



FCC/IC Test Report

FOR:

Model Name: P121UNA

FCC ID: O8F-PIXUW

IC ID: 3905A-PIXUW

47 CFR Part 15.247

IC RSS-210 Issue 7

TEST REPORT #: EMC_PALMO_070_09001_15.247_BT

DATE: 2010-01-22



**FCC listed
A2LA Accredited**

**IC recognized #
3462B**

CETECOM Inc.

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Board of Directors: Dr. Harald Ansorge, Dr. Klaus Matkey, Hans Peter May

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1 Assessment

The following is in compliance with the applicable criteria specified in FCC rules Parts 15.247 of Title 47 of the Code of Federal Regulations and Industry Canada Standards RSS 210 Issue 7.

Company	Description	Model #
Palm, Inc	GSM/UMTS Phone with 802.11 b/g and Bluetooth	P121UNA

Responsible for Testing Laboratory:

		Marc Douat	
2010-01-22	Compliance	(Test Lab Manager)	
Date	Section	Name	Signature

Responsible for the Report:

		Josie Sabado	
2010-01-22	Compliance	(Project Engineer)	
Date	Section	Name	Signature

The test results of this test report relate exclusively to the test item specified in Section 3.
CETECOM Inc. USA does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM Inc USA.



2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Address:	411 Dixon Landing Road Milpitas, CA 95035 U.S.A.
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
Responsible Test Lab Manager:	Heiko Strehlow
Responsible Project Leader:	Josie Sabado

2.2 Identification of the Client

Applicant's Name:	Palm, Inc.
Street Address:	950 W. Maude Ave
City/Zip Code	Sunnyvale, CA 94085-2801
Country	USA
Contact Person:	Julia Luke
Phone No.	(408) 617-8597
e-mail:	Julia.Luke@palm.com

2.3 Identification of the Manufacturer

Same as above client.

3 Equipment under Test (EUT)

3.1 Specification of the Equipment under Test

Model No:	P121UNA
Product Type:	GSM/UMTS Cellular Phone
Hardware Revision :	DVT2B
Software Revision :	Utility Software Build: 920
FCC-ID:	O8F-PIXUW
IC-ID :	3905A-PIXUW
Frequency:	2400-2483.5 MHz
Type(s) of Modulation:	GFSK, $\pi/4$ DQPSK, 8- DPSK
Number of channels:	79
Antenna Type:	Integral
Equipment Classification:	☐ Fixed ☐ Vehicular ☒ Portable ☐ Module

3.2 Identification of the Equipment Under Test (EUT)

EUT #	Serial Number	HW Version	SW Version	Comments
1	PD2BNBN98101	DVT2B	Utility Software Build: 920	Radiated sample
2	PD2BNBR98112	DVT2B	Utility Software Build: 920	Conducted sample

3.3 Identification of Accessory equipment

AE #	Type	Manufacturer	Model	Serial Number	Part Number
1	Battery	Palm	N/A	D298AW18D1BDC090810	157-10119-00
2	Inductive Charging Dock	Palm	N/A	N/A	157-10123-00
3	Inductive Back Cover	Palm	N/A	P29BJ0L4C4A	180-10763-00
4	Headset	Palm	N/A	N/A	180-10632-00
5	AC Adapter #24	Palm	N/A	2B9840MTP2A	157-10124-00
6	AC Adapter #30	Palm	N/A	F298R03TP34	157-10130-00
7	USB Cable	Palm	N/A	N/A	180-10646-00

4 Subject Of Investigation

The objective of the measurements done by Cetecom Inc. was to measure the performance of the EUT as specified by requirements listed in FCC rules Part 15.247 of Title 47 of the Code of Federal Regulations and Industry Canada rules RSS-210 Issue 7.

This test report is to support a request for new equipment authorization under the FCC ID **O8F-PIXUW** and IC ID **3905A-PIXUW**

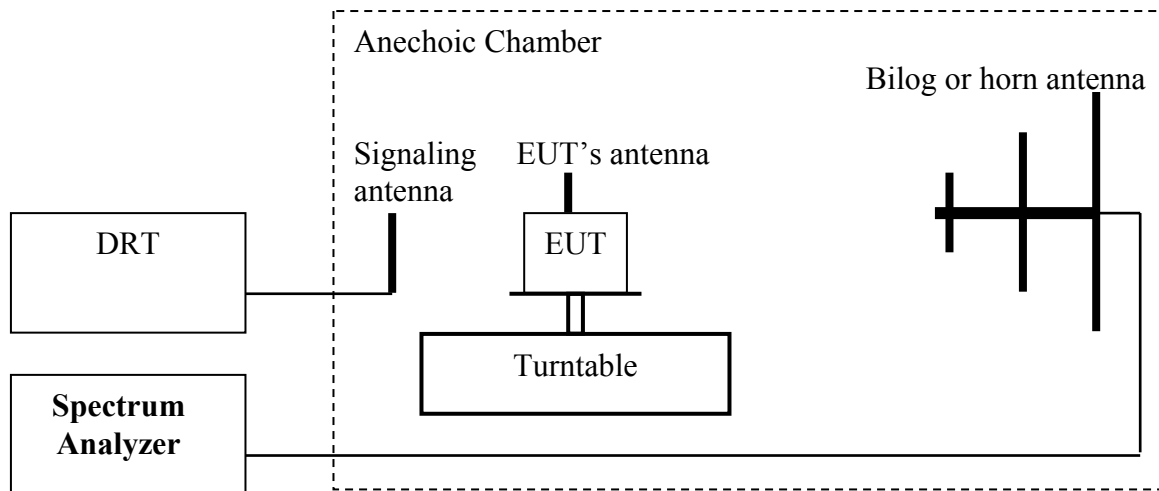
All testing was performed on the product referred to in Section 3 as EUT. This test report contains full radiated and conducted testing results as per FCC15.247.

During the testing process the EUT was tested on a single channel using DH5, 2DH5 or 3DH5 packets, all data in this report shows the worst case between horizontal and vertical polarization measurements.

5 Measurements

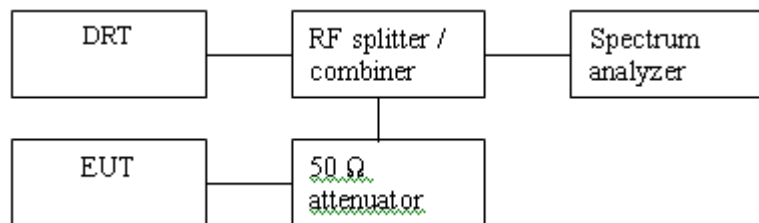
5.1 Radiated Measurement Procedure

Ref: TIA-603C 2004 -2.2.17.2 Effective Radiated Power (ERP) or Effective Isotropic Radiated Power (EIRP)



1. Connect the equipment as shown in the above diagram with the EUT's antenna in a vertical orientation.
 2. Adjust the settings of the Digital RadioCommunication Tester (DRT) to set the EUT to its maximum power at the required channel.
 3. Set the spectrum analyzer to the channel frequency. Set the analyzer to measure peak hold with the required settings.
 4. Rotate the EUT 360°. Record the peak level in dBm (**LVL**).
 5. Replace the EUT with a vertically polarized half wave dipole or known gain antenna. The center of the antenna should be at the same location as the center of the EUT's antenna.
 6. Connect the antenna to a signal generator with known output power and record the path loss in dB (**LOSS**). **LOSS** = Generator Output Power (dBm) – Analyzer reading (dBm).
 7. Determine the ERP using the following equation:
ERP (dBm) = LVL (dBm) + LOSS (dB)
 8. Determine the EIRP using the following equation:
EIRP (dBm) = ERP (dBm) + 2.14 (dB)
 9. Measurements are to be performed with the EUT set to the low, middle and high channels.
- Spectrum analyzer settings: RBW=VBW=3MHz**

5.2 Conducted Measurement Procedure



1. Connect the equipment as shown in the above diagram.
2. Adjust the settings of the Digital RadioCommunication Tester (DRT) to set the EUT to its maximum power at the required channel.
3. Measurements are to be performed with the EUT set to the low, middle and high channels.

5.3 Maximum Peak Output Power

5.3.1 Limits: §15.247 (b)(1)

Nominal Peak Output Power < 30 dBm (1W)

5.3.2 Test Conditions:

Tnom: 23°C; Vnom: 3.7 V

5.3.3 Test Result:

Max Peak Output Power- Radiated (dBm)			
Modulation	Frequency (MHz)		
	2402	2442	2480
GFSK	1.446	1.068	-0.449
$\pi/4$ DQPSK	0.956	0.062	-1.897
8-DPSK	1.446	0.137	-2.087
Measurement Uncertainty: ± 3 dB			

Max Peak Output Power- Conducted (dBm)			
Modulation	Frequency (MHz)		
	2402	2442	2480
GFSK	1.46	1.35	0.62
$\pi/4$ DQPSK	1.29	0.86	-0.10
8-DPSK	1.58	1.21	0.21
Measurement Uncertainty: ± 0.5 dB			

5.3.4 Test Data/plots:

Radiated Peak Power GFSK 2402 MHz

CH1

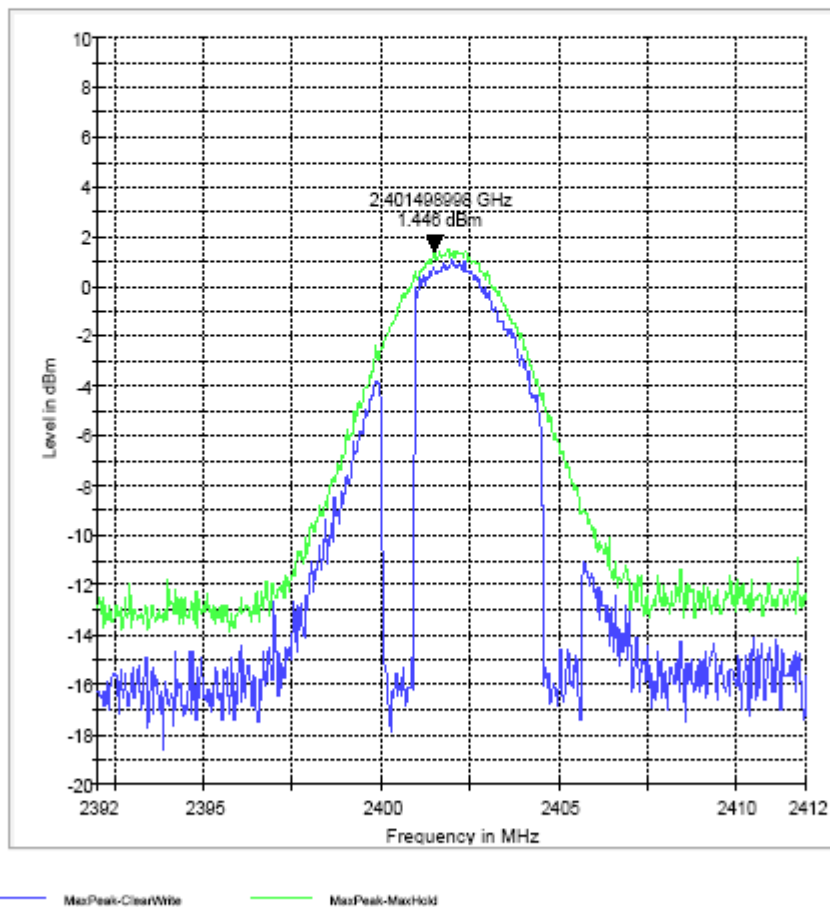
1 / 1

EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT L



Radiated Peak Power GFSK 2441 MHz

CH2

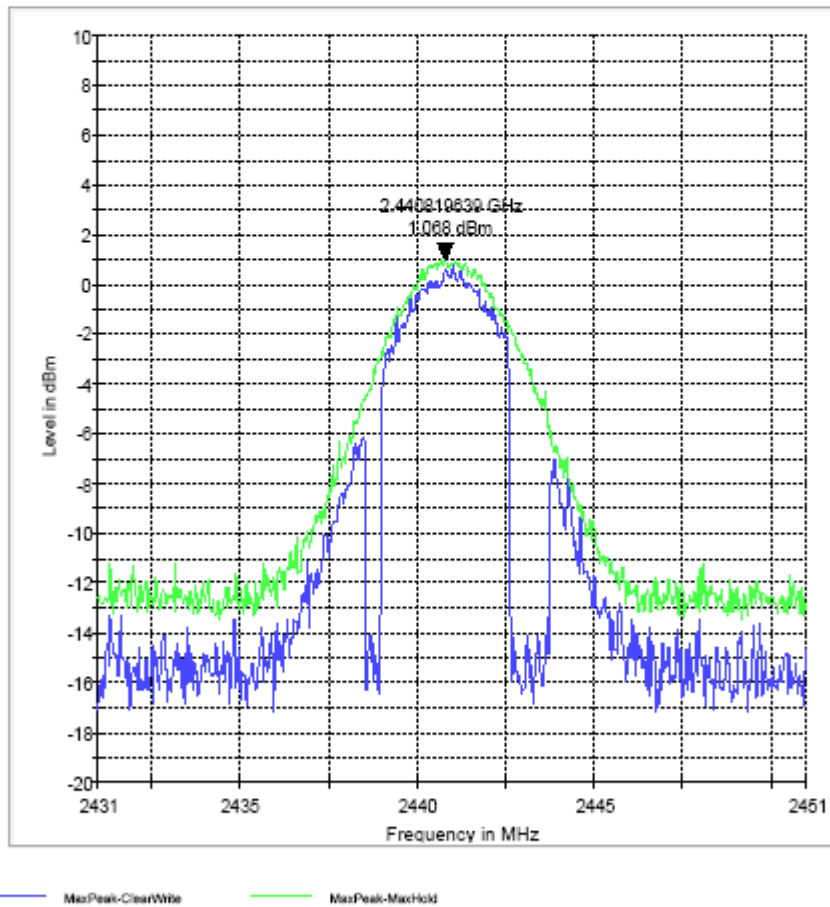
1 / 1

EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT M



Radiated Peak Power GFSK 2480 MHz

CH3

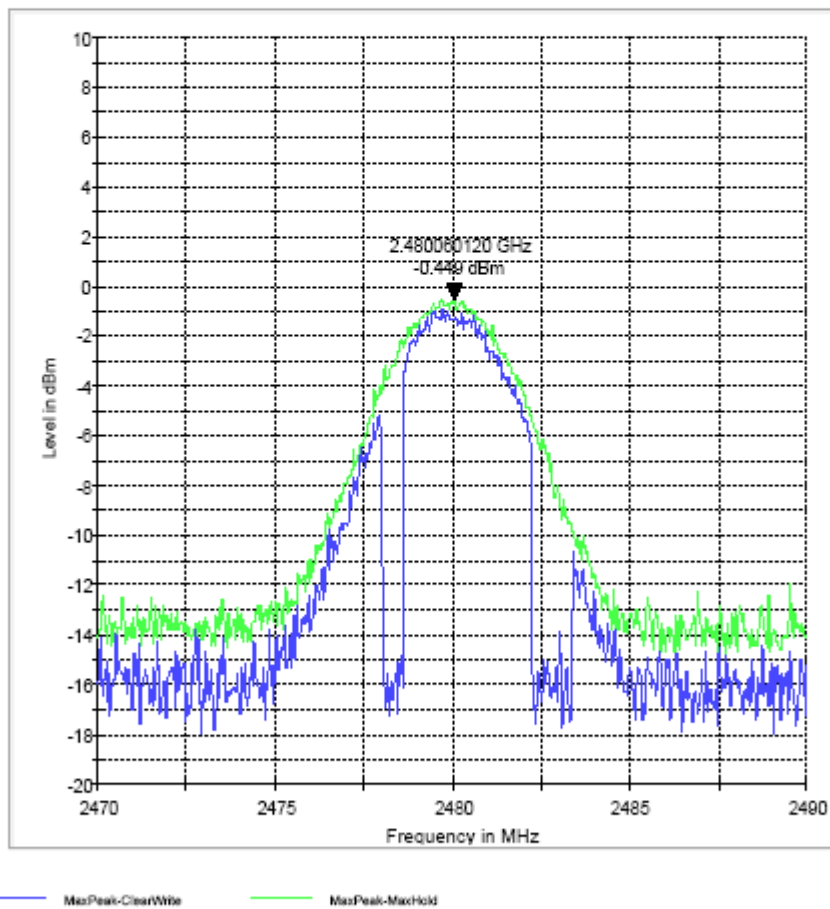
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EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT H



Radiated Peak Power π / 4 DQPSK 2402 MHz

CH1

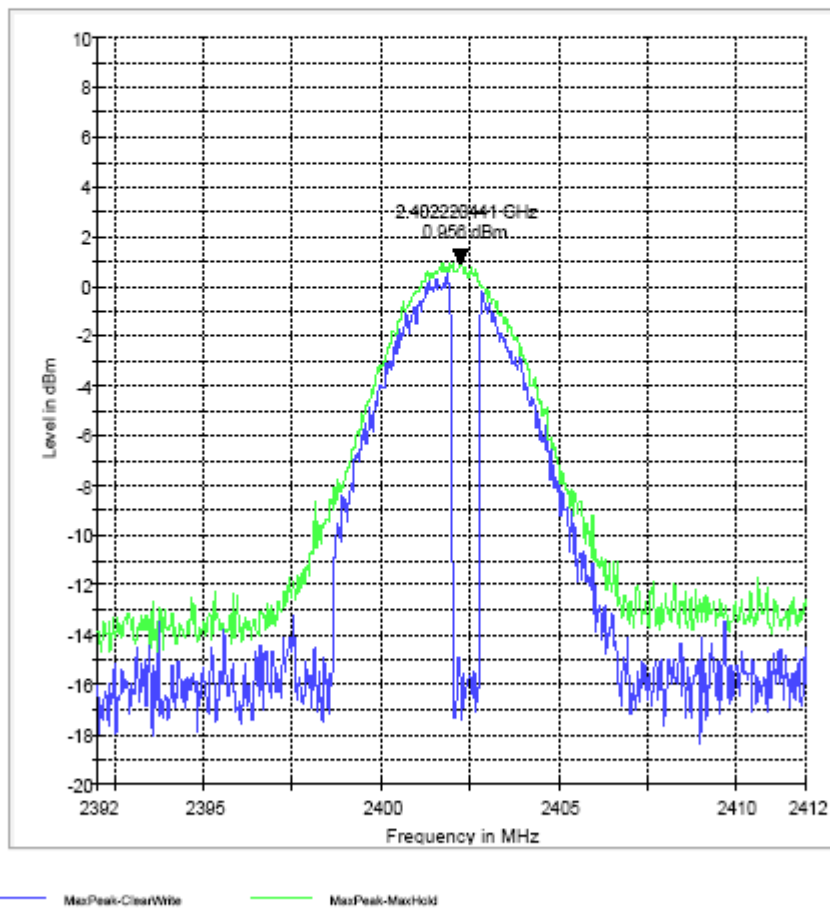
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EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT L



Radiated Peak Power π / 4 DQPSK 2441 MHz

CH2

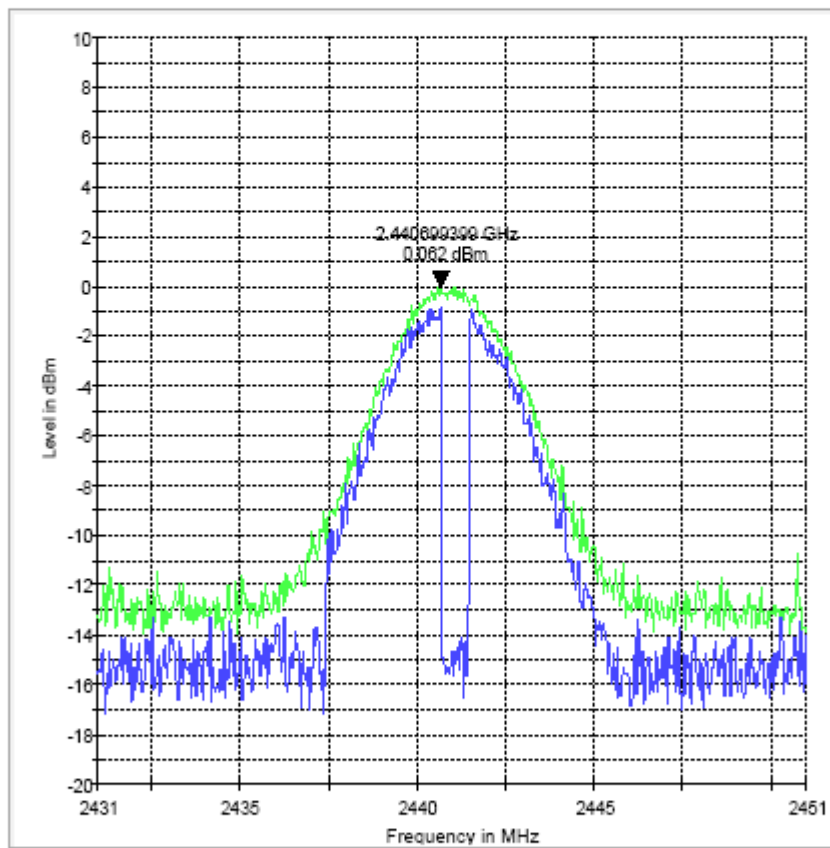
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EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT M



Radiated Peak Power π / 4 DQPSK 2480 MHz

CH3

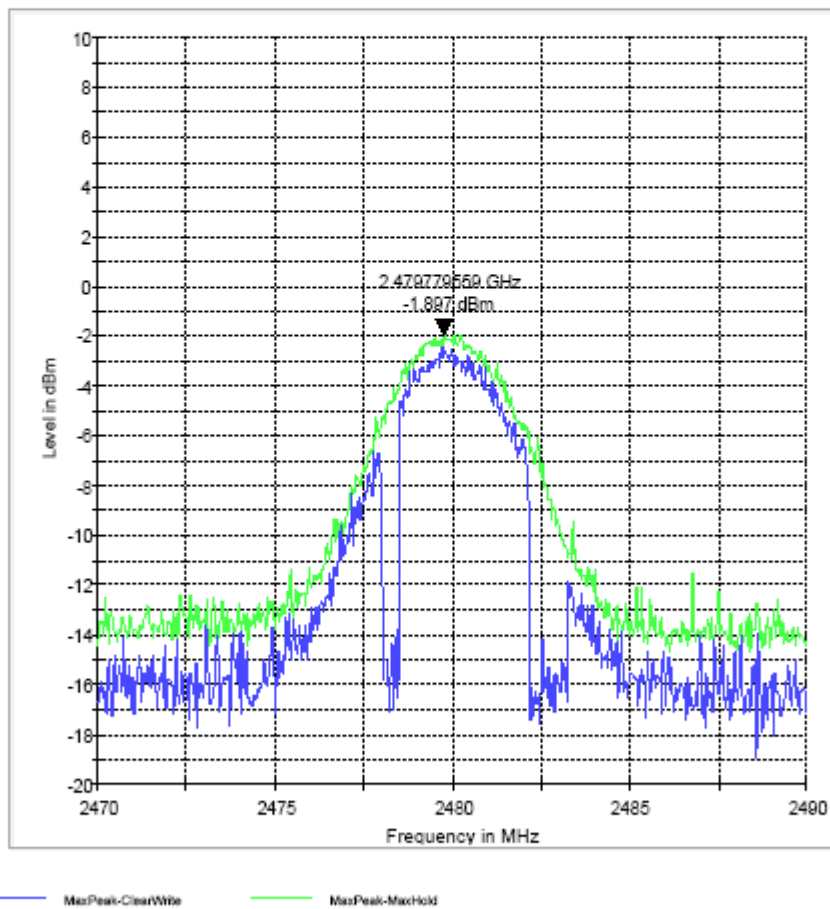
1 / 1

EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT H



Radiated Peak Power 8DPSK 2402 MHz

CH1

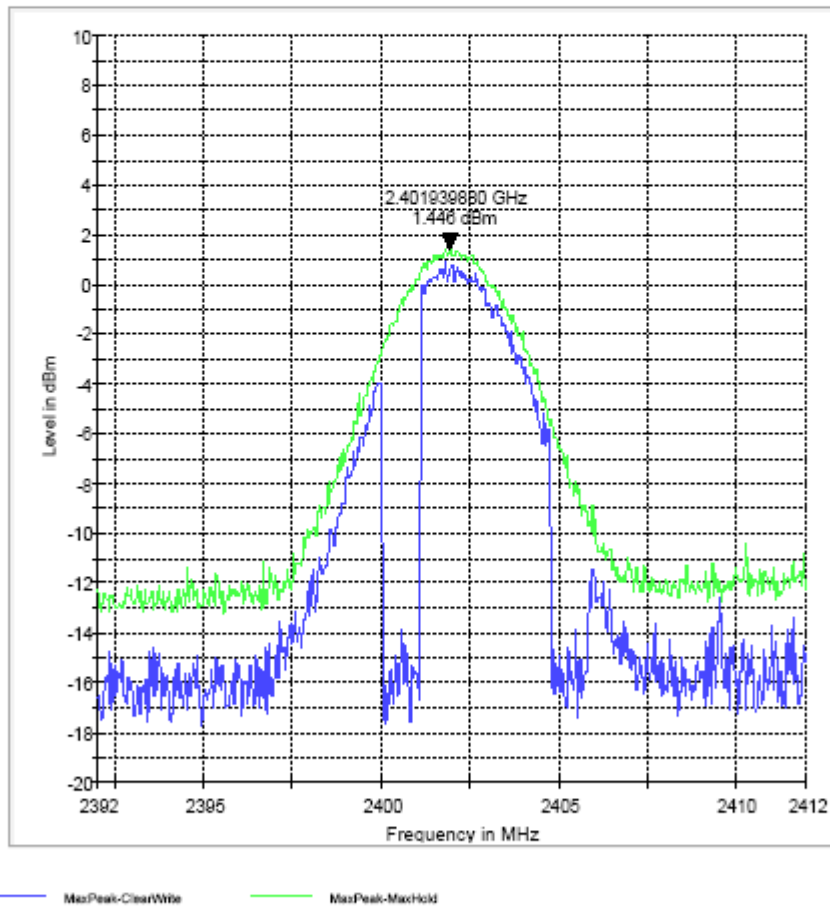
1 / 1

EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT L



Radiated Peak Power 8DPSK 2441 MHz

CH2

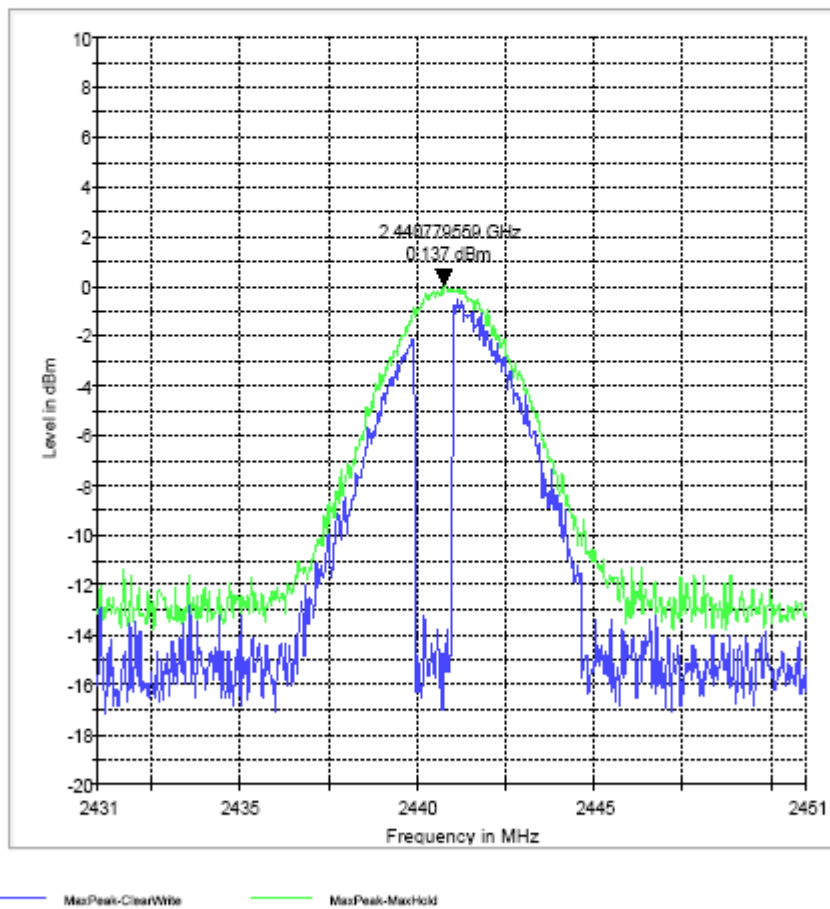
1 / 1

EMC32 Report

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT M



Radiated Peak Power 8DPSK 2480 MHz

CH3

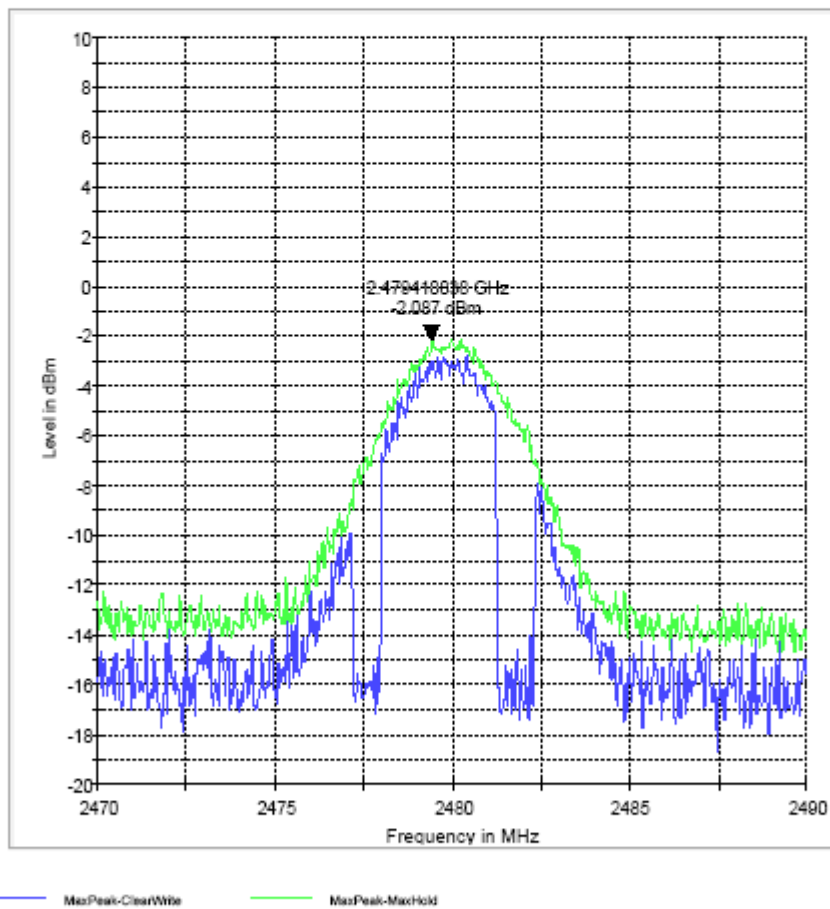
1 / 1

EMC32 Report

EUT Information

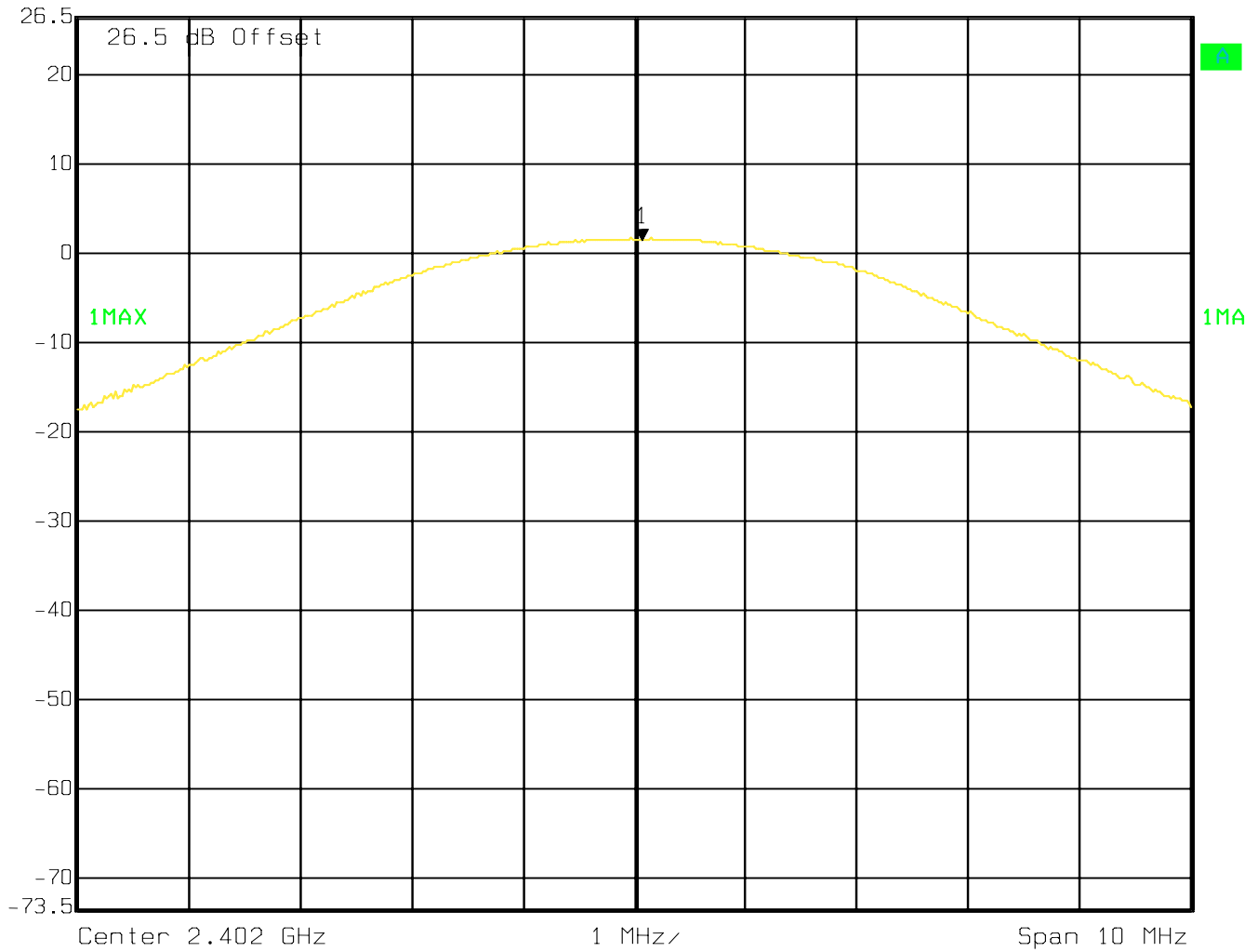
Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment: Ant H 138.9cm; TT 214.9; EUT H

EIRP BT H



Conducted Peak Power GFSK 2402 MHz

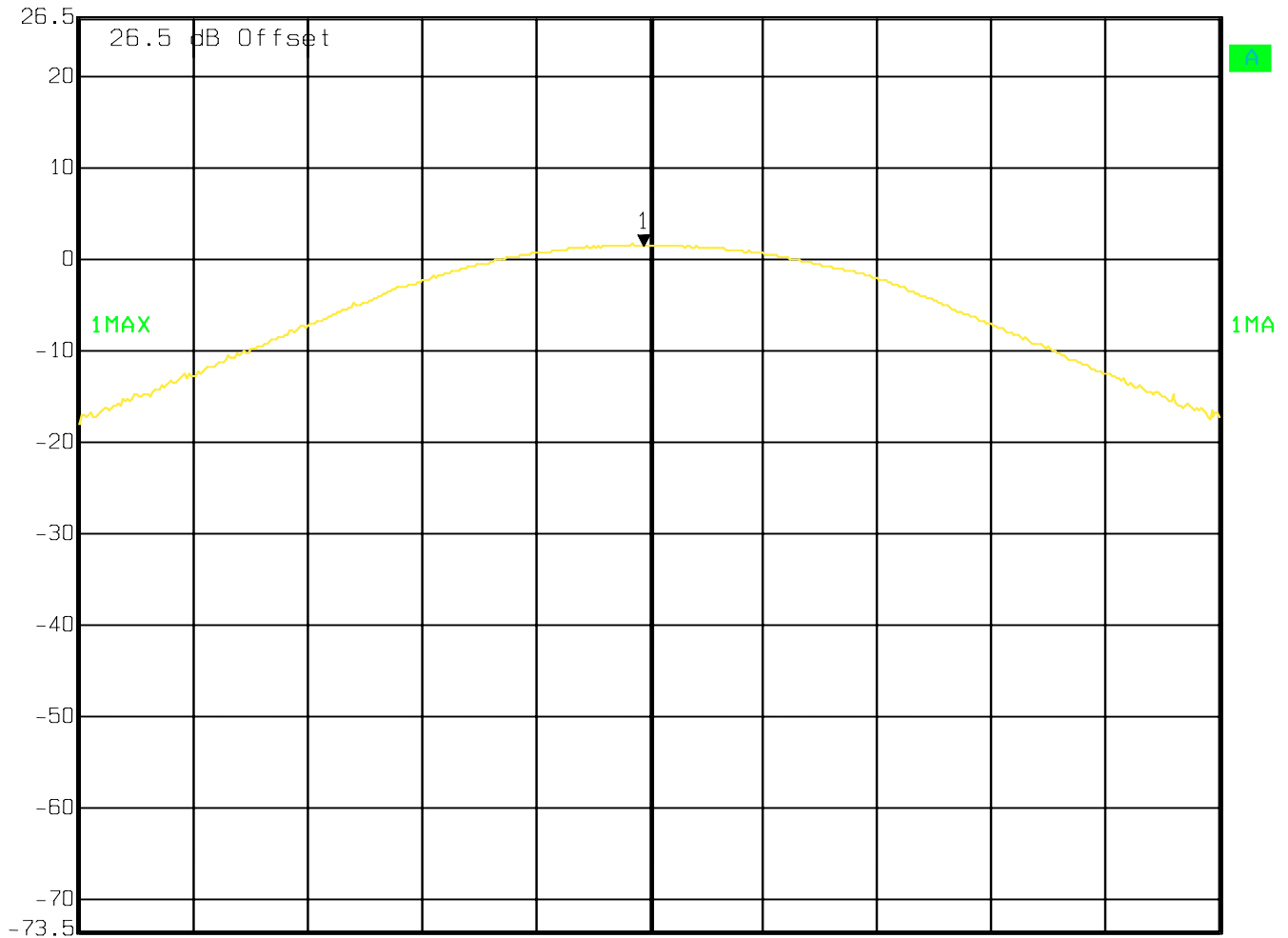

 Ref Lvl 26.5 dBm
 Marker 1 [T1] 1.46 dBm
 2.40207014 GHz
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm



Date: 04.JAN.2010 09:56:38

Conducted Peak Power GFSK 2441 MHz


 Ref Lvl 26.5 dBm
 Marker 1 [T1] 1.35 dBm
 2.44094990 GHz
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm

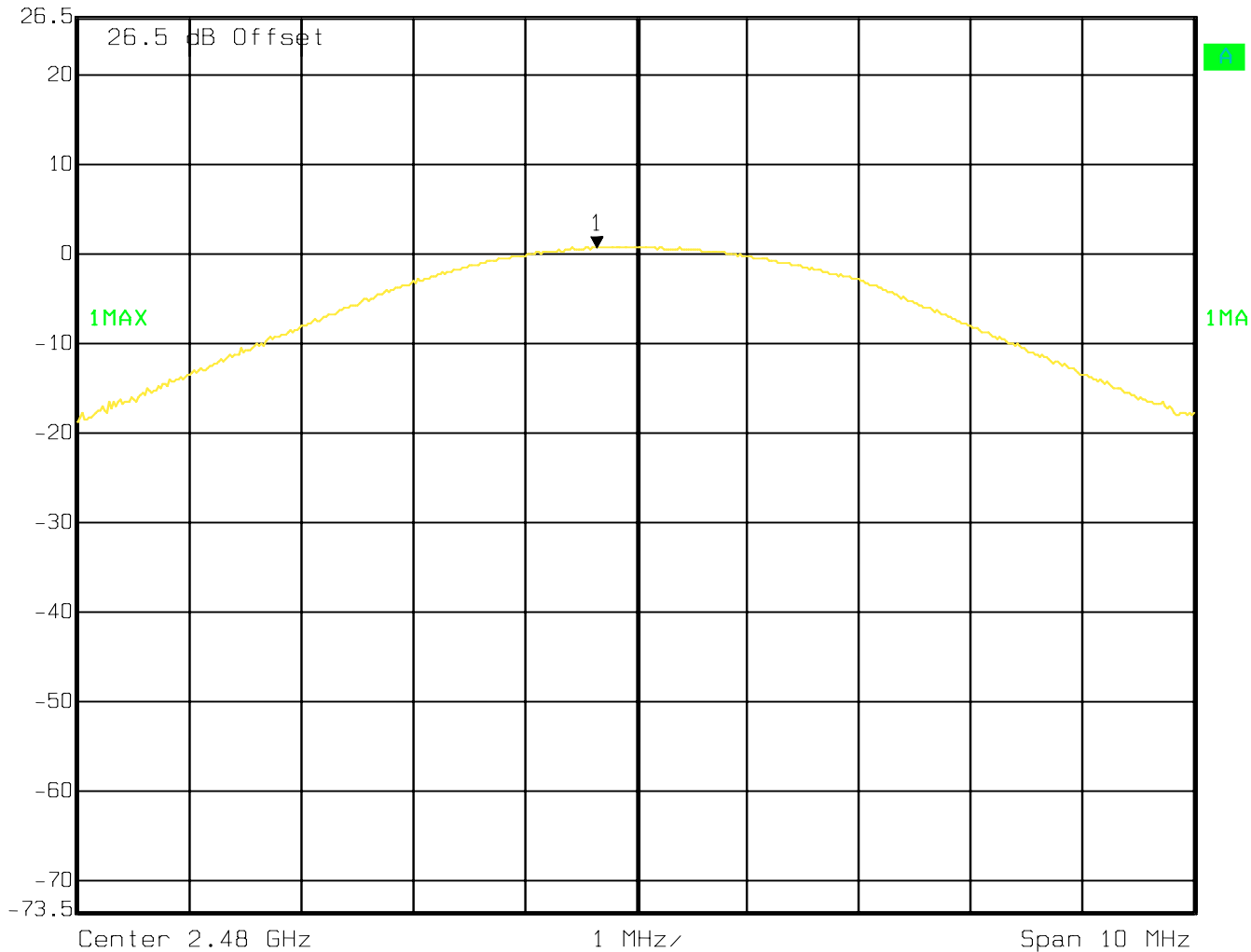


Center 2.441 GHz 1 MHz Span 10 MHz

Date: 04.JAN.2010 11:33:53

Conducted Peak Power GFSK 2480 MHz

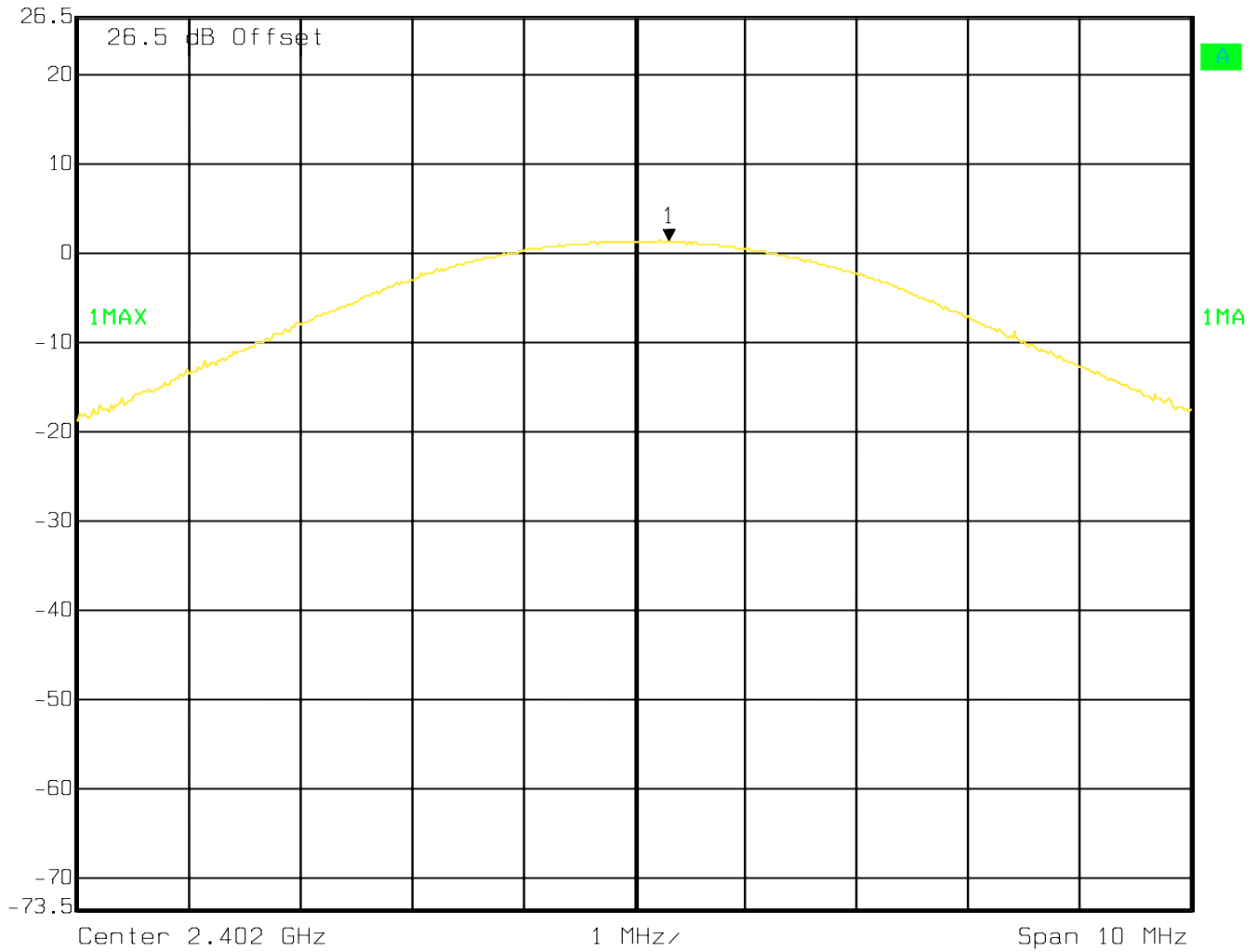

 Ref Lvl 26.5 dBm
 Marker 1 [T1] 0.62 dBm
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 2.47964930 GHz SWT 5 ms Unit dBm



Date: 04.JAN.2010 11:39:01

Conducted Peak Power π / 4 DQPSK 2402 MHz

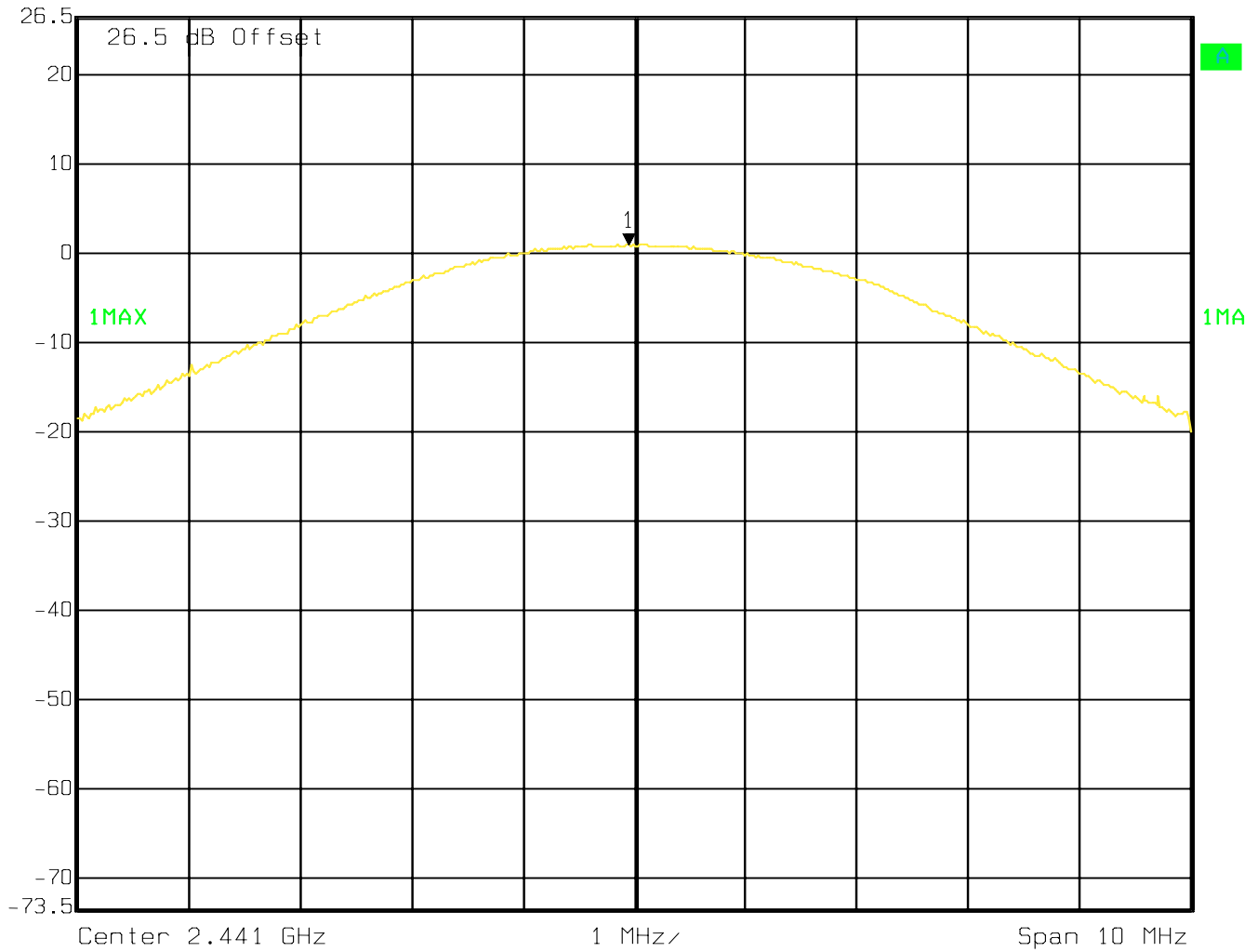
 Ref Lvl 26.5 dBm
 Marker 1 [T1] 1.29 dBm
 2.40231062 GHz
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm



Date: 04.JAN.2010 11:43:18

Conducted Peak Power $\pi / 4$ DQPSK 2441 MHz

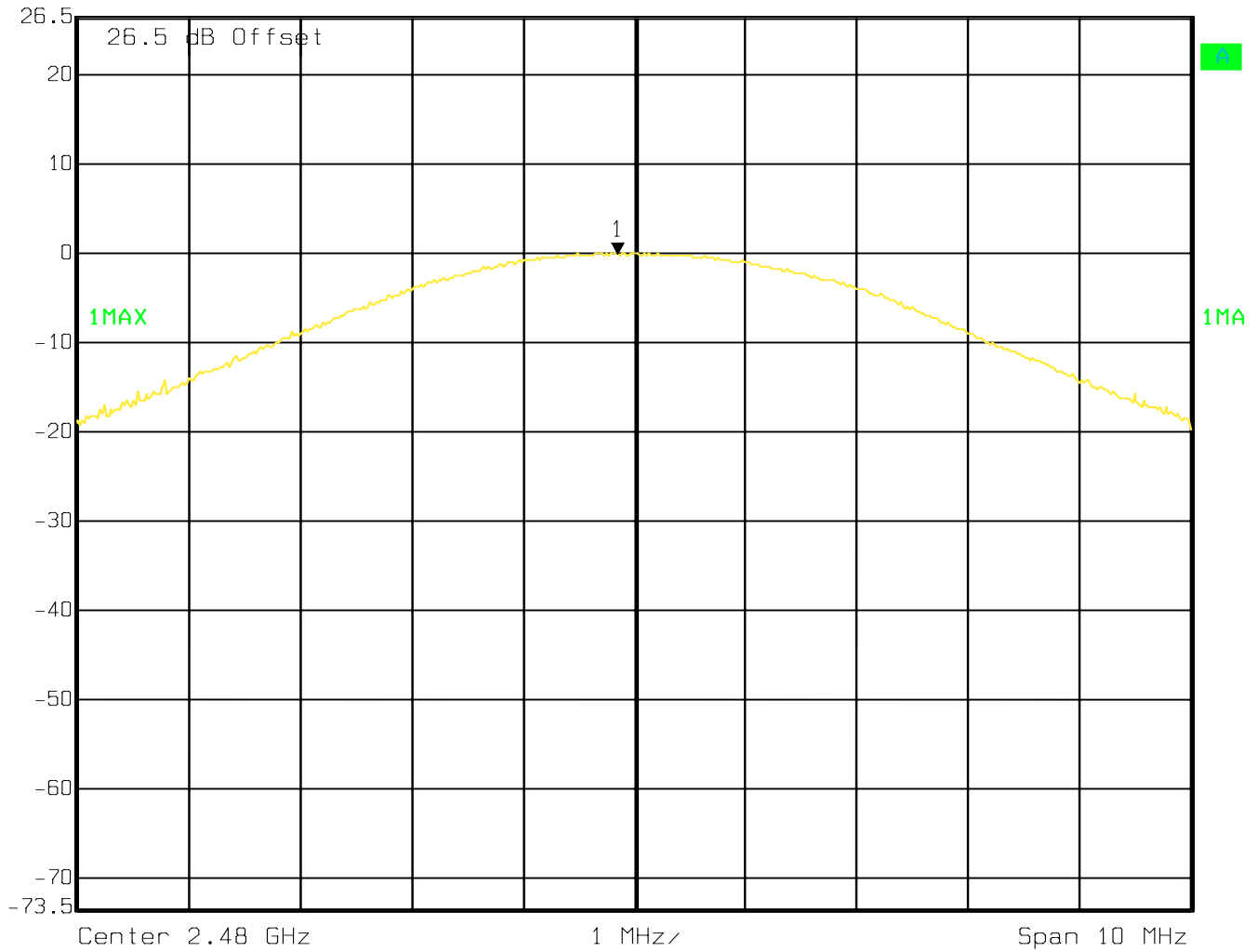

 Ref Lvl 26.5 dBm
 Marker 1 [T1] 0.86 dBm
 2.44094990 GHz
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm



Date: 04.JAN.2010 11:42:08

Conducted Peak Power $\pi / 4$ DQPSK 2480 MHz

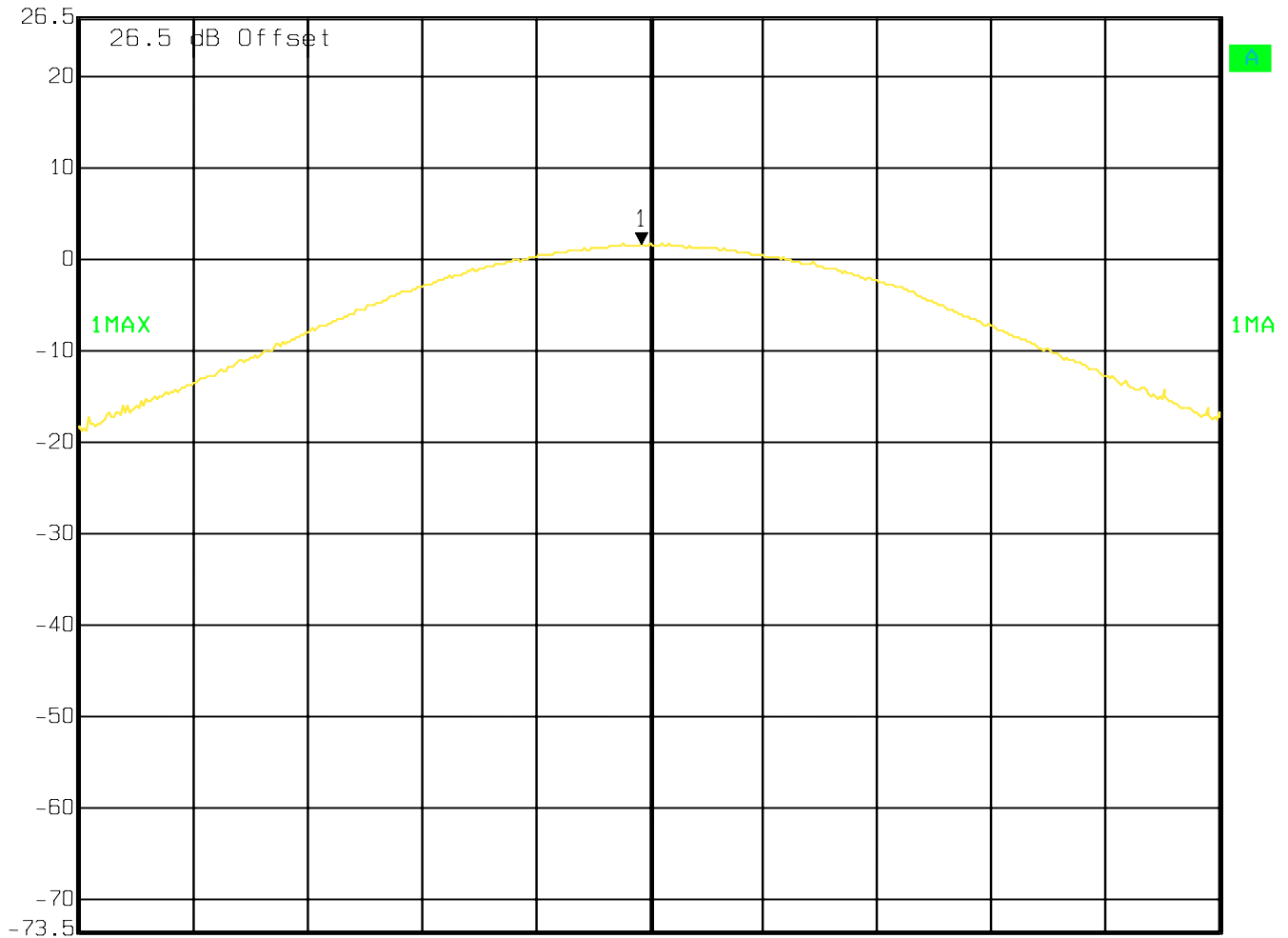
 Ref Lvl 26.5 dBm
 Marker 1 [T1] -0.10 dBm
 2.47984970 GHz
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm



Date: 04.JAN.2010 11:40:54

Conducted Peak Power 8DPSK 2402 MHz


 Ref Lvl 26.5 dBm
 Marker 1 [T1] 1.58 dBm
 2.40192986 GHz
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm

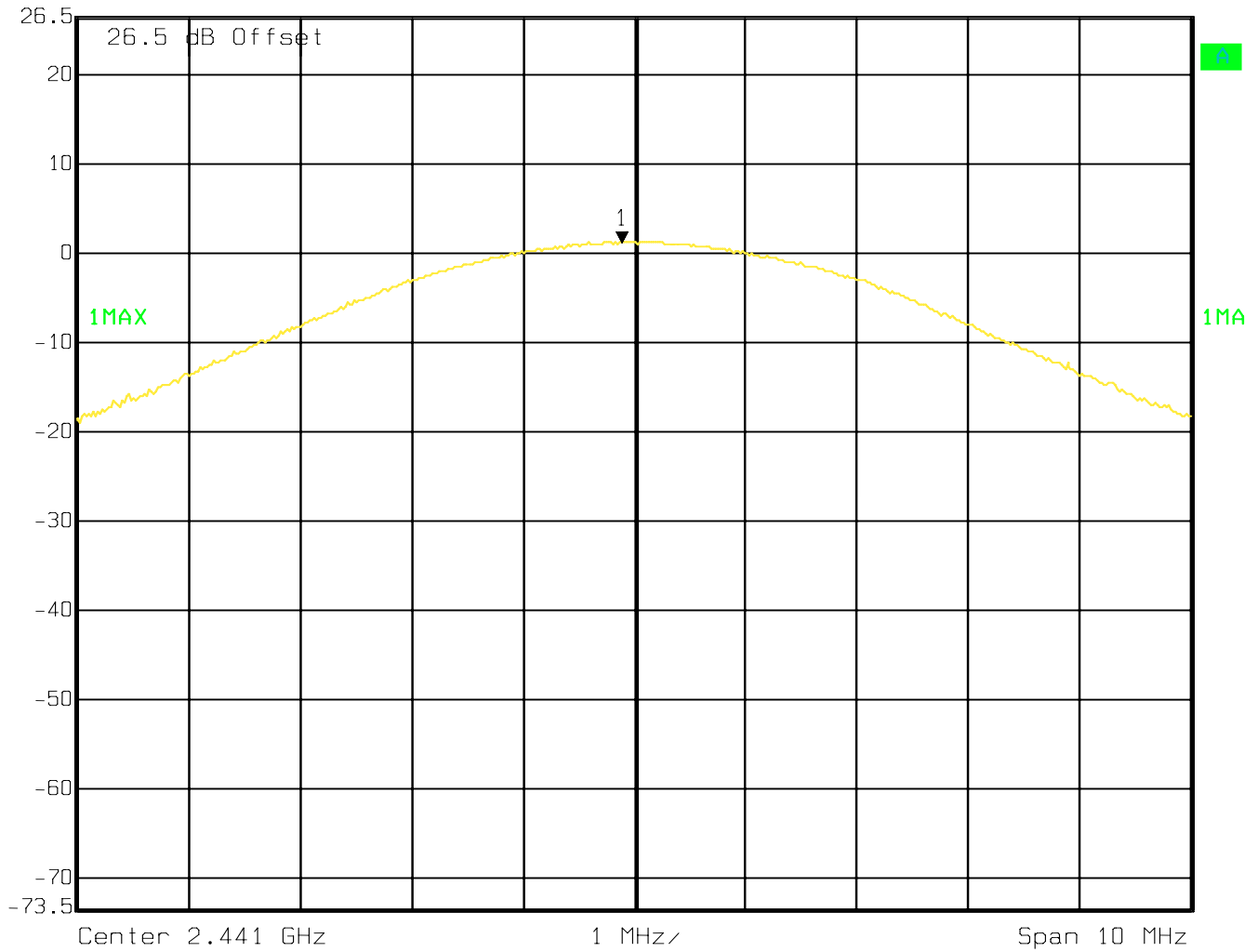


Center 2.402 GHz 1 MHz/ Span 10 MHz

Date: 04.JAN.2010 11:45:06

Conducted Peak Power 8DPSK 2441 MHz

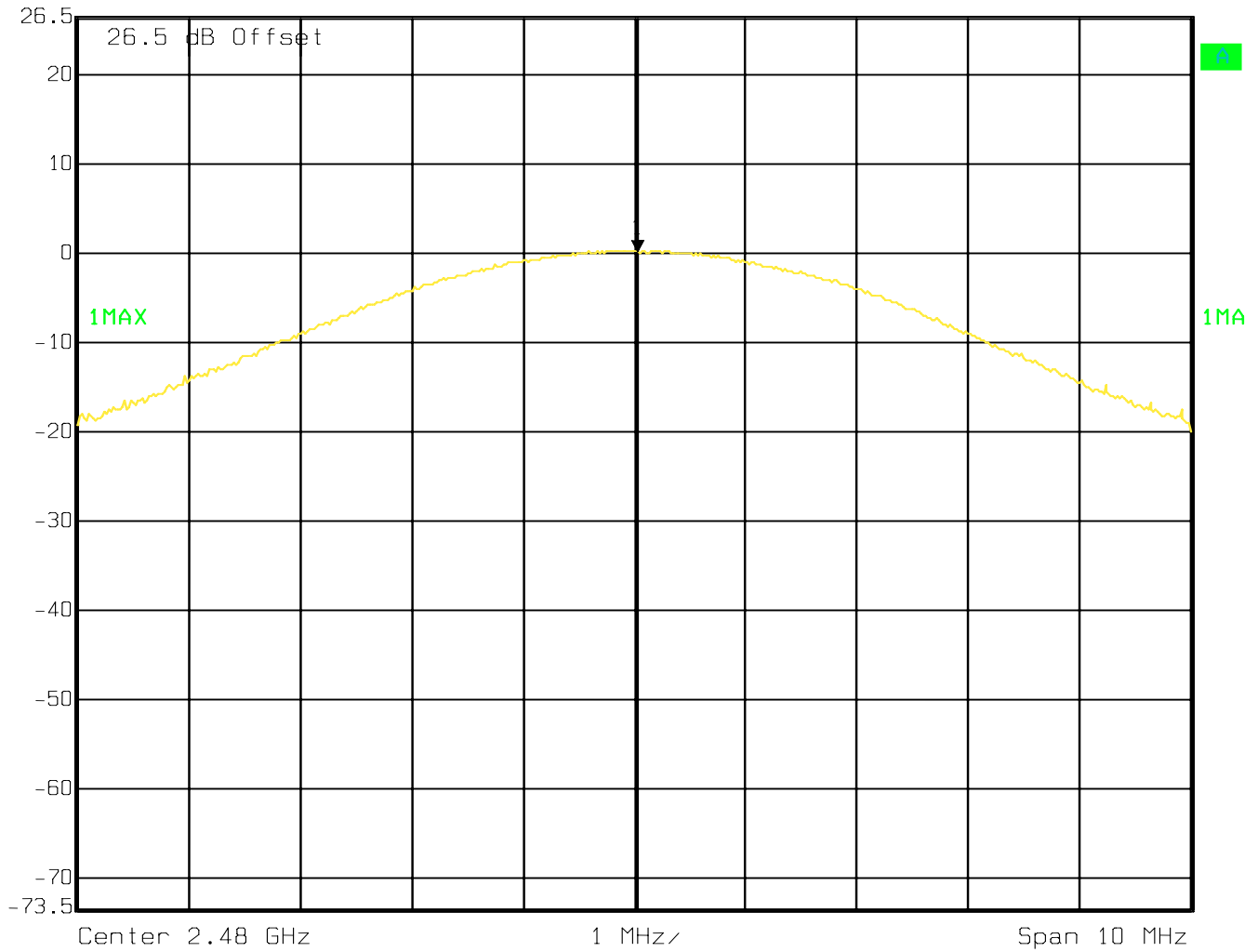
 Ref Lvl 26.5 dBm Marker 1 [T1] 1.21 dBm RBW 3 MHz RF Att 30 dB
2.44088978 GHz VBW 3 MHz Unit dBm
SWT 5 ms



Date: 04.JAN.2010 11:46:45

Conducted Peak Power 8DPSK 2480 MHz

 Ref Lvl 26.5 dBm
 Marker 1 [T1] 0.21 dBm
 2.48003006 GHz
 RBW 3 MHz RF Att 30 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm



Date: 04.JAN.2010 11:48:10

5.4 Restricted Band Edge Compliance

5.4.1 Limits: §15.247/15.205

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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	(²)
13.36 - 13.41			

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. 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) (see §15.205(c)).

*PEAK LIMIT= 74dBμV/m

*AVG. LIMIT= 54dBμV/m

5.4.2 Test Data/plots:

Lower band edge peak -GFSK modulation

GFSK_LBE_PK

1 / 1

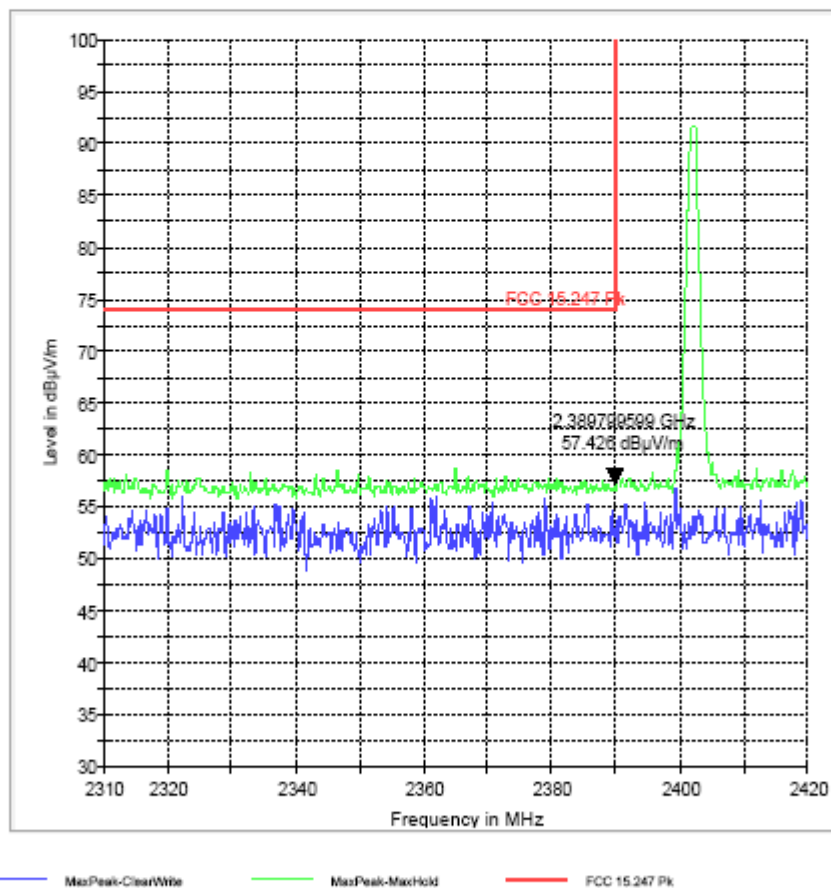
GFSK_LBE_PK

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	GFSK DH5 CH 0

FCC 15.247 LBE Pk 3m



Lower band edge average -GFSK modulation

GFSK_LBE_AVG

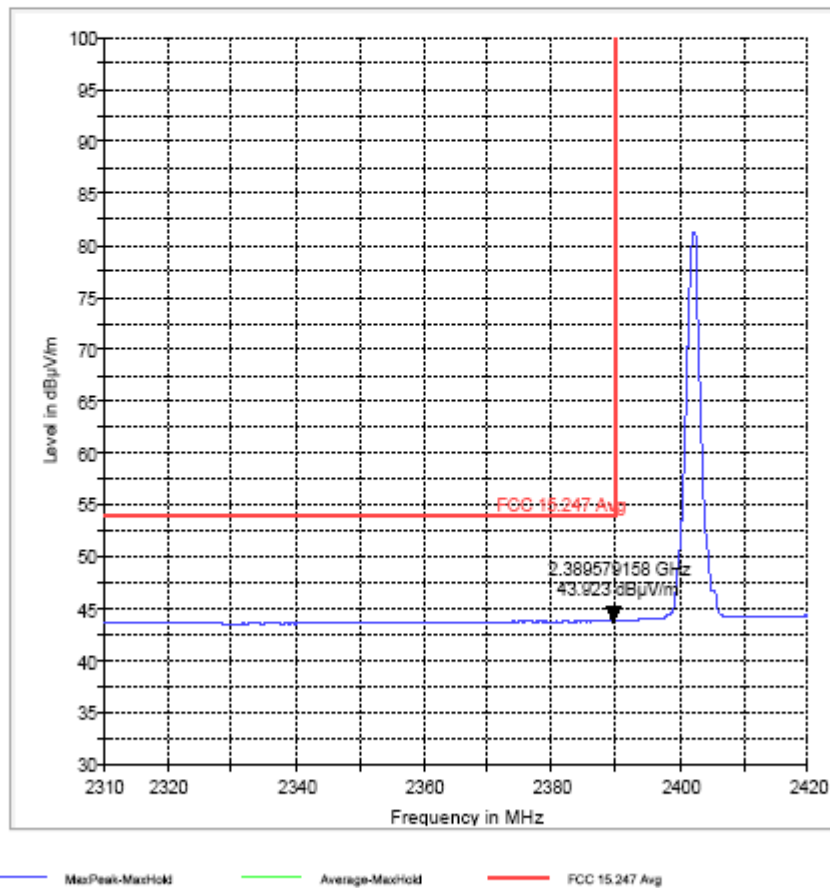
1 / 1

GFSK_LBE_AVG

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: BT SAMPLE
Configuration: Standard Cover and AC adapter #30
Comment: GFSK DH5 CH 0

FCC 15.247 LBE Avg 3m



Higher band edge peak -GFSK modulation

GFSK_HBE_PK

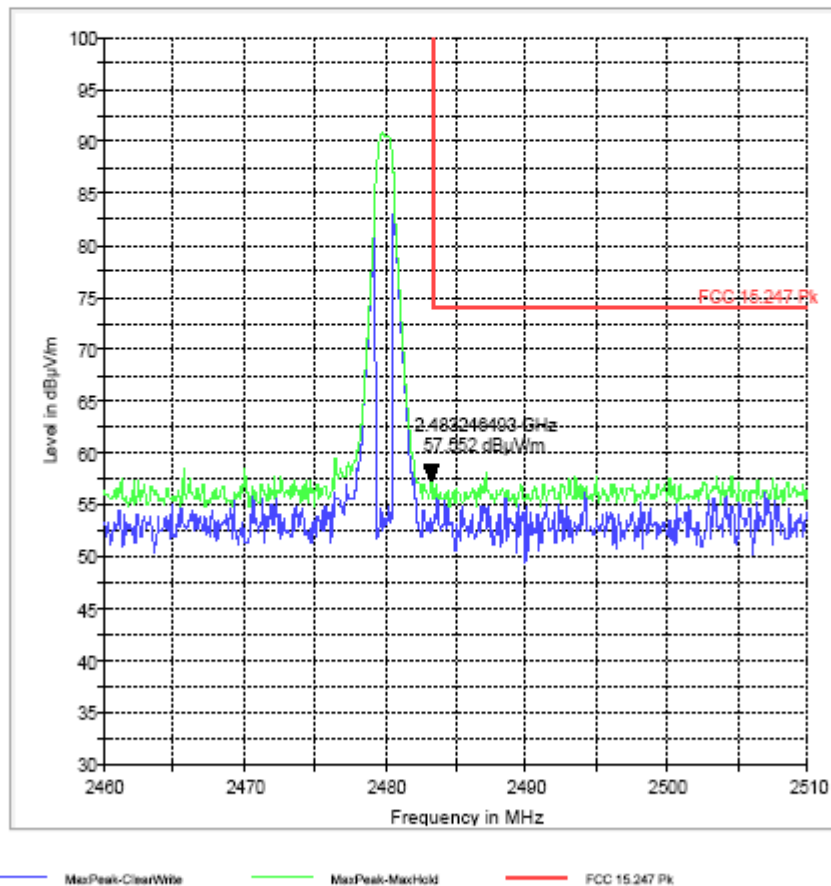
1 / 1

GFSK_HBE_PK

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: BT SAMPLE
Configuration: Standard Cover and AC adapter #30
Comment: GFSK DH5 CH 78

FCC 15.247 HBE Pk 3m



Higher band edge average-GFSK modulation

GFSK_HBE_AVG

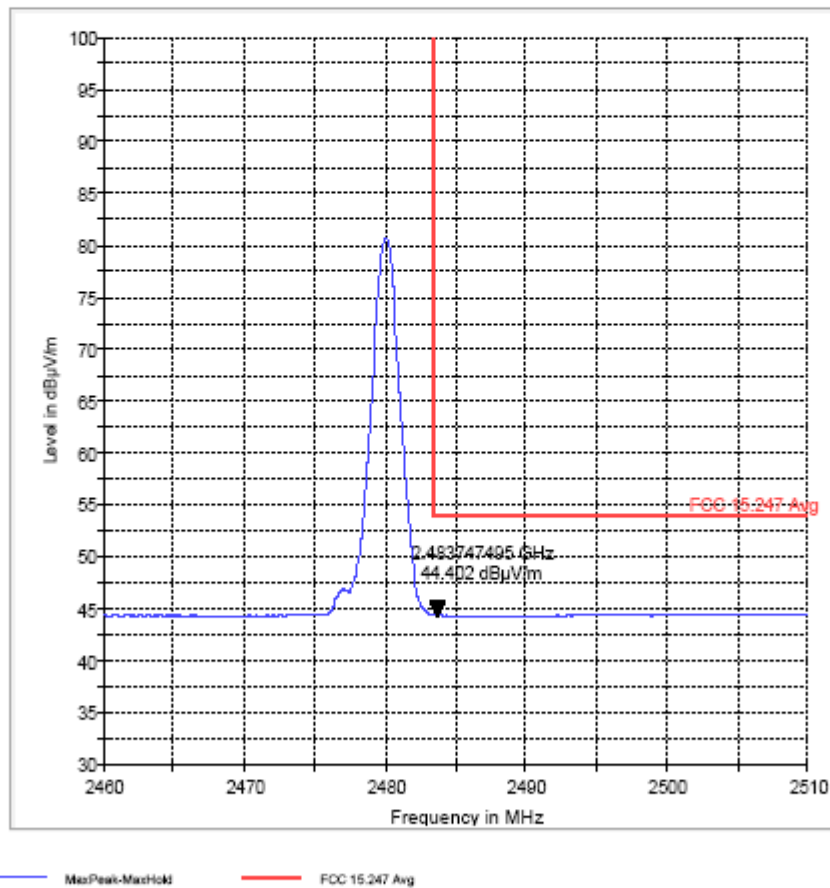
1 / 1

GFSK_HBE_AVG

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: BT SAMPLE
Configuration: Standard Cover and AC adapter #30
Comment: GFSK DH5 CH 78

FCC 15.247 HBE Avg 3m



Lower band edge peak - $\pi/4$ DQPSK modulation

DQPSK_LBE_PK

1 / 1

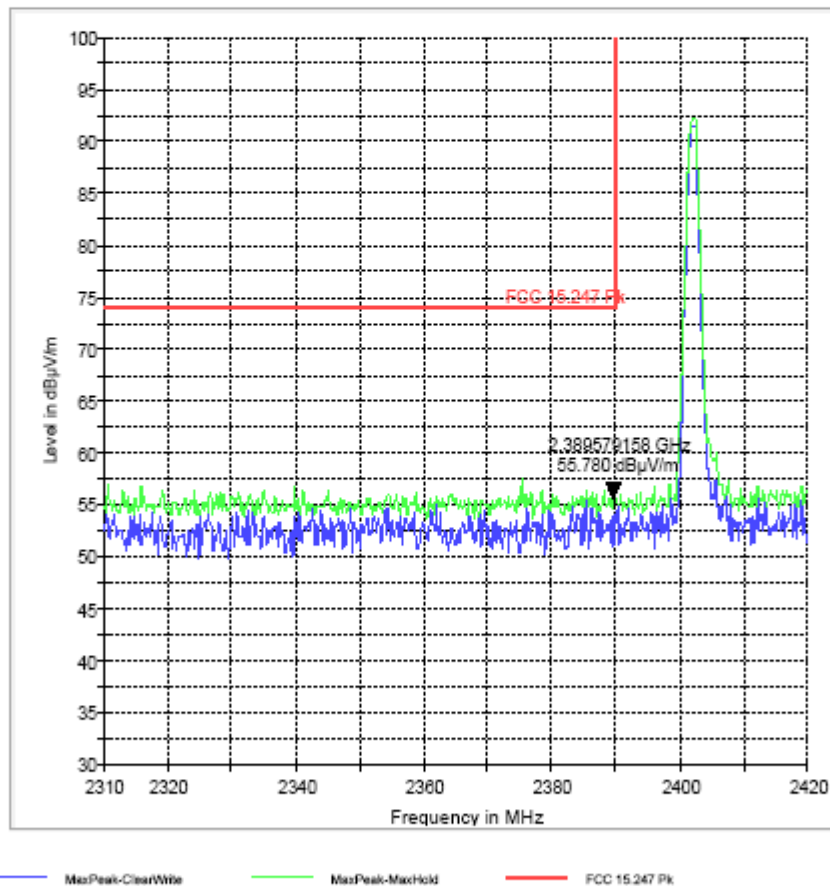
DQPSK_LBE_PK

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	DQPSK DH5 CH 0

FCC 15.247 LBE Pk 3m



Lower band edge average $-\pi/4$ DQPSK modulation

DQPSK_LBE_AVG

1 / 1

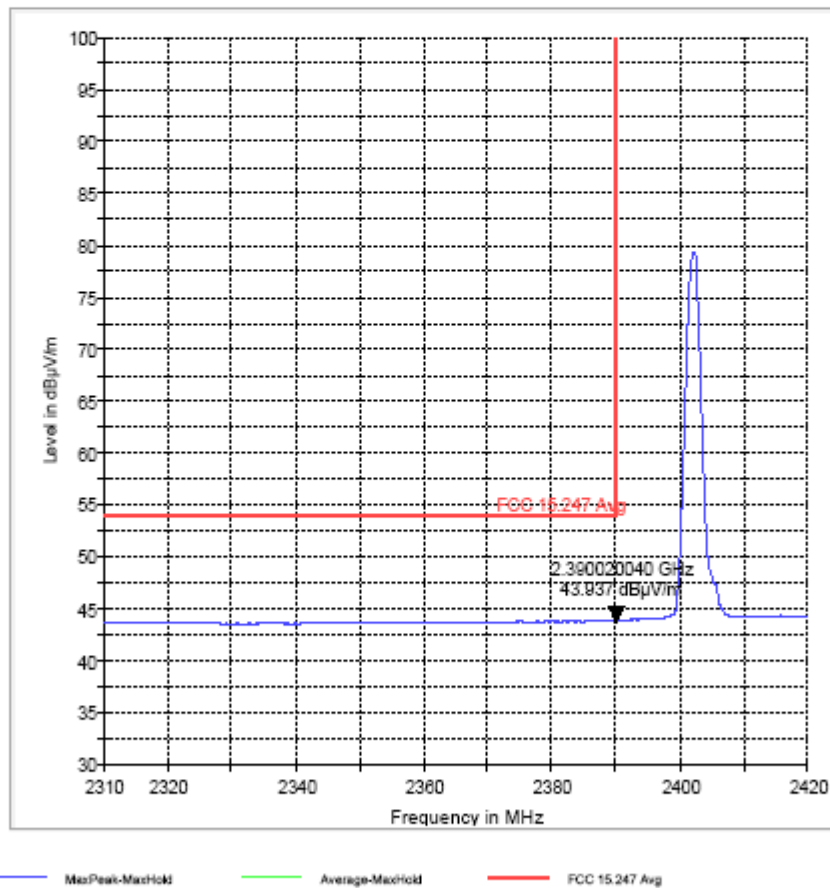
DQPSK_LBE_AVG

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	DQPSK DH5 CH 0

FCC 15.247 LBE Avg 3m



Higher band edge peak $-\pi/4$ DQPSK modulation

DQPSK_HBE_PK

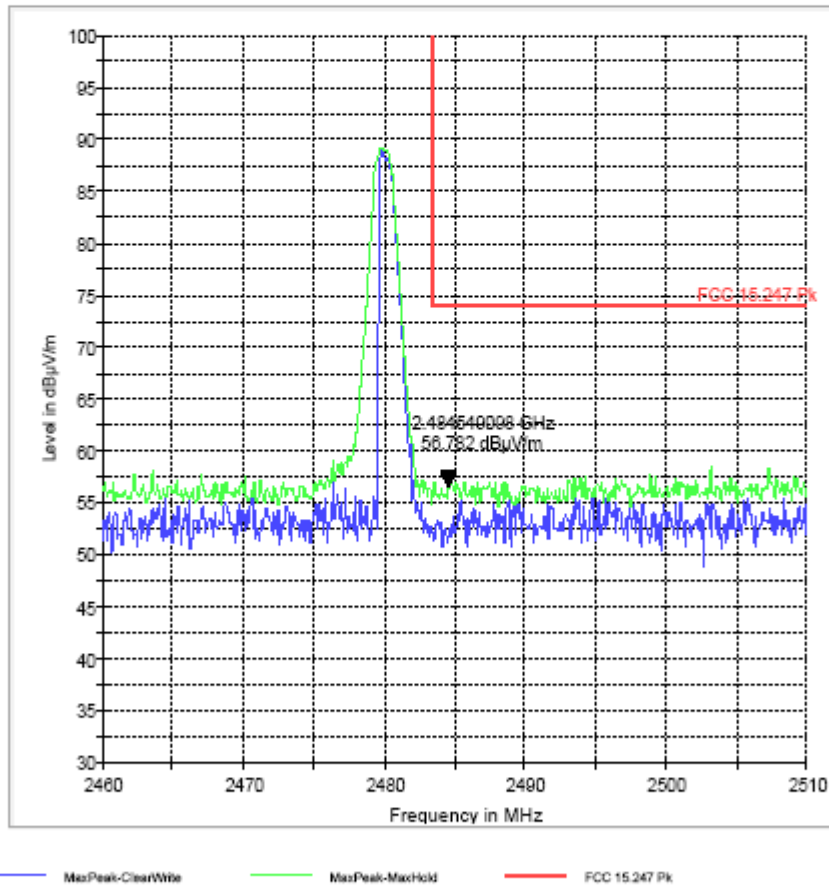
1 / 1

DQPSK_HBE_PK

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: BT SAMPLE
Configuration: Standard Cover and AC adapter #30
Comment: DQPSK DH5 CH 78

FCC 15.247 HBE Pk 3m



Higher band edge average- $\pi/4$ DQPSK modulation

DQPSK_HBE_AVG

1 / 1

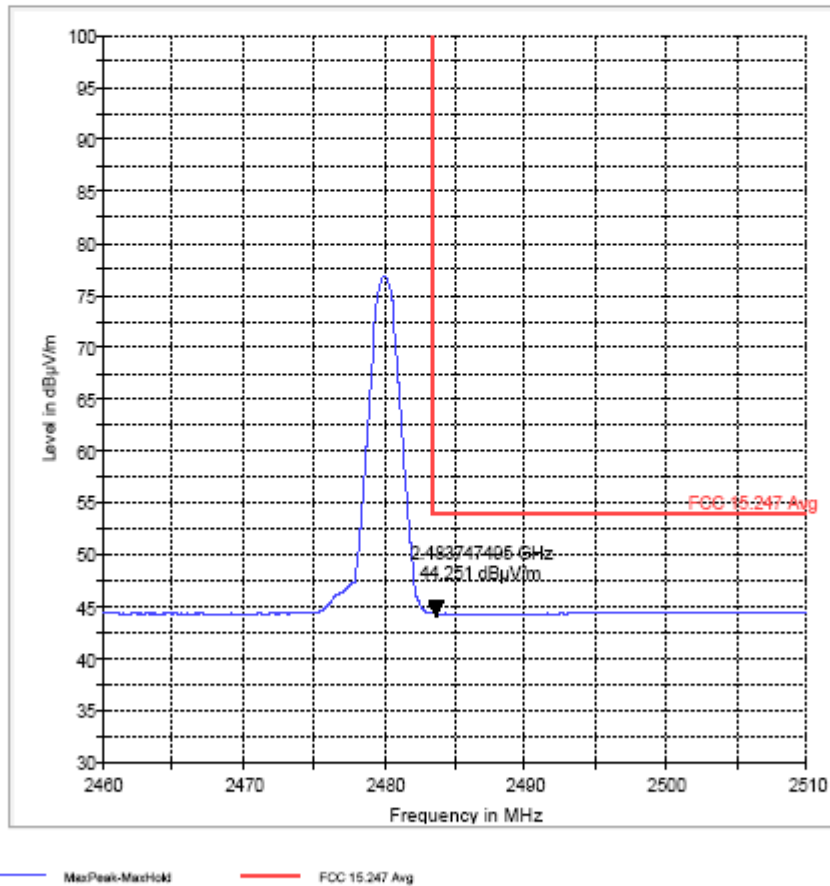
DQPSK_HBE_AVG

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	DQPSK DH5 CH 78

FCC 15.247 HBE Avg 3m



Lower band edge peak - 8DPSK modulation

8DPSK_LBE_PK

1 / 1

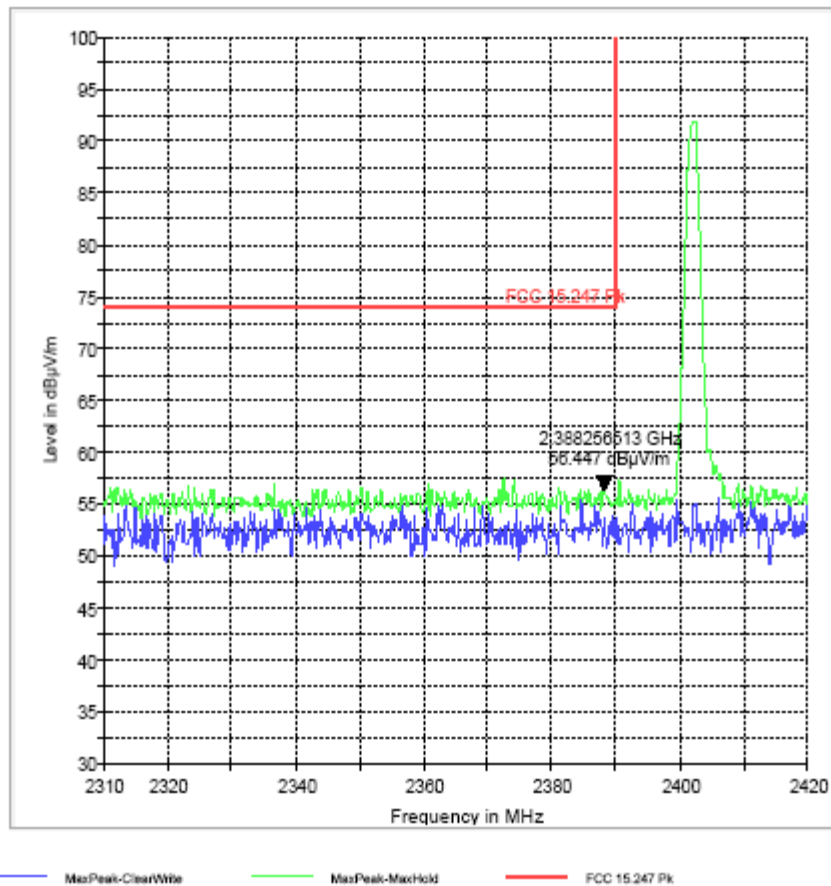
8DPSK_LBE_PK

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	8DPSK DH5 CH 0

FCC 15.247 LBE Pk 3m



Lower band edge average -8DPSK modulation

8DPSK_LBE_AVG

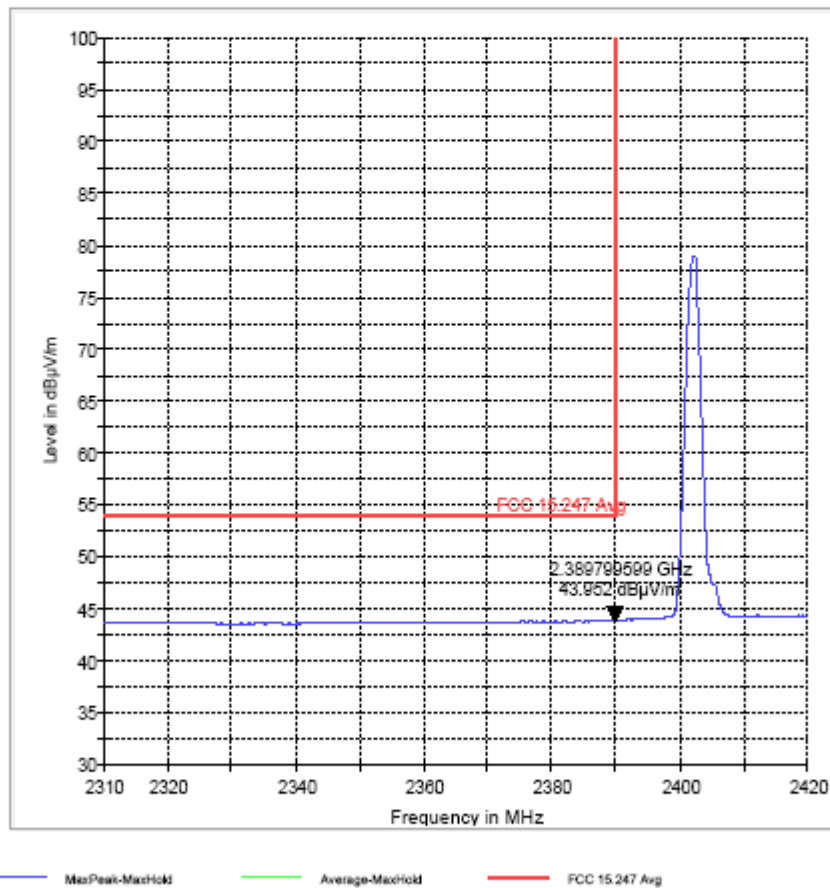
1 / 1

8DPSK_LBE_AVG

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: BT SAMPLE
Configuration: Standard Cover and AC adapter #30
Comment: 8DPSK DH5 CH 0

FCC 15.247 LBE Avg 3m



Higher band edge peak - 8DPSK modulation

8DPSK_HBE_PK

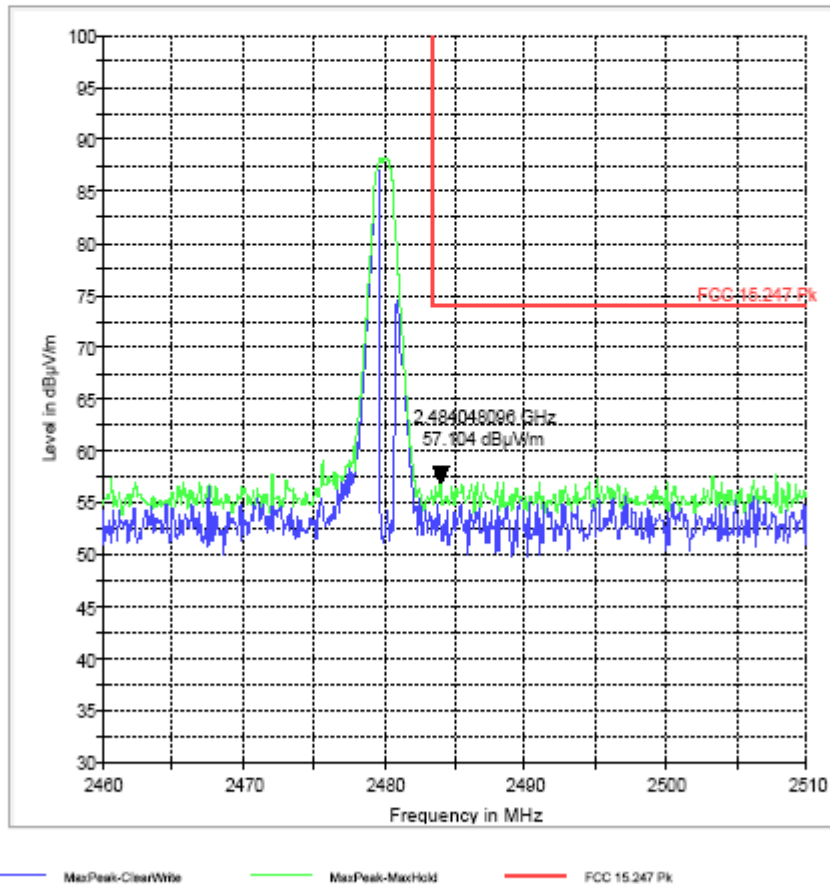
1 / 1

8DPSK_HBE_PK

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: BT SAMPLE
Configuration: Standard Cover and AC adapter #30
Comment: 8DPSK DH5 CH 78

FCC 15.247 HBE Pk 3m



Higher band edge average-8DPSK modulation

8DPSK_HBE_AVG

1 / 1

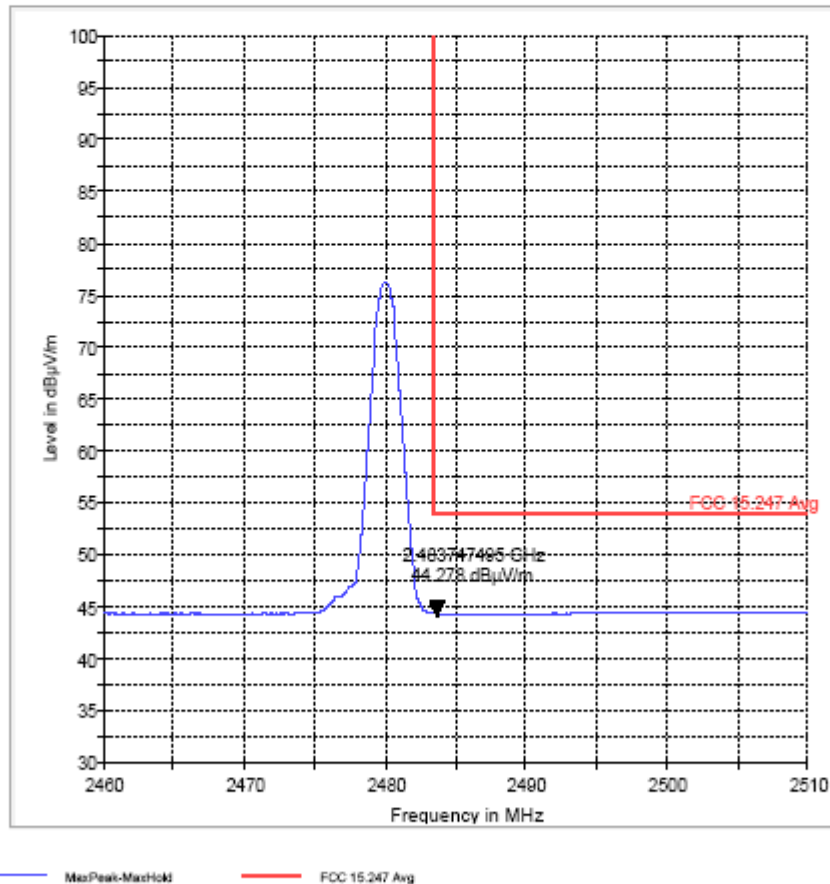
8DPSK_HBE_AVG

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	8DPSK DH5 CH 78

FCC 15.247 HBE Avg 3m



5.5 Spectrum Bandwidth/ 20dB Bandwidth

5.5.1 Limits: § 15.247 (a)(1)

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.

GFSK < 1000 kHz

$\pi / 4$ DQPSK < 1500 kHz

8 dPSK < 1500kHz

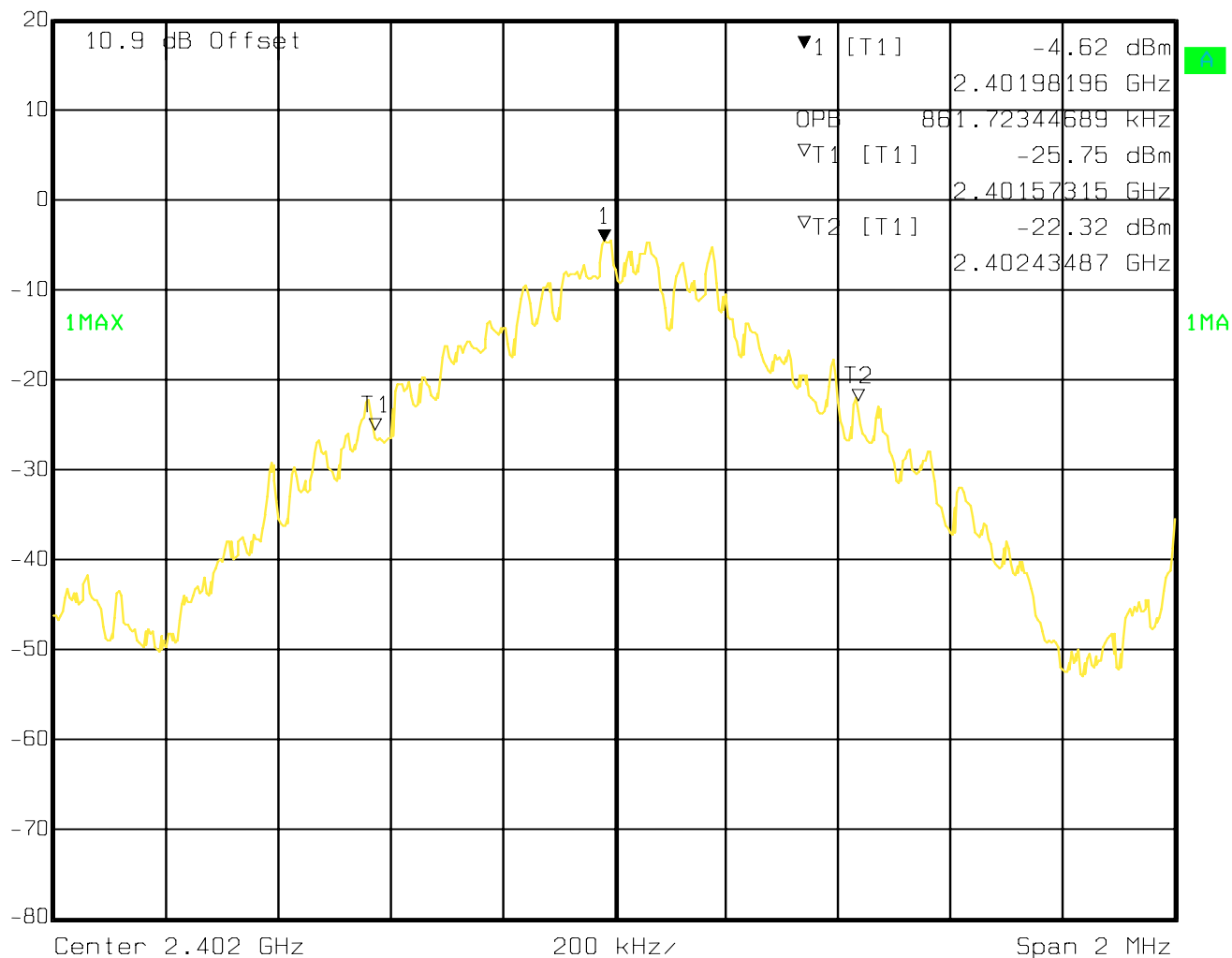
5.5.2 Test Result:

20dB Bandwidth (kHz)			
Modulation	Frequency (MHz)		
	2402	2442	2480
GFSK	0.862	0.862	0.862
$\pi/4$ DQPSK	1.17	1.17	1.17
8-DPSK	1.18	1.18	1.18
Measurement Uncertainty: ± 1 kHz			

RBW=VBW=10 kHz

5.5.3 Test Data/plots:
20dB Bandwidth GFSK 2402MHz

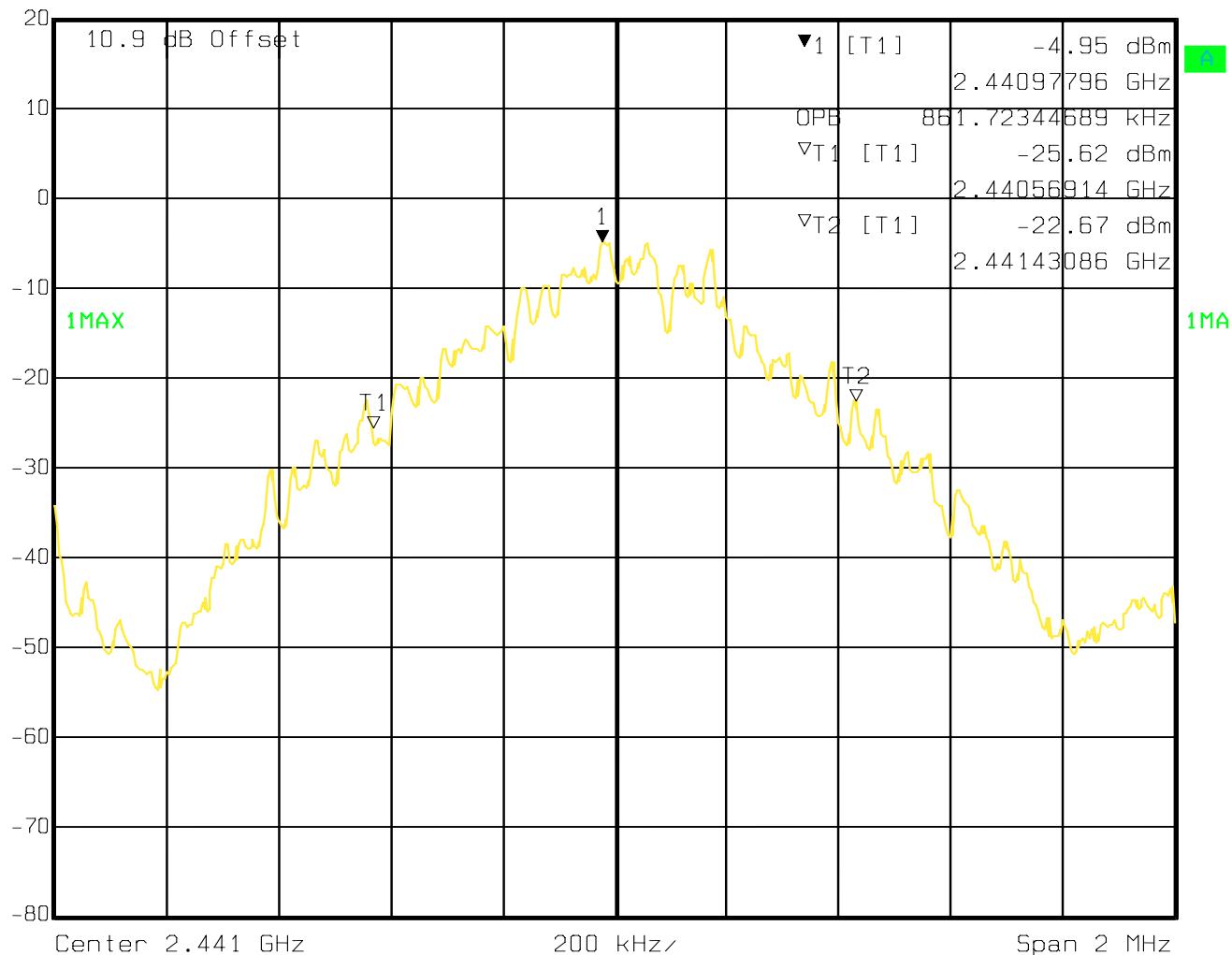

 Ref Lvl 20 dBm
 Marker 1 [T1] -4.62 dBm
 2.40198196 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 15:25:10

20dB Bandwidth GFSK 2441MHz

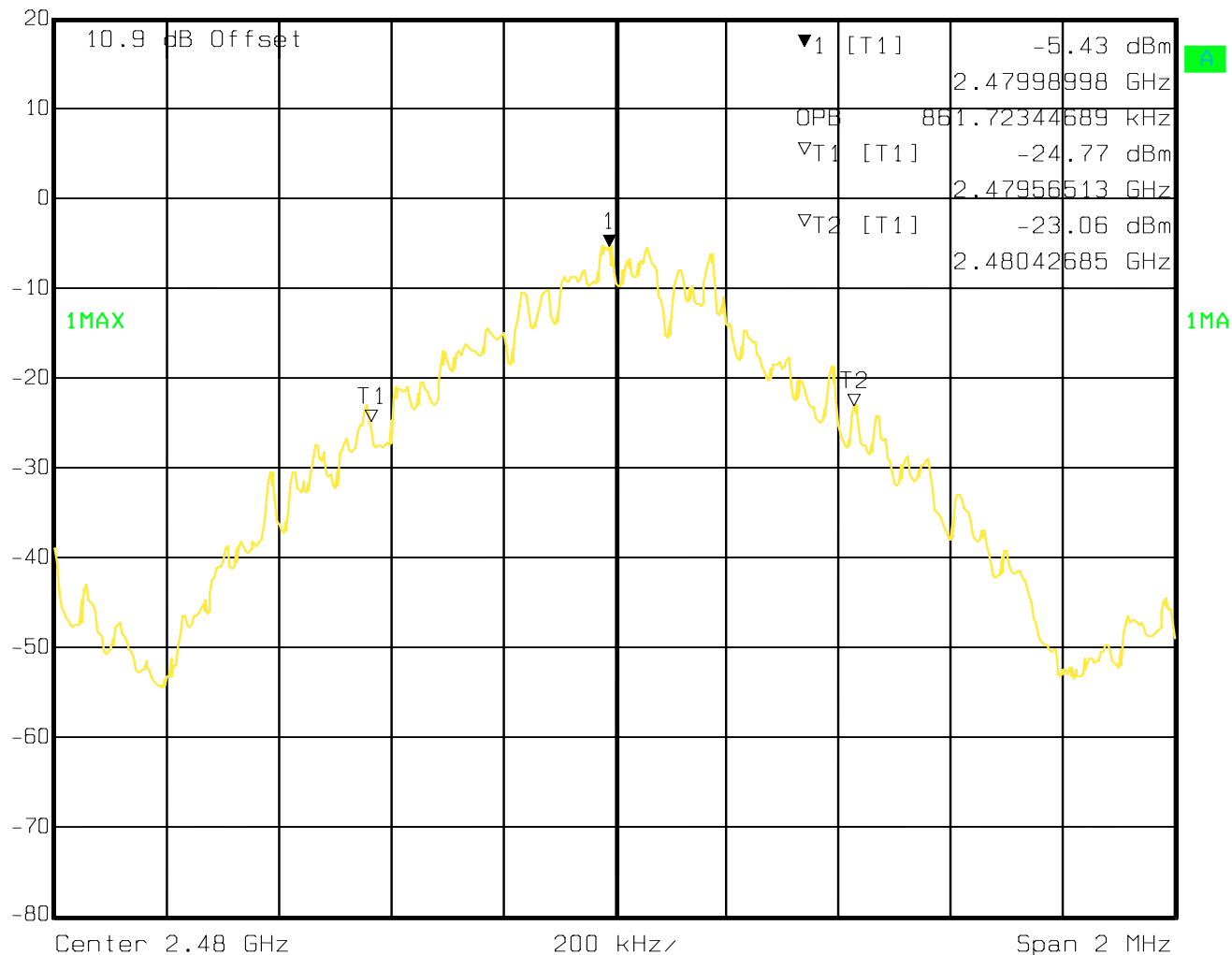

 Ref Lvl 20 dBm
 Marker 1 [T1] -4.95 dBm
 2.44097796 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 16:35:56

20dB Bandwidth GFSK 2480MHz

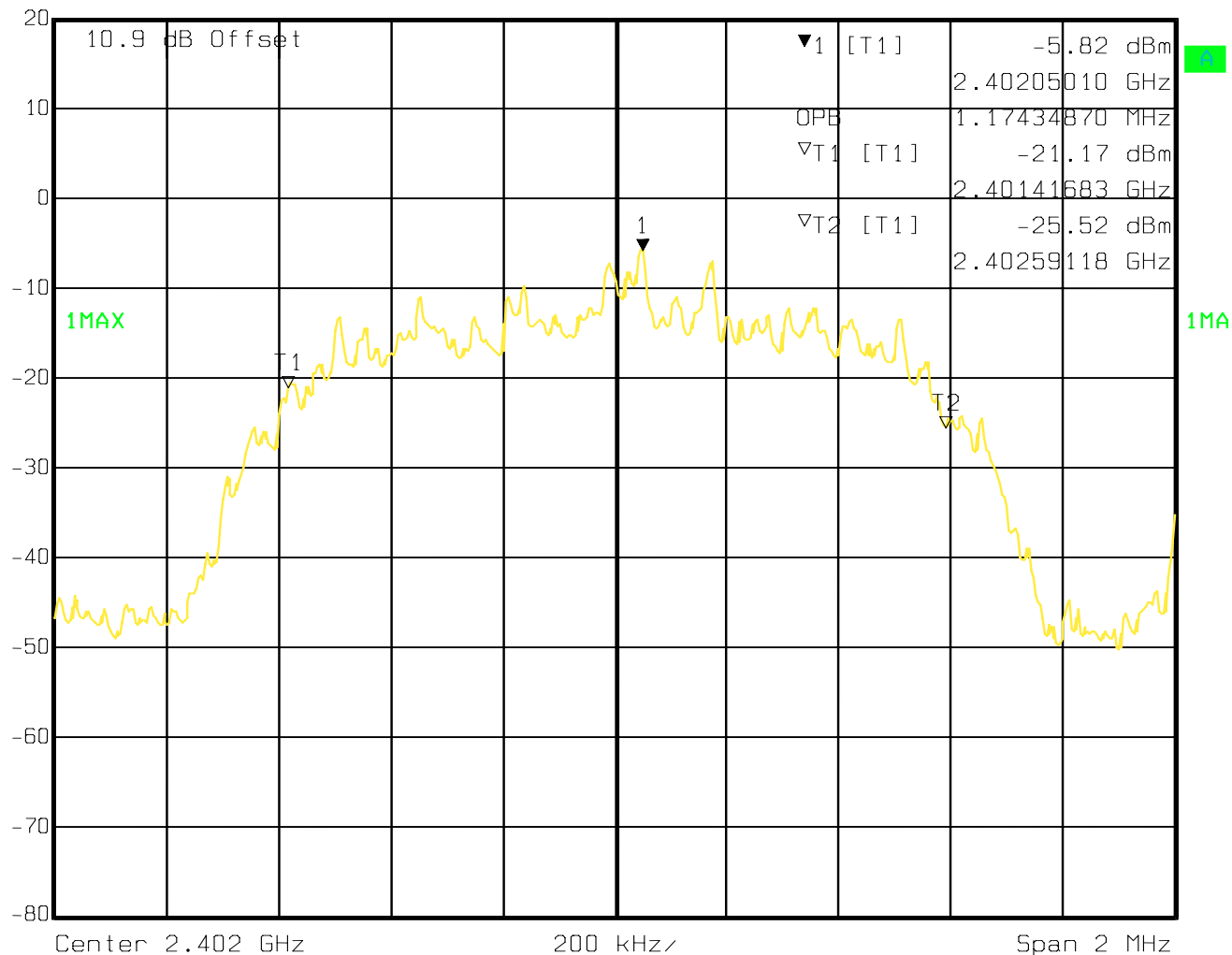

 Ref Lvl 20 dBm
 Marker 1 [T1] -5.43 dBm
 2.47998998 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 16:38:34

20dB Bandwidth $\pi / 4$ DQPSK 2402MHz


 Ref Lvl 20 dBm
 Marker 1 [T1] -5.82 dBm
 2.40205010 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm

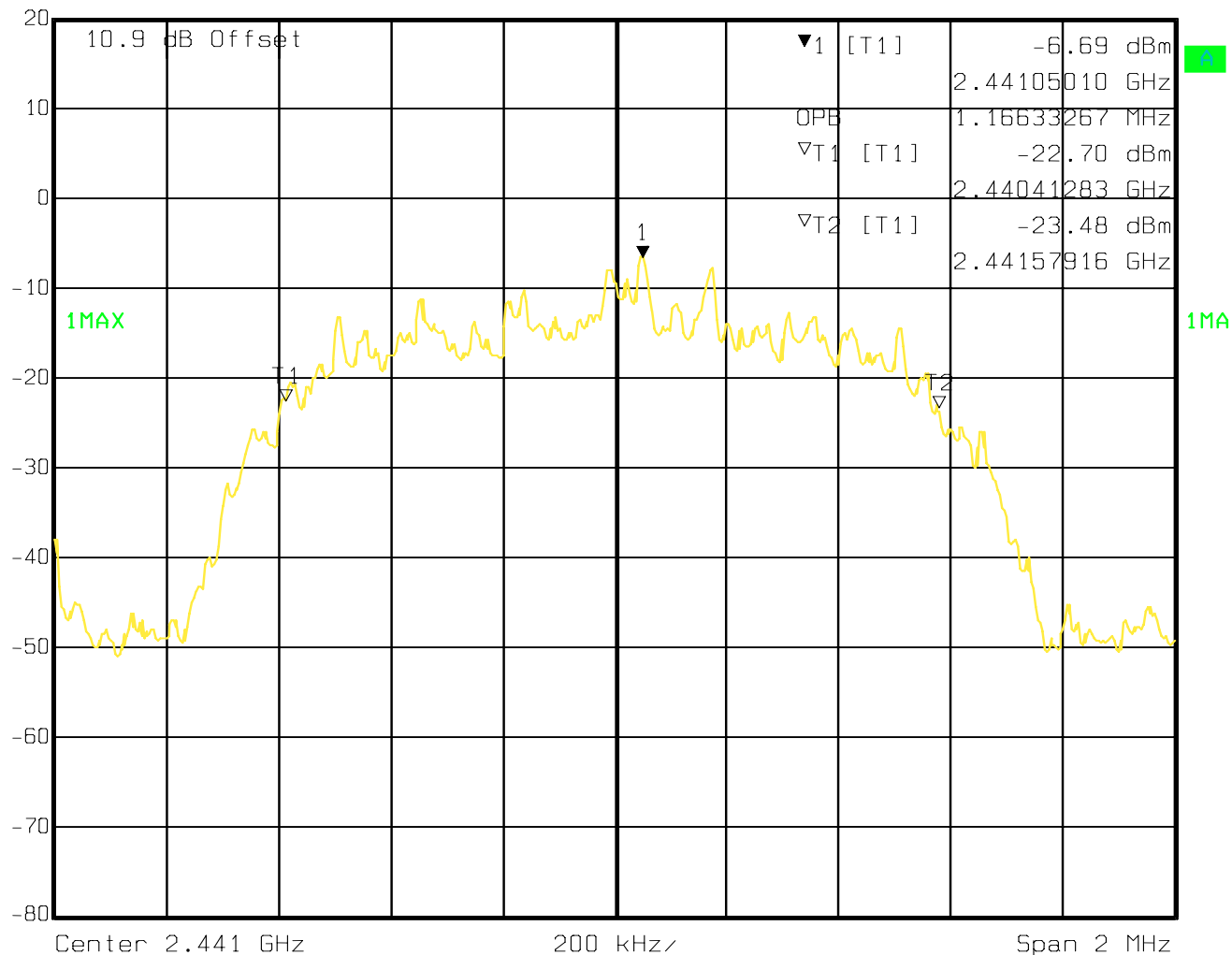


Date: 14.JAN.2010 16:29:08

20dB Bandwidth $\pi / 4$ DQPSK 2441MHz



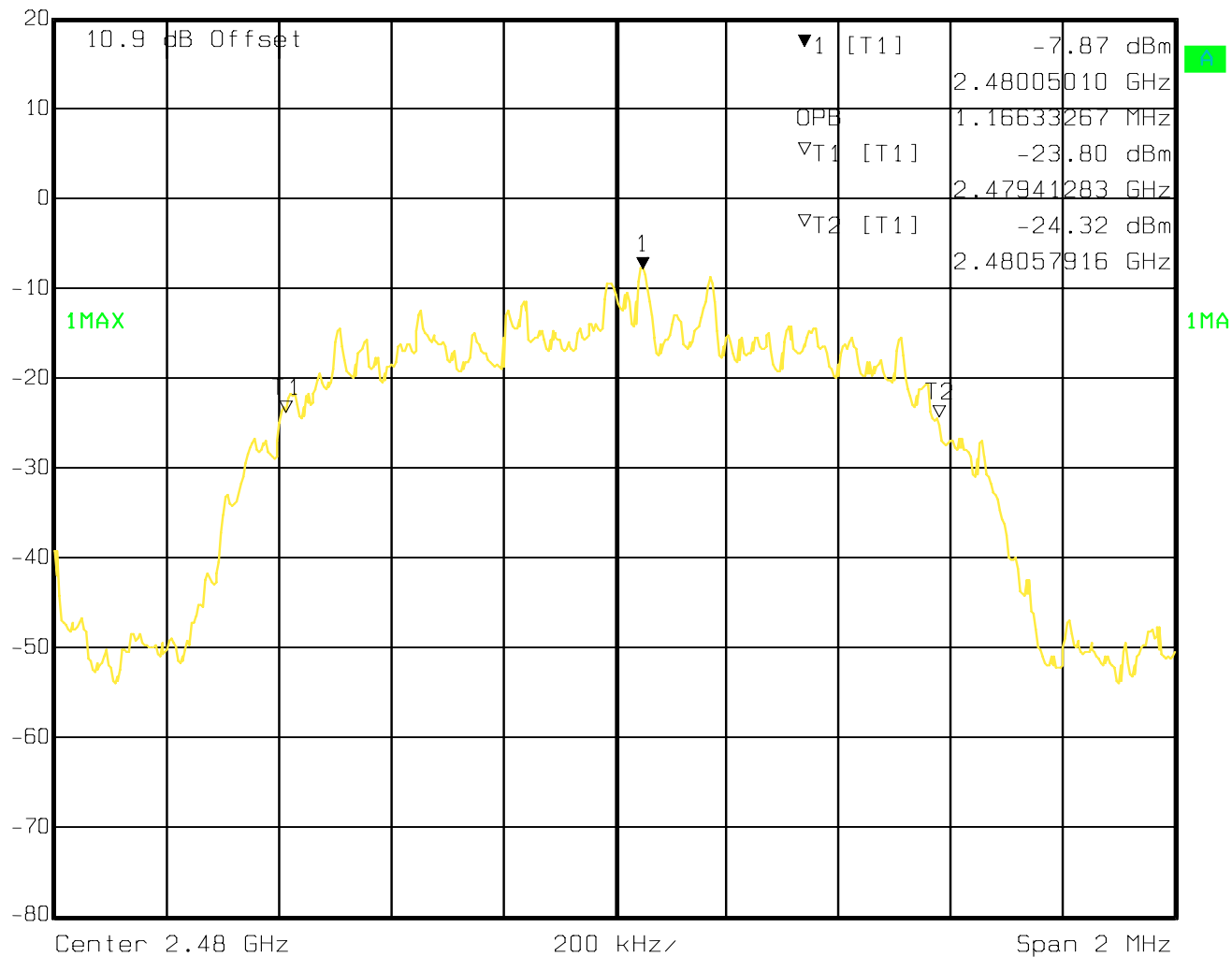
Ref Lvl 20 dBm
 Marker 1 [T1] -6.69 dBm
 2.44105010 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 16:34:32

20dB Bandwidth $\pi / 4$ DQPSK 2480MHz

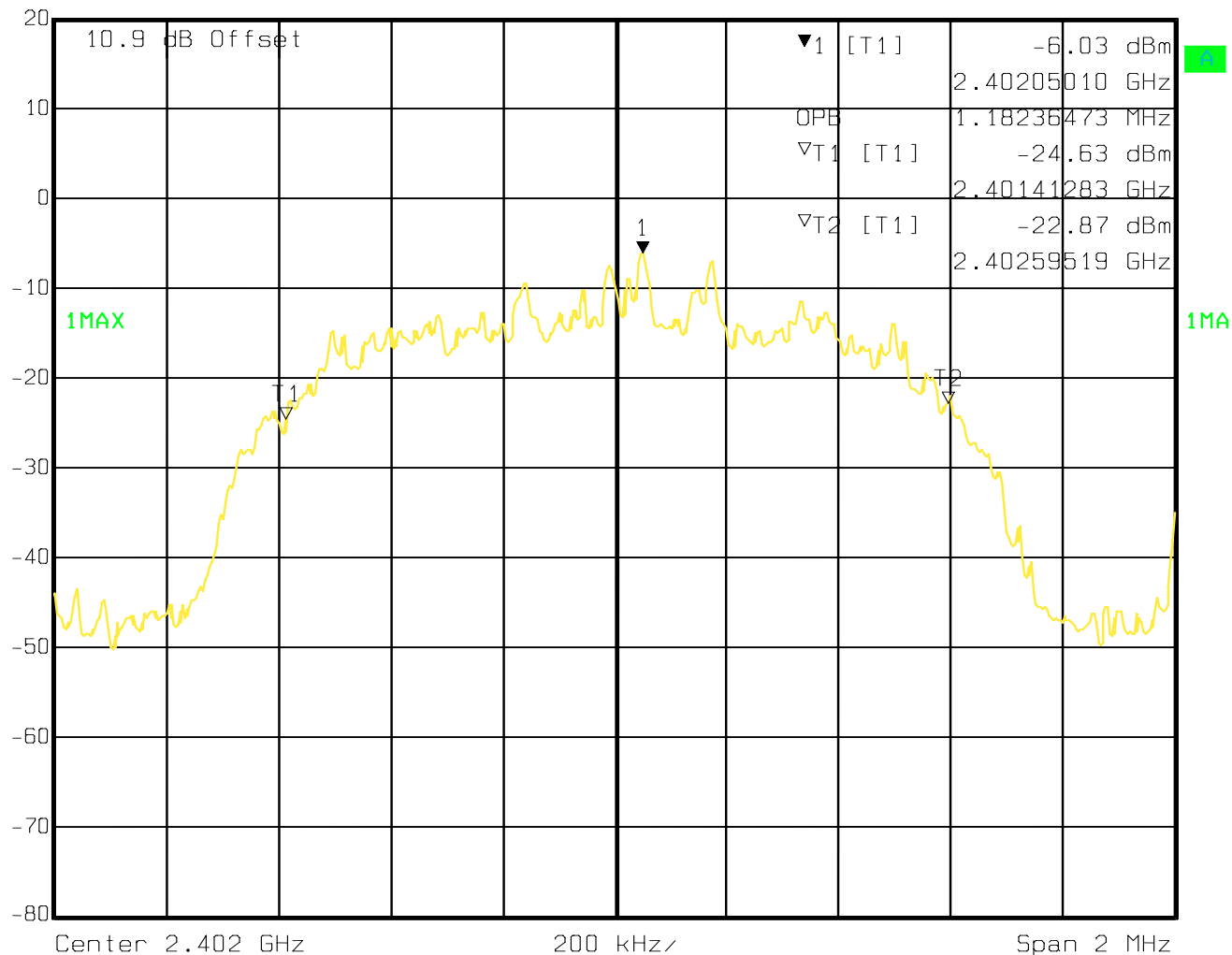

 Ref Lvl 20 dBm
 Marker 1 [T1] -7.87 dBm
 2.48005010 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 16:39:59

20dB Bandwidth 8PSK 2402MHz

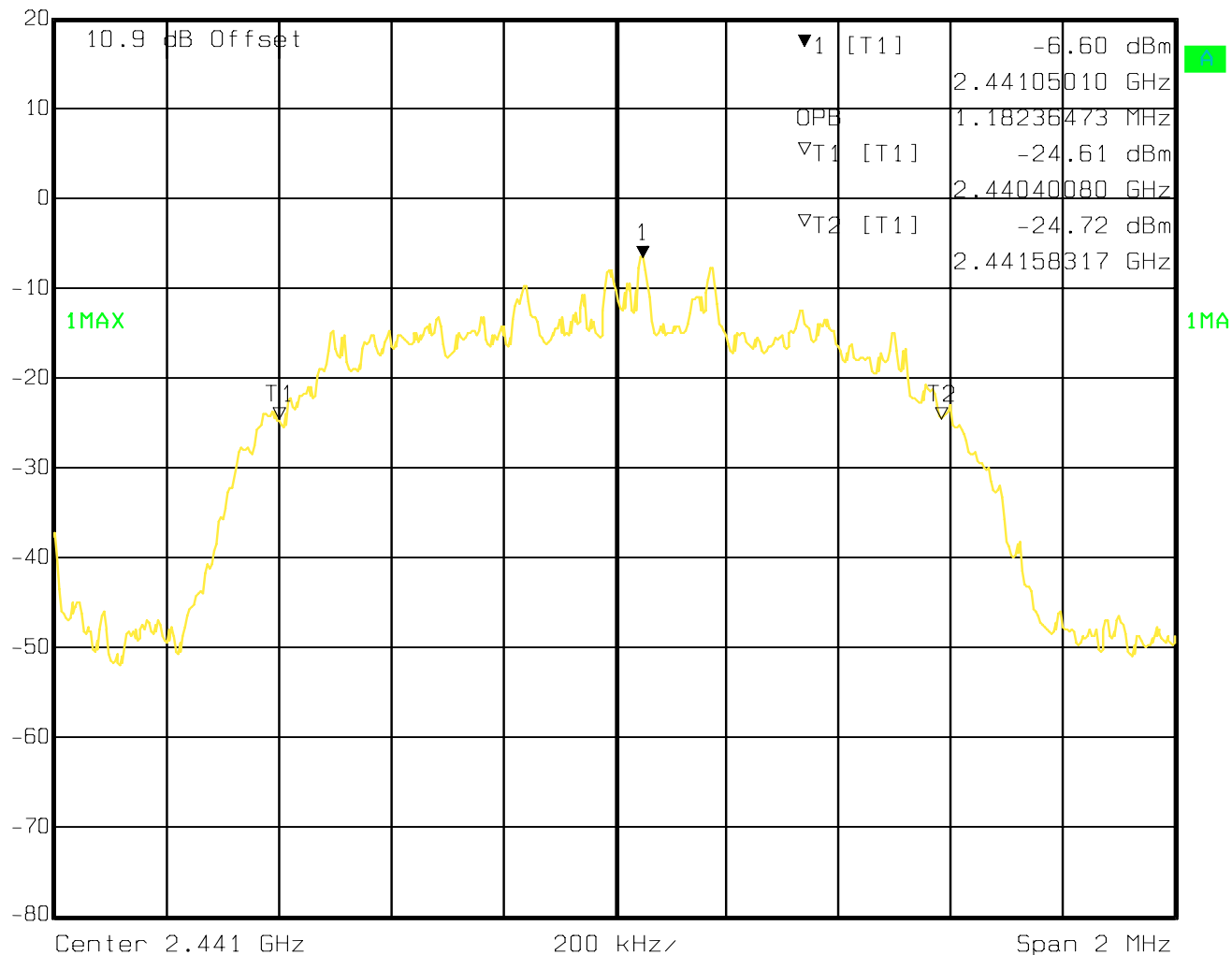

 Ref Lvl 20 dBm
 Marker 1 [T1] -6.03 dBm
 2.40205010 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 16:30:58

20dB Bandwidth 8PSK 2441MHz

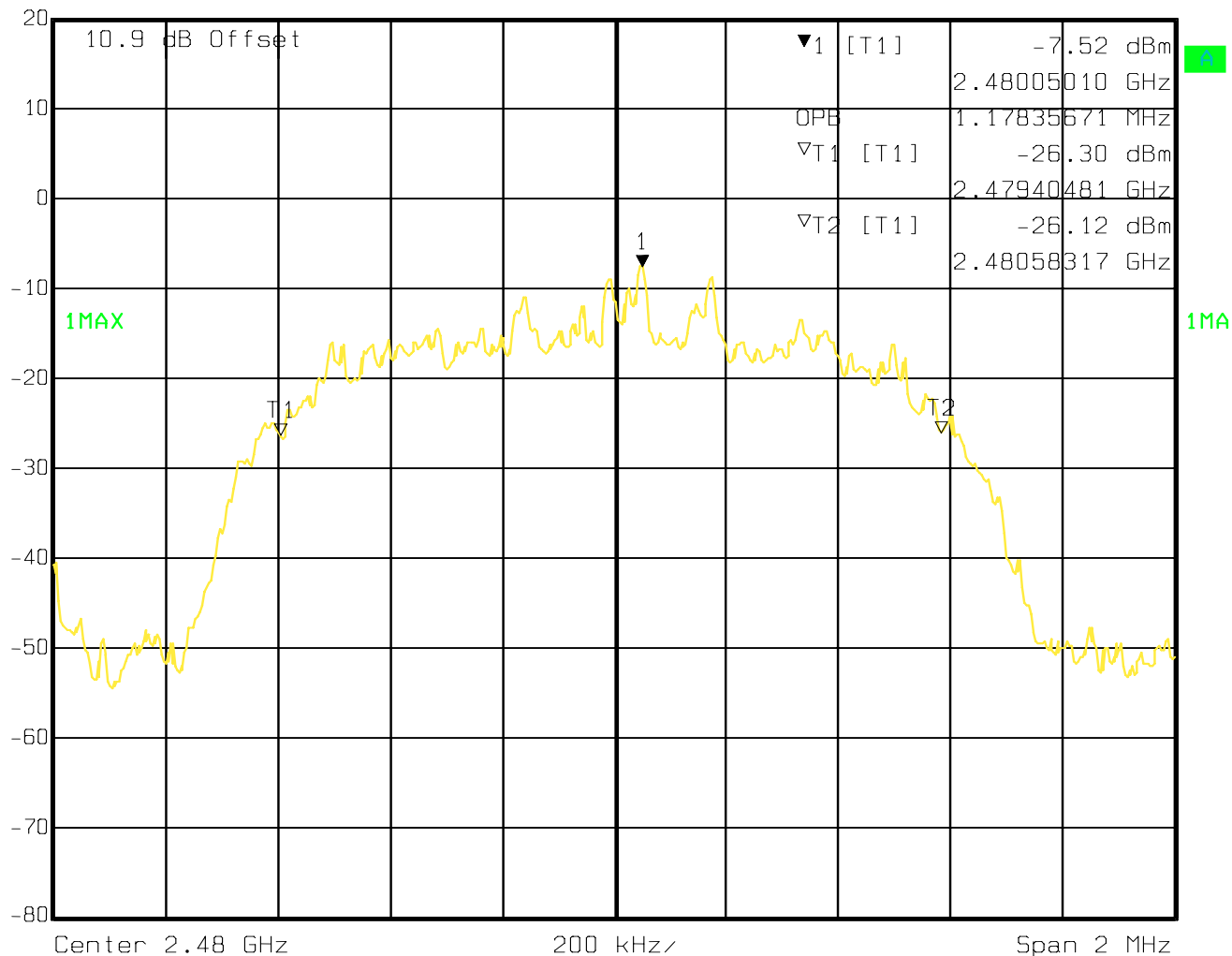

 Ref Lvl 20 dBm
 Marker 1 [T1] -6.60 dBm
 2.44105010 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 16:32:38

20dB Bandwidth 8PSK 2480MHz


 Ref Lvl 20 dBm
 Marker 1 [T1] -7.52 dBm
 2.48005010 GHz
 RBW 10 kHz RF Att 30 dB
 VBW 10 kHz
 SWT 50 ms Unit dBm



Date: 14.JAN.2010 16:41:29

5.6 Carrier Frequency Separation

5.6.1 Limits: § 15.247 (a) (1)

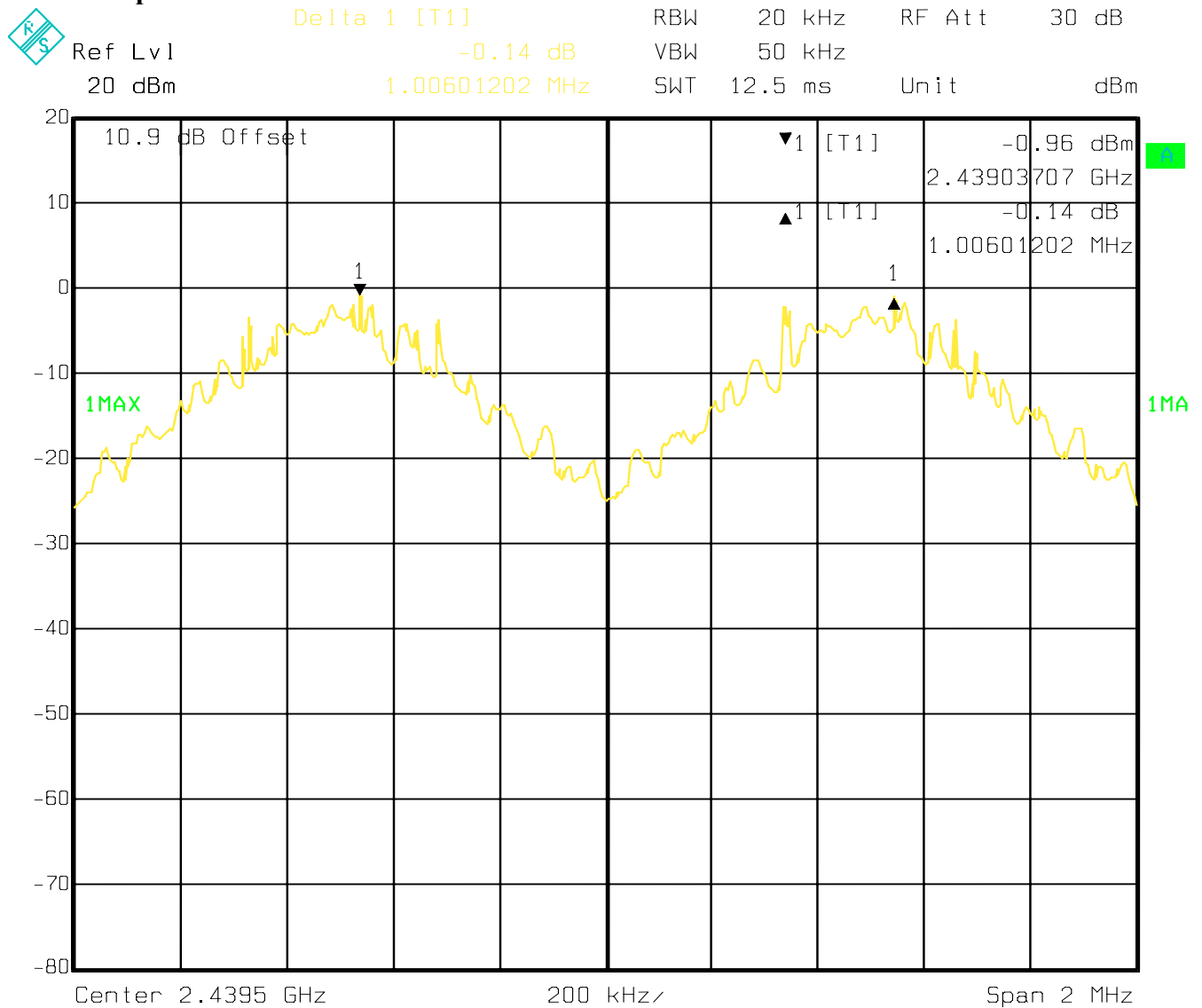
Minimum 25kHz or 2/3 of the 20dB bandwidth of the hopping system

5.6.2 Test Result:

Modulation: GFSK

Channel Separation: 1.01 MHz

5.6.3 Test Data/plot:



Date: 14.JAN.2010 17:24:13

5.7 Number of hopping channels

5.7.1 Limits: § 15.247 (a) (1)

Atleast 15 non-overlapping channels

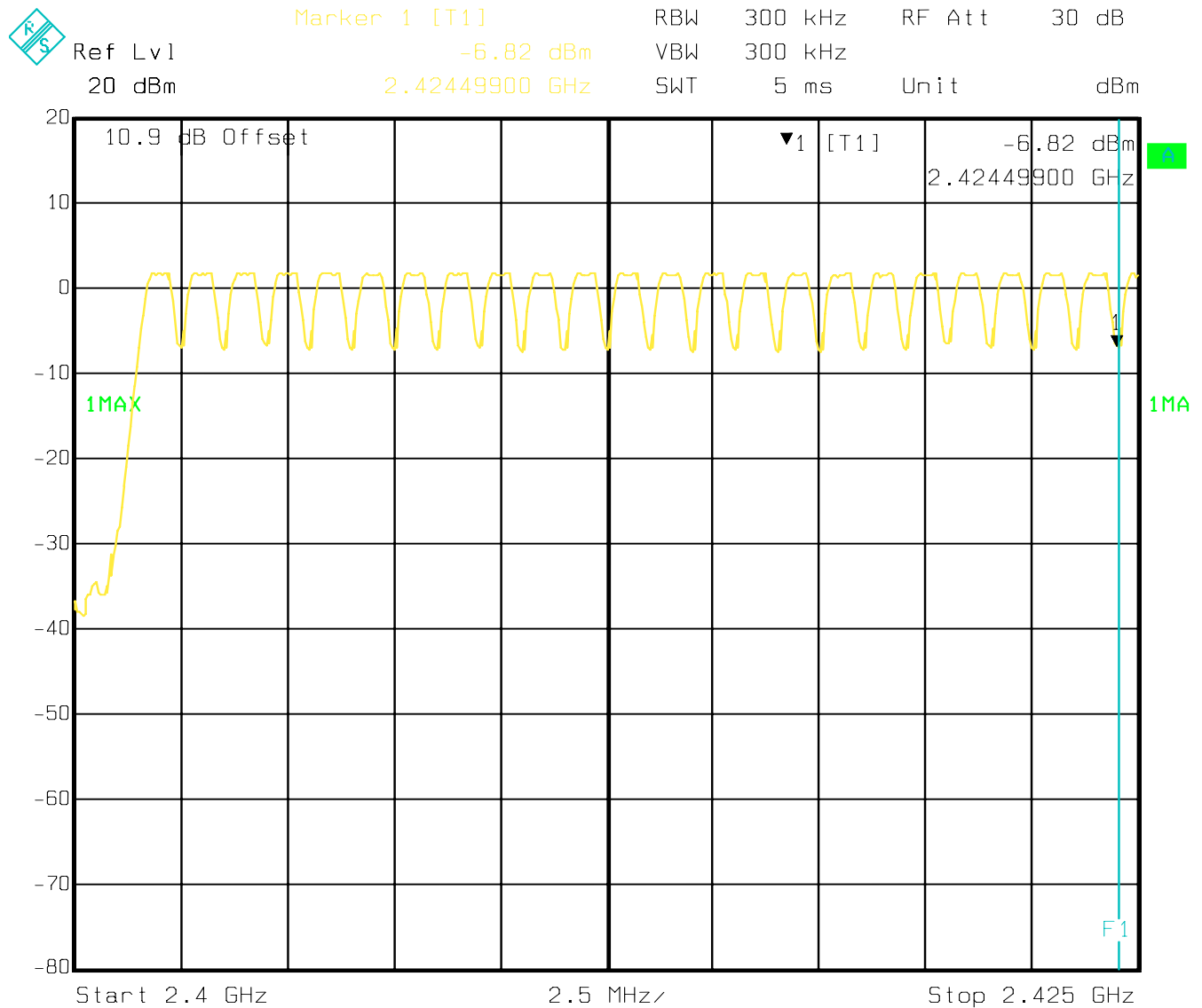
5.7.2 Test Result:

Modulation: GFSK

Number of hopping channels: 79

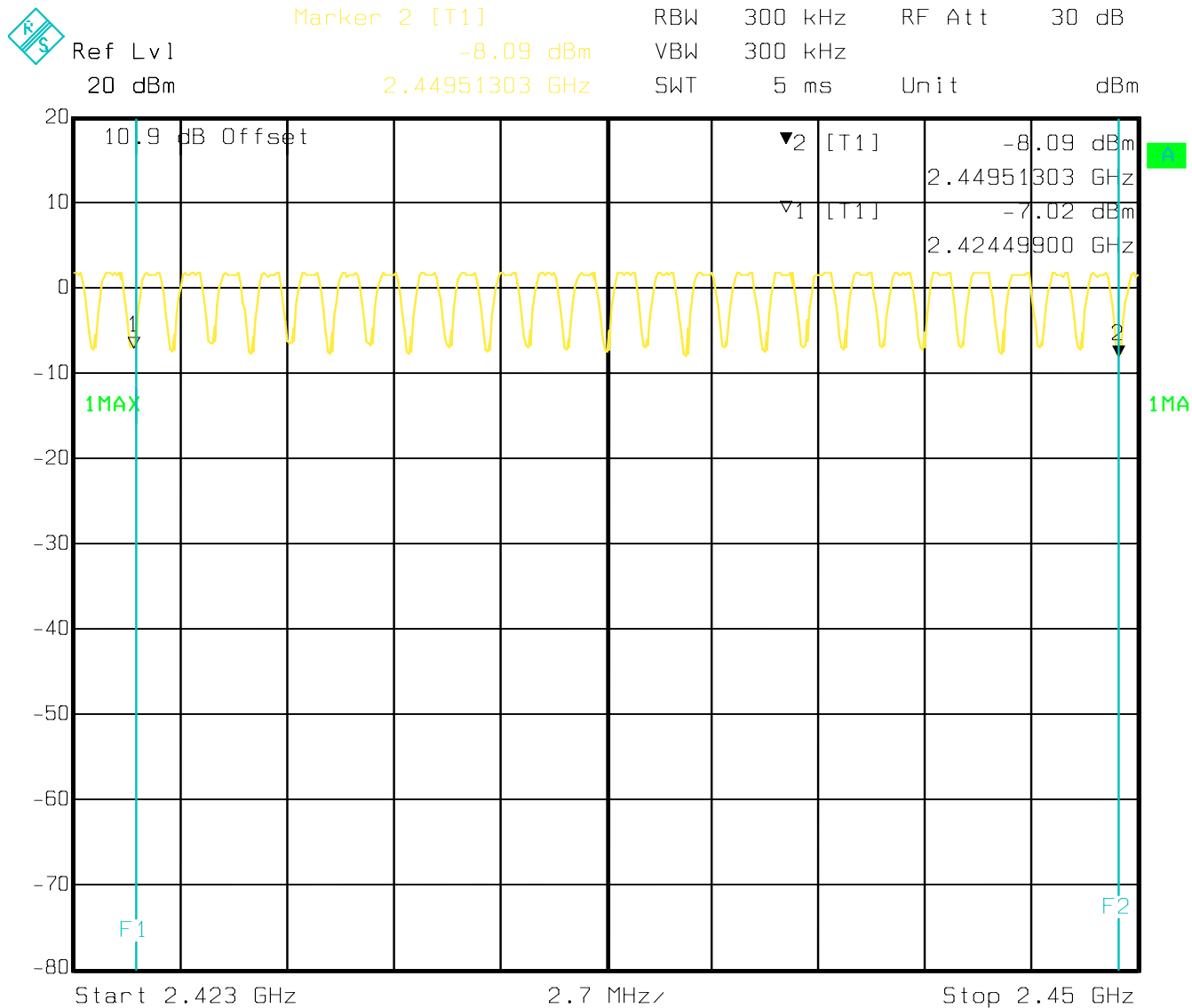
5.7.3 Test Data/plot:

2400 – 2425 MHz



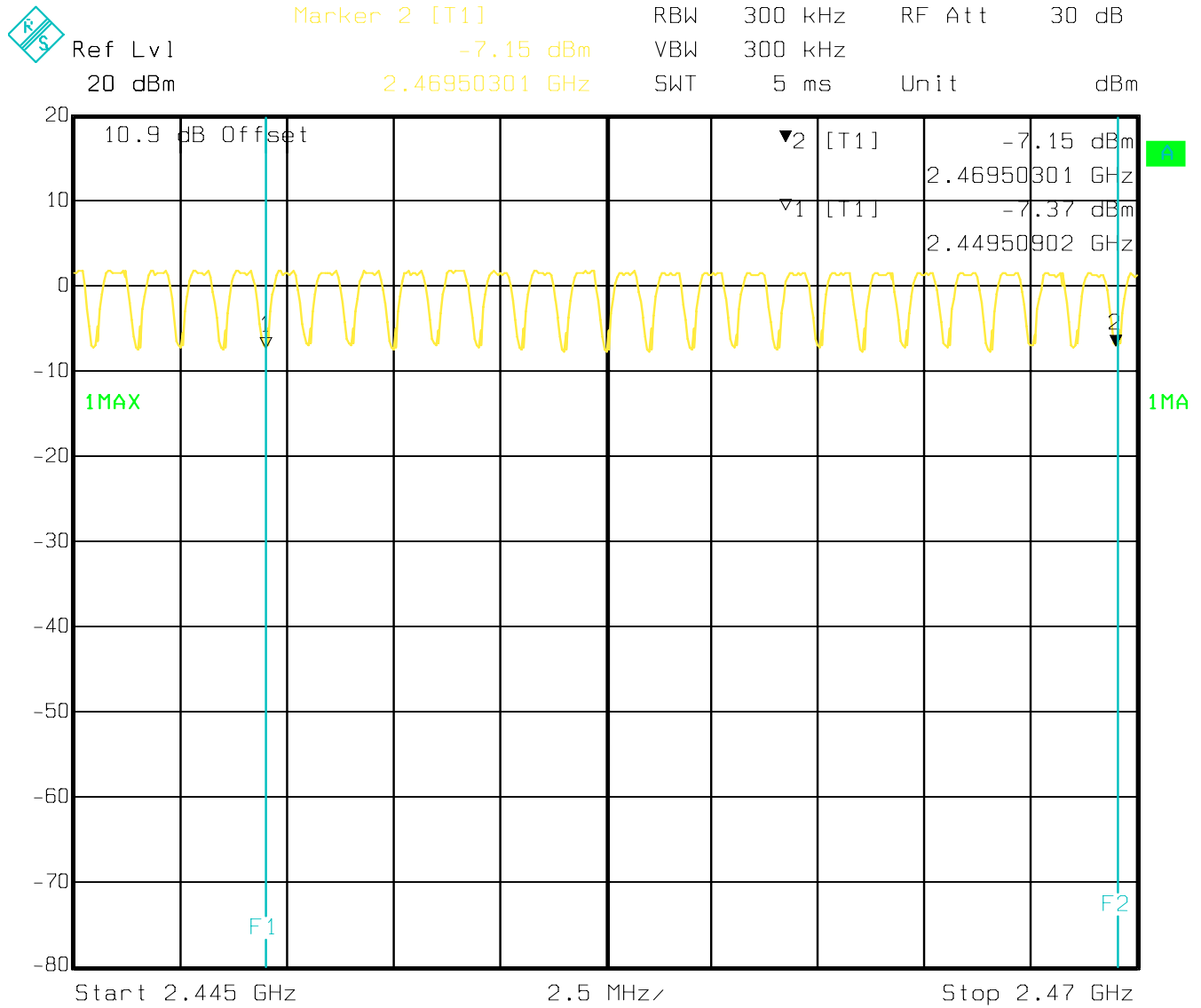
Date: 14.JAN.2010 16:54:16

2423 – 2450 MHz



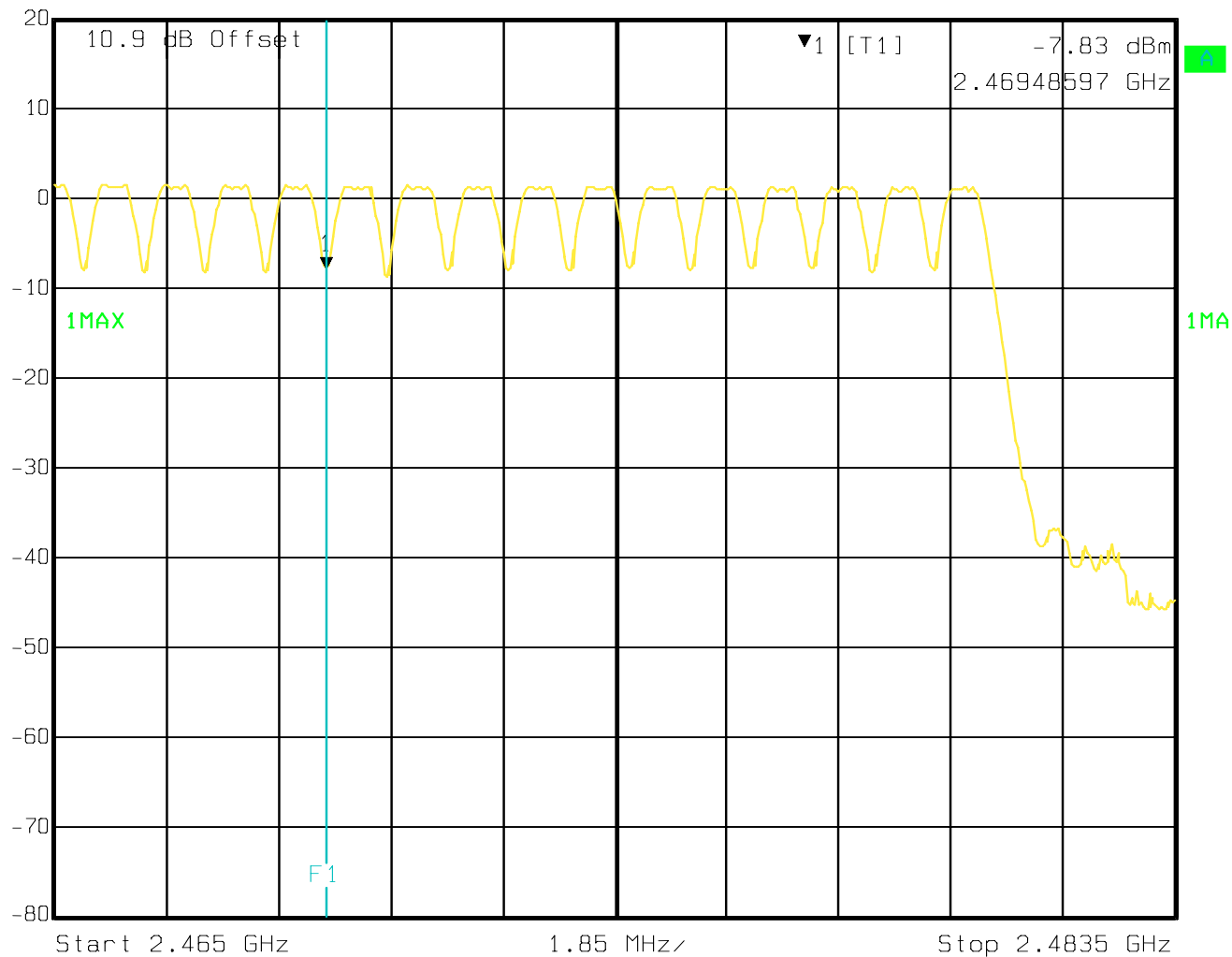
Date: 14.JAN.2010 16:56:08

2445 – 2470 MHz



Date: 14.JAN.2010 16:58:08

CETECOM™



Date: 14.JAN.2010 17:00:03

5.8 Time of occupancy (Dwell time)

5.8.1 Limits: § 15.247 (a) (1) (iii)

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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

5.8.2 Test Result:

Result: 0.312s

For Bluetooth devices:

The dwell time of 0.4 s within a 31.6 second period in data mode is independent from the packet type (packet length). The calculation for a 31.6 second period is as follows:

Dwell time = time slot length * hop rate / number of hopping channels * 31.6 s

Example for a DH1 packet (with a maximum length of one time slot)

Dwell time = $625 \mu\text{s} * 1600 \text{ 1/s} / 79 * 31.6 \text{ s} = 0.4 \text{ s}$ (in a 31.6 s period)

For multi-slot packet the hopping is reduced according to the length of the packet.

Example for a DH5 packet (with a maximum length of five time slots)

Dwell time = $5 * 625 \mu\text{s} * 1600 * 1/5 * 1/s / 79 * 31.6 \text{ s} = 0.4 \text{ s}$ (in a 31.6 s period)

This is according to Bluetooth Core Specification for all Bluetooth devices. Therefore all BT devices satisfy FCC requirement on time of occupancy (dwell time) in the data mode.

5.9 Power Spectral Density (Hybrid system in Inquiry mode/ Page scan)

5.9.1 Limits: § 15.247 (e)

For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

5.9.2 Test Result:

Not Applicable.

5.10 Transmitter Spurious Emissions- Conducted

5.10.1 Limits: § 15.247 (d)

30dBm for the transmitter.

-20dBc in the frequency range 30MHz- 25GHz.

5.10.2 Test Conditions:

Modulation: GFSK

Analyzer settings: RBW=VBW=100 kHz

5.10.3 Test data/ plots:

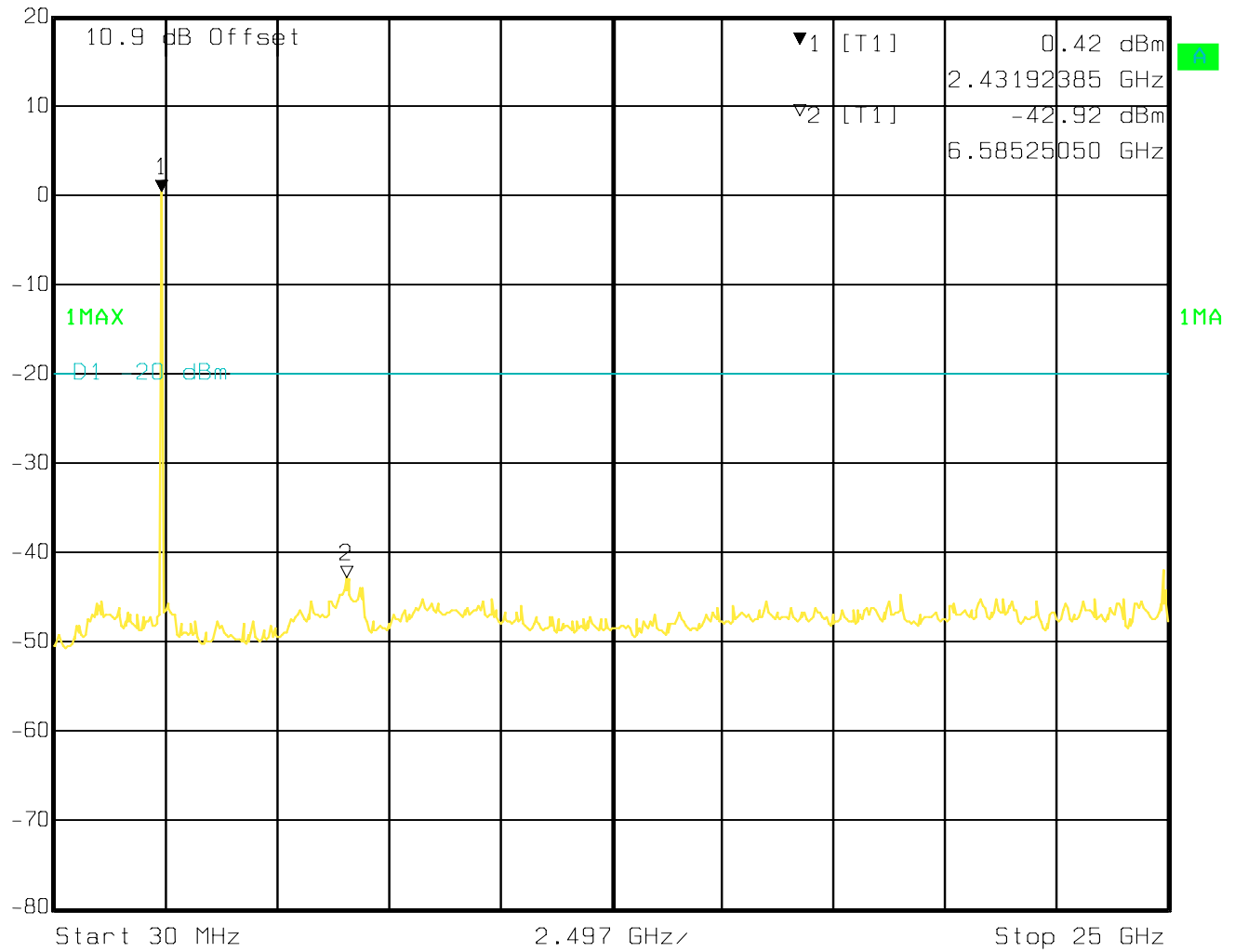
Note: Results for Co-location represent worst case for all operating modes and channels.

Conducted Spurious Emissions			
Channel	Frequency (MHz)	Amplitude (dBm)	Limits
Low	2402	1.46	30dBm
	No critical peaks		-20dBc
Mid	2442	0.42	30 dBm
	No critical peaks		-20dBc
High	2480	0.30	30 dBm
	No critical peaks		-20dBc
Co-Location with WLAN	BT: 2442 WLAN: 2412	0.58	30 dBm
	No critical peaks		-20dBc
Measurement Uncertainty: ±1 dB			

Date: 14.JAN.2010 17:25:54

Conducted Spurious Emission 2441 MHz

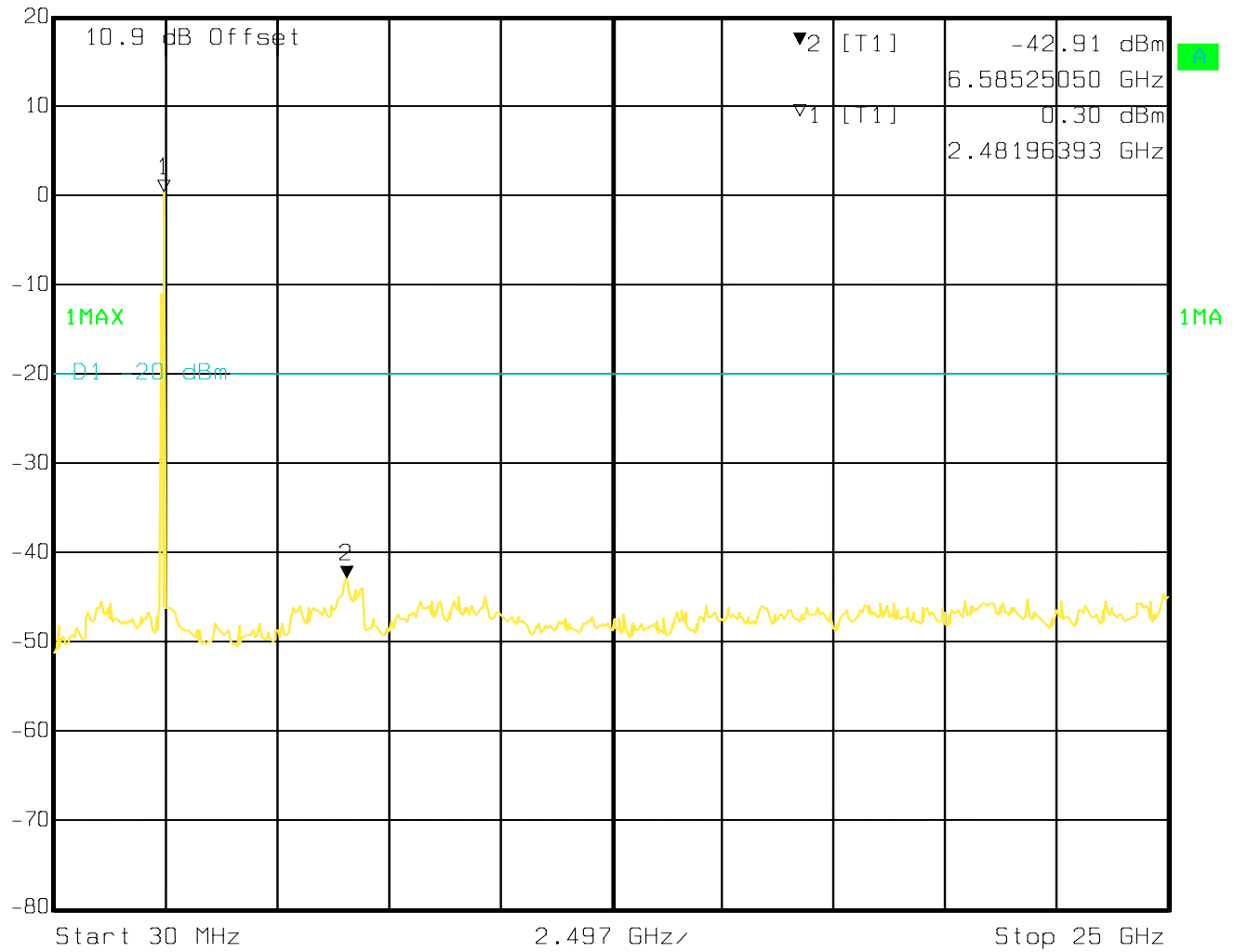

 Ref Lvl 20 dBm
 Marker 1 [T1] 0.42 dBm
 2.43192385 GHz
 RBW 100 kHz RF Att 30 dB
 VBW 300 kHz
 SWT 6.4 s Unit dBm



Date: 14.JAN.2010 17:26:58

Conducted Spurious Emission 2480MHz

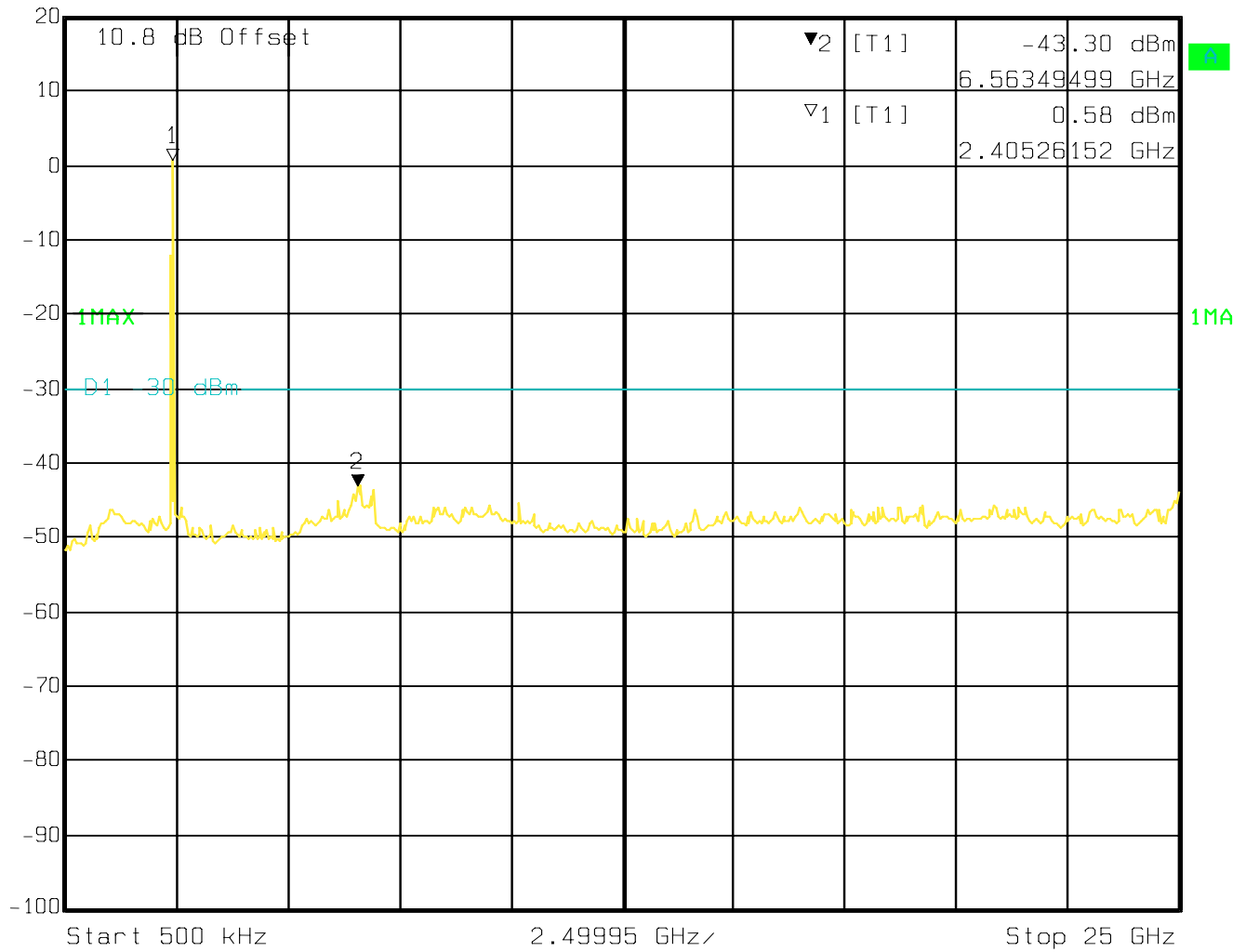

 Ref Lvl 20 dBm
 Marker 2 [T1] -42.91 dBm
 6.58525050 GHz
 RBW 100 kHz RF Att 30 dB
 VBW 300 kHz
 SWT 6.4 s Unit dBm



Date: 14.JAN.2010 17:27:55

Conducted Spurious Emission Co-Location


 Ref Lvl 20 dBm
 Marker 2 [T1] -43.30 dBm
 RBW 100 kHz RF Att 30 dB
 VBW 100 kHz
 6.56349499 GHz
 SWT 6.4 s Unit dBm



Date: 22.JAN.2010 07:54:28

5.11 Transmitter Spurious Emissions- Radiated

5.11.1 Limits: §15.247/15.205

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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	(²)
13.36 - 13.41			

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. 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) (see §15.205(c)).

*PEAK LIMIT= 74dB μ V/m

*AVG. LIMIT= 54dB μ V/m

5.11.2 Limits: §15.209

(For measurement distance of 3m)

Frequency of emission (MHz)	Field strength (μ V/m)
30–88	100 (40dB μ V/m)
88–216	150 (43.5 dB μ V/m)
216–960	200 (46 dB μ V/m)
Above 960	500 (54 dB μ V/m)

NOTE:

1. The radiated emissions were done with different settings, using the relevant pre-amplifiers for the relevant frequency ranges. This is the reason that the graphs show different noise levels. In the range between 3 and 25 GHz very short cable connections to the antenna was used to minimize the noise level.

2. All measurements are done in Peak mode using an Average limit, unless specified within the plots.

5.11.3 Limits: §15.209

Frequency of emission (MHz)	Field strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30

5.11.4 Test Result:

No significant emissions measurable. Measurements were made in GFSK mode. Plots reported here represent the worse case emissions for all modulations.

Plots for co-location represents worst case for all operating modes, channels, and configurations.

5.11.5 Test data/ plots – Standard Cover with AC Adapter #30:
30MHz – 1GHz: Low Channel

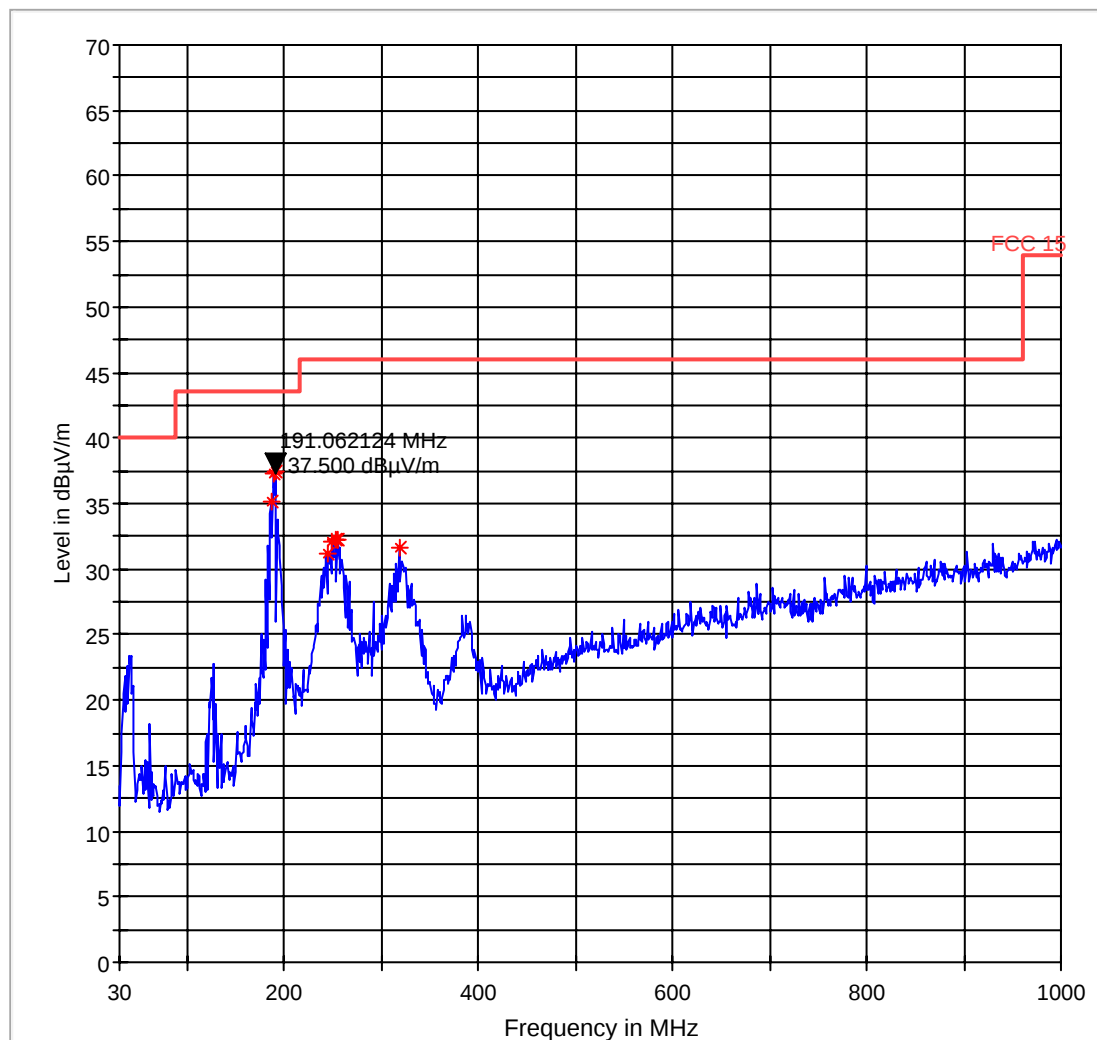
Standard CH 0

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	GFSK DH5 CH 0

FCC 15 30-1000MHz



— FCC 15.LimitLine — Preview Result 1 * Data Reduction 1 [1]

30MHz – 1GHz: Mid Channel

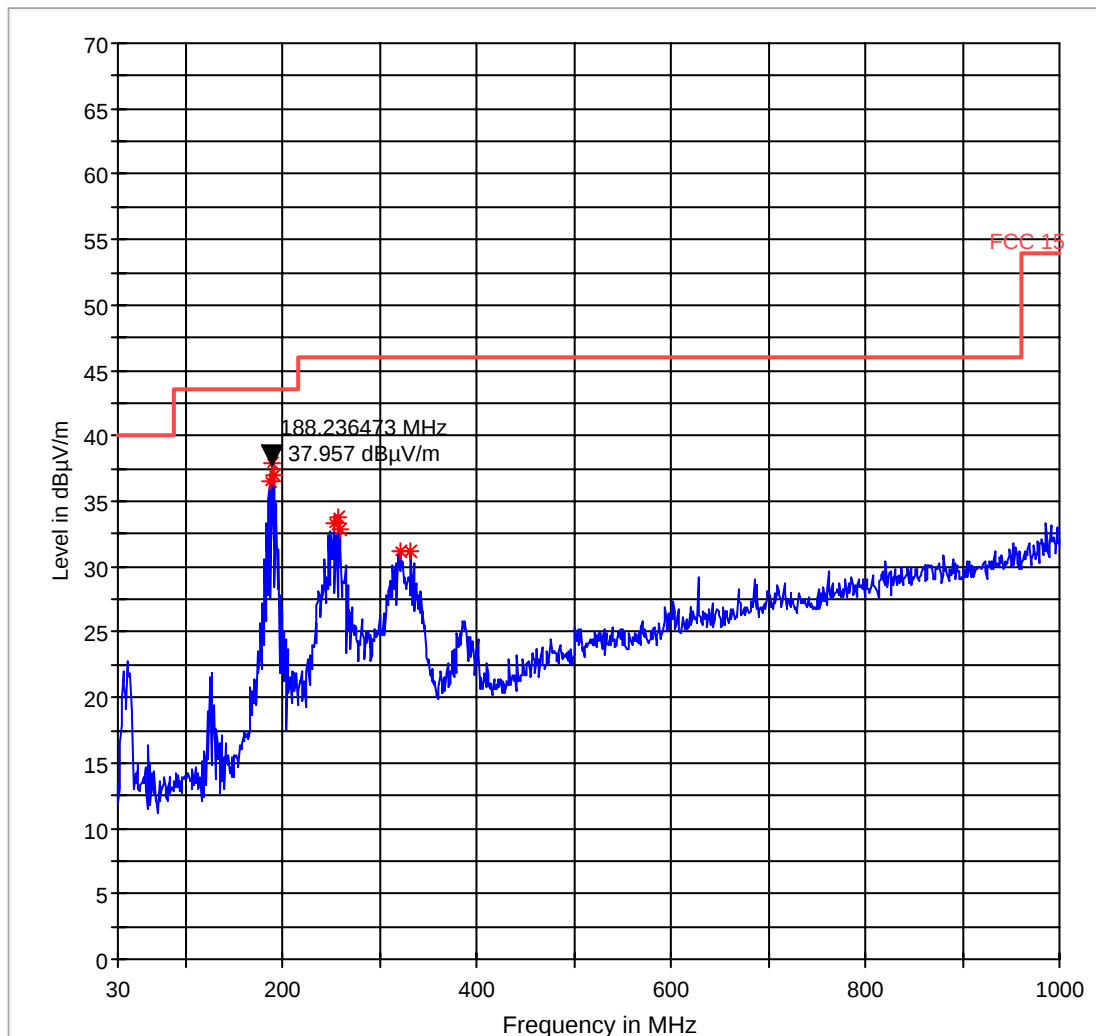
Standard CH 39

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	GFSK DH5 CH 39

FCC 15 30-1000MHz



— FCC 15.LimitLine — Preview Result 1 * Data Reduction 1 [1]

30MHz – 1GHz: High Channel

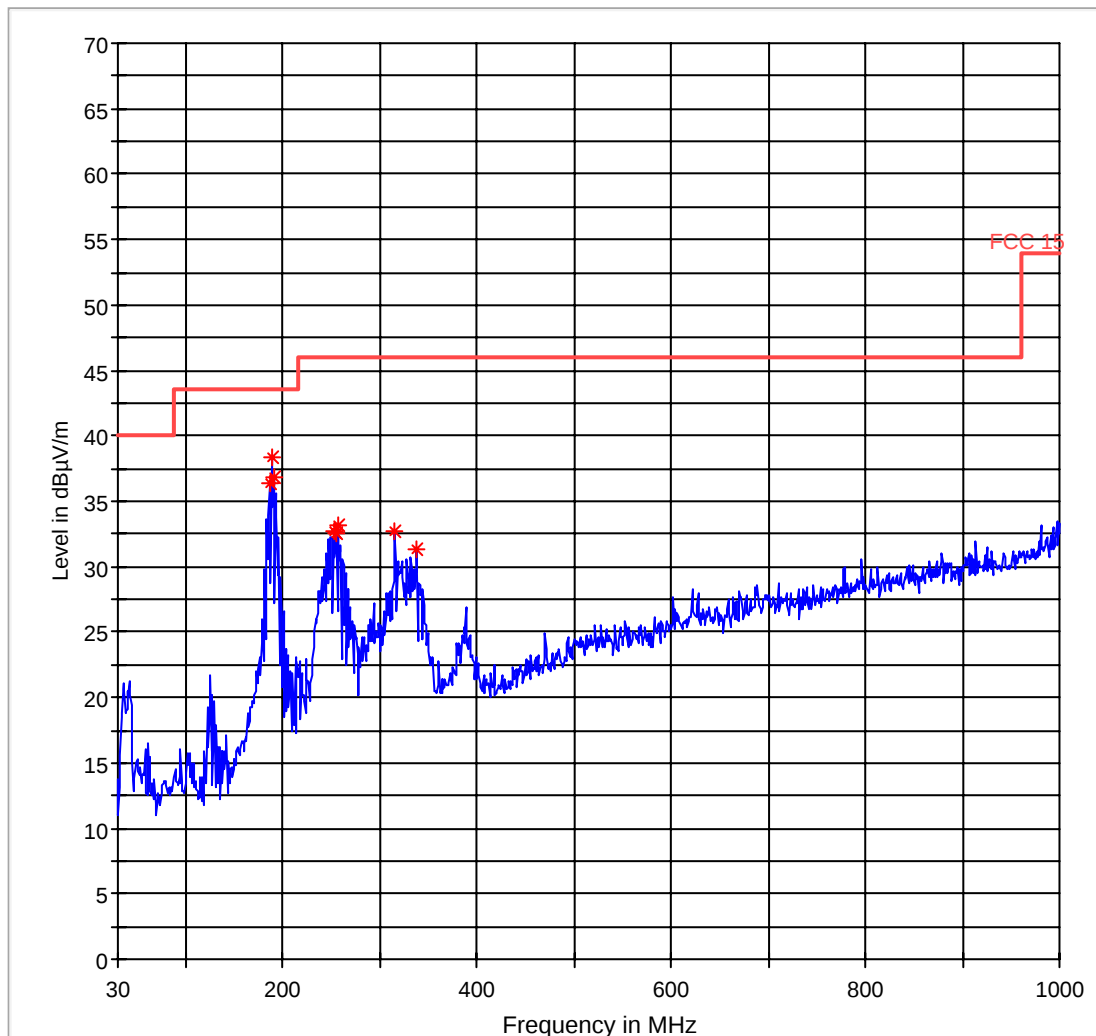
Standard CH 78

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	GFSK DH5 CH 78

FCC 15 30-1000MHz



— FCC 15.LimitLine — Preview Result 1 * Data Reduction 1 [1]

1GHz – 18GHz: Low Channel

EMI Auto Test(1)

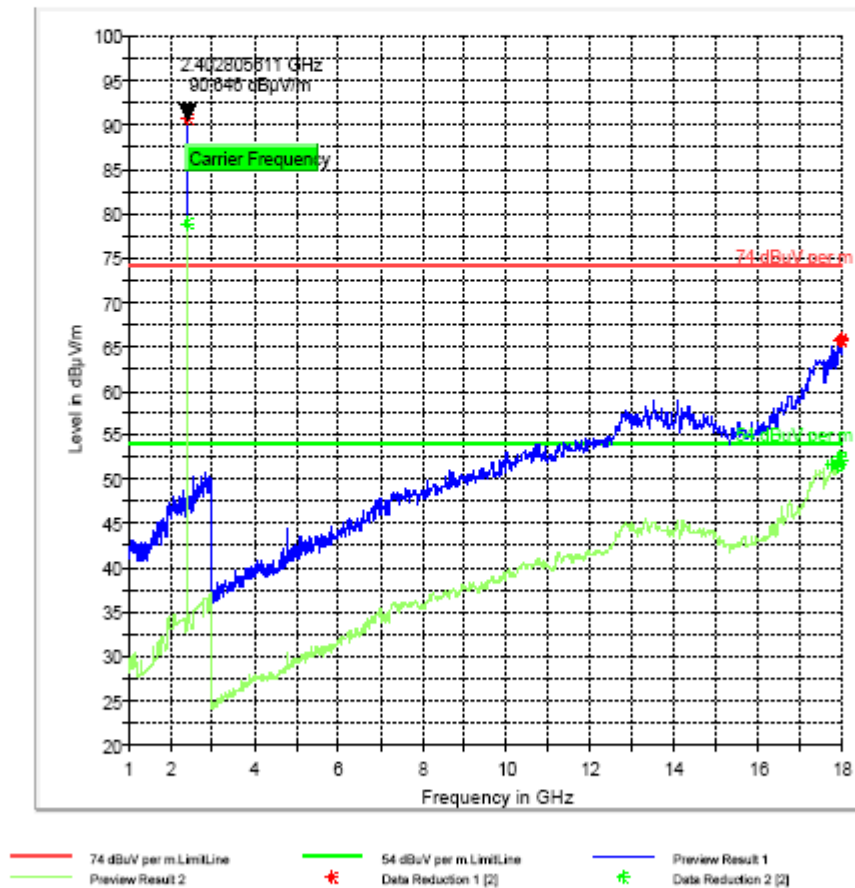
1 / 1

EMI Auto Test(1)

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Standard Cover and AC adapter #30
Comment:

FCC 15 1-18GHz



1GHz – 18GHz: Mid Channel

Ch 2

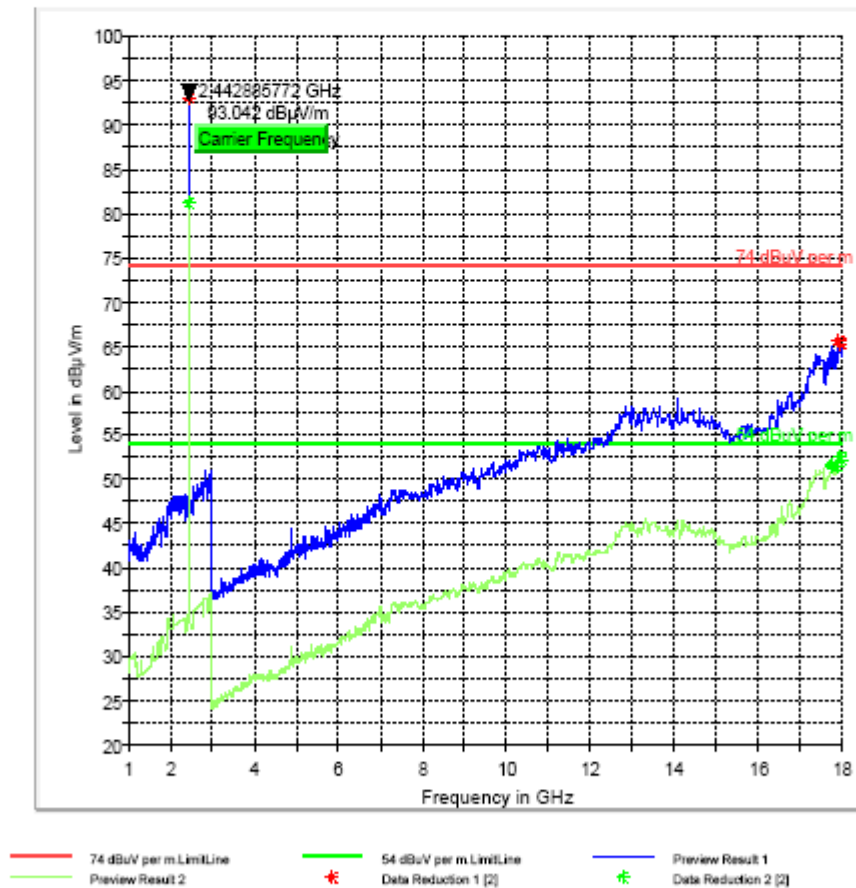
1 / 1

Ch 2

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: PD2BNBR98020
Configuration: Standard Cover and AC adapter #30
Comment:

FCC 15 1-18GHz



1GHz – 18GHz: High Channel

Ch 3

1 / 1

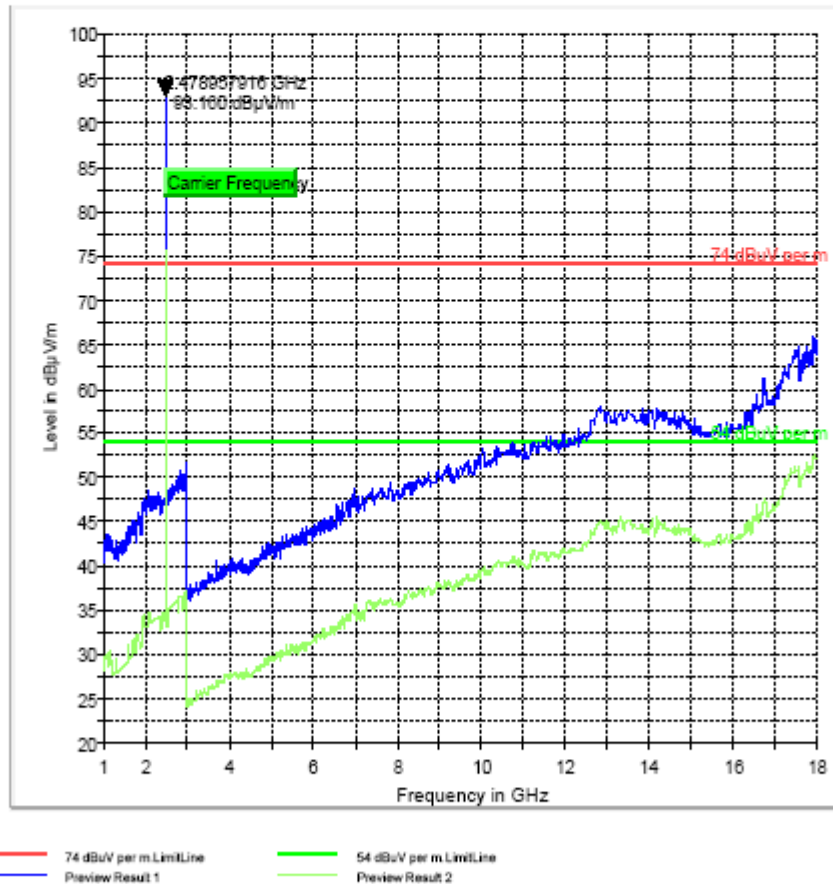
Ch 3

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	(FCC 15.247 Sample)
Configuration:	Standard Cover and AC adapter #30
Comment:	

FCC 15 1-18GHz



18GHz – 26GHz: Low Channel

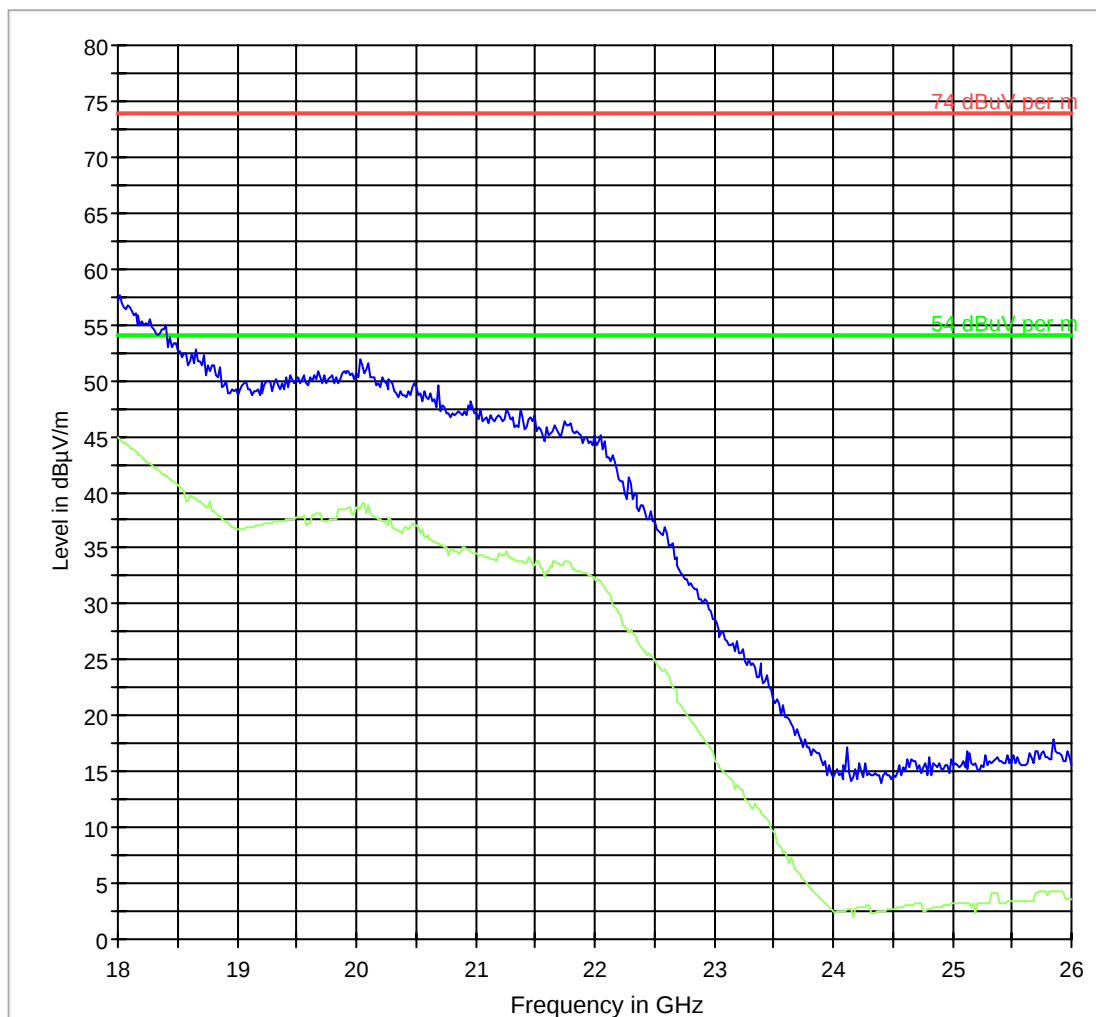
Standard CH 0

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	GFSK DH5 CH 0

FCC 15 18-26GHz



74 dBuV per m.LimitLine	54 dBuV per m.LimitLine
Preview Result 1	Preview Result 2

18GHz – 26GHz: Mid Channel

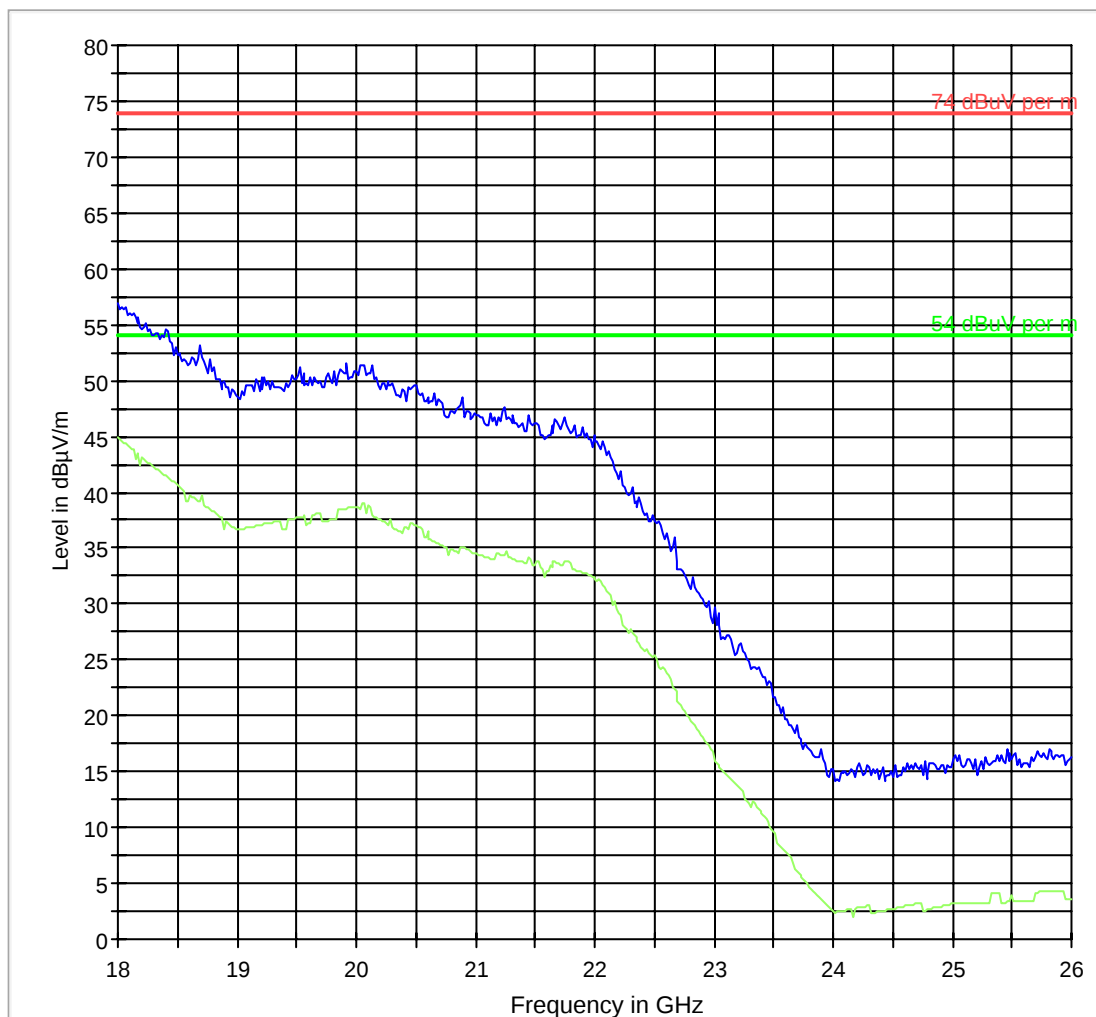
Standard CH 39

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	GFSK DH5 CH 39

FCC 15 18-26GHz



18GHz – 26GHz: High Channel

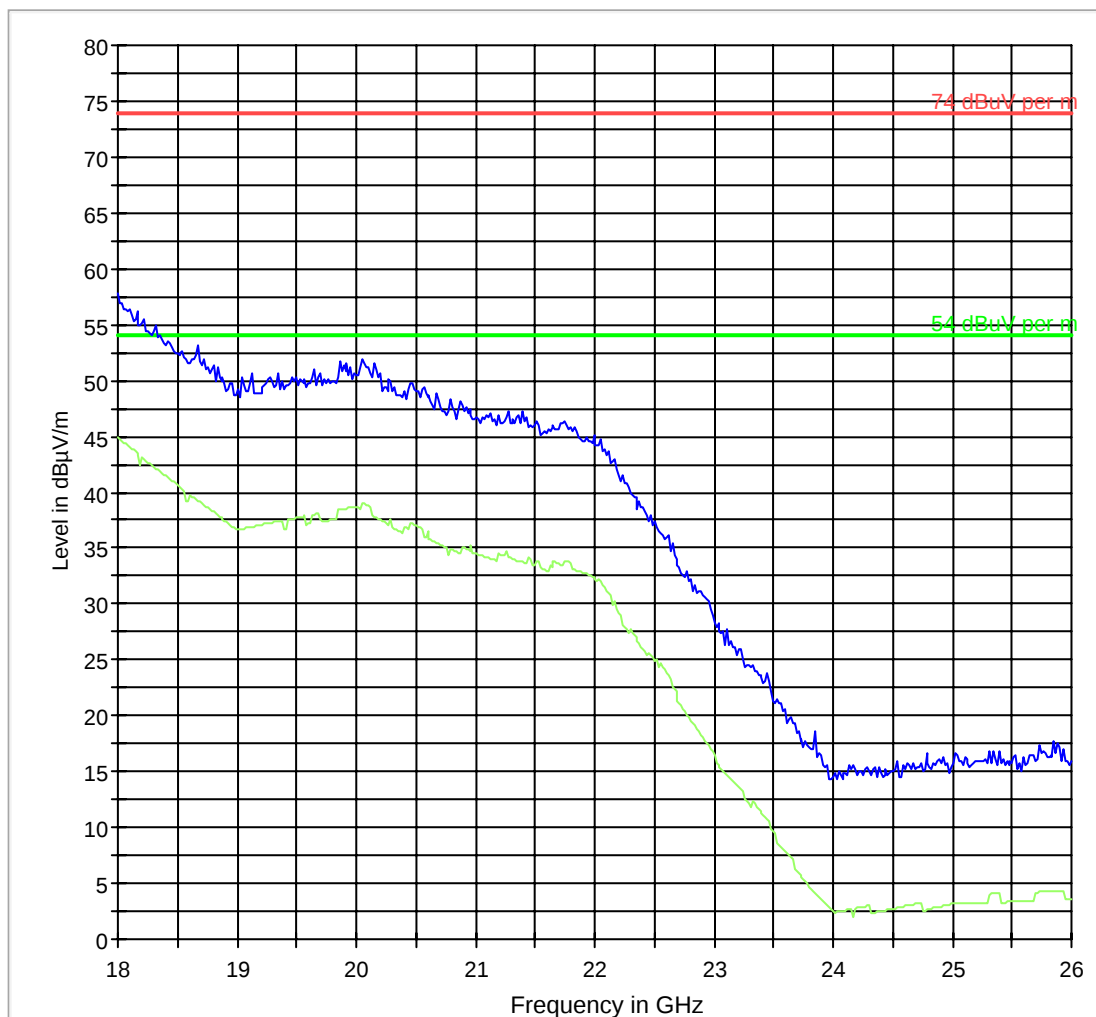
Standard CH 78

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Standard Cover and AC adapter #30
Comment:	GFSK DH5 CH 78

FCC 15 18-26GHz



— 74 dBuV per m.LimitLine	— 54 dBuV per m.LimitLine
— Preview Result 1	— Preview Result 2

5.11.6 Test data/ plots – Inductive cover with inductive dock and AC Adapter #30:
30MHz – 1GHz: Low Channel

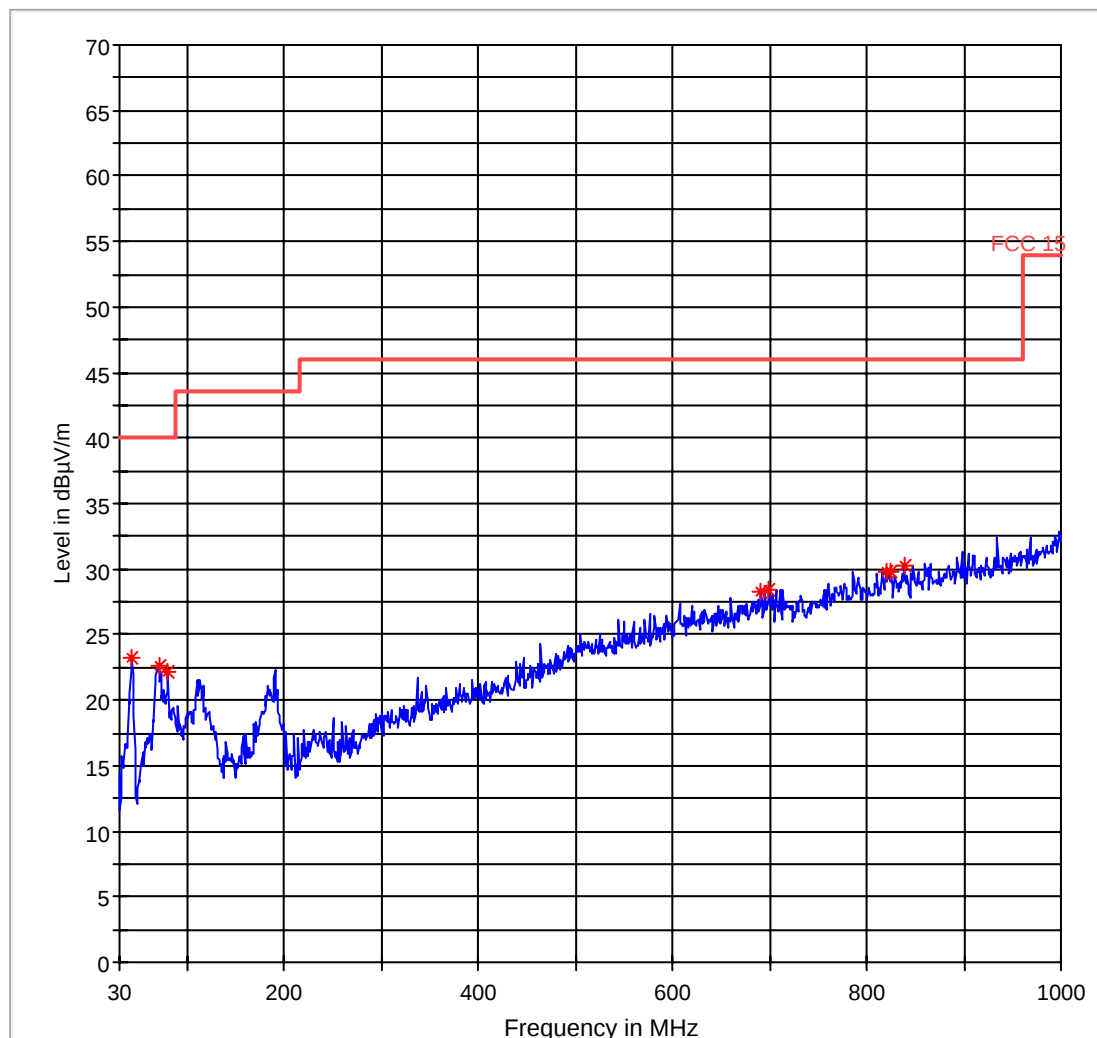
Inductive CH 0

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Inductive Cover w dock and AC adapter #30
Comment:	GFSK DH5 CH 0

FCC 15 30-1000MHz



— FCC 15.LimitLine — Preview Result 1 * Data Reduction 1 [1]

30MHz – 1GHz: Mid Channel

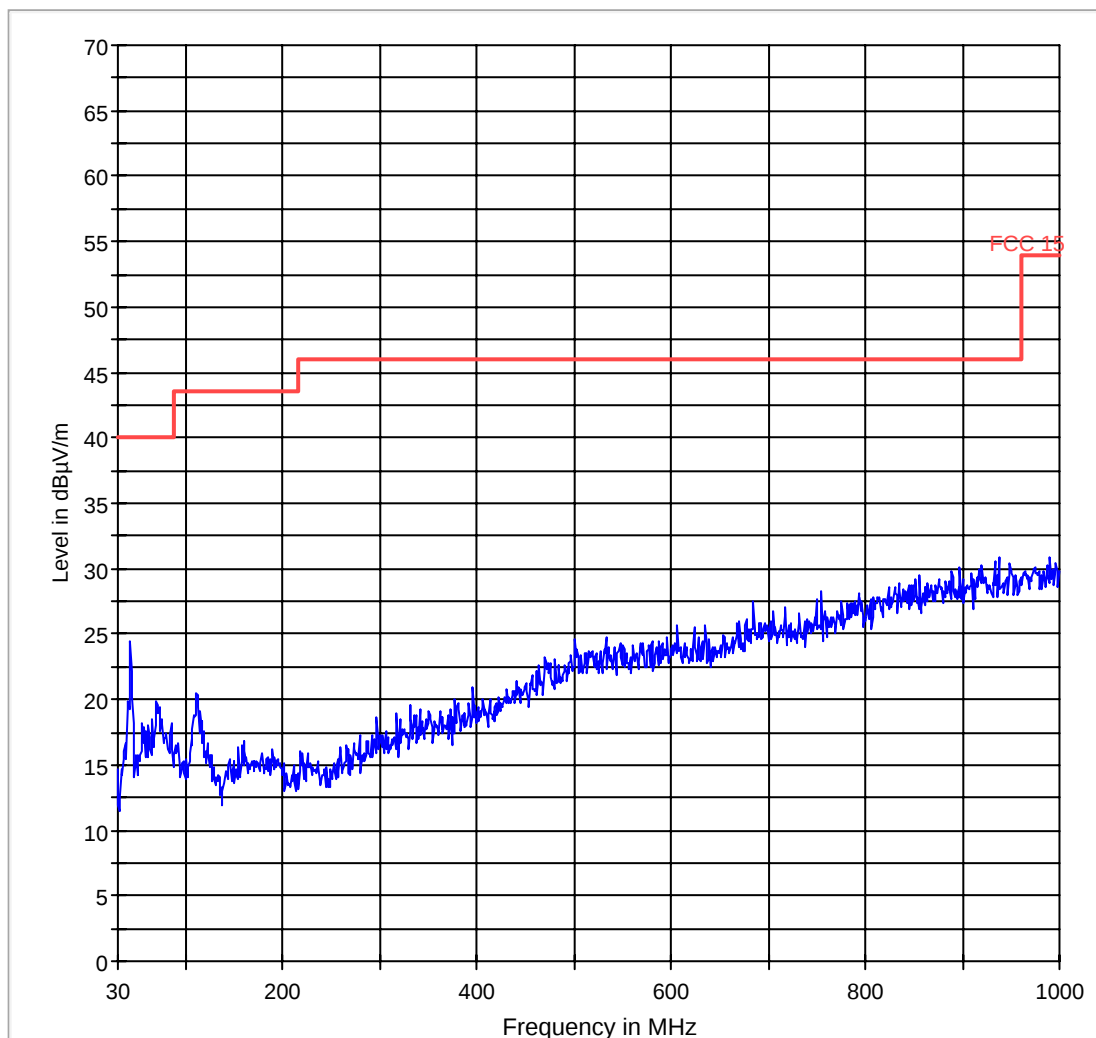
Inductive CH 39

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Inductive Cover w dock and AC adapter #30
Comment:	GFSK DH5 CH 39

FCC 15 30-1000MHz



— FCC 15.LimitLine

— Preview Result 1

30MHz – 1GHz: High Channel

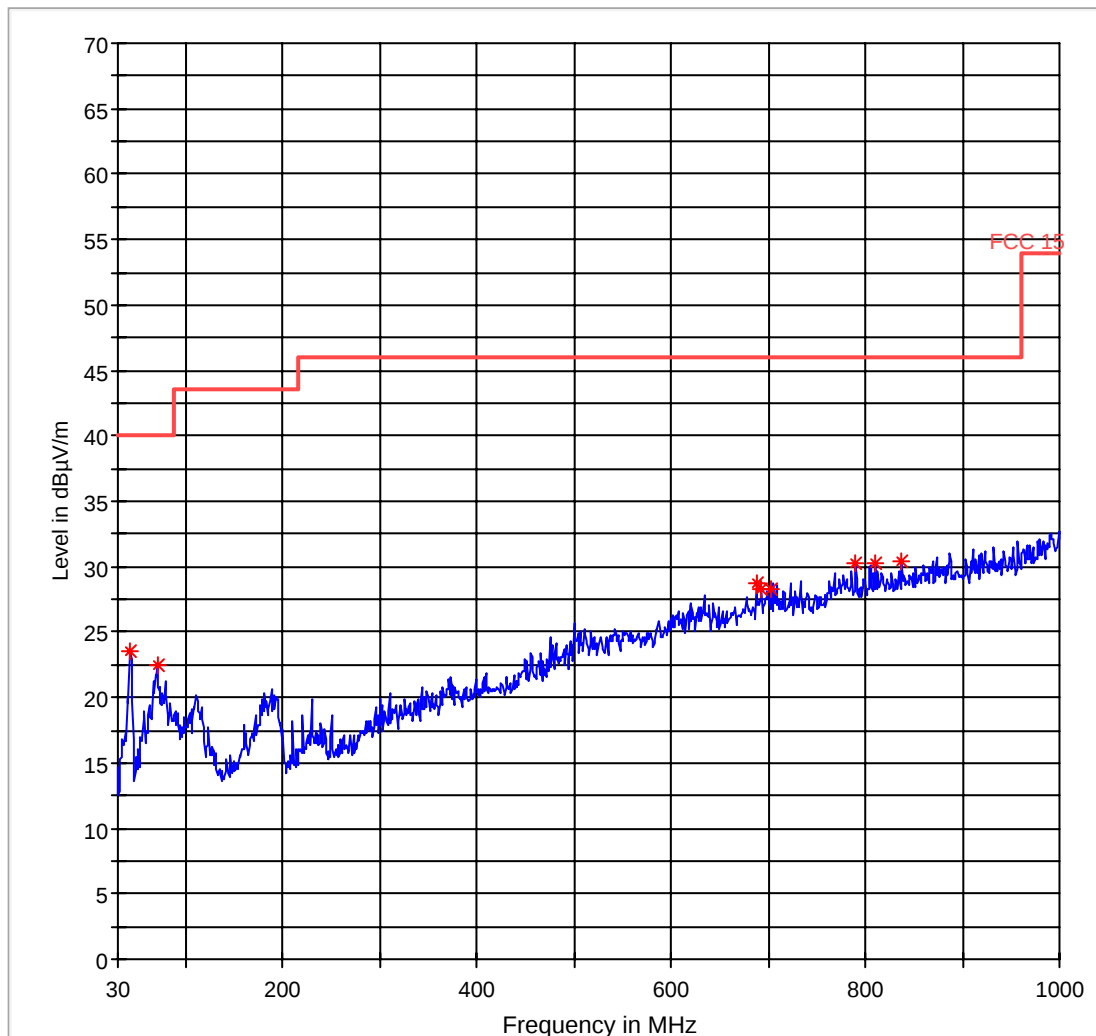
Inductive CH 78

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Inductive Cover w dock and AC adapter #30
Comment:	GFSK DH5 CH 78

FCC 15 30-1000MHz



1GHz – 18GHz: Low Channel

CH1

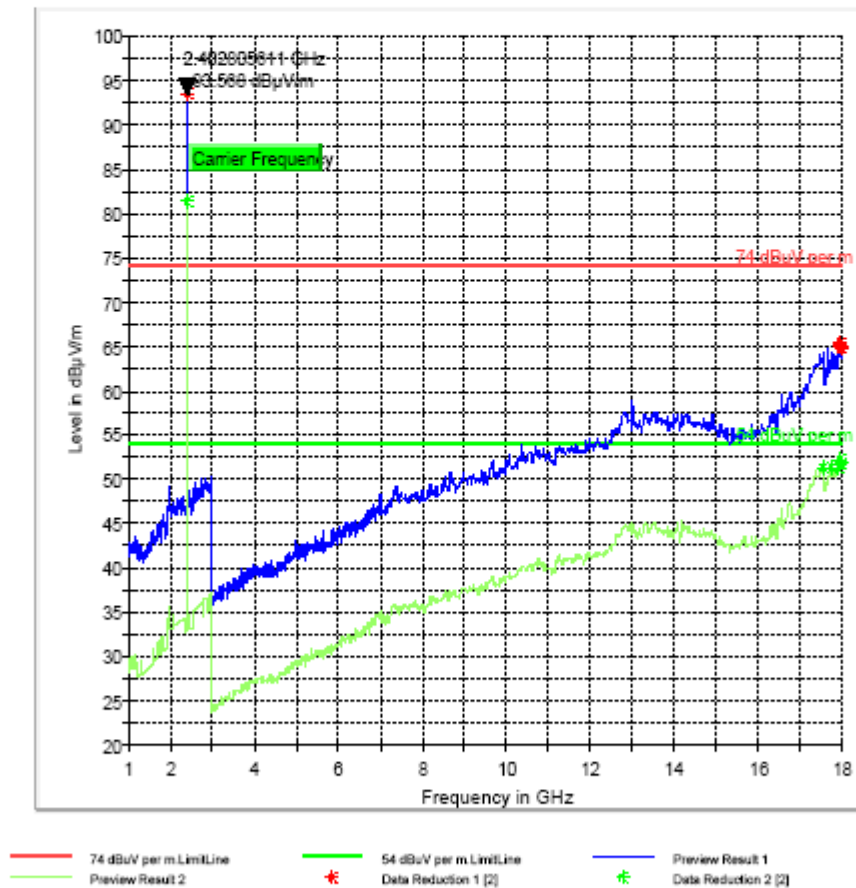
1 / 1

CH1

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Inductive Cover and AC adapter #30 and Inductive Dock
Comment:

FCC 15 1-18GHz



1GHz – 18GHz: Mid Channel

CH2

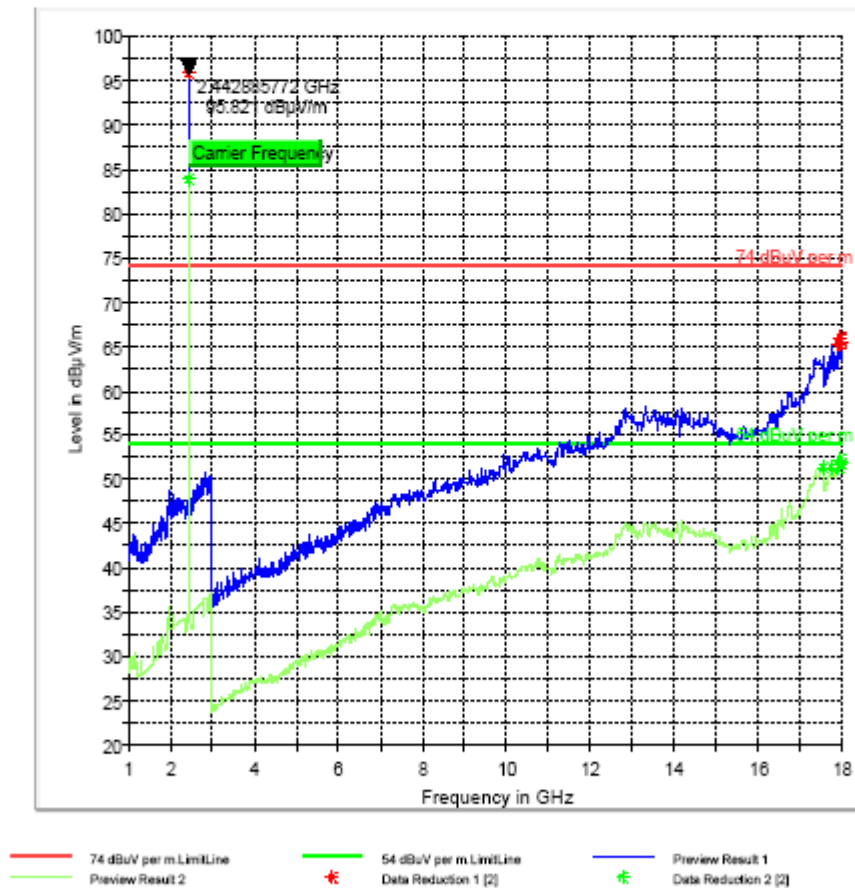
1 / 1

CH2

EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (FCC 15.247 Sample)
Configuration: Inductive Cover and AC adapter #30 and Inductive Dock
Comment:

FCC 15 1-18GHz



1GHz – 18GHz: High Channel

CH3

1 / 1

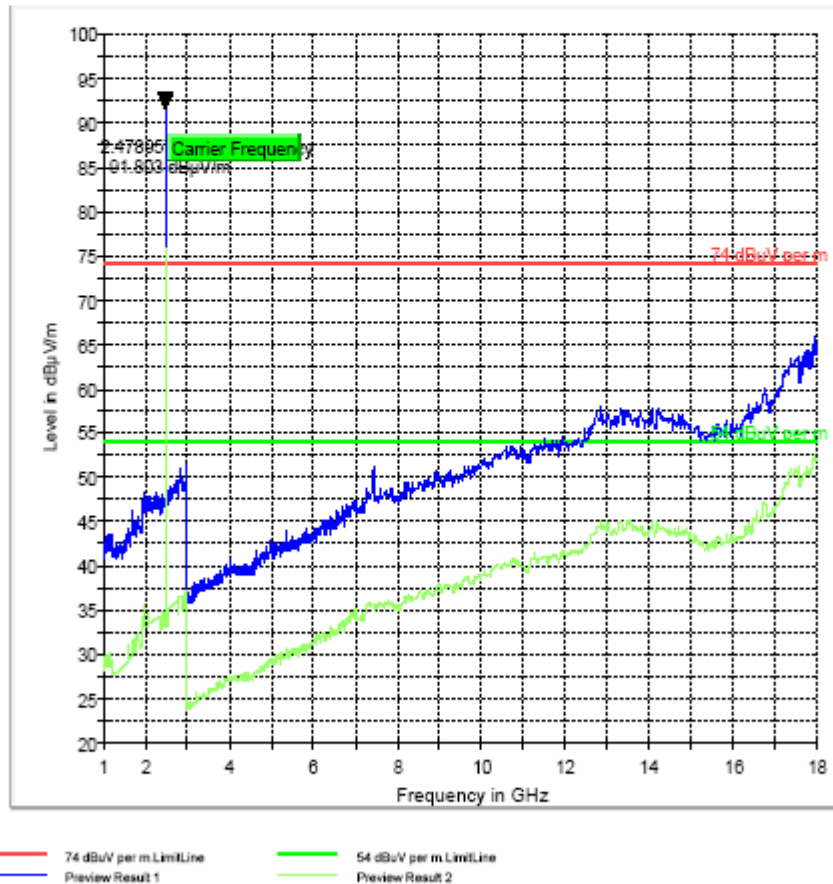
CH3

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	(FCC 15.247 Sample)
Configuration:	Inductive Cover and AC adapter #30 and Inductive Dock
Comment:	

FCC 15 1-18GHz



18GHz – 26GHz: Low Channel

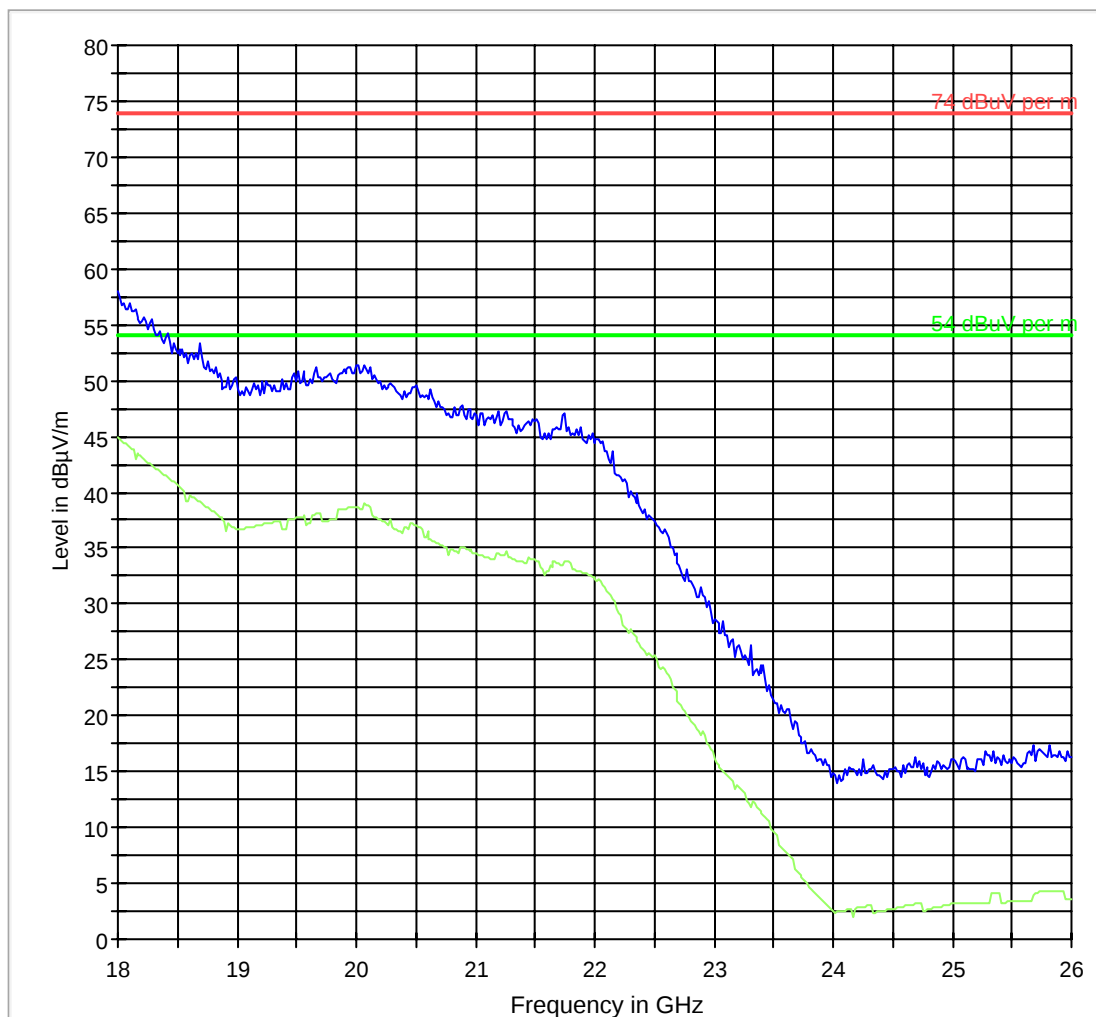
Inductive CH 0

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Inductive Cover w dock and AC adapter #30
Comment:	GFSK DH5 CH 0

FCC 15 18-26GHz



18GHz – 26GHz: Mid Channel

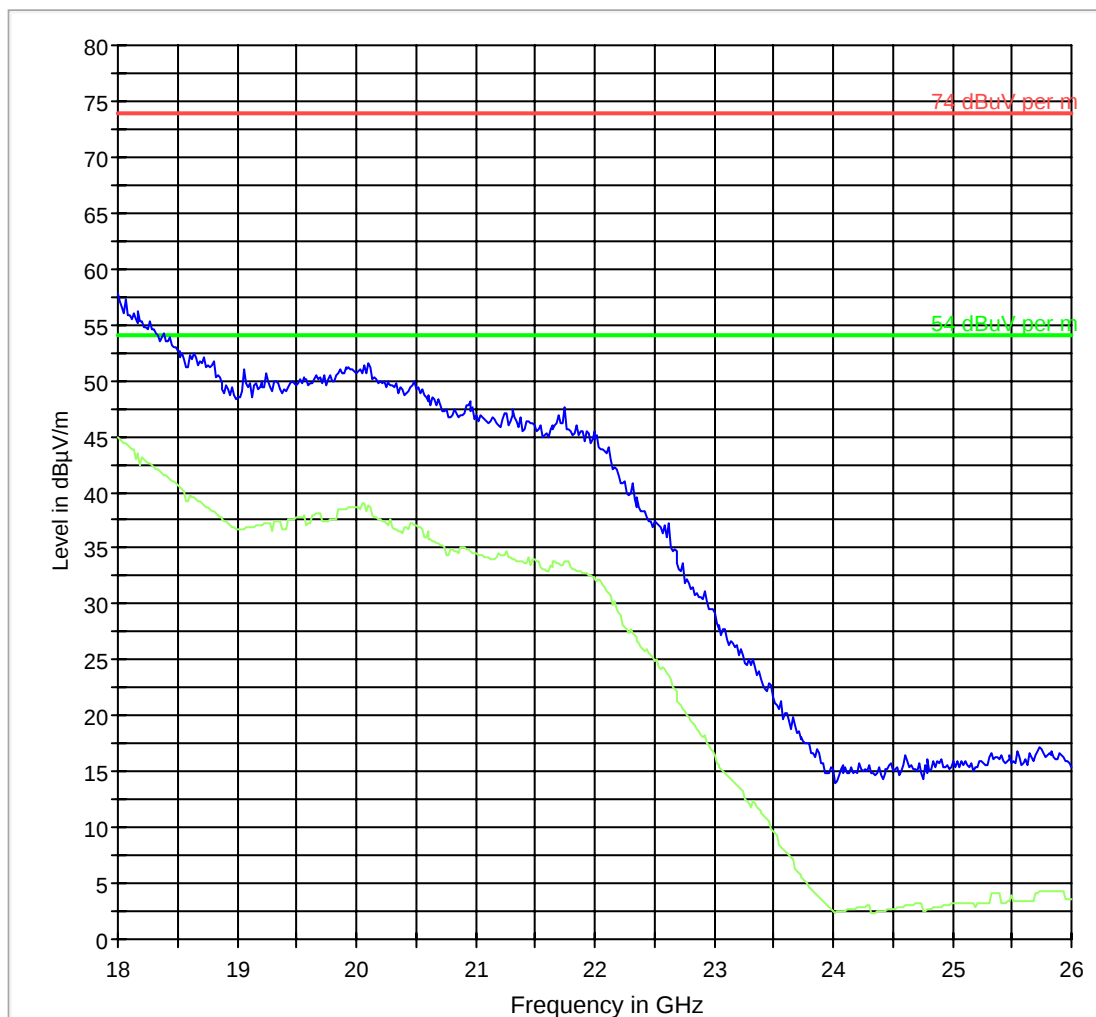
Inductive CH 39

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Inductive Cover w dock and AC adapter #30
Comment:	GFSK DH5 CH 39

FCC 15 18-26GHz



74 dBuV per m.LimitLine	54 dBuV per m.LimitLine
Preview Result 1	Preview Result 2

18GHz – 26GHz: High Channel

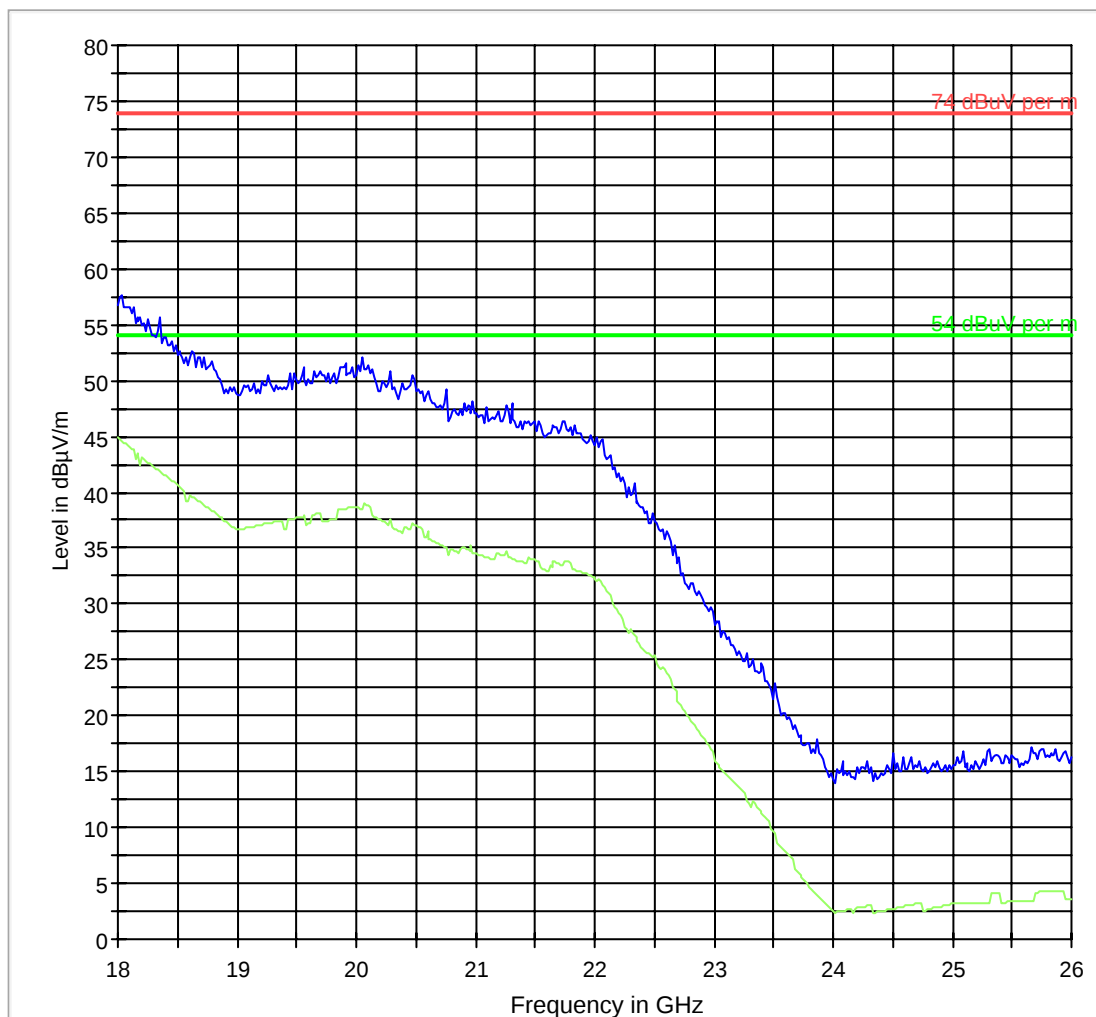
Inductive CH 78

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	BT SAMPLE
Configuration:	Inductive Cover w dock and AC adapter #30
Comment:	GFSK DH5 CH 78

FCC 15 18-26GHz



74 dBuV per m.LimitLine	54 dBuV per m.LimitLine
Preview Result 1	Preview Result 2

5.11.7 Test data/ plots – Co-location: Inductive cover with inductive dock and AC Adapter #30:

NOTE: Plots represent worst case of all operating modes and configurations

30MHz – 1GHz: BT 2442MHz, WLAN 2412 MHz

30-1

1 / 1

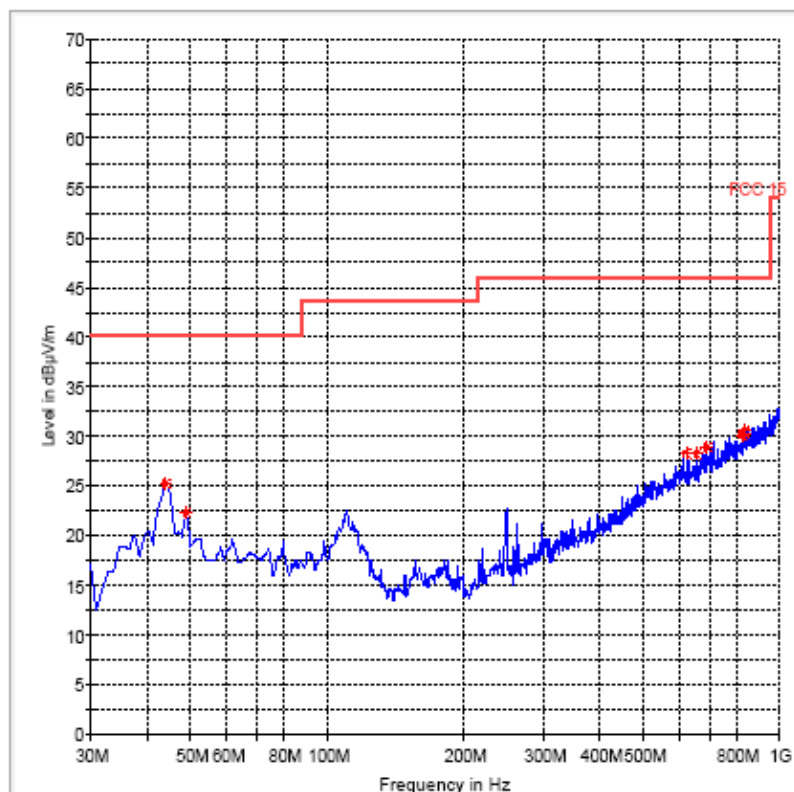
30-1

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	GSM/UMTS SAMPLE
Configuration:	Inductive Cover with Inductive Dock and AC adapter #30
Comment:	Co-location

FCC 15 30-1000MHz



— FCC 15 Limit Line — Preview Result 1 * Data Reduction 1 [1]

1Hz – 18GHz: BT 2442MHz, WLAN 2412 MHz

1-18

1 / 1

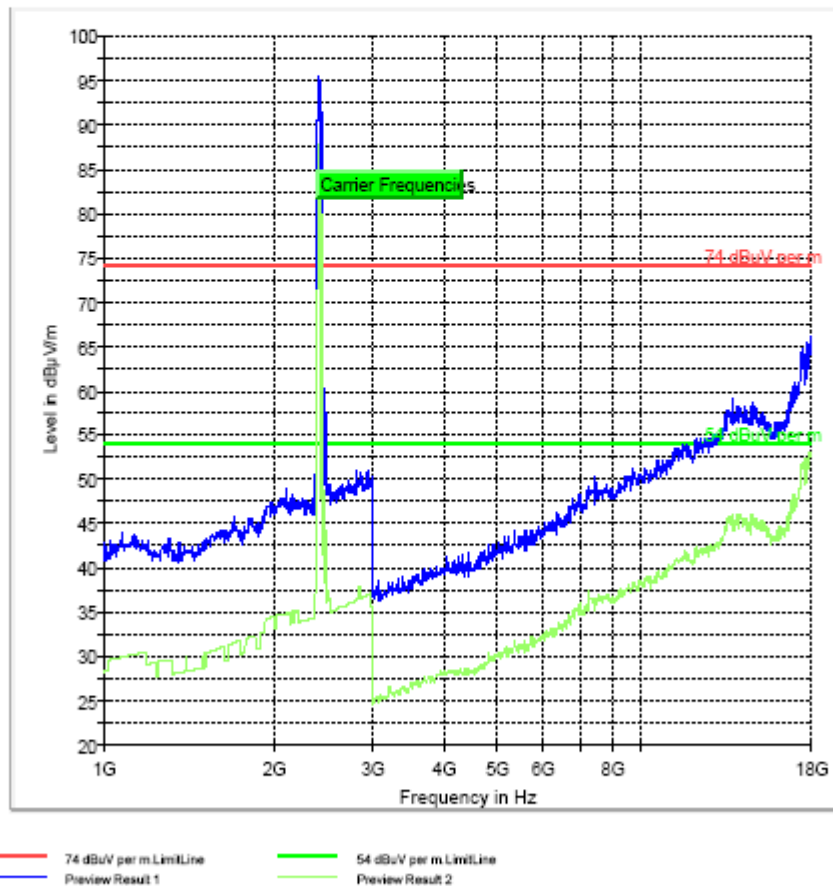
1-18

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	(FCC 15.247 Sample)
Configuration:	Inductive Cover with Inductive Dock and AC adapter #30
Comment:	Co-location

FCC 15 1-18GHz



18GHz – 26GHz: BT 2442MHz, WLAN 2412 MHz

EMI Auto Test(1)

1 / 1

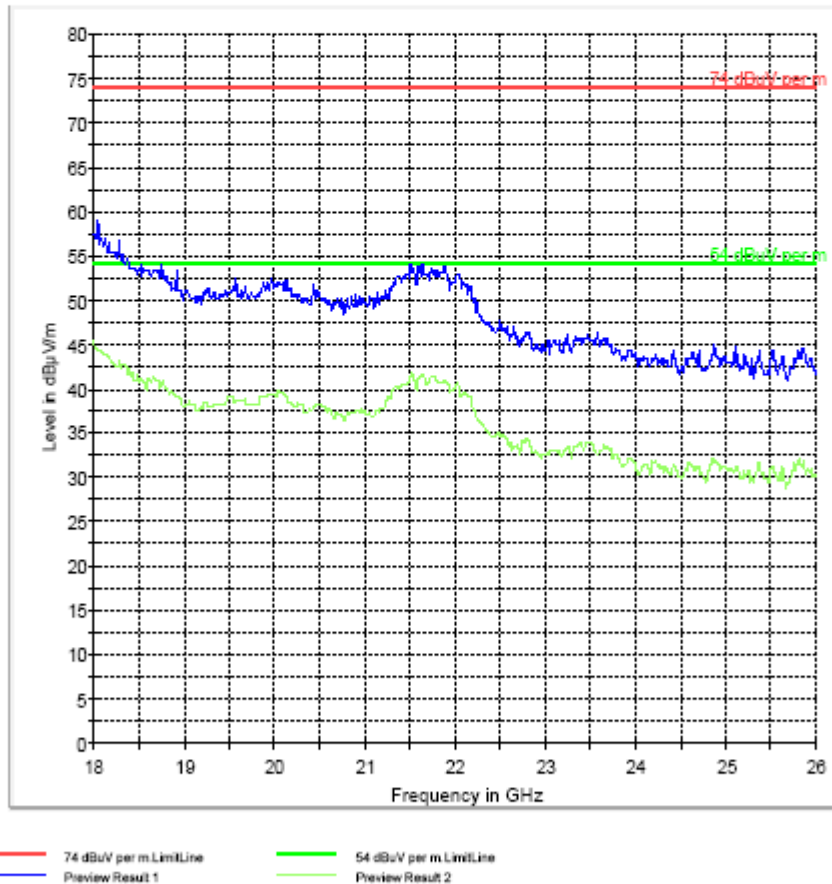
EMI Auto Test(1)

EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	GSM/UMTS SAMPLE
Configuration:	Inductive Cover with Inductive Dock and AC adapter #30
Comment:	Co-location

FCC 15 18-26GHz



5.12 Receiver Spurious Emissions- Radiated

5.12.1 Limits: §15.109

Frequency of emission (MHz)	Field strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100 (40dB $\mu\text{V/m}$)	3
88–216	150 (43.5 dB $\mu\text{V/m}$)	3
216–960	200 (46 dB $\mu\text{V/m}$)	3
Above 960	500 (54 dB $\mu\text{V/m}$)	3

5.12.2 Test Conditions:

Modulation: GFSK

5.12.3 Test Result:

No significant emissions measurable. Plots reported here represent the worse case emissions for all modulations.

5.12.4 Test data/ plots:

EMI Auto Test(1)

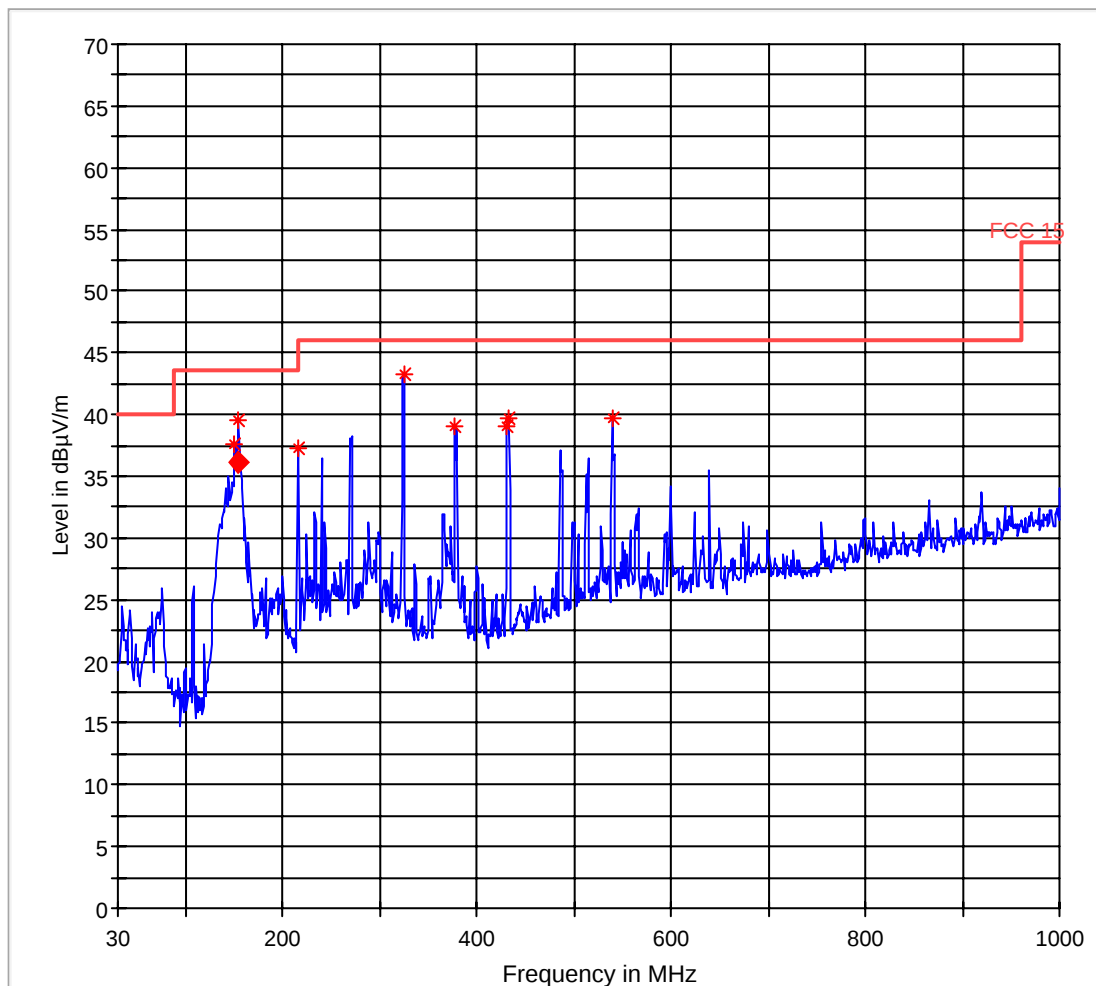
EUT Information

Description:

EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: (GSM/UMTS Sample)
Configuration: Inductive Cover with Inductive Dock with AC Adapter #24 with Laptop

Comment:

FCC 15 30-1000MHz



— FCC 15.LimitLine
* Data Reduction 1 [1]

— Preview Result 1
◆ Final Measurement Result 1

EMI Auto Test(1)

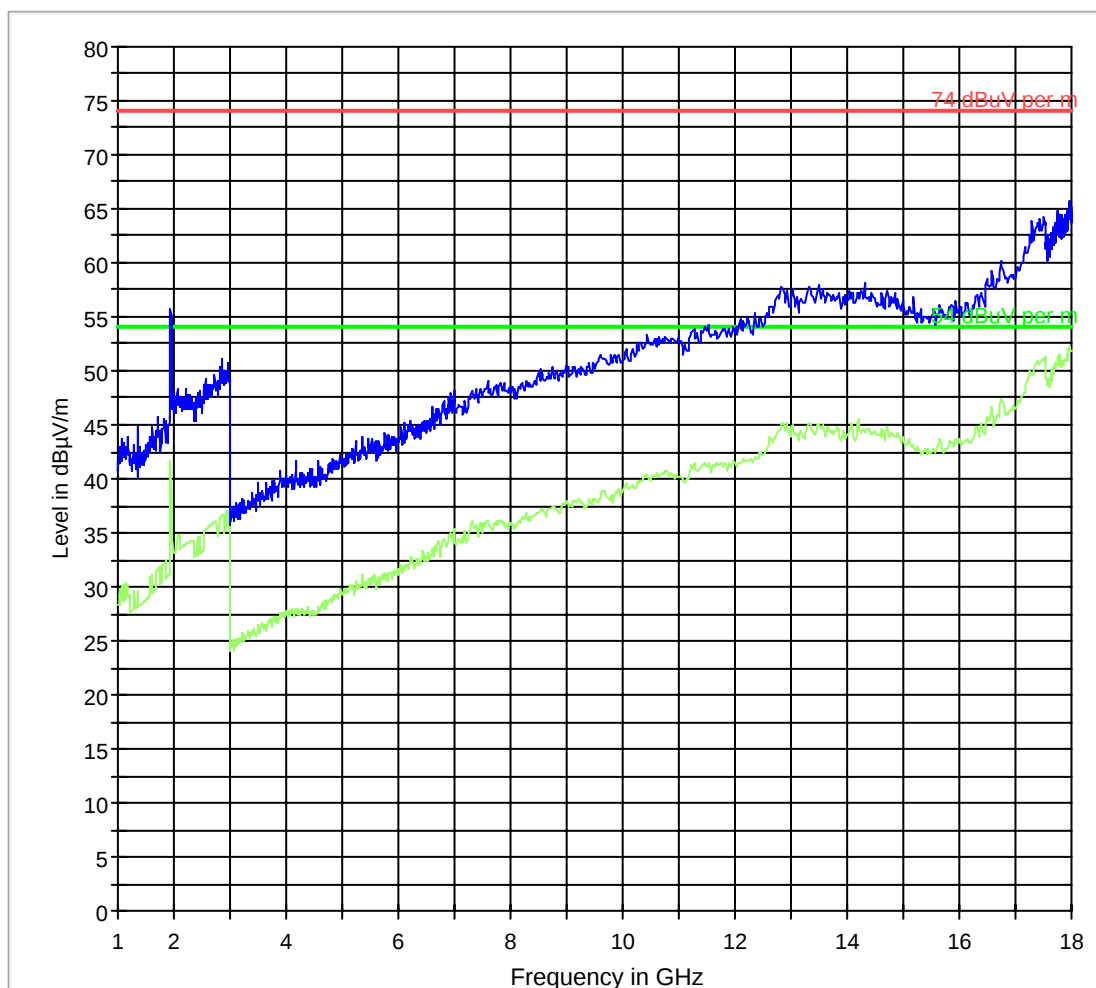
EUT Information

Description:

EUT Name:	GSM/UMTS Phone
Manufacturer:	Palm
Serial Number:	(GSM/UMTS Sample)
Configuration:	Inductive Cover with Inductive Dock with AC Adapter #24 with Laptop

Comment:

FCC 15 1-18GHz



— 74 dBuV per m.LimitLine	— 54 dBuV per m.LimitLine
— Preview Result 1	— Preview Result 2

5.13 AC Power Line Conducted Emissions

5.13.1 Limits: §15.107/15.207

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

Analyzer Settings: RBW = 10KHz; VBW = 10KHz

5.13.2 Test Conditions:

Modulation: GFSK

5.13.3 Test Result:

No significant emissions measurable. Plots reported here represent the worse case emissions for all modulations.

5.13.4 Test data/ plots: Standard Cover with AC Adapter #24

EMI Auto Test(1)

1 / 1

EMI Auto Test(1)

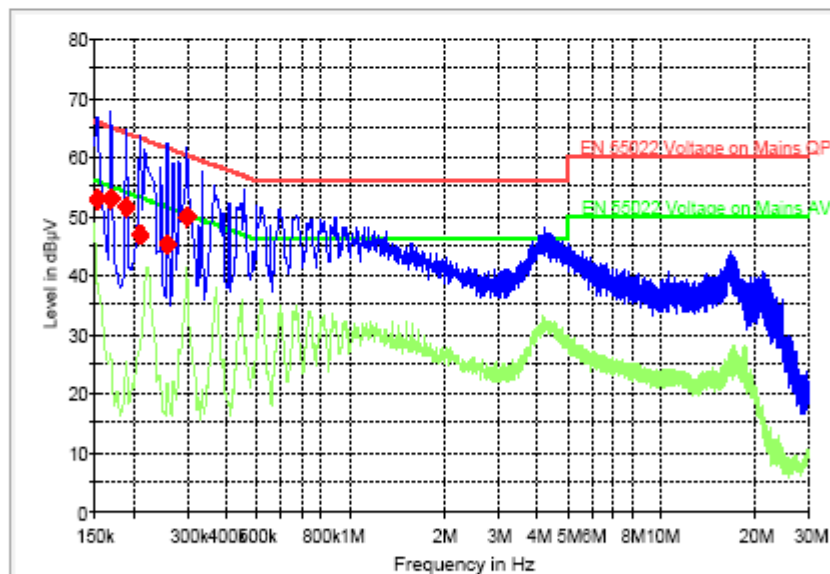
EUT Information

Description:
 EUT Name: GSM/UMTS Phone
 Manufacturer: Palm
 Serial Number: (FCC 15.247 Sample)
 Configuration: Standard Cover and AC adapter #24
 Comment: Wi-Fi and BT Enabled

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.154000	52.9	5000.000	9.000	GND	N	1.0	12.9	65.8	
0.170000	52.9	5000.000	9.000	GND	N	1.0	12.1	65.0	
0.190000	51.5	5000.000	9.000	GND	L1	0.9	12.5	64.0	
0.210000	46.9	5000.000	9.000	GND	N	0.9	16.3	63.2	
0.258000	45.1	5000.000	9.000	GND	N	0.8	16.4	61.5	
0.298000	50.0	5000.000	9.000	GND	L1	0.6	10.3	60.3	

CISPR 22 Mains Conducted



— EN 55022 Voltage on Mains CP Limit Line
— Preview Result 1
◆ Final Result 1
— EN 55022 Voltage on Mains AV Limit Line
— Preview Result 2

Standard Cover with AC Adapter #30

EMI Auto Test(1)

1 / 1

EMI Auto Test(1)

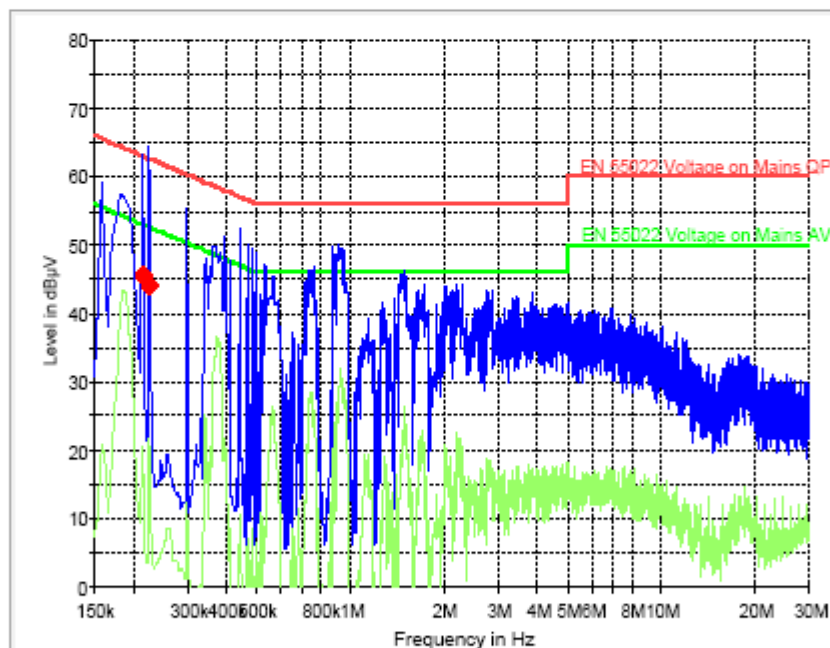
EUT Information

Description:
 EUT Name: GSM/UMTS Phone
 Manufacturer: Palm
 Serial Number: (FCC 15.247 Sample)
 Configuration: Standard Cover and AC adapter #30
 Comment: Wi-Fi and BT Enabled

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.214000	45.6	5000.000	9.000	GND	N	0.9	17.4	63.0	
0.226000	44.1	5000.000	9.000	GND	N	0.8	18.5	62.6	

CISPR 22 Mains Conducted



— EN 55022 Voltage on Mains OP LimitLine
— Preview Result 1
◆ Final Result 1
— EN 55022 Voltage on Mains AV LimitLine
— Preview Result 2

Inductive Cover with Inductive Dock and AC Adapter #24

EMI Auto Test(1)

1 / 1

EMI Auto Test(1)

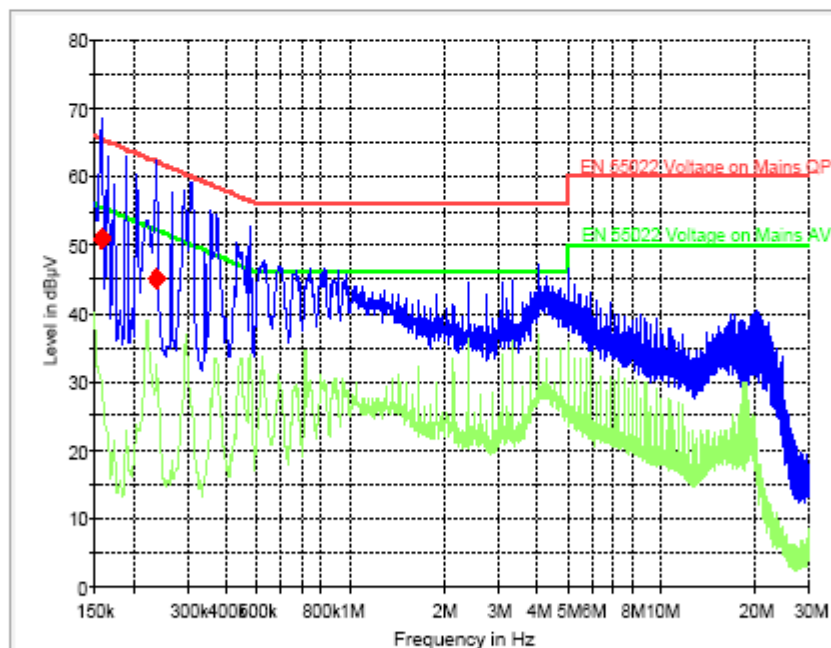
EUT Information

Description:
 EUT Name: GSM/UMTS Phone
 Manufacturer: Palm
 Serial Number: (FCC 15.247 Sample)
 Configuration: Inductive Cover with Inductive Dock and AC adapter #24
 Comment: Wi-Fi and BT Enabled

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.158000	51.0	5000.000	9.000	GND	L1	1.0	14.6	65.6	
0.238000	45.1	5000.000	9.000	GND	N	0.8	17.1	62.2	

CISPR 22 Mains Conducted



— EN 55022 Voltage on Mains DP LimitLine
— Preview Result 1
◆ Final Result 1
— EN 55022 Voltage on Mains AV LimitLine
— Preview Result 2

Inductive Cover with Inductive Dock and AC Adapter #30

EMI Auto Test(1)

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EMI Auto Test(1)

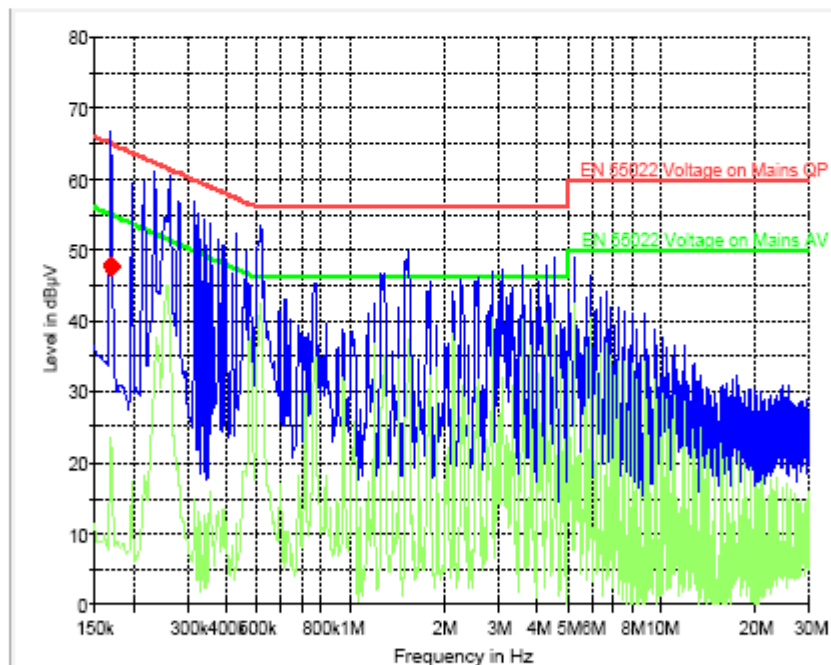
EUT Information

Description:
 EUT Name: GSM/UMTS Phone
 Manufacturer: Palm
 Serial Number: (FCC 15.247 Sample)
 Configuration: Inductive Cover with Inductive Dock and AC adapter #30
 Comment: Wi-Fi and BT Enabled

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.170000	47.7	5000.000	9.000	GND	N	1.0	17.3	65.0	

CISPR 22 Mains Conducted



— EN 55022 Voltage on Mains GP LimitLine
— Preview Result 1
◆ Final Result 1
— EN 55022 Voltage on Mains AV LimitLine
— Preview Result 2

Idle Mode – Inductive Cover with AC adapter #30
This represents worst case emissions of all configurations.

RX_Inductive Cover; dock; ac 30

1 / 1

RX_Inductive Cover; dock; ac 30

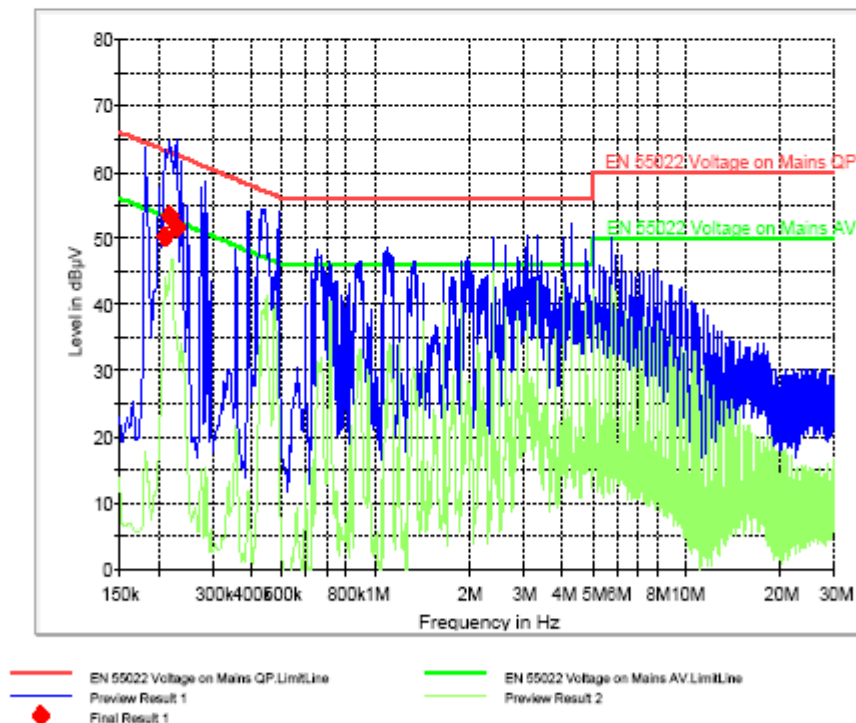
EUT Information

Description:
EUT Name: GSM/UMTS Phone
Manufacturer: Palm
Serial Number: GSM/UMTS SAMPLE
Configuration: Inductive Cover w dock and AC adapter #30
Comment: RX

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.210000	50.2	5000.000	9.000	GND	L1	0.9	13.0	63.2	
0.218000	53.4	5000.000	9.000	GND	L1	0.9	9.5	62.9	
0.230000	51.7	5000.000	9.000	GND	N	0.8	10.7	62.4	

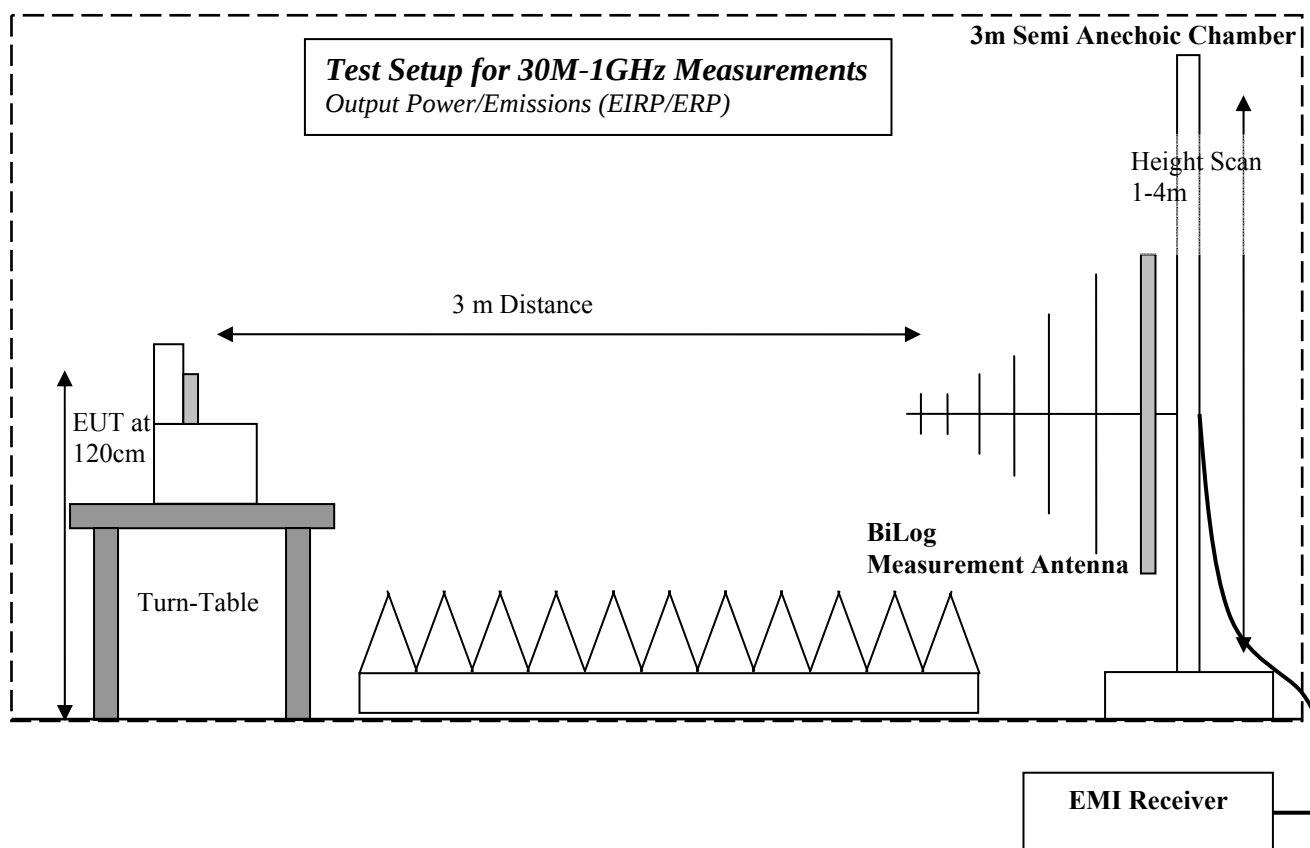
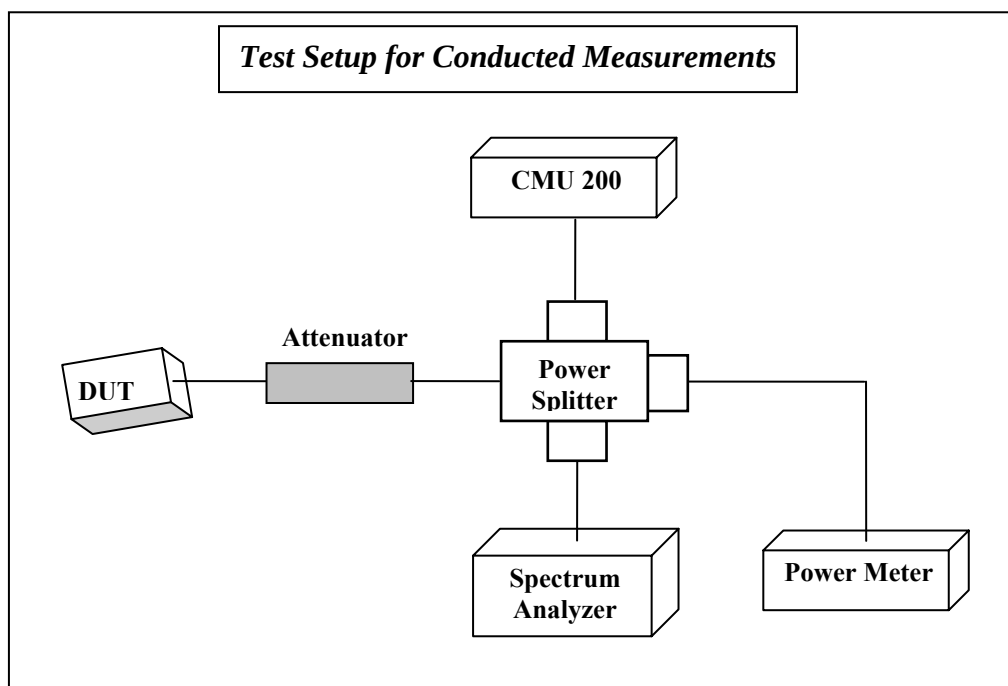
CISPR 22 Mains Conducted

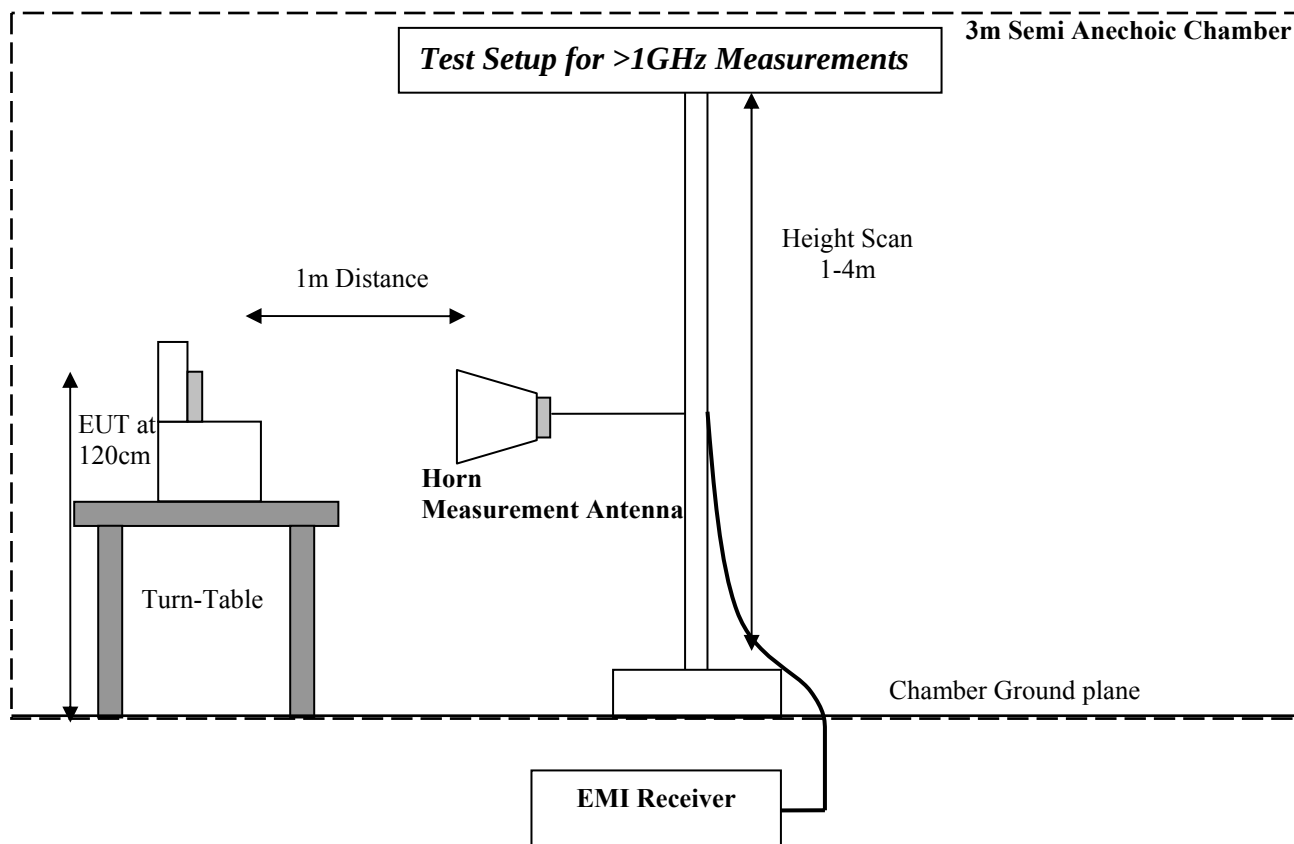


6 Test Equipment and Ancillaries used for tests

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Cal Due	Interval
01	Spectrum Analyzer	ESIB 40	Rohde & Schwarz	100107	May 2010	1 year
02	Spectrum Analyzer	FSEM 30	Rohde & Schwarz	100017	May 2010	1 year
03	Signal Generator	SMY02	Rohde & Schwarz	836878/011	May 2010	1 year
04	Power-Meter	NRVD	Rohde & Schwarz	0857.8008.02	May 2010	1 year
05	Biconilog Antenna	3141	EMCO	0005-1186	June 2010	1 year
06	Horn Antenna (1-18GHz)	SAS-200/571	AH Systems	325	June 2010	1 year
07	Horn Antenna (18-26.5GHz)	3160-09	EMCO	1240	June 2010	1 year
08	Power Splitter	11667B	Hewlett Packard	645348	n/a	n/a
09	Climatic Chamber	VT4004	Voltsch	G1115	May 2010	1 year
10	High Pass Filter	5HC2700	Trilithic Inc.	9926013	n/a	n/a
11	High Pass Filter	4HC1600	Trilithic Inc.	9922307	n/a	n/a
12	Pre-Amplifier	JS4-00102600	Miteq	00616	May 2010	1 year
13	Power Sensor	URV5-Z2	Rohde & Schwarz	DE30807	May 2010	1 year
14	Digital Radio Comm. Tester	CMD-55	Rohde & Schwarz	847958/008	May 2010	1 year
15	Universal Radio Comm. Tester	CMU 200	Rohde & Schwarz	832221/06	May 2010	1 year
16	LISN	ESH3-Z5	Rohde & Schwarz	836679/003	May 2010	1 year
17	Loop Antenna	6512	EMCO	00049838	July 2010	2 years

7 BLOCK DIAGRAMS







8 Revision History

Date	Report Name	Changes to report	Report prepared by
2010-01-22	Original Report		Josie Sabado