



FCC Test Report

FCC Part 15.247 for FHSS systems/ CANADA RSS-210

FOR:

TRI-BAND GSM MOBILE PHONE WITH BLUETOOTH

MODEL #: EL71

**BENQ MOBILE GmbH & Co. OHG
HAIDENAUPLATZ 1
81667 MUNCHEN
GERMANY**

**FCC ID: PWX-EL71
IC ID: 6175C-EL71**

**TEST REPORT #: BENQ0_006_06001_BLUETOOTH
DATE: APRIL 25, 2006**



Certificate # 2135.01



FCC listed # 101450

IC recognized # 3925

CETECOM Inc.

411 Dixon Landing Road • Milpitas, CA 95035 • U.S.A.

Phone: + 1 (408) 586 6200 • Fax: + 1 (408) 586 6299 • E-mail: info@cetecomusa.com • <http://www.cetecom.com>

CETECOM Inc. is a Delaware Corporation with Corporation number: 2113686

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

© Copyright by CETECOM

TABLE OF CONTENTS

1	Assessment	4
2	Administrative Data	5
2.1	Identification of the Testing Laboratory Issuing the EMC Test Report	5
2.2	Identification of the Client	5
2.3	Identification of the Manufacturer	5
3	Equipment under Test (EUT)	6
3.1	Identification of the Equipment under Test	6
4	Subject Of Investigation	7
5	Measurements	8
5.1	MAXIMUM PEAK OUTPUT POWER § 15.247 (RADIATED)	8
5.1.1	LIMIT SUB CLAUSE § 15.247 (b) (1) (2) (3) (4)	8
5.1.2	RESULTS:	8
5.2	MAXIMUM PEAK OUTPUT POWER § 15.247 (CONDUCTED)	12
5.2.1	LIMIT SUB CLAUSE § 15.247 (b) (1)	12
5.2.2	RESULTS:	12
5.3	20dB BANDWIDTH	16
5.3.1	LIMIT SUB CLAUSE § 15.247 (a) (1) (i) (ii) (iii)	16
5.3.2	RESULTS:	16
5.4	CARRIER FREQUENCY SEPARATION	20
5.4.1	LIMIT SUB CLAUSE § 15.247 (a) (1) (i) (ii) (iii)	20
5.4.2	RESULTS:	20
5.5	NUMBER OF HOPPING CHANNELS	22
5.5.1	LIMIT SUB CLAUSE § 15.247 (a) (1) (iii)	22
5.5.2	RESULTS:	22
5.5.3	LIMIT SUB CLAUSE § 15.247 (d)	27
5.5.4	RESULTS	28
5.6	RESTRICTED BAND EDGE COMPLIANCE RADIATED §15.247/15.205	34
5.6.1	LIMITS	34
5.6.2	RESULTS (2402MHz)	35
5.6.3	RESULTS (2480MHz)	37
5.7	TRANSMITTER SPURIOUS EMISSIONS RADIATED § 15.247/15.205/15.209	39
5.7.1	LIMITS	39
5.7.2	RESULTS	40
5.8	RECEIVER SPURIOUS RADIATION § 15.209/RSS210	49
5.8.1	LIMITS	49
5.8.2	RESULTS	50
5.9	AC POWER LINE CONDUCTED EMISSIONS § 15.107/207	55
5.9.1	LIMITS	55
5.9.2	RESULTS	56
5.10	TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS	57

1 Assessment

The following is in compliance with the applicable criteria specified in FCC rules Part 15.247 of the Code of Federal Regulations and in compliance with the applicable criteria specified in Industry Canada rules RSS210.

Company	Description	Model #
BENQ MOBILE GmbH & Co. OHG	TRI-BAND GSM MOBILE PHONE WITH BLUETOOTH	EL71

Michael Grings

2006-04-25
Michael Grings
Deputy Test Lab Manager

The test results of this test report relate exclusively to the test item specified in Identification of the Equipment under Test. The 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:	EMC
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:	Lothar Schmidt
Responsible Project Leader:	Pete Krebill
Date of test:	2006-01-16 to 2006-02-01

2.2 Identification of the Client

Applicant's Name:	BENQ MOBILE GmbH & Co. OHG
Street Address:	HAIDENAUPLATZ 1
City/Zip Code	81667 MUNCHEN
Country	GERMANY
Contact Person:	MARTIN WEINBERGER
Phone No.	49.89.722.37148
Fax:	--
e-mail:	Martin.weinberger@siemens.com

2.3 Identification of the Manufacturer

Manufacturer's Name:	BENQ MOBILE GmbH & Co. OHG
Manufacturers Address:	SUDSTR.9
City/Zip Code	D-47475 KAMP-LINTFORT
Country	GERMANY

3 Equipment under Test (EUT)

3.1 Identification of the Equipment under Test

Marketing Name:	EL71
Description:	TRI-BAND GSM MOBILE PHONE WITH BLUETOOTH
Model No:	EL71
FCC ID:	PWX-EL71
IC ID:	6175C-EL71
Frequency Range:	2400-2483.5MHz
Type(s) of Modulation:	GFSK
Number of Channels:	79
Antenna Type:	Internal
Output Power:	FCC 15.247: 0.0024W CONDUCTED@2480MHz

TYPE	MANF.	MODEL	FCC ID
AC ADAPTER	SIEMENS	A5BHTN00102612	DoC

4 Subject Of Investigation

The objective of the measurements done by Cetecom Inc. was to measure the performance of the EL71 referred to as 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 RSS210.

The EUT was maximized in the X,Y, Z positions , all data in this report shows the worst case between horizontal and vertical polarization for above 1GHz.

The EUT is able to operate in open and closed position. The worst case was found working in open position. Therefore the testing was conducted in open position.

5 Measurements

5.1 MAXIMUM PEAK OUTPUT POWER § 15.247 (RADIATED)

5.1.1 LIMIT SUB CLAUSE § 15.247 (b) (1) (2) (3) (4)

Frequency range	RF power output
2400-2483.5 MHz	36dBm EIRP

*limit is based upon antenna gain of less than or equal to 6dBi.

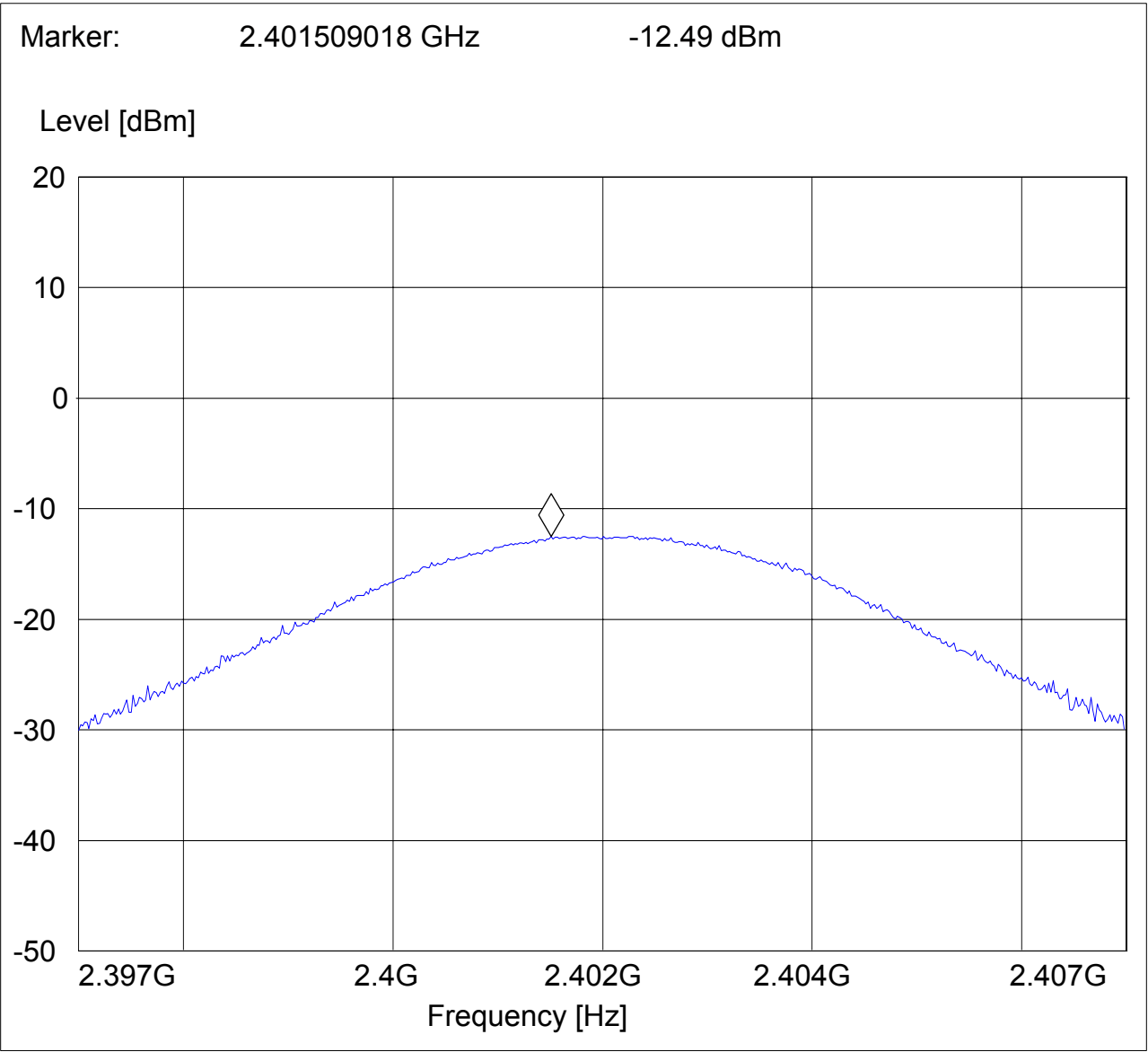
5.1.2 RESULTS:

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)		
Frequency (MHz)		2402 MHz	2441 MHz	2480 MHz
T _{nom} (23)°C	V _{nom} VDC	-12.49	-11.12	-7.57
Measurement uncertainty		±0.5dBm		



EIRP (2402 MHz)

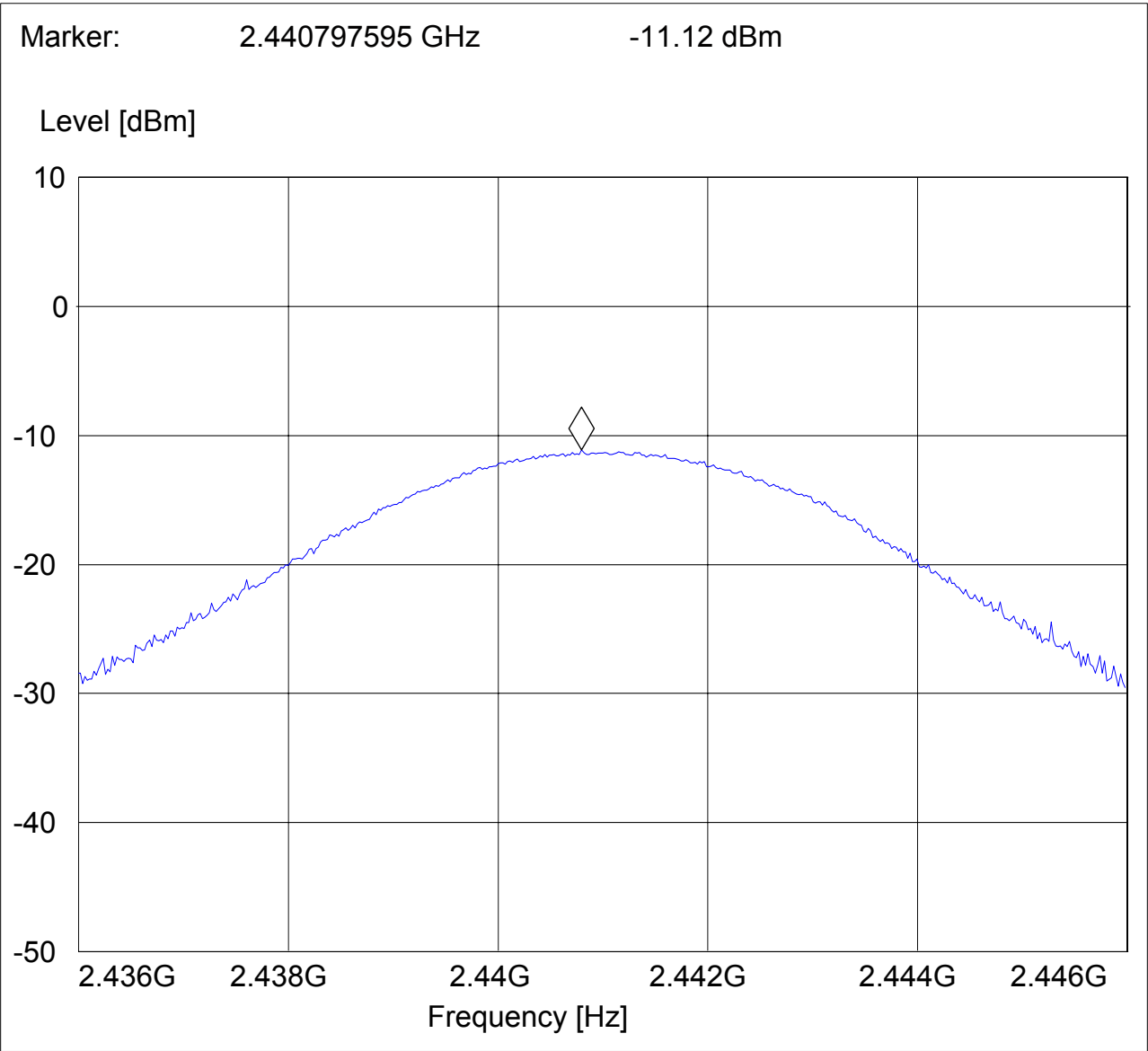
Start Frequency	Stop Frequency	Detector	Meas. Time	IF BW
2397 MHz	2407 MHz	Max Peak	Coupled	3 MHz





EIRP (2441 MHz)

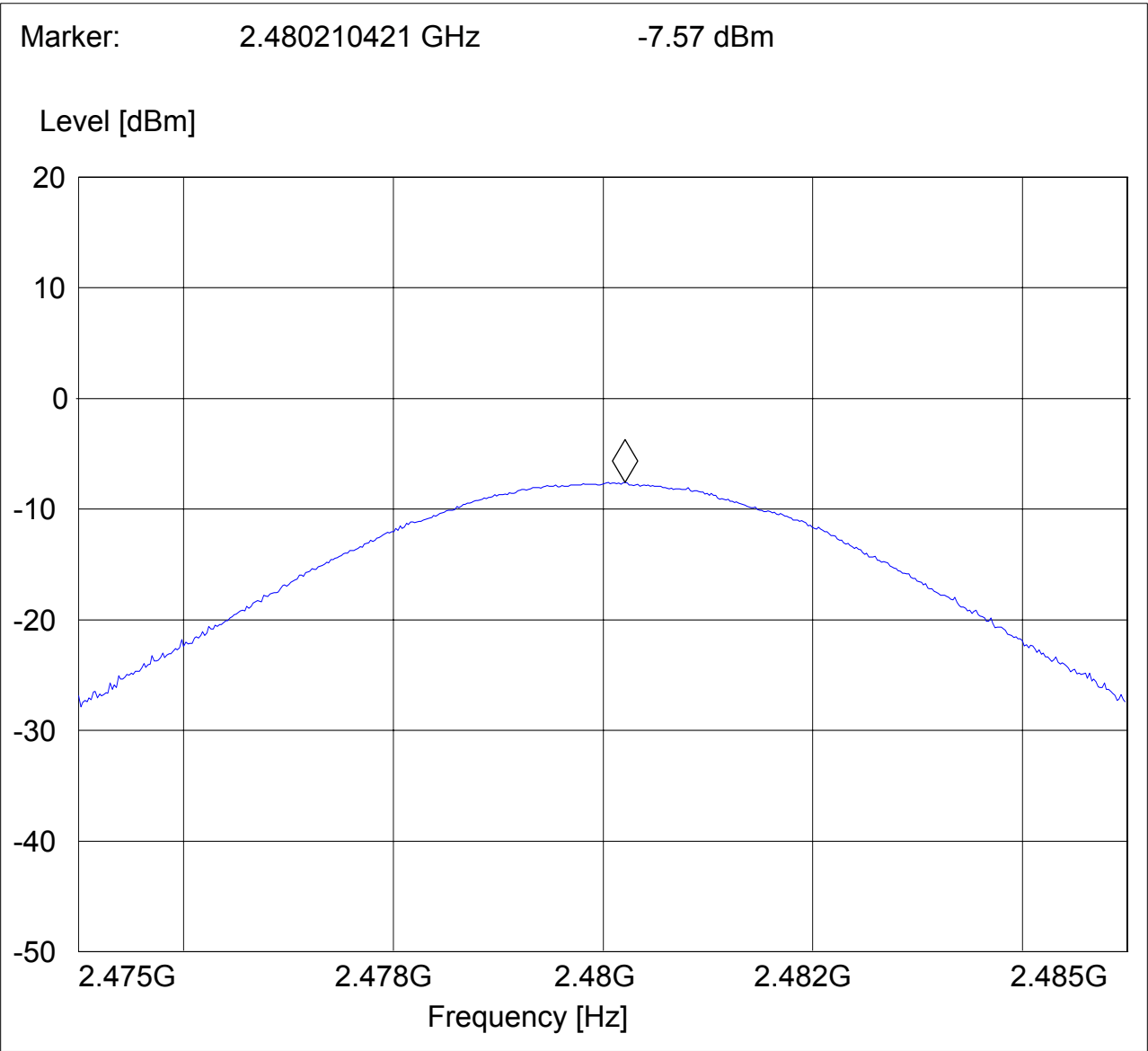
Start Frequency	Stop Frequency	Detector	Meas. Time	IF BW
2436 MHz	2446 MHz	Max Peak	Coupled	3 MHz





EIRP (2480 MHz)

Start Frequency	Stop Frequency	Detector	Meas. Time	IF BW
2475 MHz	2485 MHz	Max Peak	Coupled	3 MHz



5.2 MAXIMUM PEAK OUTPUT POWER § 15.247 (CONDUCTED)

5.2.1 LIMIT SUB CLAUSE § 15.247 (b) (1)

Frequency range	RF power output
2400-2483.5 MHz	30dBm

*limit is based upon antenna gain of less than or equal to 6dBi.

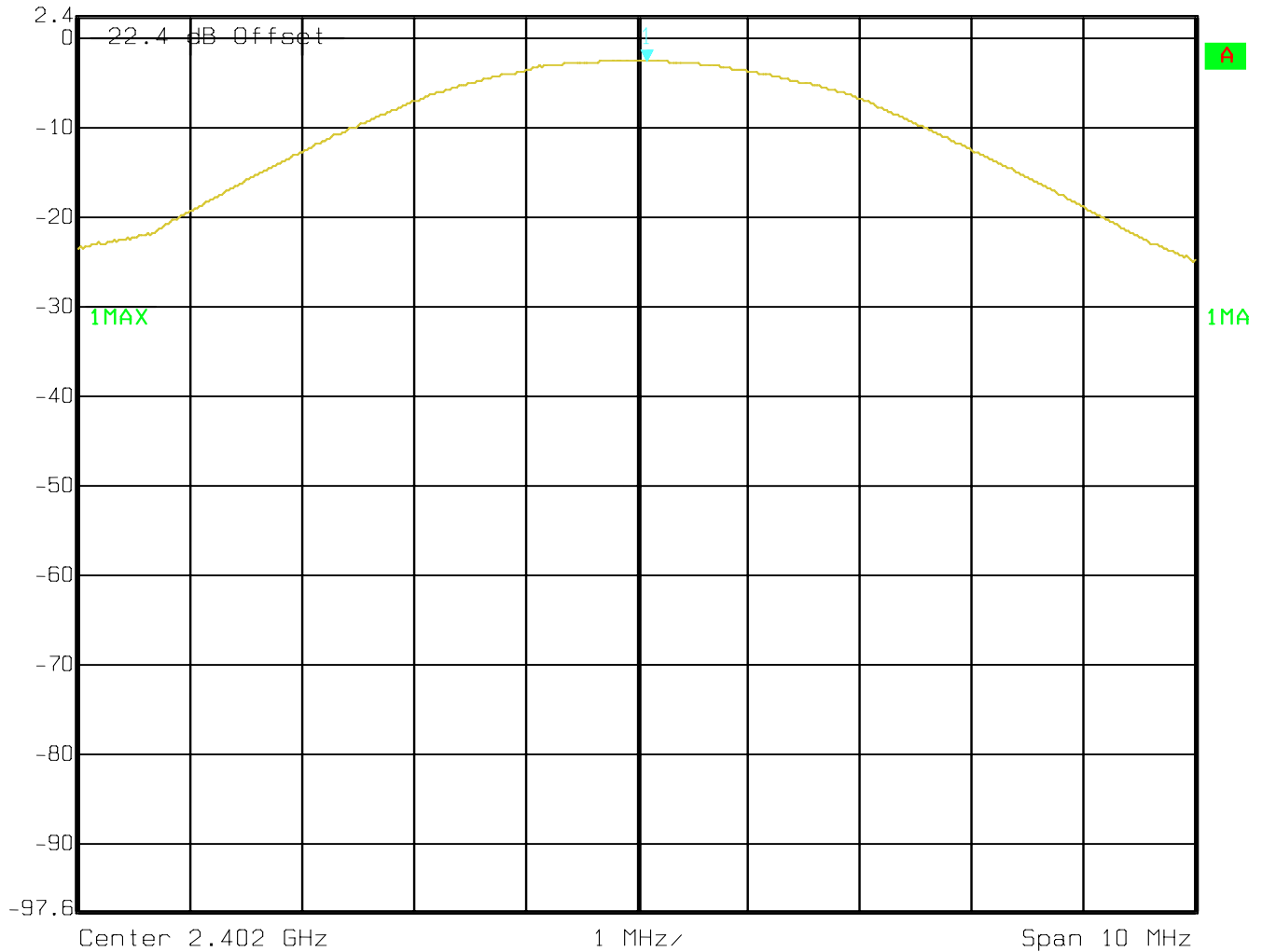
5.2.2 RESULTS:

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)		
Frequency (MHz)		2402 MHz	2441 MHz	2480 MHz
T _{nom} (23)°C	V _{nom} VDC	-2.8	-0.36	3.74

*ref level offset is based upon BT coupler loss + splitter

(2402 MHz)


 Ref Lvl 2.4 dBm
 Marker 1 [T1] -2.80 dBm
 RBW 3 MHz
 VBW 3 MHz
 Unit dBm
 2.40208517 GHz
 SWT 5 ms



Date: 25.APR.2006 13:00:12

(2441 MHz)



Ref Lvl
2.4 dBm

Marker 1 [T1]

-0.36 dBm

2.44113026 GHz

RBW

3 MHz

RF Att

10 dB

VBW

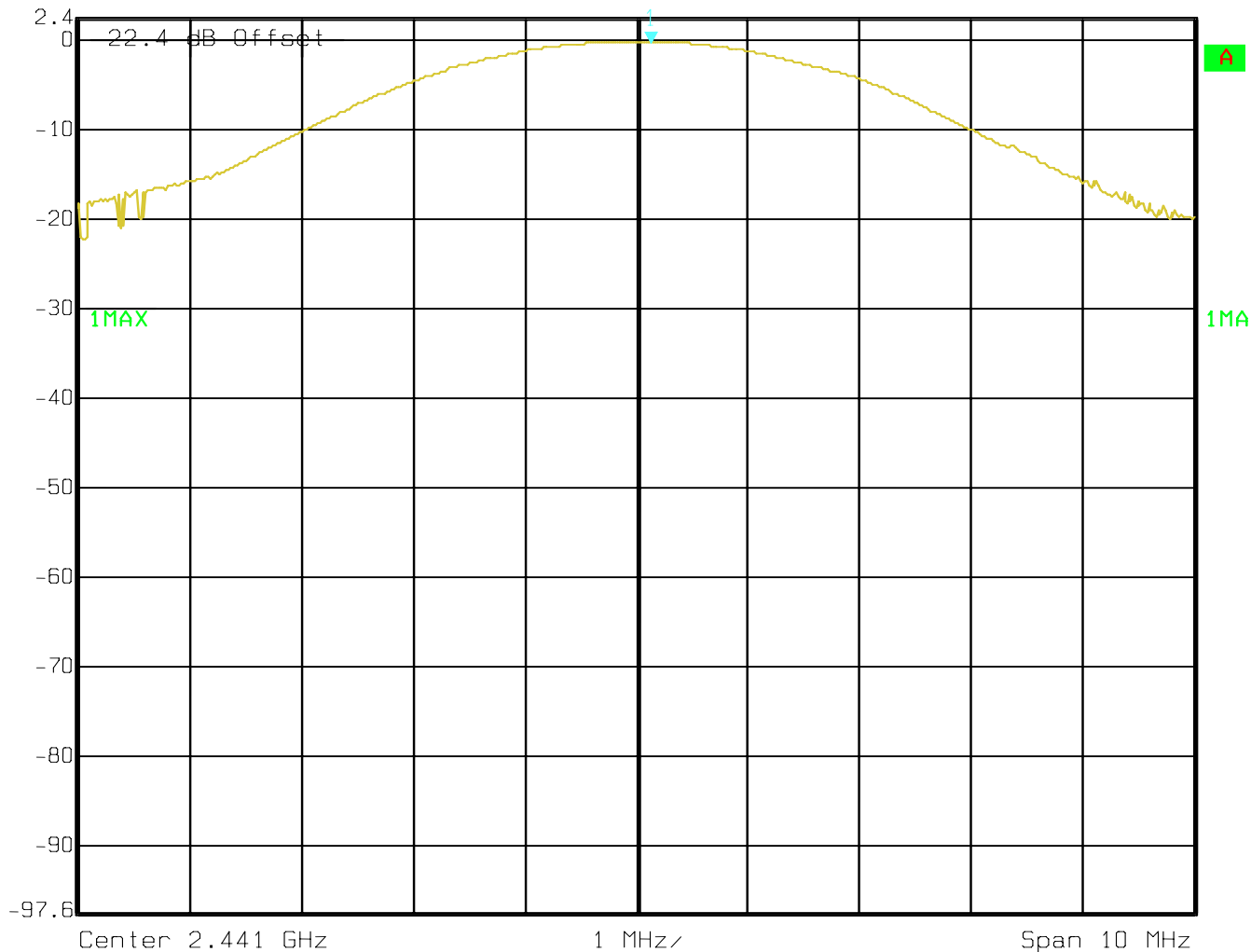
3 MHz

SWT

5 ms

Unit

dBm

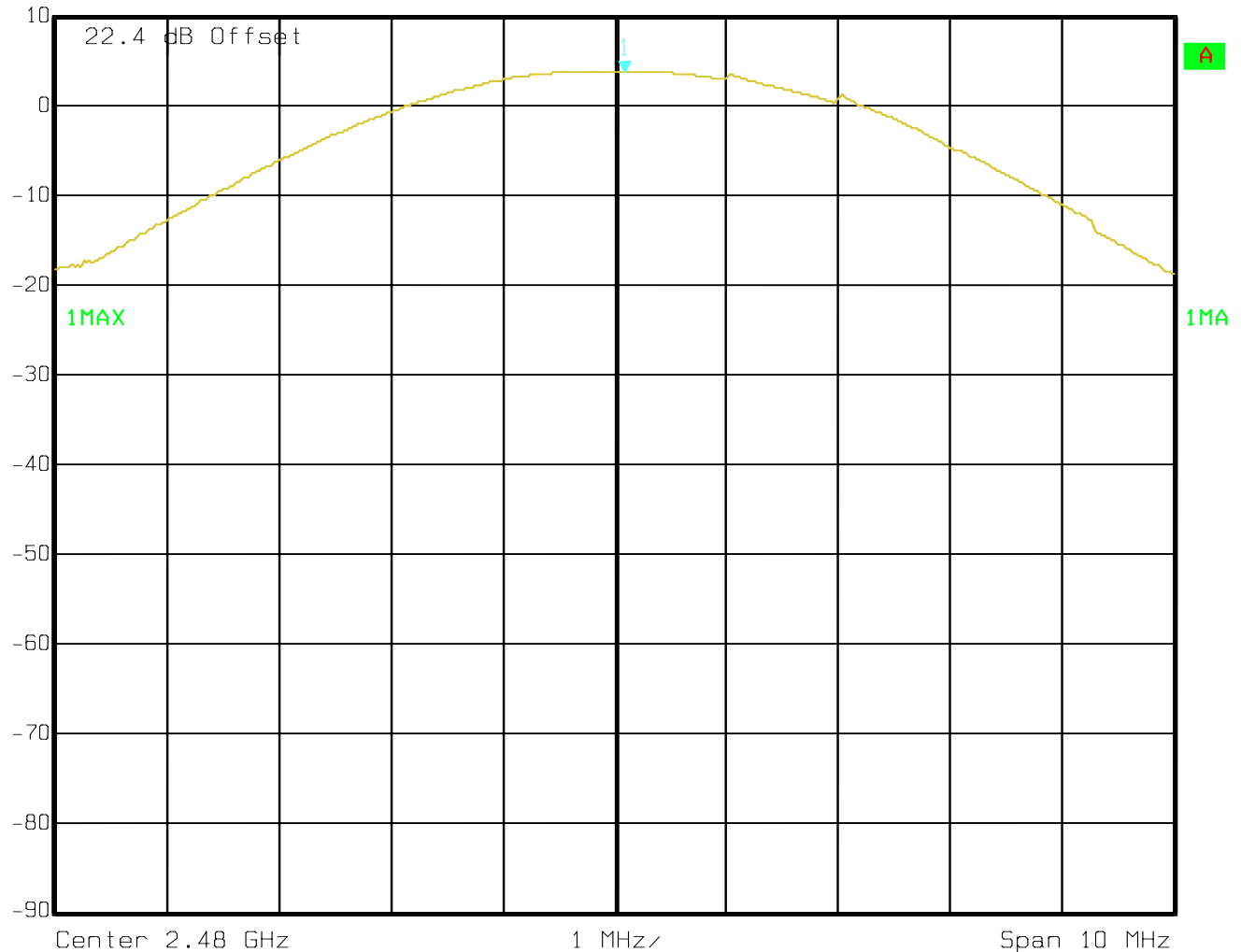


Date: 25.APR.2006 13:09:18

(2480 MHz)



Ref Lvl 10 dBm
 Marker 1 [T1] 3.74 dBm
 2.48009018 GHz
 RBW 3 MHz RF Att 10 dB
 VBW 3 MHz
 SWT 5 ms Unit dBm



Date: 25.APR.2006 13:14:07

5.3 20dB BANDWIDTH

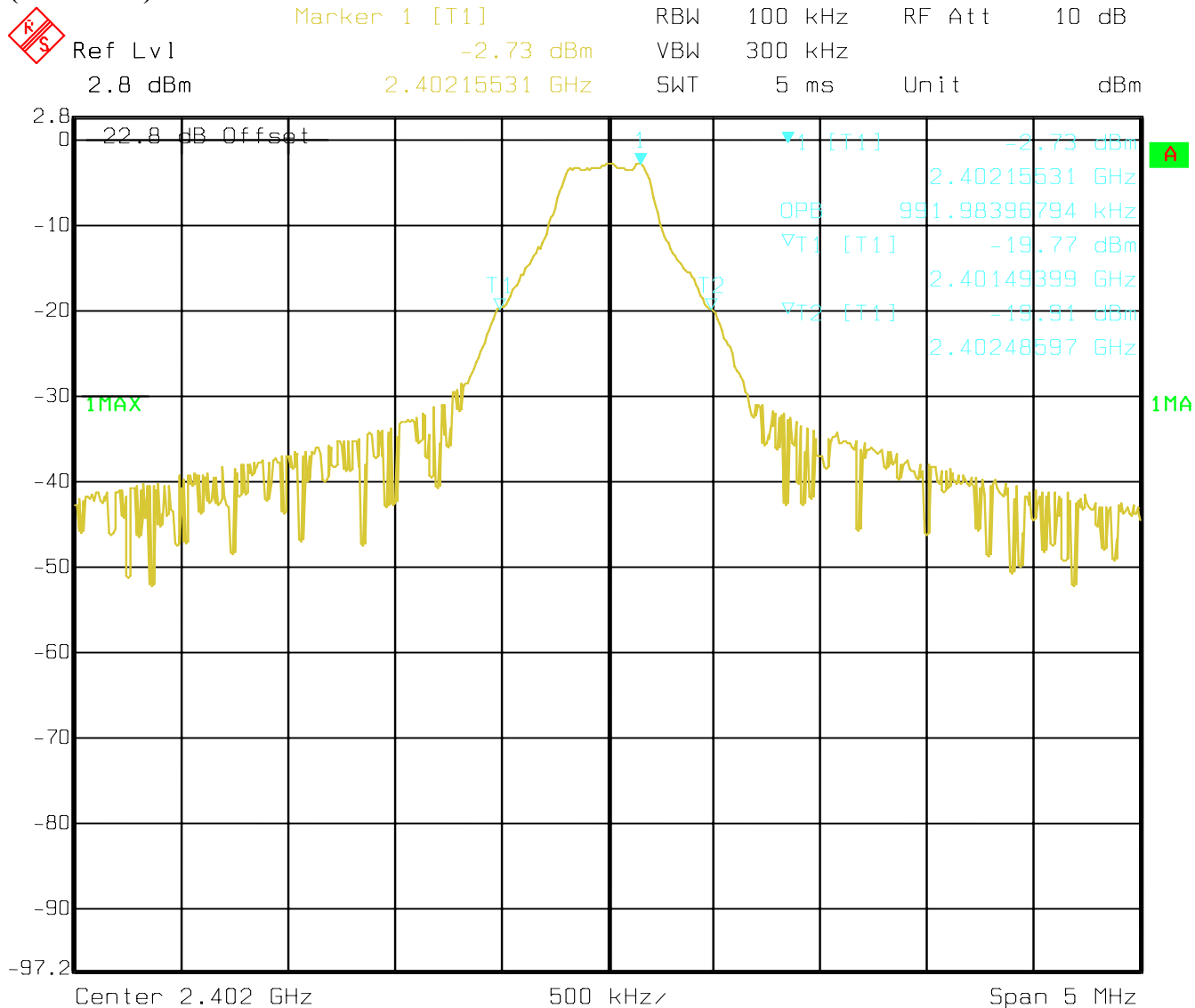
5.3.1 LIMIT SUB CLAUSE § 15.247 (a) (1) (i) (ii) (iii)

NUMBER OF CHANNELS	BANDWIDTH
79	<1MHz

5.3.2 RESULTS:

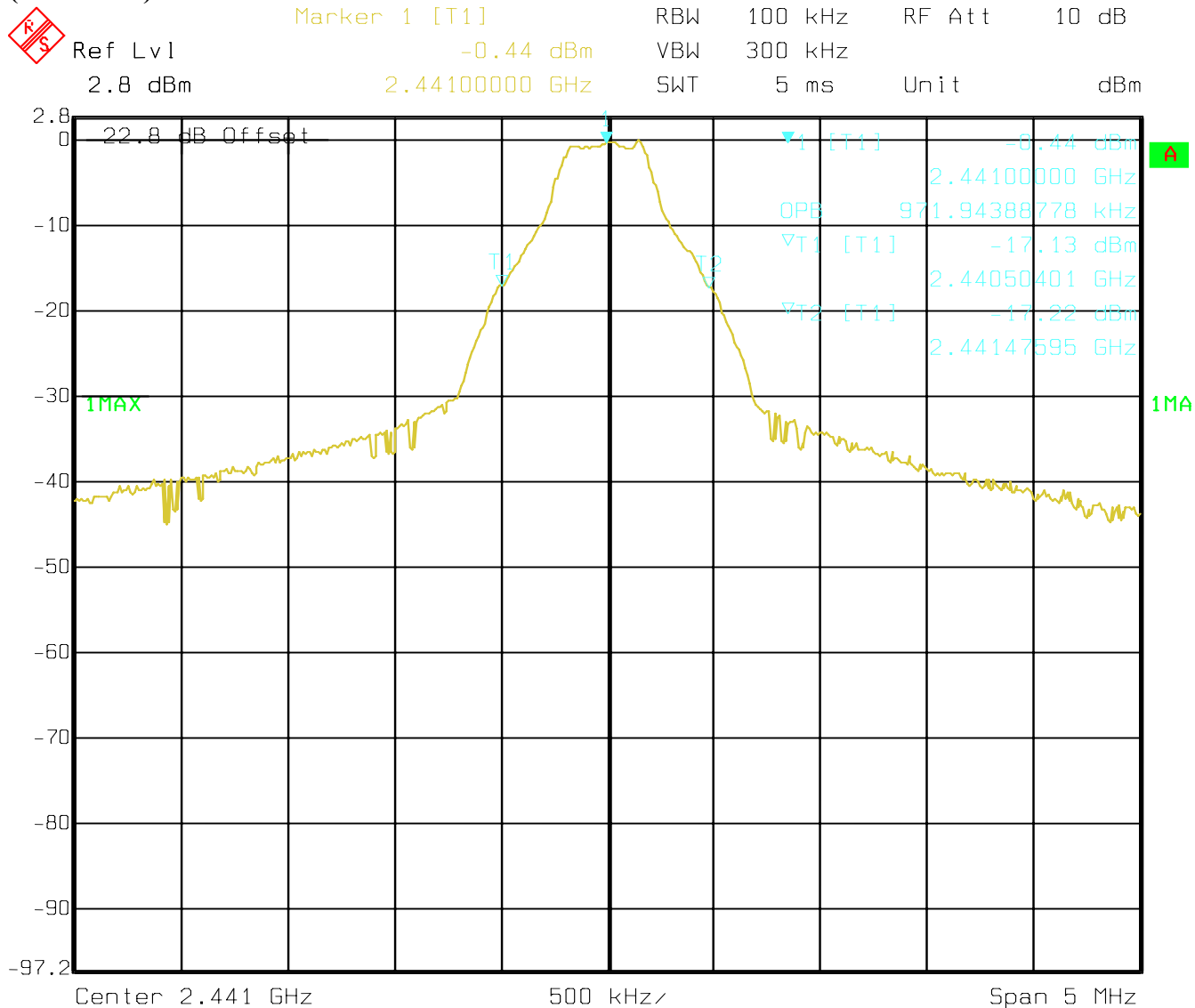
TEST CONDITIONS		BANDWIDTH (KHz)		
Frequency (MHz)		2402 MHz	2441 MHz	2480 MHz
T _{nom} (23)°C	V _{nom} VDC	992	972	934

(2402 MHz)



Date: 25.APR.2006 13:50:12

(2441 MHz)

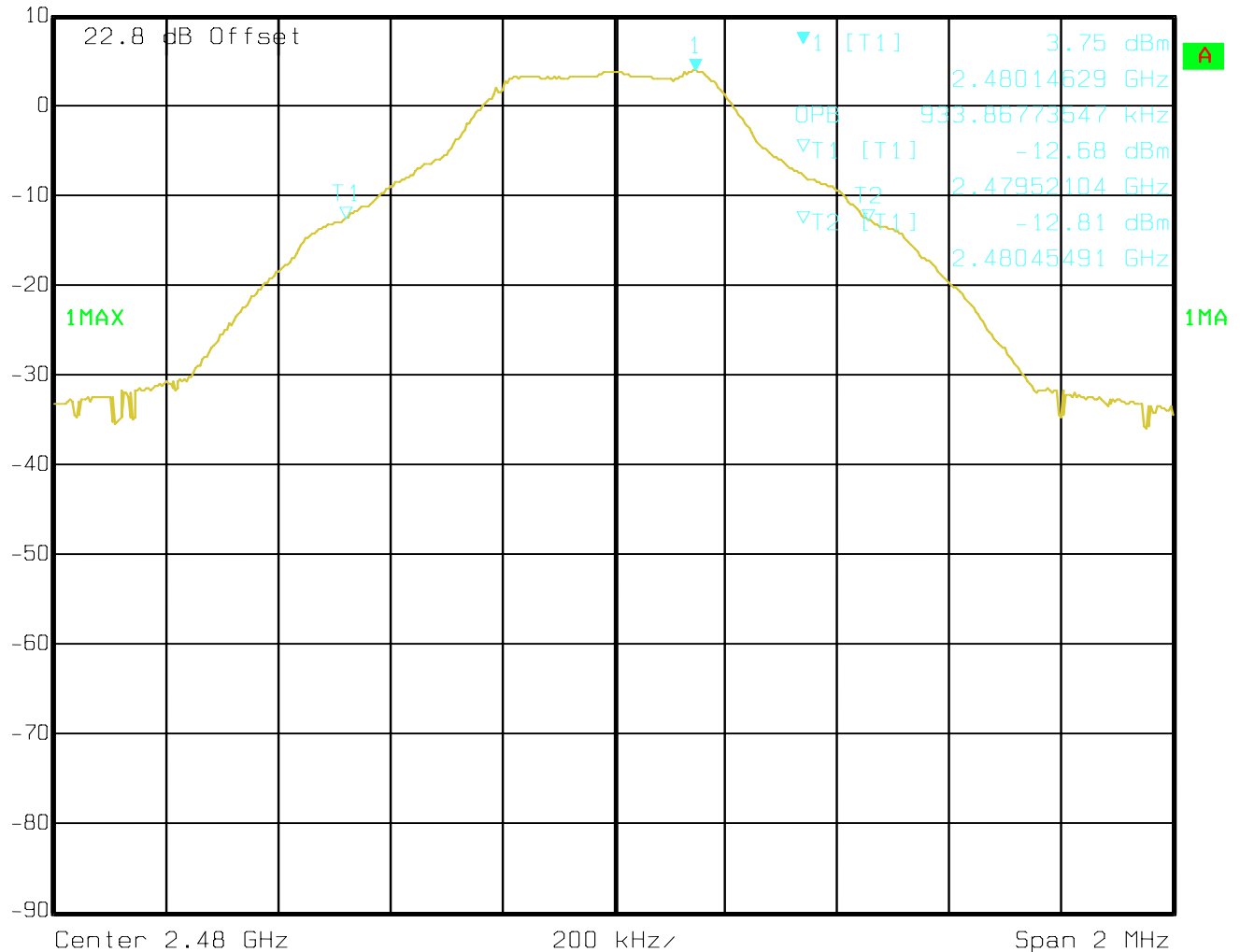


Date: 25.APR.2006 13:47:34

(2480 MHz)



Marker 1 [T1] RBW 10 kHz RF Att 10 dB
 Ref Lvl 3.75 dBm VBW 30 kHz
 10 dBm 2.48014629 GHz SWT 50 ms Unit dBm



Date: 25.APR.2006 16:15:33

5.4 CARRIER FREQUENCY SEPARATION

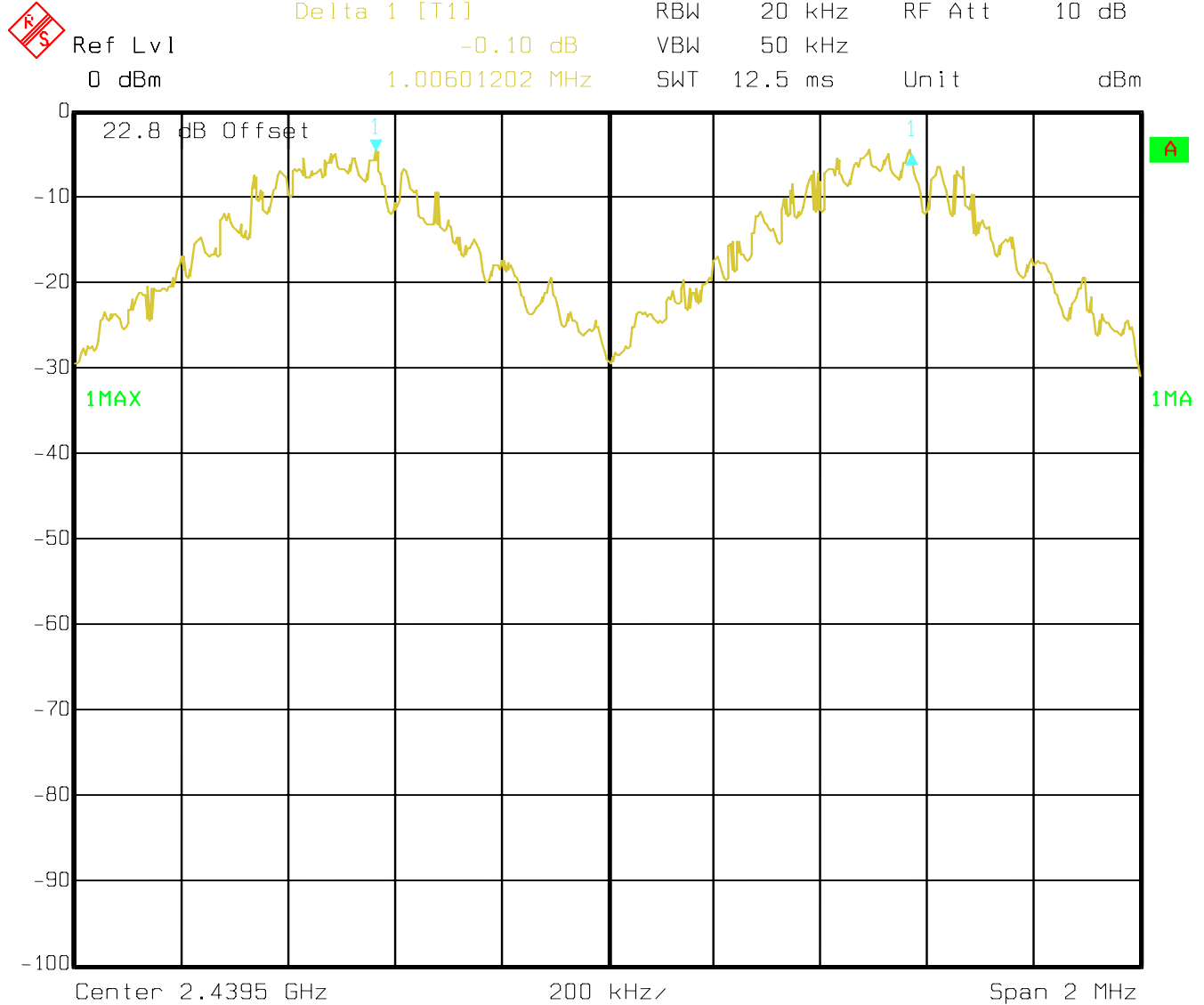
5.4.1 LIMIT SUB CLAUSE § 15.247 (a) (1) (i) (ii) (iii)

SEPARATION
> 25 KHz or > 20 dB BANDWIDTH

5.4.2 RESULTS:

TEST CONDITIONS		SEPARATION (MHz)
T _{nom} (23)°C	V _{nom} VDC	1.006

(plot)



Date: 25.APR.2006 16:53:57

5.5 NUMBER OF HOPPING CHANNELS

5.5.1 LIMIT SUB CLAUSE § 15.247 (a) (1) (iii)

NUMBER OF CHANNELS
> 15

5.5.2 RESULTS:

TEST CONDITIONS		NUMBER OF CHANNELS
T _{nom} (23)°C	V _{nom} VDC	79

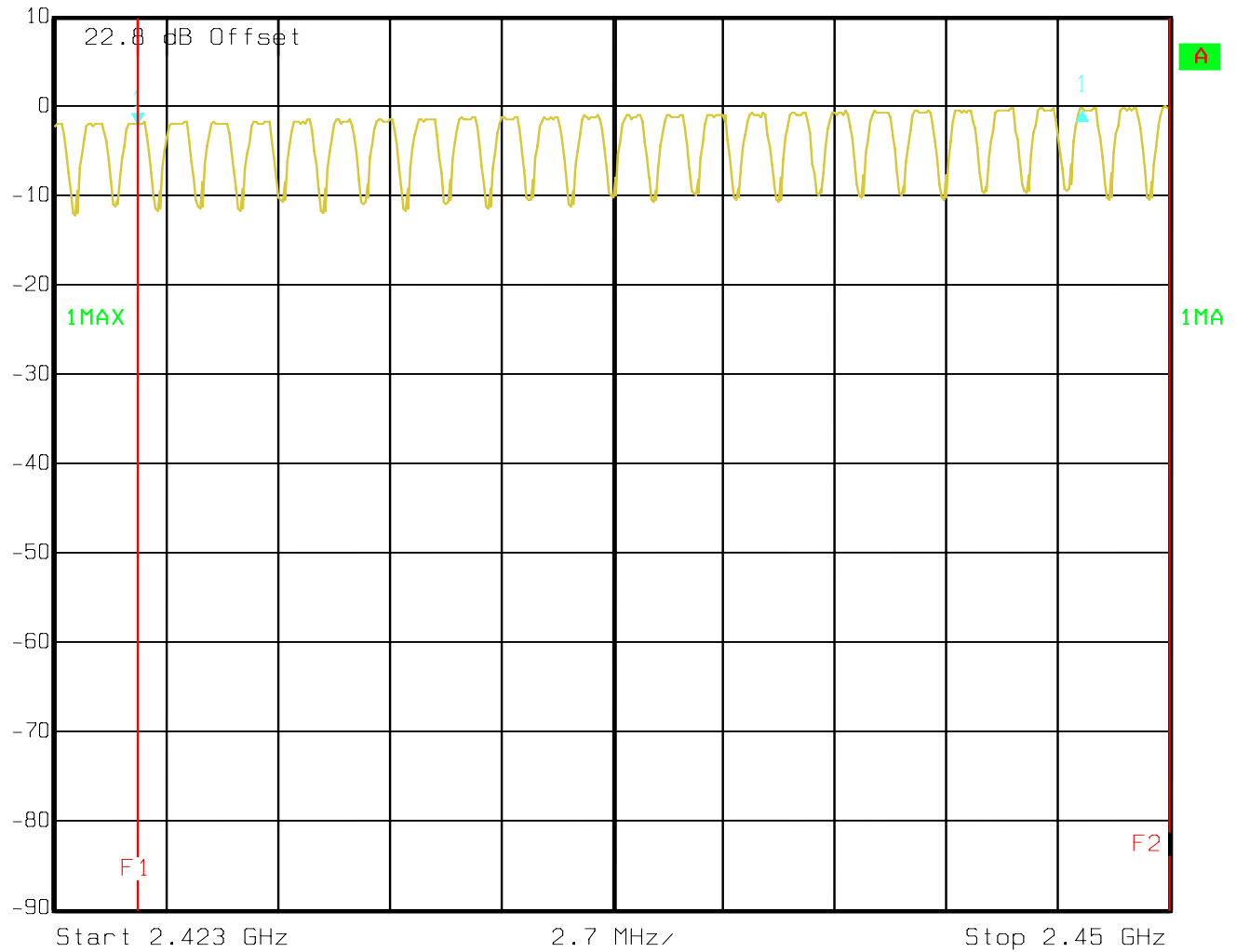
(F1-F2=2402MHz to 2425MHz)

Date: 25.APR.2006 17:04:42

(PLOT 2)

(F1-F2=2425MHz to 2450MHz)

 Delta 1 [T1] RBW 300 kHz RF Att 10 dB
Ref Lvl 1.76 dB VBW 300 kHz
10 dBm 22.89579158 MHz SWT 5 ms Unit dBm



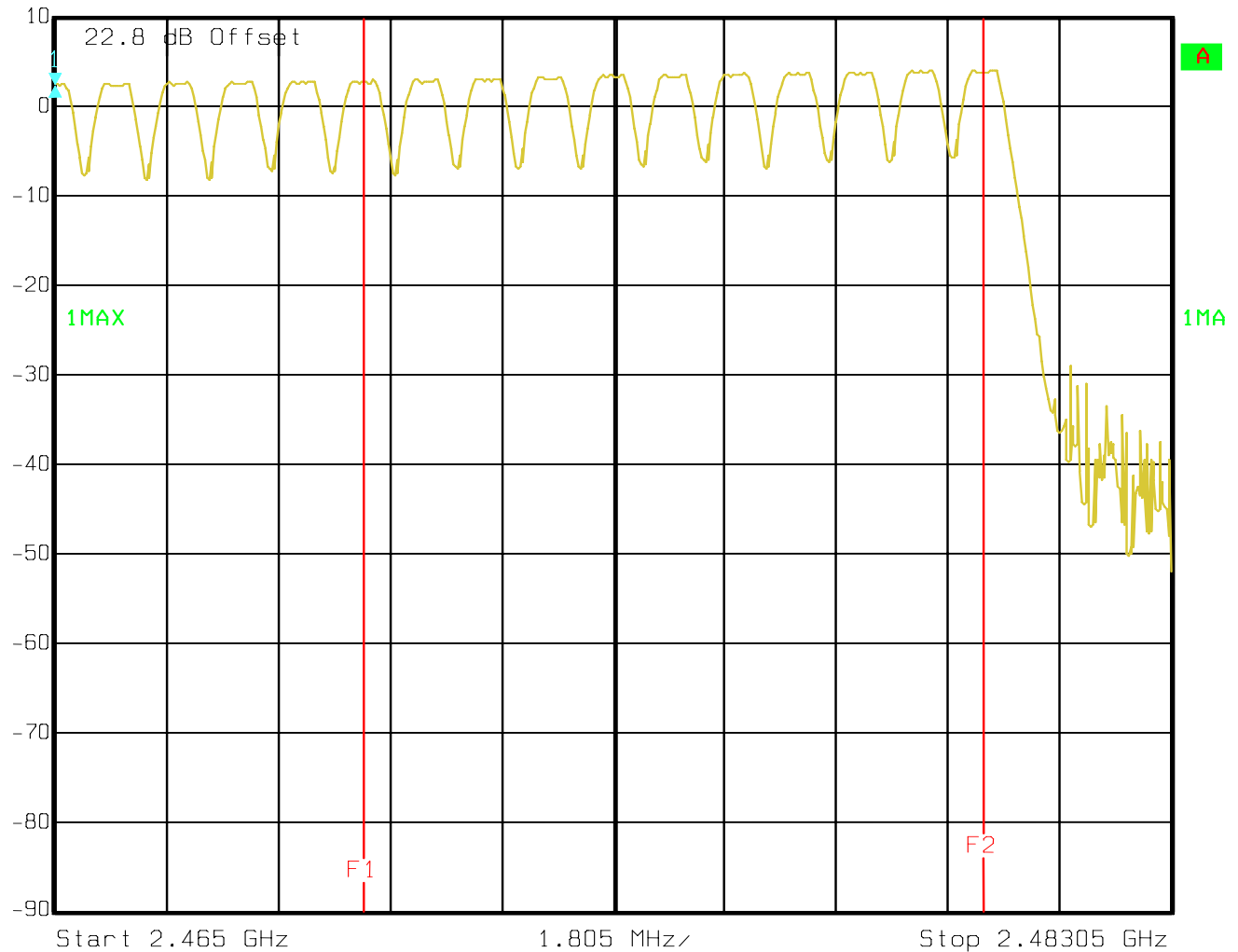
Date: 25.APR.2006 17:11:06

Date: 25.APR.2006 17:13:56

(PLOT 4)

(F1-F2=2470MHz to 2480MHz)


 Delta 1 [T1] RBW 300 kHz RF Att 10 dB
 Ref Lvl 0.00 dB VBW 300 kHz
 10 dBm 0.00000000 Hz SWT 5 ms Unit dBm



Date: 25.APR.2006 17:26:06

CONDUCTED SPURIOUS EMISSIONS

5.5.3 LIMIT SUB CLAUSE § 15.247 (d)

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 Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

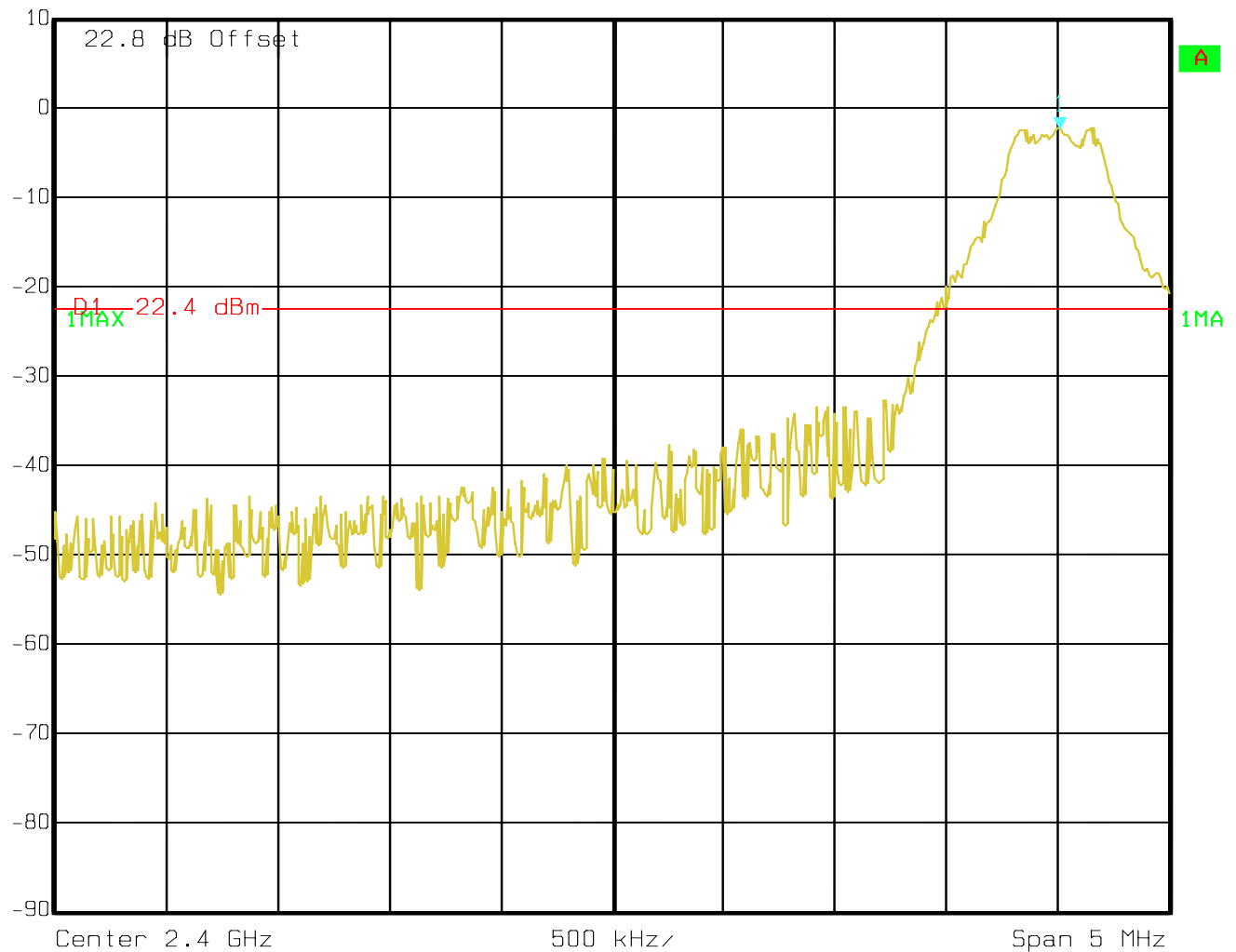
***ref level offset is based upon BT coupler loss + splitter**

5.5.4 RESULTS

CONDUCTED BANDEGDE COMPLIANCE 2402 MHz



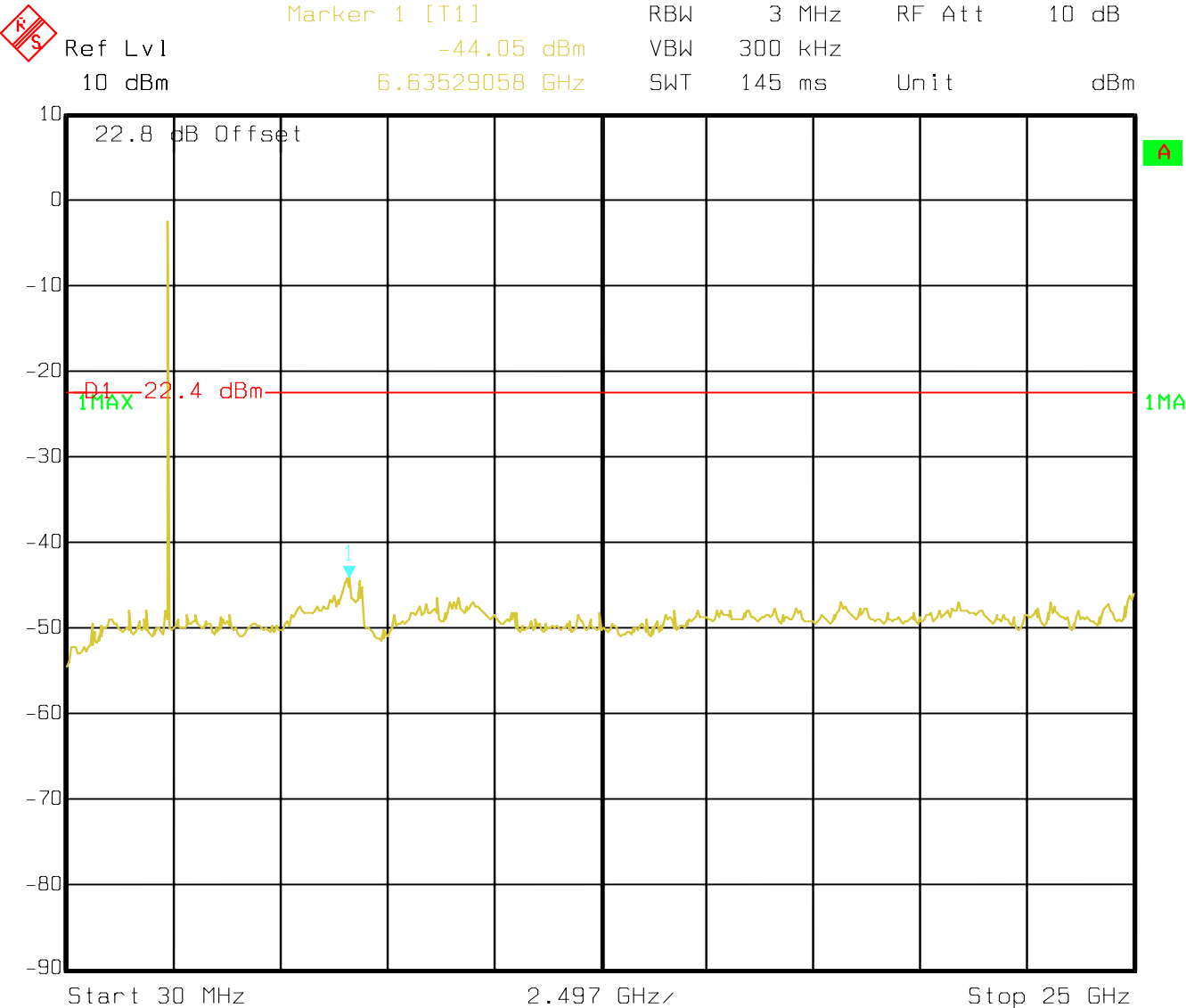
Ref Lvl 10 dBm
 Marker 1 [T1] -2.40 dBm
 2.40200902 GHz
 RBW 100 kHz RF Att 10 dB
 VBW 300 kHz
 SWT 5 ms Unit dBm



Date: 25.APR.2006 19:25:57



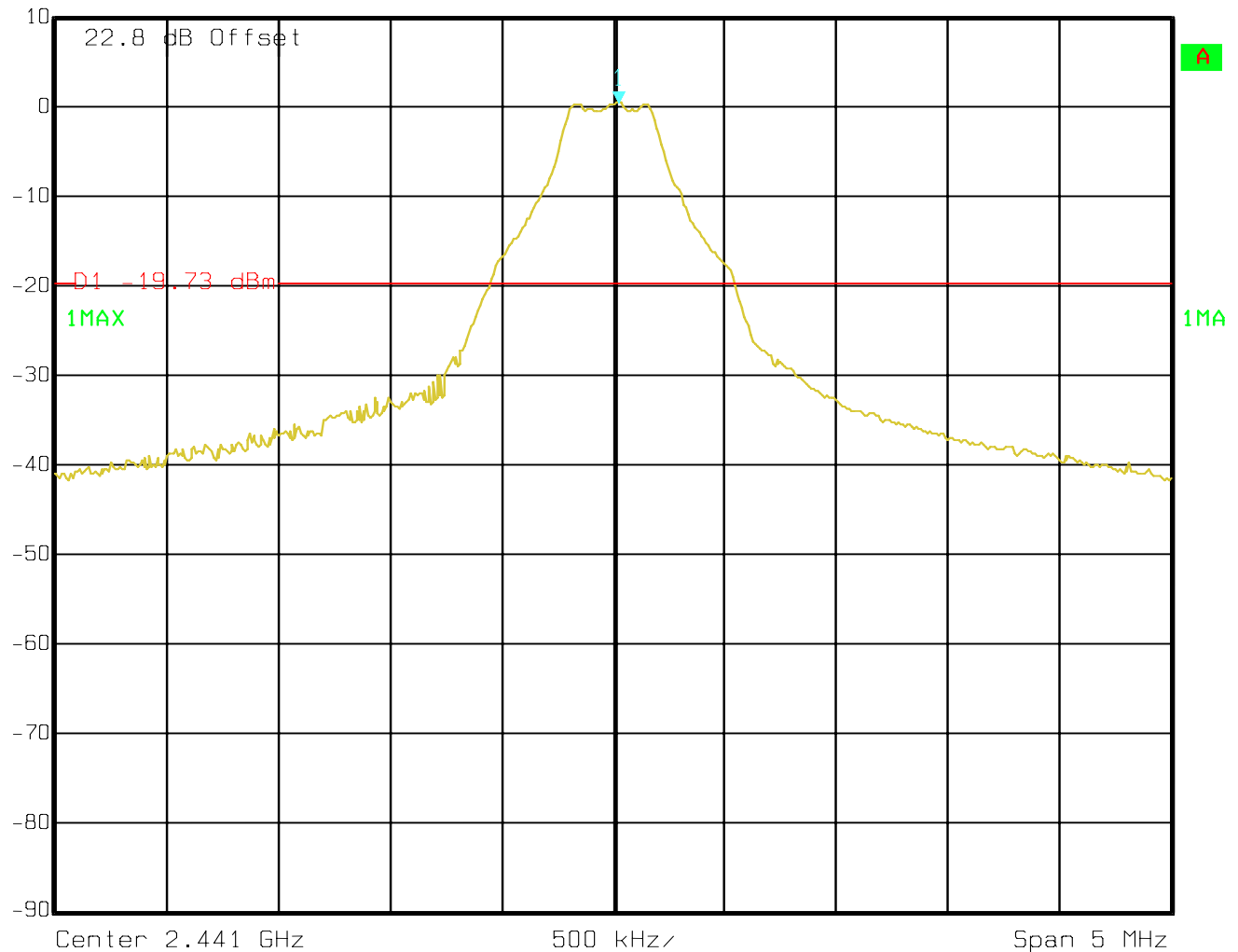
CONDUCTED SPURIOUS 2402 MHz



Date: 25.APR.2006 19:48:01

REFERENCE 2441 MHz

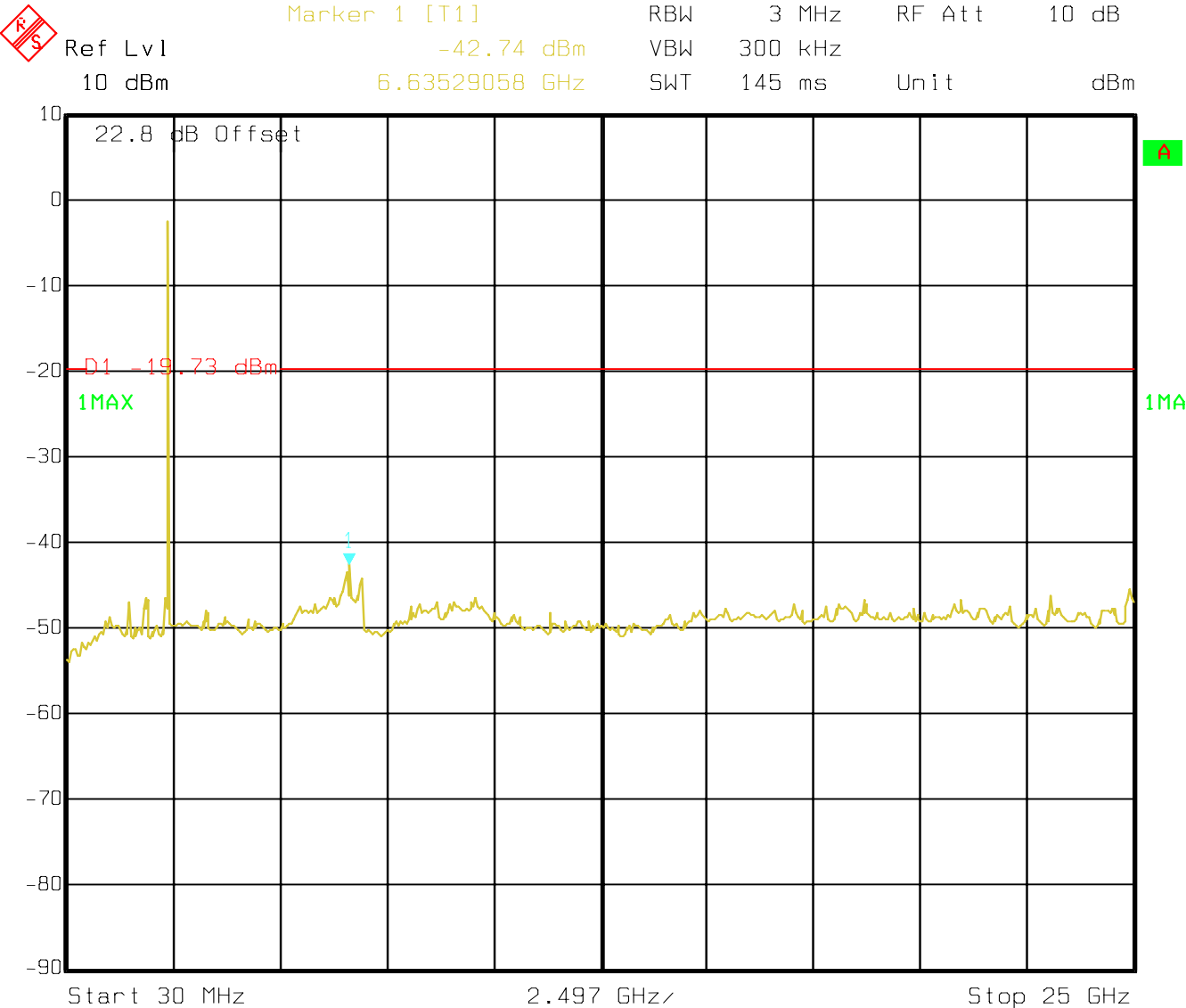

 Ref Lvl 10 dBm
 Marker 1 [T1] 0.27 dBm
 RBW 100 kHz RF Att 10 dB
 VBW 300 kHz
 2.44102505 GHz
 SWT 5 ms Unit dBm



Date: 25.APR.2006 19:29:36



CONDUCTED SPURIOUS 2441 MHz

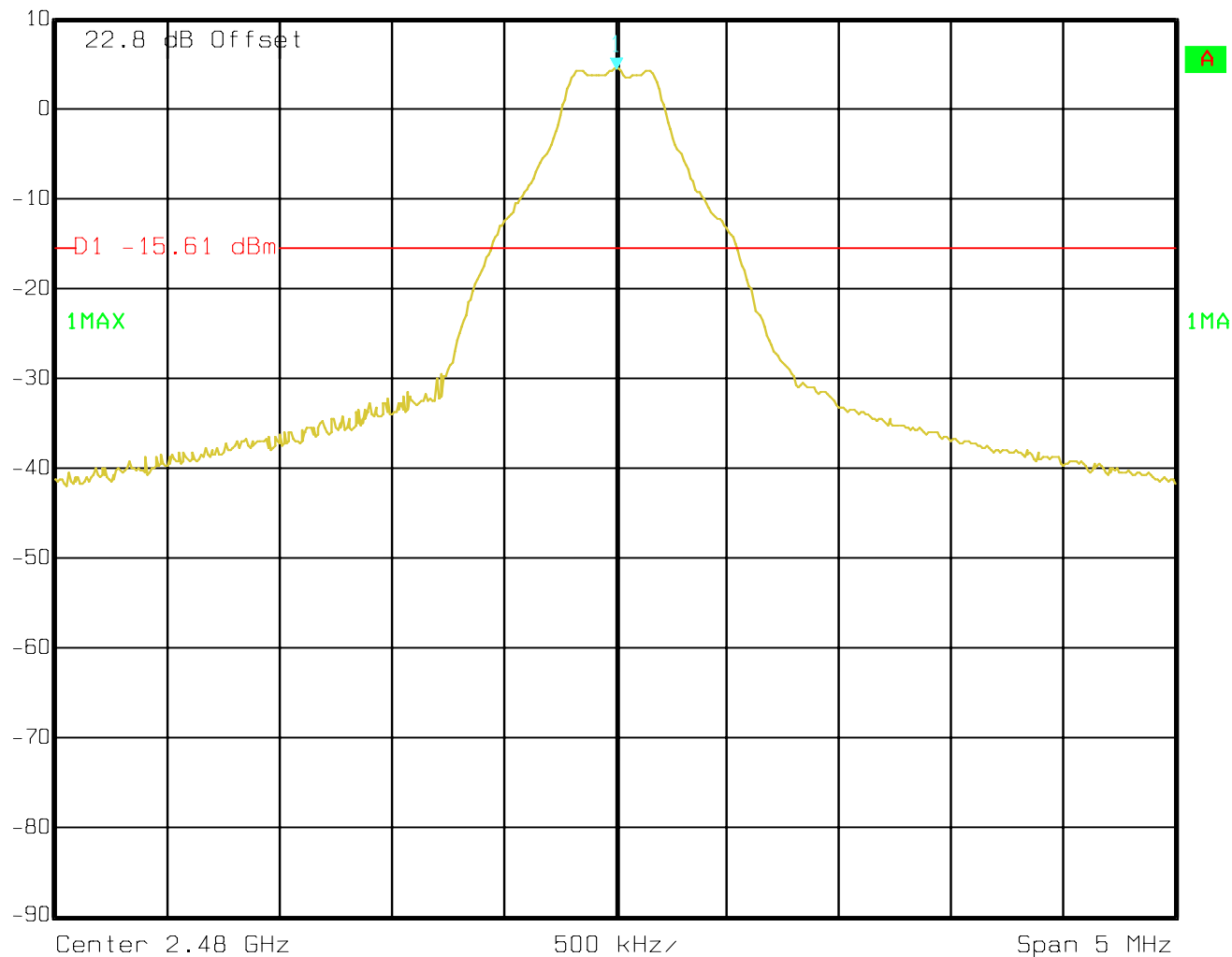


Start 30 MHz2.497 GHz/Stop 25 GHz

Date: 25.APR.2006 19:42:22

CONDUCTED BANDEGDE COMPLIANCE 2480 MHz

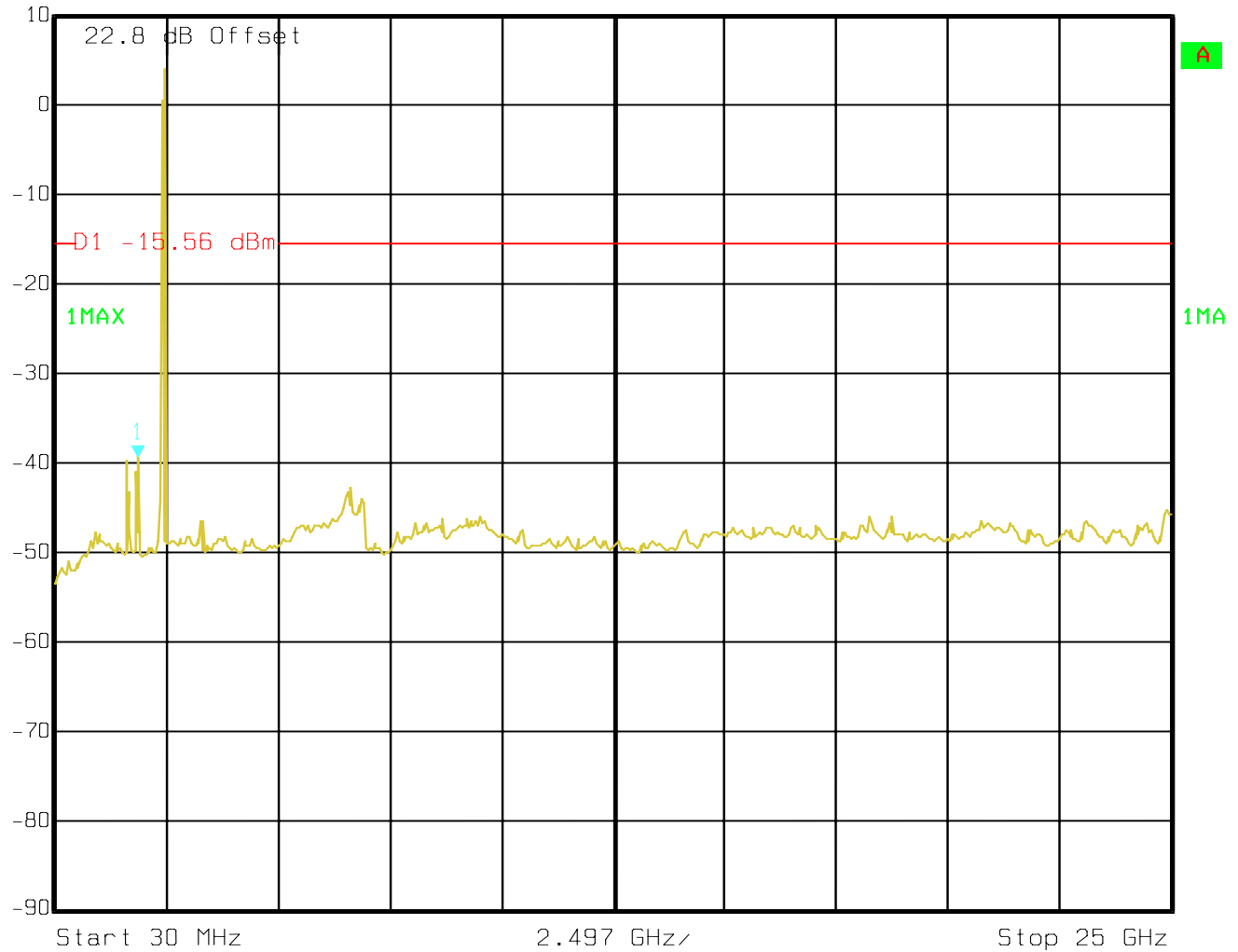

 Ref Lvl 10 dBm
 Marker 1 [T1] 4.44 dBm
 2.48000501 GHz
 RBW 100 kHz
 VBW 300 kHz
 SWT 5 ms
 RF Att 10 dB
 Unit dBm



Date: 25.APR.2006 19:31:06

CONDUCTED SPURIOUS 2480 MHz

 Ref Lvl 10 dBm Marker 1 [T1] -39.27 dBm RBW 3 MHz RF Att 10 dB
1.88148297 GHz VBW 300 kHz Unit dBm
SWT 145 ms



Date: 25.APR.2006 19:39:25

5.6 RESTRICTED BAND EDGE COMPLIANCE RADIATED §15.247/15.205**5.6.1 LIMITS**

(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			

*PEAK LIMIT= 74dBuV/m

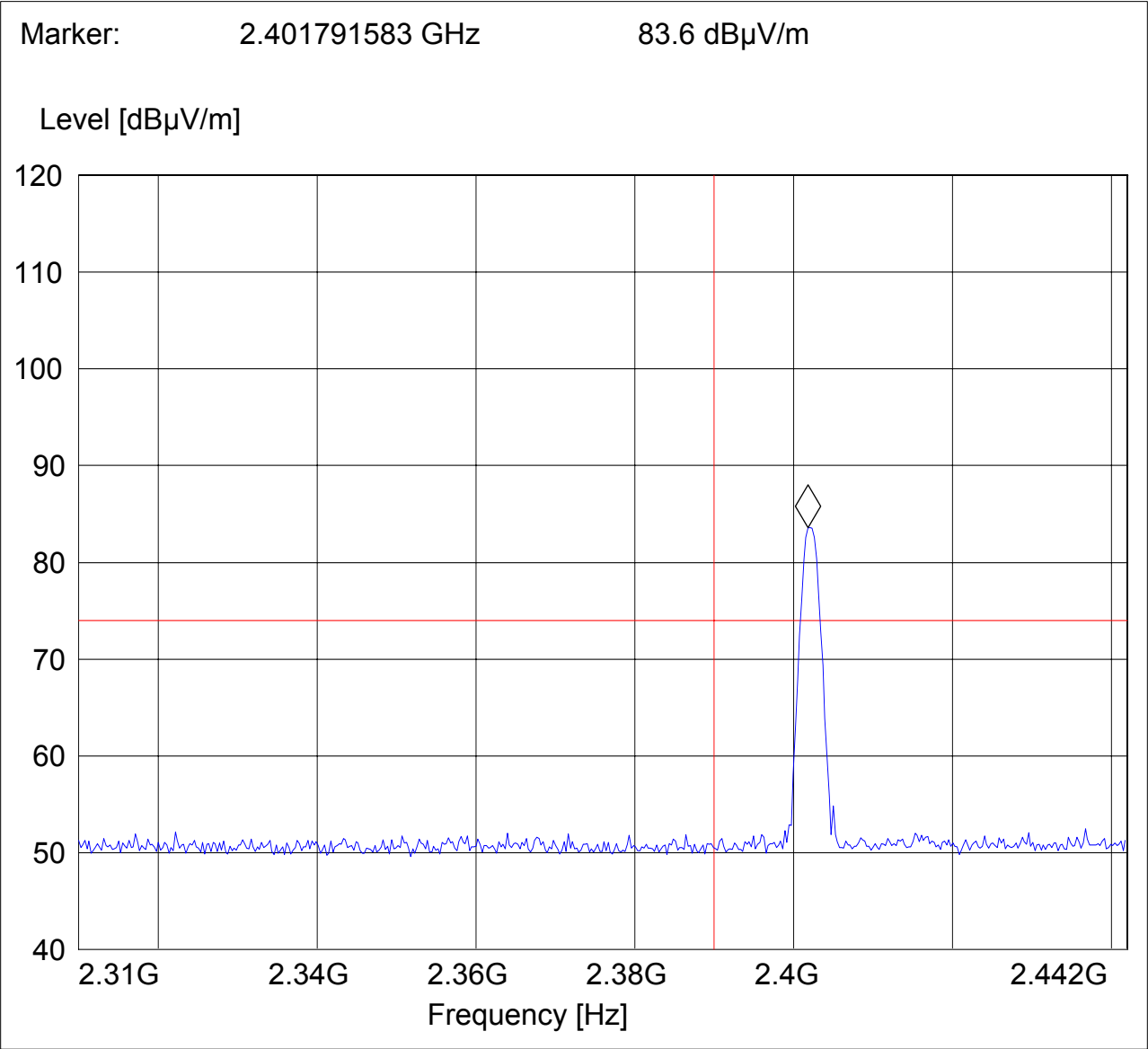
*AVG. LIMIT= 54dBuV/m



5.6.2 RESULTS (2402MHz)

PEAK

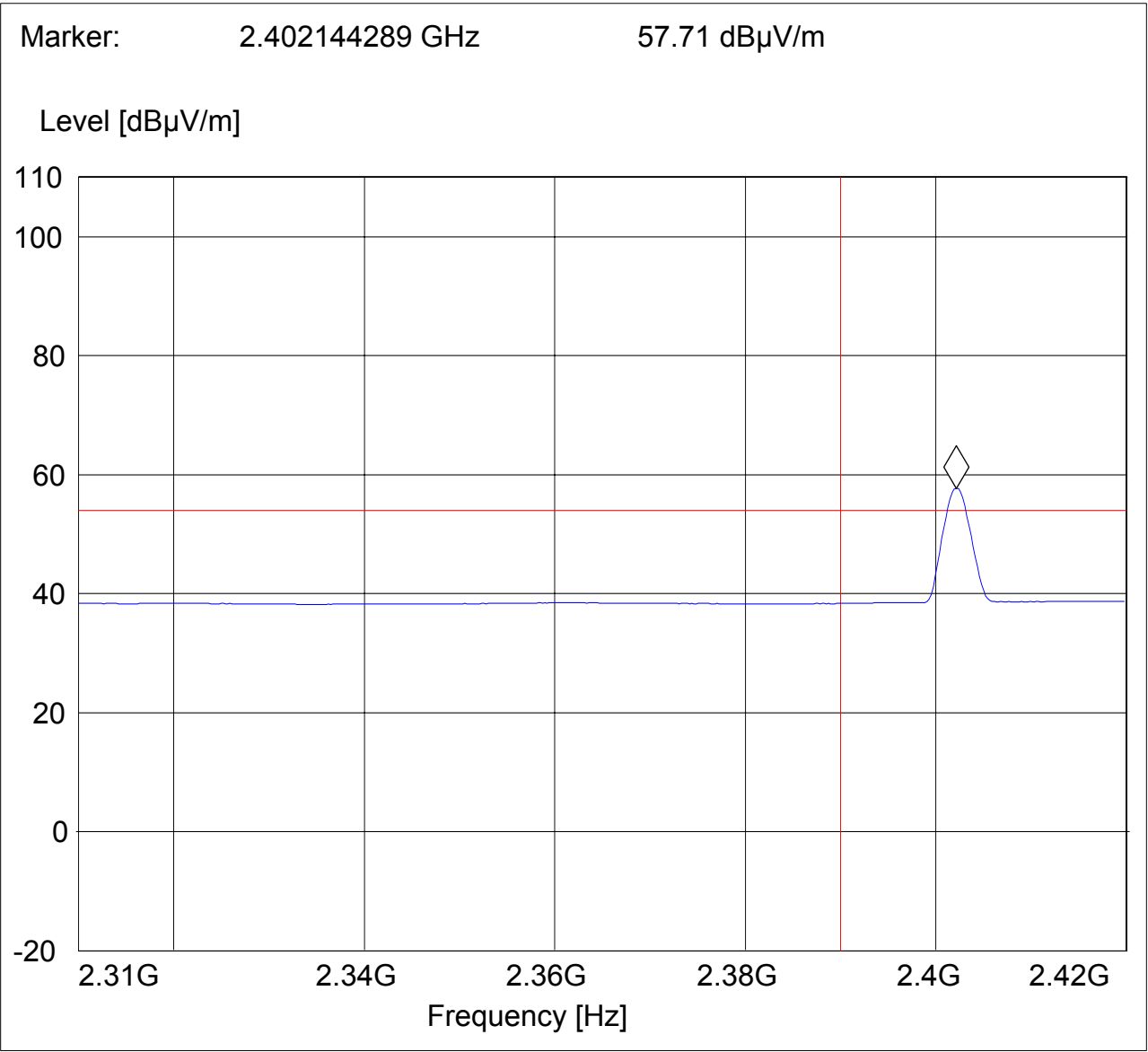
Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
2310 MHz	2442 MHz	Max Peak	Coupled	1 MHz	1 MHz





AVG

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
2310 MHz	2420 MHz	Max Peak	Coupled	1 MHz	10 Hz

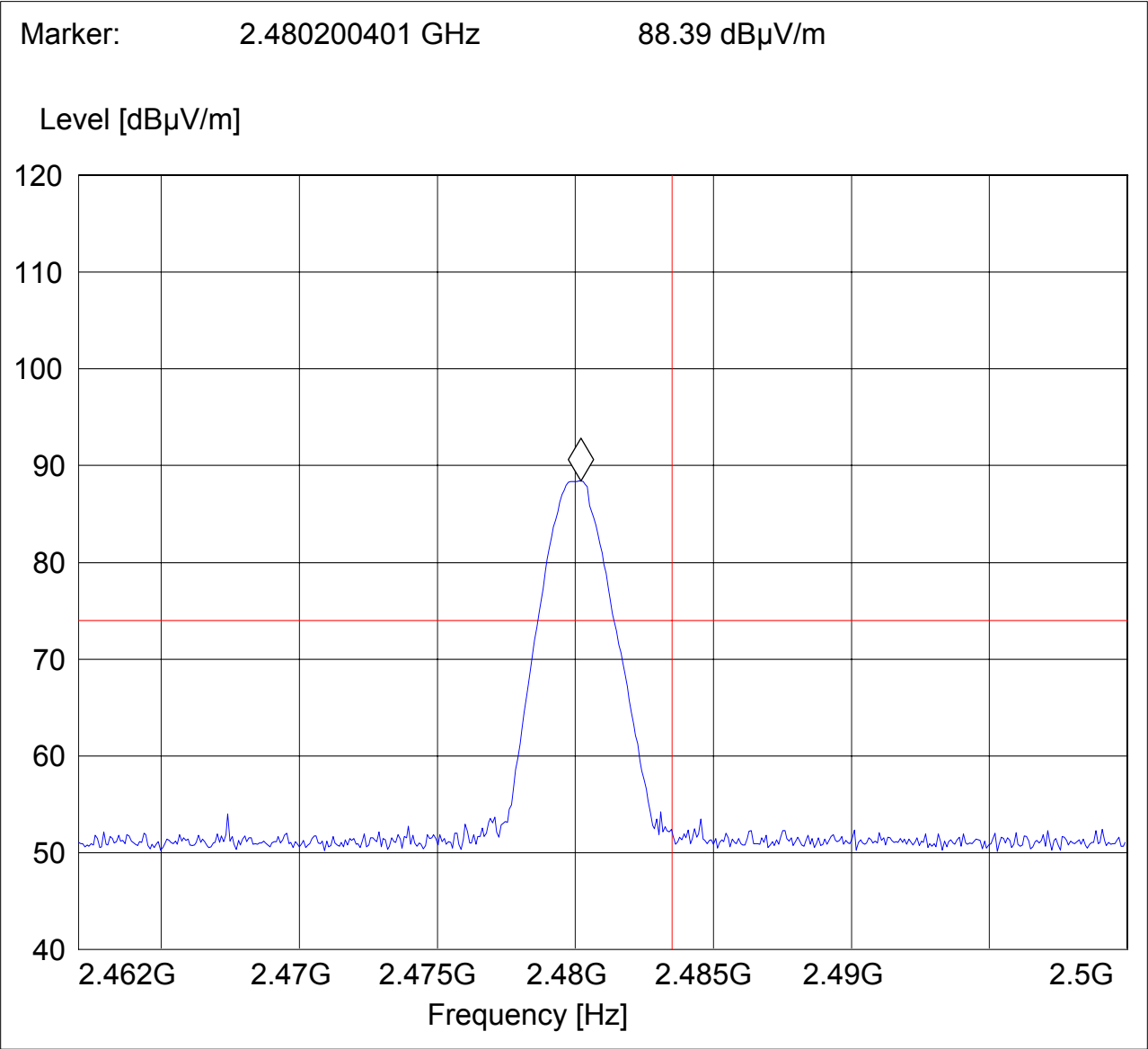




5.6.3 RESULTS (2480MHz)

PEAK

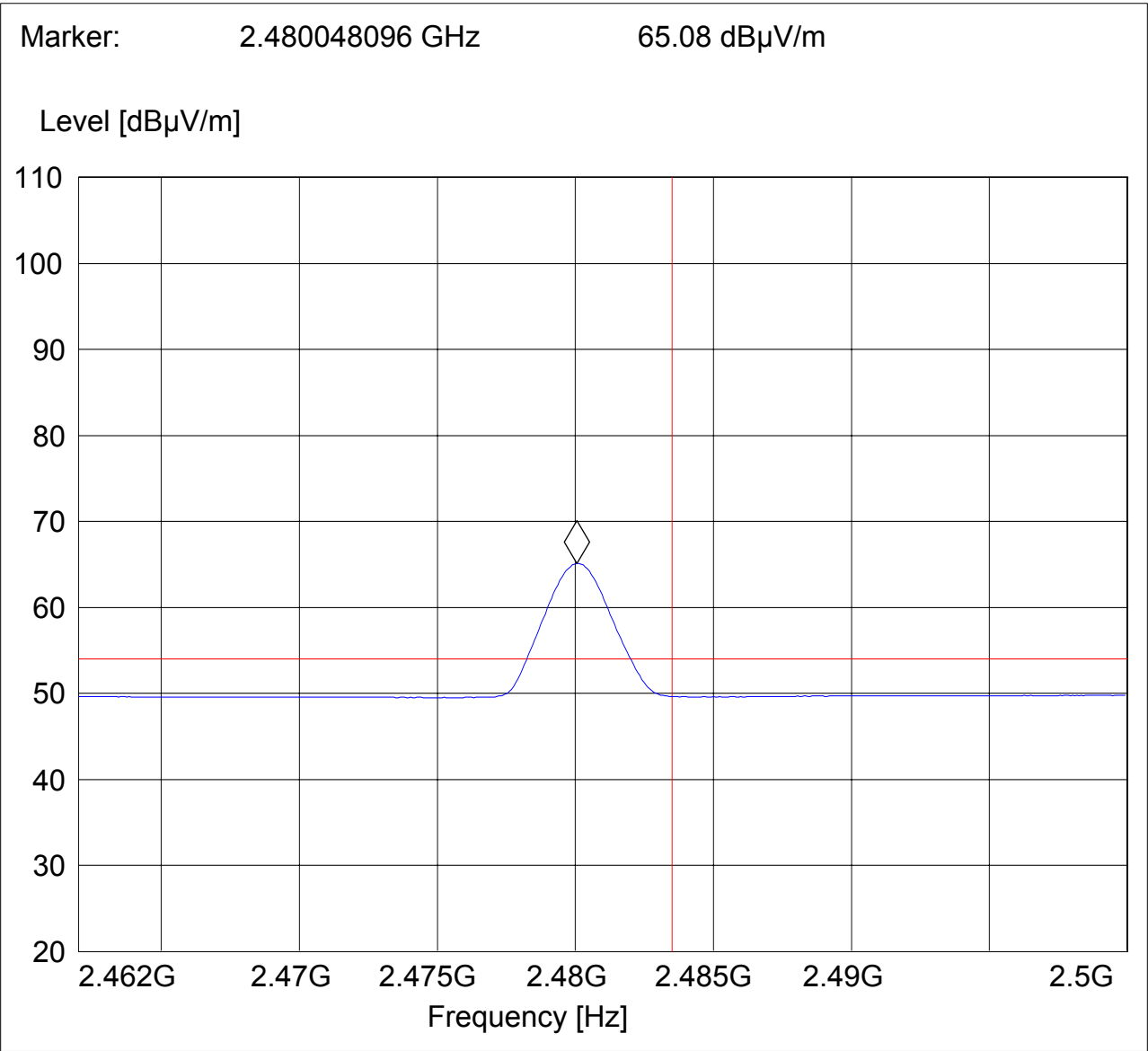
Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
2462 MHz	2500 MHz	Max Peak	Coupled	1 MHz	1 MHz





AVG

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
2462 MHz	2500 MHz	Max Peak	Coupled	1 MHz	10 Hz



5.7 TRANSMITTER SPURIOUS EMISSIONS RADIATED § 15.247/15.205/15.209

5.7.1 LIMITS

(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			

*PEAK LIMIT= 74dBuV/m

*AVG. LIMIT= 54dBuV/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 with the plots.

Results for the radiated measurements below 30MHz according § 15.33

Frequency	Measured values	Remarks
9KHz – 30MHz	No emissions found, caused by the EUT	This is valid for all the tested channels

5.7.2 RESULTS

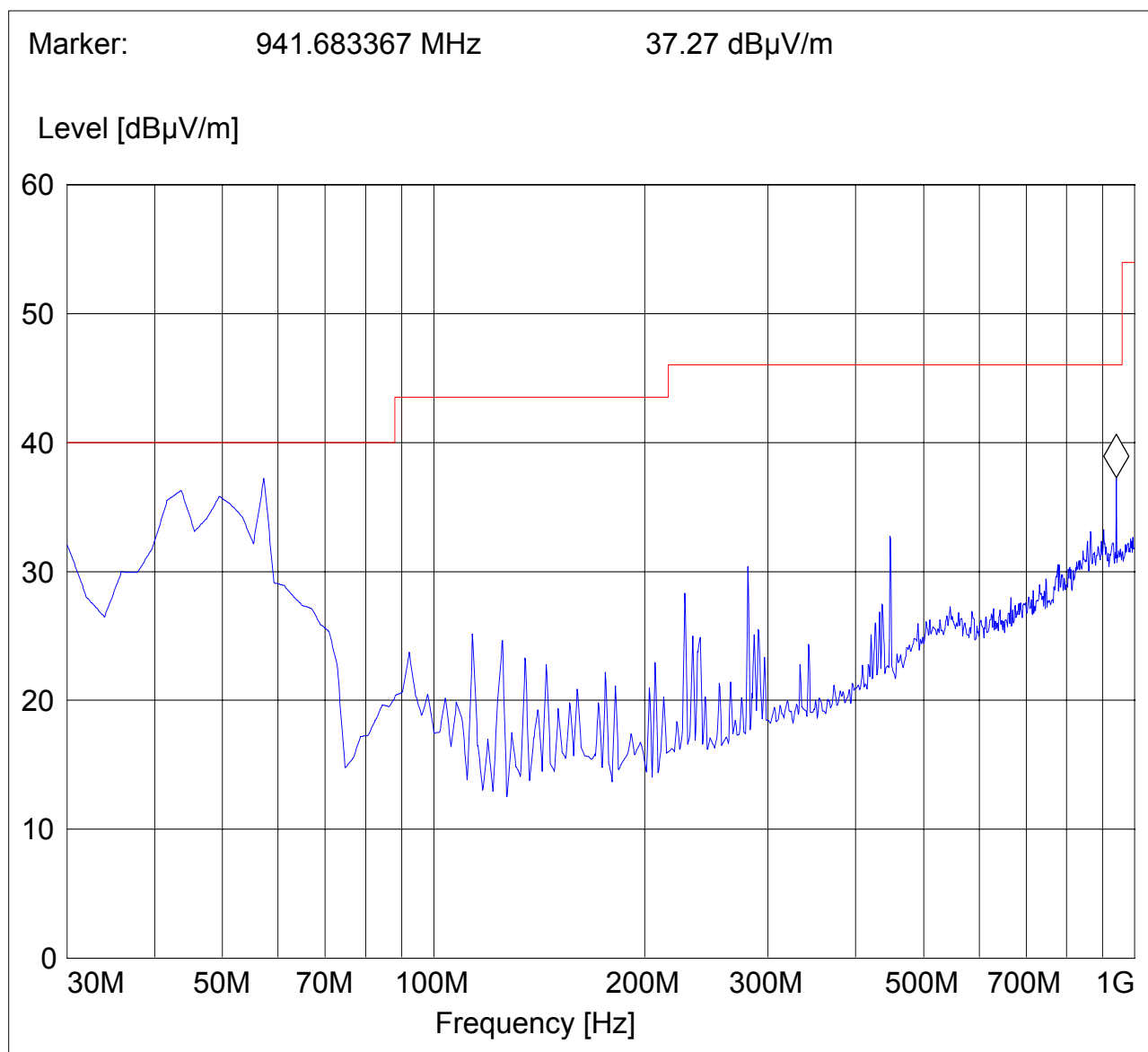
30MHz – 1GHz

Antenna: vertical

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
30MHz	1GHz	Max Peak	Coupled	100 KHz	100 KHz

Note: This plot is valid for low, mid, high channels (worst-case plot)

Note: Peak reading vs. Quasi-peak limit

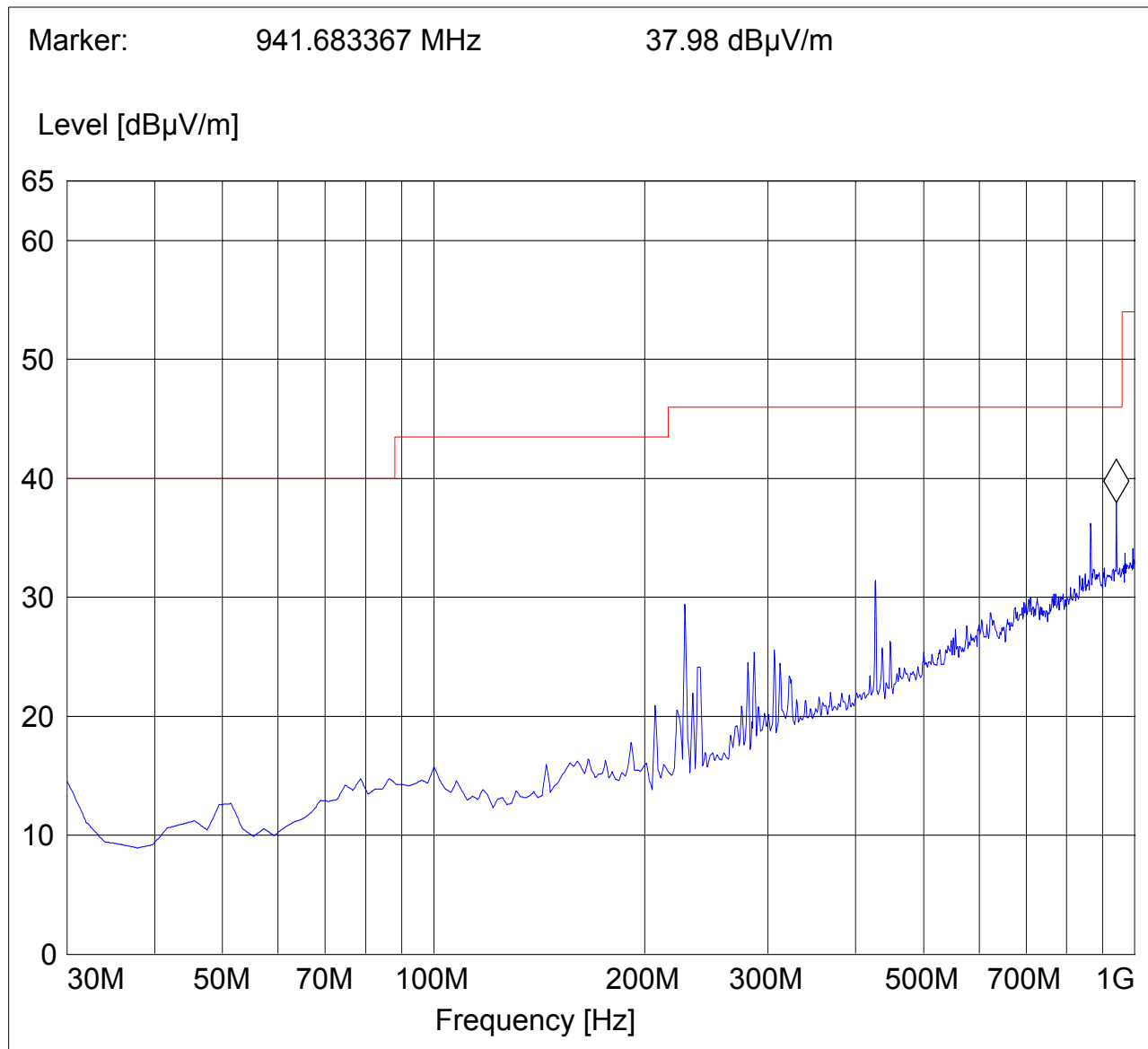


30MHz – 1GHz
Antenna: horizontal

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
30MHz	1GHz	Max Peak	Coupled	100 KHz	100 KHz

Note: This plot is valid for low, mid, high channels (worst-case plot)

Note: Peak reading vs. Quasi-peak limit

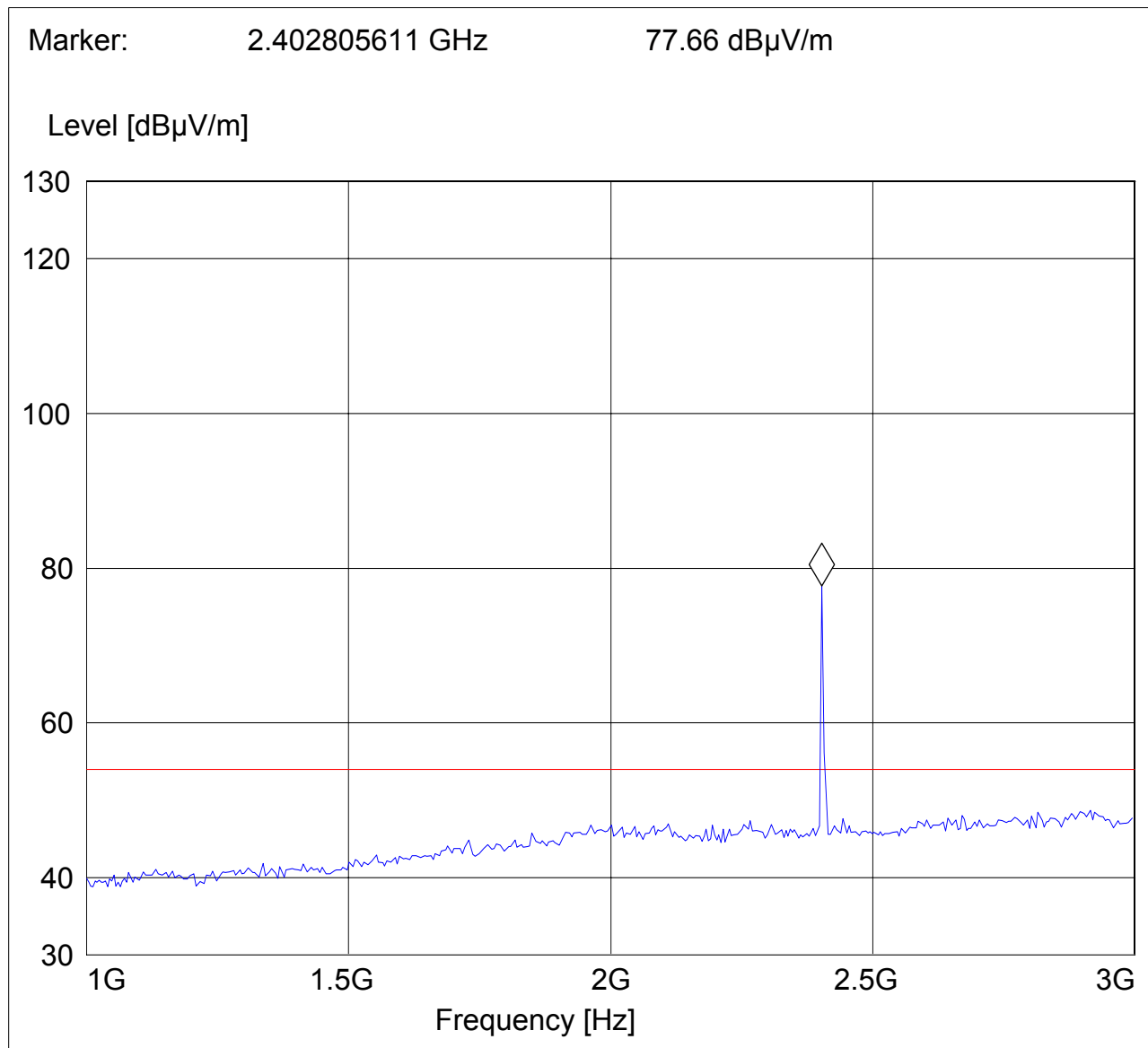


1-3GHz (2402MHz)

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
1GHz	3GHz	Max Peak	Coupled	1 MHz	1 MHz

Note: The peaks above the limit line is the carrier freq.

Note: Peak Reading vs. Average limit

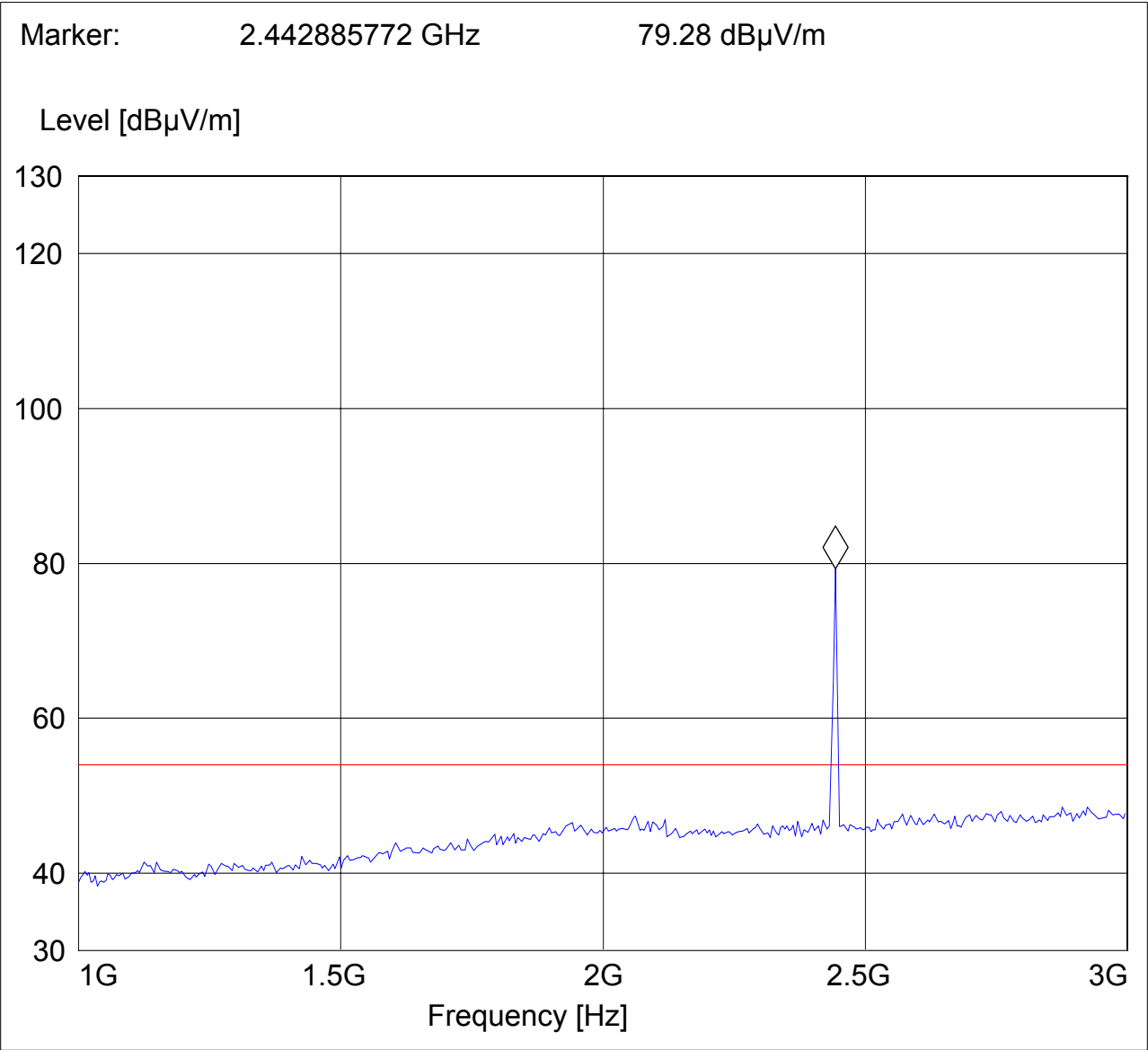




1-3GHz (2441MHz)

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
1GHz	3GHz	Max Peak	Coupled	1 MHz	1 MHz

Note: The peaks above the limit line is the carrier freq.
Note: Peak Reading vs. Average limit

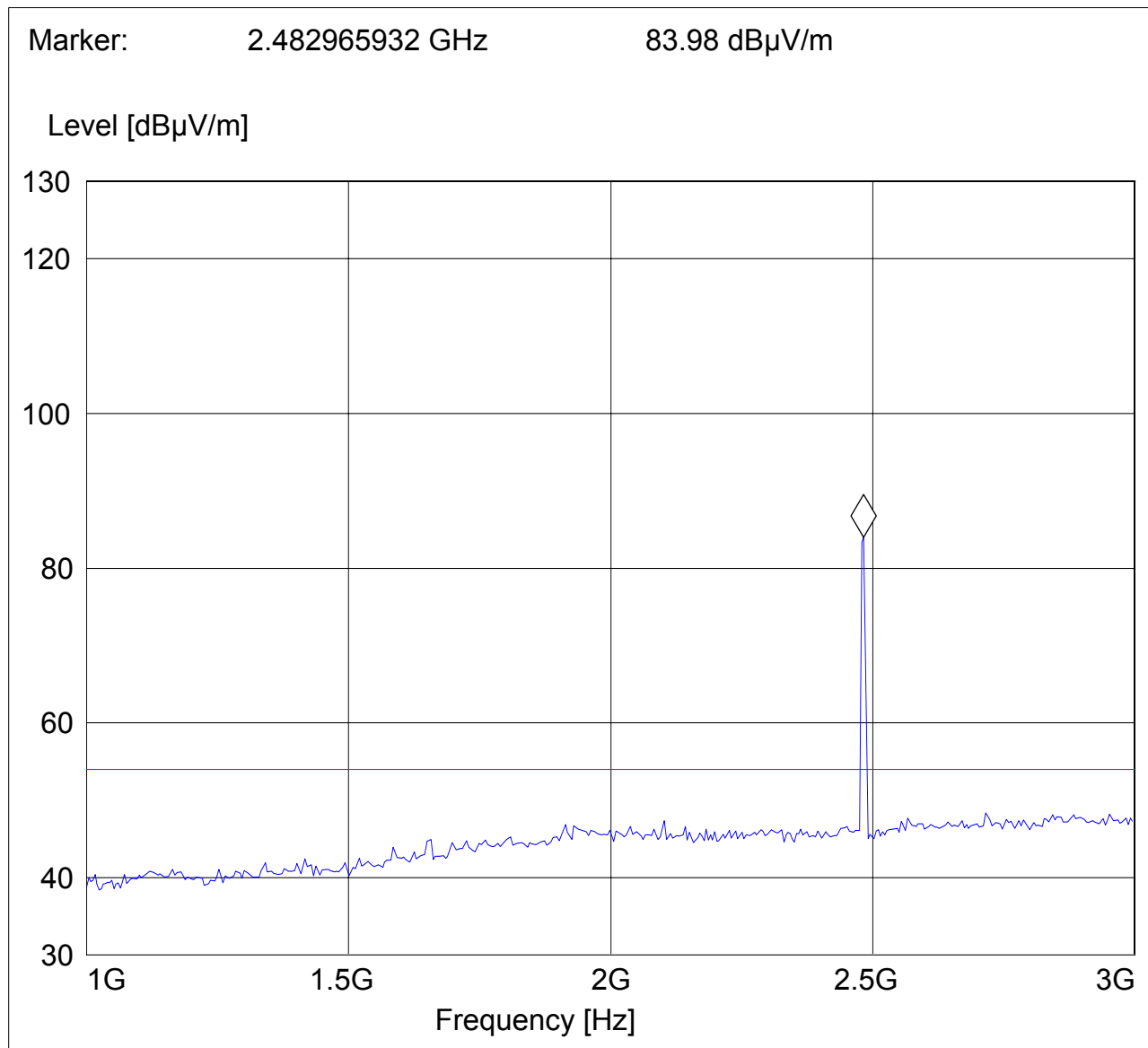


1-3GHz (2480MHz)

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
1GHz	3GHz	Max Peak	Coupled	1 MHz	1 MHz

Note: The peaks above the limit line is the carrier freq.

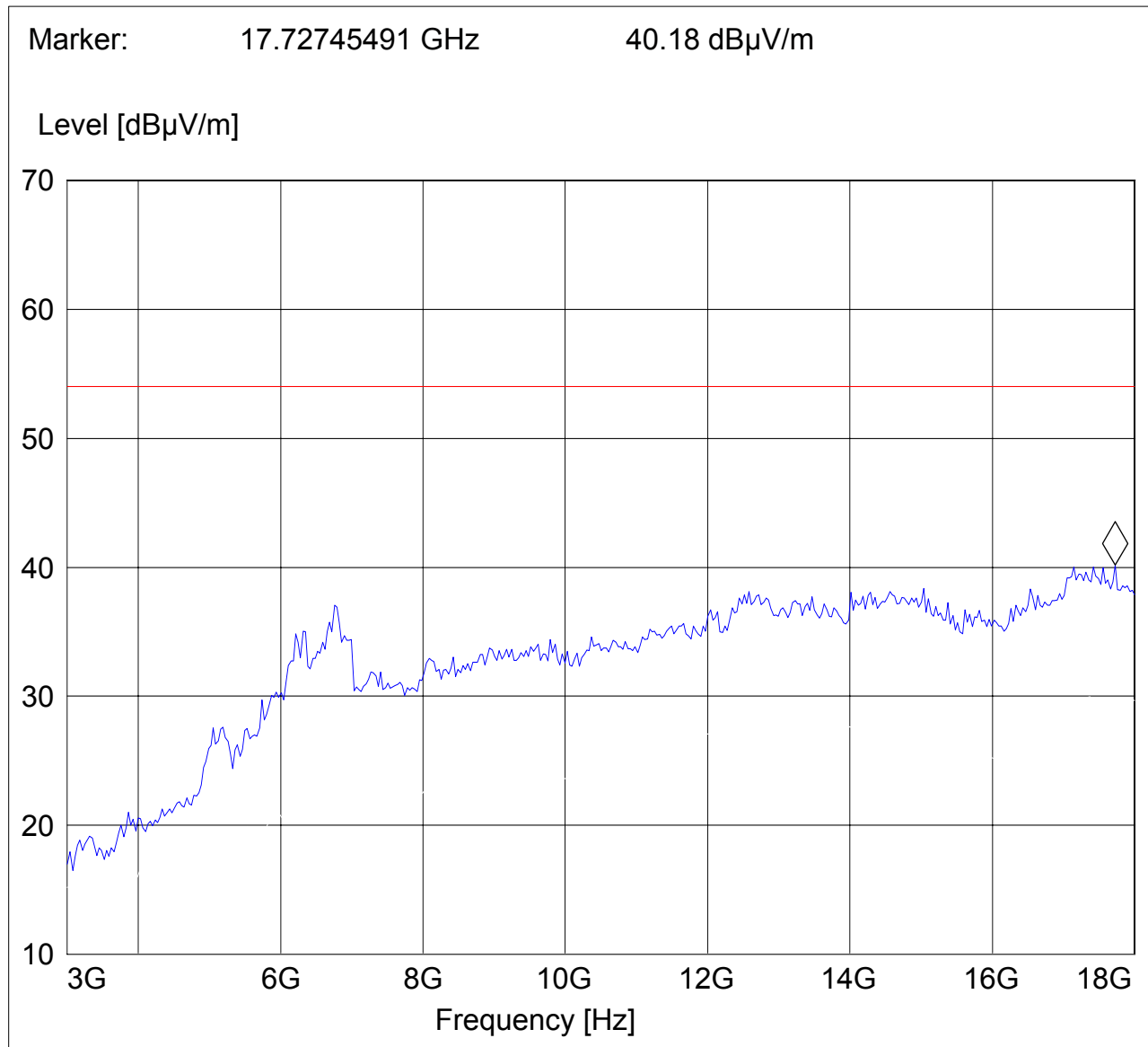
Note: Peak Reading vs. Average limit



3-18GHz (2402MHz)

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
3GHz	18GHz	Max Peak	Coupled	1 MHz	1 MHz

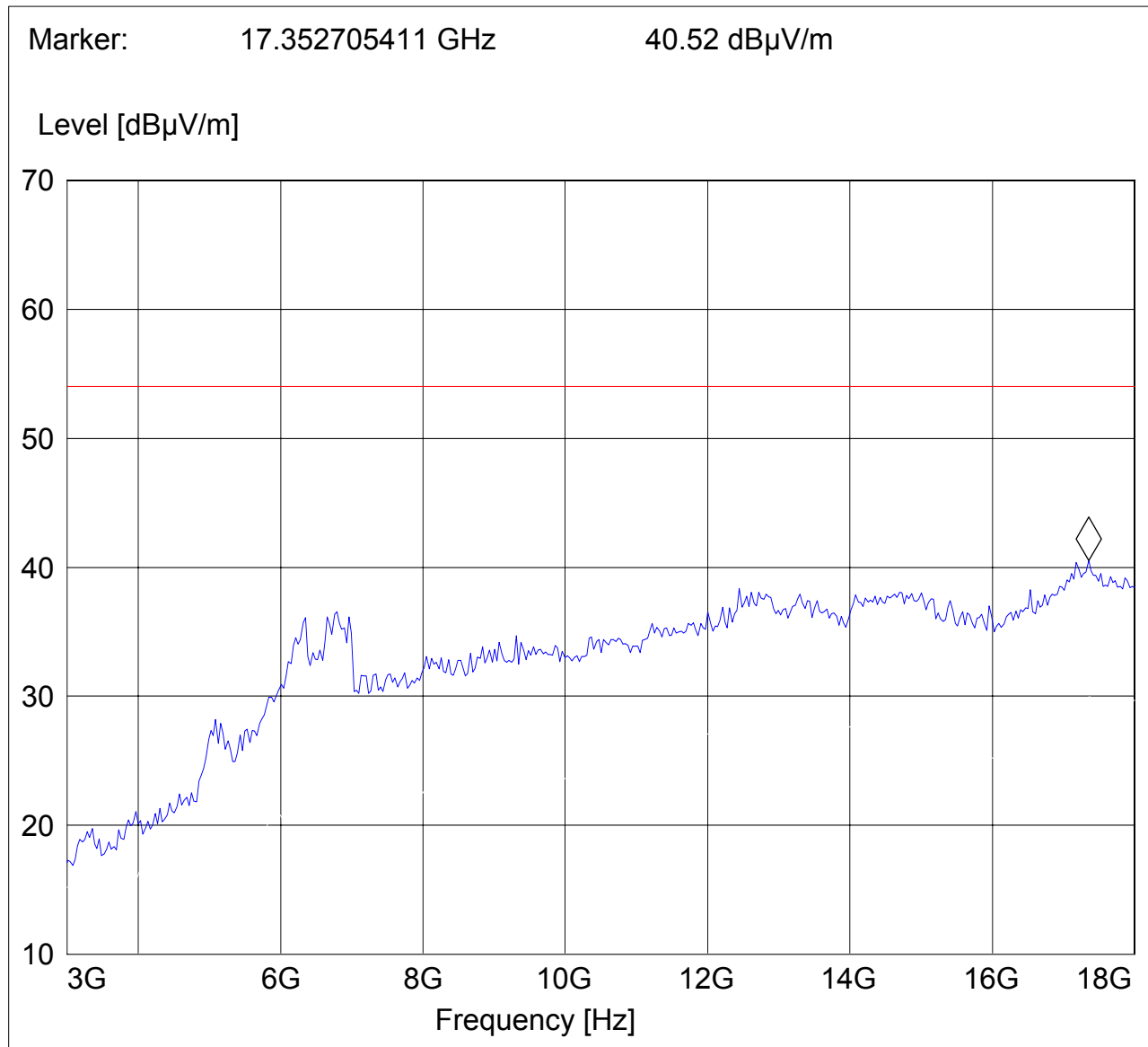
Note: Peak Reading vs. Average limit



3-18GHz (2441MHz)

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
3GHz	18GHz	Max Peak	Coupled	1 MHz	1 MHz

Note: Peak Reading vs. Average limit

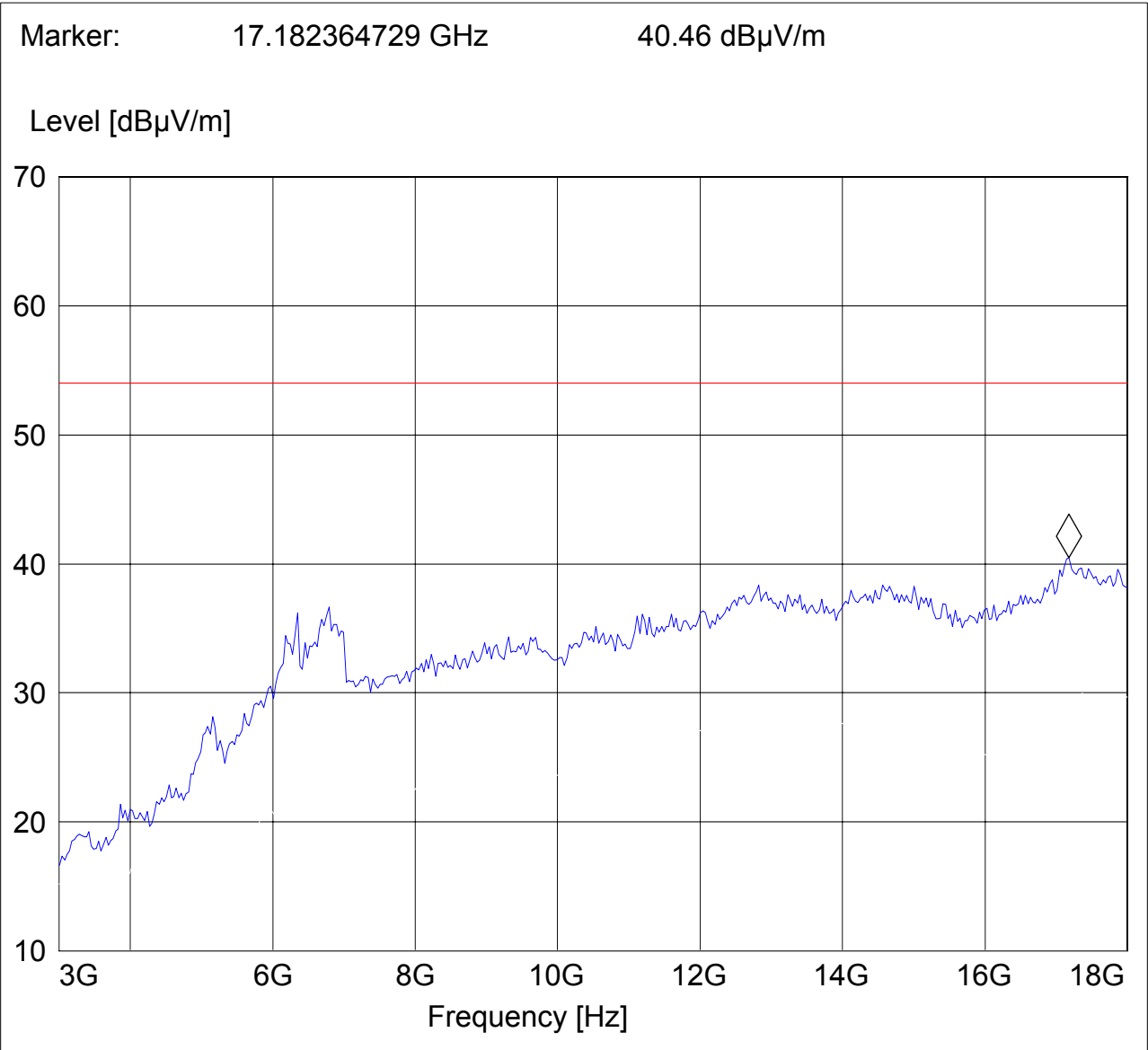




3-18GHz (2480MHz)

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
3GHz	18GHz	Max Peak	Coupled	1 MHz	1 MHz

Note: Peak Reading vs. Average limit

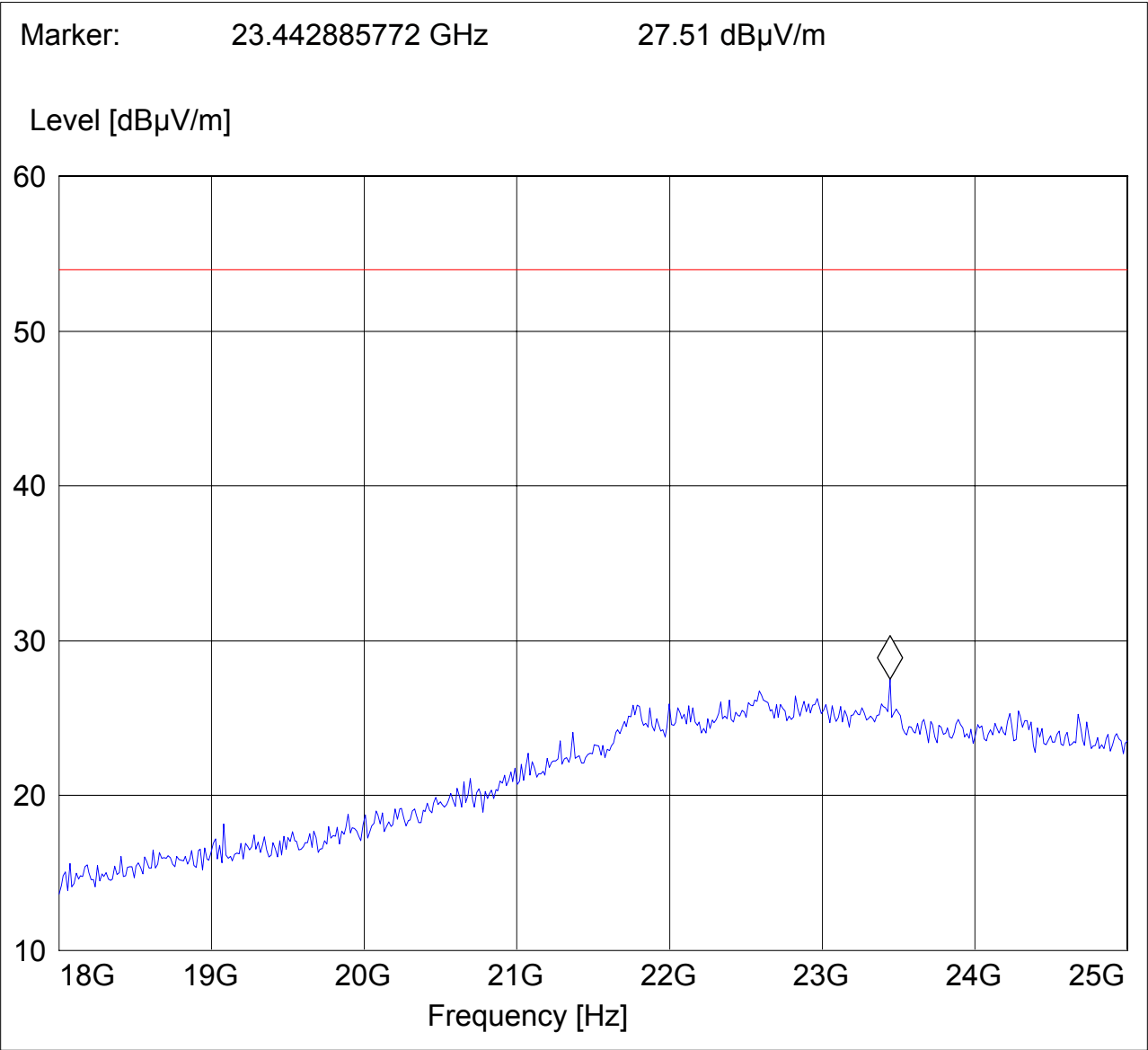




18-25GHz

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
18GHz	25GHz	Max Peak	Coupled	1 MHz	1 MHz

Note: This plot is valid for low, mid, high channels (worst-case plot)
Note: Peak Reading vs. Average limit



5.8 RECEIVER SPURIOUS RADIATION § 15.209/RSS210

5.8.1 LIMITS

Frequency (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	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

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 a quasi-peak or average limit , unless specified with the plots.

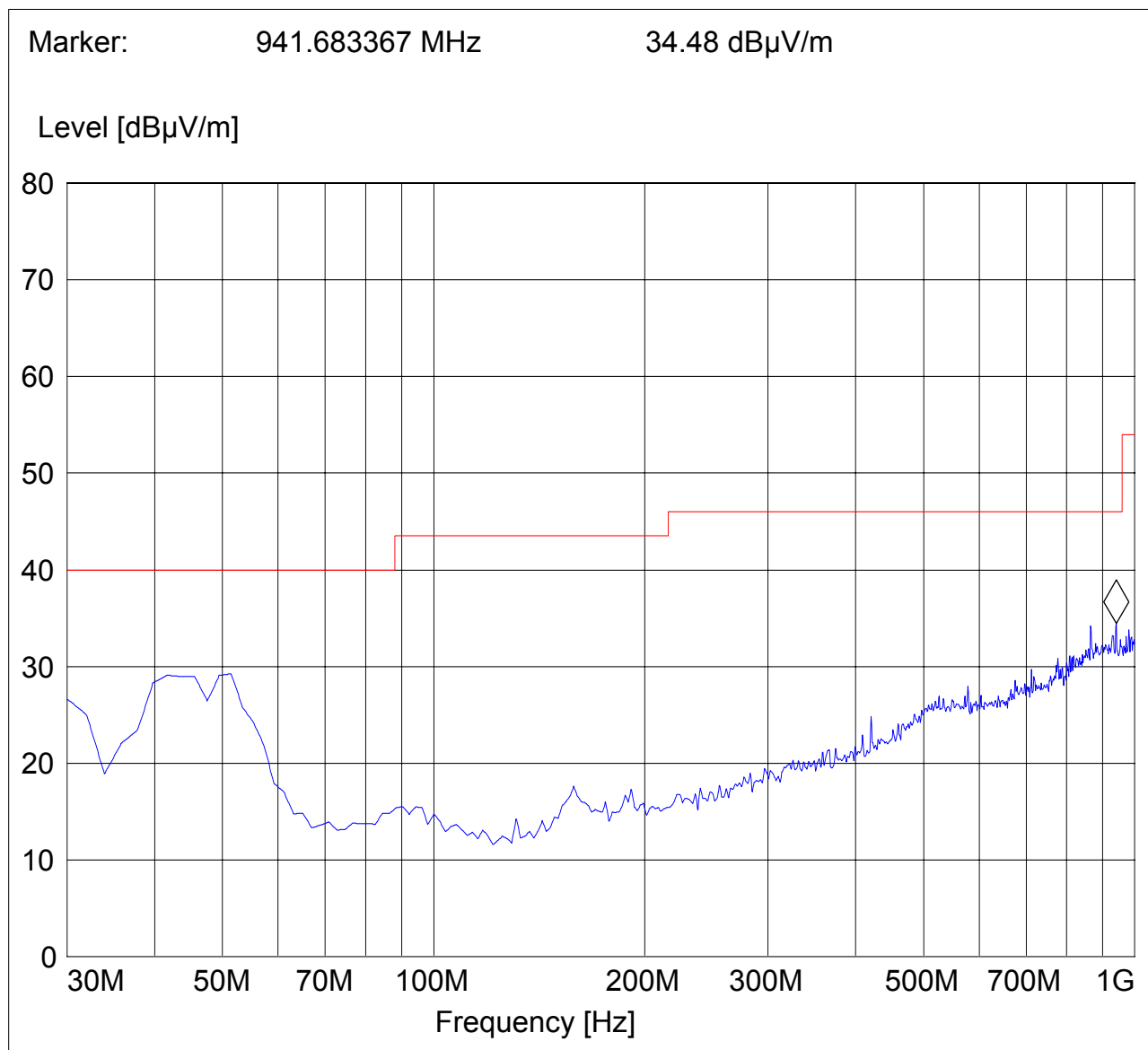
5.8.2 RESULTS

30MHz – 1GHz

Antenna: vertical

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
30MHz	1GHz	Max Peak	Coupled	100 KHz	100 KHz

Note: Peak Reading vs. Quasi-peak limit

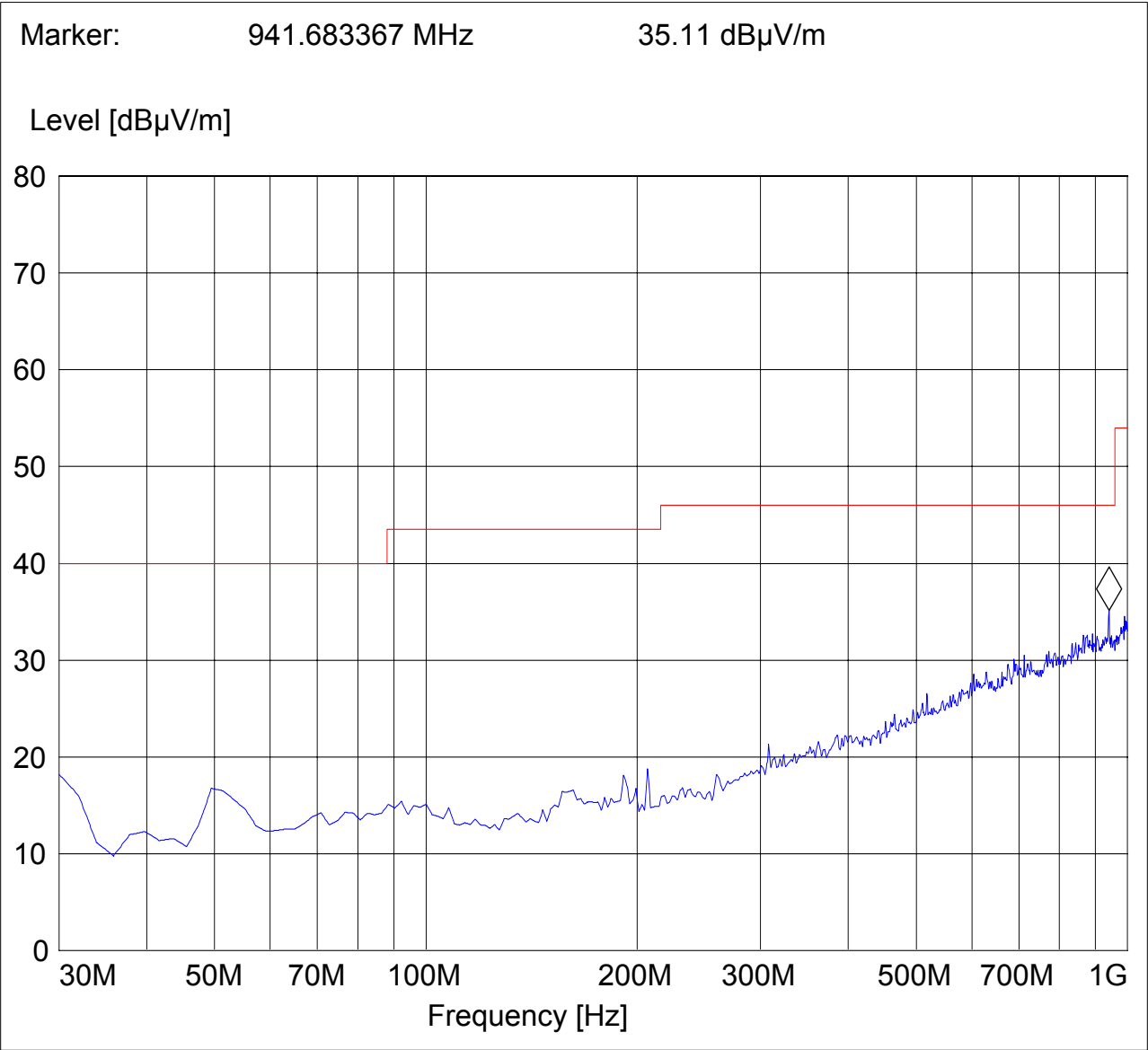




30MHz – 1GHz
Antenna: horizontal

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
30MHz	1GHz	Max Peak	Coupled	100 KHz	100 KHz

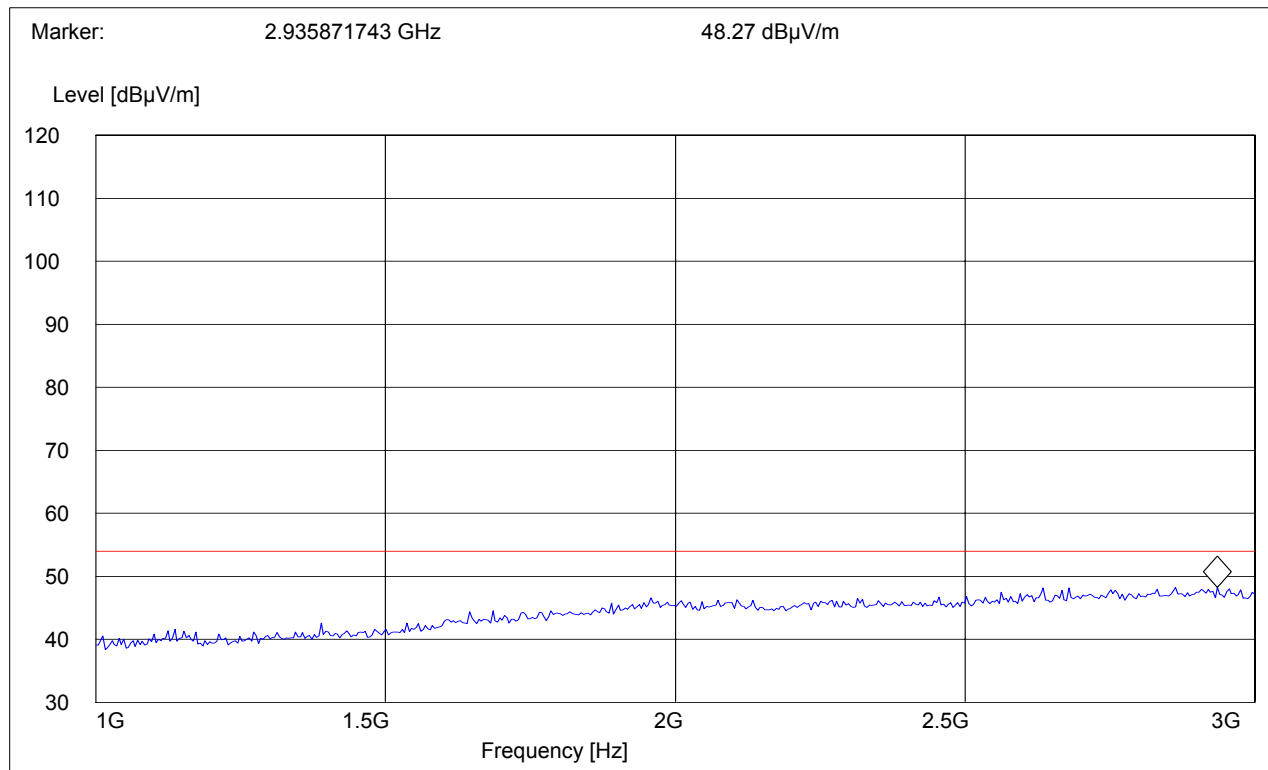
Note: Peak Reading vs. Quasi-peak limit



1-3GHz

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
1GHz	3GHz	Max Peak	Coupled	1 MHz	1 MHz

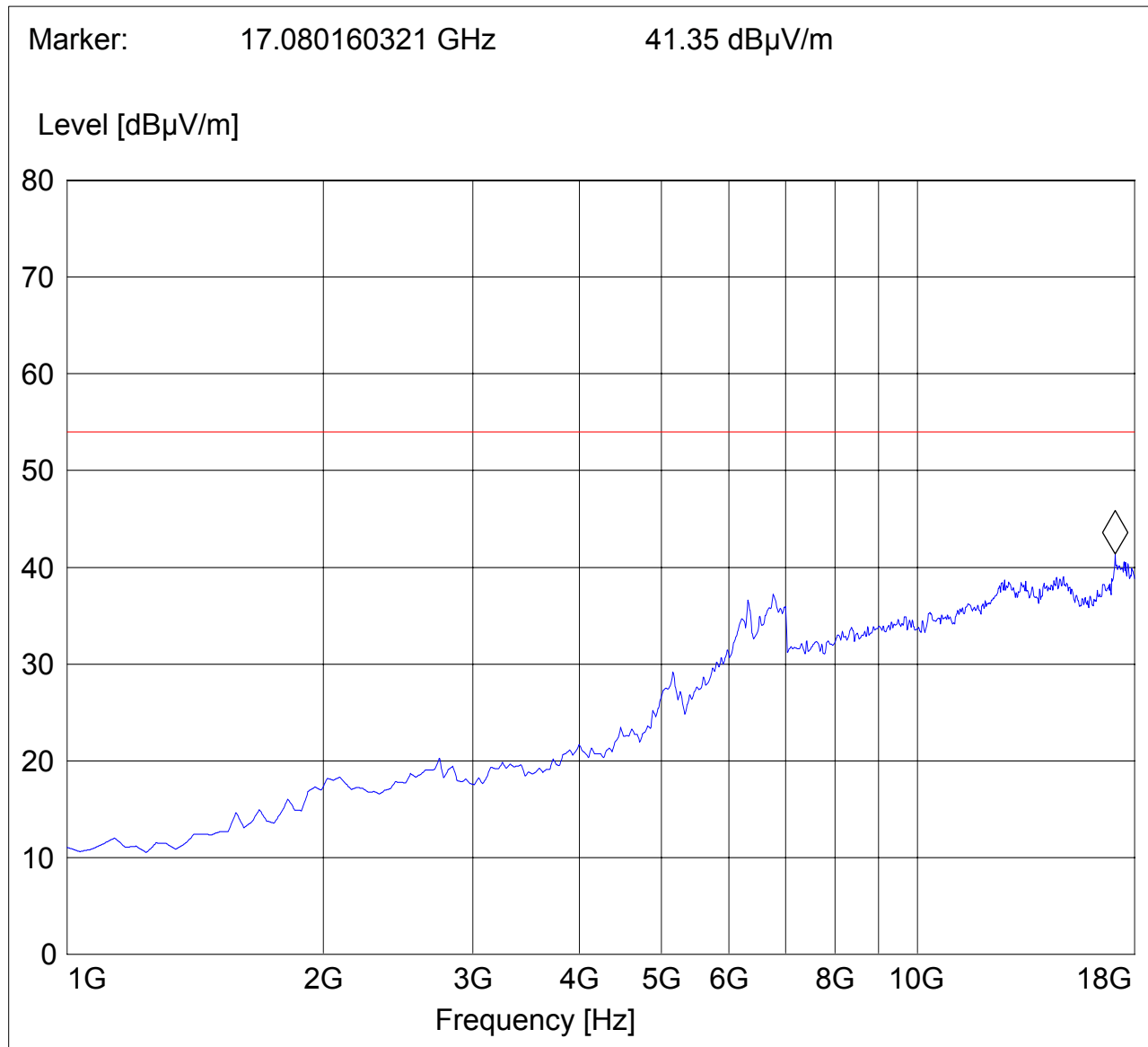
Note: Peak Reading vs. Average limit



3-18GHz

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
3GHz	18GHz	Max Peak	Coupled	1 MHz	1 MHz

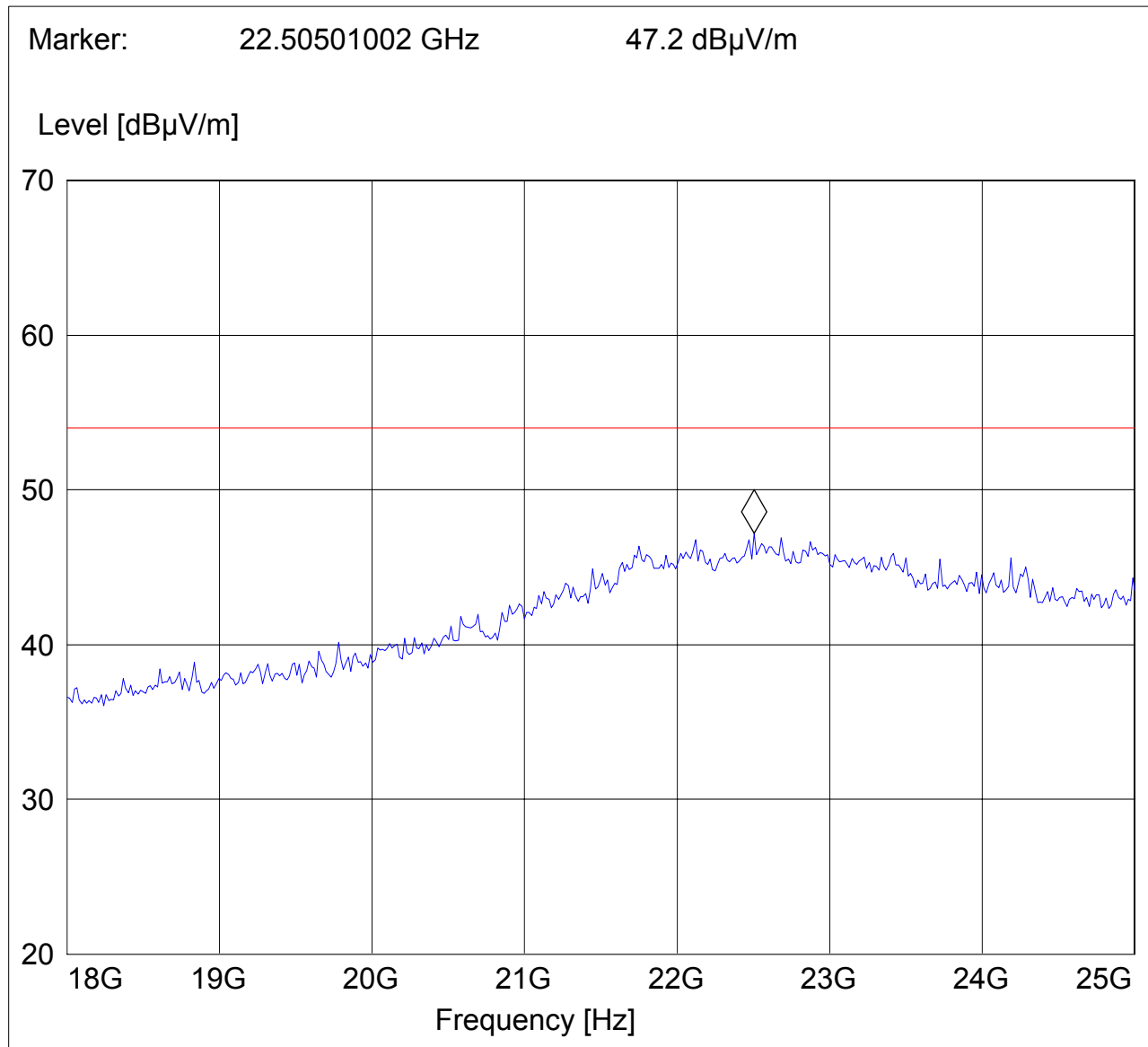
Note: Peak Reading vs. Average limit



18-25GHz

Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	VBW
18GHz	25GHz	Max Peak	Coupled	1 MHz	1 MHz

Note: Peak Reading vs. Average limit



5.9 AC POWER LINE CONDUCTED EMISSIONS § 15.107/207

5.9.1 LIMITS

Technical specification: 15.107 / 15.207 (Revised as of August 20, 2002)

Limit

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 logarithm of the frequency		

ANALYZER SETTINGS: RBW = 10KHz

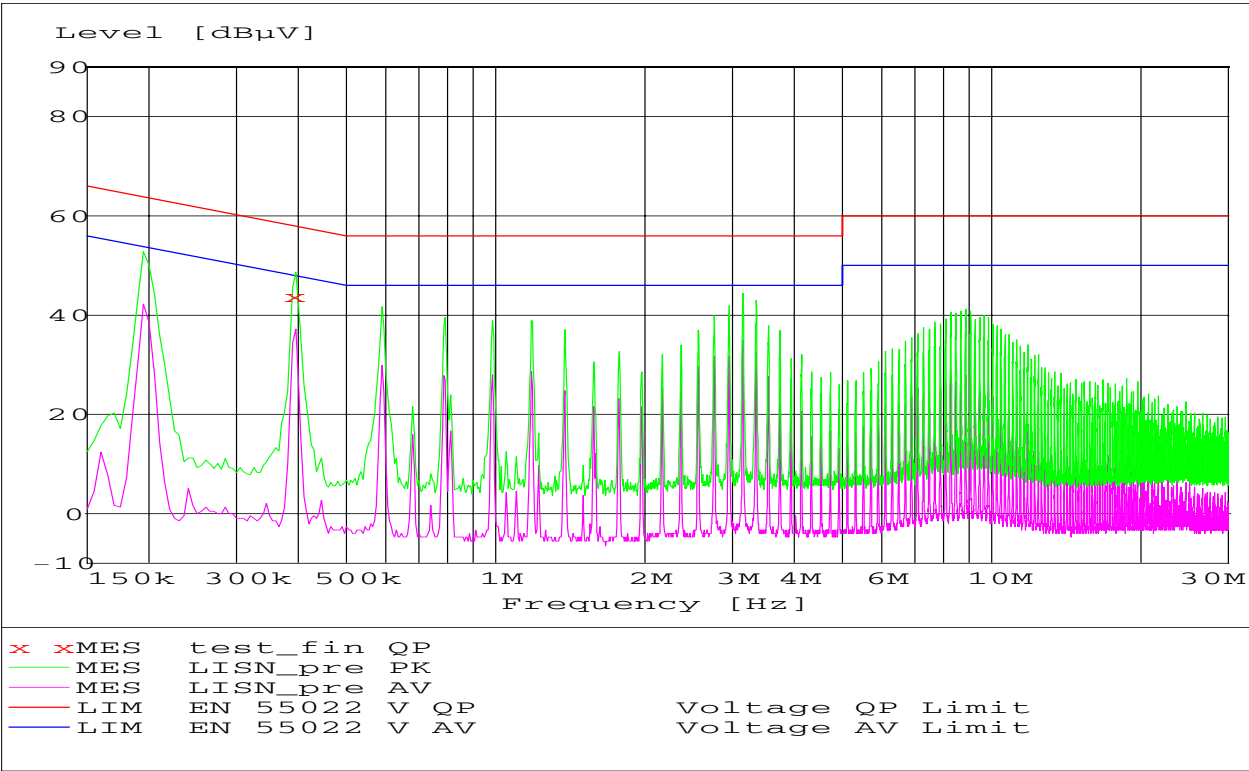
VBW = 10KHz



5.9.2 RESULTS

SCAN TABLE: "EN 55022 Voltage"

Short Description:			EN 55022 Voltage			
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	30.0 MHz	5.0 kHz	MaxPeak	10.0 ms	9 kHz	None
			Average			



MEASUREMENT RESULT: "test_fin QP"

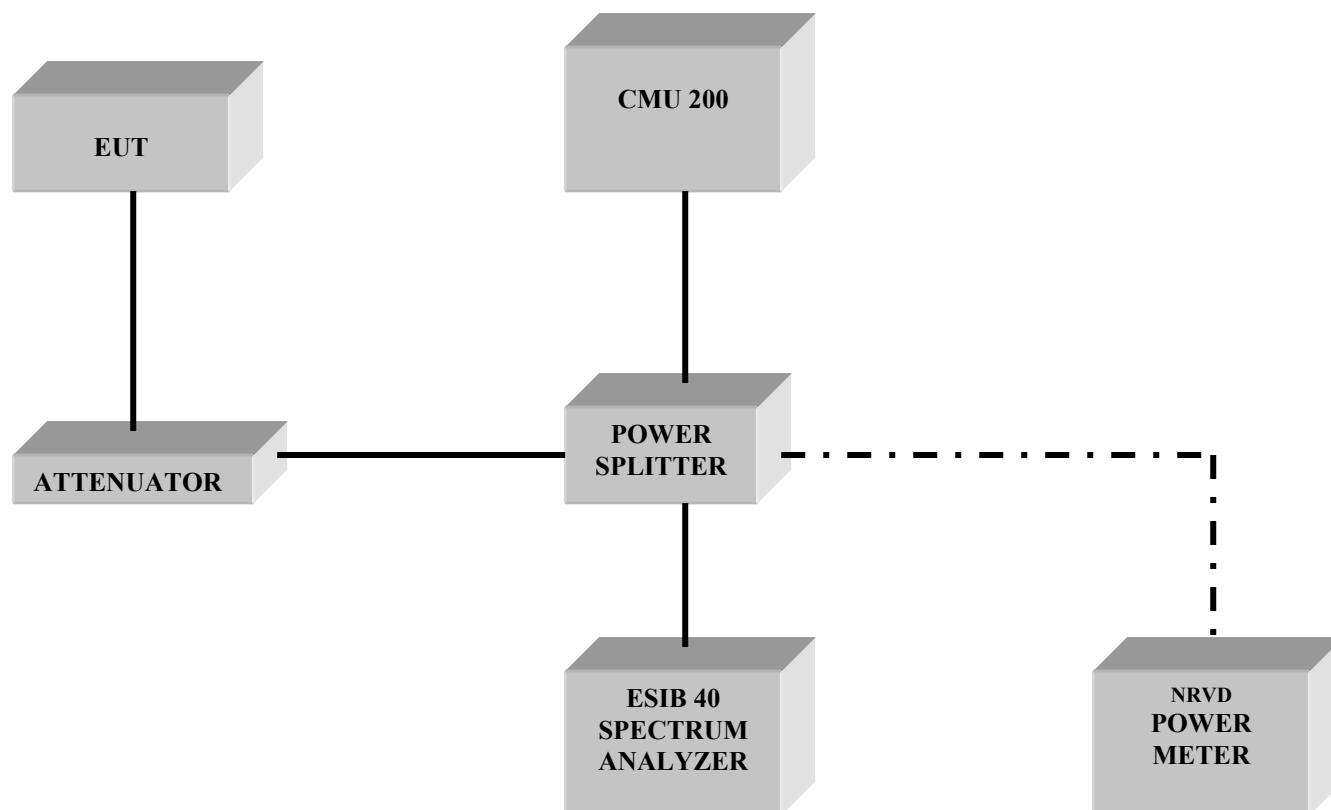
4/20/2006 10:38AM						
Frequency	Level	Transd	Limit	Margin	Line	PE
MHz	dBµV	dB	dBµV	dB		
0.390000	43.90	0.0	58	14.1	N	GND

5.10 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 2006	1 year
02	Spectrum Analyzer	FSEM 30	Rohde & Schwarz	100017	August 2006	1 year
03	Signal Generator	SMY02	Rohde & Schwarz	836878/011	May 2006	1 year
04	Power-Meter	NRVD	Rohde & Schwarz	0857.8008.02	May 2006	1 year
05	Biconilog Antenna	3141	EMCO	0005-1186	June 2006	1 year
06	Horn Antenna (1-18GHz)	SAS-200/571	AH Systems	325	June 2006	1 year
07	Horn Antenna (18-26.5GHz)	3160-09	EMCO	1240	June 2006	1 year
08	Power Splitter	11667B	Hewlett Packard	645348	n/a	n/a
09	Climatic Chamber	VT4004	Voltsch	G1115	May 2006	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 2006	1 year
13	Power Sensor	URV5-Z2	Rohde & Schwarz	DE30807	May 2006	1 year
14	Digital Radio Comm. Tester	CMD-55	Rohde & Schwarz	847958/008	May 2006	1 year
15	Universal Radio Comm. Tester	CMU 200	Rohde & Schwarz	832221/06	May 2006	1 year

5.11 BLOCK DIAGRAMS

Conducted Testing



Radiated Testing

ANECHOIC CHAMBER

