

APPLICATION FOR CERTIFICATION  
On Behalf of

Philips Consumer Lifestyle

Go Gear OPUS, MP3 Video Player

Model Number	Brand Name
SA1OPSXXYB/zz	PHILIPS

Test Model No.: SA1OPS32KB/37

FCC ID: BOUSA1OPSXXYB

Prepared for : Philips Consumer Lifestyle  
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37914 United States

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Report Number : ACS-F09031  
Date of Test : Feb.11~19, 2009  
Date of Report : Feb.25, 2009

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Reg. No.: DAT-P-091/99-01

## TEST REPORT CERTIFICATION

Applicant: : Philips Consumer Lifestyle  
 Factory (1) : ShenZhen Sang Fei Consumer Communications Co., Ltd  
 Factory (2) : Philips Ltd. Assembly Centre Hungary (PACH)  
 Factory (3) : Philips Da Amazonia Ind. Eletronica Ltda  
 Factory (4) : Shenzhen Sea Star Technology Co., Ltd  
 Factory (5) : Shenzhen Sea Star Technology Co., Ltd  
 Factory (6) : SHENZHEN FEREX ELECTRONICS CO.,LTD  
 Factory (7) : Keen High Technologies Ltd.  
 EUT Description : Go Gear OPUS, MP3 Video Player  
 FCC ID : BOUSA10PSXXYB

(A)MODEL NO. & BRAND NAME	:	Model Number SA10PSXXYB/zz	Brand Name PHILIPS
---------------------------	---	-------------------------------	-----------------------

(B)TEST MODEL NO. : SA10PS32KB/37  
 (C)POWER SUPPLY : DC 3.7V  
 (D)TEST VOLTAGE : DC 3.7V

Test Procedure Used:  
 FCC Rules and Regulations Part 15 Subpart C 2008

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions.

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 requirements.

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.

Date of Test: Feb.11~19, 2009

Prepared by: Edie Huang  
 Edie Huang / Assistant

Reviewer: Jamy Yu  
 Jamy Yu / Senior Engineer



Approved & Authorized Signer: Ken Lu  
 Ken Lu / 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
Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.4: 2003 DA 00-705	PASS
Radiated Emission Test	FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.4: 2003 DA 00-705	PASS
20 dB Bandwidth Test	FCC Part 15: 15.247(a)(1) DA 00-705	PASS
Number Of Hopping Frequency Test	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	PASS
Dwell Time Test	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	PASS
Maximum Peak Output Power Test	FCC Part 15: 15.247(b)(1) DA 00-705	PASS
Band Edge Compliance Test	FCC Part 15: 15.247(d) DA 00-705	PASS
MPE ESTIMATION	FCC Part 2: 2.1093	PASS

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description : Go Gear OPUS, MP3 Video Player

Model Number & Brand Name	Model Number	Brand Name
	SA1OPSXXYB/zz	PHILIPS

XX means flash size.

GoGear OPUS, MP3 Video Player with model SA1OPSXXYB consist of the various stroke versions which are identical in electrical, mechanical and physical construction. The last two characters “Y” and “B” representative of the following differences. “Y” denoted can be A-W consist of the different cabinet colour only.

“B” denoted such device with Bluetooth communication feature

Except the following(s) :	Stroke number, Packaging and memory size are differences /zz
	/07 denote sales for U.S.A. and the packaging in Blister type /17 denote sales for Canada and the packaging in Blister type /37 denote sales for USA and Canada and the packaging in Blister type
Memory Size 4GB:	SA1OPSXXYB/zz, “XX” denoted the flash memory size as 4GB.
Memory Size 8GB:	SA1OPSXXYB/zz, “XX” denoted the flash memory size as 8GB.
Memory Size 16GB:	SA1OPSXXYB/zz, “XX” denoted the flash memory size as 16GB.
Memory Size 32GB:	SA1OPSXXYB/zz, “XX” denoted the flash memory size as 32GB.

Remarks: And all models do not by-back with an AC-DC adaptor and plastic painting colour as non-conductive type.

Test Model No.: SA1OPS32KB/37

FCC ID : BOUSA1OPSXXYB

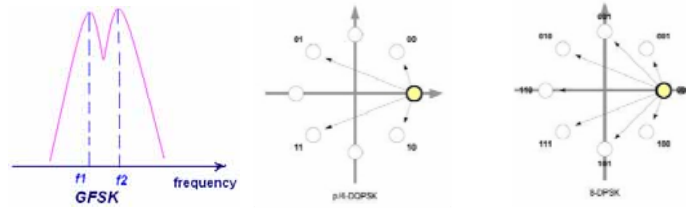
Operation frequency : 2.402GHz-----2.480GHz

Operation Channel : 79Channels

Radio Technology : Bluetooth V2.0 and EDR

Antenna Assembly Gain : 1.7dBi(maximum)

Modulation Technology : GFSK,  $\pi/4$  DQPSK, 8- DPSK



Note: As above indicated GFSK is different from  $\pi/4$ DQPSK and 8- DPSK. and 8-DPSK is similar with  $\pi/4$ DQPSK but more complex, and with the bigger data rate. So all the test were performed with GFSK modulation and 8-DPSK modulation.

Power Supply : Battery 3.7V or DC 5V form PC USB port, and the worst case is DC 5V Form computer USB port in exploratory measurements, So all the final test data below were only DC 5V recorded.

Applicant : Philips Consumer Lifestyle  
3029 East Governor John Sevier Hwy, Knoxville, TN 37914  
United States

Factory (1) : ShenZhen Sang Fei Consumer Communications Co., Ltd  
11 Science and Technology Road Shenzhen Hi-tech Industrial  
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Factory (2) : Philips Ltd. Assembly Centre Hungary (PACH)  
Holland fasor 6. H-8000 Szekesfehervar, Hungary

Factory (3) : Philips Da Amazonia Ind. Eletronica Ltda  
Av. Torquato Tapajos, 2236-Flores 69058-830  
Manaus-AM-Brazil

Factory (4) : Shenzhen Sea Star Technology Co.,Ltd  
Longquan Science Technology Industrial Park Huarong Road,  
South of Jihe highway, Longhua, Baoan District, Shenzhen  
Guangdong Province 518131 China

Factory (5) : Shenzhen Sea Star Technology Co.,Ltd  
Sea Star Science Technology Park  
baolong 6 Road, Baolong industrial Town, Longgang District  
Shenzhen P.R.C

Factory (6) : SHENZHEN FEREX ELECTRONICS CO.,LTD  
Block 1&3, Bo Ju Qian Neng Industrial Park, The 3rd Industrial  
Zone, Li Song Lang Community, Gongming Town, Shenzhen  
City, Guangdong Province, China

Factory (7) : Keen High Technologies Ltd.  
Block A & B, Ze Da Li Industrial Zone, Jian-An 1 Raod,  
New-High, Technologies area, Tang Wei, Fuyong, Bao-An,

Shenzhen Guangdong Province 518103 China

USB Cable : Unshielded, Detachable, 1.2m

Earphone : Manufacturer: Philips  
Cable: Unshielded, Detachable, 1.0m

Date of Test : Feb.11~19, 2009

Date of Receipt : Feb.09, 2009

Sample Type : Series Production

## 2.2. Test information

The test software “CSR Bluesuite v2.0.0.0” was used to control EUT work in Continuous TX mode, and select test channel and modulation type.

Tested mode, channel, and data rate information			
Modulation type	data rate (Mbps)	Channel	Frequency (MHz)
GFSK	1	Low :CH1	2402
	1	Middle: CH40	2441
	1	High: CH79	2480
8-DPSK	3	Low :CH1	2402
	3	Middle: CH40	2441
	3	High: CH79	2480

## 2.3. Tested Supporting System Details

### 2.3.1. NOTEBOOK

M/N : PP09S

S/N : N/A

Manufacturer : DELL

Power Adaptor : Manufacturer: DELL,  
M/N: LA65NS1-00  
Cable: Unshielded, Detachable, 4.0m  
(Bond one ferrite core)



## 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 : Jun. 13, 2006 File on Federal  
Communication Commission  
Registration Number: 90454

3m & 10m Anechoic Chamber : Jan. 31, 2007 File on Federal  
Communication Commission  
Registration Number: 794232

EMC Lab. : Accredited by DATech, German  
Registration Number: DAT-P-091/99-01  
Feb. 02, 2009

Accredited by NVLAP, USA  
NVLAP Code: 200372-0  
Apr. 01, 2008

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

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.88dB	
Uncertainty for Radiation Emission test in 3m chamber(30MHz to 1GHz)	3.86dB	Polarize: V
	4.3dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber(1GHz to 25GHz)	2.78dB	Polarize: H
	2.82dB	Polarize: V
Uncertainty for radio frequency	$1 \times 10^{-9}$	
Uncertainty for conducted RF Power	0.34dB	
Uncertainty for temperature	0.2°C	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

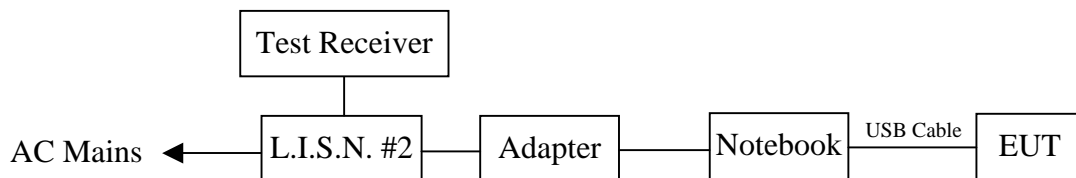
### 3. POWER LINE CONDUCTED EMISSION TEST

#### 3.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	100843	Oct.24, 08	1 Year
2.	L.I.S.N.#2	Kyoritsu	KNW-407	8-1636-1	May 10,08	1 Year
3.	Terminator	Hubersuhner	50Ω	No. 2	May 10,08	1 Year
4.	RF Cable	Fujikura	3D-2W	LISN Cable 1#	Nov.10, 08	1/2 Year
5.	Coaxial Switch	Anritsu	MP59B	M55367	Nov.10, 08	1/2 Year
6.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	Nov.10, 08	1/2 Year

#### 3.2. Block Diagram of Test Setup

##### 3.2.1. Block diagram of connection between the EUT and simulators



*(EUT: Go Gear OPUS, MP3 Video Player)*

#### 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. Go Gear OPUS, MP3 Video Player (EUT)

Model Number : SA10PSXXYB/zz

Serial Number : N/A

#### 3.4.2. Support Equipment : As Tested Supporting System Detail, in Section 2.2..

### 3.5. Operating Condition of EUT

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

3.5.2. Turned on the power of all equipment.

3.5.3. Let the EUT worked in test mode (TX Mode) and measured 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.#2). Please refer the block diagram of the test setup and photographs. Power on the PC and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC Part 15C on Conducted Emission Test.

The bandwidth of test receiver (R & S ESCI) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

The test results are reported on Section 3.7.

### 3.7. Power Line Conducted Emission Test Results

**PASS.**

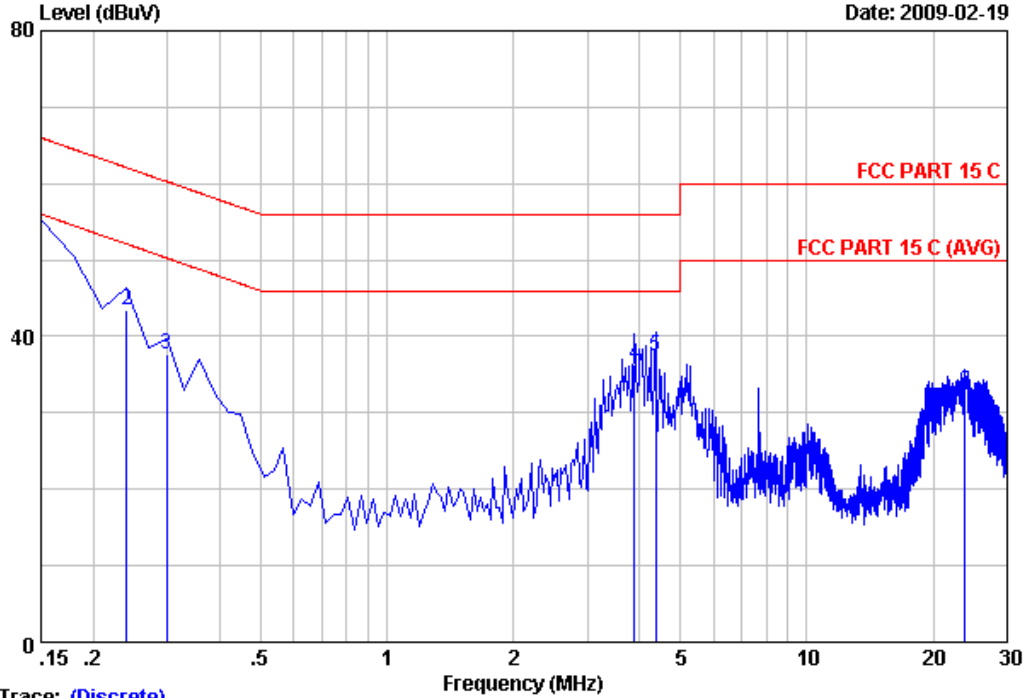


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Data: 6

File: D:\DATA\2009 Report\PI\Philips\ACS9QH032.EMLEM6 (12)

Date: 2009-02-19



Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :6  
 Dis./Ant. \*\*: KNW407 1# VB  
 Limit :FCC PART 15 C  
 Env./Ins. :Temp:23°C Humi:54% Engineer :Sunny  
 EUT :OPUS M/N:SA10PSXXKB(XX means flash size)  
 Power Rating :DC 3.7V From PC input AC 120V/60Hz  
 Test Mode :Tx Mode  
 :  
 :  
 :

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.24	9.67	42.41	52.32	66.00	13.68	QP
2	0.23955	0.12	9.90	33.42	43.44	62.11	18.67	QP
3	0.29925	0.14	9.89	27.72	37.75	60.26	22.51	QP
4	3.881	0.04	9.91	26.36	36.31	56.00	19.69	QP
5	4.359	0.04	9.92	27.55	37.51	56.00	18.49	QP
6	23.821	0.49	10.11	22.08	32.68	60.00	27.32	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading  
 2.If the average limit is met when using a quasi-peak detector.  
 the EUT shall be deemed to meet both limits and measurement  
 with average detector is unnecessary.

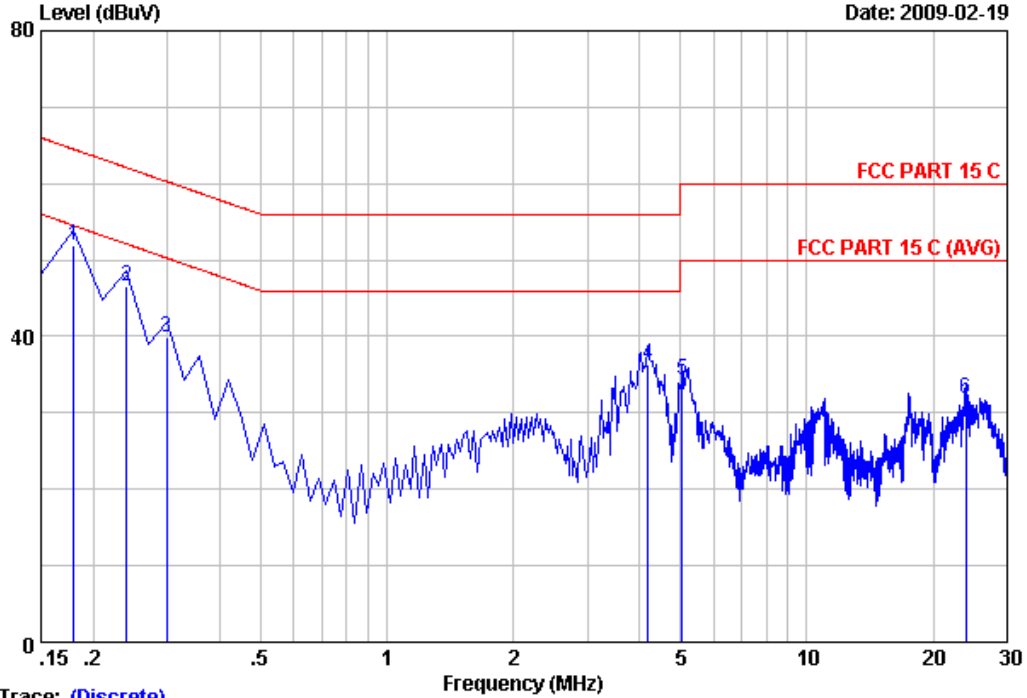


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Data: 5

File: D:\DATA\2009 Report\Philips\ACS9QH032.EMLEM6 (12)

Date: 2009-02-19



Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :5  
 Dis./Ant. \*\*: KNW407 1# VA  
 Limit :FCC PART 15 C  
 Env./Ins. :Temp:23°C Humi:54% Engineer :Sunny  
 EUT :OPUS M/N:SA10PSXXKB(XX means flash size)  
 Power Rating :DC 3.7V From PC input AC 120V/60Hz  
 Test Mode :Tx Mode  
 :  
 :  
 :

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.17985	0.29	9.82	41.72	51.83	64.49	12.66	QP
2	0.23955	0.28	9.90	36.47	46.65	62.11	15.46	QP
3	0.29925	0.26	9.89	29.70	39.85	60.26	20.41	QP
4	4.180	0.10	9.92	26.30	36.32	56.00	19.68	QP
5	5.045	0.10	9.92	24.23	34.25	60.00	25.75	QP
6	23.911	0.53	10.11	21.22	31.86	60.00	28.14	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading  
 2.If the average limit is met when using a quasi-peak detector.  
 the EUT shall be deemed to meet both limits and measurement  
 with average detector is unnecessary.

## 4. RADIATED EMISSION TEST

### 4.1. Test Equipment

Frequency rang: 30~1000MHz

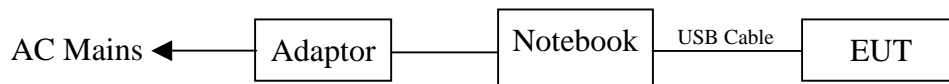
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Dec.05,08	1/2 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	May 10, 08	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May 10, 08	1 Year
4.	Amplifier	HP	8447D	2648A04738	Nov.04, 08	1/2 Year
5.	Bilog Antenna	Schaffner	CBL6111C	2598	Nov.10, 08	1 Year
6.	RF Cable	JINGCHENG	JB Y400	3# Chamber No.1	Nov.01, 08	1/2 Year
7.	RF Cable	JINGCHENG	JB Y400	3# Chamber No.2	Nov.01, 08	1/2 Year
8.	RF Cable	JINGCHENG	JB Y400	3# Chamber No.3	Nov.01, 08	1/2 Year
9.	RF Cable	JINGCHENG	JB Y400	3# Chamber No.4	Nov.01, 08	1/2 Year
10.	Coaxial Switch	Anritsu	MP59B	M73989	Nov.01, 08	1/2 Year

Frequency rang: above 1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.10, 08	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	May.27, 08	1.5 Year
3.	Horn Antenna	EMCO	3116	00060088	May.27, 08	1 Year
4.	Amplifier	Agilent	8449B	3008A02495	Nov.24,08	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.28, 08	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX102	271471/4	May.28, 08	1 Year
7.	RF Cable	Hubersuhner	SUCOFLEX102	29086/2	May.28, 08	1 Year

### 4.2. Block Diagram of Test Setup

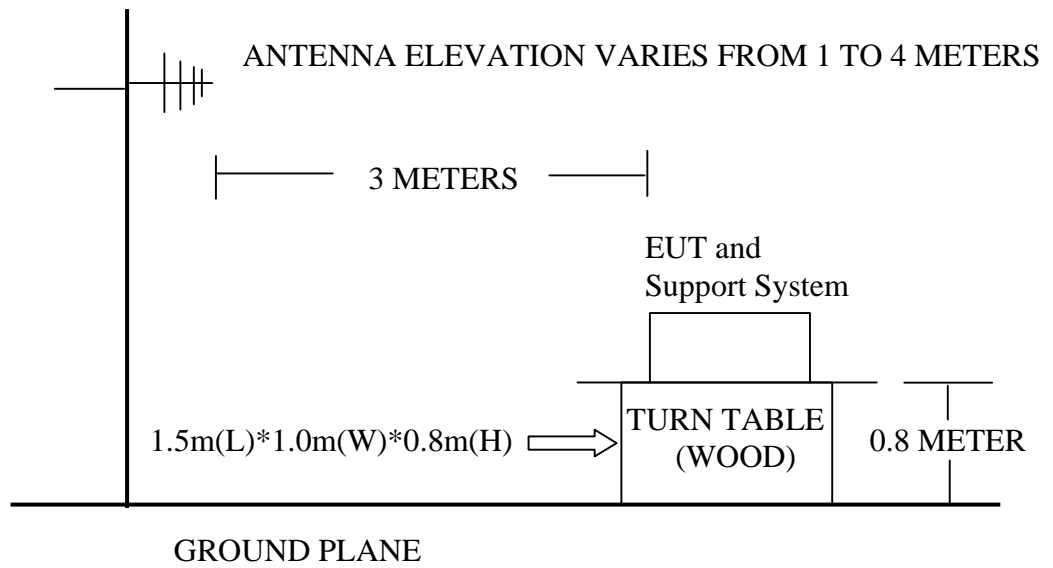
#### 4.2.1. Block diagram of connection between the EUT and simulators



*(EUT: Go Gear OPUS, MP3 Video Player)*

4.2.2. In Anechoic Chamber

ANTENNA TOWER



4.3. Radiated Emission Limit

4.3.1.15.209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
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 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

- Remark :
- (1) Emission level  $\text{dB}\mu\text{V} = 20 \log$  Emission level  $\mu\text{V}/\text{m}$
  - (2) The smaller limit shall apply at the cross point between two frequency bands.

## 4.3.2. 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	( <sup>2</sup> )

All the emissions appearing within these frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

## 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.Go Gear OPUS, MP3 Video Player (EUT)

Model Number : SA10PSXXYB/zz  
Serial Number : N/A

## 4.4.2.Support Equipment : As Tested Supporting System Detail, in Section 2.2.

## 4.5.Operating Condition of EUT

4.5.1.Setup the EUT as shown in Section 4.2.

4.5.2.Turned on the power of all equipment.

4.5.3.Let the EUT worked in test mode (TX Mode) and tested it.

## 4.6.Test Procedure

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. Power on the EUT and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. 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 are set on 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 test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10<sup>th</sup> 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.**

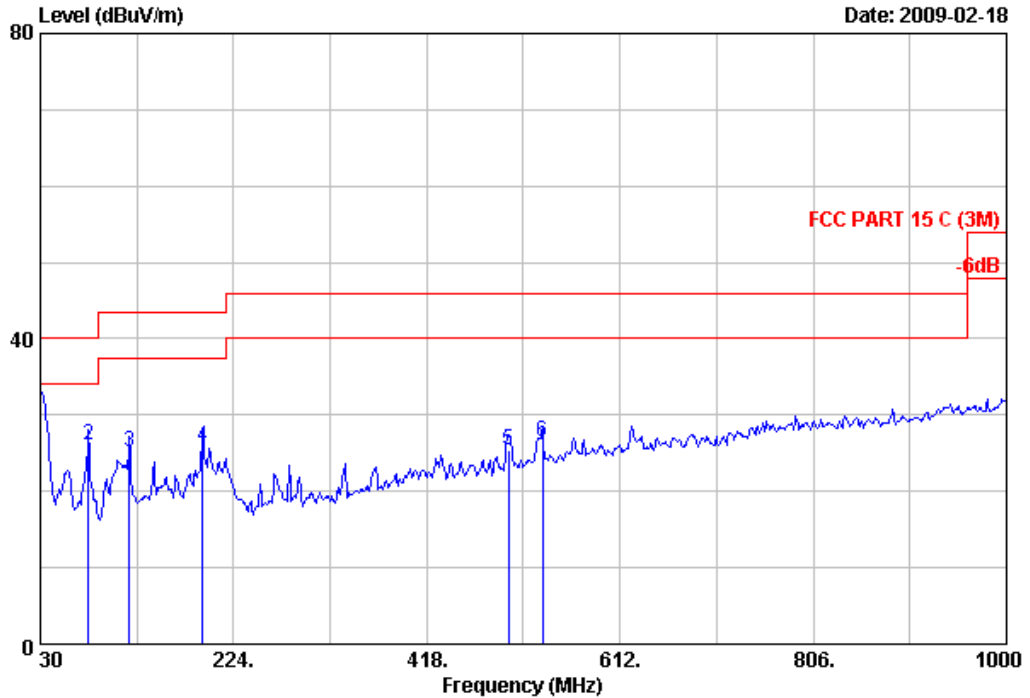
All the emissions from 30MHz to 25 GHz are comply with 15.209 limits

Frequency: 30MHz~1GHz



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Data: 15 File: D:\2009 Report Data\PI\Philips\ACS9QH032.EM6 (17)



Site no. : 3m Chamber Data no. : 15  
 Dis. / Ant. : 3m CBL6111C Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/47% Engineer : Power  
 EUT : OPUS  
 Power Rating : DC 3.7V  
 Test Mode : Tx Mode  
 M/N:SA10PSXXKB (XX means flash size)

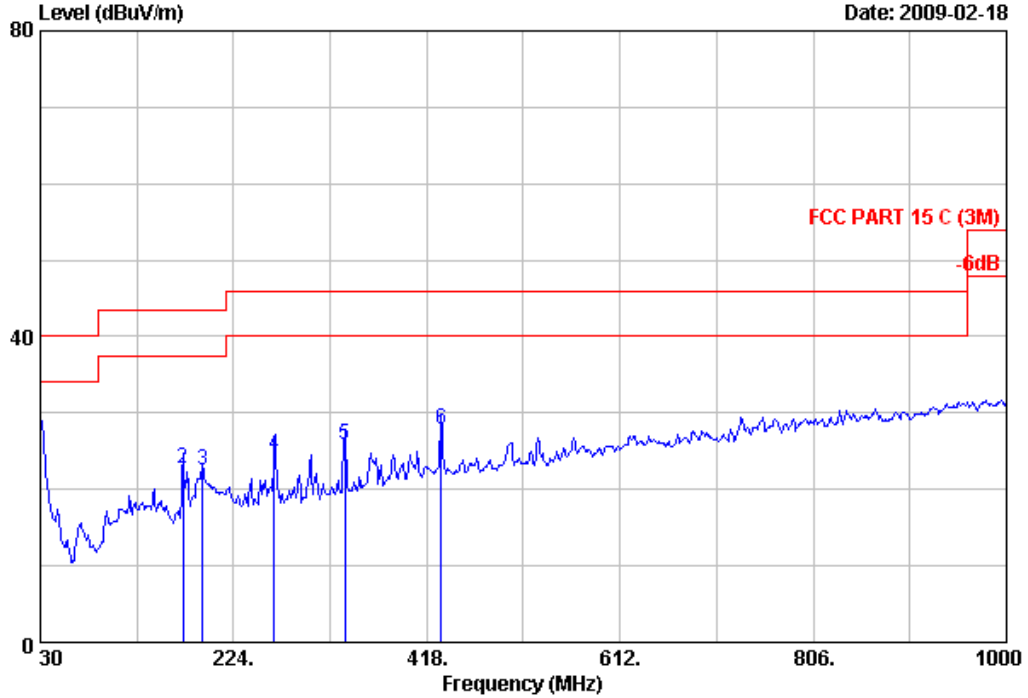
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	19.86	0.47	10.79	31.12	40.00	8.88	QP
2	78.500	7.56	0.80	17.76	26.12	40.00	13.88	QP
3	119.240	11.75	1.02	12.47	25.24	43.50	18.26	QP
4	192.960	9.63	1.36	14.84	25.83	43.50	17.67	QP
5	500.450	18.04	2.52	4.76	25.32	46.00	20.68	QP
6	534.400	18.25	2.65	5.69	26.59	46.00	19.41	QP

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



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Data: 14 File: D:\2009 Report Data\PI\Philips\ACS9QH032.EM6 (17)



Site no. : 3m Chamber Data no. : 14  
 Dis. / Ant. : 3m CBL6111C Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/47% Engineer : Power  
 EUT : OPUS  
 Power Rating : DC 3.7V  
 Test Mode : Tx Mode  
 M/N:SA10PSXXKB (XX means flash size)

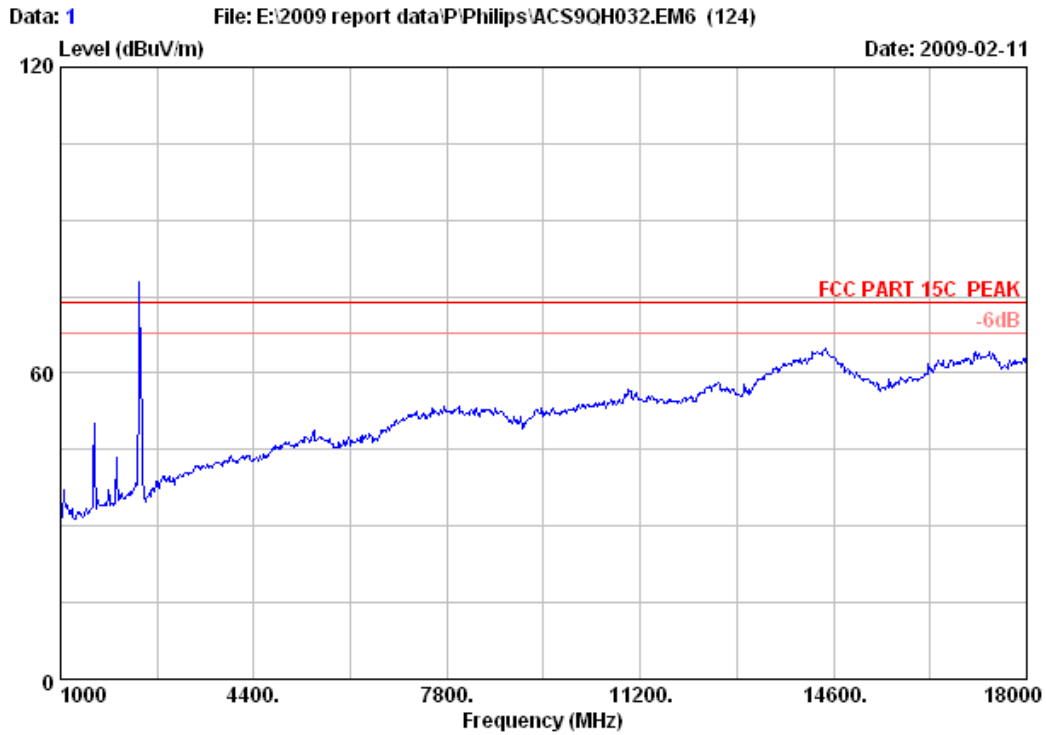
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission		Limits (dBuV/m)	Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)			
1	30.000	19.86	0.47	6.10	26.43	40.00	13.57	QP
2	173.560	9.78	1.28	11.61	22.67	43.50	20.83	QP
3	192.960	9.63	1.36	11.41	22.40	43.50	21.10	QP
4	264.740	13.71	1.67	9.10	24.48	46.00	21.52	QP
5	335.550	14.53	1.96	9.35	25.84	46.00	20.16	QP
6	432.550	16.90	2.30	8.77	27.97	46.00	18.03	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  
(GFSK)**



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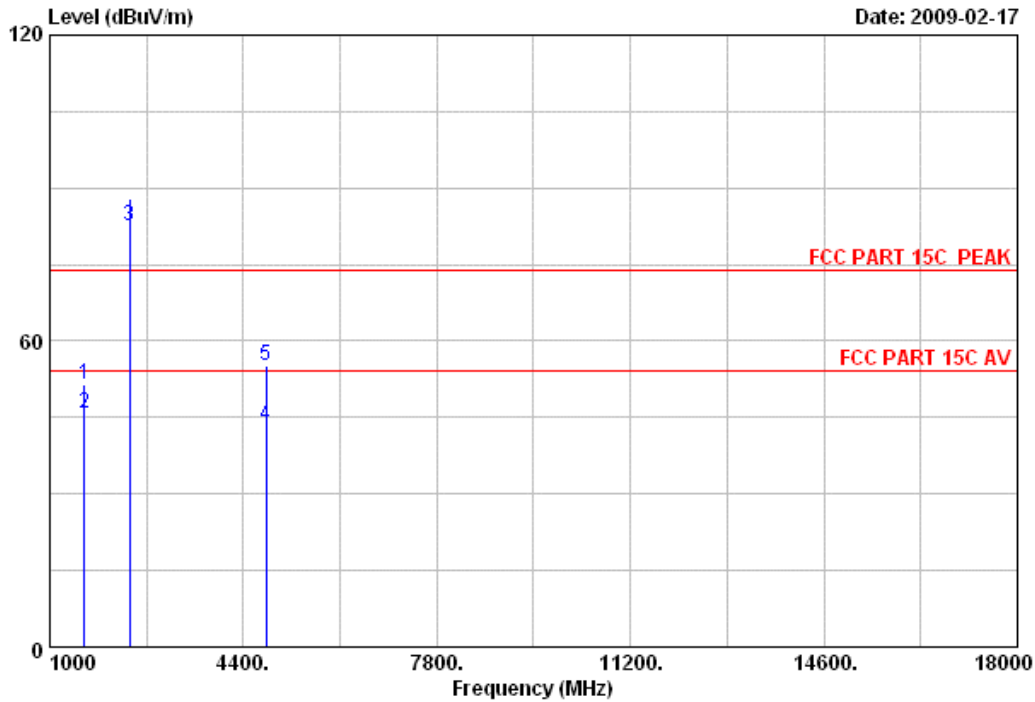


Site no.	: 3# Chamber	Data no.	: 1
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB (XX means flash size)		
Test mode	: GFSK 2402MHz		
Memo	:		



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Data: 2 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 2  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB(XX means flash size)  
 Test mode : GFSK 2402MHz  
 Memo :

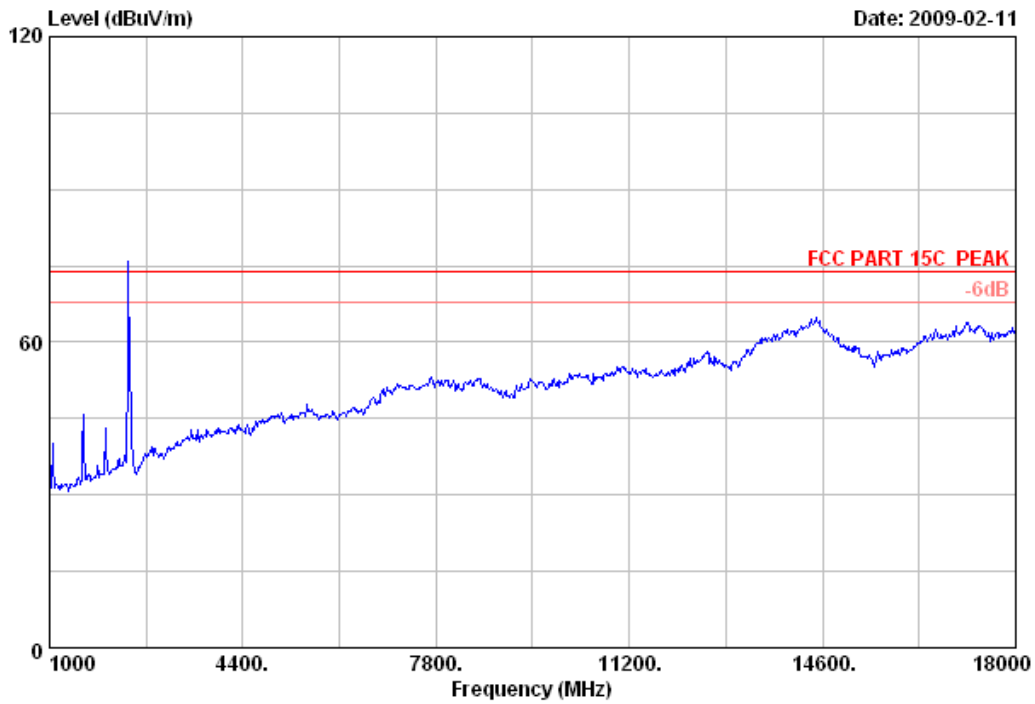
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1602.000	26.30	5.46	35.62	55.24	51.38	74.00	22.62	Peak
2	1602.000	26.30	5.46	35.62	49.80	45.94	54.00	8.06	Average
3	2402.000	28.46	6.73	35.12	83.55	83.62	74.00	-9.62	Peak
4	4804.000	34.36	10.53	34.60	44.98	55.27	74.00	18.73	Peak
5	4804.000	34.36	10.53	34.60	33.30	43.59	54.00	10.41	Average

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



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Data: 3 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

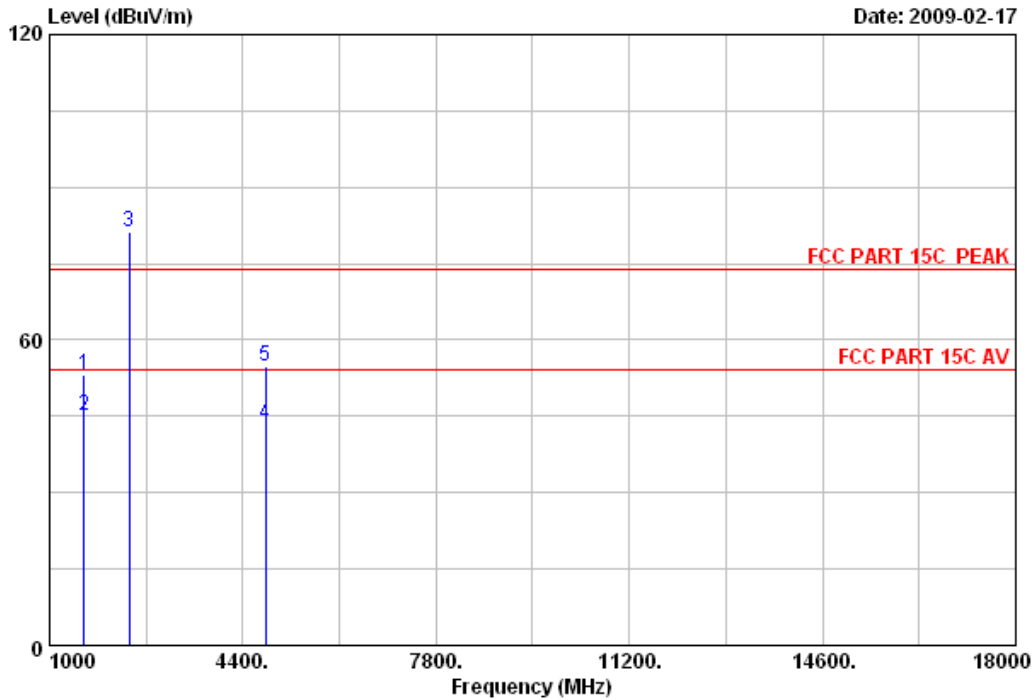


Site no.	: 3# Chamber	Data no.	: 3
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA1OPSXXKB (XX means flash size)		
Test mode	: GFSK 2402MHz		
Memo	:		



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Data: 4 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 4  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : GFSK 2402MHz  
 Memo :

	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	1602.000	26.30	5.46	35.62	56.89	53.03	74.00	20.97	Peak
2	1602.000	26.30	5.46	35.62	48.93	45.07	54.00	8.93	Average
3	2402.000	28.46	6.73	35.12	81.01	81.08	74.00	-7.08	Peak
4	4804.000	34.36	10.53	34.60	33.21	43.50	54.00	10.50	Average
5	4804.000	34.36	10.53	34.60	44.59	54.88	74.00	19.12	Peak

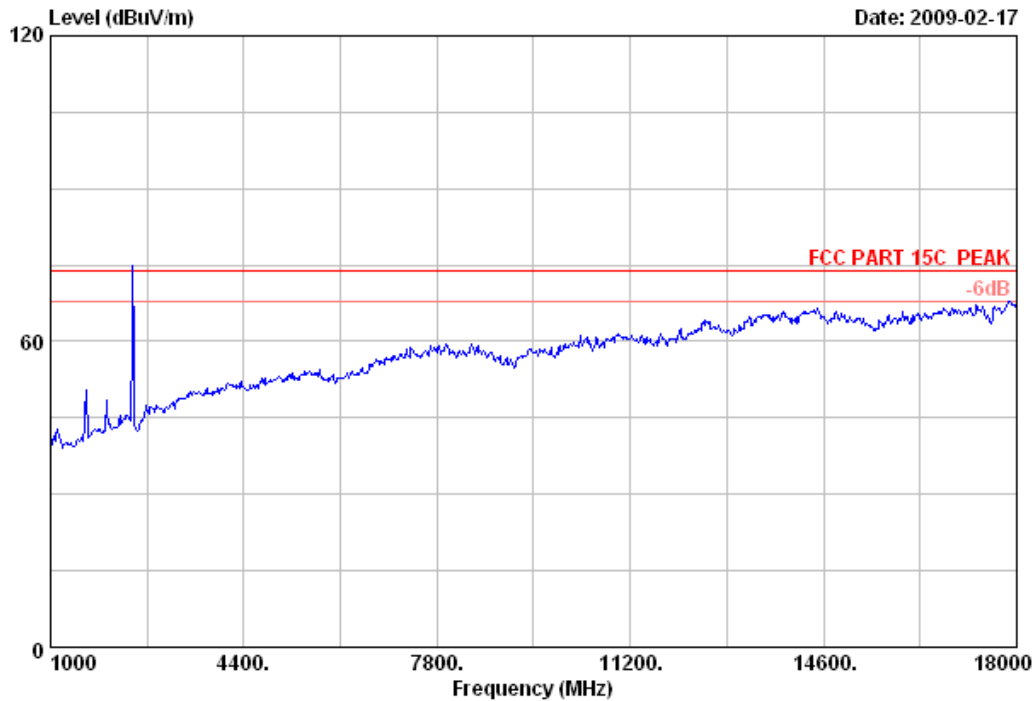
Remarks:

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



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Data: 5 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



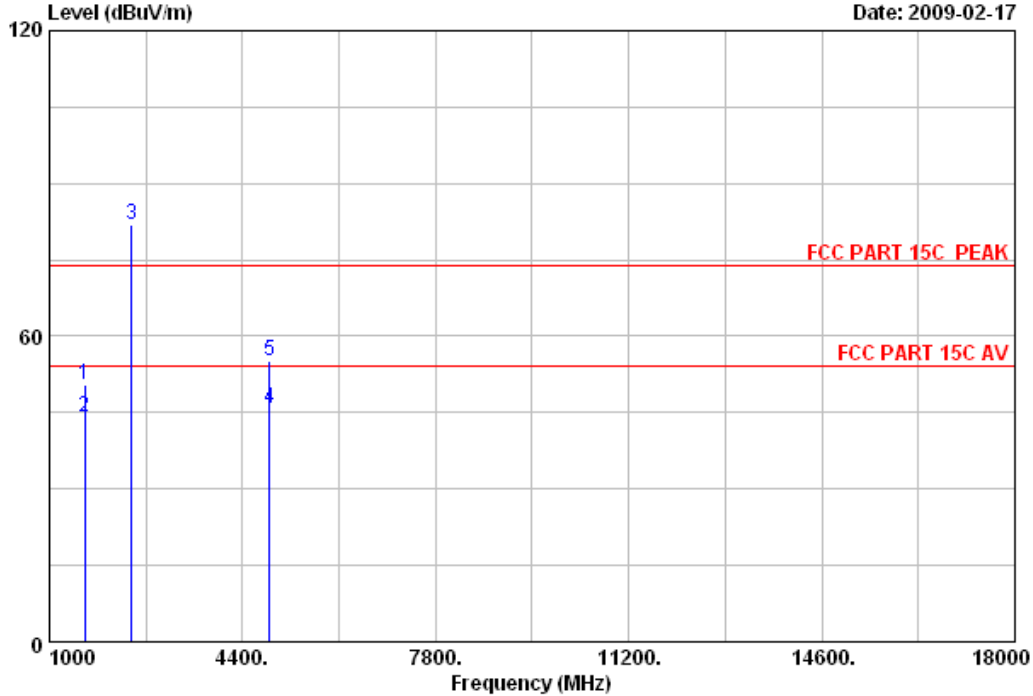
Site no.	: 3# Chamber	Data no.	: 5
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA1OPSXXKB (XX means flash size)		
Test mode	: GFSK 2441MHz		
Memo	:		





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Data: 6 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 6  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : s Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB(XX means flash size)  
 Test mode : GFSK 2441MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1627.000	26.43	5.50	35.59	54.08	50.42	74.00	23.58	Peak
2	1627.000	26.43	5.50	35.59	47.77	44.11	54.00	9.89	Average
3	2441.000	28.53	6.80	35.11	81.73	81.95	74.00	-7.95	Peak
4	4882.000	34.78	10.57	34.58	35.08	45.85	54.00	8.15	Average
5	4882.000	34.78	10.57	34.58	44.54	55.31	74.00	18.69	Peak

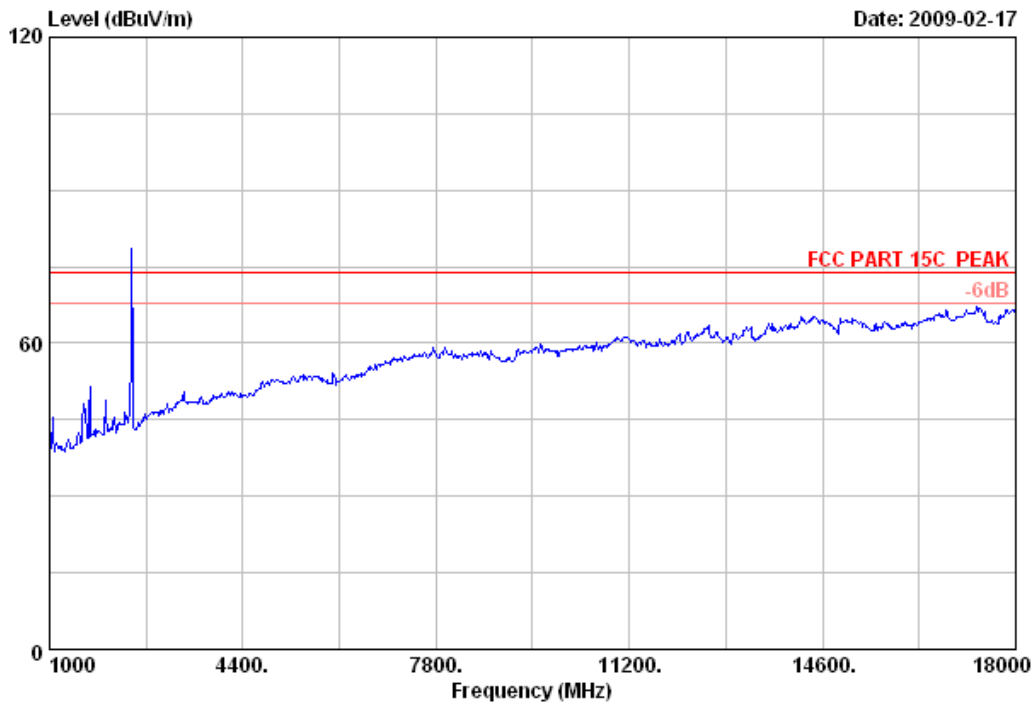
Remarks:

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



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Data: 7 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

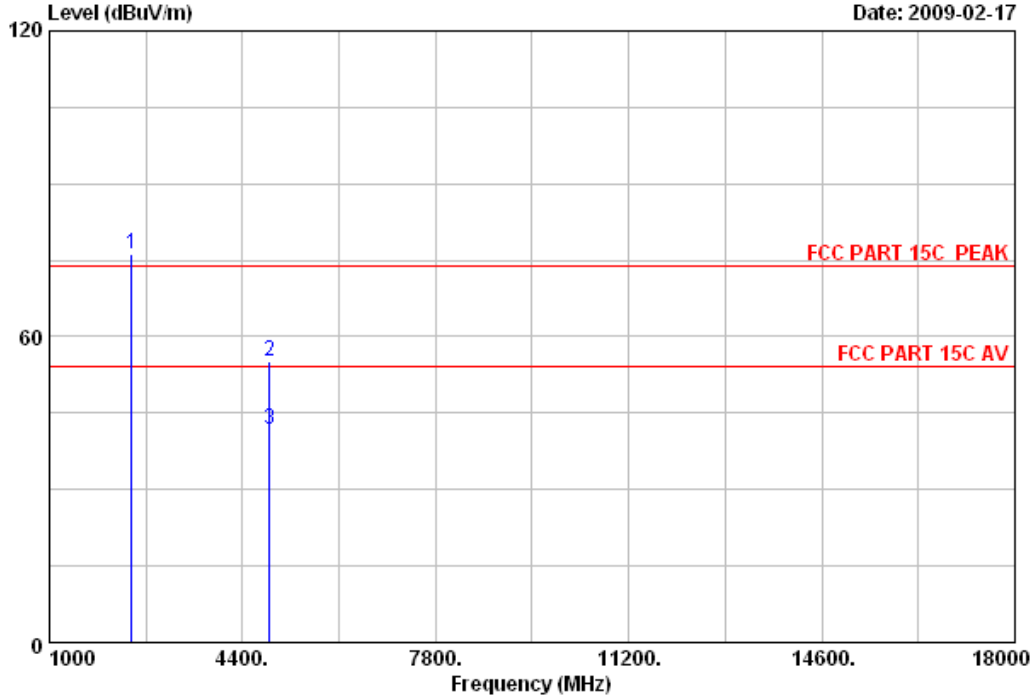


Site no.	: 3# Chamber	Data no.	: 7
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB (XX means flash size)		
Test mode	: GFSK 2441MHz		
Memo	:		



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Data: 8 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 8  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB(XX means flash size)  
 Test mode : GFSK 2441MHz  
 Memo :

	Freq.	Ant.	Cable	Amp	Emission		Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	Reading	Level	(dBuV/m)	(dB)	
1	2441.000	28.53	6.80	35.11	76.05	76.27	74.00	-2.27	Peak
2	4882.000	34.78	10.57	34.58	44.31	55.08	74.00	18.92	Peak
3	4882.000	34.78	10.57	34.58	31.10	41.87	54.00	12.13	Average

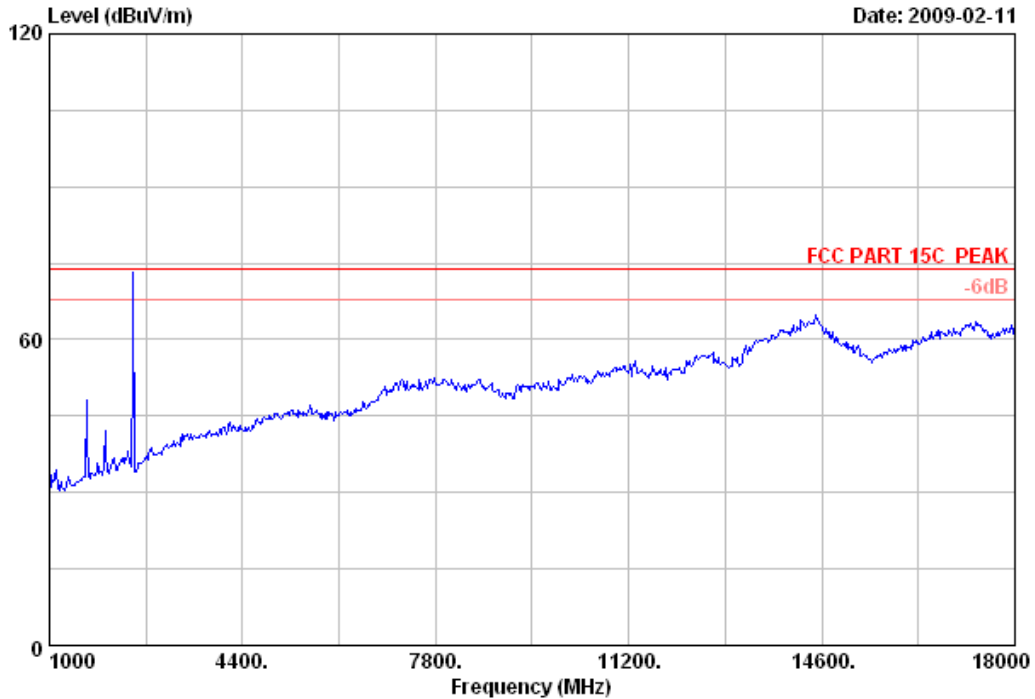
Remarks:

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



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Data: 11 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

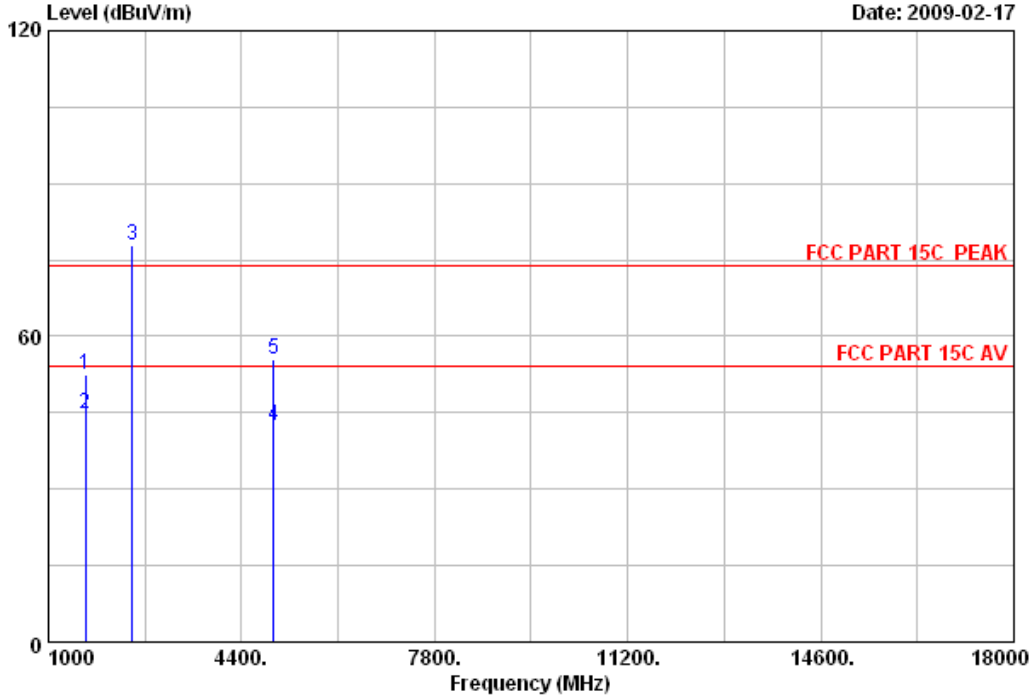


Site no.	: 3# Chamber	Data no.	: 11
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB (XX means flash size)		
Test mode	: GFSK 2480MHz		
Memo	:		



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Data: 12 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 12  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB(XX means flash size)  
 Test mode : GFSK 2480MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1654.000	26.50	5.57	35.57	55.93	52.43	74.00	21.57	Peak
2	1654.000	26.50	5.57	35.57	48.36	44.86	54.00	9.14	Average
3	2480.000	28.58	6.87	35.10	77.46	77.81	74.00	-3.81	Peak
4	4960.000	35.29	10.59	34.56	31.23	42.55	54.00	11.45	Average
5	4960.000	35.29	10.59	34.56	44.25	55.57	74.00	18.43	Peak

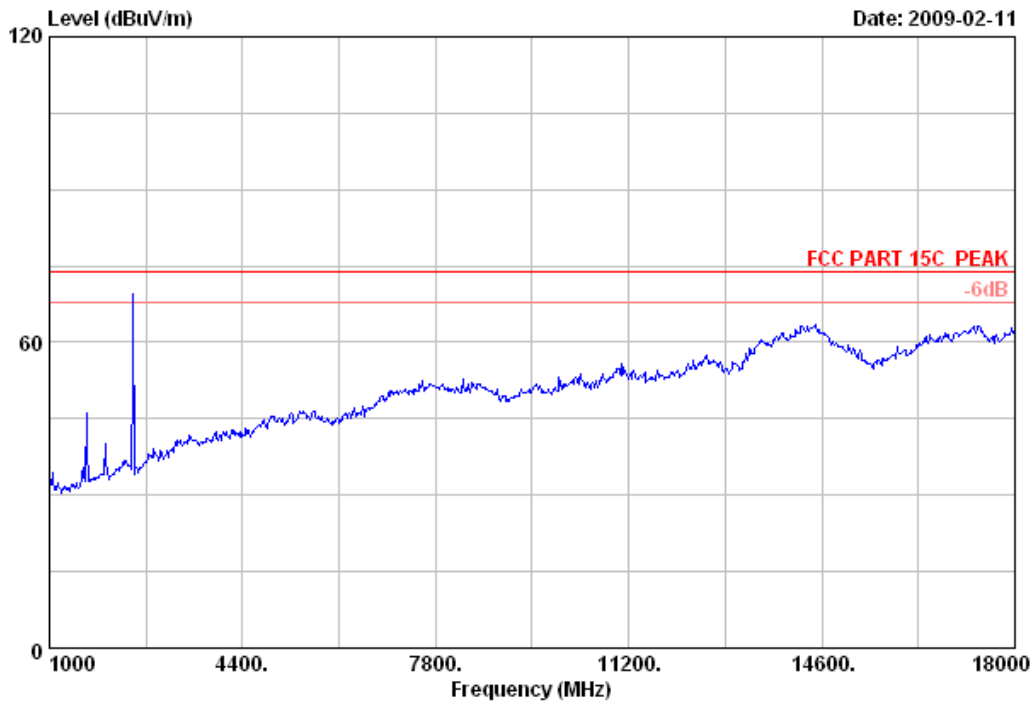
Remarks:

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



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Data: 10 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

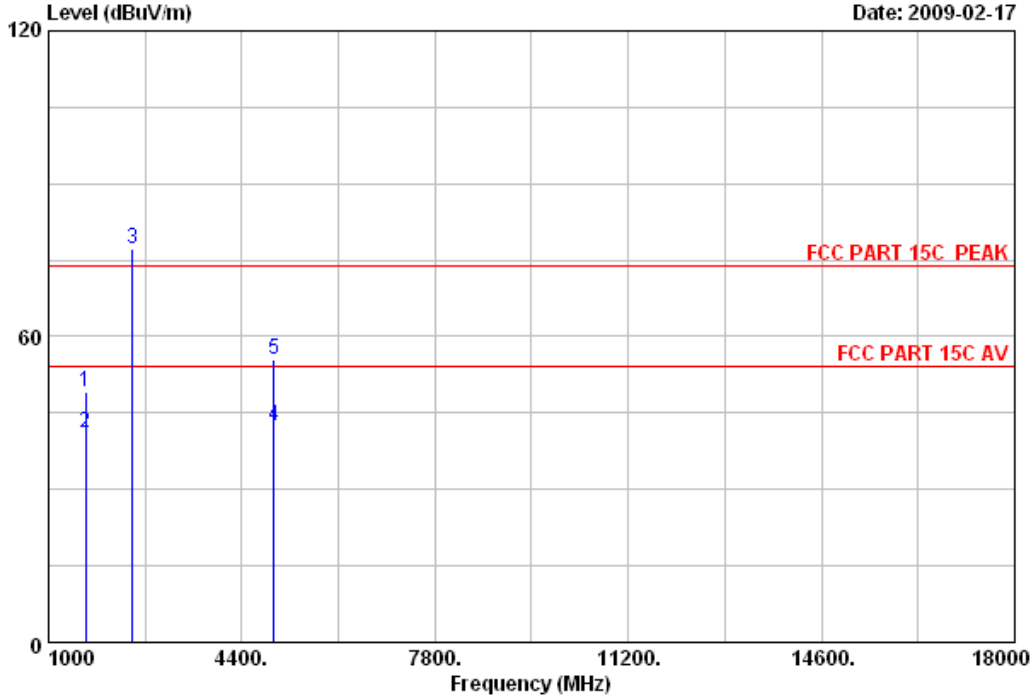


Site no.	: 3# Chamber	Data no.	: 10
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB (XX means flash size)		
Test mode	: GFSK 2480MHz		
Memo	:		



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Data: 9 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 9  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : GFSK 2480MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1653.000	26.50	5.57	35.57	52.63	49.13	74.00	24.87	Peak
2	1653.000	26.50	5.57	35.57	44.51	41.01	54.00	12.99	Average
3	2480.000	28.58	6.87	35.10	76.99	77.34	74.00	-3.34	Peak
4	4960.000	35.29	10.59	34.56	31.22	42.54	54.00	11.46	Average
5	4960.000	35.29	10.59	34.56	44.11	55.43	74.00	18.57	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.

(8-DPSK)

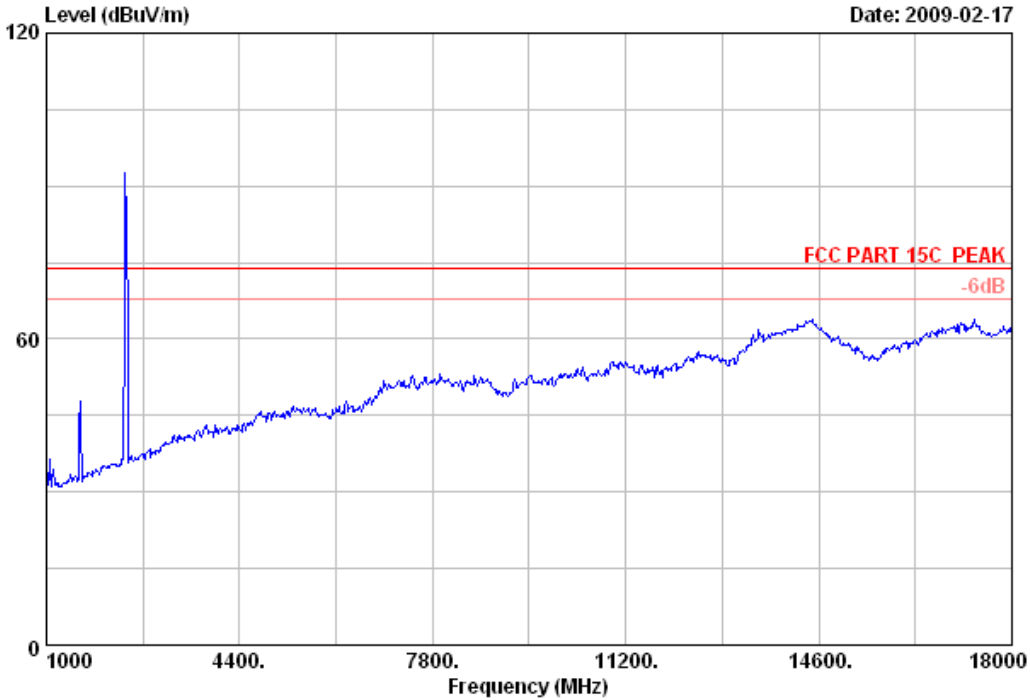


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Data: 13

File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

Date: 2009-02-17



Site no.	: 3# Chamber	Data no.	: 13
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB(XX means flash size)		
Test mode	: 8DPSK 2402MHz		
Memo	:		

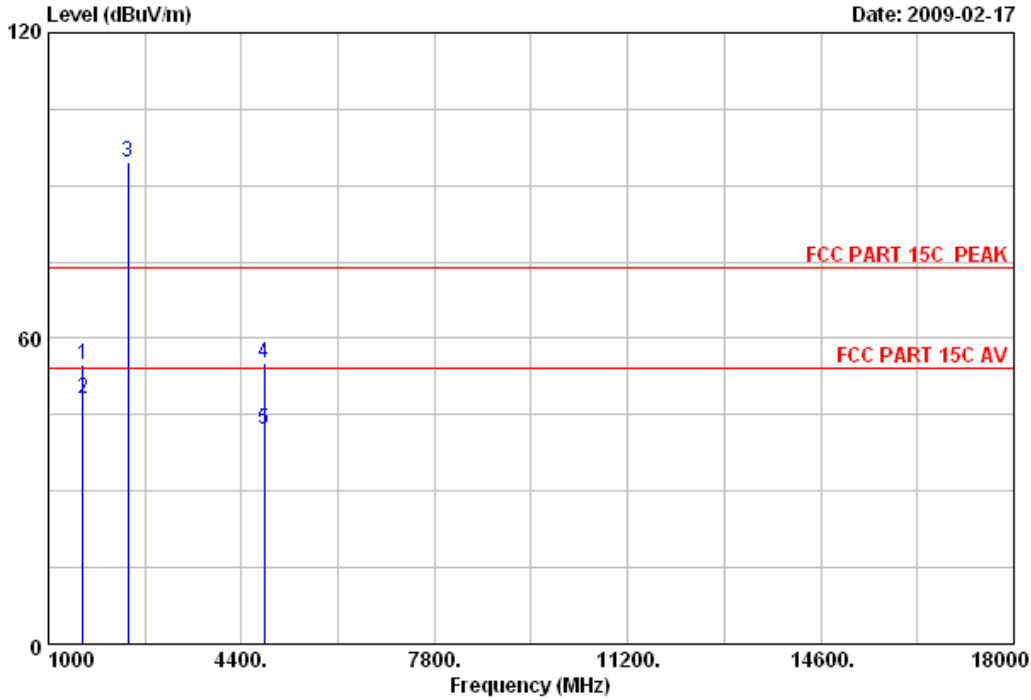




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Data: 14 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

Date: 2009-02-17



Site no. : 3# Chamber Data no. : 14  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB(XX means flash size)  
 Test mode : 8DPSK 2402MHz  
 Memo :

	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	1602.000	26.30	5.46	35.62	58.57	54.71	74.00	19.29	Peak
2	1602.000	26.30	5.46	35.62	52.04	48.18	54.00	5.82	Average
3	2402.000	28.46	6.73	35.12	94.40	94.47	74.00	-20.47	Peak
4	4804.000	34.36	10.53	34.60	44.76	55.05	74.00	18.95	Peak
5	4804.000	34.36	10.53	34.60	31.69	41.98	54.00	12.02	Average

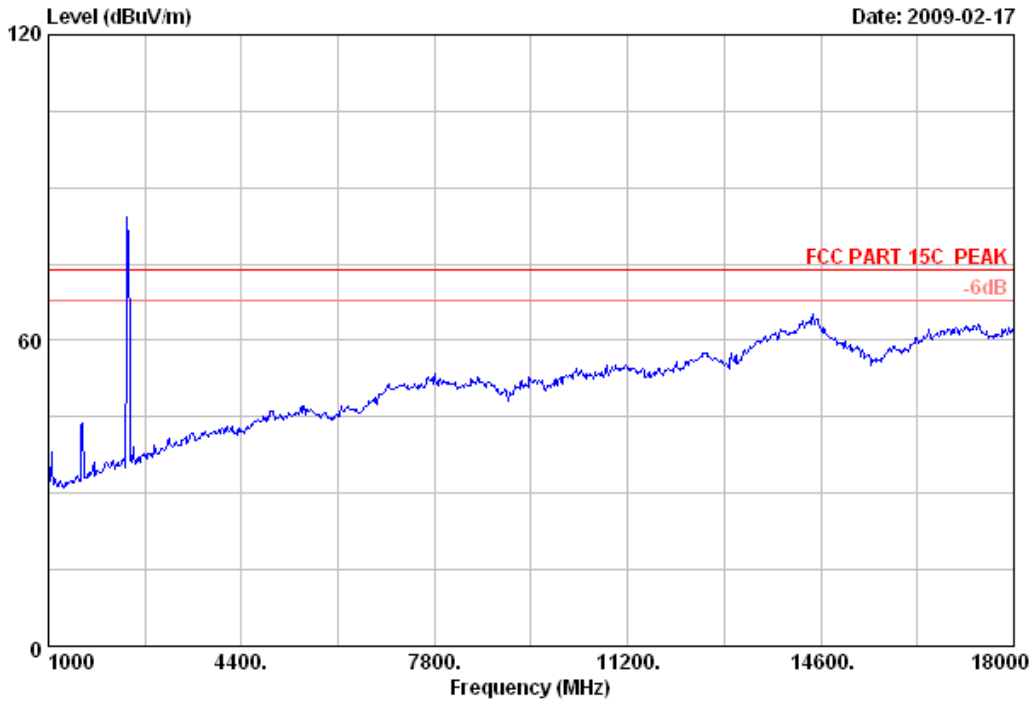
Remarks:

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



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 Postcode:518057

Data: 16 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Date: 2009-02-17

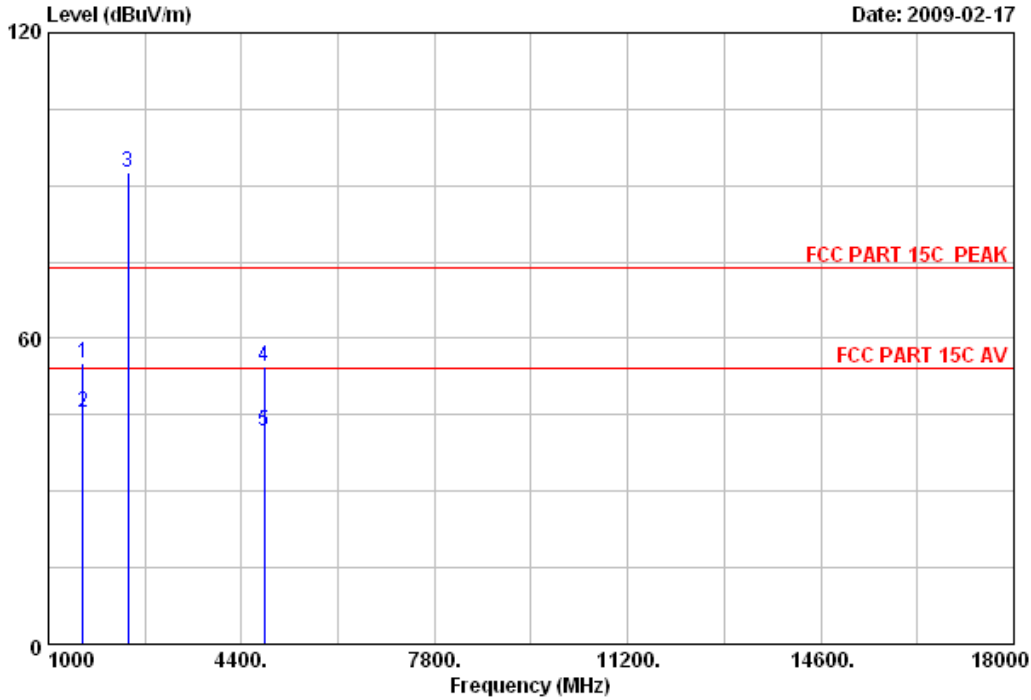
Site no.	: 3# Chamber	Data no.	: 16
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB (XX means flash size)		
Test mode	: 8DPSK 2402MHz		
Memo	:		



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Data: 15 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

Date: 2009-02-17



Site no. : 3# Chamber Data no. : 15  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : 8DPSK 2402MHz  
 Memo :

	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	1602.000	26.30	5.46	35.62	58.98	55.12	74.00	18.88	Peak
2	1602.000	26.30	5.46	35.62	49.46	45.60	54.00	8.40	Average
3	2402.000	28.46	6.73	35.12	92.60	92.67	74.00	-18.67	Peak
4	4804.000	34.36	10.53	34.60	44.18	54.47	74.00	19.53	Peak
5	4804.000	34.36	10.53	34.60	31.35	41.64	54.00	12.36	Average

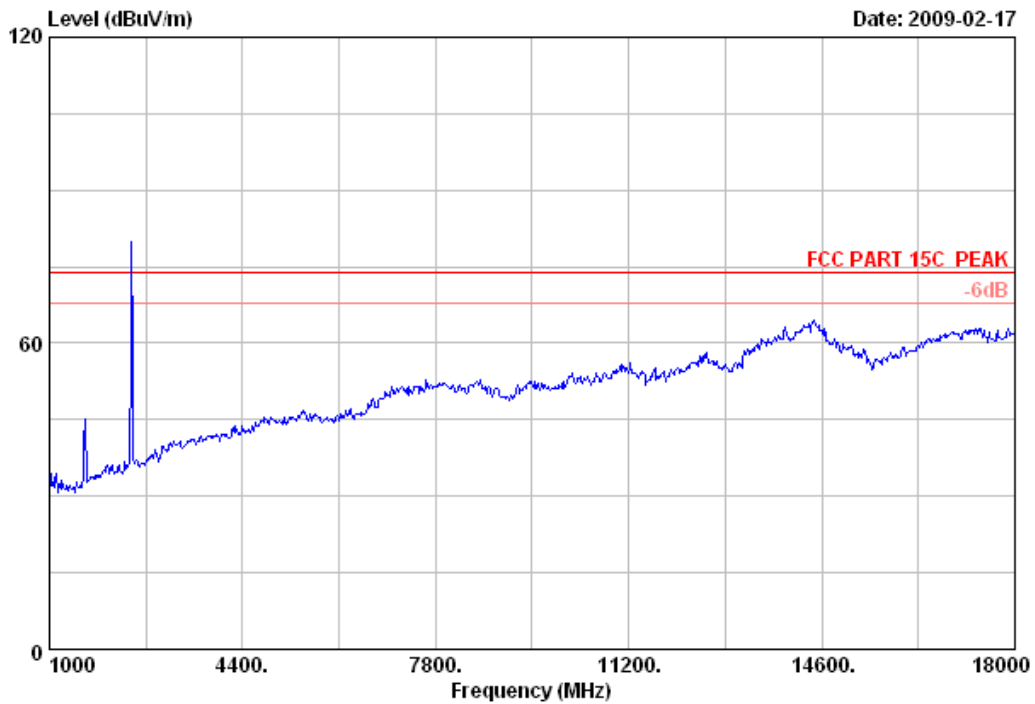
Remarks:

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



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Data: 17 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

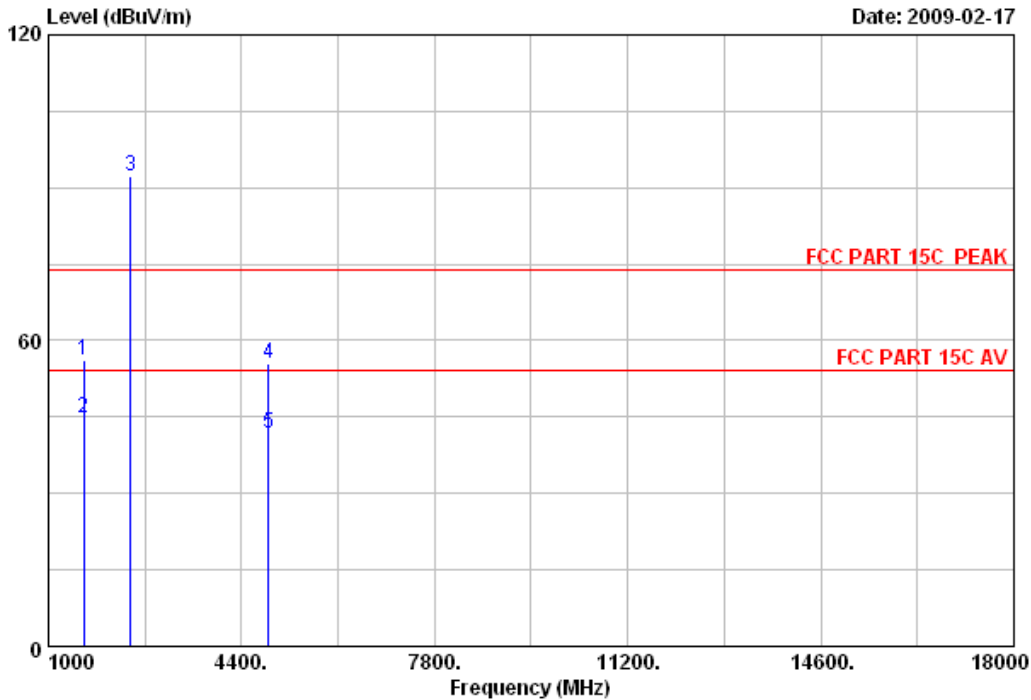


Site no.	: 3# Chamber	Data no.	: 17
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB (XX means flash size)		
Test mode	: 8DPSK 2441MHz		
Memo	:		



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Data: 18 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 18  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : 8DPSK 2441MHz  
 Memo :

	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	1628.000	26.43	5.50	35.59	59.70	56.04	74.00	17.96	Peak
2	1628.000	26.43	5.50	35.59	48.59	44.93	54.00	9.07	Average
3	2441.000	28.53	6.80	35.11	91.91	92.13	74.00	-18.13	Peak
4	4882.000	34.78	10.57	34.58	44.87	55.64	74.00	18.36	Peak
5	4882.000	34.78	10.57	34.58	31.15	41.92	54.00	12.08	Average

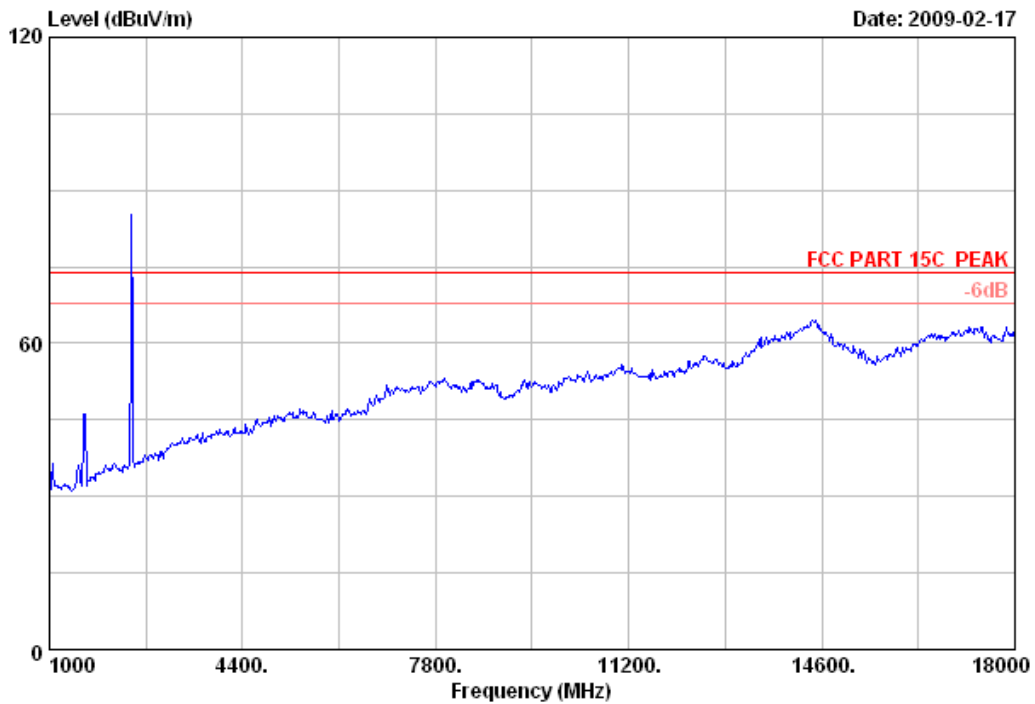
Remarks:

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



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Data: 19 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

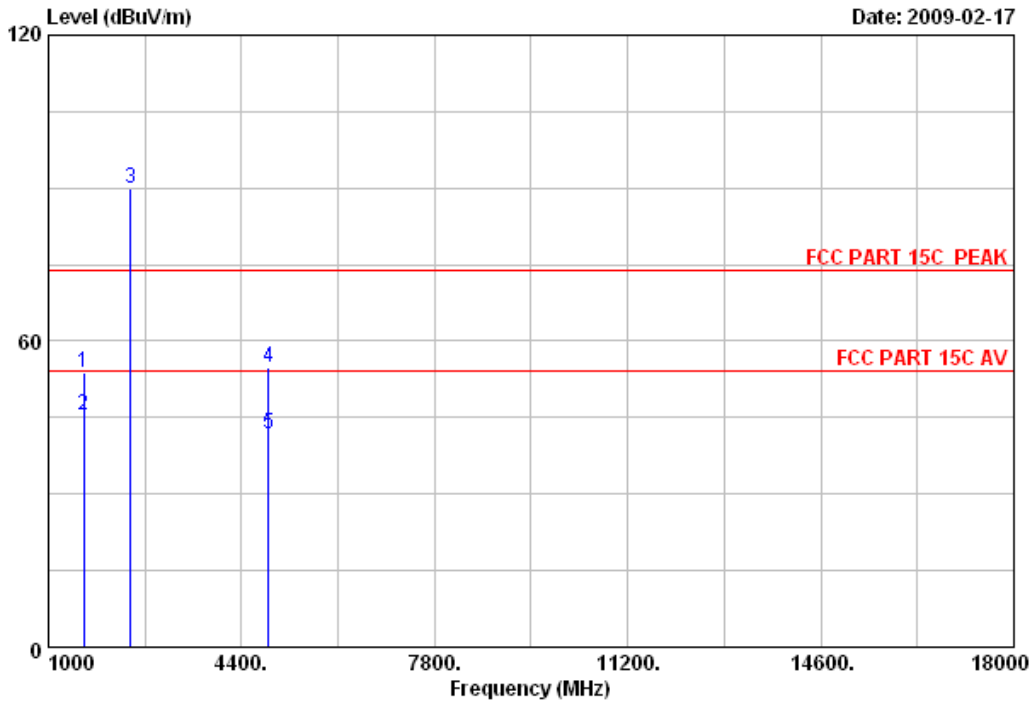


Site no.	: 3# Chamber	Data no.	: 19
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:S&10PSXXKB(XX means flash size)		
Test mode	: 8DPSK 2441MHz		
Memo	:		



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Data: 20 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 20  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : 8DPSK 2441MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1629.000	26.43	5.50	35.59	57.63	53.97	74.00	20.03	Peak
2	1629.000	26.43	5.50	35.59	49.12	45.46	54.00	8.54	Average
3	2441.000	28.53	6.80	35.11	89.80	90.02	74.00	-16.02	Peak
4	4882.000	34.78	10.57	34.58	44.10	54.87	74.00	19.13	Peak
5	4882.000	34.78	10.57	34.58	30.95	41.72	54.00	12.28	Average

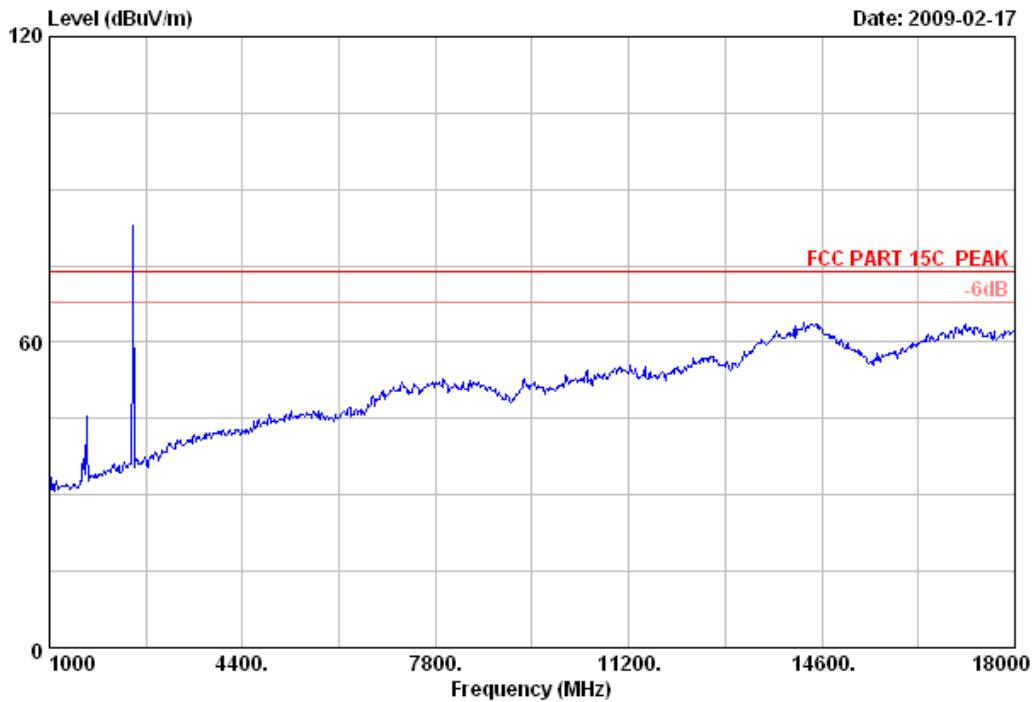
Remarks:

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



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Data: 24 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



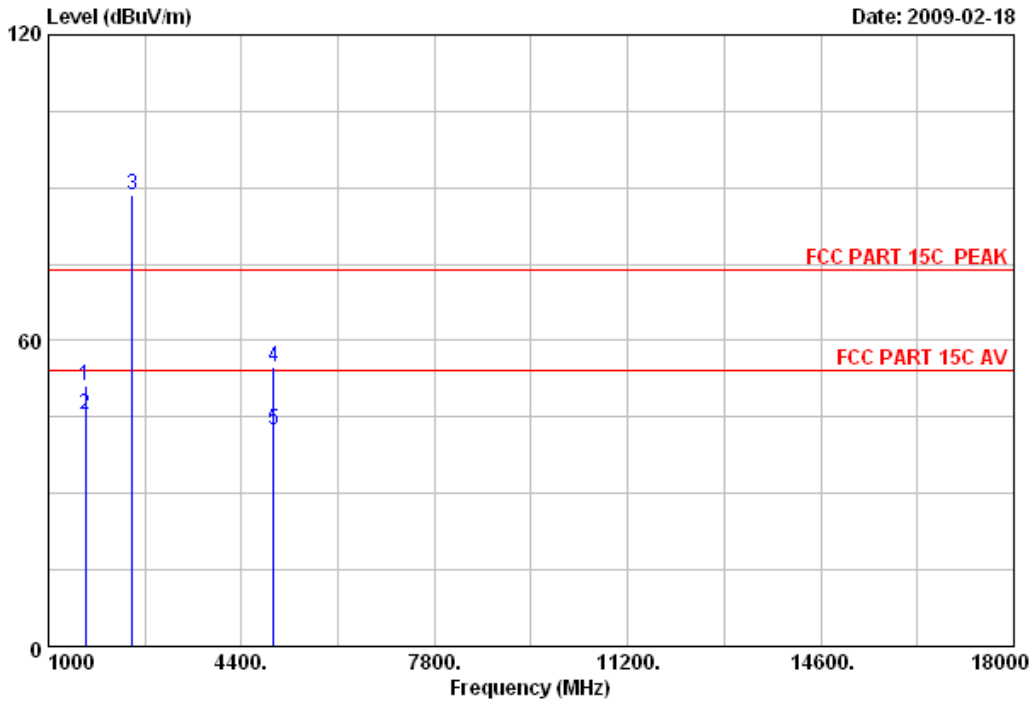
Site no.	: 3# Chamber	Data no.	: 24
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:SA10PSXXKB (XX means flash size)		
Test mode	: 8DPSK 2480MHz		
Memo	:		





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Data: 23 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 23  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : 8DPSK 2480MHz  
 Memo :

	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	1654.000	26.50	5.57	35.57	54.54	51.04	74.00	22.96	Peak
2	1654.000	26.50	5.57	35.57	48.87	45.37	54.00	8.63	Average
3	2480.000	28.58	6.87	35.10	88.28	88.63	74.00	-14.63	Peak
4	4960.000	35.29	10.59	34.56	43.56	54.88	74.00	19.12	Peak
5	4960.000	35.29	10.59	34.56	31.16	42.48	54.00	11.52	Average

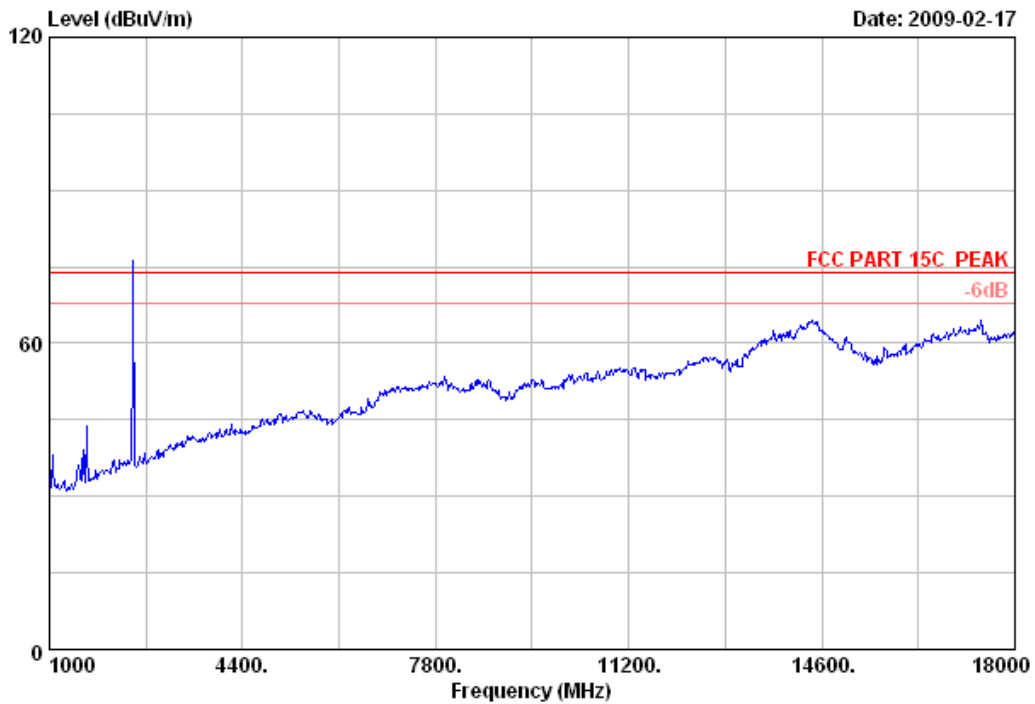
Remarks:

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



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Data: 21 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)

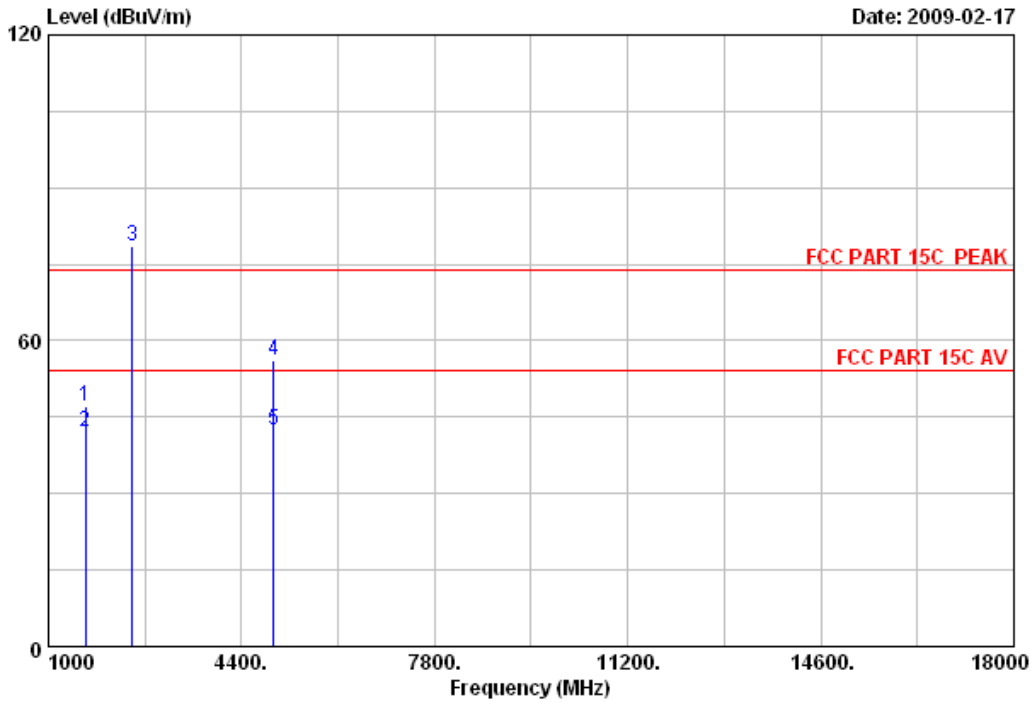


Site no.	: 3# Chamber	Data no.	: 21
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Paul
EUT	: OPUS		
Power Rating	: DC 3.7V M/N:S&10PSXXKB(XX means flash size)		
Test mode	: 8DPSK 2480MHz		
Memo	:		



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Data: 22 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 22  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : 8DPSK 2480MHz  
 Memo :

	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	1654.000	26.50	5.57	35.57	50.65	47.15	74.00	26.85	Peak
2	1654.000	26.50	5.57	35.57	45.69	42.19	54.00	11.81	Average
3	2480.000	28.58	6.87	35.10	78.08	78.43	74.00	-4.43	Peak
4	4960.000	35.29	10.59	34.56	44.78	56.10	74.00	17.90	Peak
5	4960.000	35.29	10.59	34.56	31.17	42.49	54.00	11.51	Average

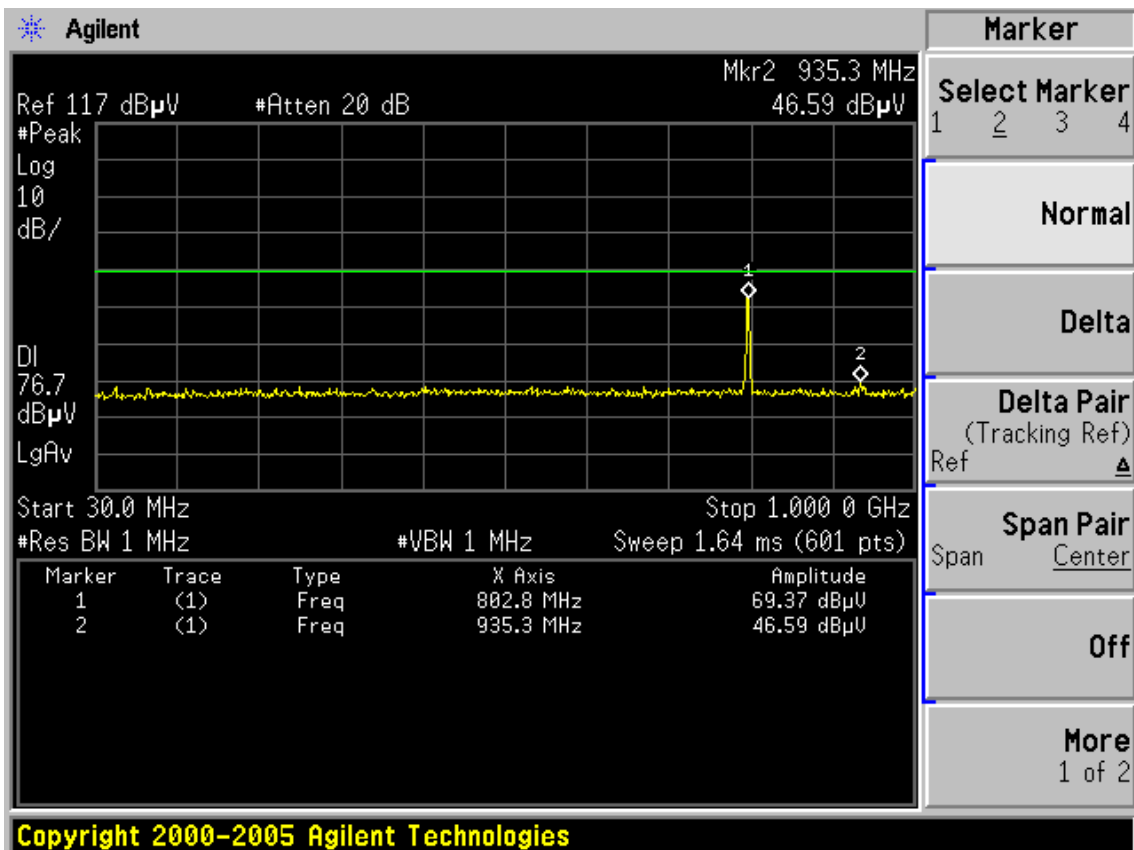
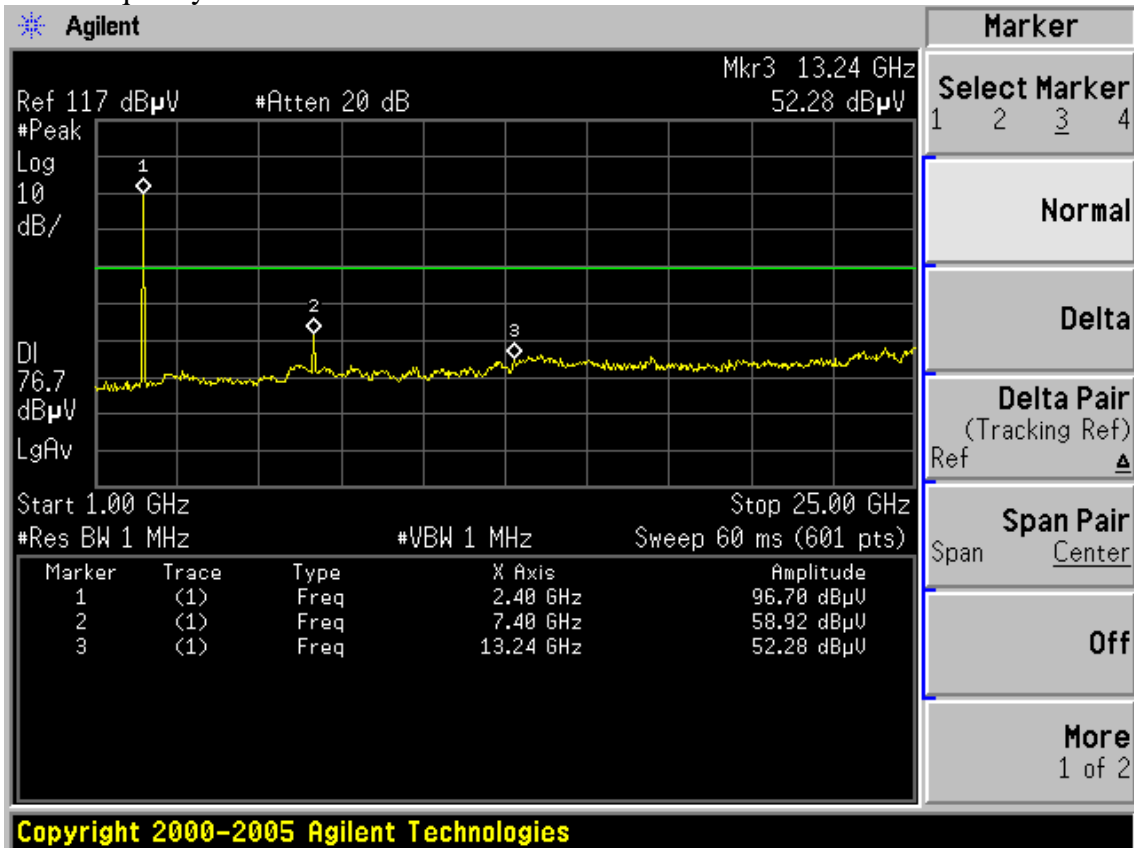
Remarks:

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

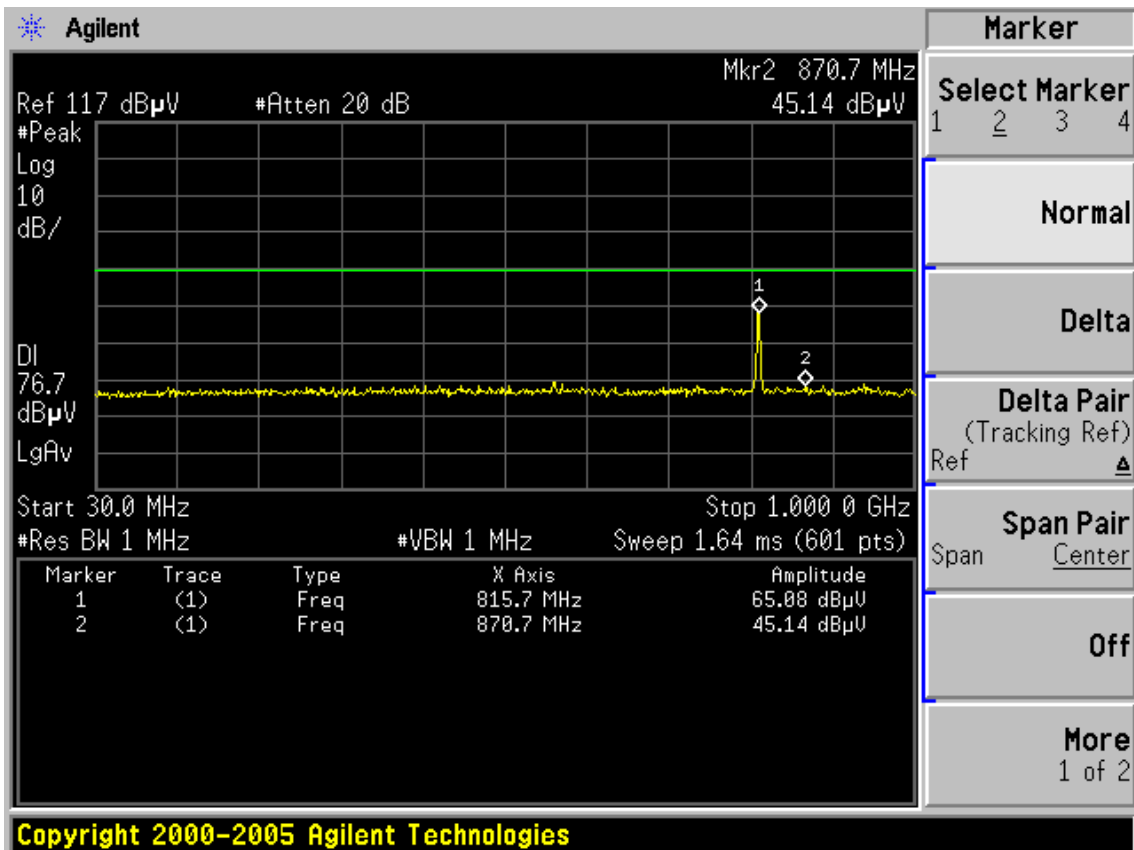
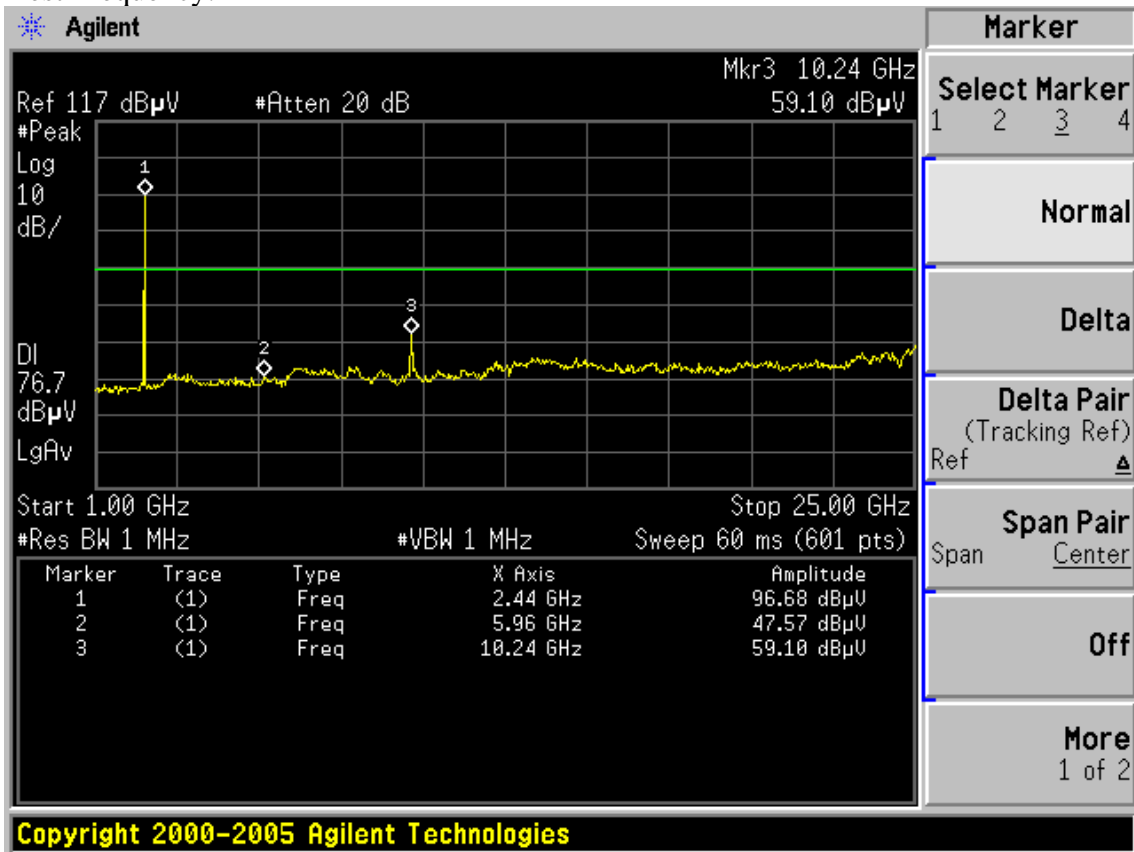
**Conducted emission test data:**

**GSFK Mode**

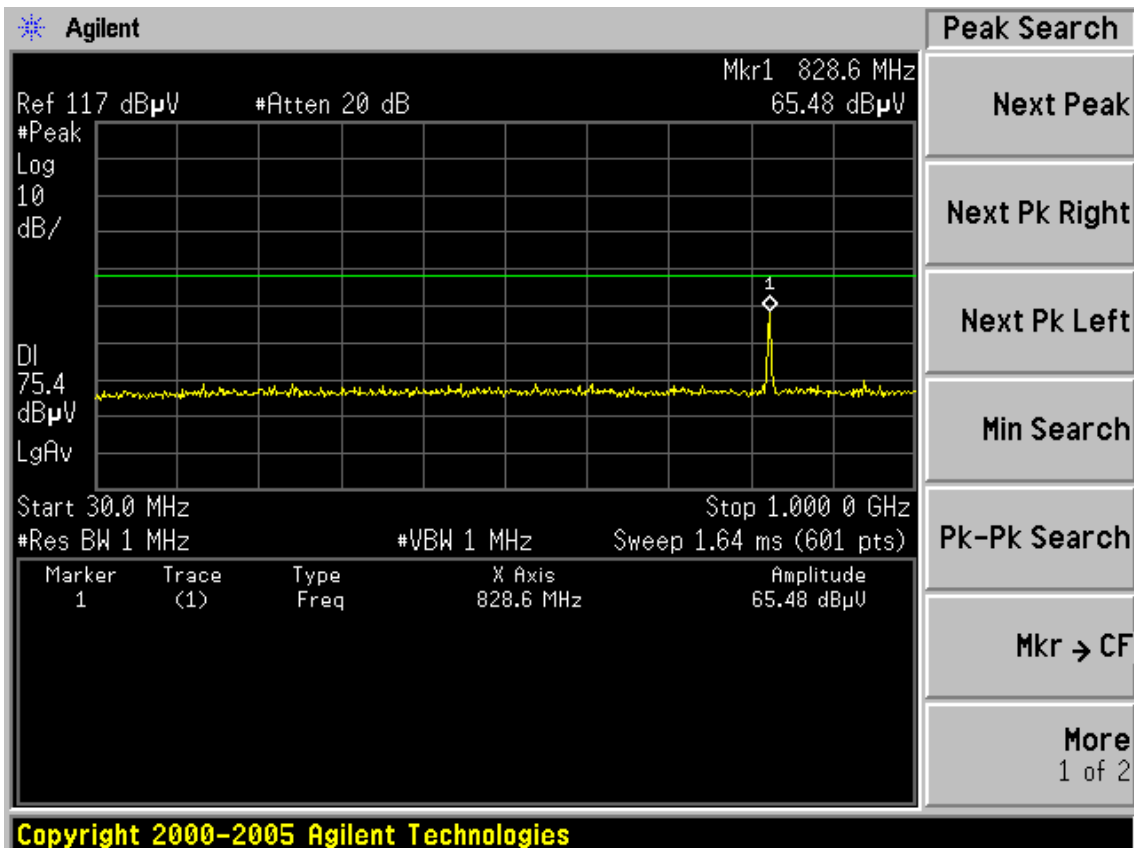
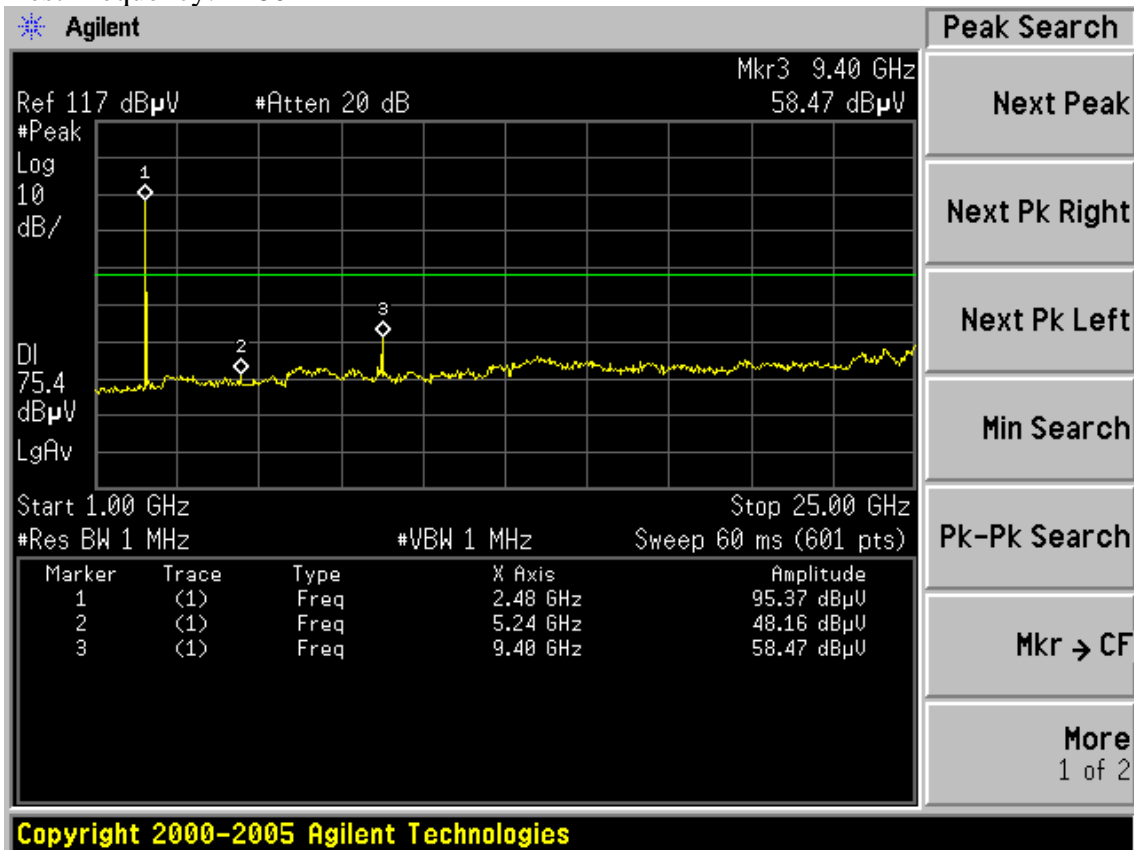
Test Frequency: 2402MHz



Test Frequency: 2441MHz

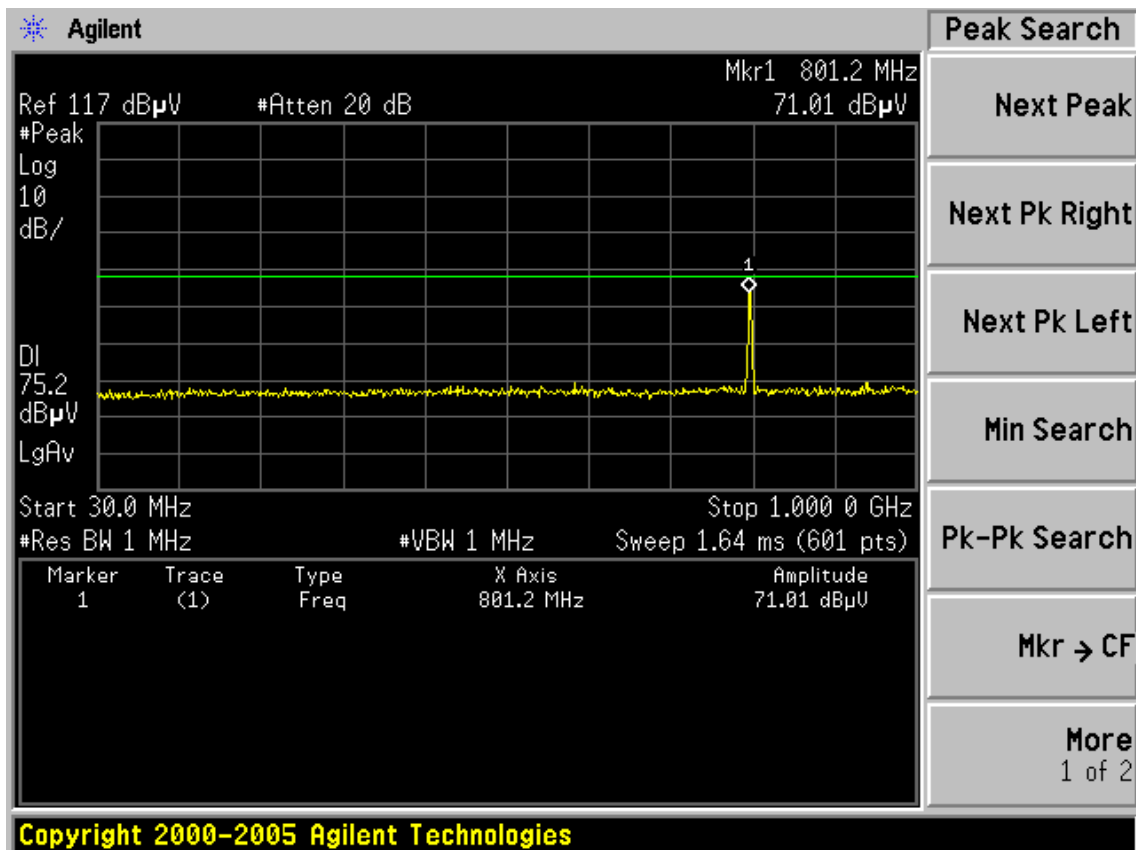
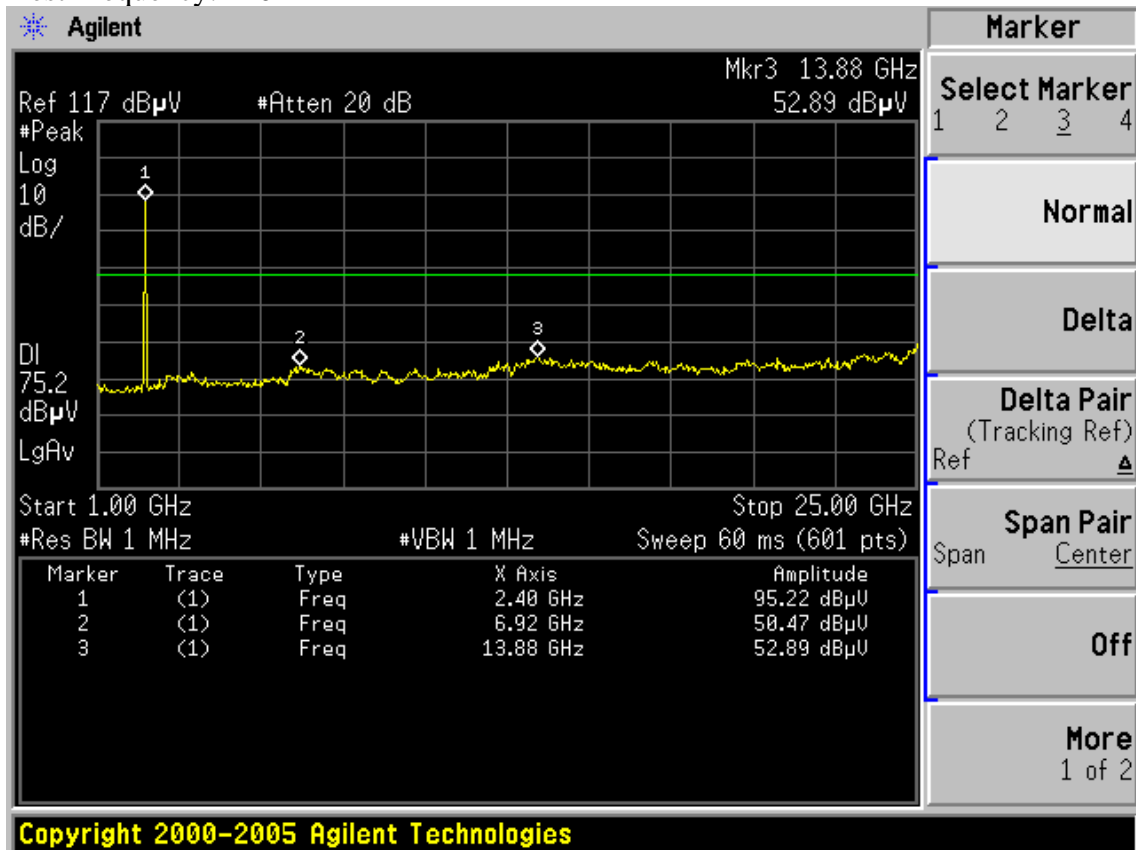


Test Frequency: 2480MHz

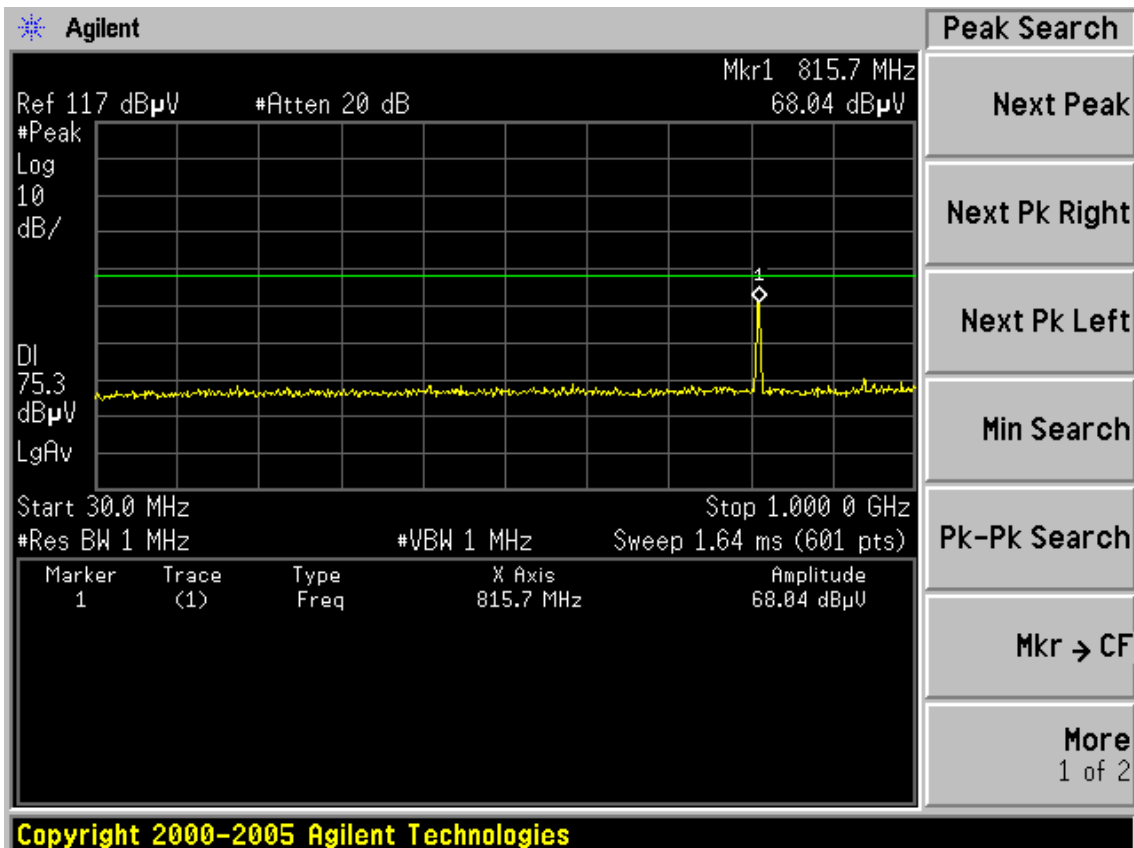
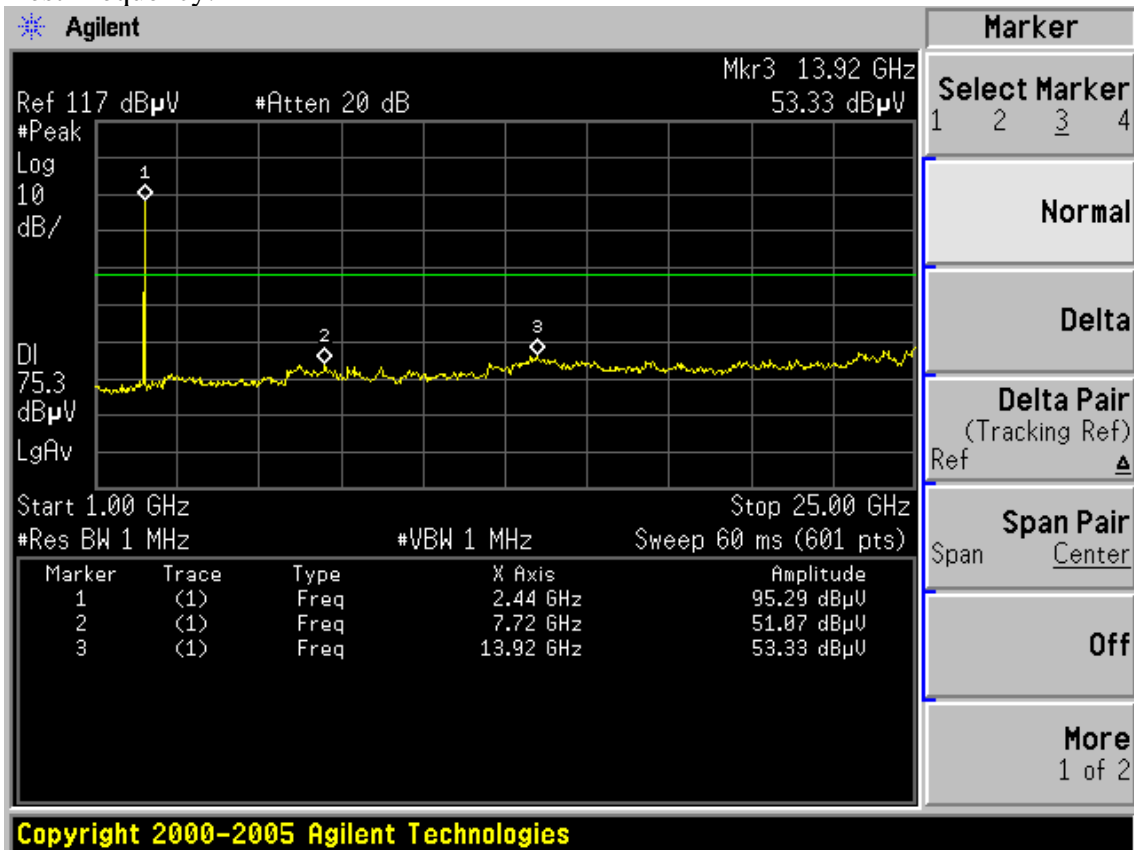


### 8-DPSK Mode

Test Frequency: 2402MHz

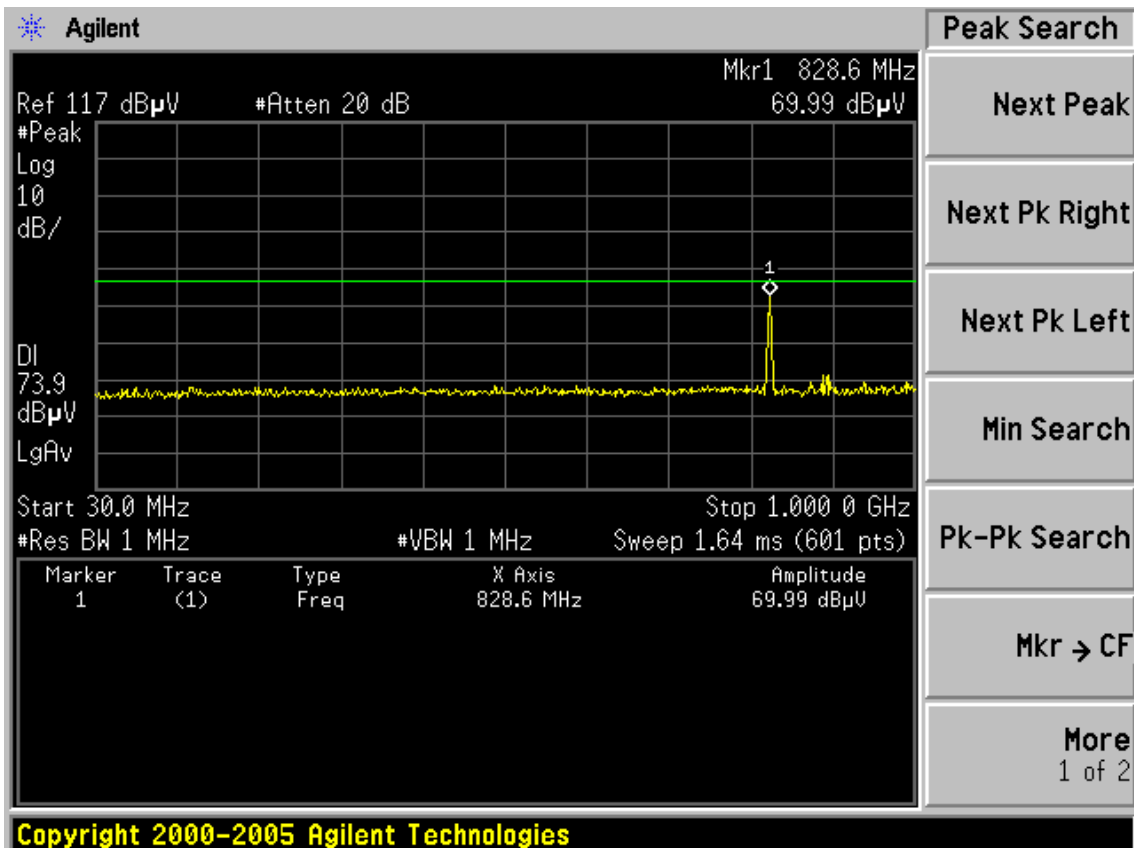
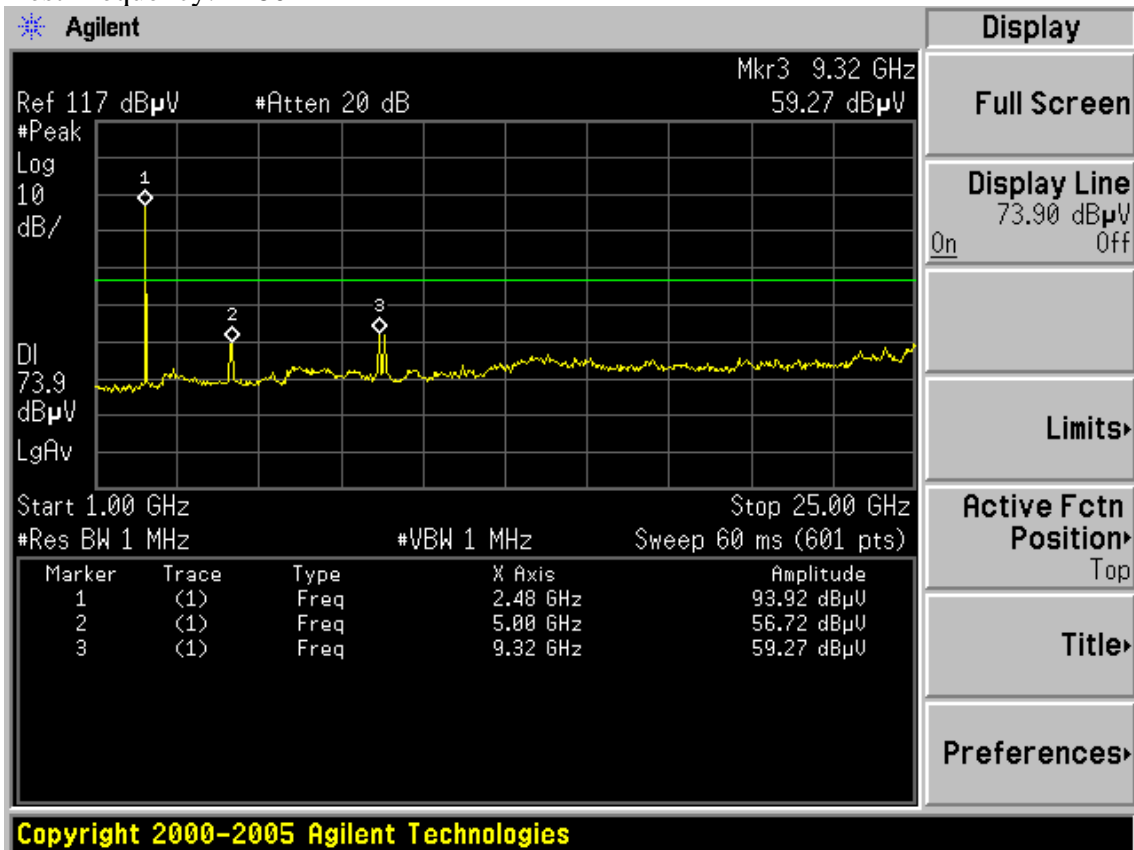


Test Frequency: 2441MHz





Test Frequency: 2480MHz



## 5. 20 DB BANDWIDTH TEST

### 5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
2	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

### 5.2. Test Procedure

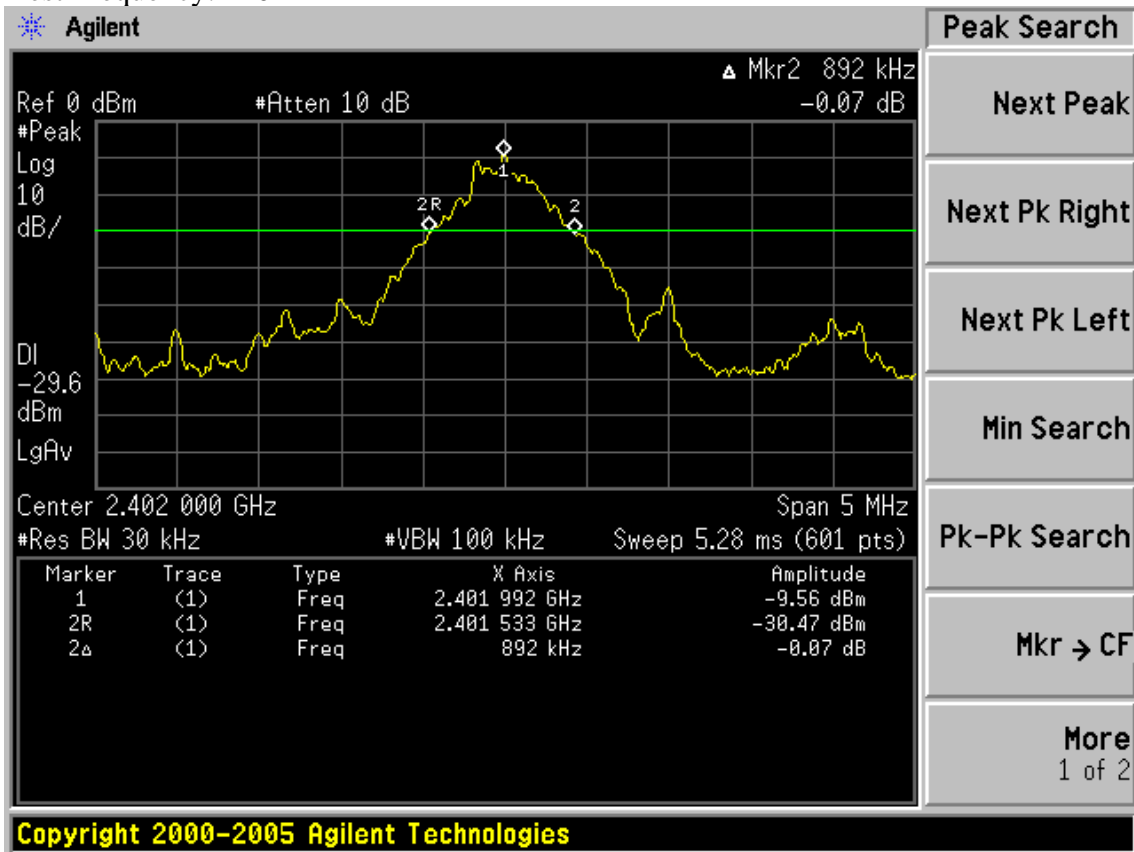
The transmitter output was coupled to a spectrum analyzer via a antenna. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

### 5.3. Test Results

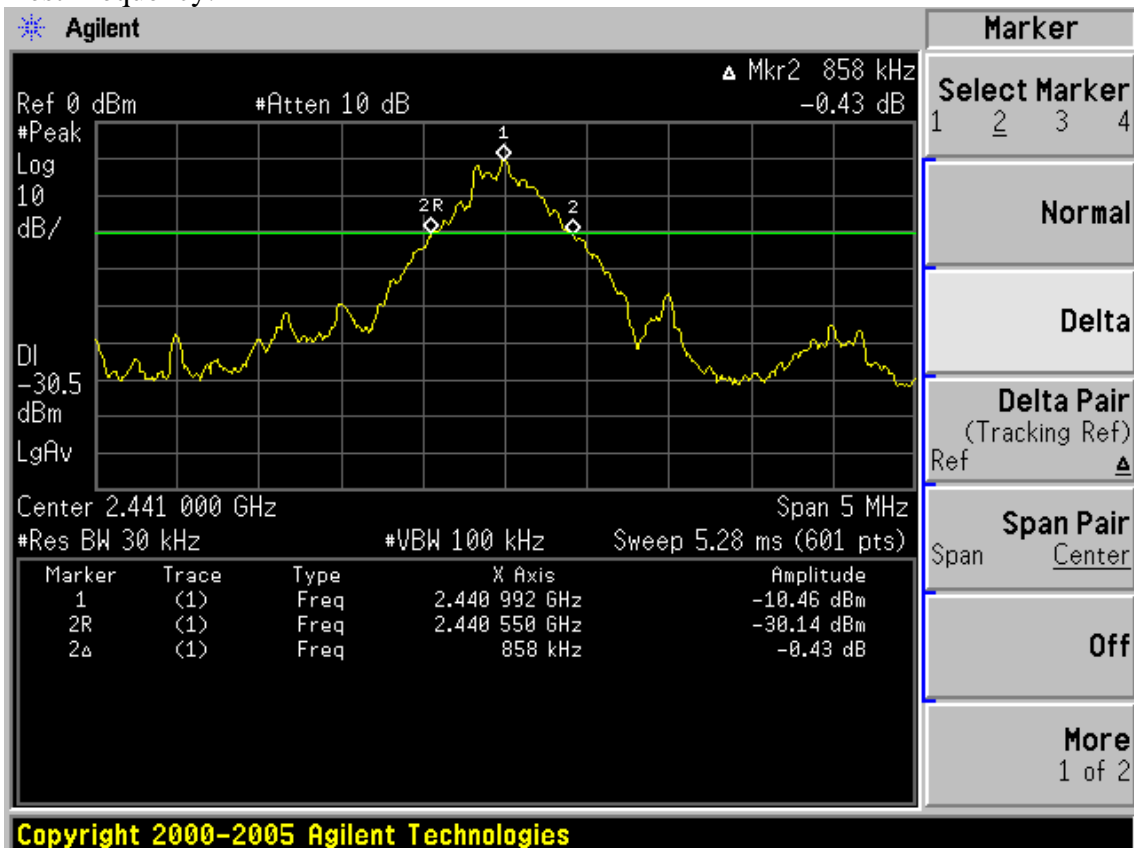
Mode	CH	20dB Bandwidth	Limit (kHz)	Conclusion
GFSK	(Low)	892kHz	---	PASS
	(Mid)	858kHz	---	PASS
	(High)	883kHz	---	PASS
8-DPSK	(Low)	1.217MHz	---	PASS
	(Mid)	1.217MHz	---	PASS
	(High)	1.217MHz	---	PASS

**GFSK Mode**

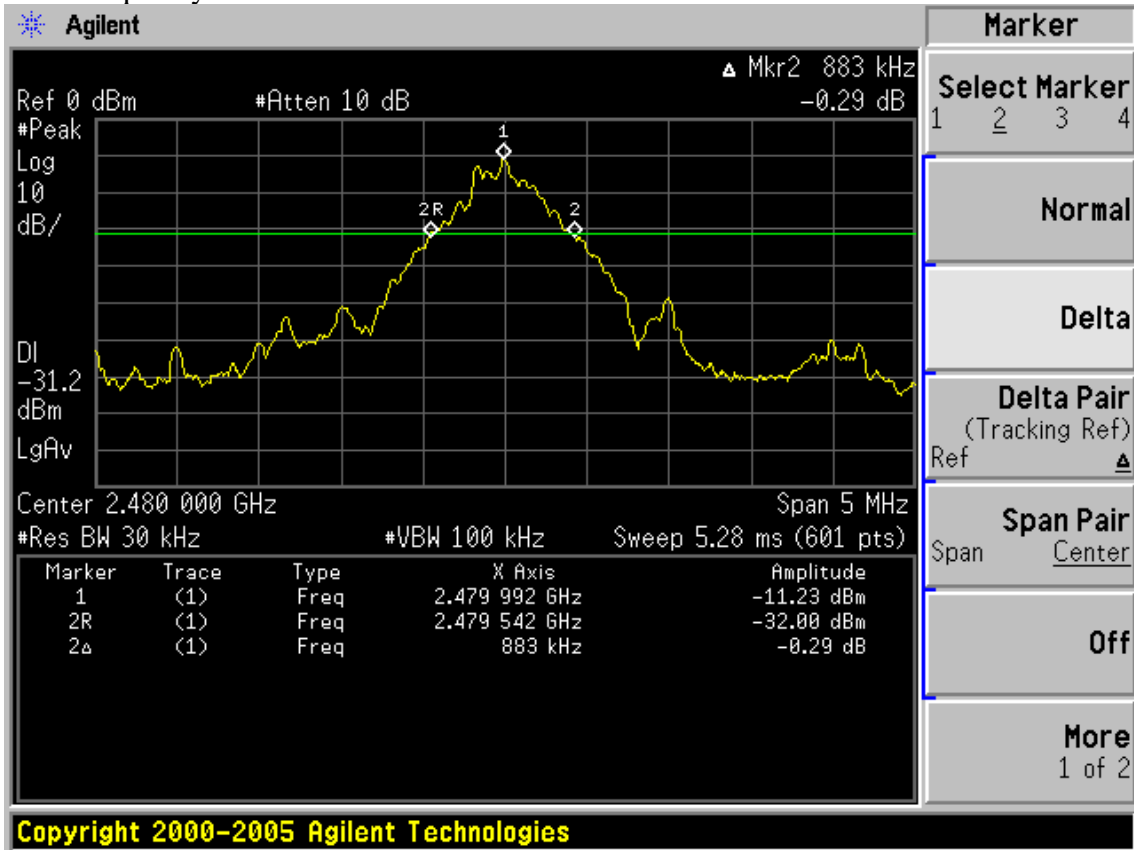
Test Frequency: 2402MHz



Test Frequency: 2441MHz

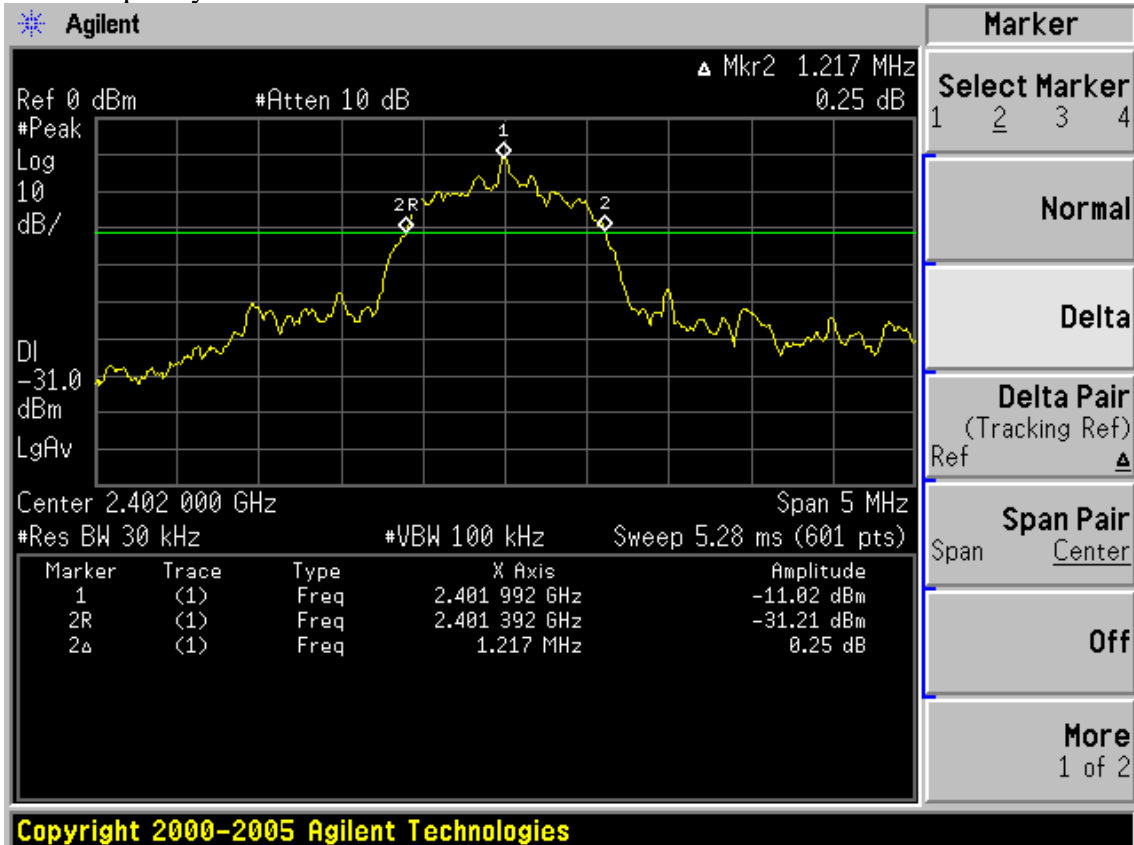


Test Frequency: 2480MHz

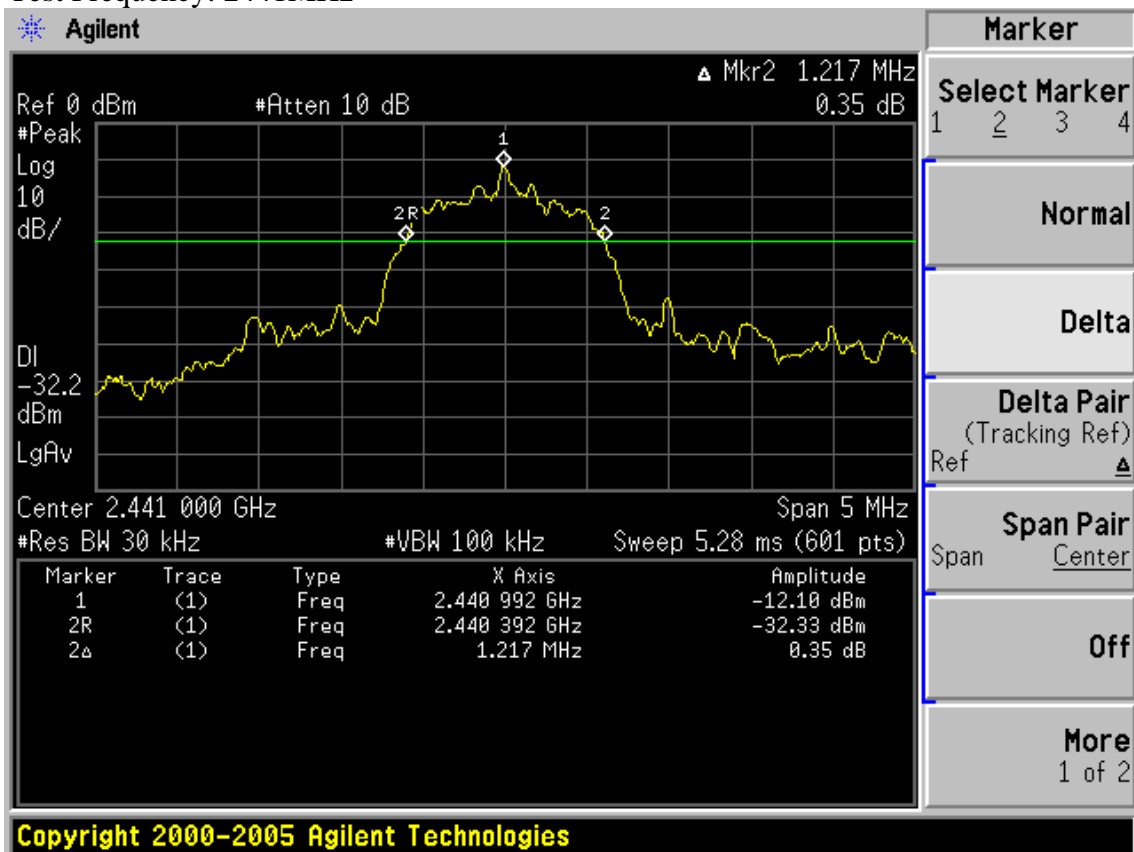


### 8-DPSK Mode

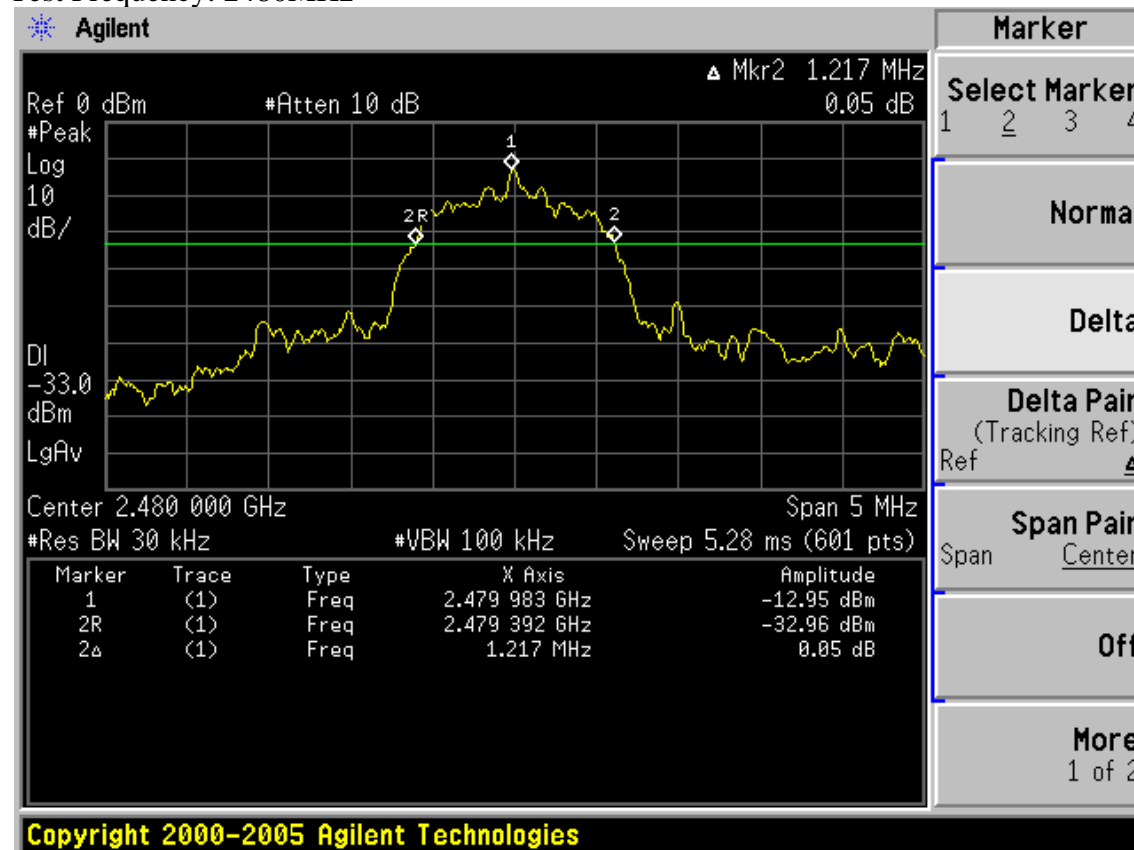
Test Frequency: 2402MHz



Test Frequency: 2441MHz



Test Frequency: 2480MHz



## 6. NUMBER OF HOPPING FREQUENCY TEST

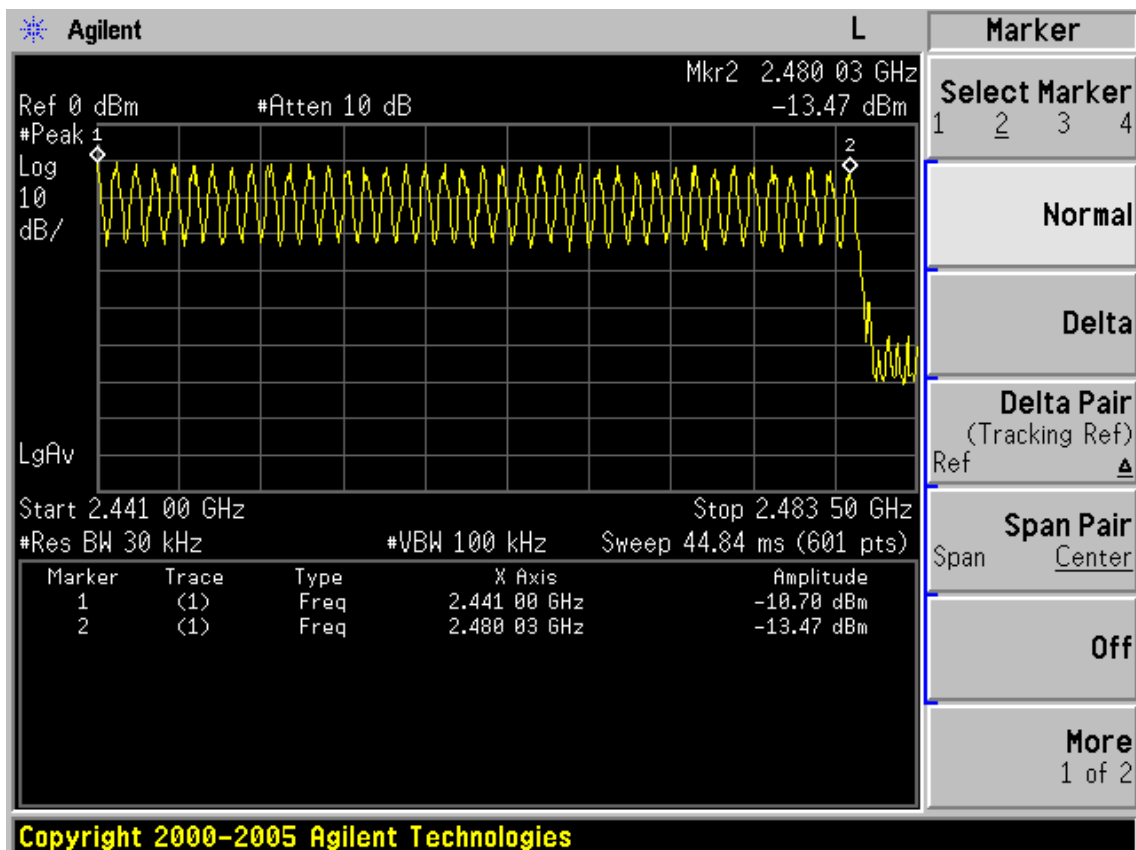
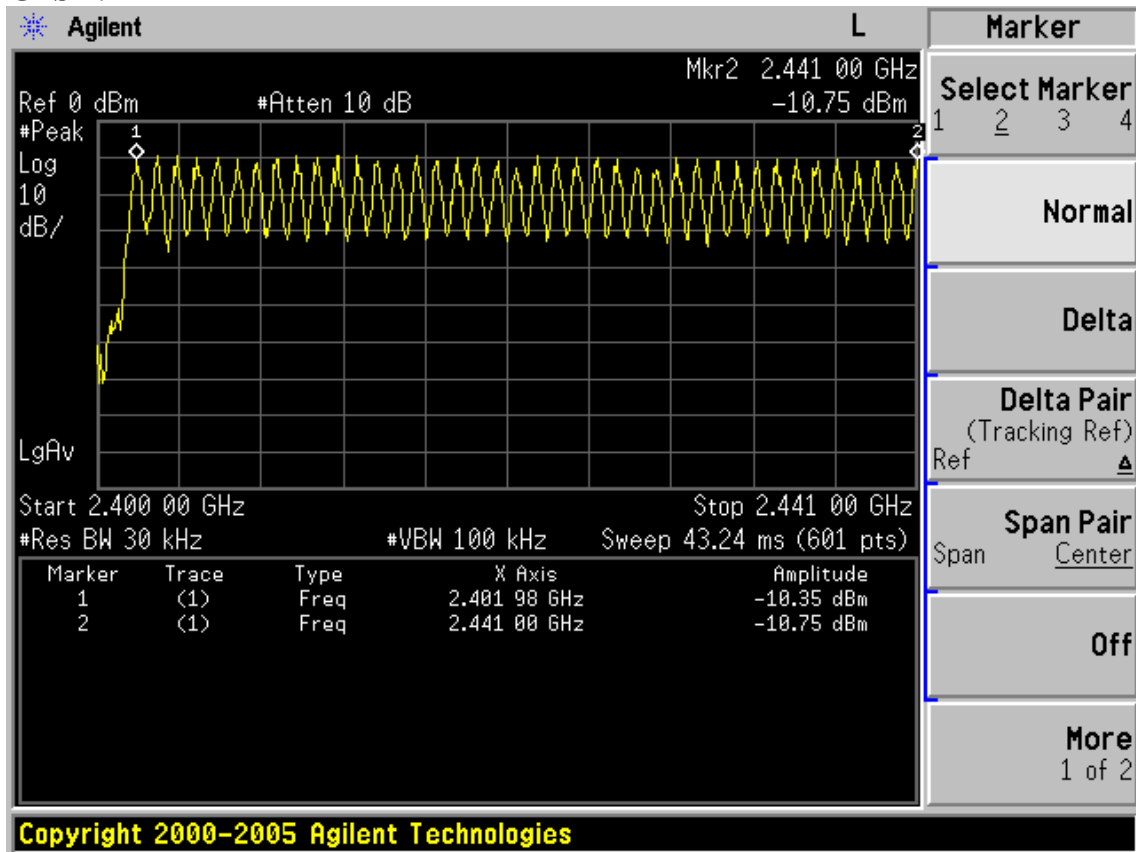
### 6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
2	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

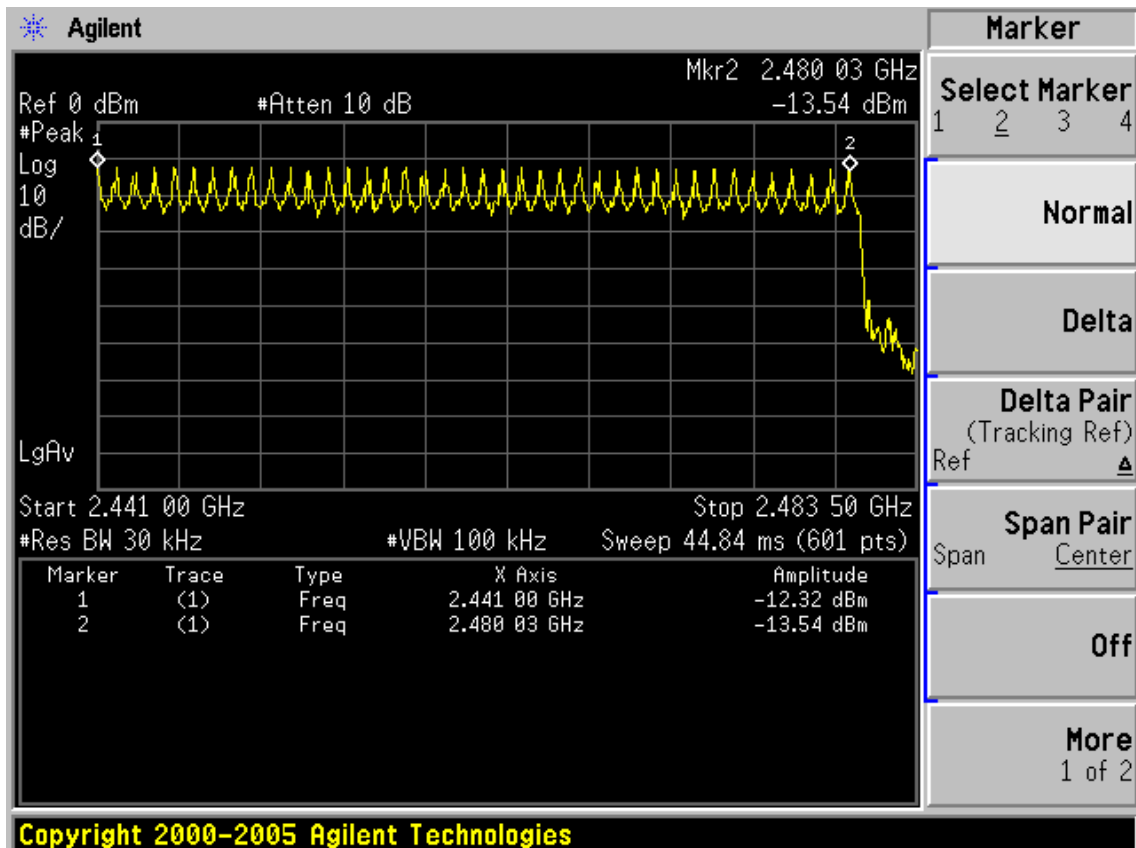
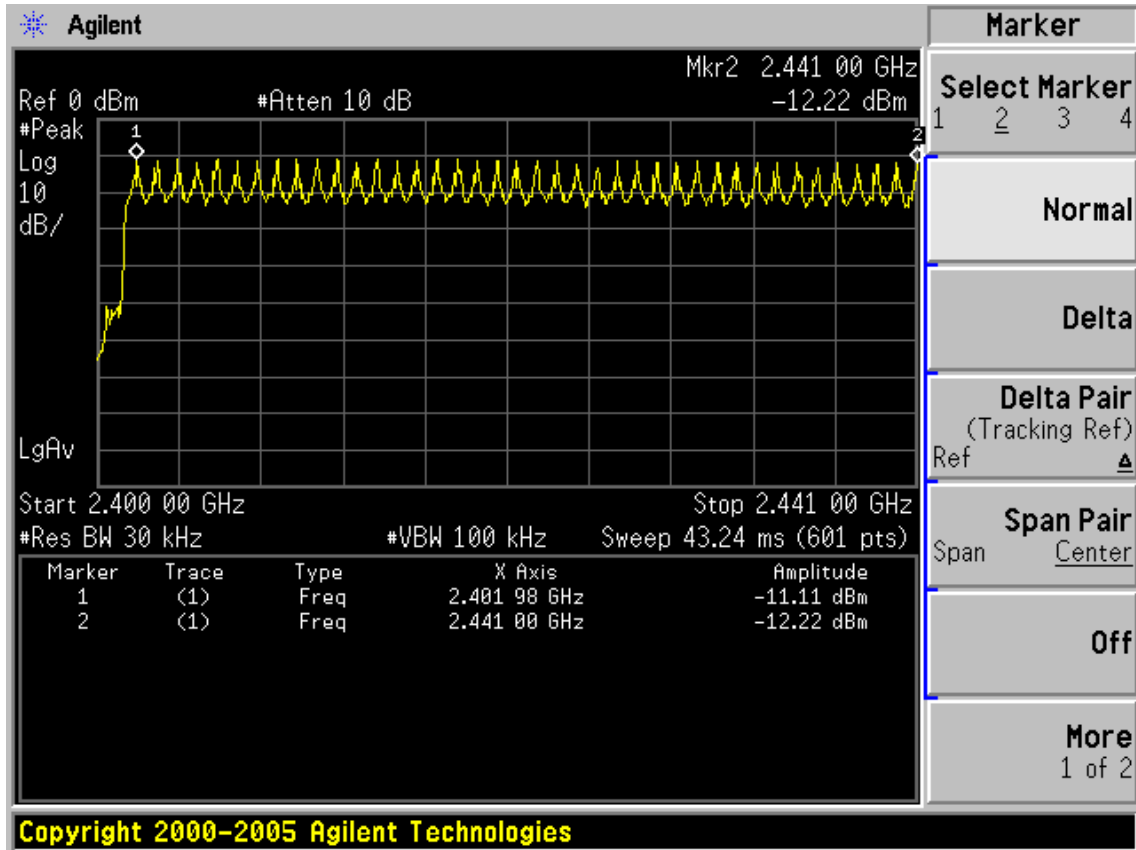
### 6.2. Test Results

Mode	Number of channel	Limit	Conclusion
GFSK	79	$\geq 15$	PASS
8-DPSK	79	$\geq 15$	PASS

**GFSK:**



**8-DPSK:**





## 7. DWELL TIME TEST

### 7.1. Test Equipment

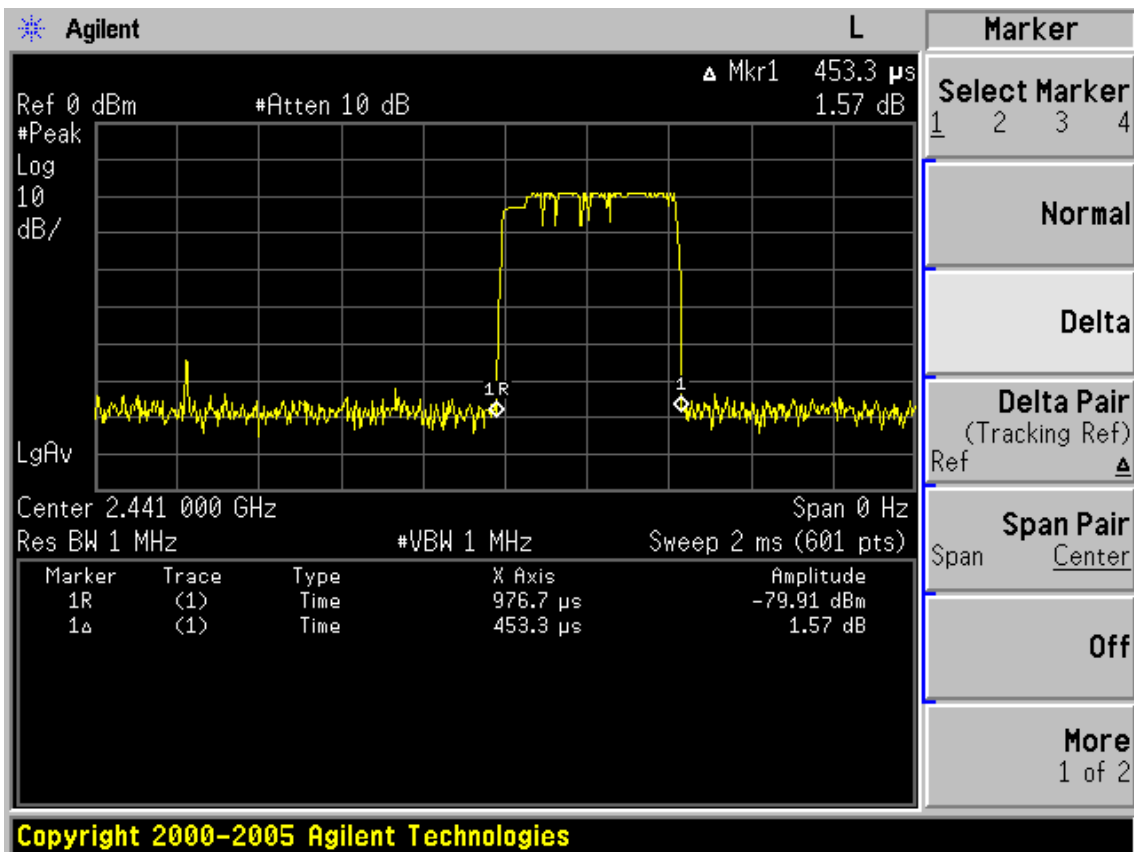
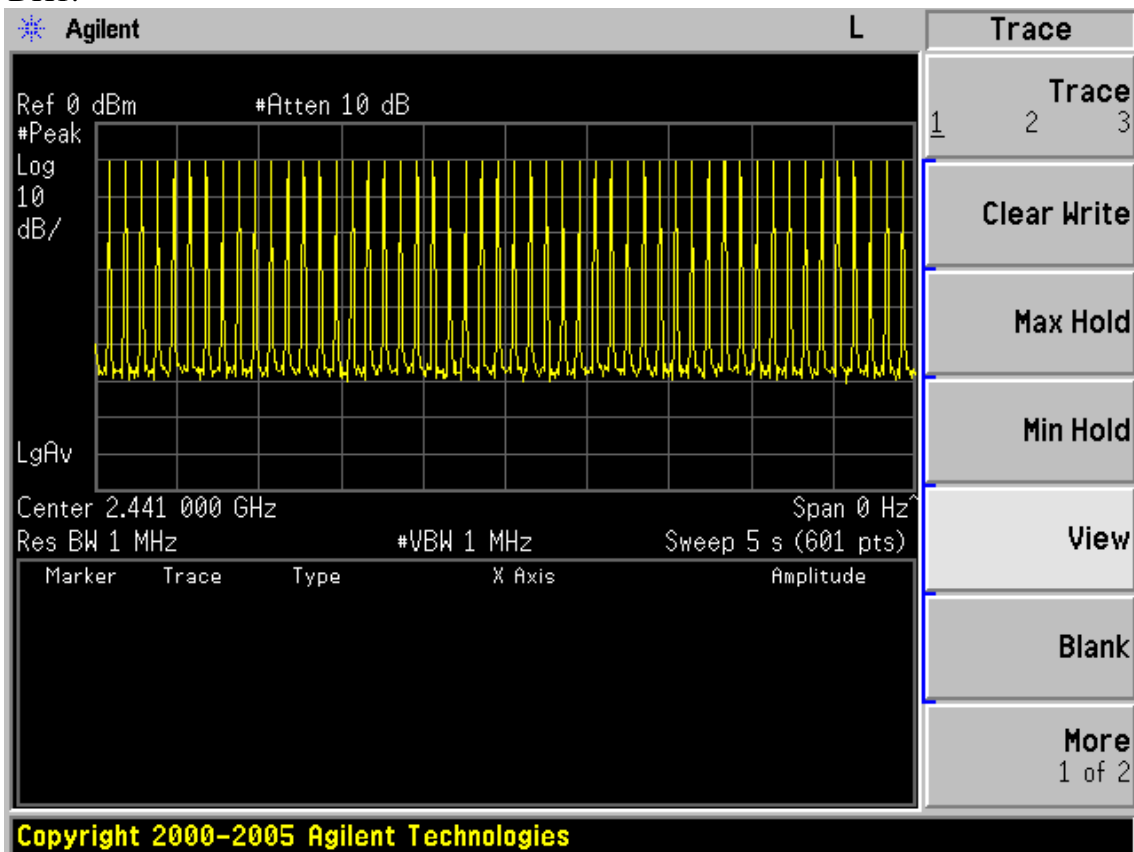
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
2	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

### 7.2. Test Results

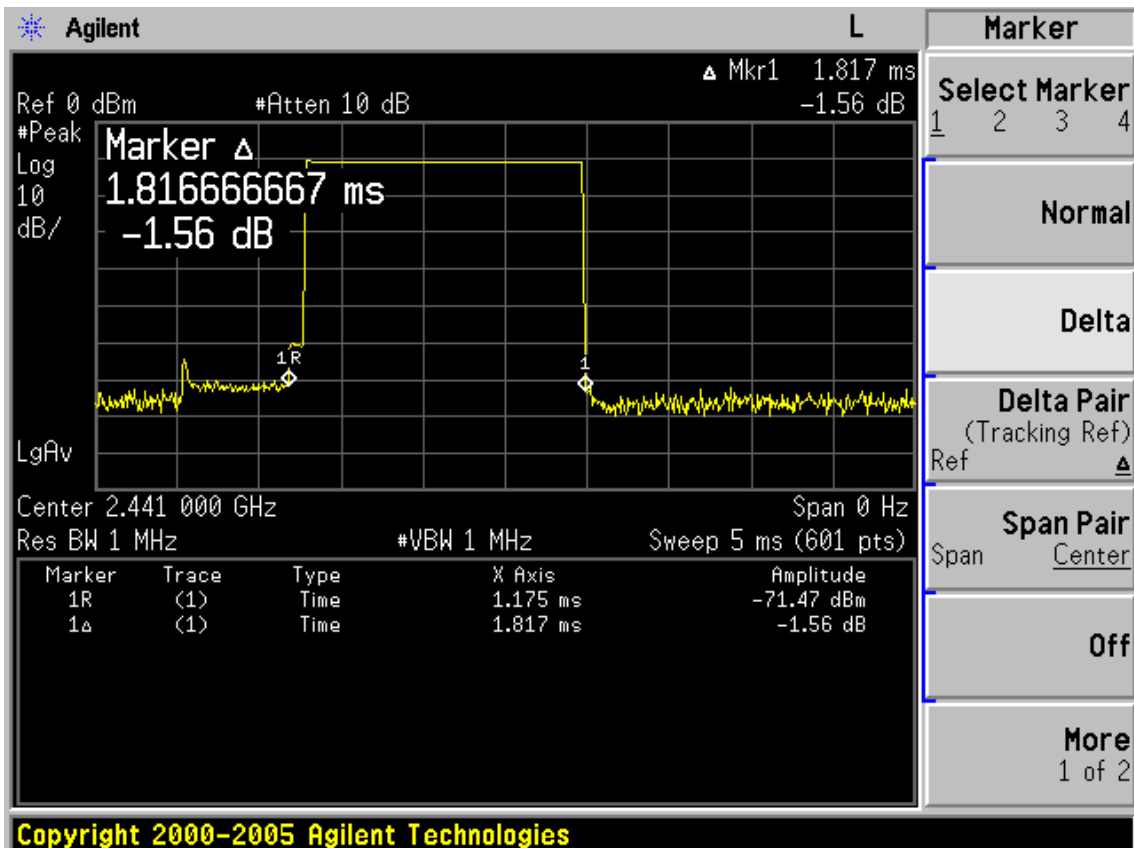
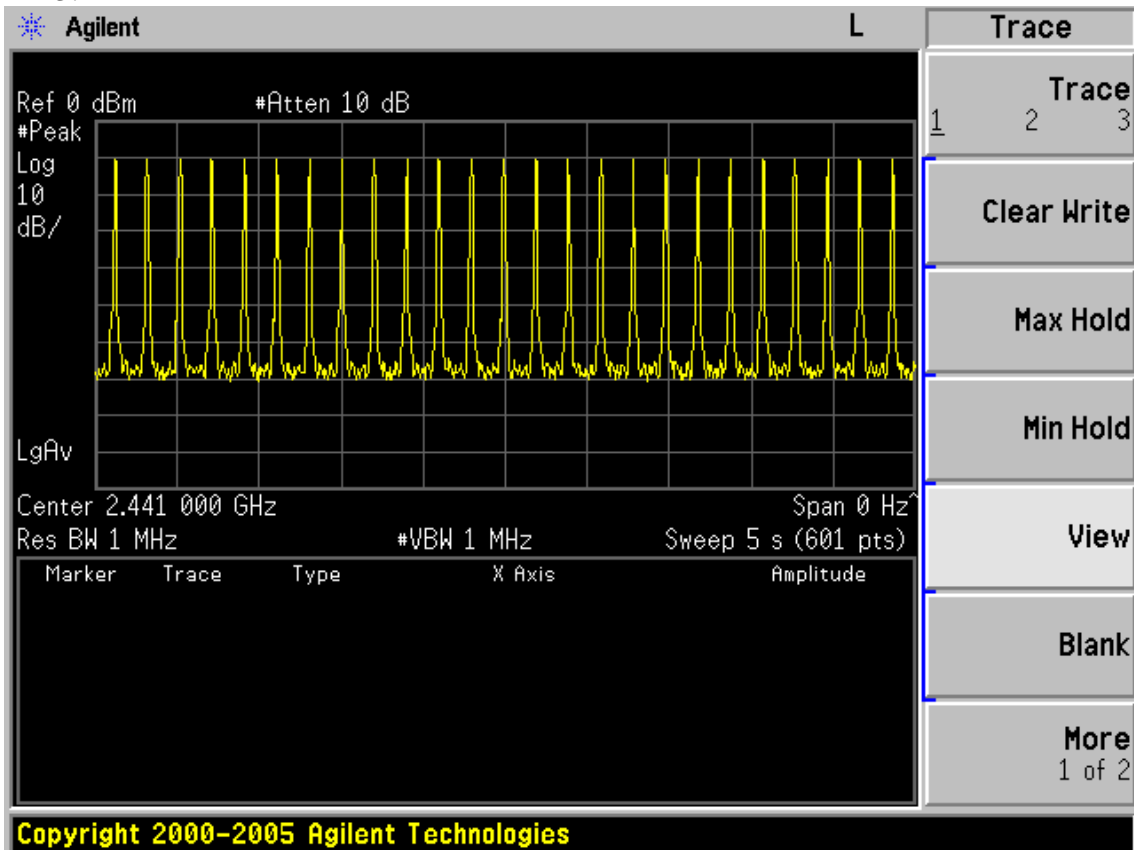
Mode	dwel time	Limit	Conclusion
GFSK	DH1: 143.24ms	<400ms	PASS
	DH3: 280.70ms	<400ms	PASS
	DH5: 320.49ms	<400ms	PASS
8-DPSK	3-DH1: 180.12ms	<400ms	PASS
	3-DH3: 289.61ms	<400ms	PASS
	3-DH5: 336.61ms	<400ms	PASS

**GFSK:**

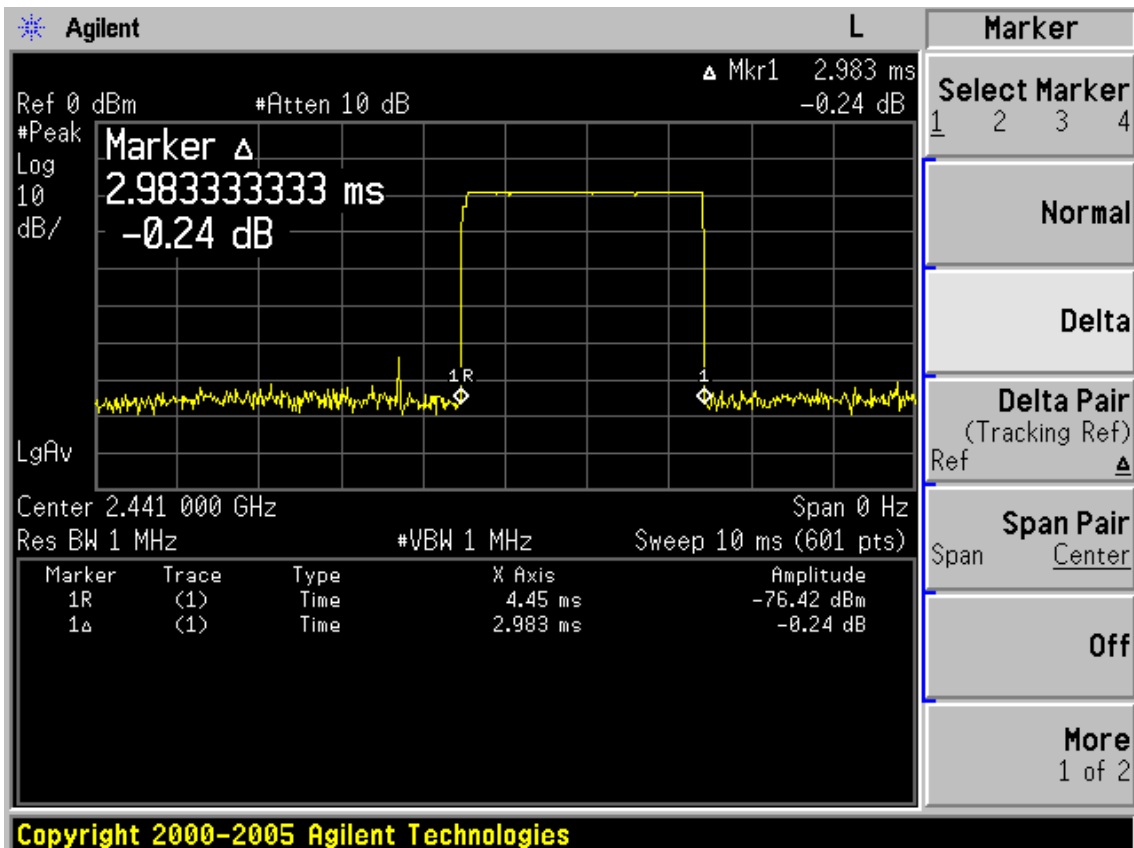
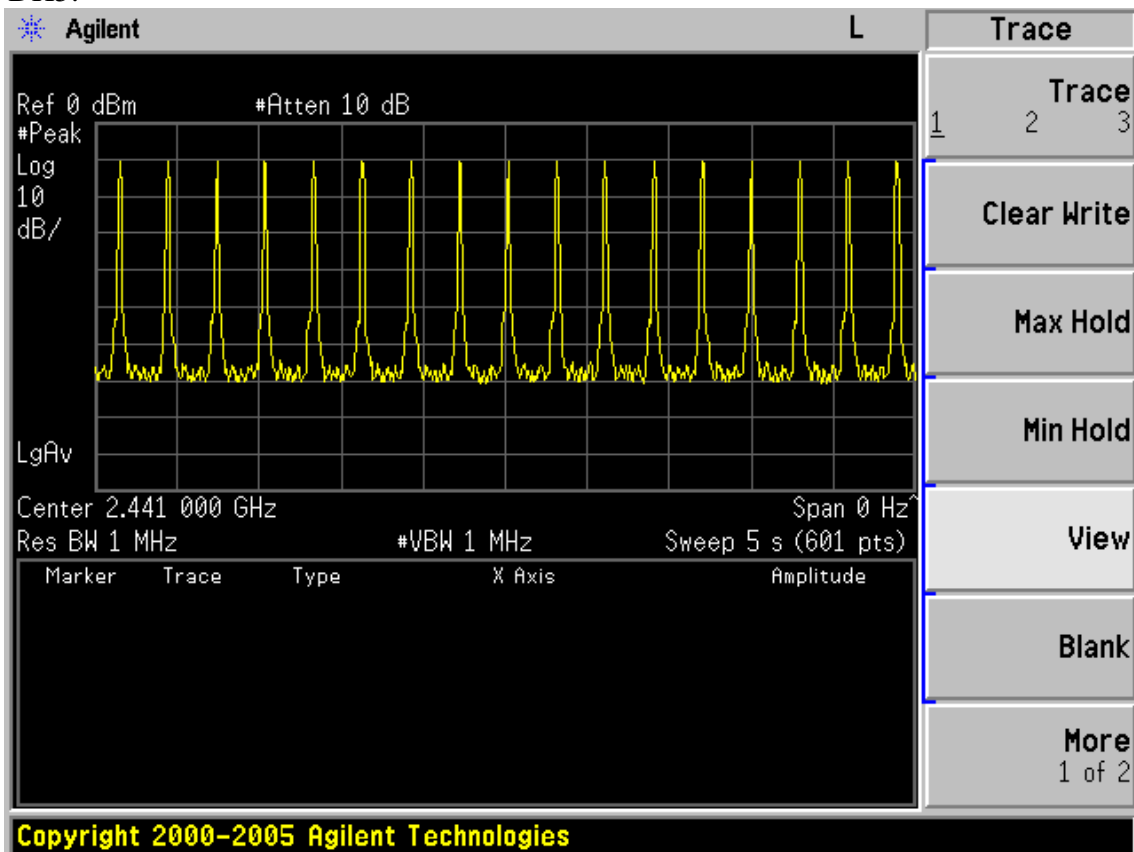
**DH1:**



DH3:

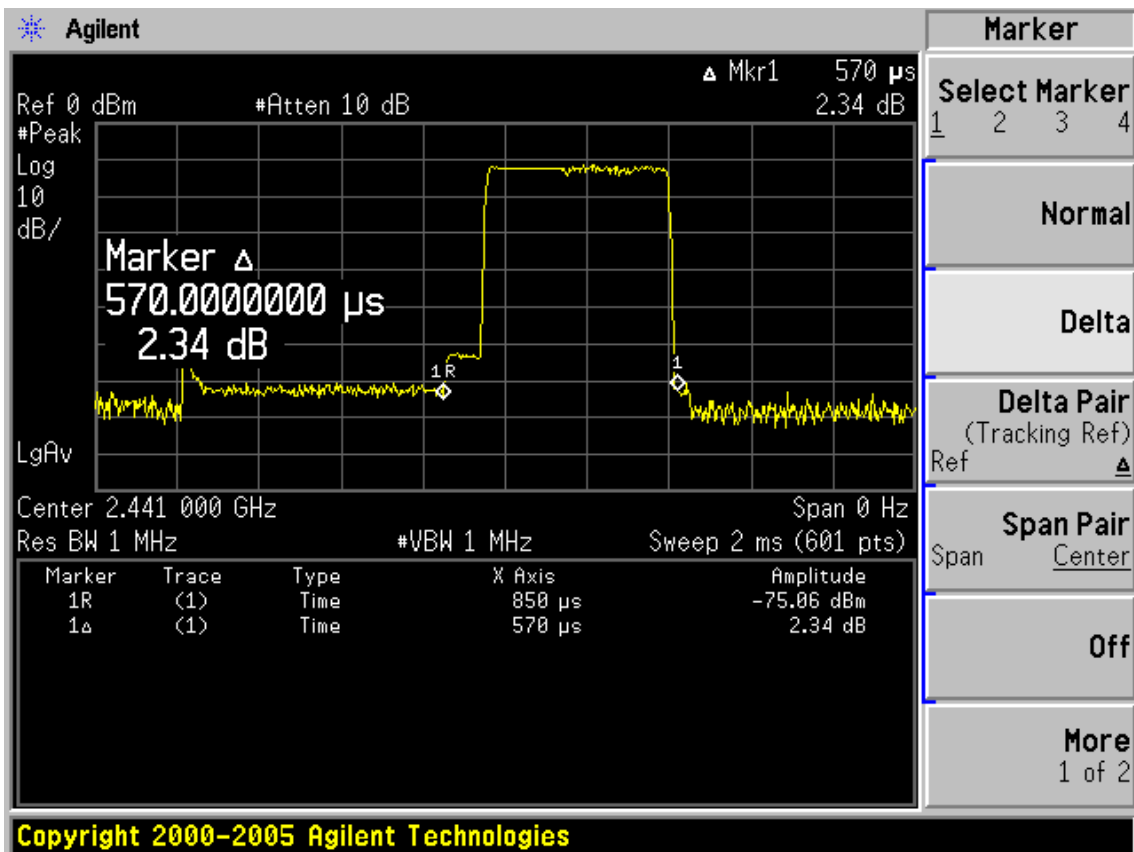
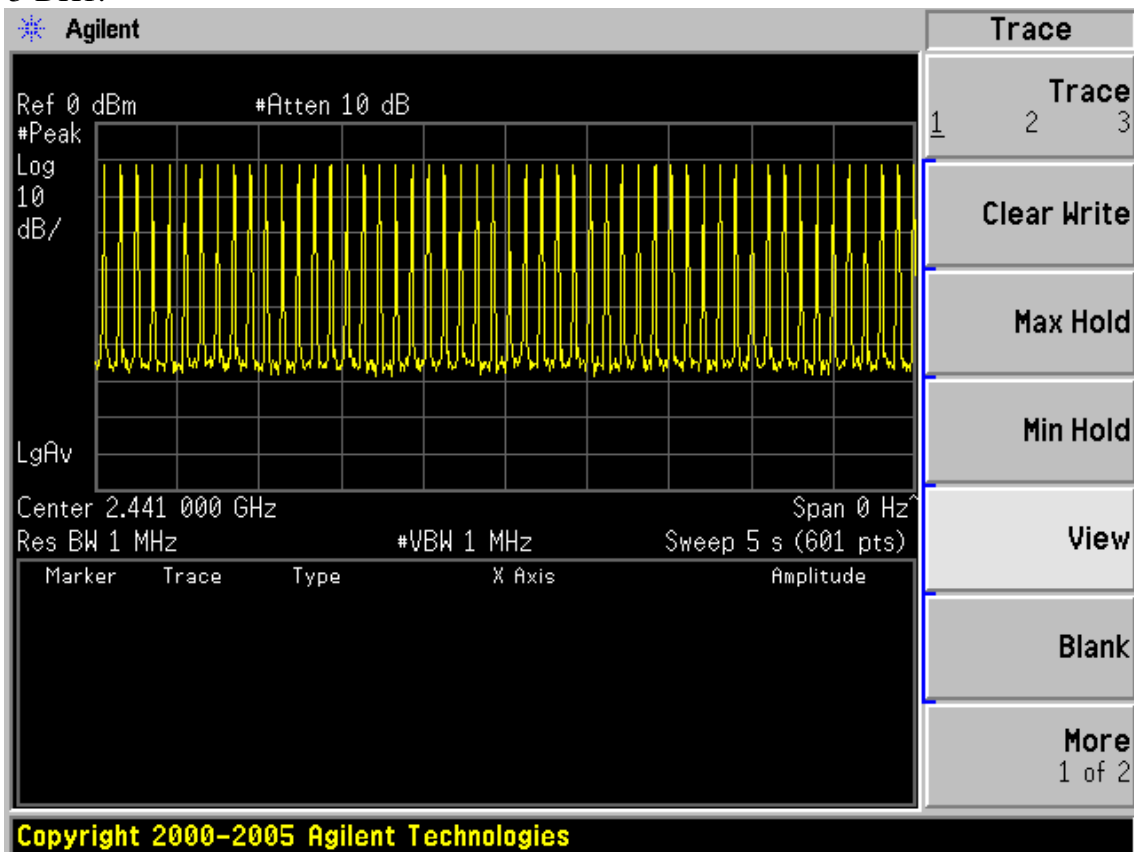


DH5:

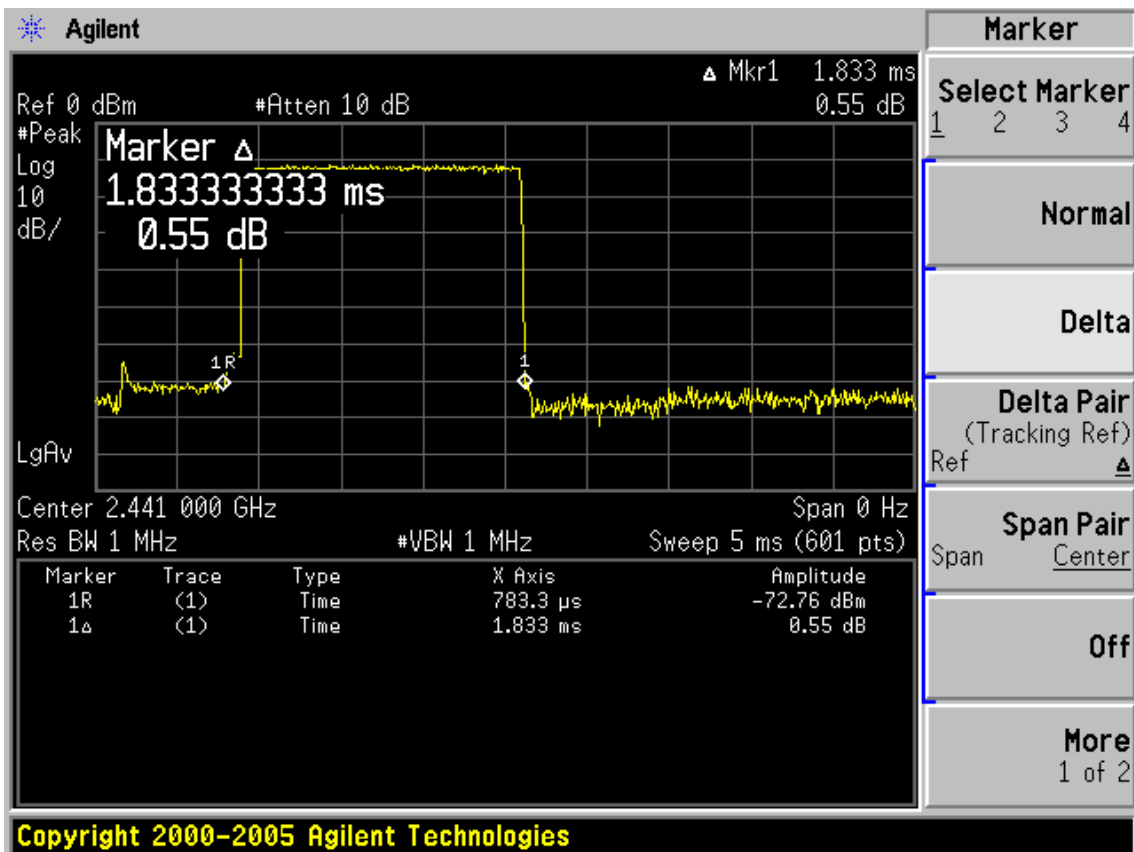
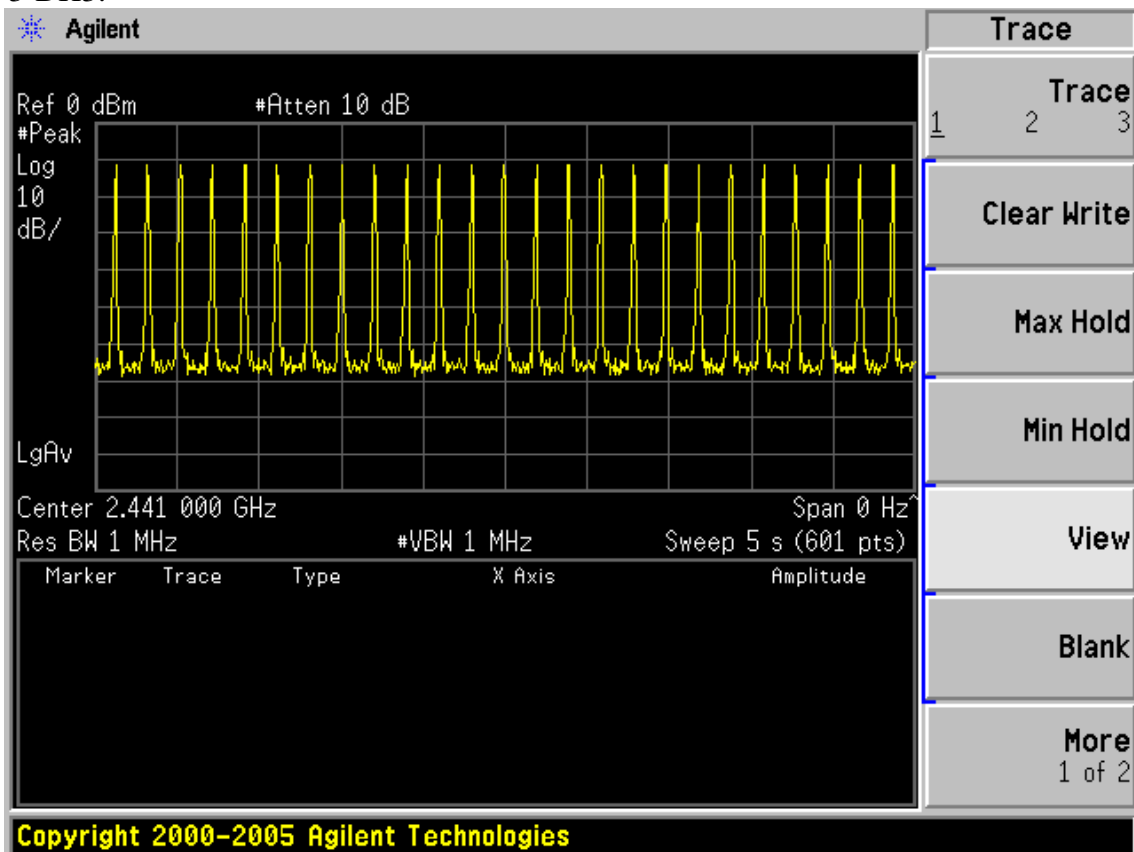


**8-DPSK:**

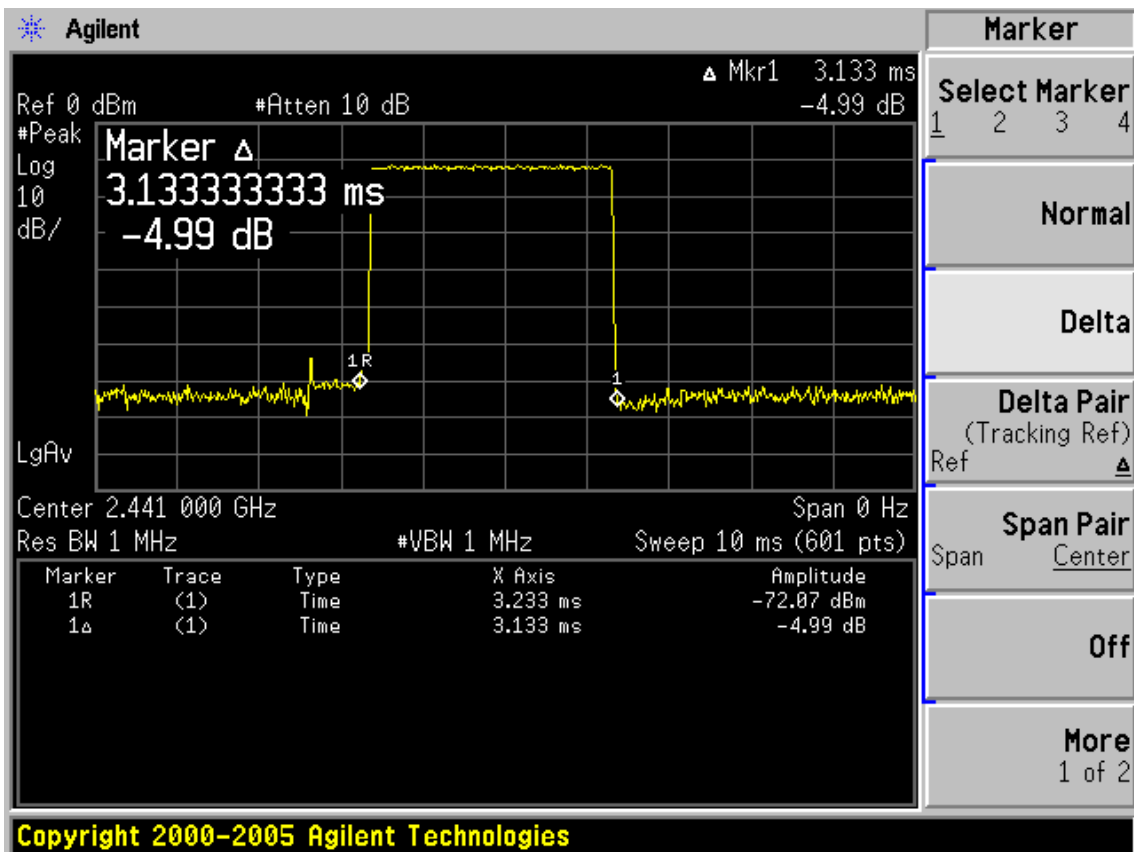
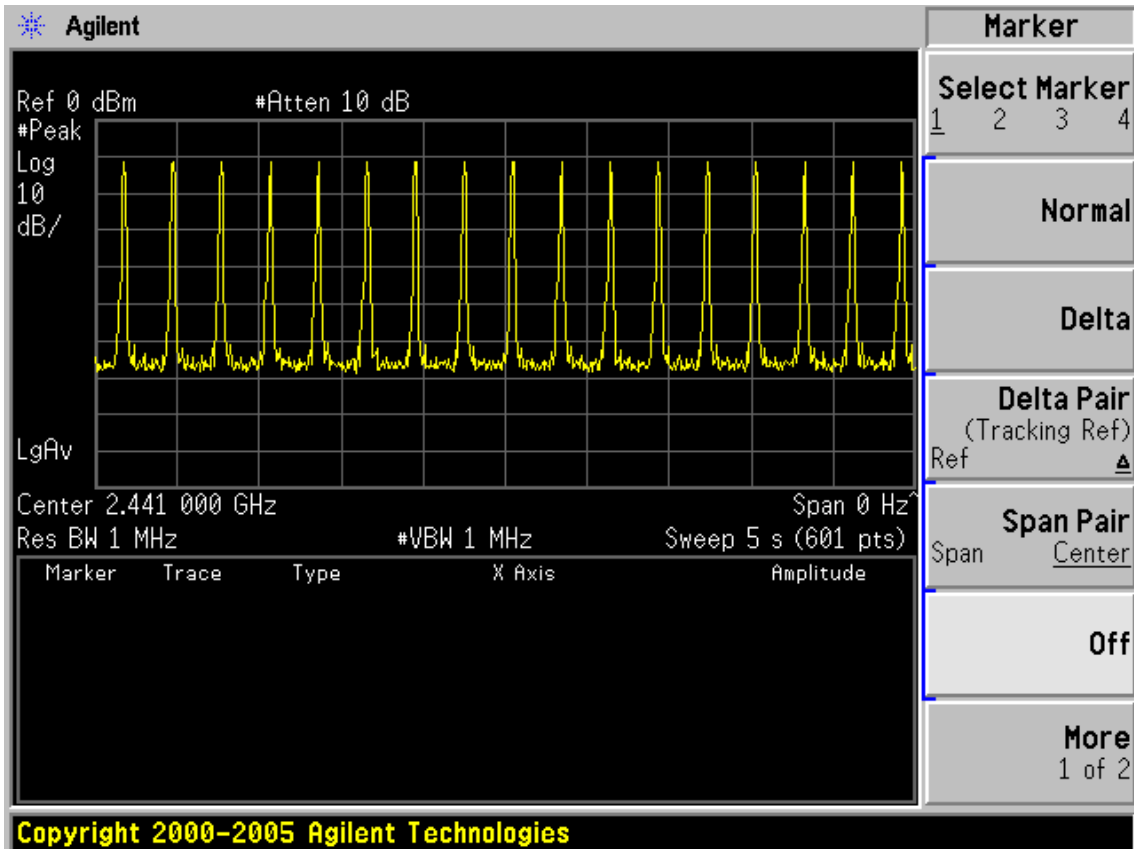
**3-DH1:**



3-DH3:



3-DH5:



## 8. MAXIMUM PEAK OUTPUT POWER TEST

### 8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
2	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
3	Power meter	Anritsu	ML2487A	6K00002472	May,10, 08	1 Year
4	Power sensor	Anritsu	ML2491A	032516	May,10, 08	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

### 8.2. Limit(FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

### 8.3. Test Procedure

The transmitter output was connected to a power meter, and read out the PK output power.

### 8.4. Test Results

EUT: OPUS						
M/N: SA10PSXXYB (XX means flash size)						
Power: DC 3.7V						
Test Date: 2009/02/16			Test site: RF site		Tested by: Sunny	
Ambient Temperature:23°C			Relative Humidity: 60%			
Test mode: GFSK Tx mode						
Test CH	Read(PK) (dBm)	Cable loss (dB)	Atten loss (dB)	Result (dBm)	Limit (dBm)	Conclusion
CH1:2402MHz	0.72	0.6	0	1.32	30	<b>PASS</b>
CH40:2441MHz	1.24	0.6	0	1.84	30	<b>PASS</b>
CH79:2480MHz	1.05	0.6	0	1.65	30	<b>PASS</b>
Test mode: 8-DPSK Tx mode						
CH1:2402MHz	-0.97	0.6	0	-0.37	30	<b>PASS</b>
CH40:2441MHz	0.14	0.6	0	0.74	30	<b>PASS</b>
CH79:2480MHz	0.27	0.6	0	0.87	30	<b>PASS</b>
Note: Result=Read+Cable loss+Atten loss						



## 9. BAND EDGE COMPLIANCE TEST

### 9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	May, 27, 08	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	Nov. 06.08	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May,28, 08	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX 102	271471/4	May,28, 08	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX 102	29086/2	May,28, 08	1 Year

### 9.2. Limit

According to §15.247(c), in any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is 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. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

### 9.3. Test Procedure

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 upper band-edges of the emission:
  - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
  - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

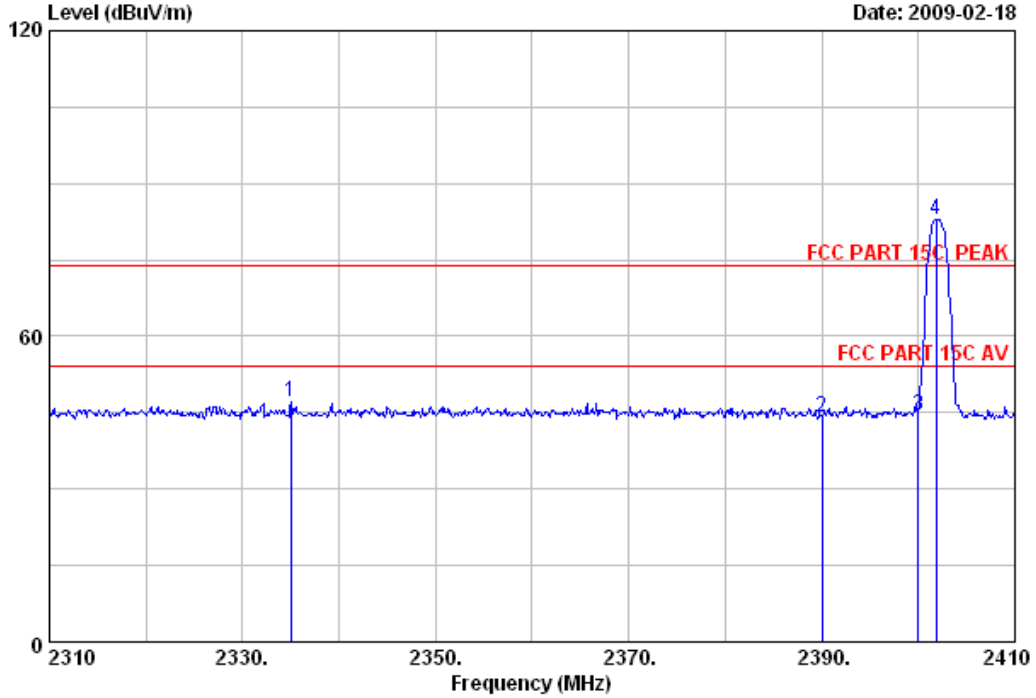
### 9.4. Test Results

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



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 Postcode:518057

Data: 109 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 109  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : GFSK 2402MHz  
 Memo :

	Ant.	Cable	Amp	Emission		Limits	Margin	Remark
Freq. (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	(dBuV/m)	(dB)	
1	28.38	6.65	35.13	47.39	47.29	74.00	26.71	Peak
2	28.46	6.71	35.12	44.00	44.05	74.00	29.95	Peak
3	28.46	6.73	35.12	44.53	44.60	74.00	29.40	Peak
4	28.46	6.73	35.12	82.86	82.93	74.00	-8.93	Peak

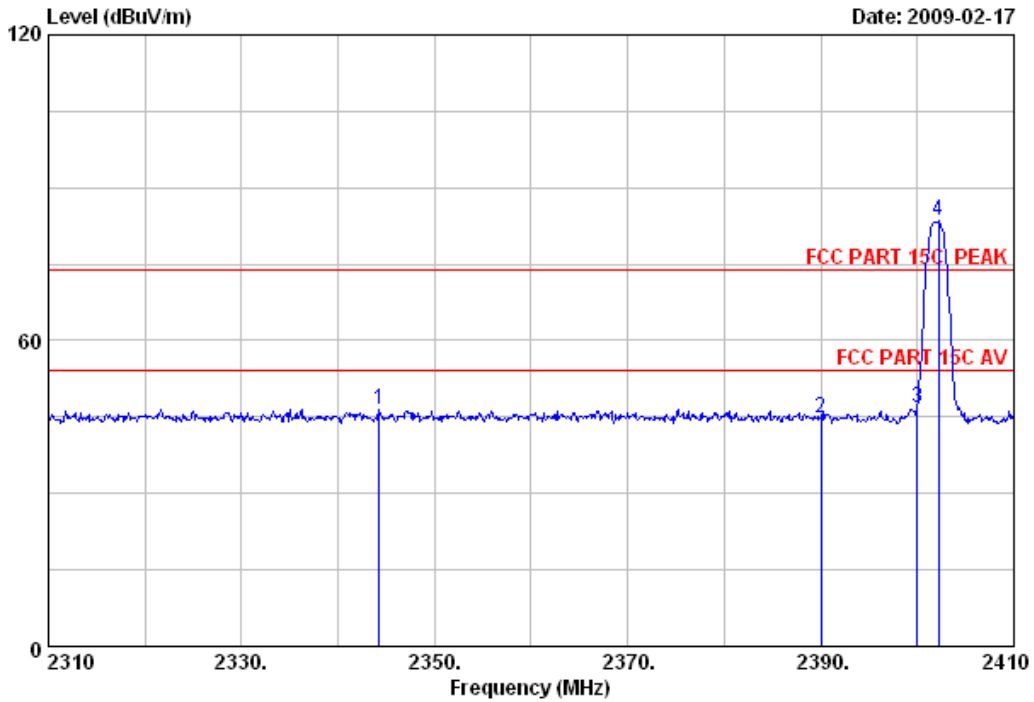
Remarks:

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



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Data: 110 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 110  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : s Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : GFSK 2402MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2344.300	28.38	6.67	35.13	46.66	46.58	74.00	27.42	Peak
2	2390.000	28.46	6.71	35.12	44.81	44.86	74.00	29.14	Peak
3	2400.000	28.46	6.73	35.12	46.78	46.85	74.00	27.15	Peak
4	2402.200	28.46	6.73	35.12	83.34	83.41	74.00	-9.41	Peak

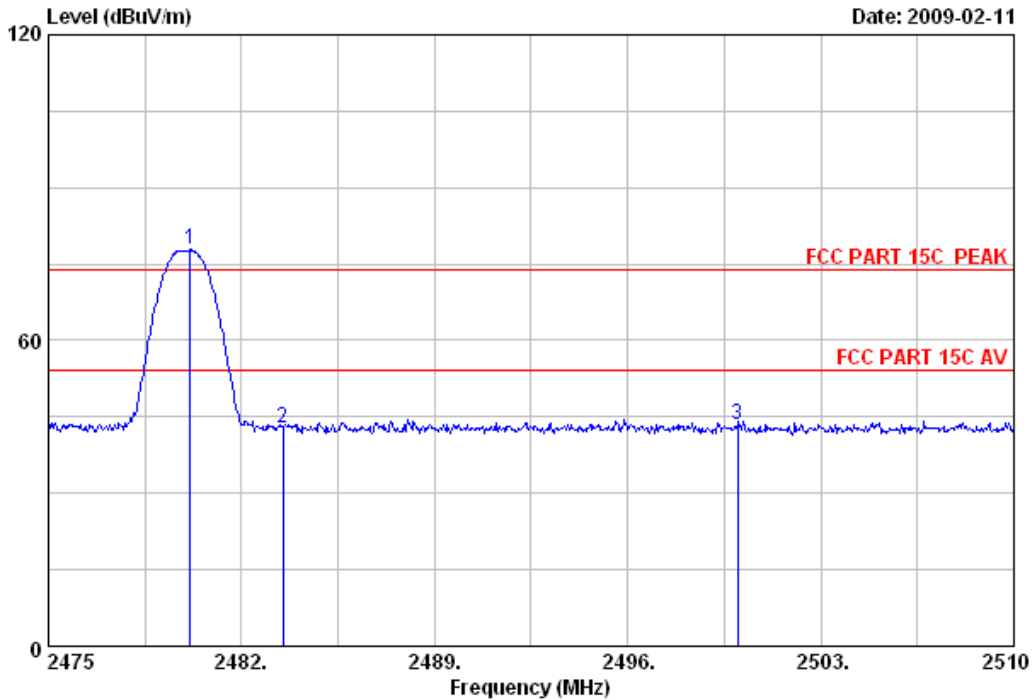
Remarks:

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



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Data: 111 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 111  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : GFSK 2480MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.145	28.58	6.87	35.10	77.39	77.74	74.00	-3.74	Peak
2	2483.500	28.58	6.87	35.10	42.35	42.70	74.00	31.30	Peak
3	2500.000	28.60	6.91	35.10	43.05	43.46	74.00	30.54	Peak

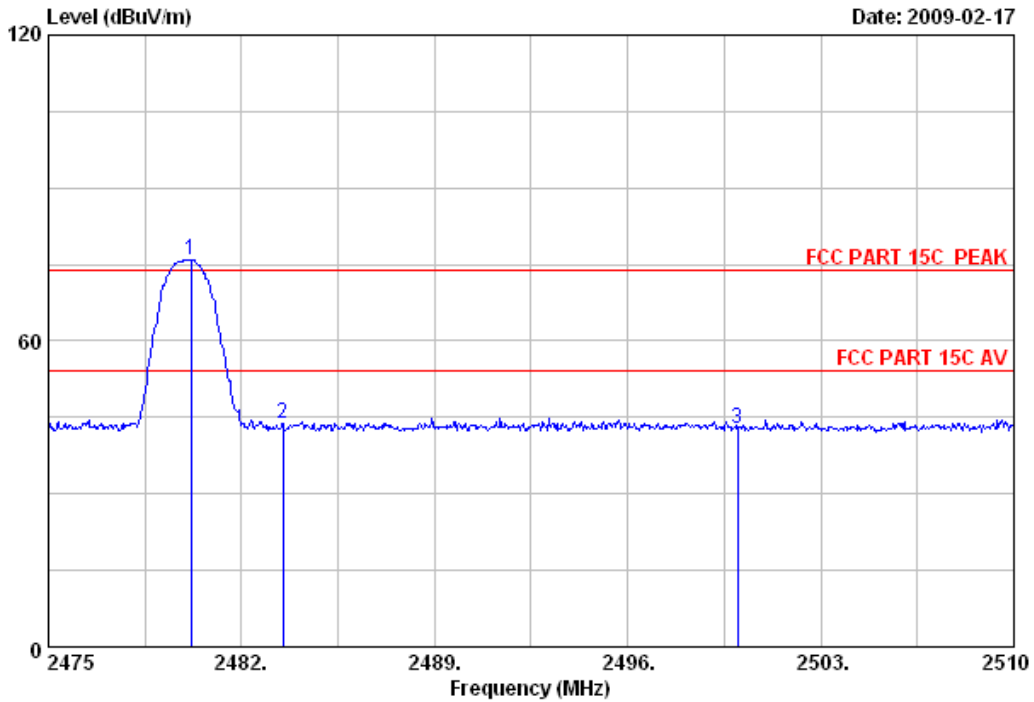
Remarks:

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



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Data: 112 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 112  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : GFSK 2480MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.180	28.58	6.87	35.10	75.55	75.90	74.00	-1.90	Peak
2	2483.500	28.58	6.87	35.10	43.42	43.77	74.00	30.23	Peak
3	2500.000	28.60	6.91	35.10	42.52	42.93	74.00	31.07	Peak

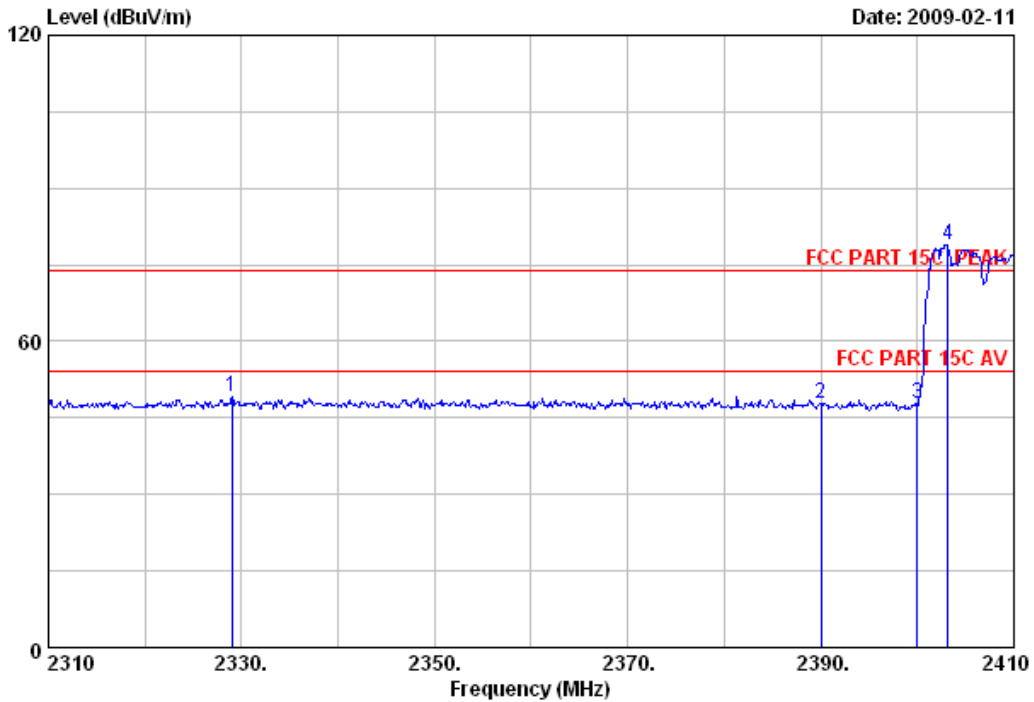
Remarks:

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



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Data: 113 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 113  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:S&I0PSXXKB (XX means flash size)  
 Test mode : GFSK 2402MHz Hopping On  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2329.000	28.36	6.65	35.13	49.40	49.28	74.00	24.72	Peak
2	2390.000	28.46	6.71	35.12	47.65	47.70	74.00	26.30	Peak
3	2400.000	28.46	6.73	35.12	47.65	47.72	74.00	26.28	Peak
4	2403.200	28.48	6.73	35.12	78.86	78.95	74.00	-4.95	Peak

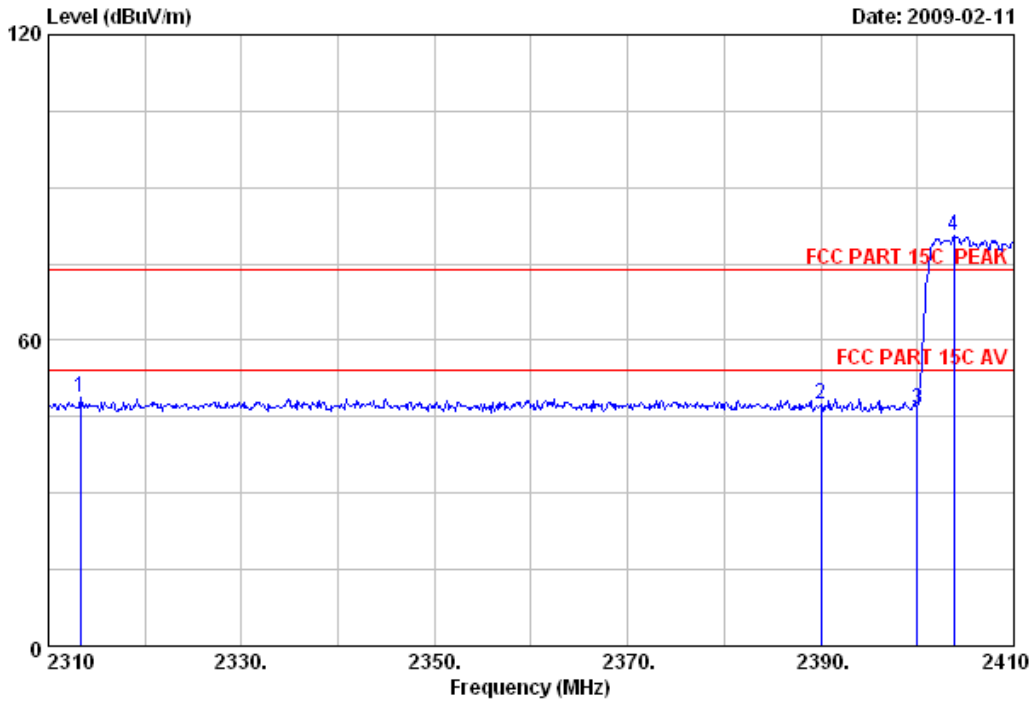
Remarks:

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



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Data: 114 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 114  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB (XX means flash size)  
 Test mode : GFSK 2402MHz Hopping On  
 Memo :

	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	2313.300	28.33	6.63	35.13	48.98	48.81	74.00	25.19	Peak
2	2390.000	28.46	6.71	35.12	47.25	47.30	74.00	26.70	Peak
3	2400.000	28.46	6.73	35.12	46.52	46.59	74.00	27.41	Peak
4	2403.800	28.48	6.73	35.12	80.46	80.55	74.00	-6.55	Peak

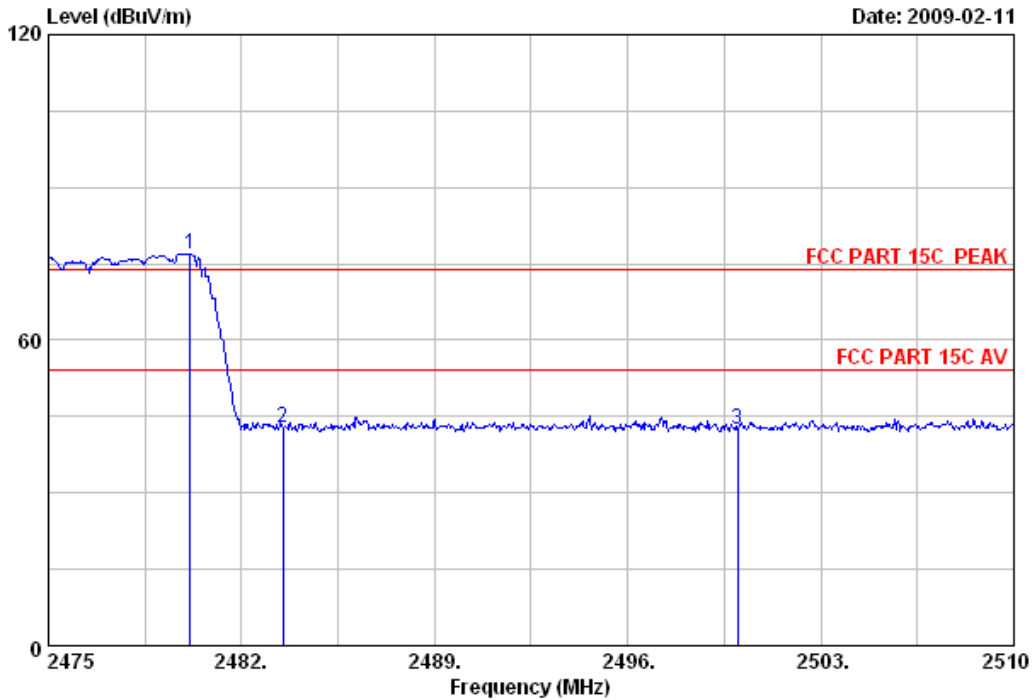
Remarks:

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



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Data: 115 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 115  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB(XX means flash size)  
 Test mode : GFSK 2480MHz Hopping On  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.145	28.58	6.87	35.10	76.69	77.04	74.00	-3.04	Peak
2	2483.500	28.58	6.87	35.10	42.45	42.80	74.00	31.20	Peak
3	2500.000	28.60	6.91	35.10	42.13	42.54	74.00	31.46	Peak

Remarks:

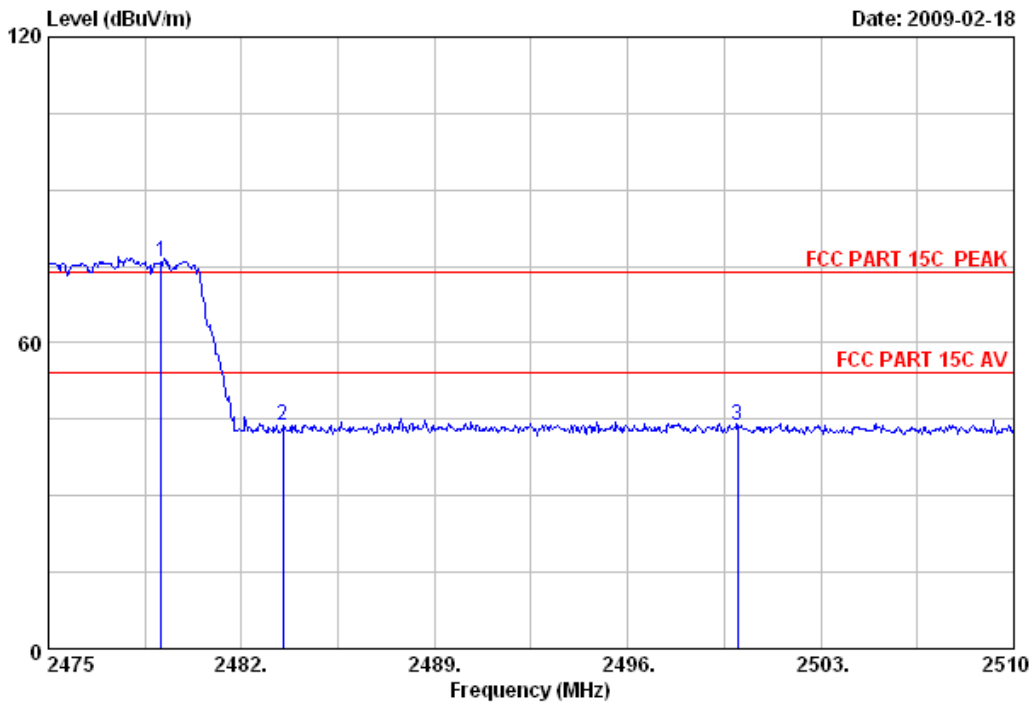
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.





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Data: 116 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 116  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : GFSK 2480MHz Hopping On  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.095	28.58	6.87	35.10	75.39	75.74	74.00	-1.74	Peak
2	2483.500	28.58	6.87	35.10	43.29	43.64	74.00	30.36	Peak
3	2500.000	28.60	6.91	35.10	43.28	43.69	74.00	30.31	Peak

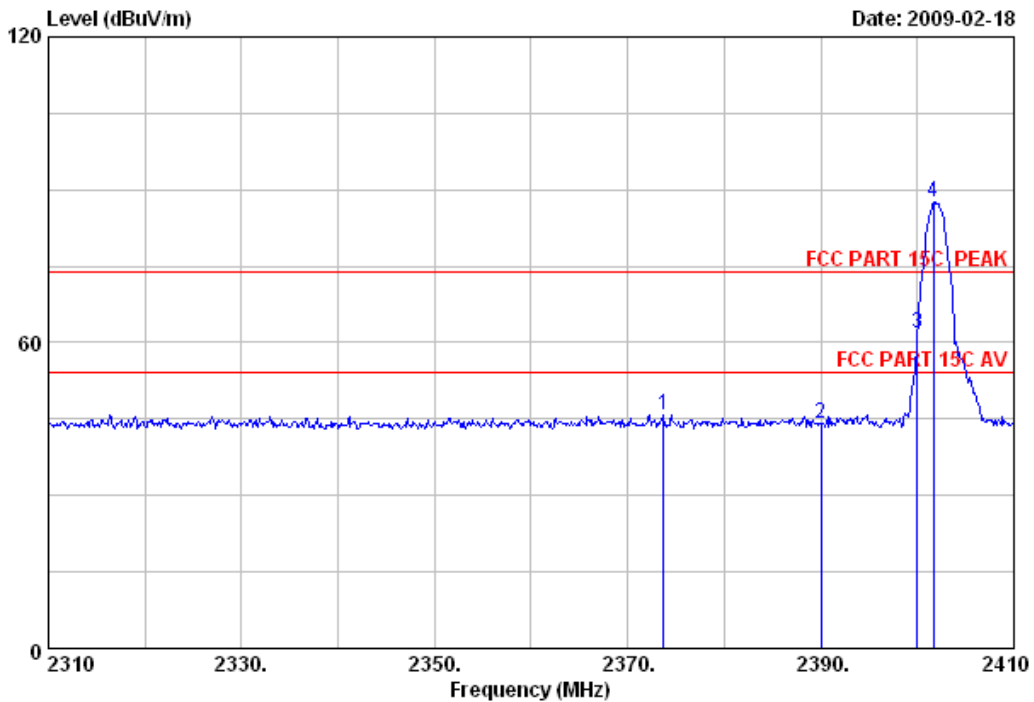
Remarks:

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



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Data: 117 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 117  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : 8DPSK 2402MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2373.700	28.43	6.69	35.12	45.92	45.92	74.00	28.08	Peak
2	2390.000	28.46	6.71	35.12	44.19	44.24	74.00	29.76	Peak
3	2400.000	28.46	6.73	35.12	61.62	61.69	74.00	12.31	Peak
4	2401.700	28.46	6.73	35.12	87.39	87.46	74.00	-13.46	Peak

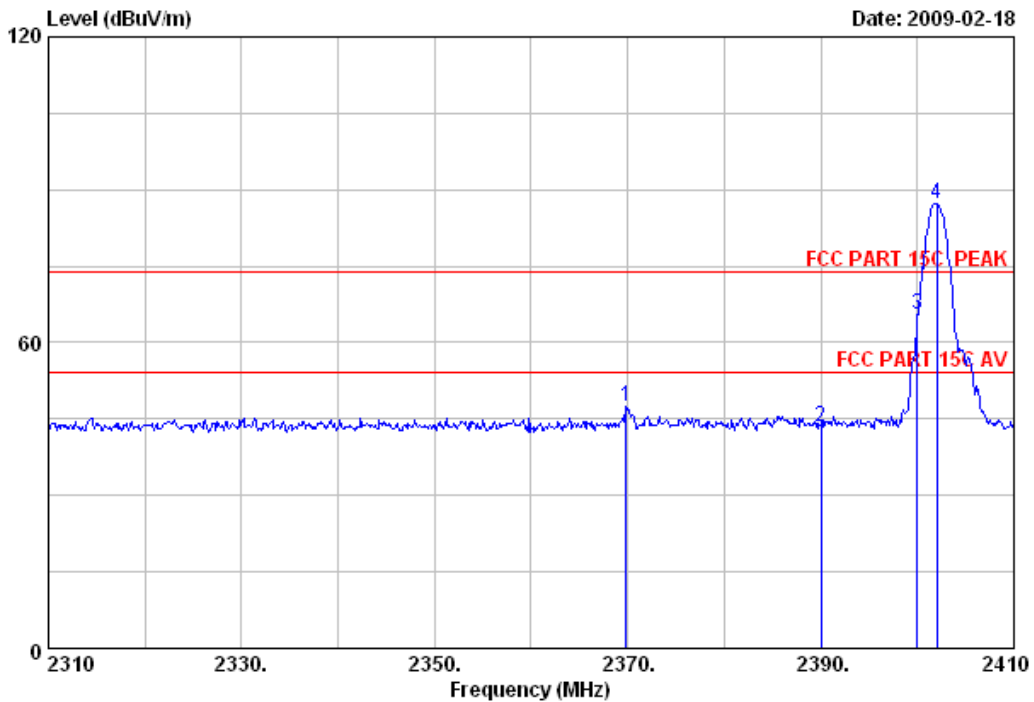
Remarks:

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



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Data: 118 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 118  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXXB(XX means flash size)  
 Test mode : 8DPSK 2402MHz  
 Memo :

	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	2369.800	28.43	6.69	35.12	47.55	47.55	74.00	26.45	Peak
2	2390.000	28.46	6.71	35.12	43.39	43.44	74.00	30.56	Peak
3	2400.000	28.46	6.73	35.12	65.46	65.53	74.00	8.47	Peak
4	2402.000	28.46	6.73	35.12	87.26	87.33	74.00	-13.33	Peak

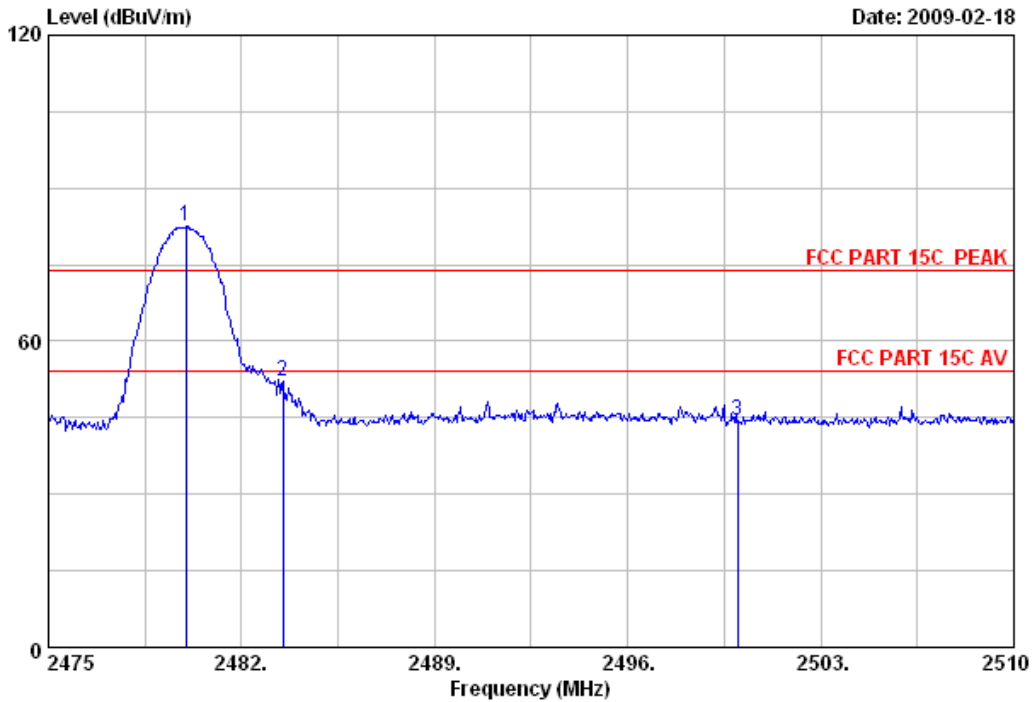
Remarks:

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



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Postcode:518057

Data: 119 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 119  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : 8DPSK 2480MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.970	28.58	6.87	35.10	82.16	82.51	74.00	-8.51	Peak
2	2483.500	28.58	6.87	35.10	51.82	52.17	74.00	21.83	Peak
3	2500.000	28.60	6.91	35.10	43.93	44.34	74.00	29.66	Peak

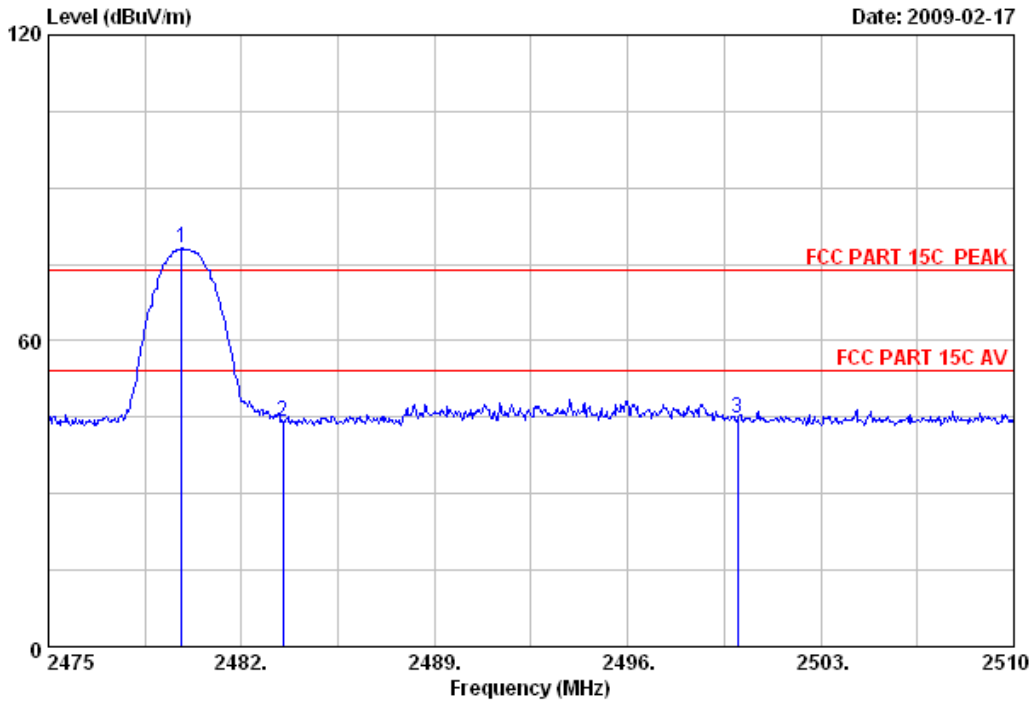
Remarks:

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



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Postcode:518057

Data: 120 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 120  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : 8DPSK 2480MHz  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.830	28.58	6.87	35.10	77.73	78.08	74.00	-4.08	Peak
2	2483.500	28.58	6.87	35.10	43.83	44.18	74.00	29.82	Peak
3	2500.000	28.60	6.91	35.10	44.32	44.73	74.00	29.27	Peak

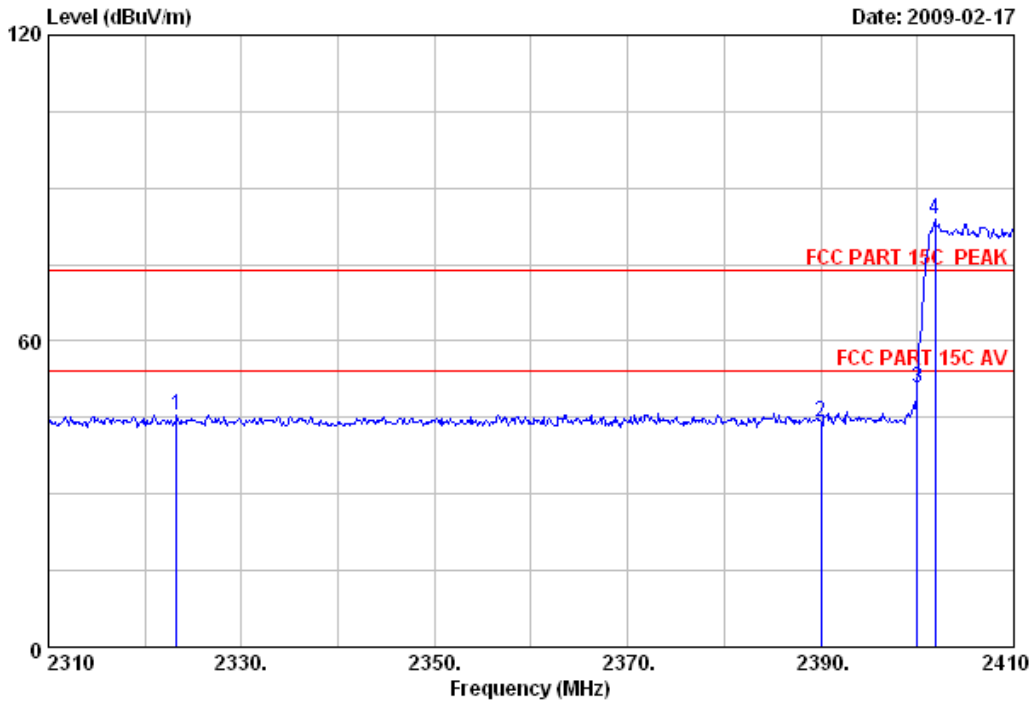
Remarks:

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



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Postcode:518057

Data: 121 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 121  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : 8DPSK 2402MHz Hopping on  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2323.300	28.36	6.65	35.13	45.69	45.57	74.00	28.43	Peak
2	2390.000	28.46	6.71	35.12	43.95	44.00	74.00	30.00	Peak
3	2400.000	28.46	6.73	35.12	50.67	50.74	74.00	23.26	Peak
4	2401.800	28.46	6.73	35.12	83.84	83.91	74.00	-9.91	Peak

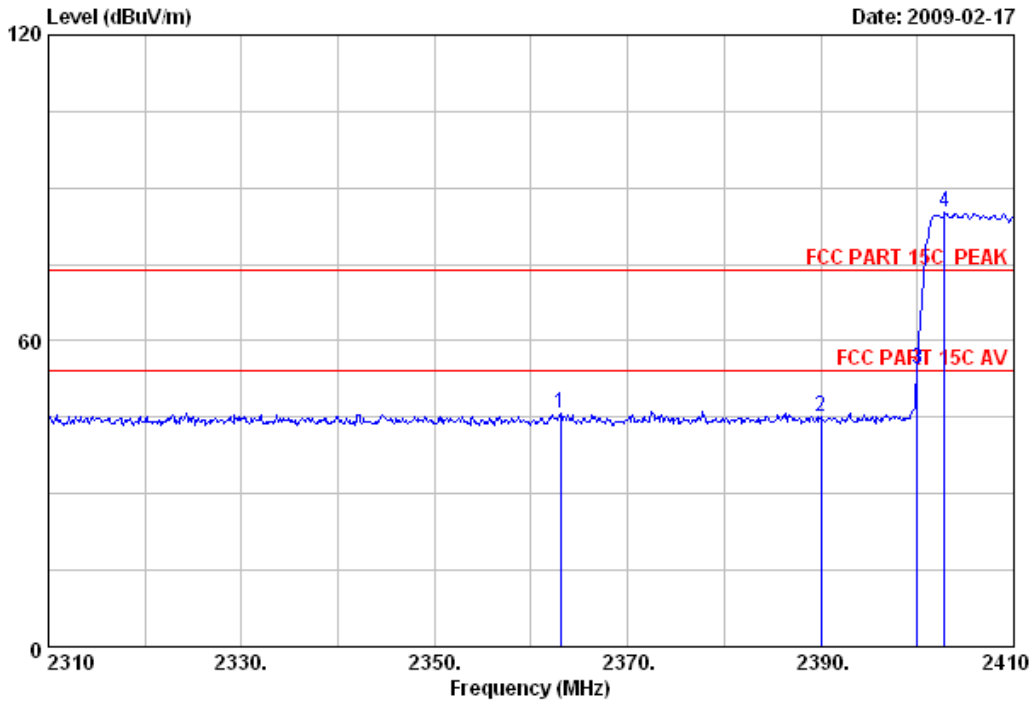
Remarks:

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



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Data: 122 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 122  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : 8DPSK 2402MHz Hopping on  
 Memo :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2363.000	28.41	6.69	35.13	45.78	45.75	74.00	28.25	Peak
2	2390.000	28.46	6.71	35.12	45.15	45.20	74.00	28.80	Peak
3	2400.000	28.46	6.73	35.12	54.30	54.37	74.00	19.63	Peak
4	2402.800	28.48	6.73	35.12	85.00	85.09	74.00	-11.09	Peak

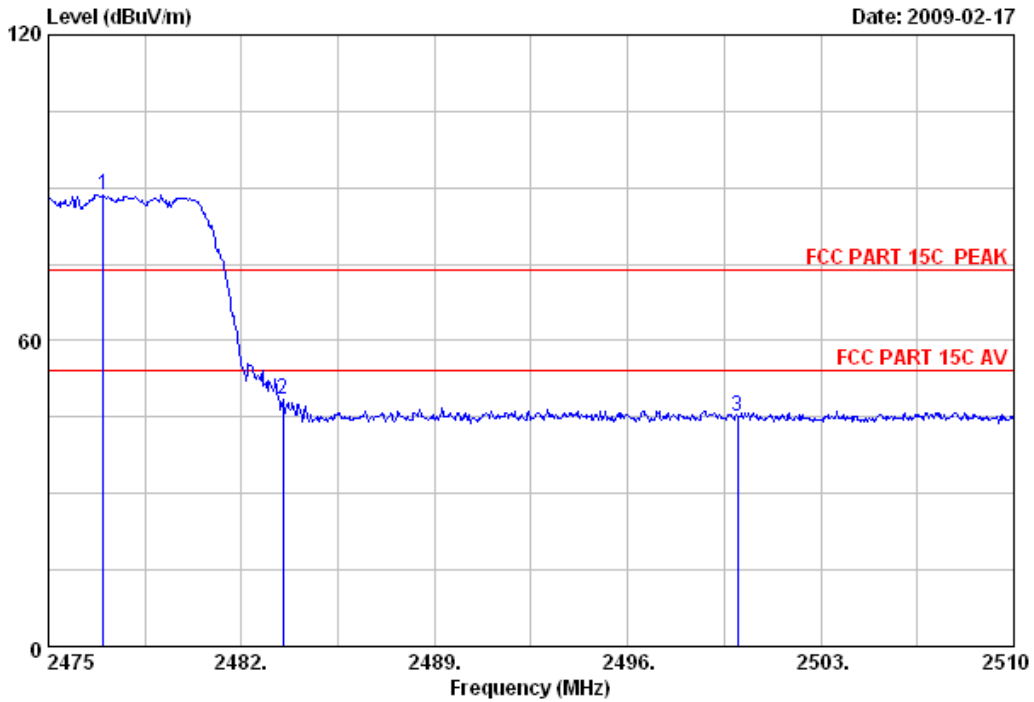
Remarks:

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



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Data: 123 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 123  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB (XX means flash size)  
 Test mode : 8DPSK 2480MHz Hopping on  
 Memo :

	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	2476.995	28.58	6.87	35.10	88.29	88.64	74.00	-14.64	Peak
2	2483.500	28.58	6.87	35.10	48.05	48.40	74.00	25.60	Peak
3	2500.000	28.60	6.91	35.10	44.69	45.10	74.00	28.90	Peak

Remarks:

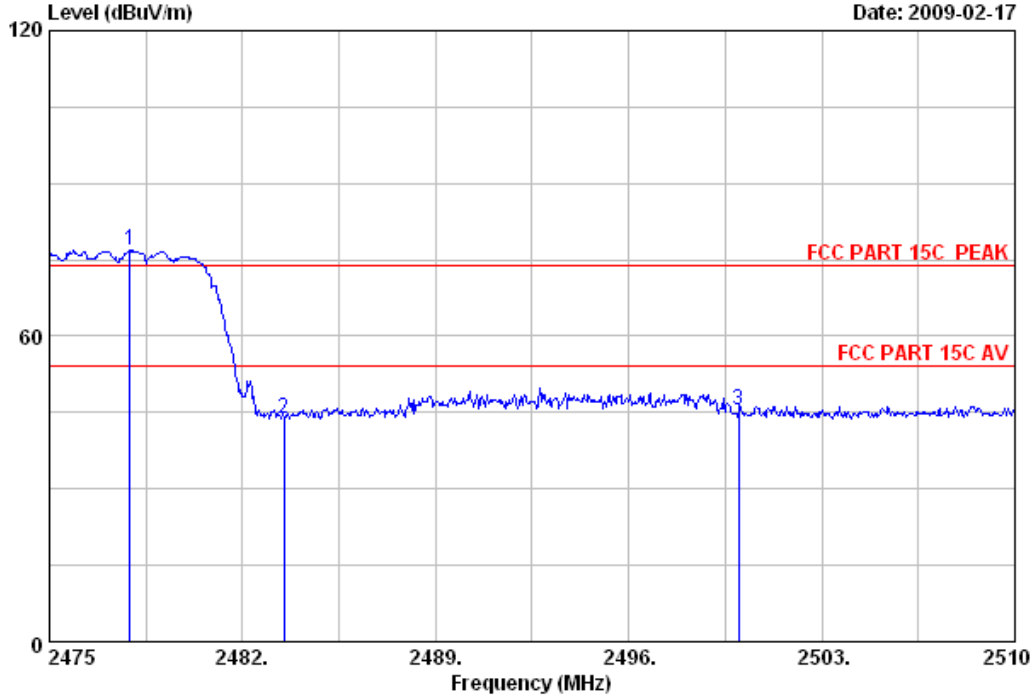
- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.





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Data: 124 File: E:\2009 report data\P\Philips\ACS9QH032.EM6 (124)



Site no. : 3# Chamber Data no. : 124  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23\*C/54% Engineer : Paul  
 EUT : OPUS  
 Power Rating : DC 3.7V M/N:SA10PSXXKB(XX means flash size)  
 Test mode : 8DPSK 2480MHz Hopping on  
 Memo :

	Freq.	Ant. Factor	Cable Loss	Amp Factor	Reading	Emission Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2477.905	28.58	6.87	35.10	76.41	76.76	74.00	-2.76	Peak
2	2483.500	28.58	6.87	35.10	43.47	43.82	74.00	30.18	Peak
3	2500.000	28.60	6.91	35.10	45.13	45.54	74.00	28.46	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.

## 10.MPE ESTIMATION

### 10.1.Limit for General Population / Uncontrolled Exposures

Frequency	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
300MHz~1.5GHz	F/1500	30
1.5GHz~100GHz	1.0	30

Frequency (MHz)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
2402	1	30
2441	1	30
2480	1	30

Note: F = Frequency in MHz

### 10.2.Estimation Result

GFSK:

Channel	Frequency (MHz)	Peak output power (dBm)	antenna gain (dBi)	antenna gain (Linear)
CH1	2402	1.32	1.7	1.48
CH40	2441	1.84	1.7	1.48
CH79	2480	1.65	1.7	1.48

Channel	Frequency (MHz)	Peak output power to antenna (mW)	Power density at 20cm (mW/ cm <sup>2</sup> )
CH1	2402	1.36	0.0004
CH40	2441	1.53	0.0004
CH79	2480	1.46	0.0004

8-DPSK:

Channel	Frequency (MHz)	Peak output power (dBm)	antenna gain (dBi)	antenna gain (Linear)
CH1	2402	-0.37	1.7	1.48
CH40	2441	0.74	1.7	1.48
CH79	2480	0.87	1.7	1.48

Channel	Frequency (MHz)	Peak output power to antenna (mW)	Power density at 20cm (mW/ cm <sup>2</sup> )
CH1	2402	0.92	0.0003
CH40	2441	1.19	0.0003
CH79	2480	1.22	0.0004

## **11.DEVIATION TO TEST SPECIFICATIONS**

[ NONE]

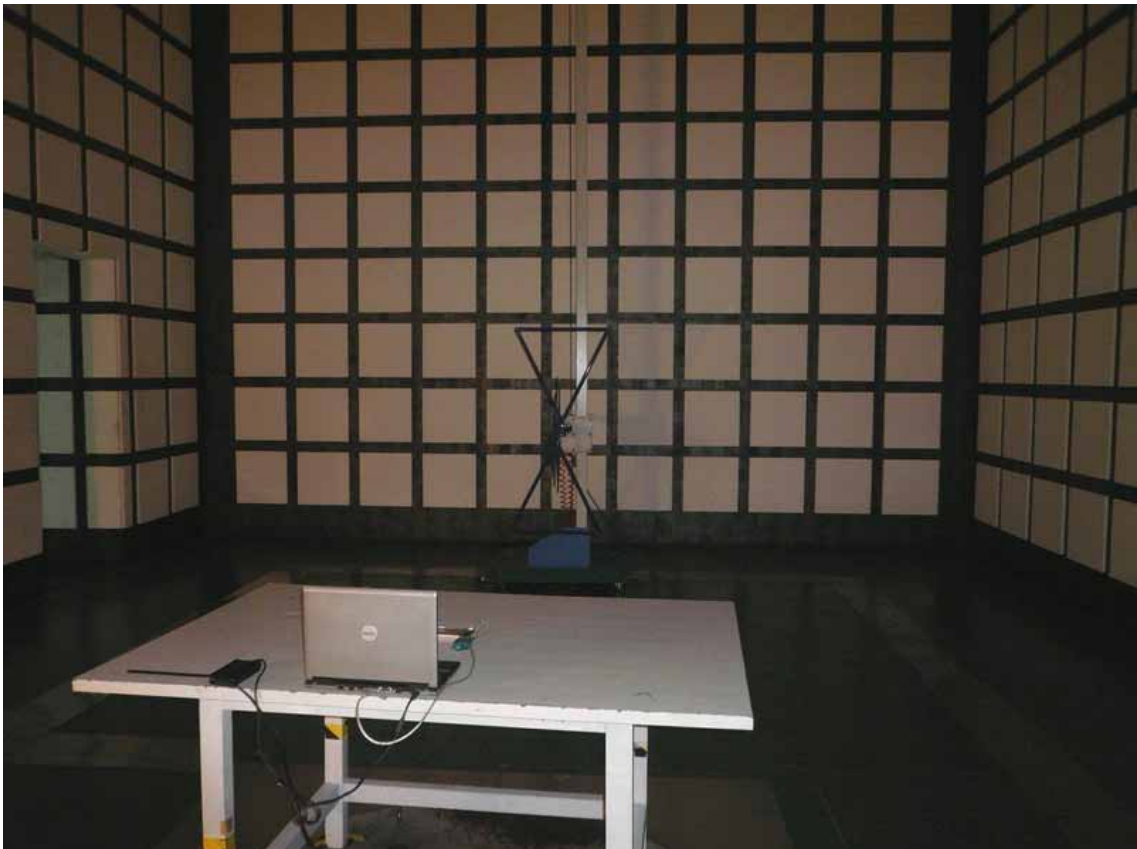
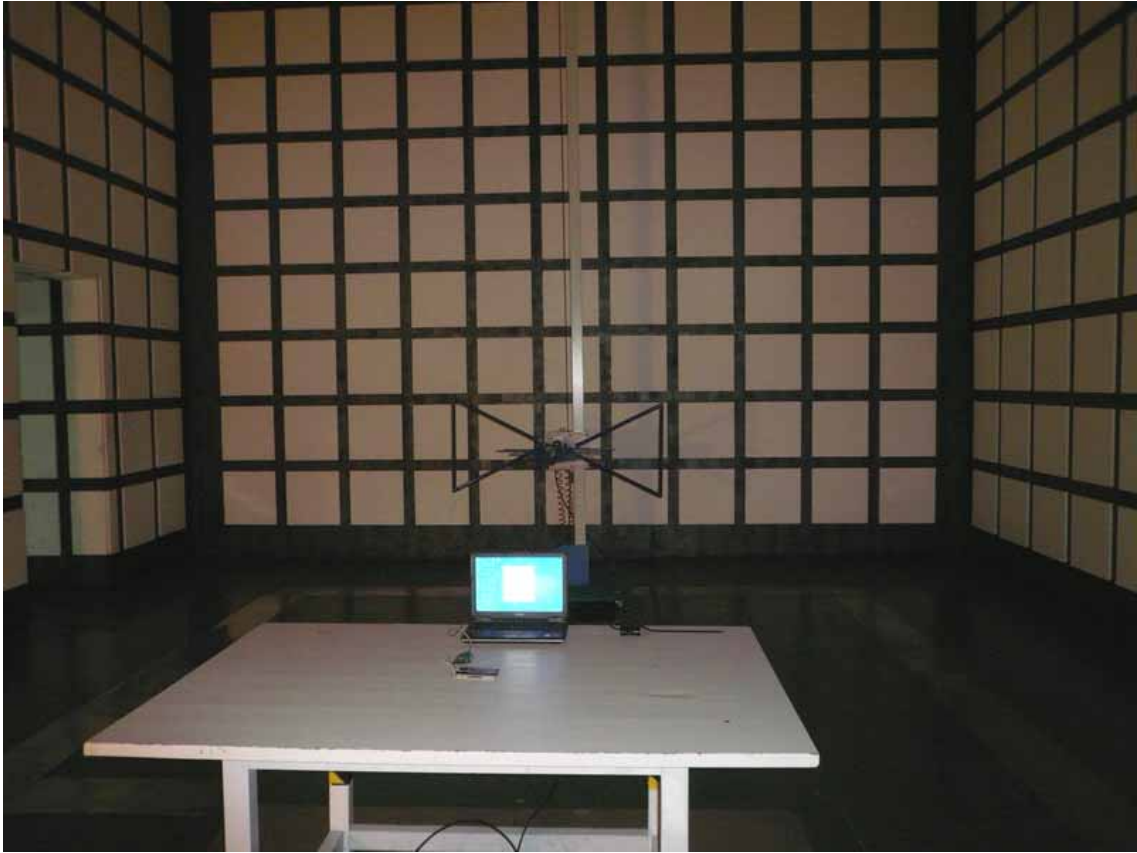
## 12.PHOTOGRAPH OF TEST

### 12.1.Photos of Power Line Conducted Emission Test

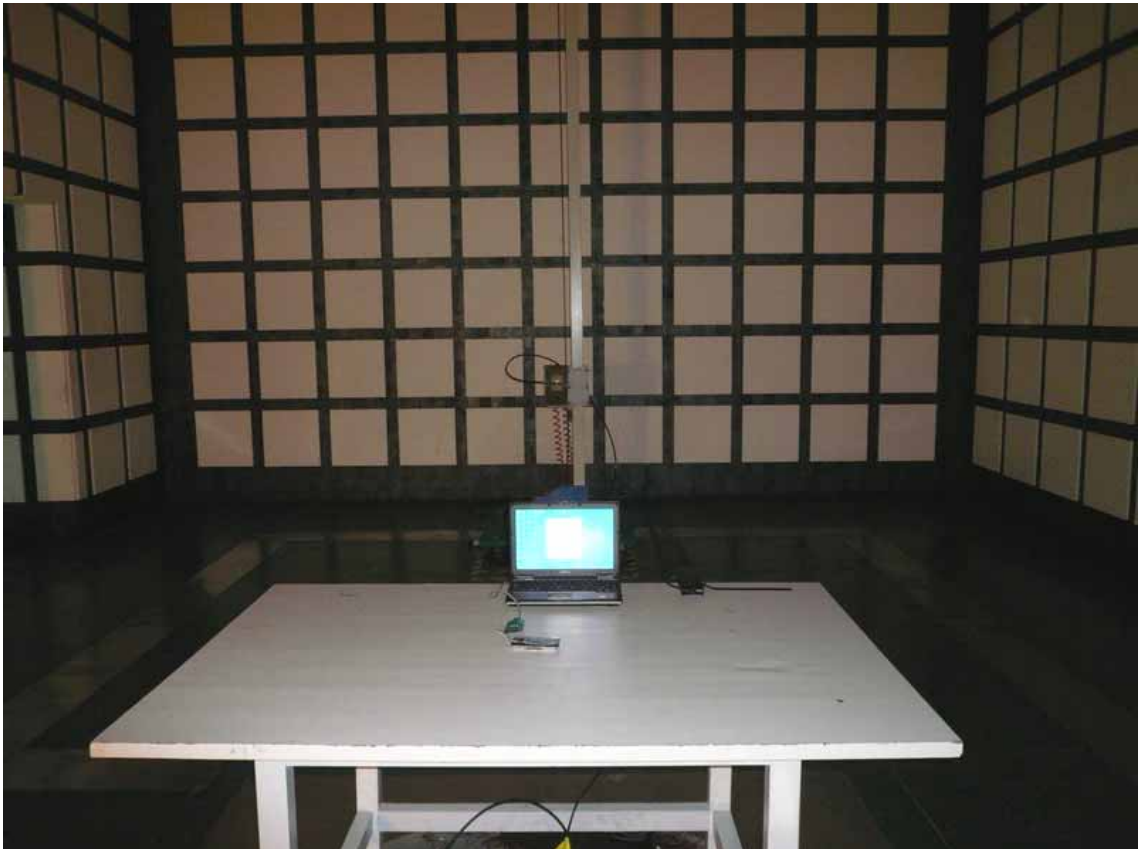


## 12.2.Photos of Radiated Emission Test

30-1000MHz



Above 1000MHz



### 13.PHOTOGRAPH OF EUT

**Figure 1**  
General Appearance



**Figure 2**  
General Appearance



**Figure 3**  
General Appearance



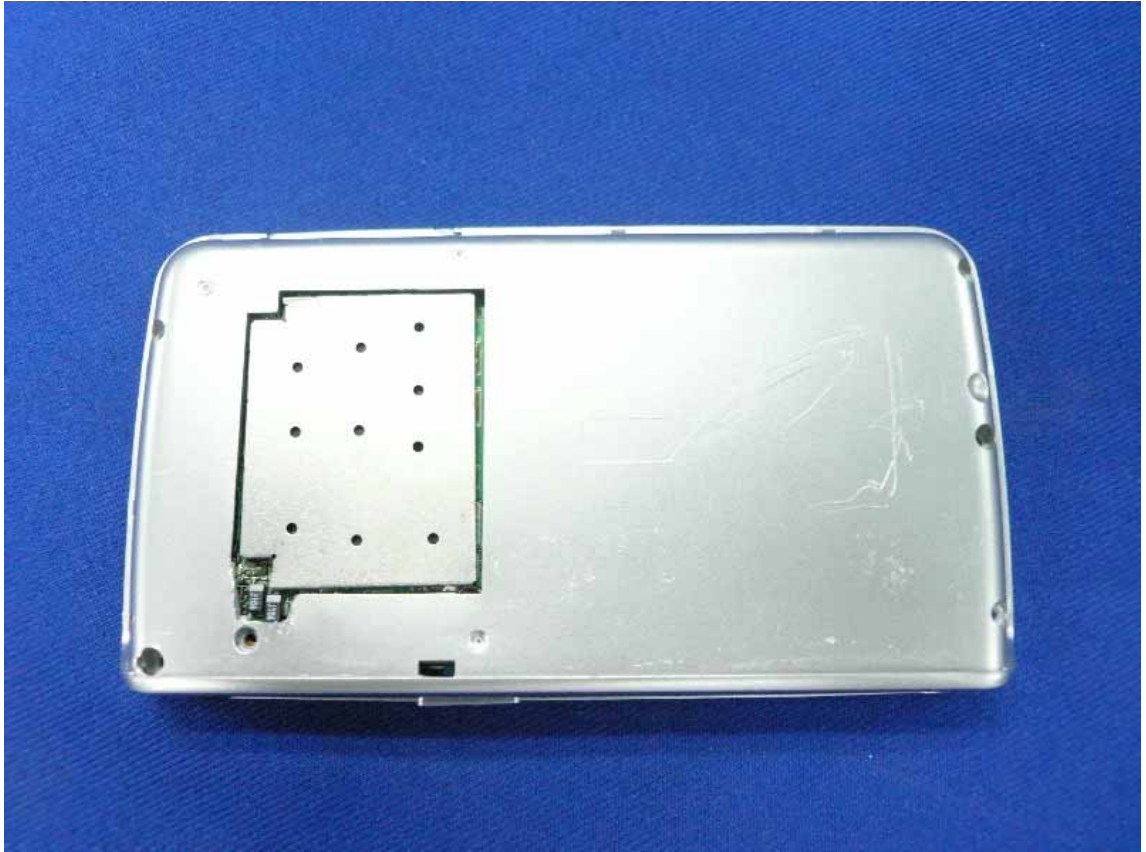
Label Location

**Figure 4**  
General Appearance





**Figure 5**  
Inside of the EUT



**Figure 6**  
Inside of the EUT



**Figure 7**  
Inside of the EUT



**Figure 8**  
Inside of the EUT



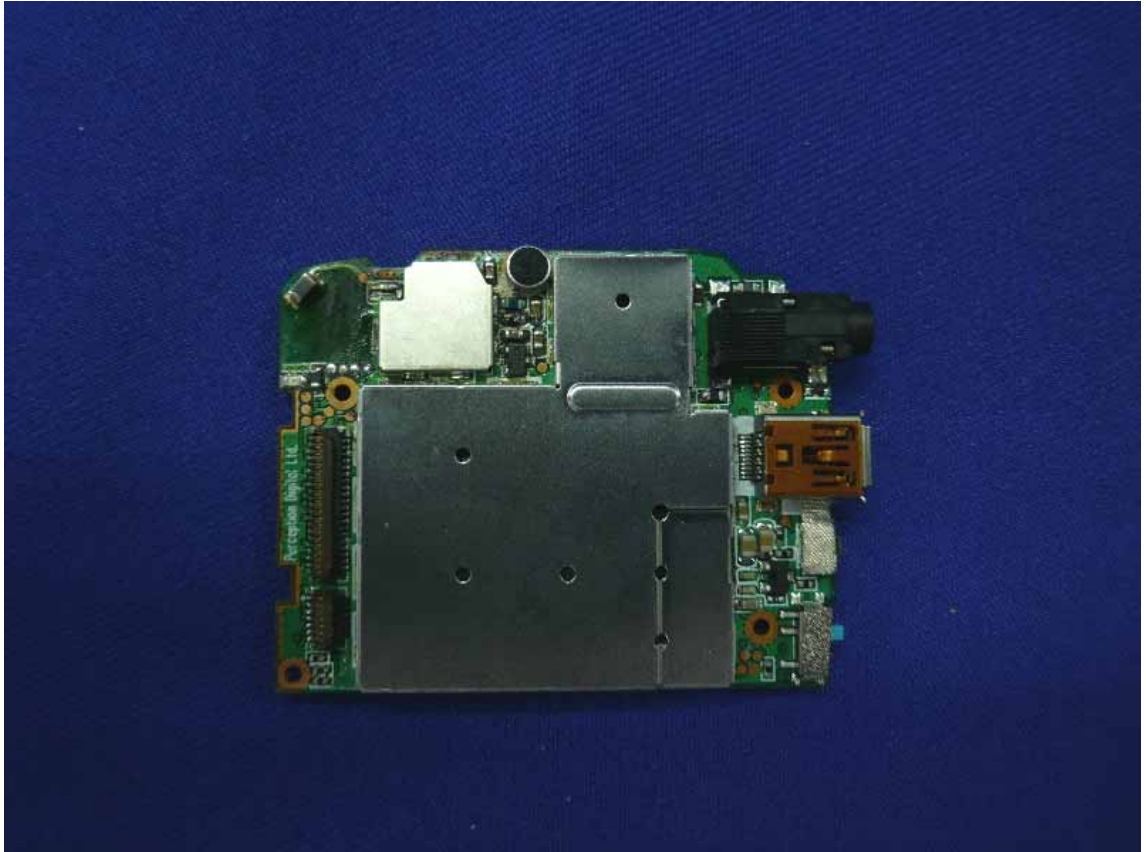
**Figure 9**  
Inside of the EUT



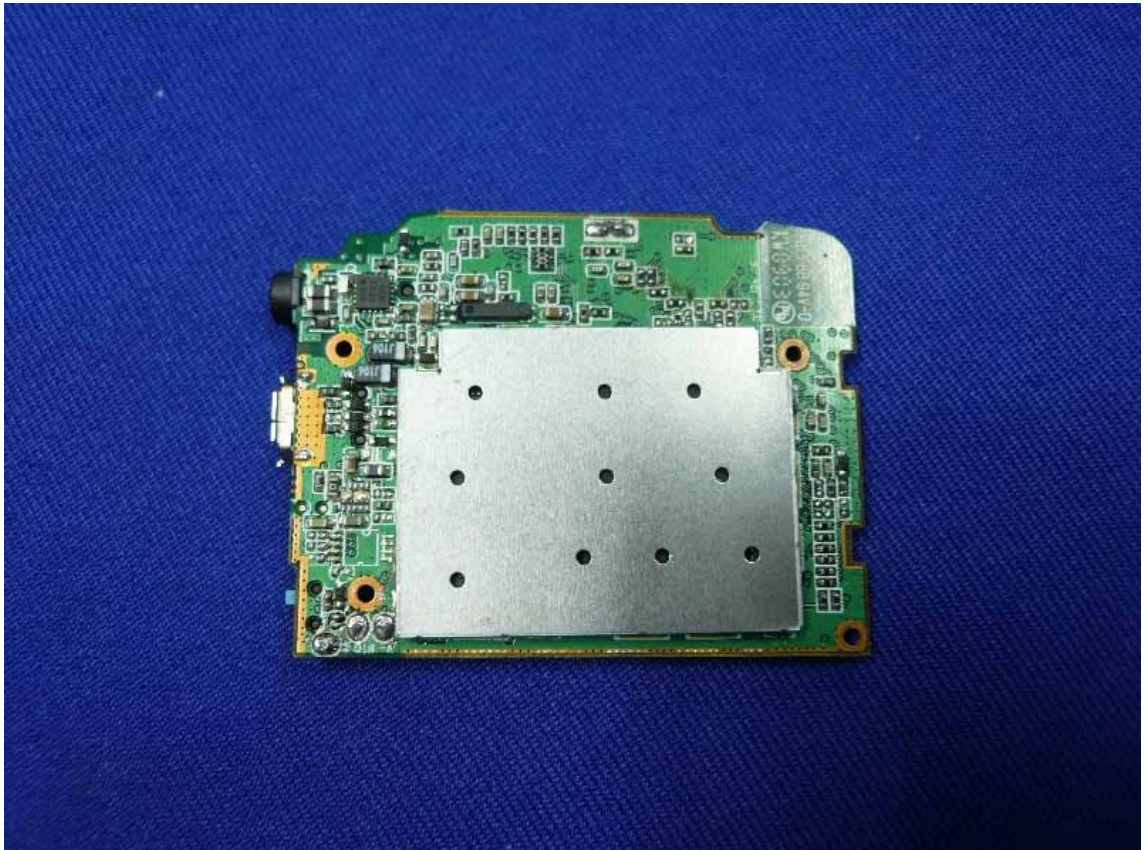
**Figure 10**  
Inside of the EUT



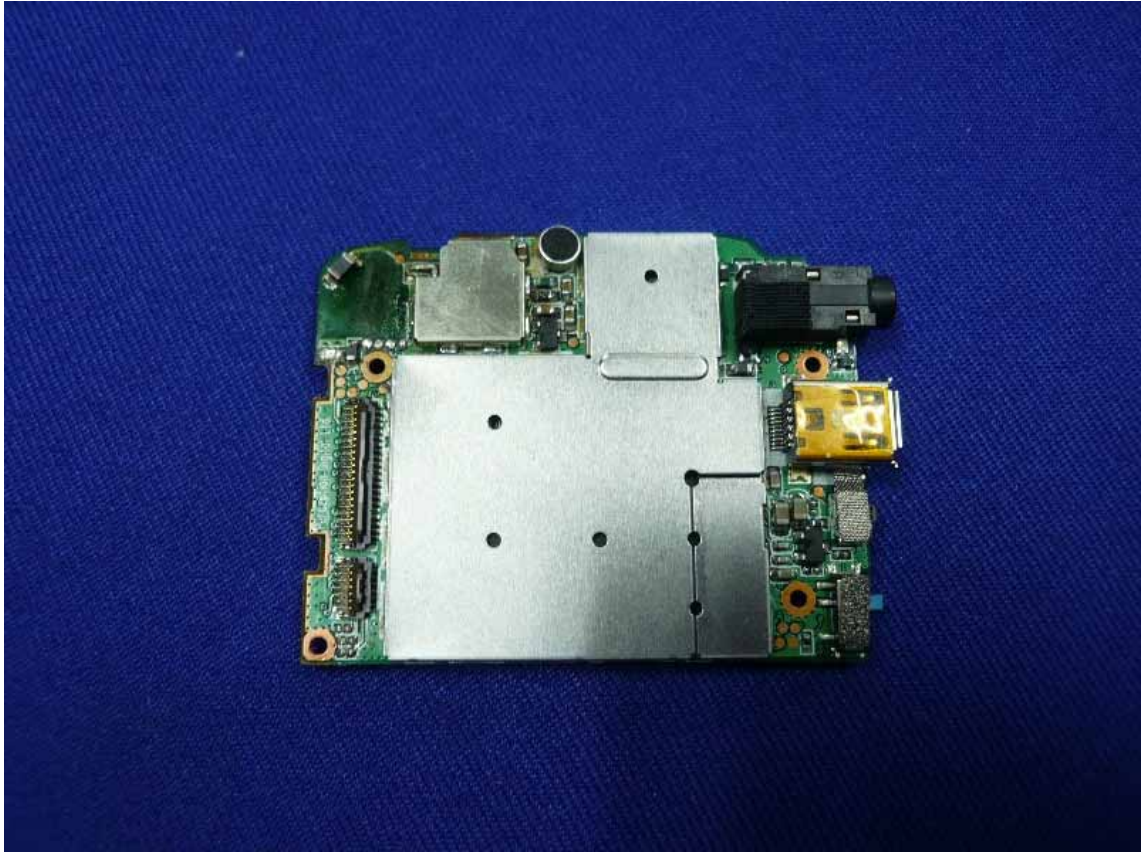
**Figure 11**  
Inside of the EUT



**Figure 12**  
Inside of the EUT



**Figure 13**  
Inside of the EUT



**Figure 14**  
Inside of the EUT



**Figure 15**  
Inside of the EUT



**Figure 16**  
USB Cable



**Figure 17**  
Earphone

