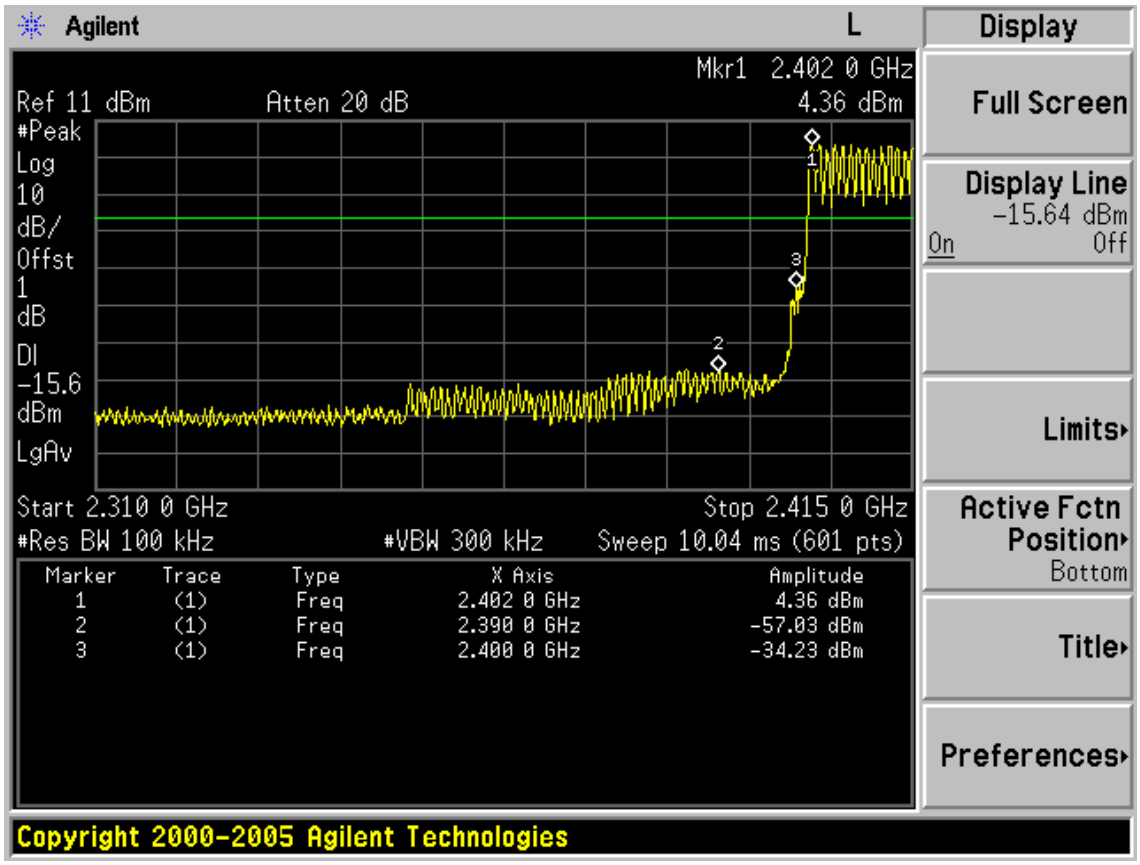


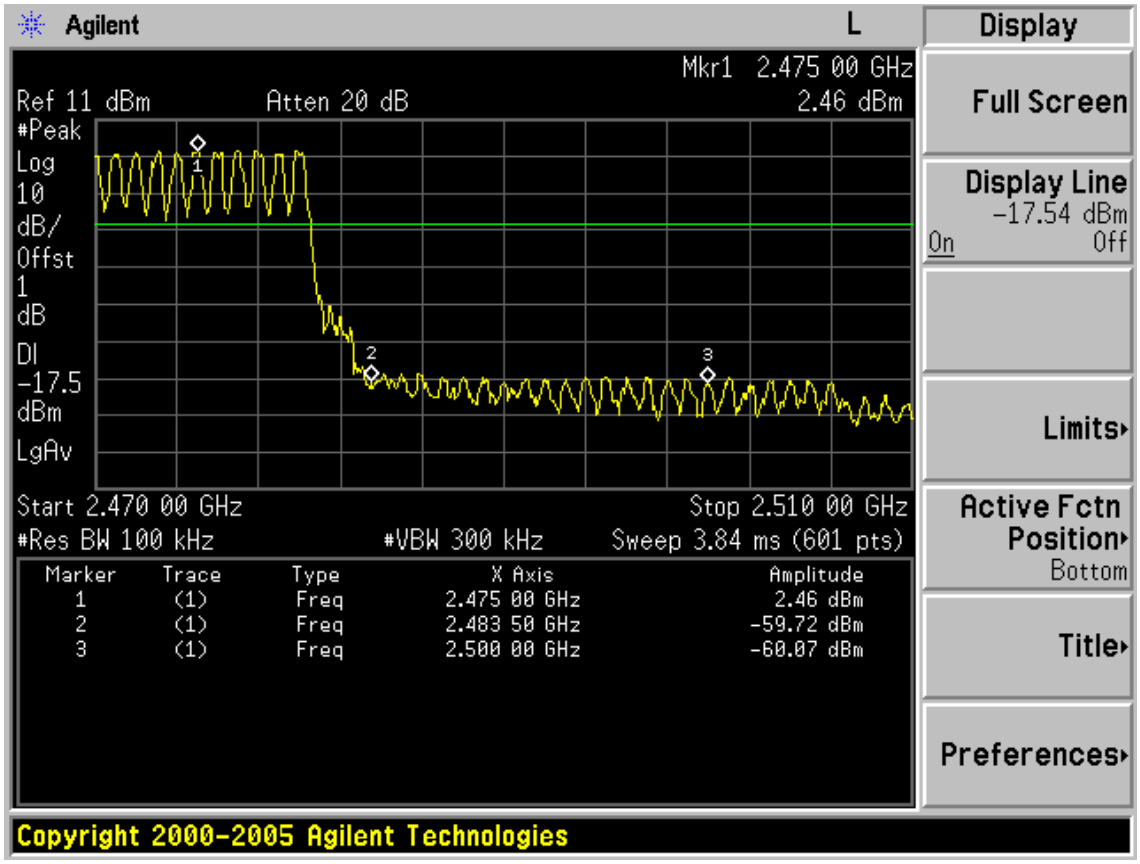

Agilent
L
Peak Search
Mkr1 24.95 GHz
Ref 11 dBm
Atten 20 dB
-60.53 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-20.2
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.95 GHz -60.53 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Peak Search
Mkr1 379.2 MHz
Ref 11 dBm
Atten 20 dB
-70.00 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-20.2
dBm
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 379.2 MHz -70.00 dBm
Copyright 2000-2005 Agilent Technologies

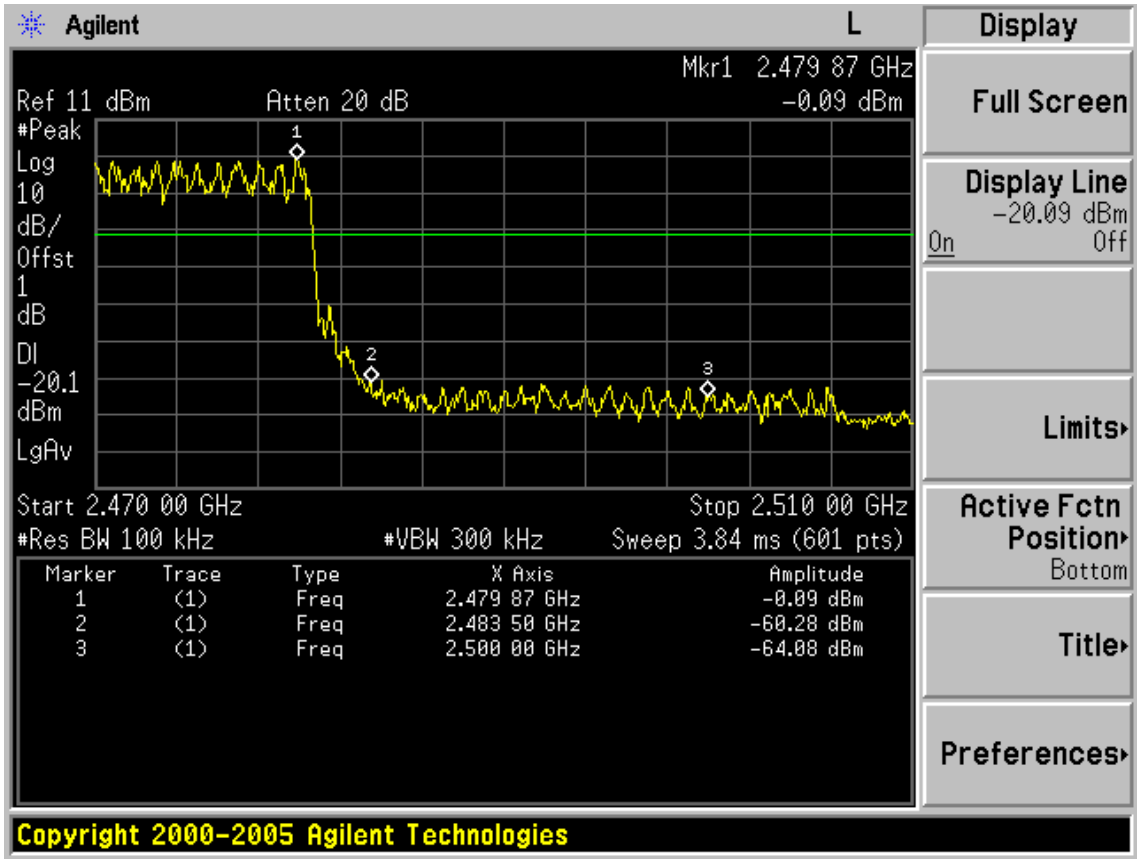
Hopping On

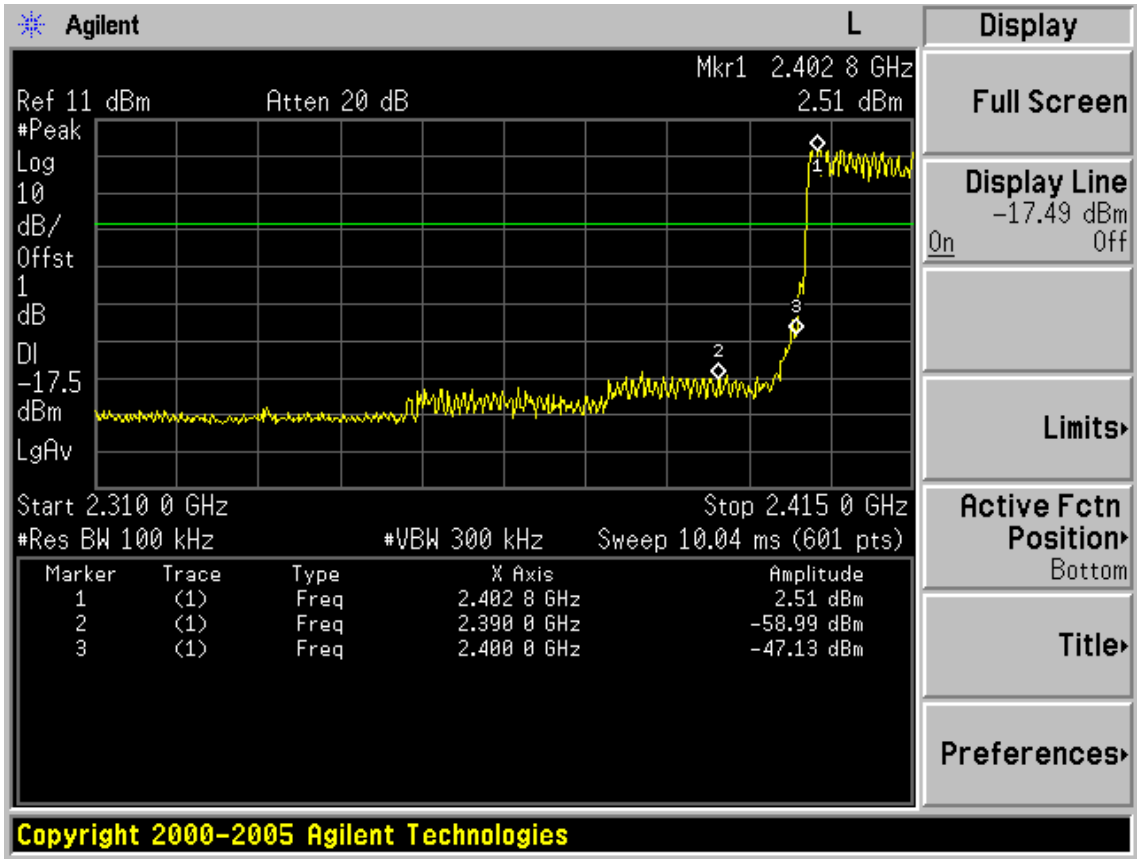
GFSK





8-DPSK


Agilent
L
Display
Mkr1 2.479 87 GHz
Ref 11 dBm
Atten 20 dB
-0.09 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-20.1
dBm
LgAv
Full Screen
Display Line
-20.09 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Start 2.470 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 3.84 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.479 87 GHz -0.09 dBm
2 (1) Freq 2.483 50 GHz -60.28 dBm
3 (1) Freq 2.500 00 GHz -64.08 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
L
Display
Mkr1 2.402 8 GHz
Ref 11 dBm
Atten 20 dB
2.51 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-17.5
dBm
LgAv
Full Screen
Display Line
-17.49 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Start 2.310 0 GHz
Stop 2.415 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 10.04 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.402 8 GHz 2.51 dBm
2 (1) Freq 2.390 0 GHz -58.99 dBm
3 (1) Freq 2.400 0 GHz -47.13 dBm
Copyright 2000-2005 Agilent Technologies

6. CARRIER FREQUENCY SEPARATION TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum	Agilent	E4446A	US44300459	May.08, 13	1 Year

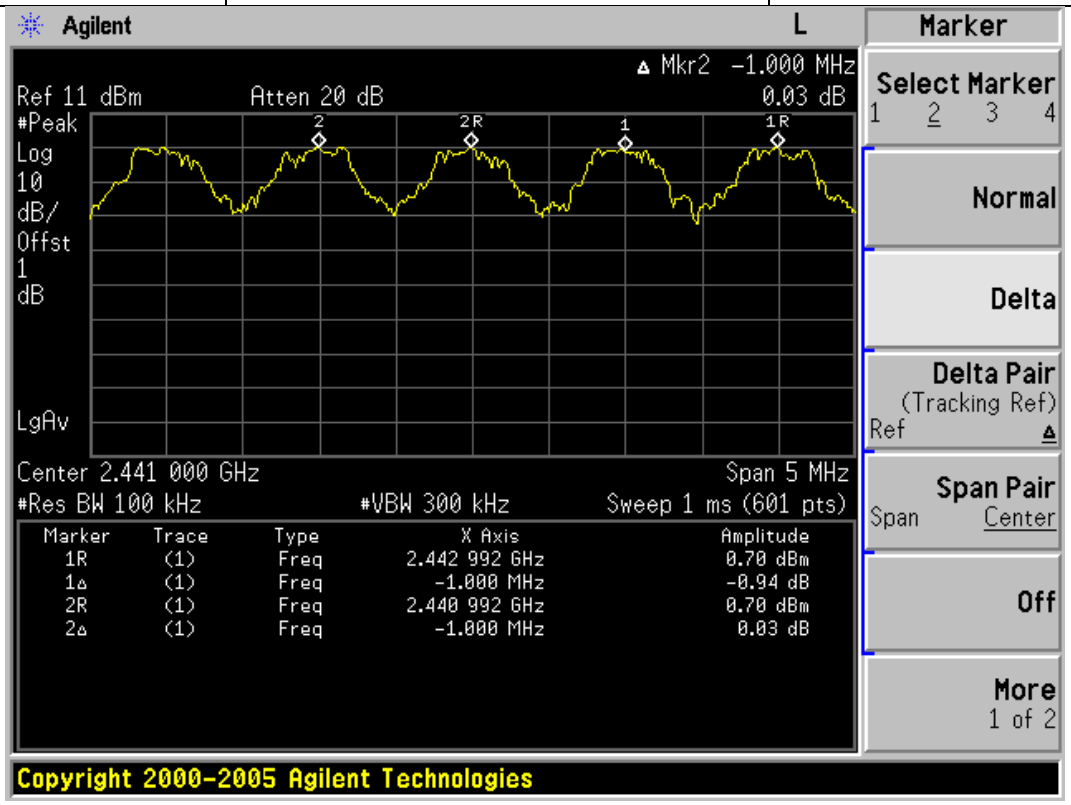
6.2.Limit

Frequency hopping systems shall have hopping channel carrier frequency separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

6.3.Test Results.

EUT:W32		
M/N: W32		
Test date: 2013-12-28	Pressure: 101.2±1.0 kpa	Humidity: 48.4±3.0%
Tested by: Kevin-Hu	Test site: RF site	Temperature:20.7±0.6 ℃

Test Mode	Channel separation	Conclusion
8-DPSK	1.0MHz	PASS
GFSK	1.0MHz	PASS



7. 20 DB BANDWIDTH TEST

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 13	1 Year

7.2.Limit

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

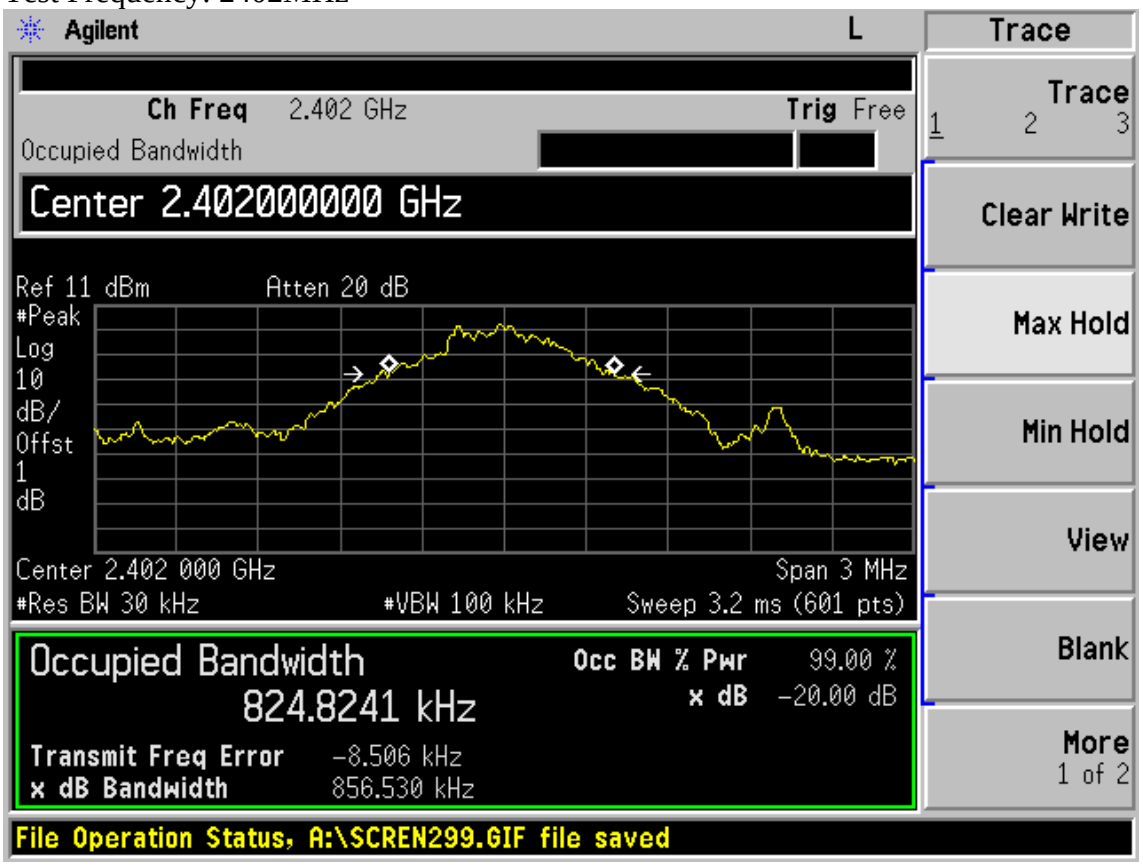
7.3.Test Results

EUT:W32		
M/N: W32		
Test date: 2013-12-28	Pressure: 101.2±1.0 kpa	Humidity: 48.4±3.0%
Tested by: Kevin-Hu	Test site: RF site	Temperature:20.7±0.6 ℃

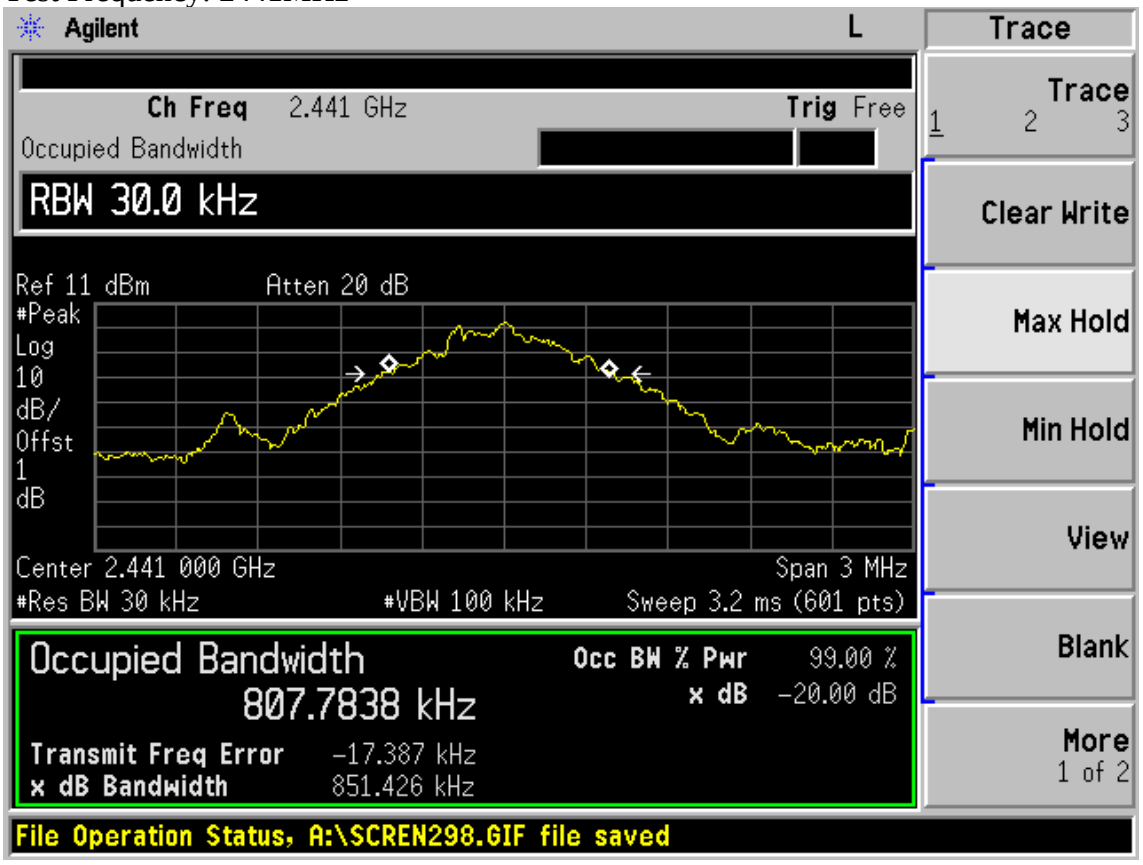
Cable loss: 1 dB		Attenuator loss: 20 dB	
Test Mode	CH （MHz）	20dB bandwidth （KHz）	Limit (KHz)
GFSK	2402	856.530	N/A
	2441	851.426	N/A
	2480	833.964	N/A
8-DPSK	2402	1219	N/A
	2441	1202	N/A
	2480	1209	N/A
Conclusion：PASS			

GFSK

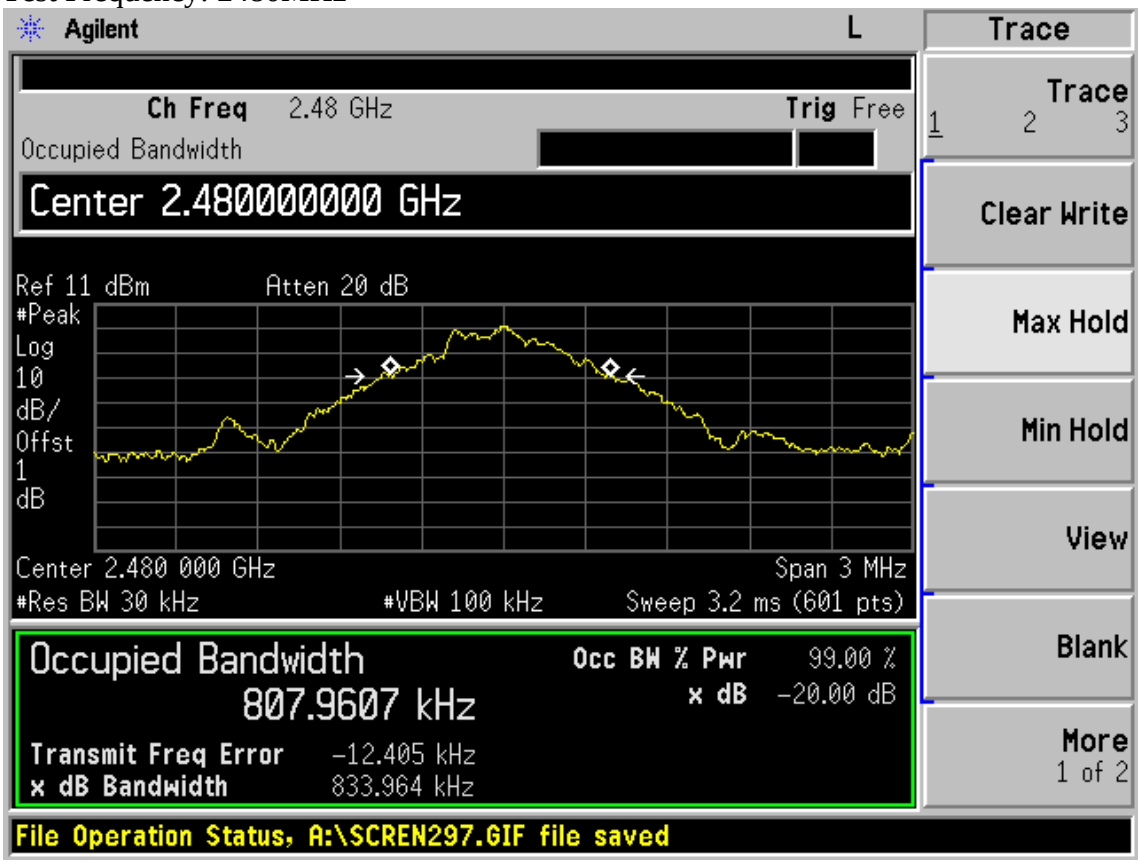
Test Frequency: 2402MHz



Test Frequency: 2441MHz

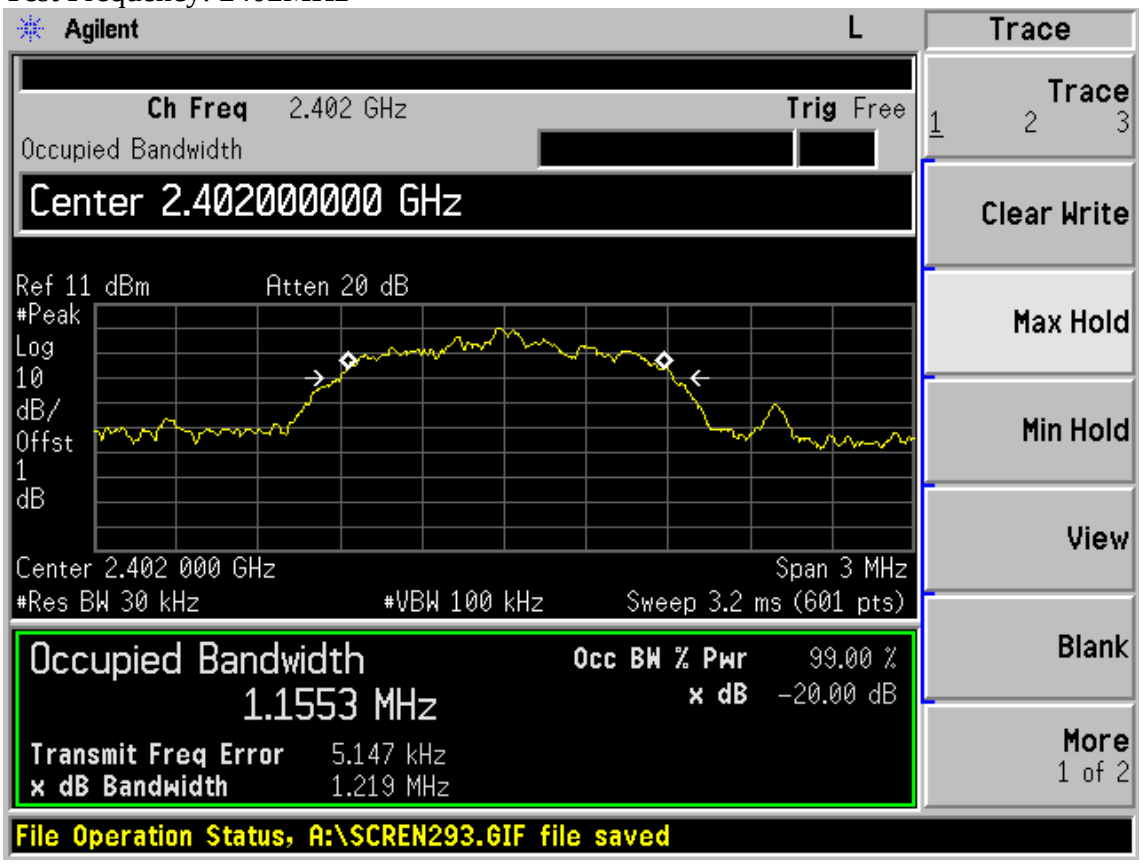


Test Frequency: 2480MHz

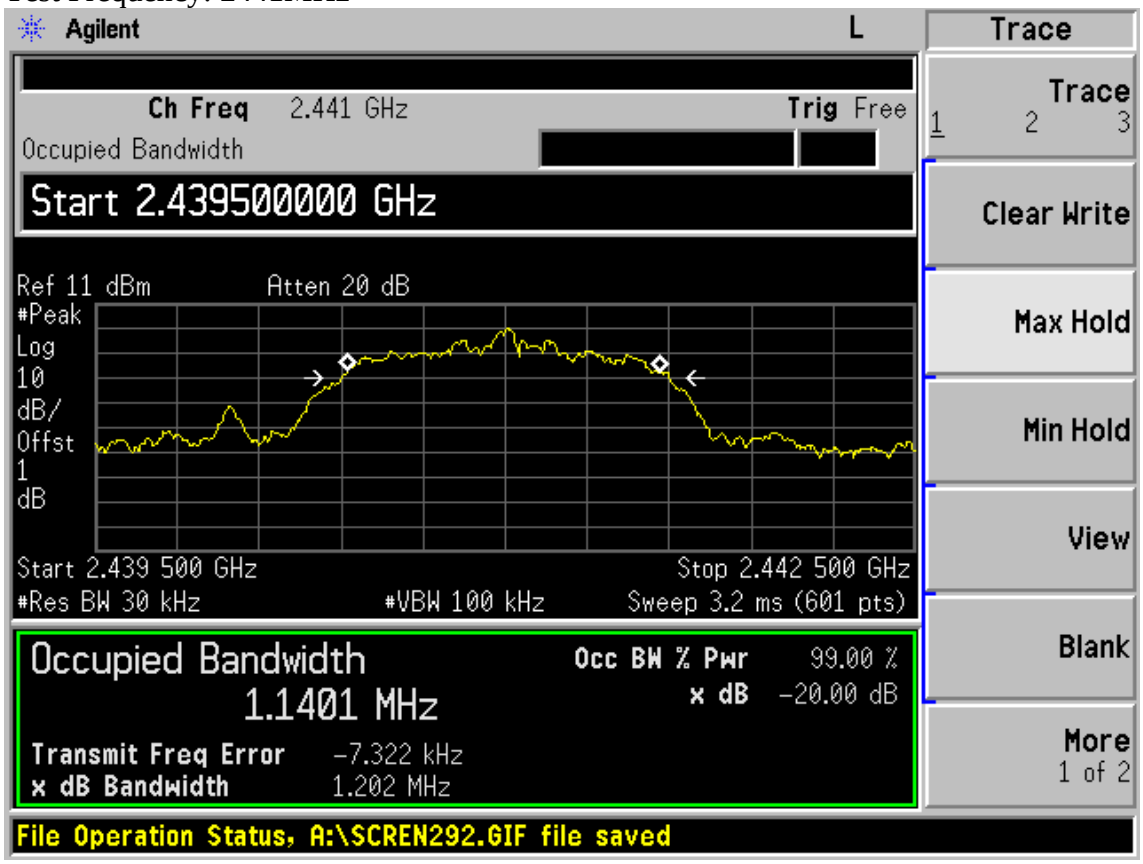


8-DPSK

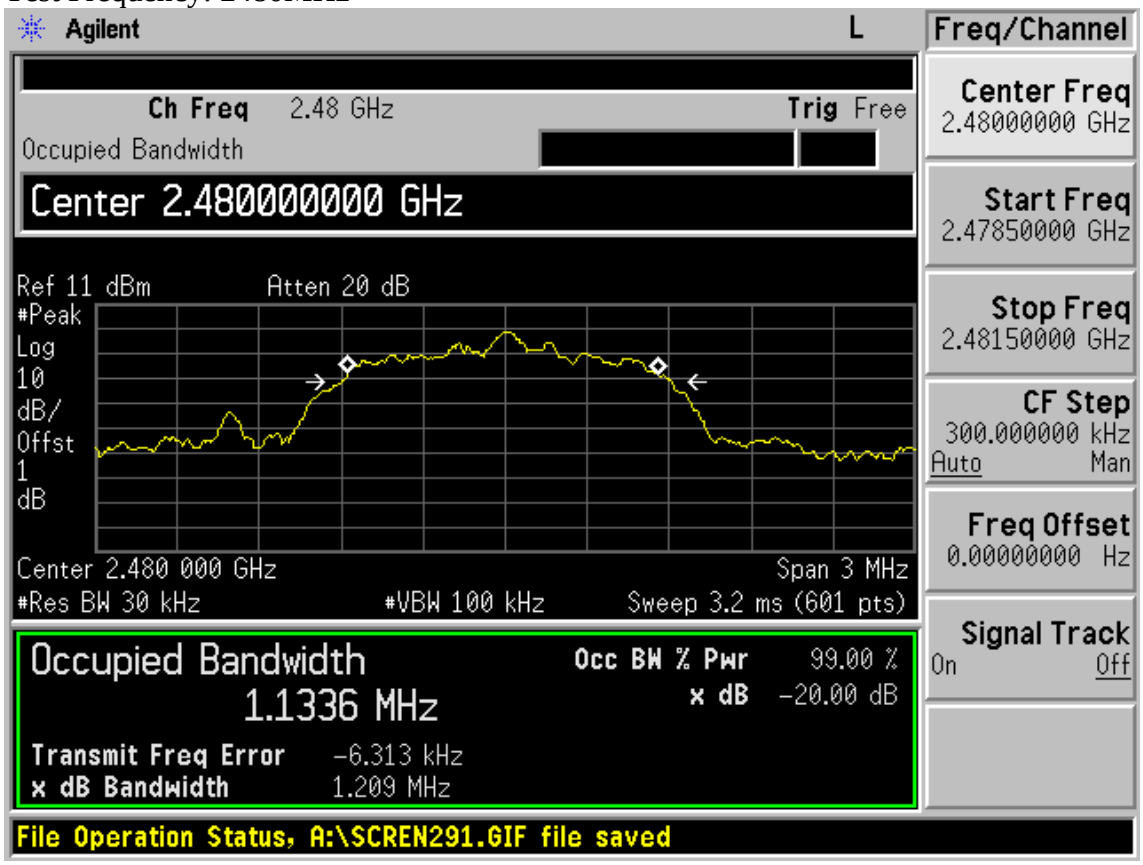
Test Frequency: 2402MHz



Test Frequency: 2441MHz



Test Frequency: 2480MHz



8. NUMBER OF HOPPING FREQUENCY TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum	Agilent	E4446A	US44300459	May.08, 13	1 Year

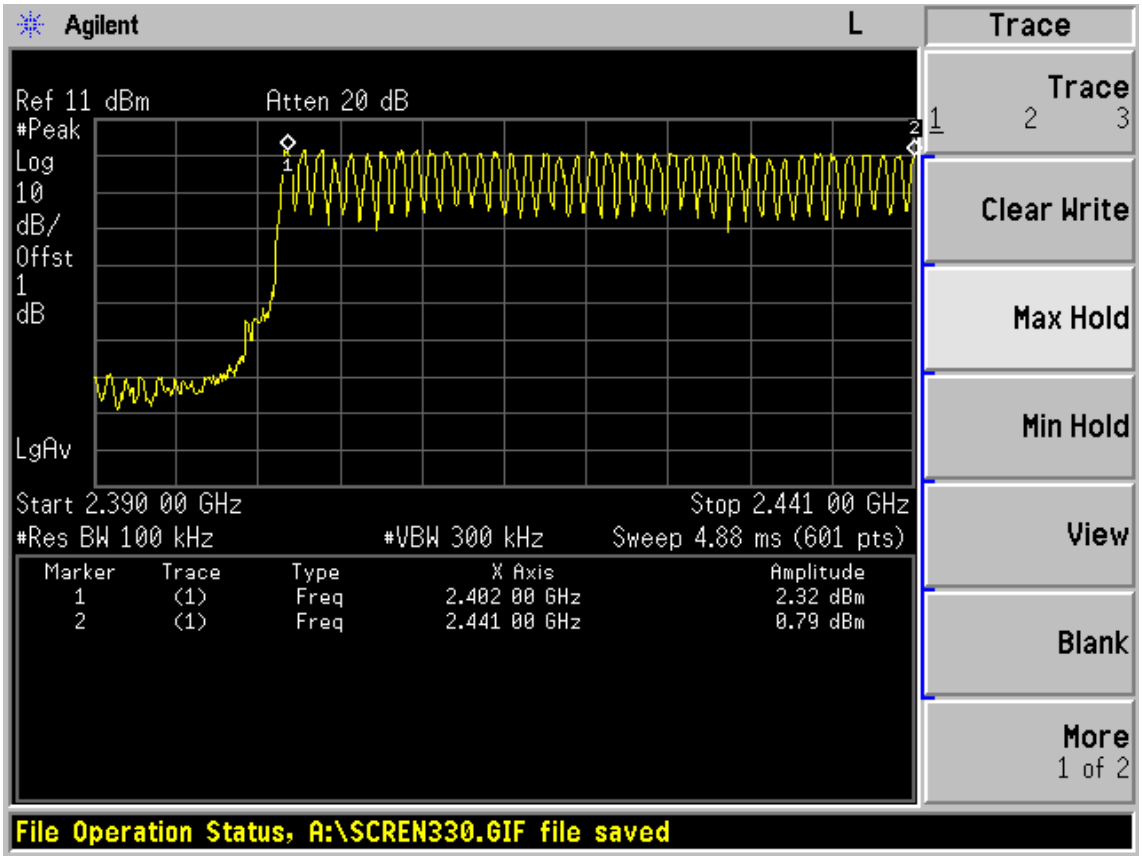
8.2.Limit

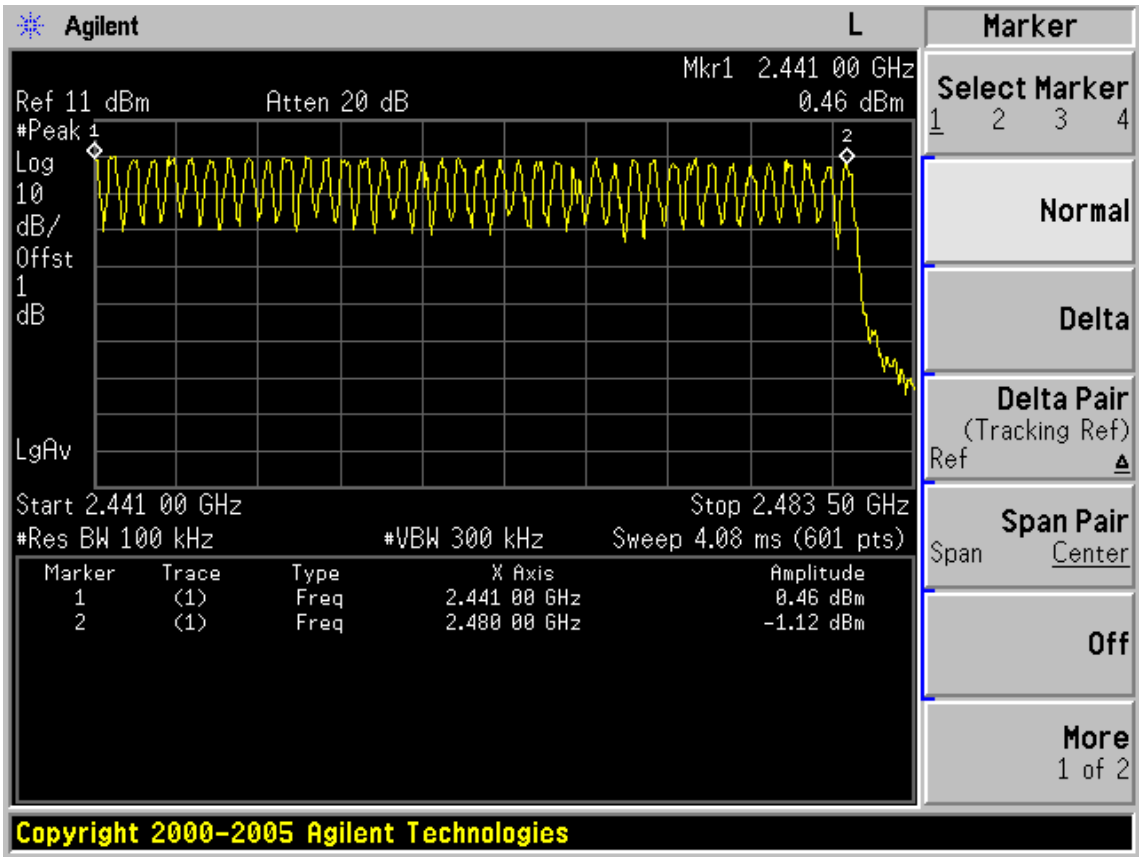
Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels

8.3.Test Results

EUT:W32		
M/N: W32		
Test date: 2013-12-28	Pressure: 101.2±1.0 kpa	Humidity: 48.4±3.0%
Tested by: Kevin-Hu	Test site: RF site	Temperature:20.7±0.6 ℃

Test Mode	Number of channel	Limit	Conclusion
8-DPSK	79	>=15	PASS
GFSK	79	>=15	PASS


Agilent
L
Trace
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
Trace
1 2 3
Clear Write
Max Hold
Min Hold
View
Blank
More
1 of 2
Start 2.390 00 GHz
Stop 2.441 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4.88 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.402 00 GHz 2.32 dBm
2 (1) Freq 2.441 00 GHz 0.79 dBm
File Operation Status, A:\SCREN330.GIF file saved


Agilent
L
Marker
Mkr1 2.441 00 GHz
0.46 dBm
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.441 00 GHz
Stop 2.483 50 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4.08 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.441 00 GHz 0.46 dBm
2 (1) Freq 2.480 00 GHz -1.12 dBm
Copyright 2000-2005 Agilent Technologies

9. DWELL TIME

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum	Agilent	E4446A	US44300459	May.08, 13	1 Year

9.2.Limit

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.

9.3.Test Results

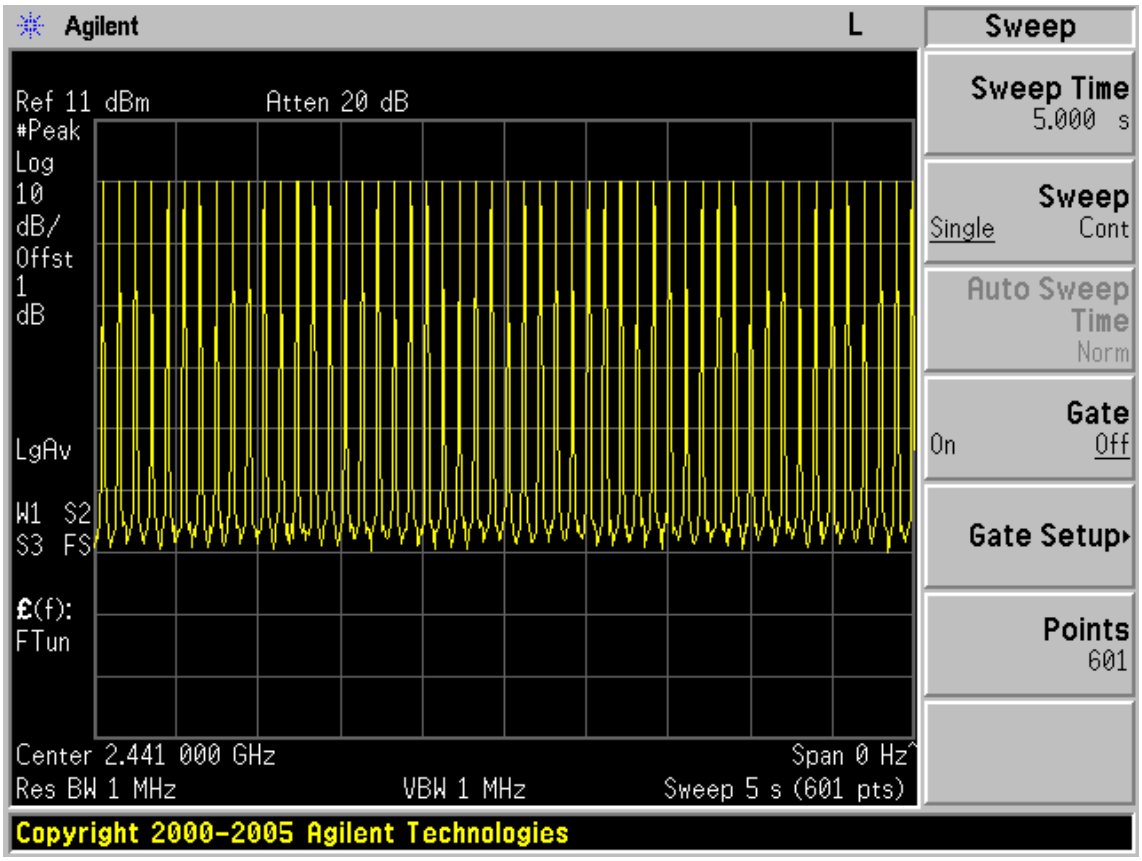
EUT:W32		
M/N: W32		
Test date: 2013-12-28	Pressure: 101.2±1.0 kpa	Humidity: 48.4±3.0%
Tested by: Kevin-Hu	Test site: RF site	Temperature:20.7±0.6 ℃

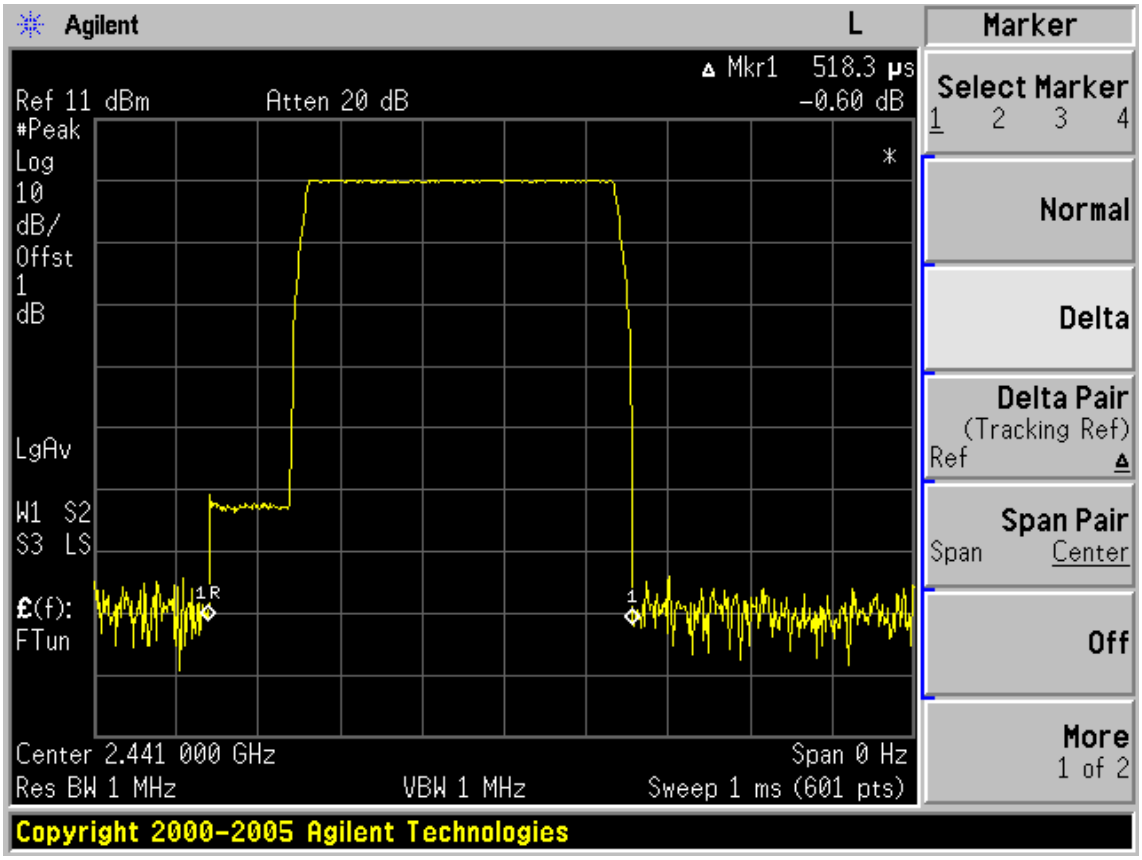
Mode		dwell time	Limit	Conclusion
GFSK	DH1	51hops/5s*0.4*79chanels*0.5183ms =167.05ms	<400ms	PASS
	DH3	25hops/5s*0.4*79chanels*1.785ms =282.03ms	<400ms	PASS
	DH5	17hops/5s*0.4*79chanels*3.058ms=328.55ms	<400ms	PASS
8-DPSK	DH1	51hops/5s*0.4*79chanels*0.5317ms =171.38ms	<400ms	PASS
	DH3	25hops/5s*0.4*79chanels*1.785ms =282.03ms	<400ms	PASS
	DH5	17hops/5s*0.4*79chanels*3.058ms =328.55ms	<400ms	PASS

Note: All the lower levels were signal from receiver's, and should not considered in here.

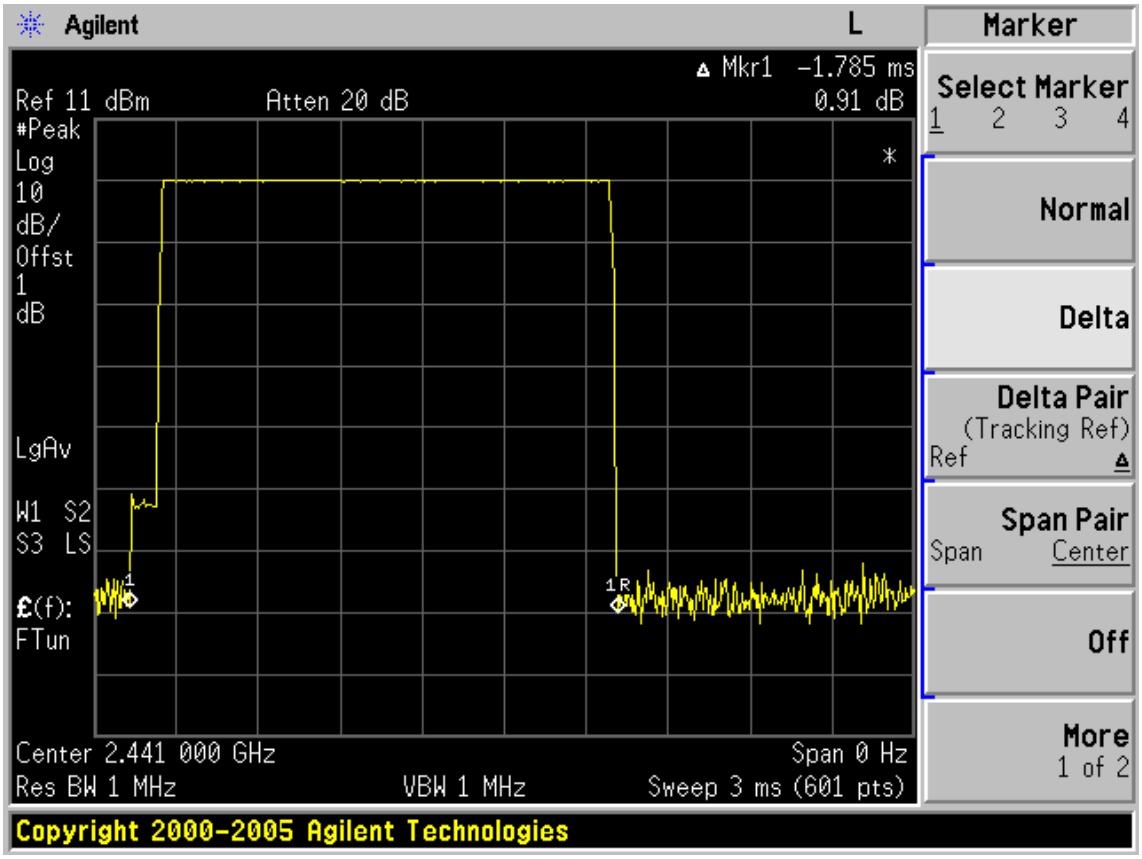
Test Mode: GFSK

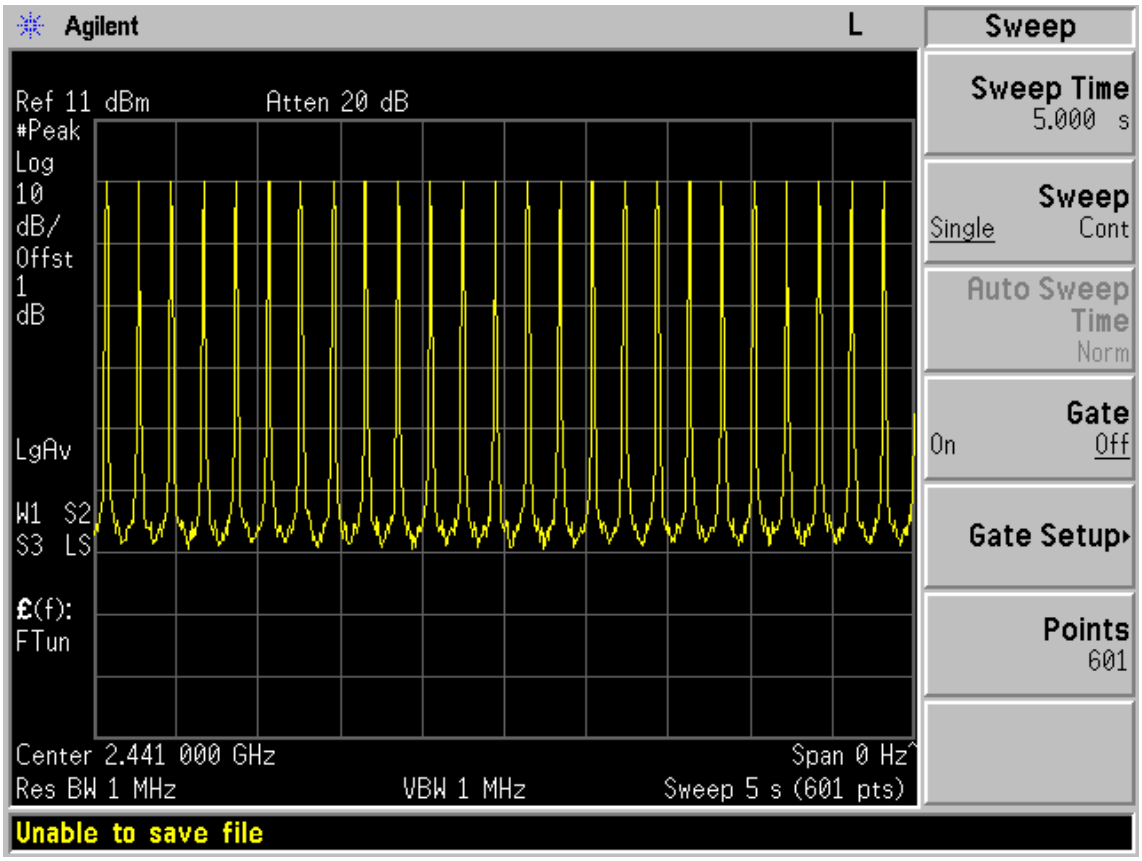
DH 1



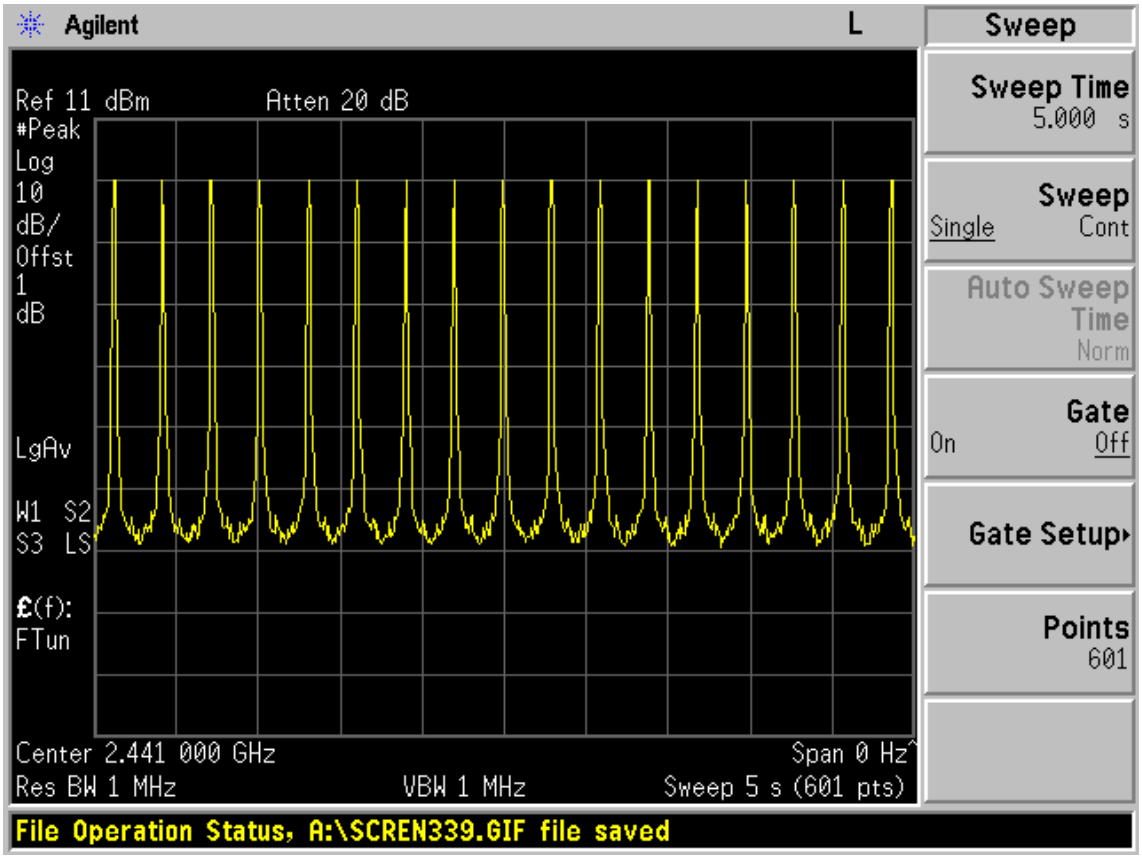


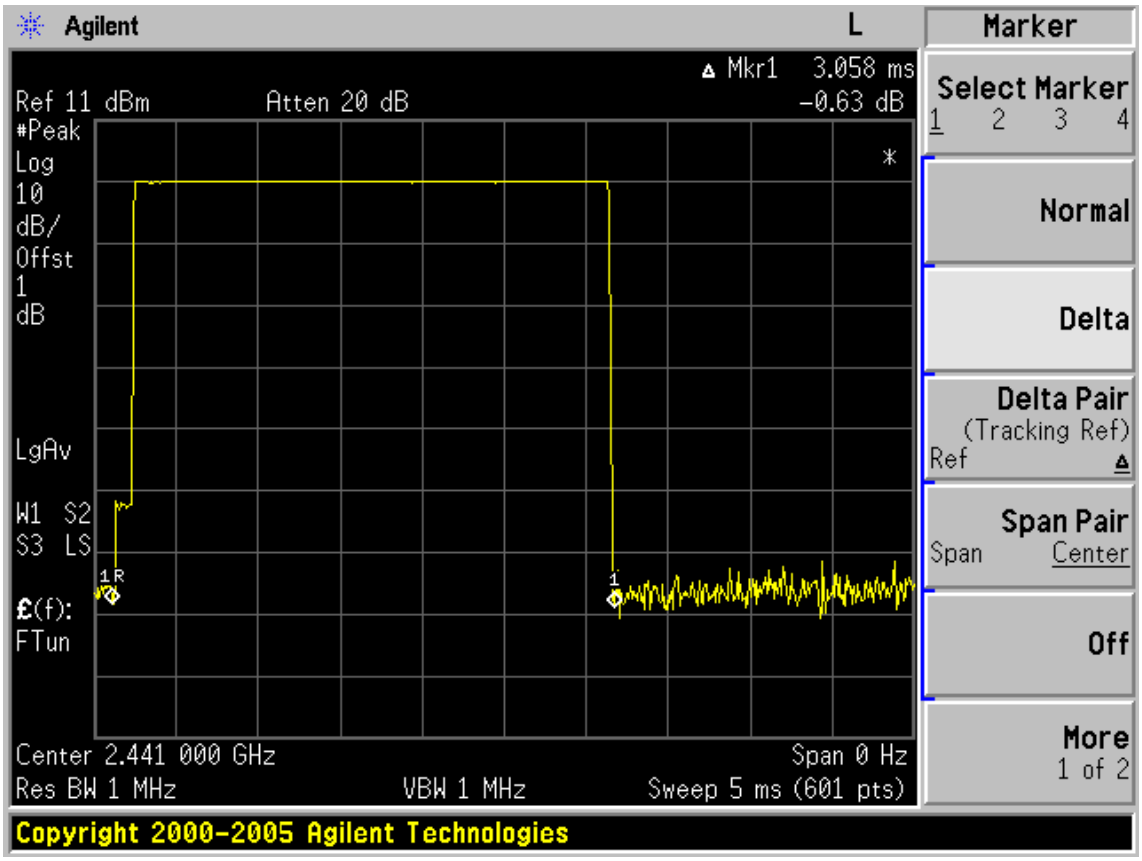
DH 3


Agilent
L
Marker
Mkr1 -1.785 ms
0.91 dB
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 3 ms (601 pts)
Copyright 2000-2005 Agilent Technologies

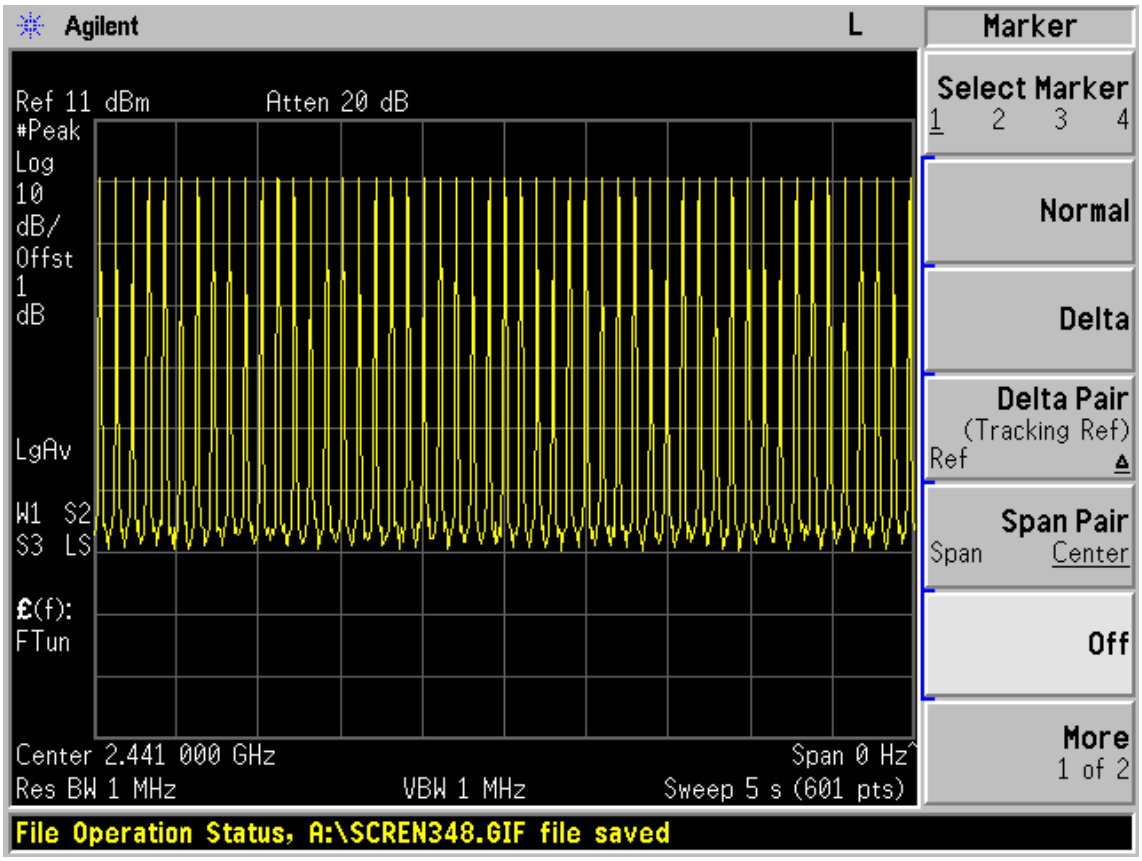

Agilent
L
Sweep
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Sweep Time
5.000 s
Sweep
Single Cont
Auto Sweep Time
Norm
Gate
On Off
Gate Setup
Points
601
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 5 s (601 pts)
Unable to save file

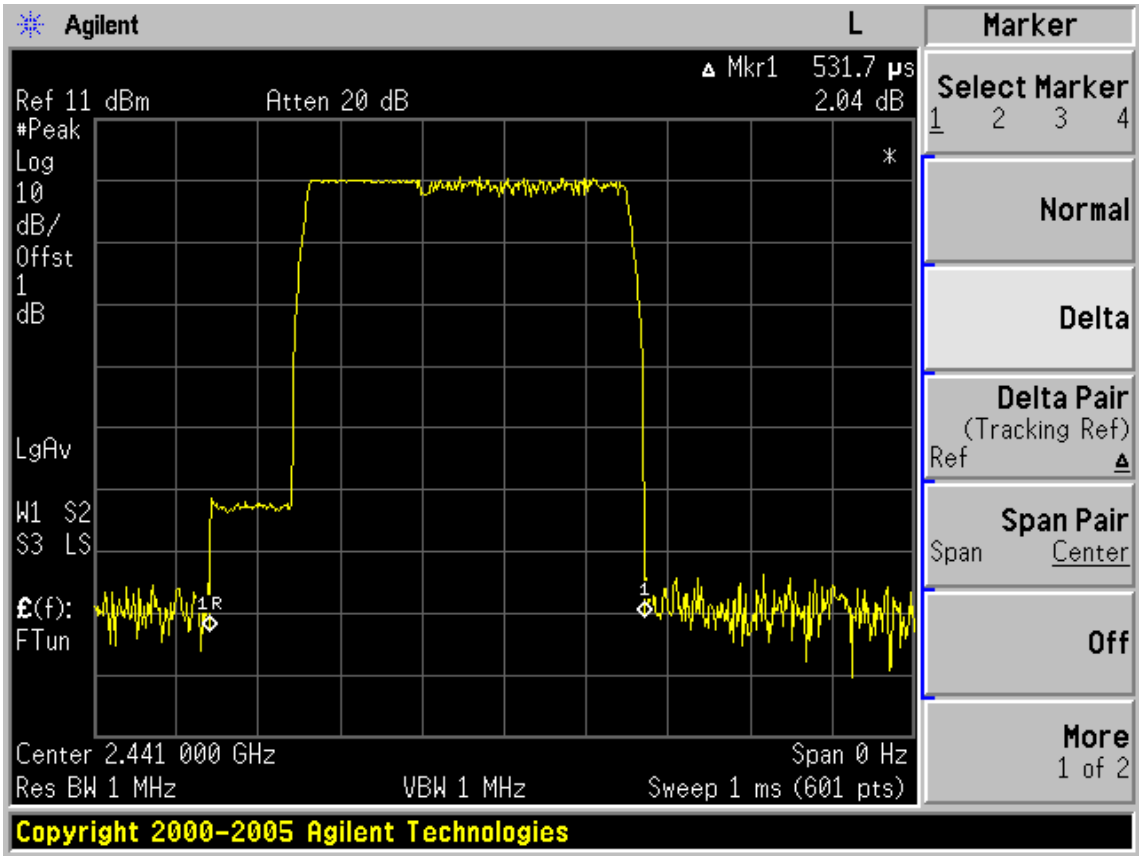
DH 5


Agilent
L
Sweep
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Sweep Time
5.000 s
Sweep
Single Cont
Auto Sweep Time
Norm
Gate
On Off
Gate Setup
Points
601
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 5 s (601 pts)
File Operation Status, A:\SCREN339.GIF file saved

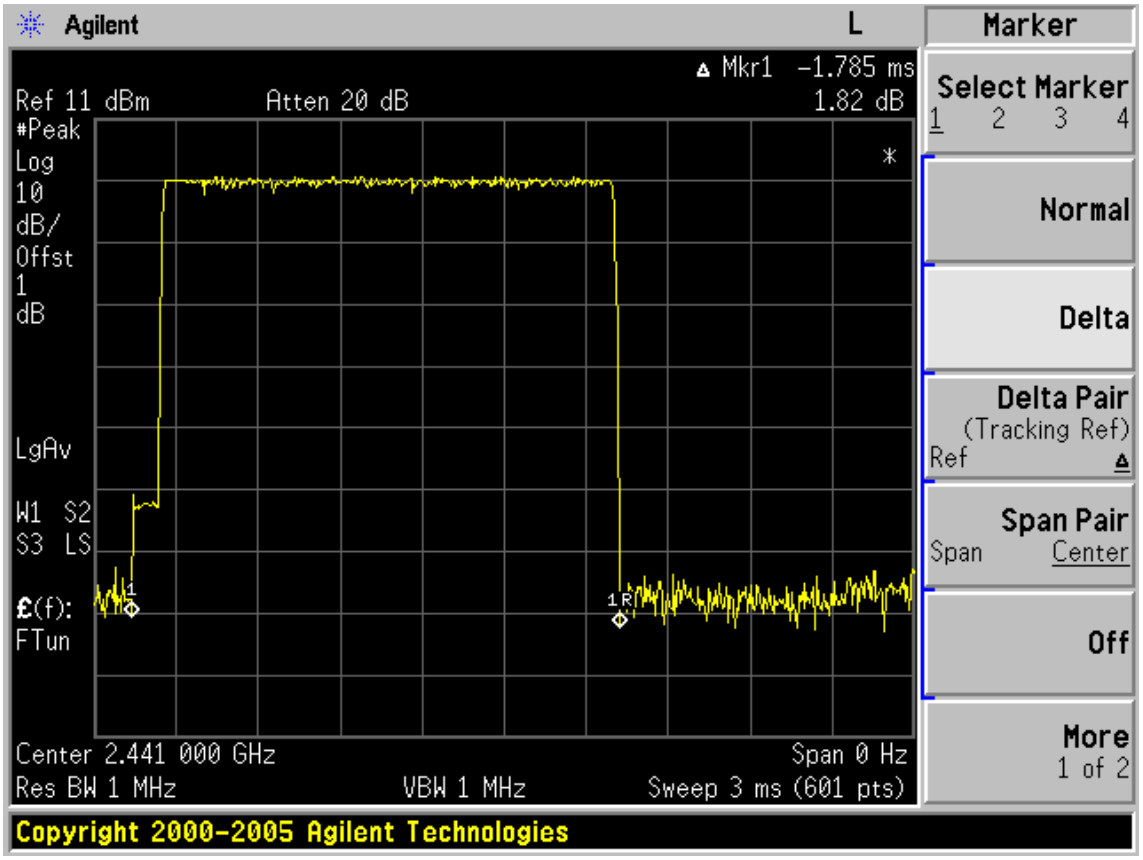

Agilent
L
Marker
Δ Mkr1 3.058 ms
-0.63 dB
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Δ
Span Pair
Span Center
Off
More
1 of 2
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 5 ms (601 pts)
Copyright 2000-2005 Agilent Technologies

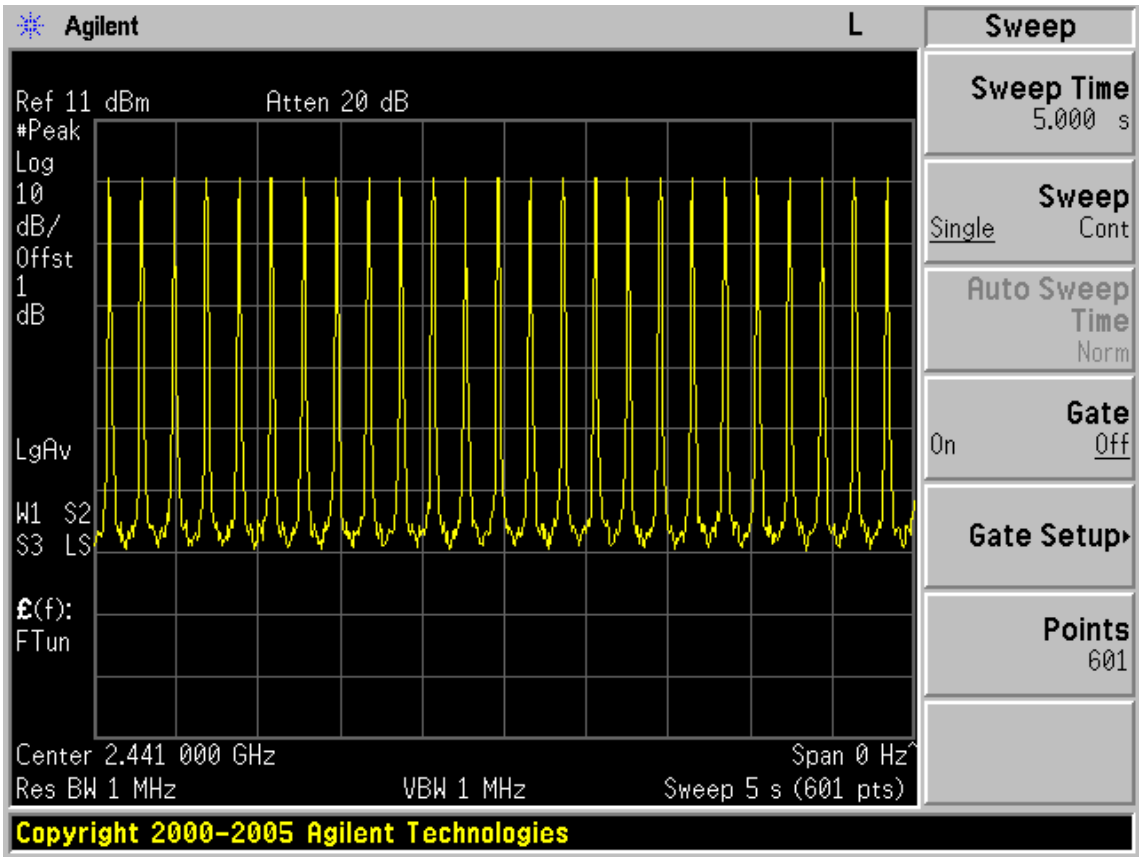
Test Mode: 8-DPSK
DH 1



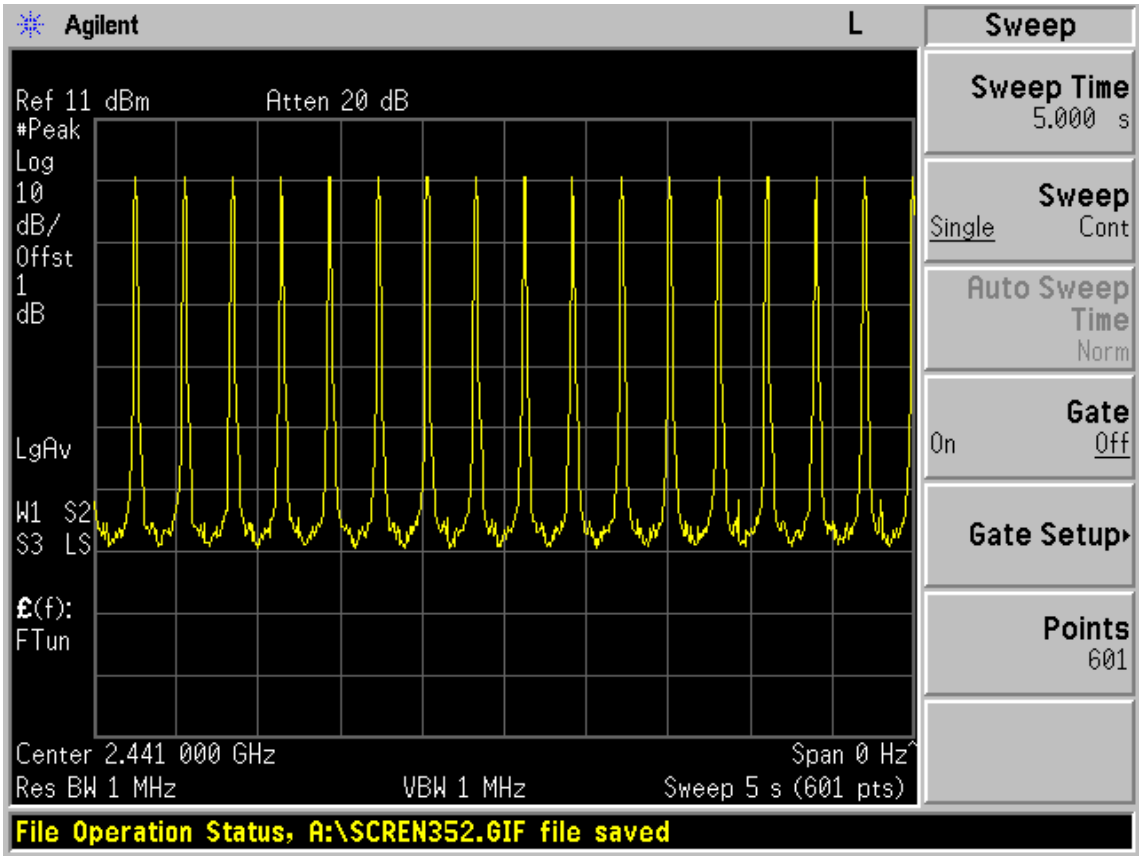


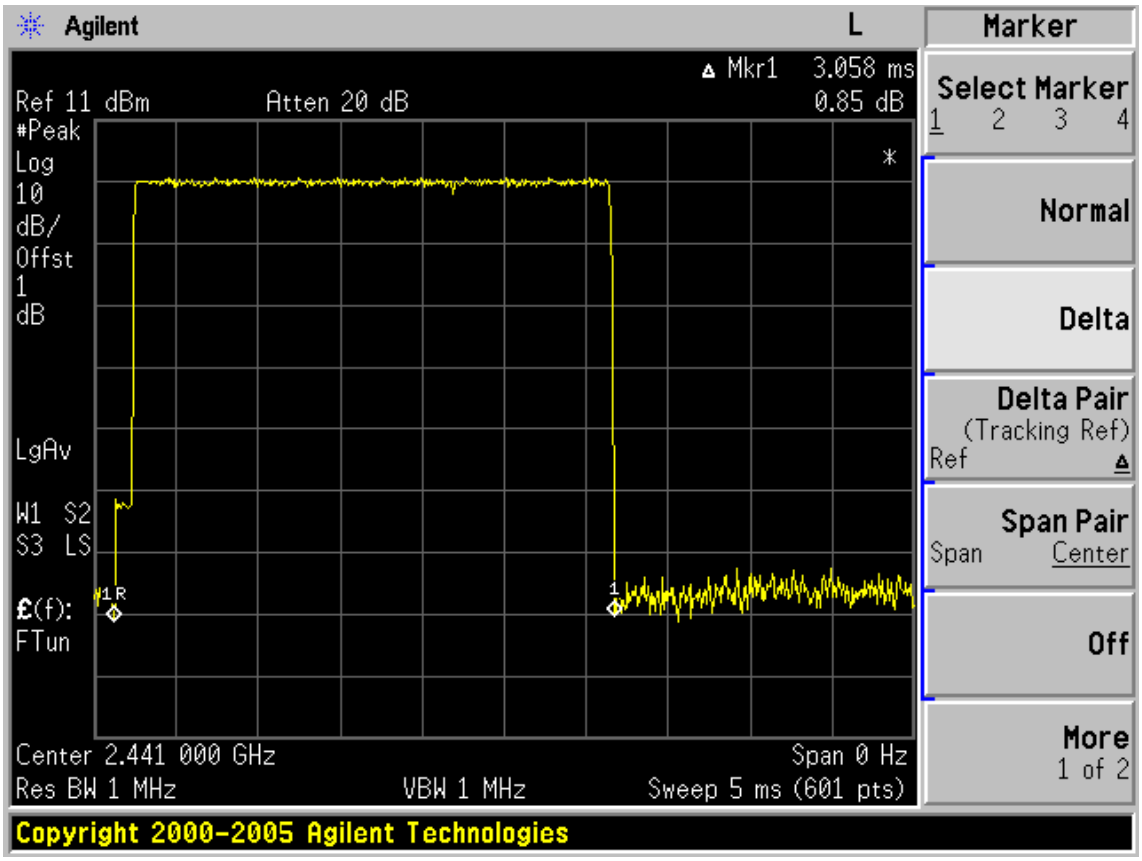
DH 3


Agilent
L
Marker
Mkr1 -1.785 ms
1.82 dB
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 3 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
L
Sweep
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 5 s (601 pts)
Sweep Time
5.000 s
Sweep
Single Cont
Auto Sweep Time
Norm
Gate
On Off
Gate Setup
Points
601
Copyright 2000-2005 Agilent Technologies

DH 5


Agilent
L
Sweep
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Sweep Time
5.000 s
Sweep
Single Cont
Auto Sweep Time
Norm
Gate
On Off
Gate Setup
Points
601
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 5 s (601 pts)
File Operation Status, A:\SCREN352.GIF file saved


Agilent
L
Marker
Δ Mkr1 3.058 ms
0.85 dB
Ref 11 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
1
dB
LgAv
W1 S2
S3 LS
£(f):
FTun
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Δ
Span Pair
Span Center
Off
More
1 of 2
Center 2.441 000 GHz
Span 0 Hz
Res BW 1 MHz
VBW 1 MHz
Sweep 5 ms (601 pts)
Copyright 2000-2005 Agilent Technologies

10.MAXIMUM PEAK OUTPUT POWER TEST

10.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 13	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 13	1 Year
3.	Antenna	EMCO	3115	9607-4877	May.08, 13	1 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 13	1 Year
5.	Power Meter	Anritsu	ML2487A	6K00002472	May.08, 13	1 Year
6.	Power Sensor	Anritsu	MA2491A	033005	May.08, 13	1 Year

10.2.Limit

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

10.3.Test Procedure

Connected the EUT's antenna port to power meter, and use power meter to test peak output power Directly.

10.4.Test Results

EUT:W32		
M/N:W32		
Test date: 2013-12-28	Pressure: 101.4±1.0 kpa	Humidity: 51.2±3.0%
Tested by: Kevin_Hu	Test site: RF site	Temperature:22.4±0.6 ℃

Cable loss: 1dB		Attenuator loss: 20 dB	
Test Mode	CH (MHz)	Peak output Power （dBm）	Limit (dBm)
GFSK	2402	0.05	30
	2441	0.59	30
	2480	0.58	30
8-DPSK	2402	-1.87	30
	2441	-1.33	30
	2480	-1.32	30
Conclusion: PASS			

11. BAND EDGE COMPLIANCE TEST

11.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 13	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 13	1 Year
3.	Antenna	EMCO	3115	9607-4877	May.08, 13	1 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 13	1 Year

11.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

11.3. Test Produce

For upper band emissions that are up to two bandwidths(2MHz) away (2483.5MHz to 2485.5MHz） from the band-edge use below produce:

1. Choose a spectrum analyzer span that encompasses both the peak of the fundamental emission and the band-edge emission under investigation. Set the analyzer RBW to 100KHz and with a video bandwidth 300KHz. Record the peak levels of the fundamental emission and the relevant band-edge emission, Observe the stored trace and measure the amplitude delta between the peak of the fundamental and the peak of the band-edge emission. This is not a field strength measurement, it is only a relative measurement to determine the amount by which the emission drops at the band edge relative to the highest fundamental emission level.
2. Subtract the delta measured in step (1) from the maximum field strengths measured in clause 4 .The resultant field strengths are then used to determine band-edge compliance as required by Section 15.205

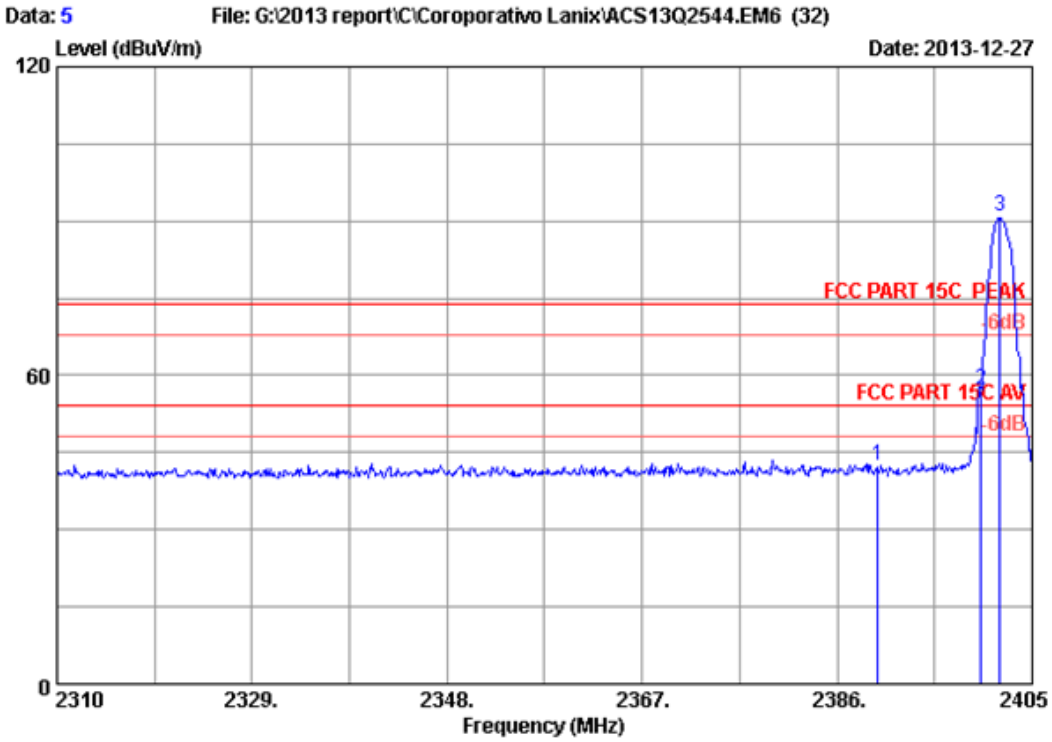
For emissions above two bandwidths away from the band-edge use below produce:

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
   (a) PEAK: RBW=1MHz ;VBW=3MHz, PK detector, Sweep=AUTO
   (b) This is pulse Modulation device a duty cycle factor was used to calculate average level based measured peak level.

11.4. Test Results

Pass (The testing data was attached in the next pages.)

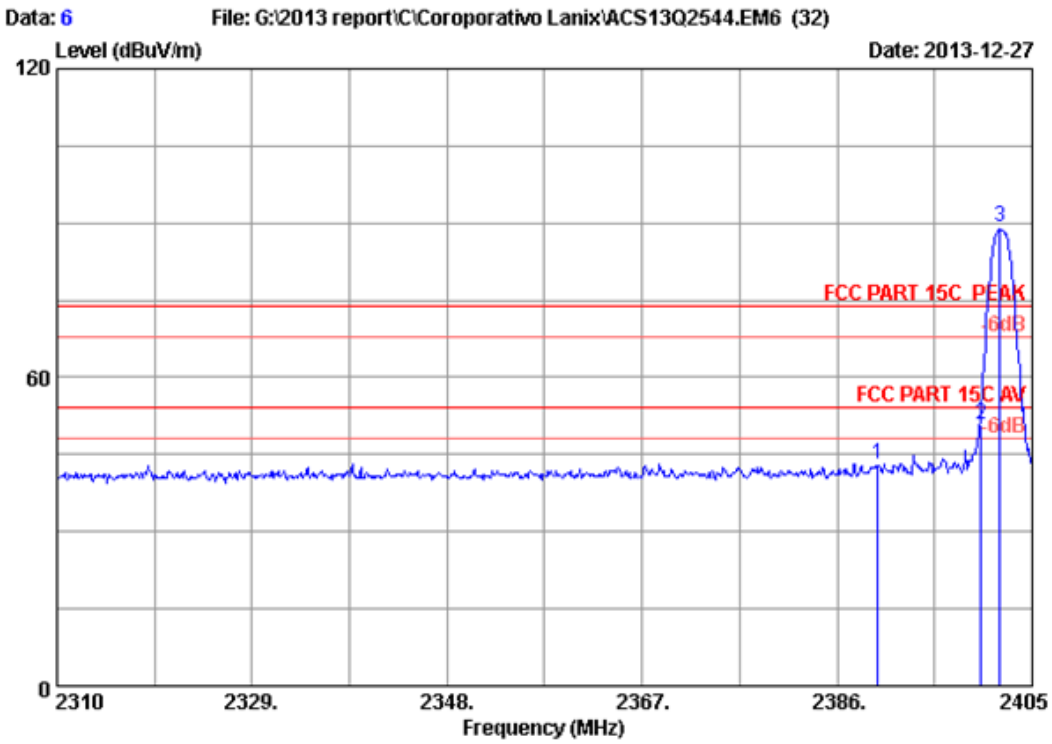
Note: If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.



Site no. : 3m Chamber Data no. : 5
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2402MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	44.15	42.39	74.00	31.61	Peak
2	2400.000	28.18	5.80	35.70	58.98	57.26	74.00	16.74	Peak
3	2401.865	28.18	5.80	35.70	92.77	91.05	74.00	-17.05	Peak

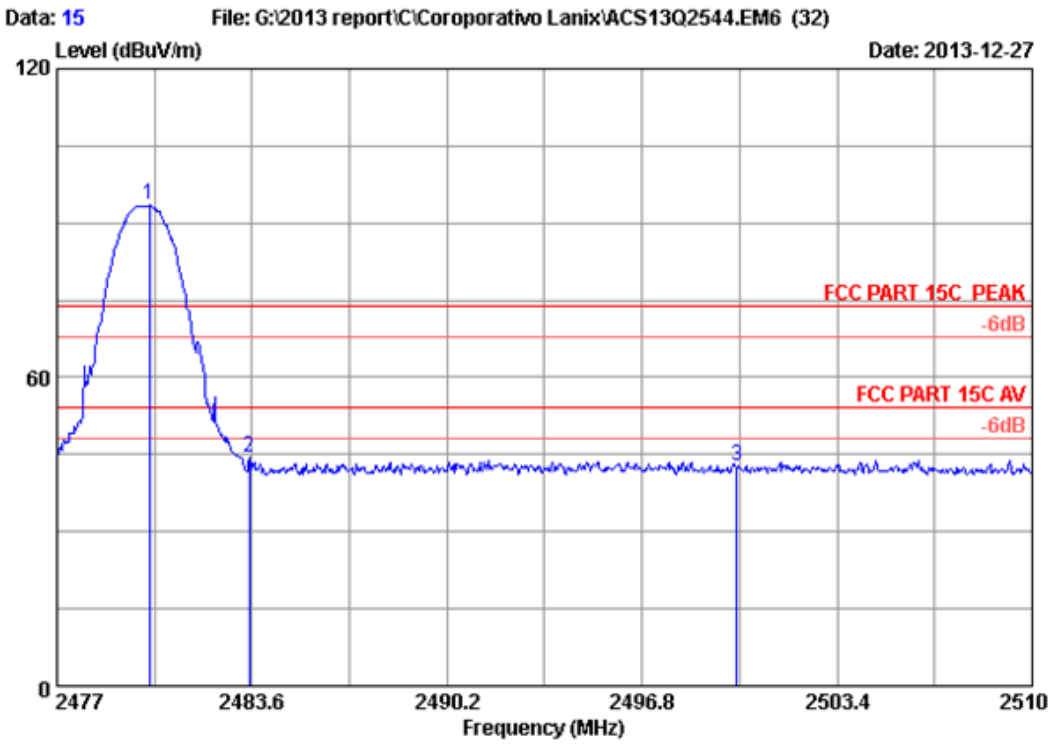
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2402MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	45.01	43.25	74.00	30.75	Peak
2	2400.000	28.18	5.80	35.70	52.55	50.83	74.00	23.17	Peak
3	2401.865	28.18	5.80	35.70	90.90	89.18	74.00	-15.18	Peak

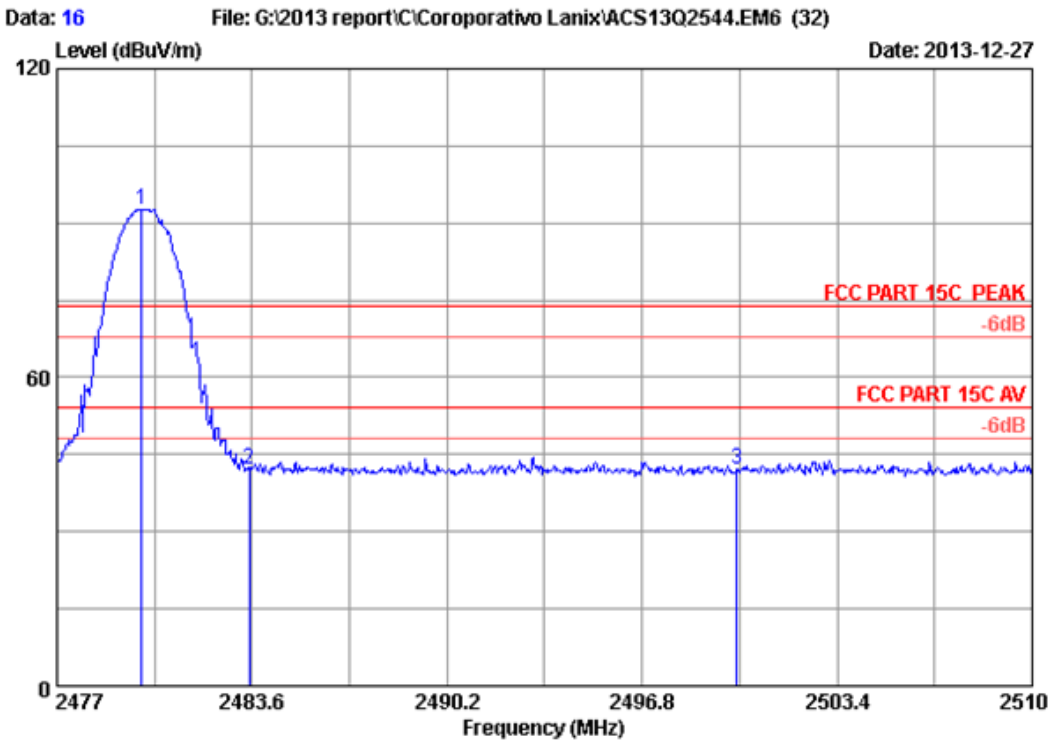
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 15
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2480MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.135	28.36	5.91	35.70	94.95	93.52	74.00	-19.52	Peak
2	2483.500	28.36	5.92	35.70	45.89	44.47	74.00	29.53	Peak
3	2500.000	28.40	5.94	35.70	44.31	42.95	74.00	31.05	Peak

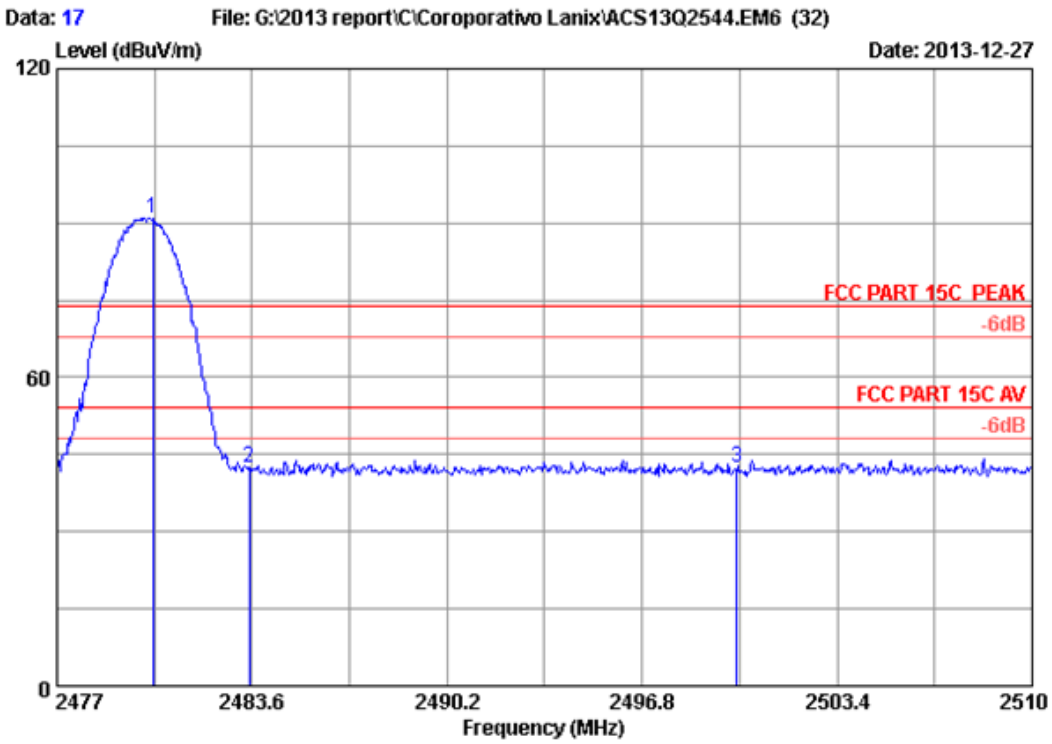
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : GFSK 2480MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.871	28.36	5.91	35.70	94.12	92.69	74.00	-18.69	Peak
2	2483.500	28.36	5.92	35.70	43.47	42.05	74.00	31.95	Peak
3	2500.000	28.40	5.94	35.70	43.37	42.01	74.00	31.99	Peak

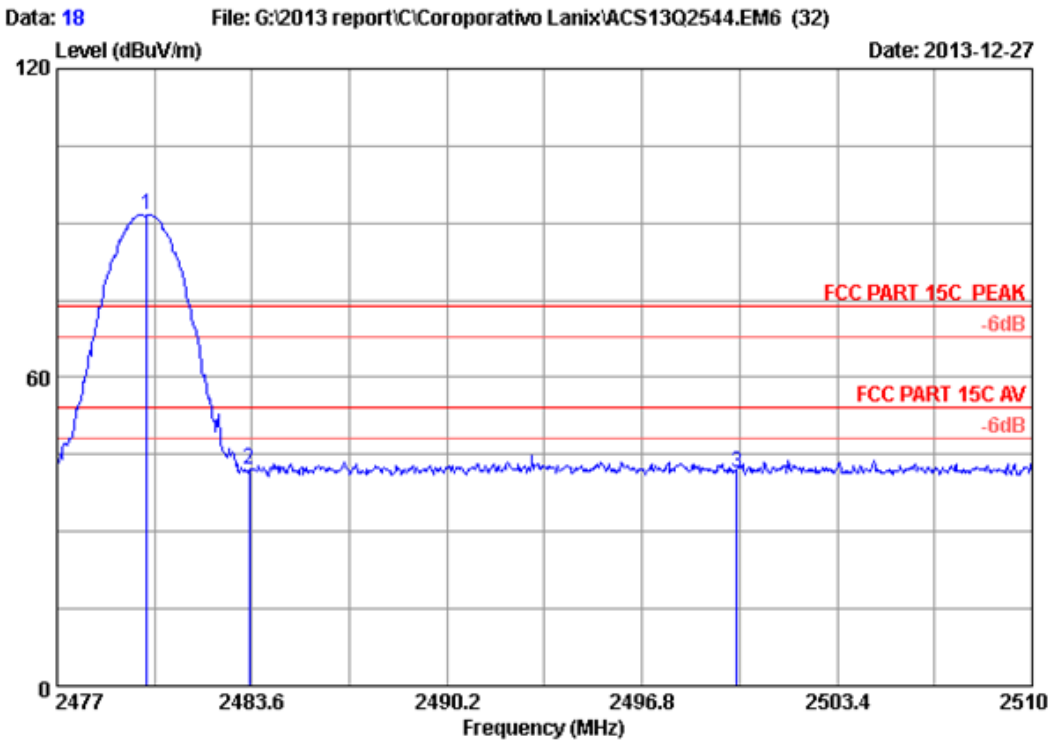
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 17
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2480MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.234	28.36	5.91	35.70	92.44	91.01	74.00	-17.01	Peak
2	2483.500	28.36	5.92	35.70	43.87	42.45	74.00	31.55	Peak
3	2500.000	28.40	5.94	35.70	43.67	42.31	74.00	31.69	Peak

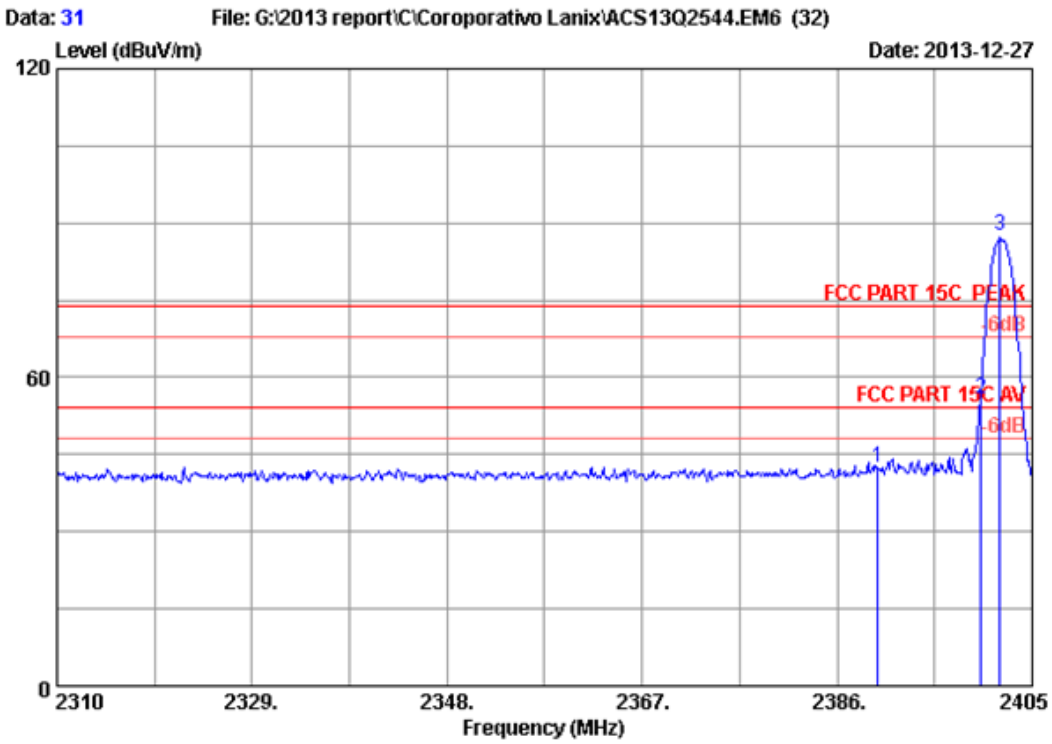
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2480MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.036	28.36	5.91	35.70	93.14	91.71	74.00	-17.71	Peak
2	2483.500	28.36	5.92	35.70	43.45	42.03	74.00	31.97	Peak
3	2500.000	28.40	5.94	35.70	42.91	41.55	74.00	32.45	Peak

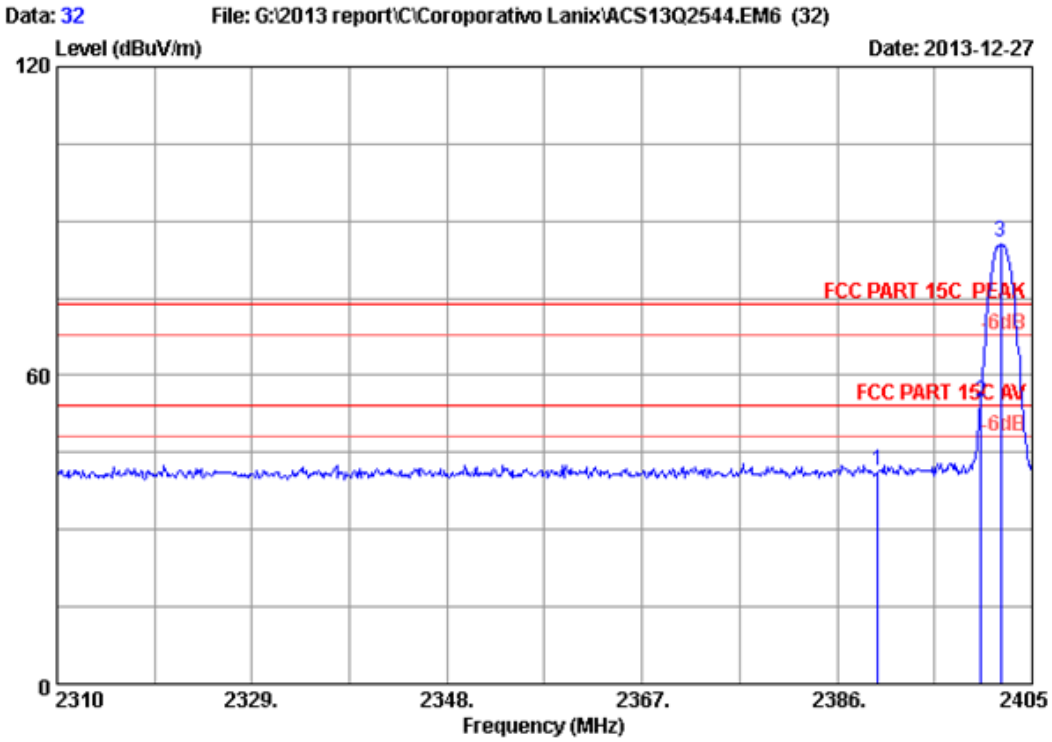
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 31
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2402MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	44.29	42.53	74.00	31.47	Peak
2	2400.000	28.18	5.80	35.70	57.70	55.98	74.00	18.02	Peak
3	2401.865	28.18	5.80	35.70	89.17	87.45	74.00	-13.45	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : W32
Power supply : DC 5V From Adapter Input AC 120V/60Hz
Test mode : 8-DPSK 2402MHz Tx Mode
M/N : W32

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	43.16	41.40	74.00	32.60	Peak
2	2400.000	28.18	5.80	35.70	56.65	54.93	74.00	19.07	Peak
3	2401.960	28.18	5.80	35.70	87.59	85.87	74.00	-11.87	Peak

Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

12. DEVIATION TO TEST SPECIFICATIONS

[NONE]