



FCC Test Report

Test report no.: EMC_831FCC15.247_2005_C2P_PP07L

FCC Part 15.247 for DSSS systems / CANADA RSS-210

EUT: WLAN **Model: BCM94318MPAGH**
HOST LAPTOP **Model: PP07L**

FCC ID: QDS-BRCM1017
IC ID: 4324A-BRCM1017
(This test report covers freq. 2412-2472MHz)



TTI-P-G 081/94-A0

Accredited according to **ISO/IEC 17025**

Bluetooth™
Bluetooth Qualification
Test Facility
(BQTF)

CTIA Authorized Test Lab
LAB CODE 20020328-00

FCC listed # 101450

IC recognized # 3925

CETECOM Inc.

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1 General information

1.1 Notes

The test results of this test report relate exclusively to the test item specified in 1.5. 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.

TEST REPORT PREPARED BY:

EMC Engineer: Harpreet Sidhu

1.2 Testing laboratory

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1.3 Details of applicant

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Country	:	USA
Contact	:	Dan Lawless
Telephone	:	408-922-5870
Tele-fax	:	408-543-3399
e-mail	:	dlawless@broadcom.com

1.4 Application details

Date of receipt test item	:	2005-03-09
Date of test	:	2005-03-09/10

1.5 Test item

Manufacturer	:	Applicant
Model No. (EUT)	:	BCM94318MPAGH (sample# 2000)
Host	:	Dell Laptop Model# PP07L, s/n 07899029300023
Description	:	WLAN MiniPCI Multiband card incorporating 2.4GHz and 5GHz radios in Laptop computer
FCC ID	:	QDS-BRCM1017
IC ID	:	4324A-BRCM1017

Additional information

Frequency	:	2412MHz – 2472MHz for 2.4GHz band (covered in this test report) 5180MHz – 5320MHz for 5GHz band (not covered in this test report) 5745MHz – 5825MHz for 5GHz band (not covered in this test report)
Type of modulation	:	DSSS / OFDM (orthogonal frequency division multiplexing)
Number of channels	:	13 for 2.4GHz band 13 for 5GHz band
Antenna	:	2.2dBi max. gain PCB ant. for 2.4GHz band 3.9dBi max gain PCB ant. for 5GHz band
Power supply	:	3.3 VDC from Host
Output power	:	19.1dBm (81.28mW) conducted avg. power for 2.4GHz band
Extreme temp. Tolerance	:	0°C to +70°C

1.6 Test standards:**FCC Part 15 §15.247 / CANADA RSS-210**

PROJECT OVERVIEW:

This test report carries all radiated measurements required as per FCC 15.247 on WLAN mini PCI card model# BCM94318MPAGH tested in host laptop model PP07L. For all conducted measurements please refer to test report# *EMC_831FCC15.247_2005*

WLAN was tested for spurious emissions in both DSSS & OFDM modes at different data rates (1, 2, 5.5, 6, 11, and 54) to ensure compliance of the whole device. Test report shows only worst-case test results of all data rates with following power levels. As mentioned below all measurements for 802.11g mode were done on *ch-1,6,10,11,13* and for 802.11b mode all measurements were done on *ch-1,6,11,13*.

802.11g Mode:

Channels 1-10:19.0dBm

Channel 11:16.0dBm

Channels 12-13:10.5dBm

802.11b Mode:

Channels 1-11:19.0dBm

Channels 12-13:14.0dBm

ANTENNA

PCB Antenna: 2.2dBi for 2.4GHz band
 3.9dBi for 5GHz band

For more information on antennas and host platforms covered under this C2P change please refer to *BCM94318MPAGH_C2P_Declaration_worst_case_platform*

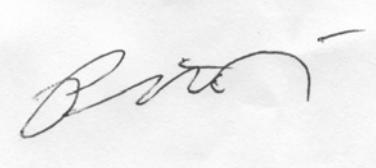
2 Technical test**2.1 Summary of test results**

No deviations from the technical specification(s) were ascertained in the course of the tests
Performed

Final Verdict: (Only "passed" if all single measurements are "passed")	Passed
---------------------------------------------------------------------------	---------------

Technical responsibility for area of testing:

2005-03-29 EMC & Radio **Pete Krebill (EMC Engineer)**

**Date****Section****Name****Signature****Responsible for test report and project leader:**

2005-03-29 EMC & Radio **Harpreet Sidhu (EMC Engineer)**

**Date****Section****Name****Signature**

2.2 Test report

TEST REPORT

Test report no.: EMC_831FCC15.247_2005_C2P_PP07L

FCC Part 15.247 for DSSS systems / CANADA RSS-210

TEST REPORT REFERENCE

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**MAXIMUM PEAK OUTPUT POWER
(Conducted)
(Data rate – 54Mbps)****§ 15.247 (b) (3)**

TEST CONDITIONS		OUTPUT POWER (dBm)				
Frequency (MHz)		2412	2437	2457	2462	2472
T _{nom} (23)°C	V _{nom} (3.3) VDC	19.1	19.0	19.1	16.2	10.5
Measurement uncertainty		±0.5dBm				

LIMIT**SUBCLAUSE § 15.247 (b) (3)**

Frequency range	RF power output
2400-2483.5 MHz & 5725-5850 MHz	1.0 Watt / 30dBm

**MAXIMUM PEAK OUTPUT POWER
(RADIATED)
(Data rate – 54Mbps)****§ 15.247 (b) (3)****EIRP:**

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)				
Frequency (MHz)		2412	2437	2457	2462	2472
T_{nom} (23)°C	V_{nom} (3.3) VDC	*21.3	*21.2	*21.3	*18.4	*12.7
Measurement uncertainty		±0.5dBm				

NOTE:

*EIRP is calculated based on 2.2dBi antenna gain and conducted peak power measurements.

LIMIT**SUBCLAUSE § 15.247 (b) (3)**

Frequency range	RF power output
2400-2483.5 MHz & 5725-5850 MHz	30dBm on Conducted

Phycomp PCB antenna

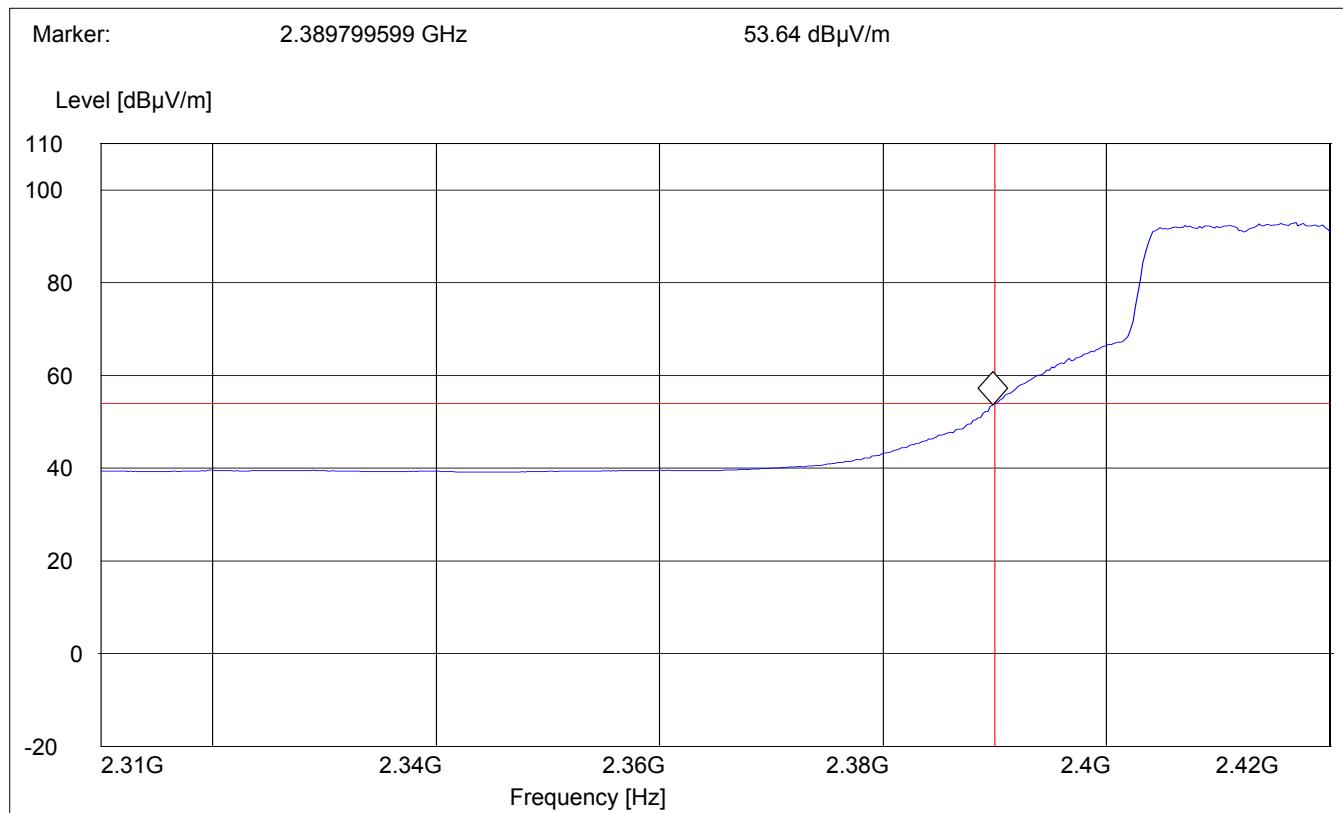
(Freq. band: 2.4GHz, Gain: 2.2dBi, Model 4313 334 01250/4343 334 02250)

BAND EDGE COMPLIANCE**§15.247 (c)****(Data rate – 6Mbps g-mode)****Low frequency section (spurious in the restricted band 2310 – 2390 MHz)****(Average measurement)**

Antenna: **Horizontal**
EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition : **Tx at 2412MHz**
SWEEP TABLE : **"FCC15.247 LBE_AVG"**
Limit Line : **54dB μ V**

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.31 GHz	2.412 GHz	MaxPeak	Coupled	1 MHz	10Hz	#326 horn (dBi)

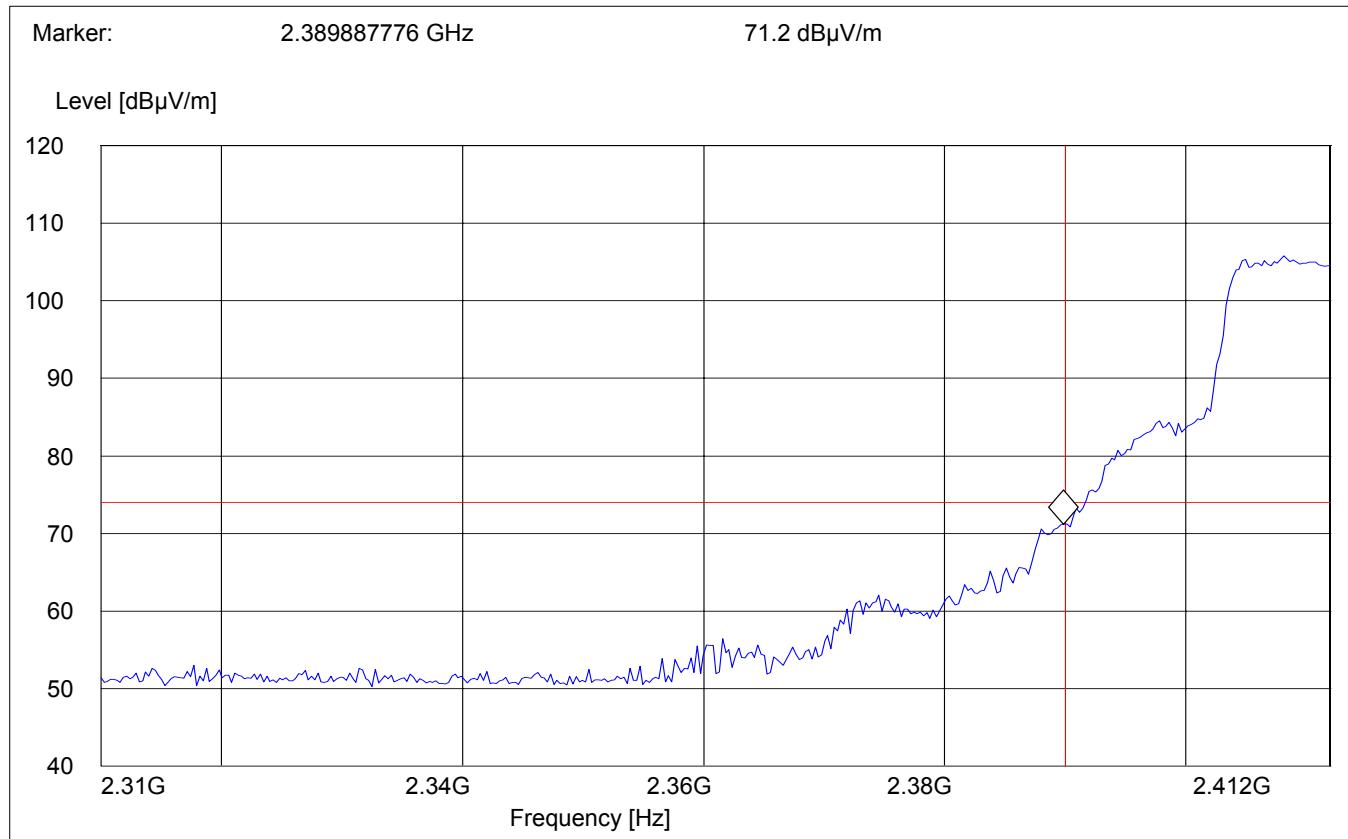


BAND EDGE COMPLIANCE**§15.247 (c)****(Data rate – 54Mbps g-mode)****Low frequency section (spurious in the restricted band 2310 – 2390 MHz)****(Peak measurement)**

Antenna: **Horizontal**
EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition : **Tx at 2412MHz**
SWEEP TABLE : **"FCC15.247 LBE_Pk"**
Limit Line : **74dB μ V**

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.31 GHz	2.412 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)

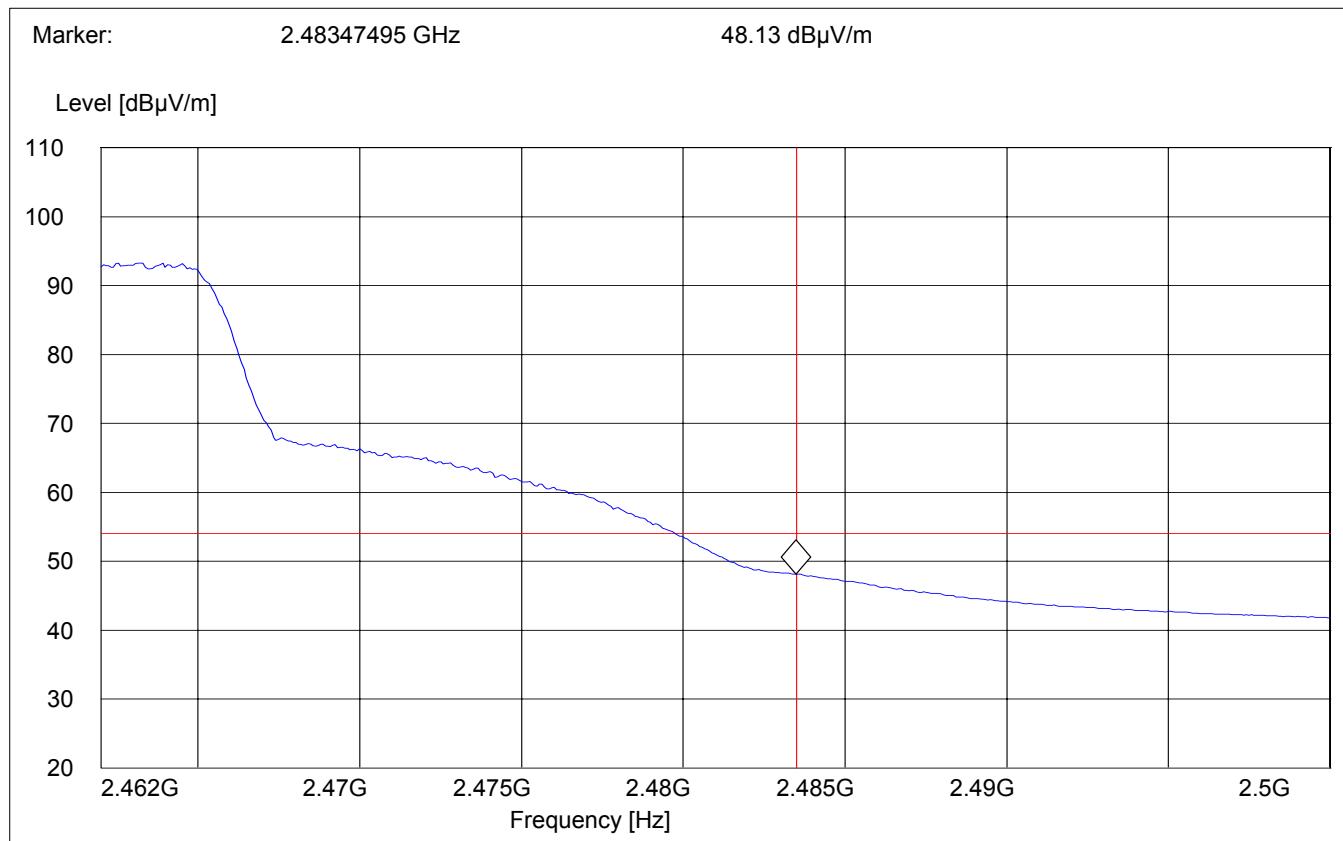


BAND EDGE COMPLIANCE §15.247 (c)**(Data rate – 6Mbps g-mode)****High frequency section (spurious in the restricted band 2483.5 – 2500MHz)****(Average measurement)**

Antenna: **Horizontal**
EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition : **Tx at 2457MHz**
SWEEP TABLE : **"FCC15.247 HBE_AVG"**
Limit Line : **54dB μ V**

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	10Hz	#326 horn (dBi)

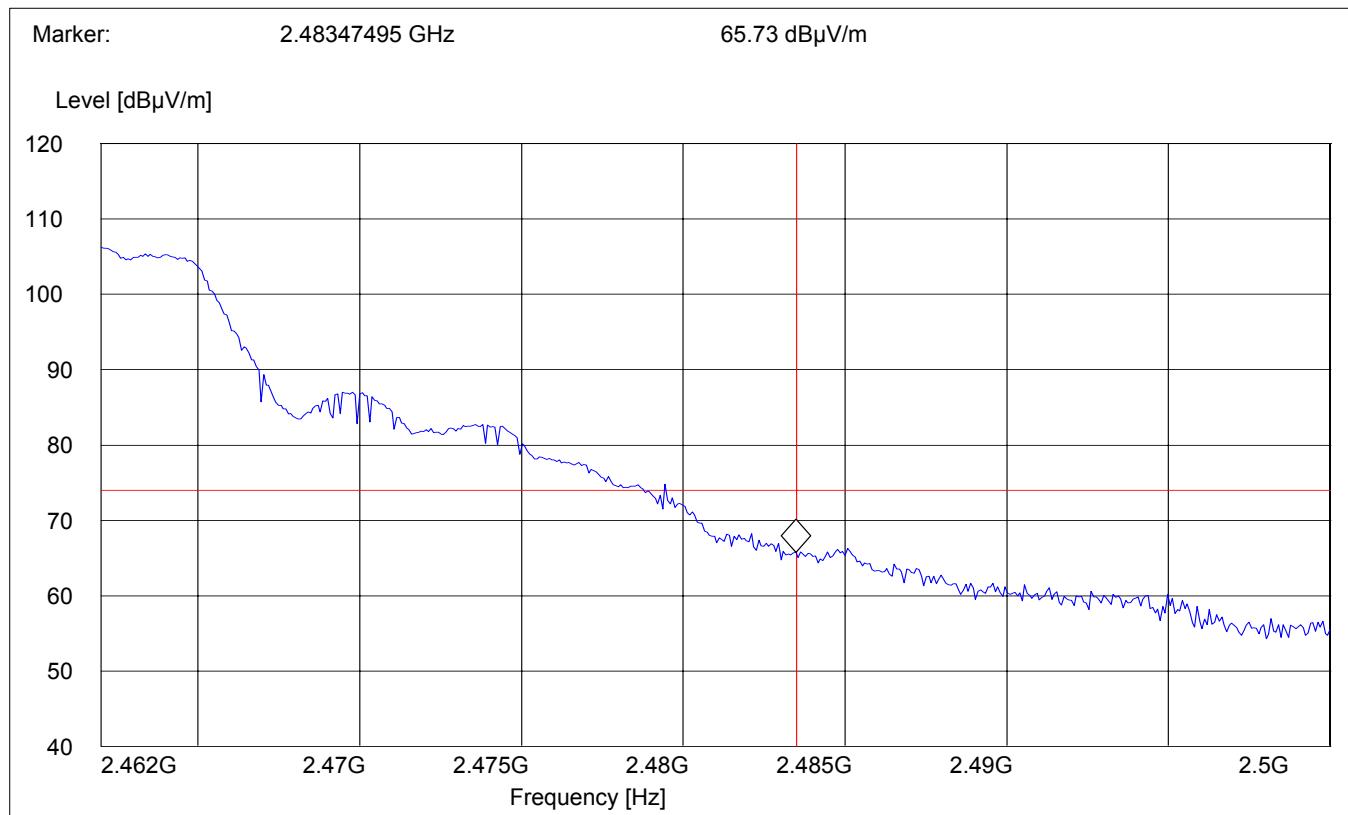


BAND EDGE COMPLIANCE**§15.247 (c)****(Data rate – 54Mbps g-mode)****High frequency section (spurious in the restricted band 2483.5 – 2500 MHz)****(Peak measurement)**

Antenna: **Horizontal**
EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition : **Tx at 2457MHz**
SWEEP TABLE : **"FCC15.247 HBE_PK"**
Limit Line : **74dB μ V**

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)

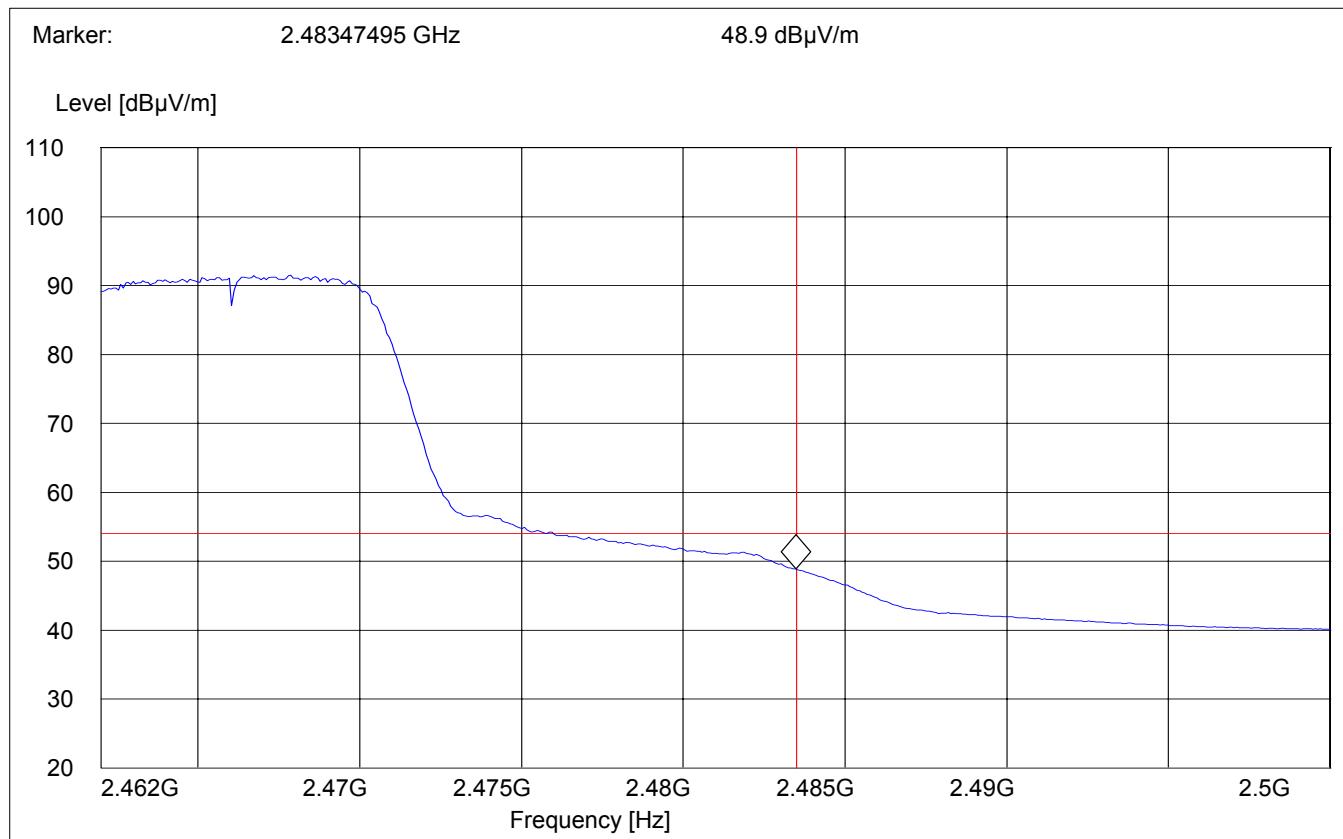


BAND EDGE COMPLIANCE**§15.247 (c)****(Data rate – 6Mbps g-mode)****High frequency section (spurious in the restricted band 2483.5 – 2500MHz)****(Average measurement)**

Antenna: **Horizontal**
EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition : **Tx at 2462MHz**
SWEEP TABLE : **"FCC15.247 HBE_AVG"**
Limit Line : **54dB μ V**

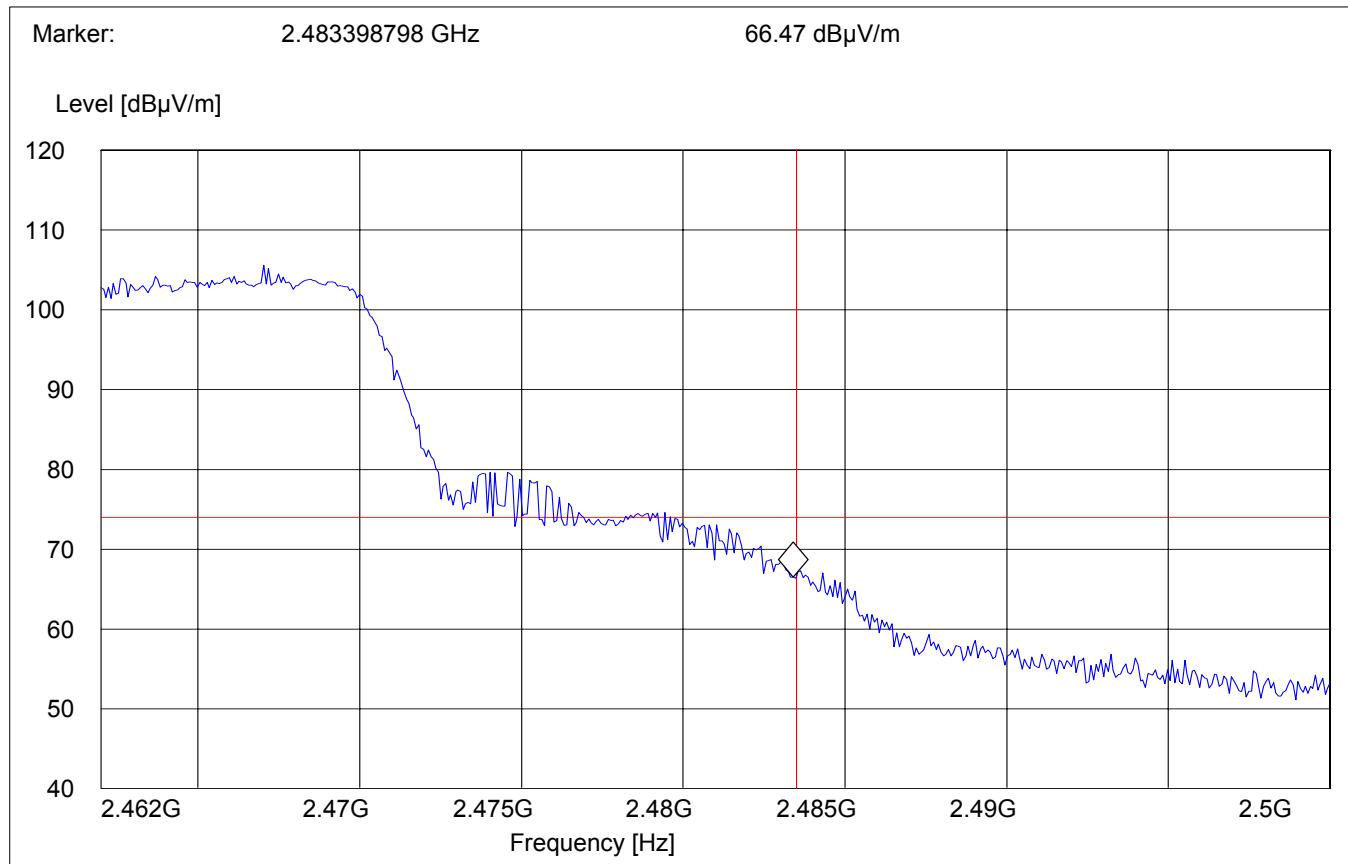
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	10Hz	#326 horn (dBi)



BAND EDGE COMPLIANCE**§15.247 (c)****(Data rate – 54Mbps g-mode)****High frequency section (spurious in the restricted band 2483.5 – 2500 MHz)****(Peak measurement)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition	:	Tx at 2462MHz
SWEEP TABLE	:	"FCC15.247 HBE_PK"
Limit Line	:	74dBμV

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)

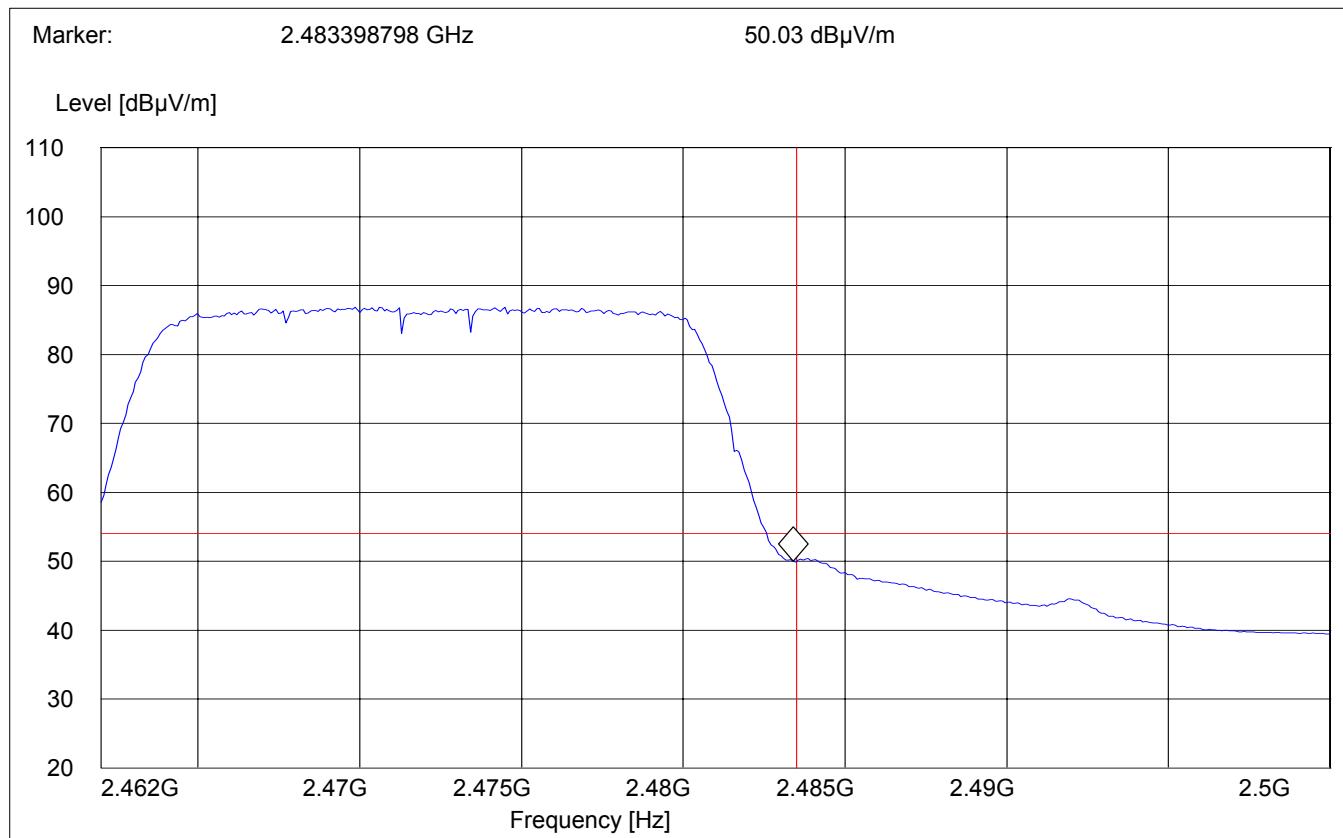


BAND EDGE COMPLIANCE**§15.247 (c)****(Data rate – 6Mbps g-mode)****High frequency section (spurious in the restricted band 2483.5 – 2500MHz)****(Average measurement)**

Antenna: **Horizontal**
EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition : **Tx at 2472MHz**
SWEEP TABLE : **"FCC15.247 HBE_AVG"**
Limit Line : **54dB μ V**

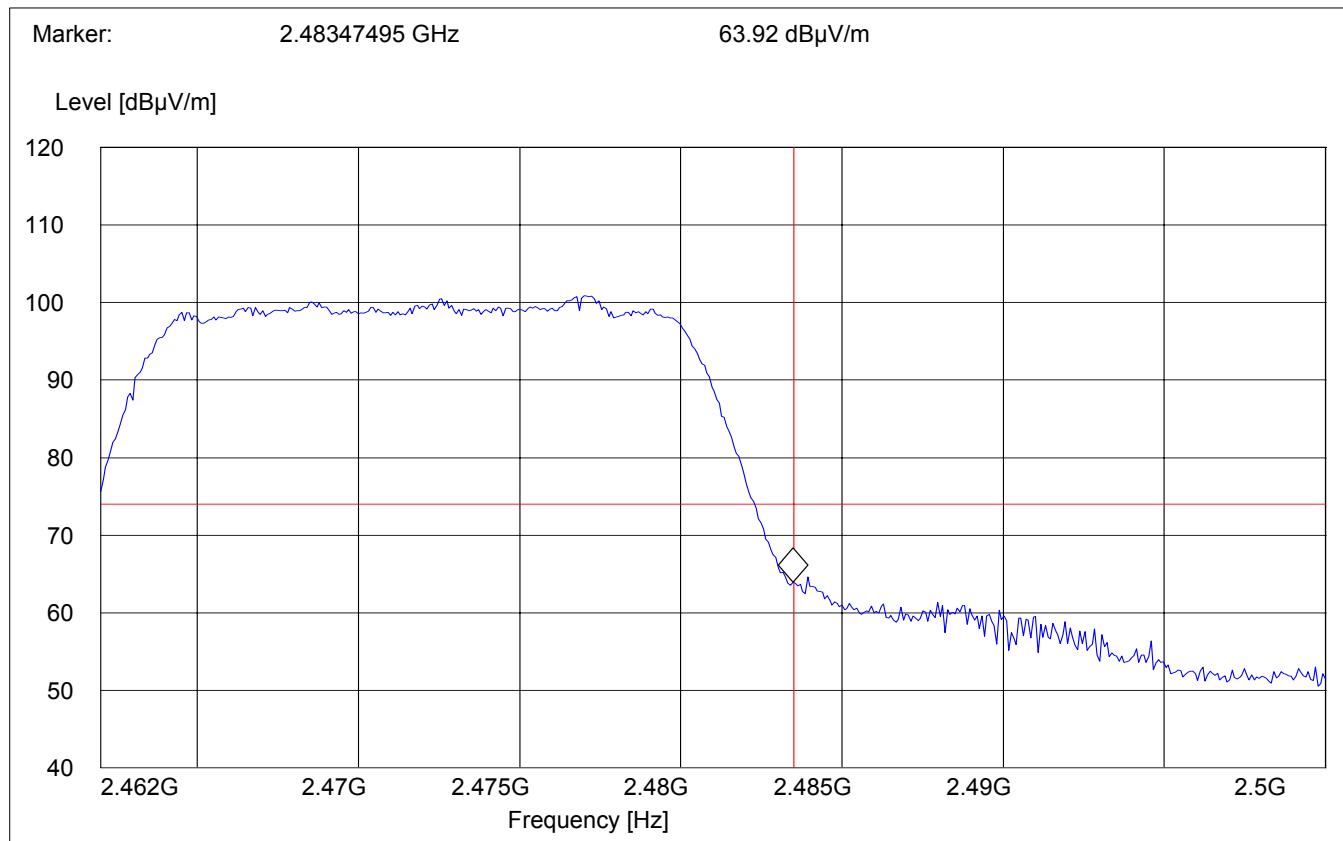
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	10Hz	#326 horn (dBi)



BAND EDGE COMPLIANCE**§15.247 (c)****(Data rate – 54Mbps)****High frequency section (spurious in the restricted band 2483.5 – 2500 MHz)****(Peak measurement)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°**

Operating condition	:	Tx at 2472MHz
SWEEP TABLE	:	"FCC15.247 HBE_PK"
Limit Line	:	74dBμV

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
2.462 GHz	2.5 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)



**EMISSION LIMITATIONS
Transmitter (Radiated)****§ 15.247 (c) (1)****LIMITS**

In any 100 kHz bandwidth outside the frequency band at least 20dB below 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) (see §15.205(c)).

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 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

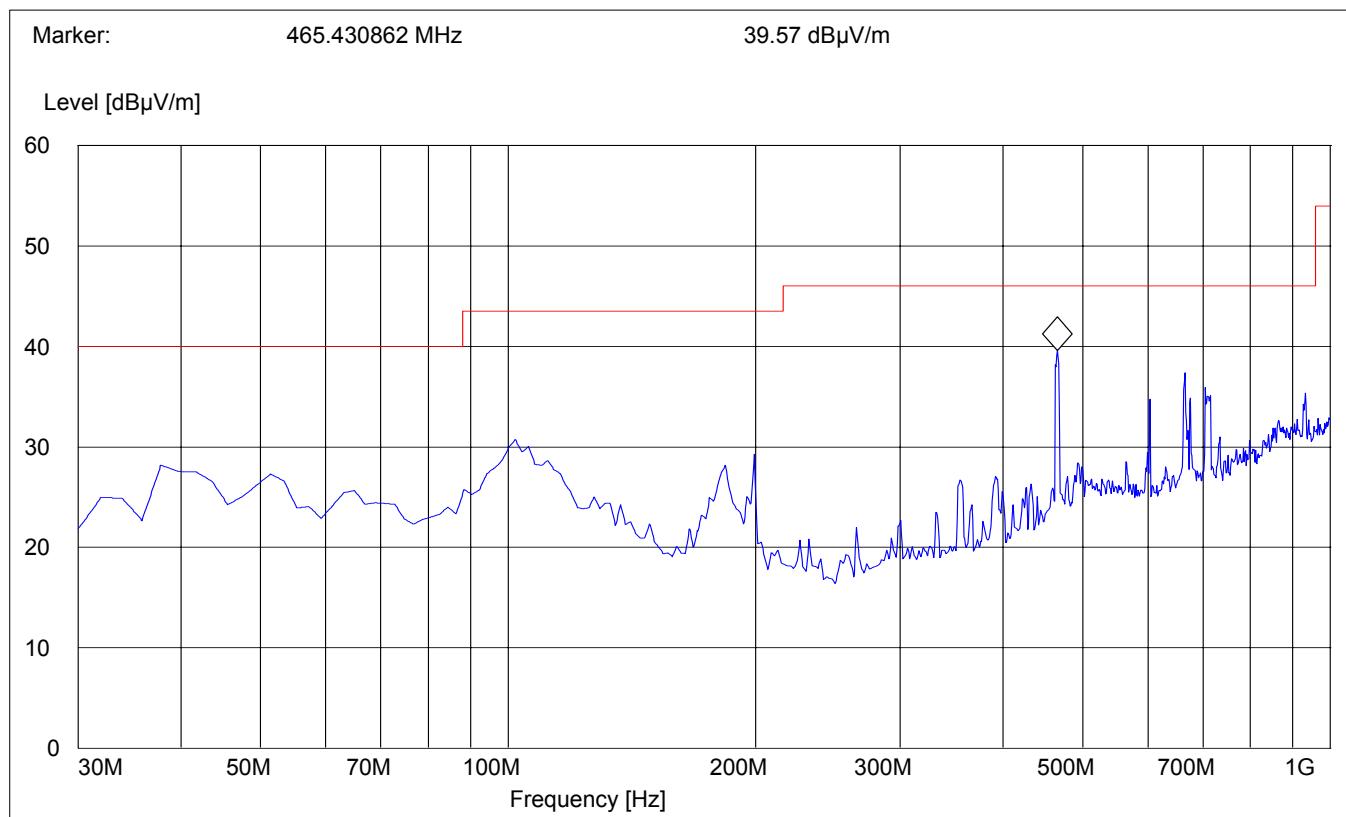
EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)**

Transmit at Lowest channel Frequency 2412MHz			
Frequency (MHz)	Level (dB μ V/m)		
	Peak	Quasi-Peak	Average
SEE PLOTS			
Transmit at Middle channel Frequency 2437MHz			
Frequency (MHz)	Level (dB μ V/m)		
	Peak	Quasi-Peak	Average
SEE PLOTS			
Transmit at Highest channel Frequency 2462MHz			
Frequency (MHz)	Level (dB μ V/m)		
	Peak	Quasi-Peak	Average
SEE PLOTS			

EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****30MHz – 1GHz****Data rate – 54Mbps**Antenna: **vertical**EUT plane: **Horizontal with screen vertical @ 90°****Note: This plot is valid for low, mid, high channels (worst-case plot valid for all channels)**

SWEEP TABLE: "WLAN Spuri hi 30-1G"

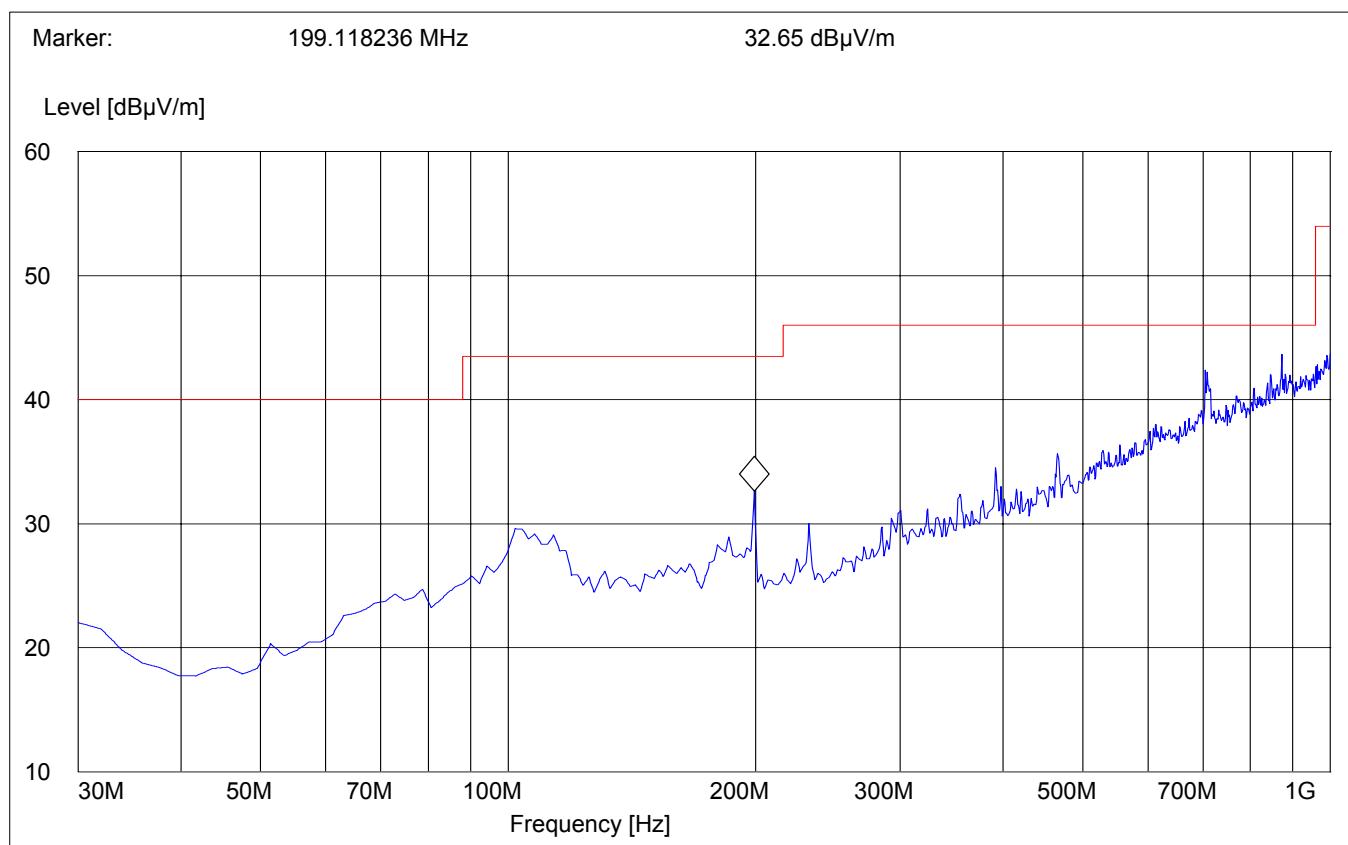
Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****30MHz – 1GHz****(Data rate – 54Mbps)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°****Note: This plot is valid for low, mid, high channels (worst-case plot valid for all channels)**

SWEEP TABLE: "WLAN Spuri hi 30-1G"

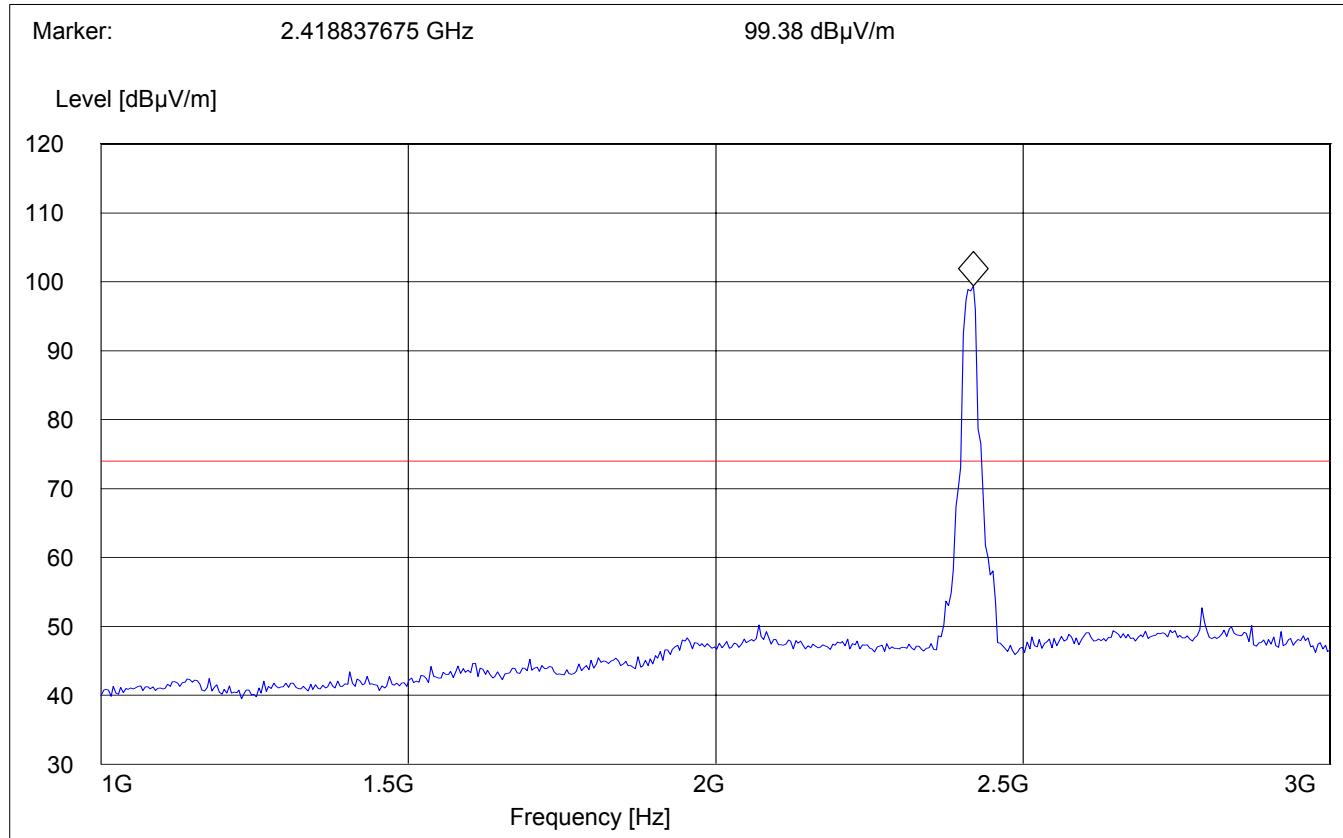
Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-1 (2412MHz): 1GHz – 3GHz****(Data rate – 54Mbps)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°****Note: The peak above the limit line is the carrier freq.**

SWEEP TABLE: "WLAN Spuri hi 1-3G"

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	1 MHz	#326 horn (dBi)

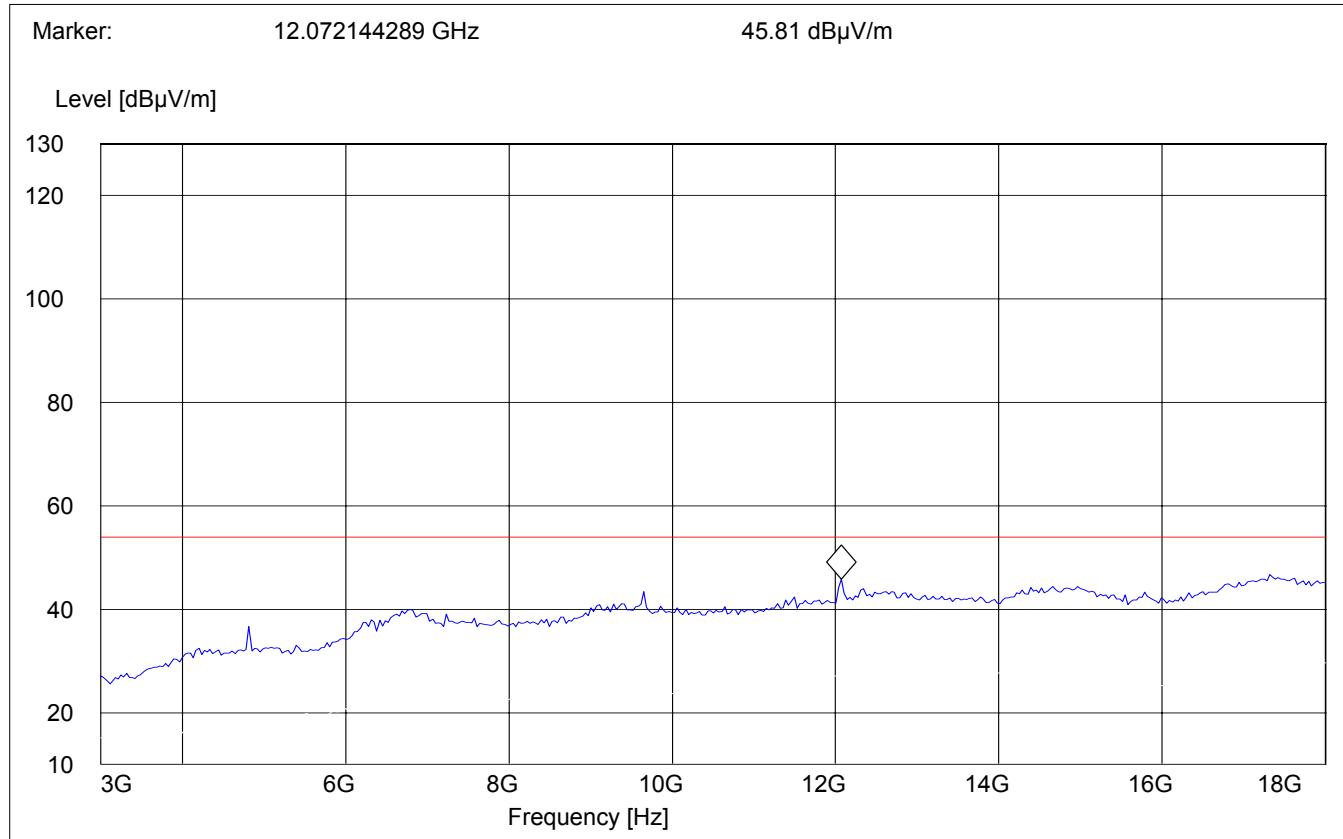


EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-1 (2412MHz): 3GHz – 18GHz
(Data rate – 54Mbps)**

Antenna: Horizontal
EUT plane: Horizontal with screen vertical @ 90°

SWEEP TABLE: " WLAN Spuri hi 3-18G"

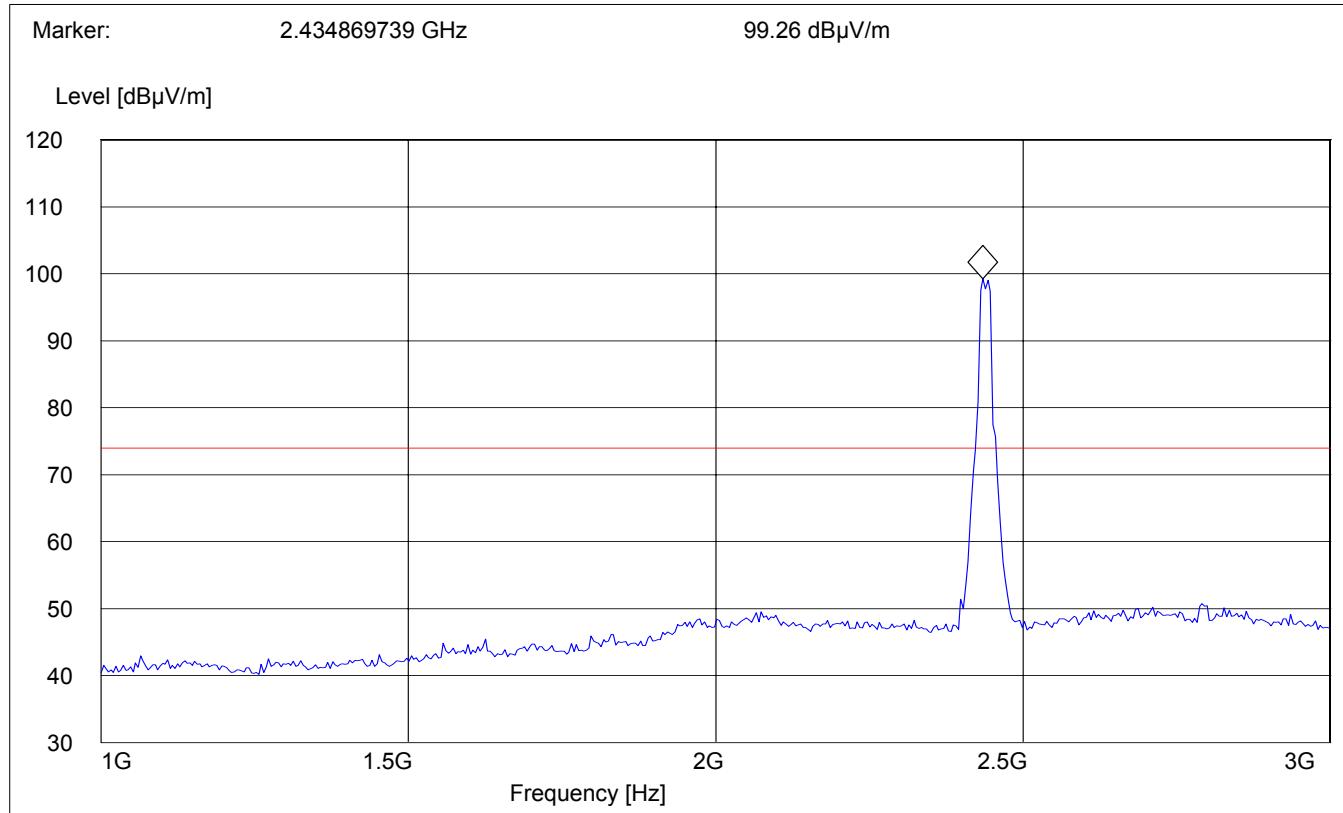
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-6 (2437MHz): 1GHz – 3GHz
(Data rate – 54Mbps)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°****Note: The peak above the limit line is the carrier freq.**

SWEEP TABLE: " WLAN Spuri hi 1-3G"

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)

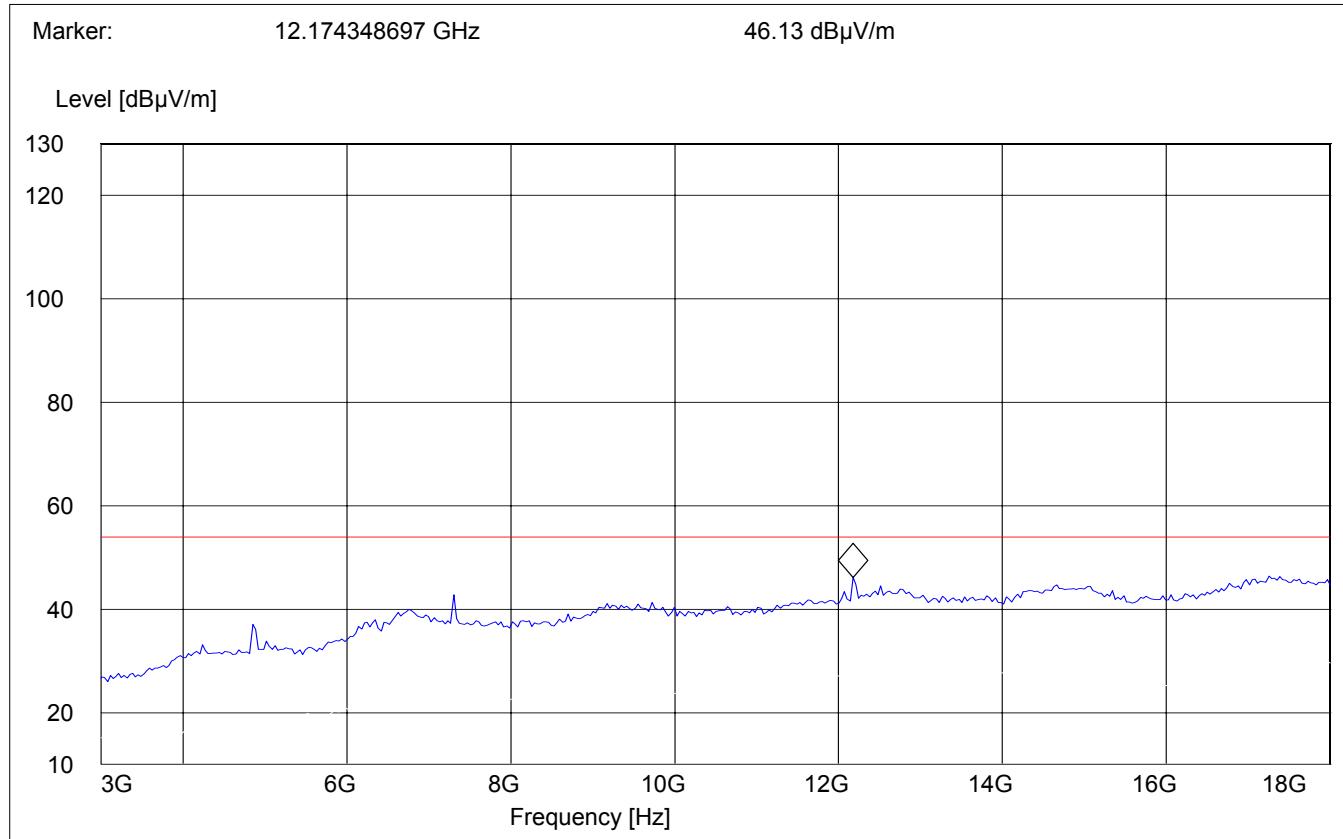


EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-6 (2437MHz): 3GHz – 18GHz
(Data rate – 54Mbps)**

Antenna: Horizontal
EUT plane: Horizontal with screen vertical @ 90°

SWEEP TABLE: " WLAN Spuri hi 3-18G"

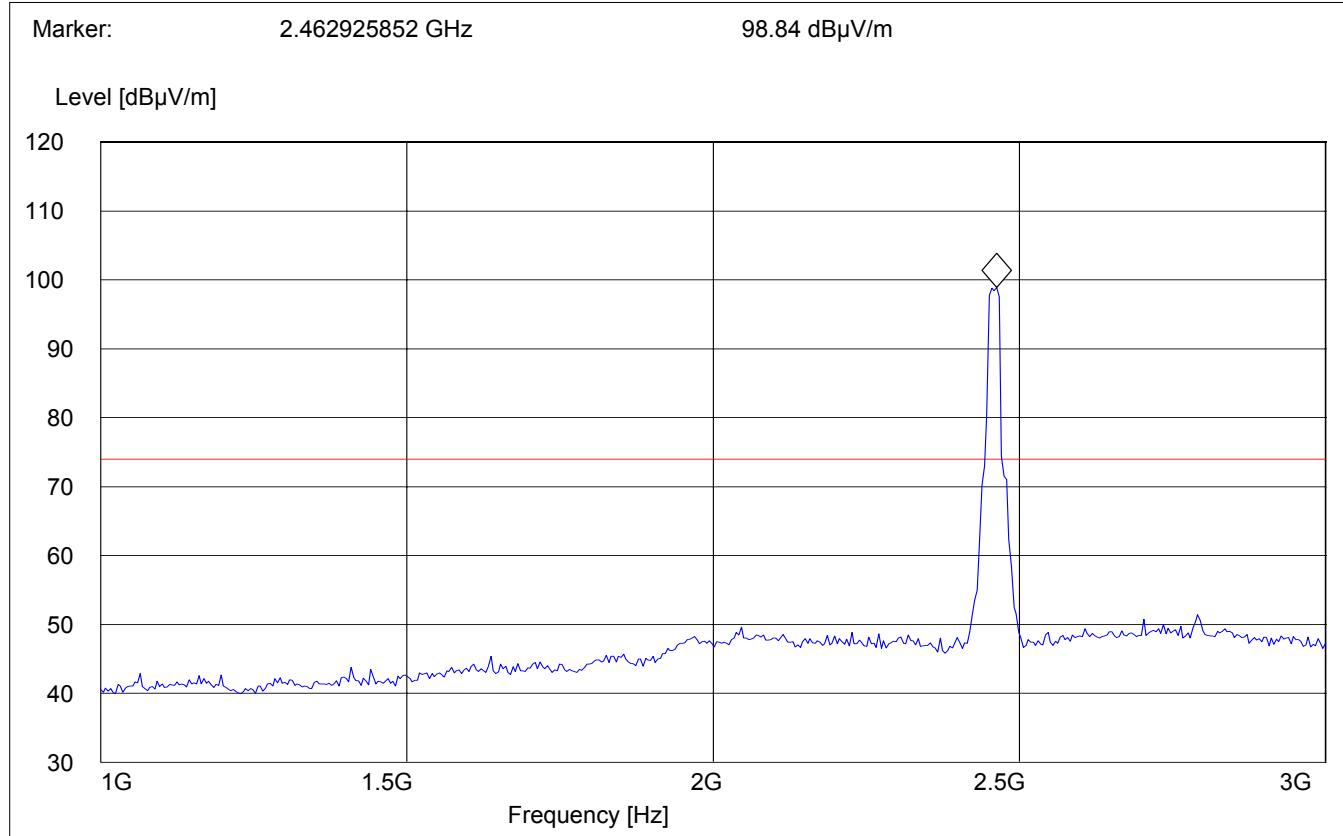
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-10 (2457MHz): 1GHz – 3GHz****(Data rate – 54Mbps)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°****Note: The peak above the limit line is the carrier freq.**

SWEEP TABLE: " WLAN Spuri hi 1-3G"

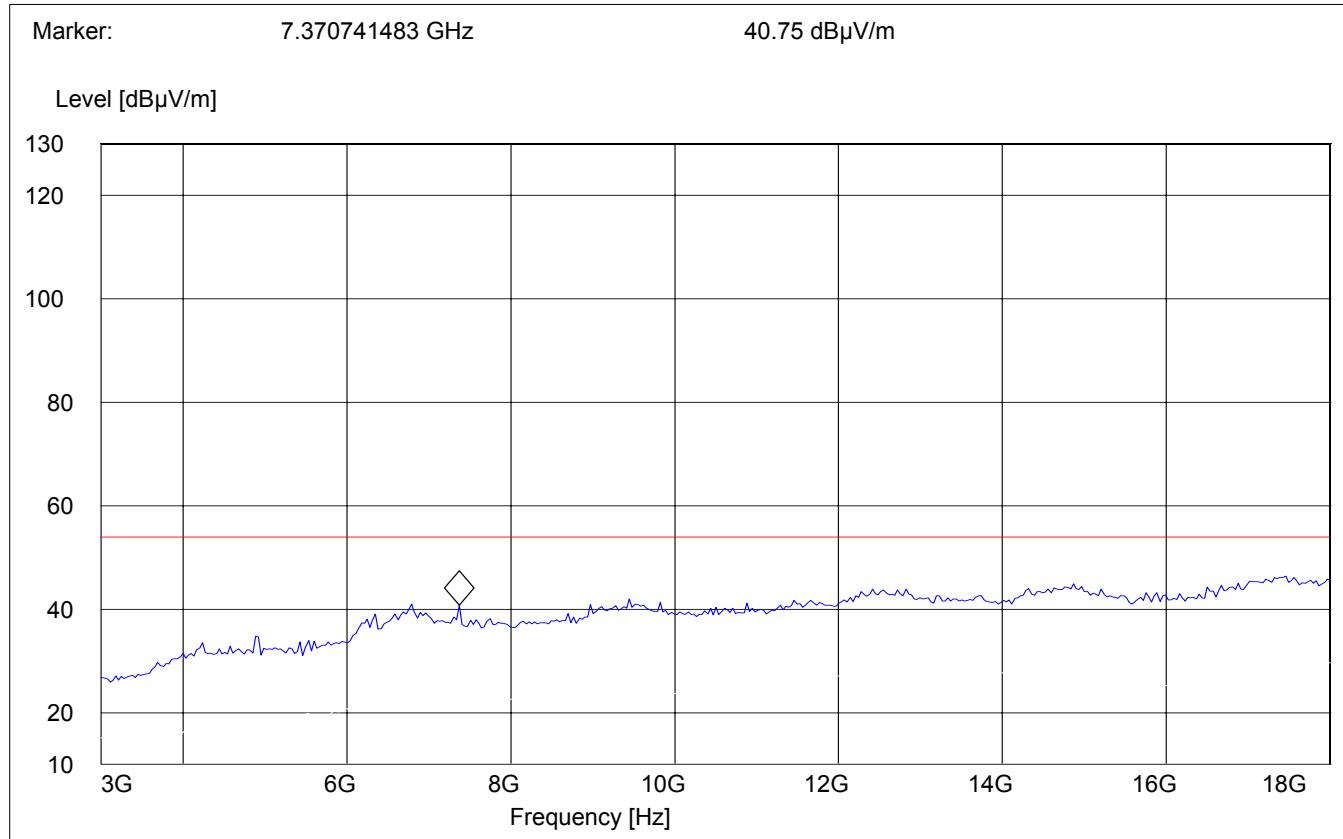
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-10 (2457MHz): 3GHz – 18GHz****(Data rate – 54Mbps)****Antenna:** **Horizontal****EUT plane:** **Horizontal with screen vertical @ 90°**

SWEEP TABLE: " WLAN Spuri hi 3-18G"

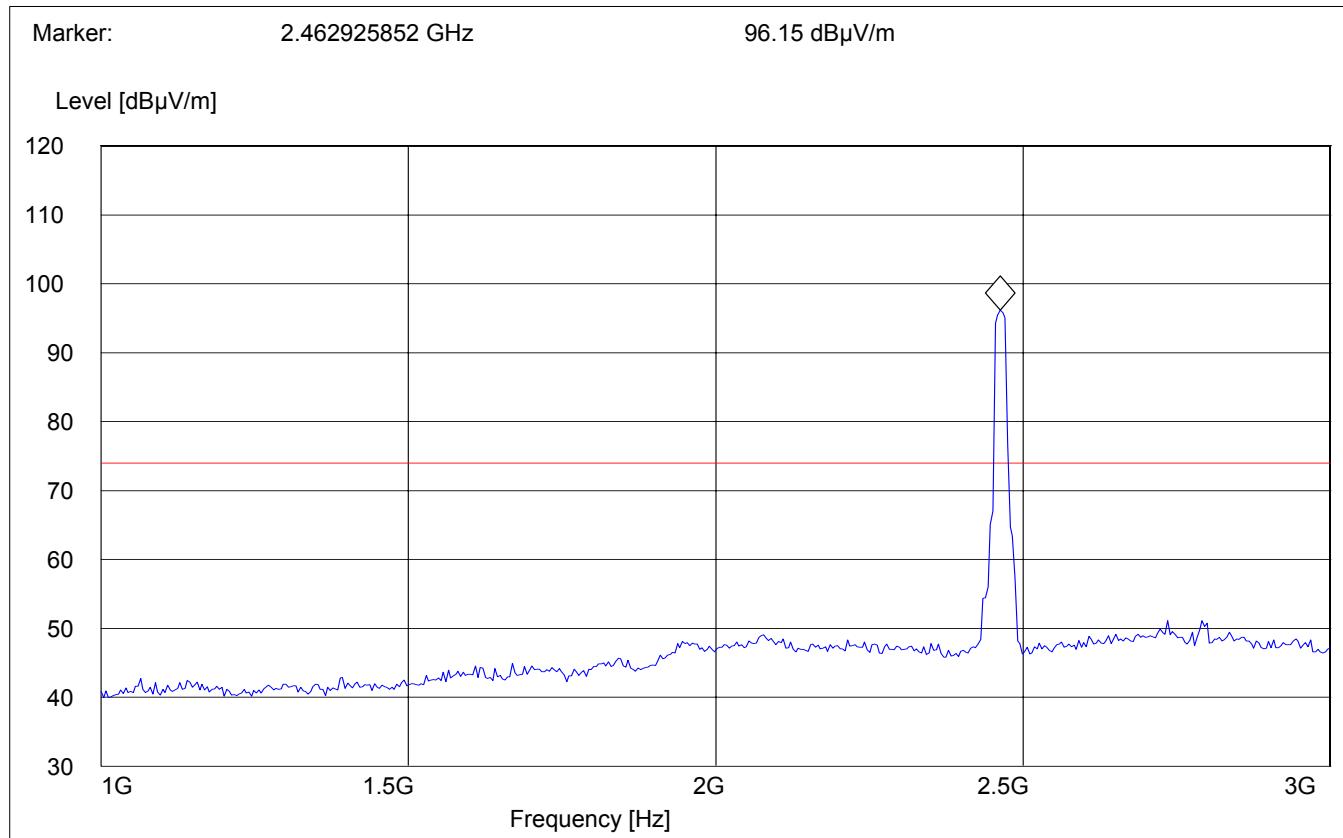
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-11 (2462MHz): 1GHz – 3GHz****(Data rate – 54Mbps)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°****Note: The peak above the limit line is the carrier freq.**

SWEEP TABLE: " WLAN Spuri hi 1-3G"

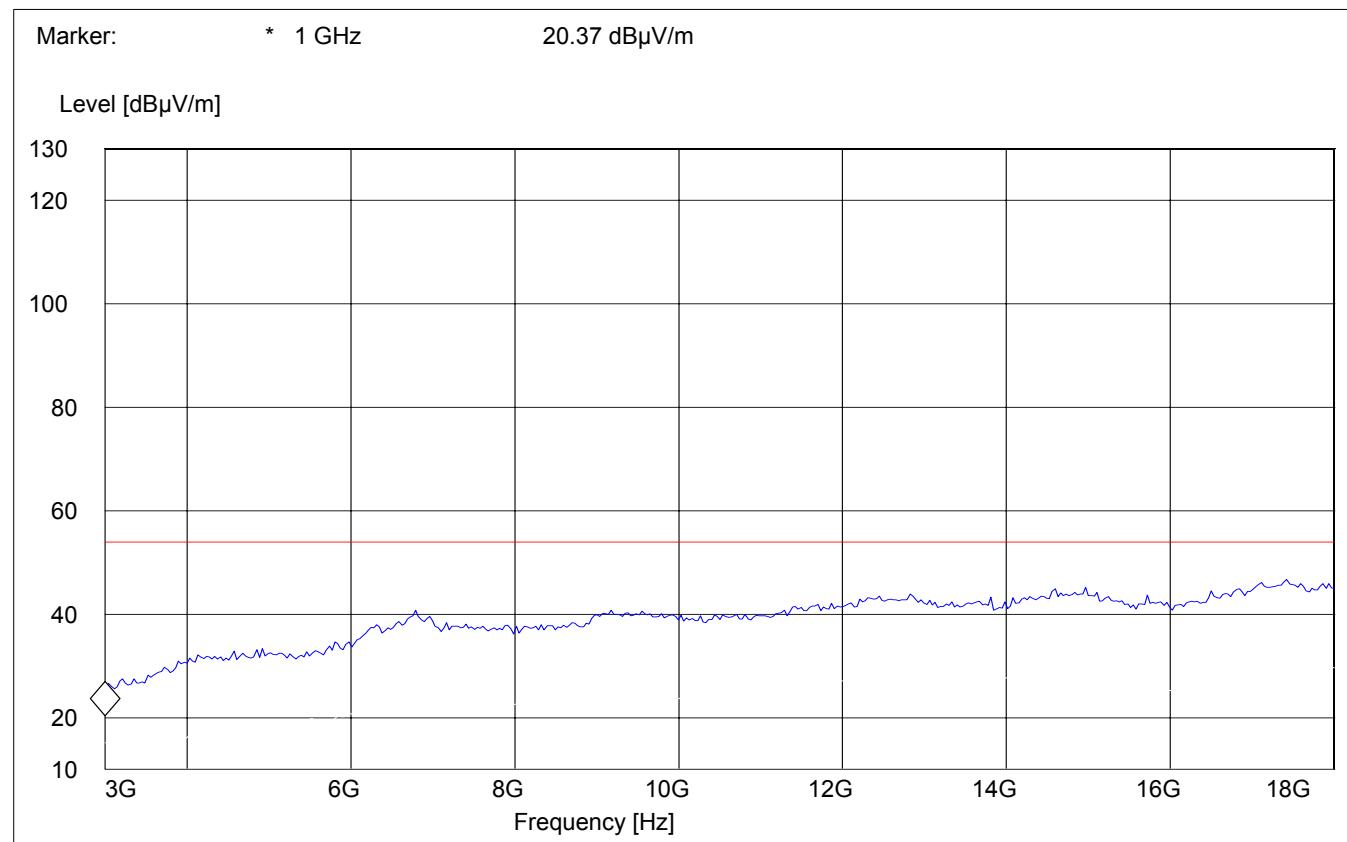
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-11 (2462MHz): 3GHz – 18GHz****(Data rate – 54Mbps)****Antenna:** **Horizontal****EUT plane:** **Horizontal with screen vertical @ 90°**

SWEEP TABLE: " WLAN Spuri hi 3-18G"

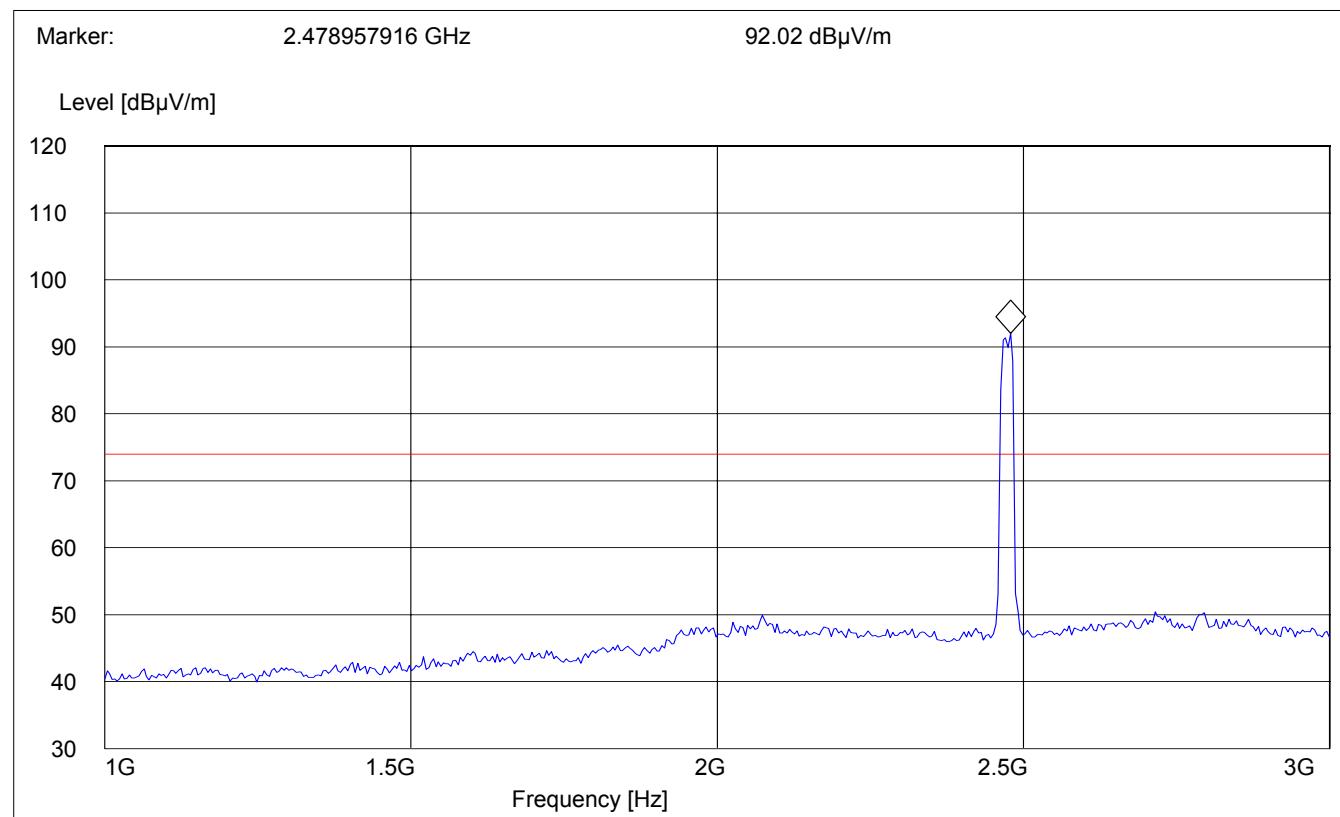
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-13 (2472MHz): 1GHz – 3GHz****(Data rate – 54Mbps)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°****Note: The peak above the limit line is the carrier freq.**

SWEEP TABLE: " WLAN Spuri hi 1-3G"

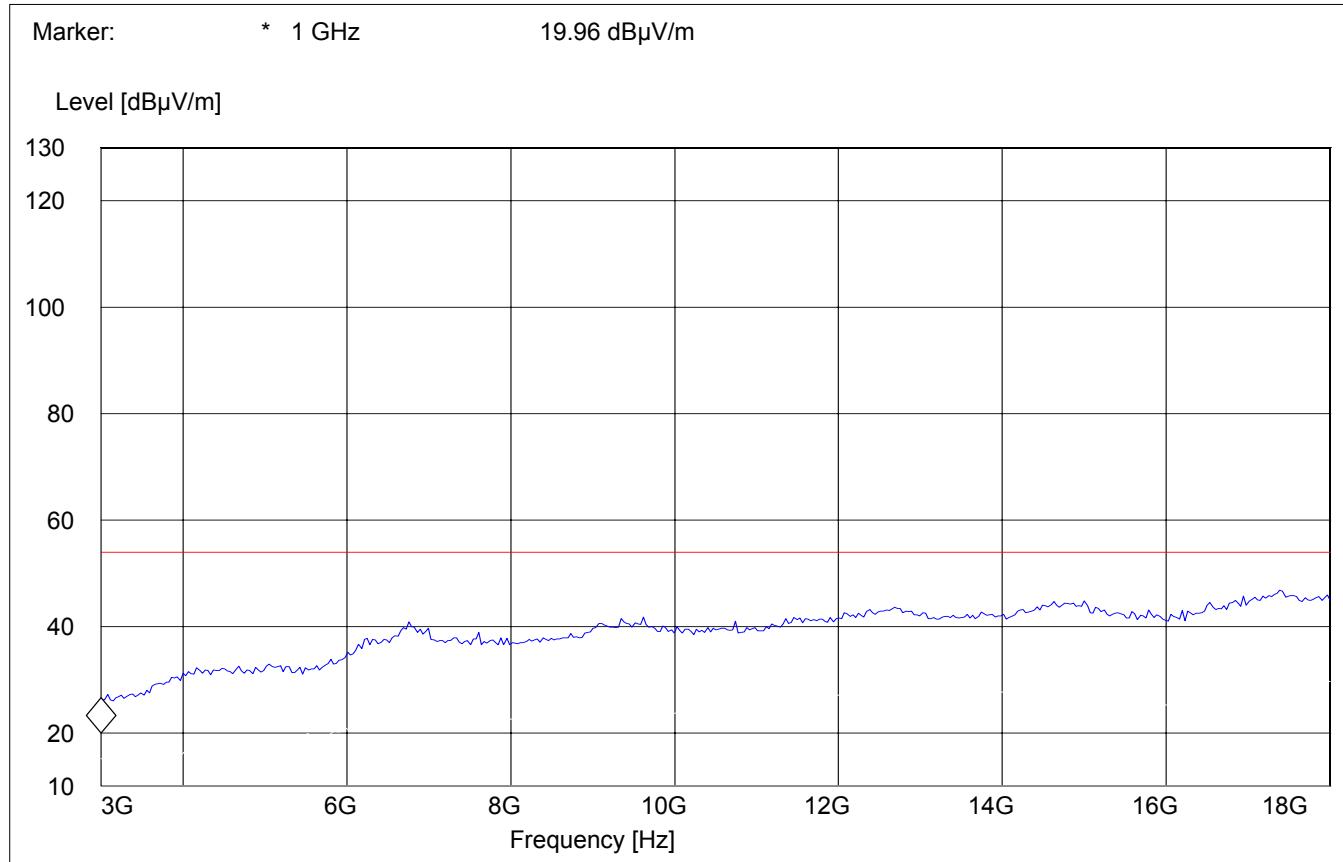
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****Channel-13 (2472MHz): 3GHz – 18GHz****(Data rate – 54Mbps)****Antenna:** **Horizontal****EUT plane:** **Horizontal with screen vertical @ 90°**

SWEEP TABLE: " WLAN Spuri hi 3-18G"

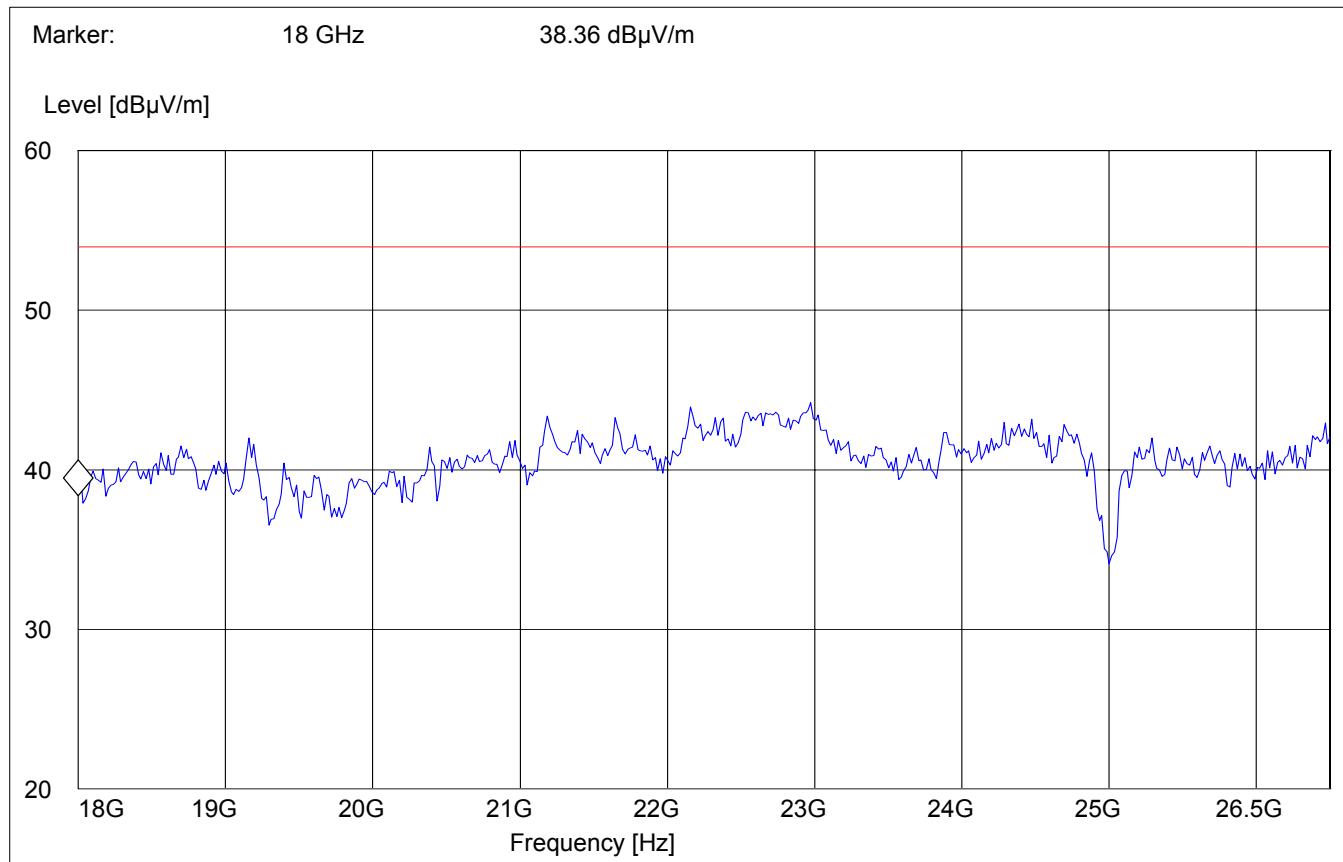
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



EMISSION LIMITATIONS - Radiated (Transmitter)**§ 15.247 (c) (1)****18GHz – 25GHz****(Data rate – 54Mbps)**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°****Note: This plot is valid for low, mid, high channels (worst-case plot)**

SWEEP TABLE: "WLAN Spuri hi 18-25G"

Start Frequency	Stop Frequency	Detector	Meas.	RBW	Transducer
18 GHz	25 GHz	Time	Bandw.	VBW	
		MaxPeak	Coupled	1 MHz	#326 horn (dBi)



CONDUCTED EMISSIONS**§ 15.107/207****Measured with AC/DC power adapter*****SWEET TABLE: "55022 cond"***

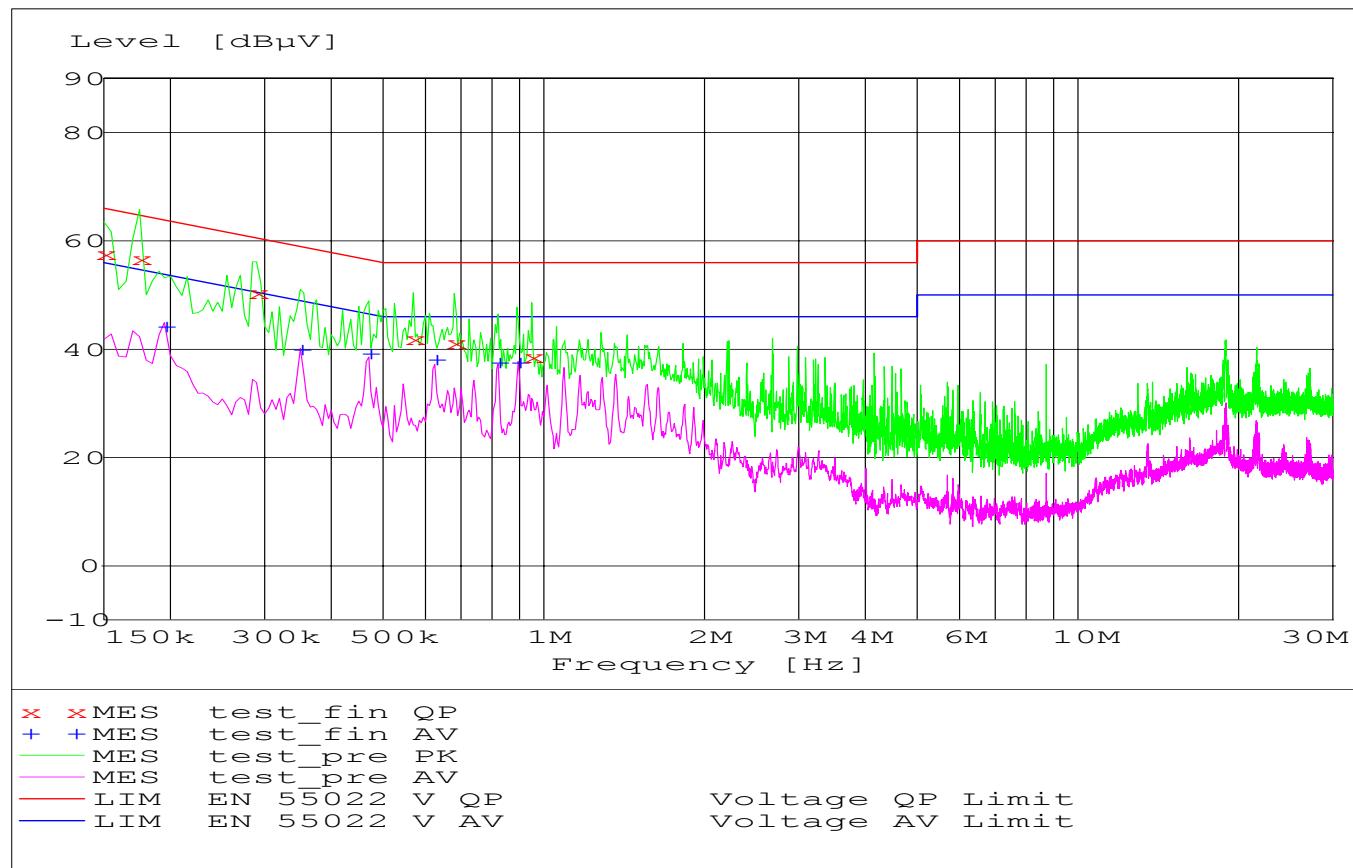
Short Description: EN 55022 for 150KHz-30MHz

Start Frequency	Stop Frequency	Detector	Meas	IF	Transducer
150.0 kHz	30.0 MHz	MaxPeak	Coupled	10 kHz	None

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**

MEASUREMENT RESULT: "test_fin_QP"

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Line	PE
0.150000	57.60	0.0	66	8.4	N	GND
0.175000	56.70	0.0	65	8.0	N	GND
0.290000	50.50	0.0	61	10.0	N	GND
0.570000	42.00	0.0	56	14.0	L1	GND
0.680000	41.10	0.0	56	14.9	N	GND
0.950000	38.70	0.0	56	17.3	N	GND

MEASUREMENT RESULT: "test_fin_AV"

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Line	PE
0.195000	44.10	0.0	54	9.7	L1	GND
0.350000	40.00	0.0	49	8.9	L1	GND
0.470000	39.10	0.0	47	7.5	L1	GND
0.625000	38.10	0.0	46	7.9	N	GND
0.820000	37.50	0.0	46	8.5	L1	GND
0.895000	37.50	0.0	46	8.5	N	GND

RECEIVER SPURIOUS RADIATION**§ 15.209****Limits**

Frequency (MHz)	Field strength (μ 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

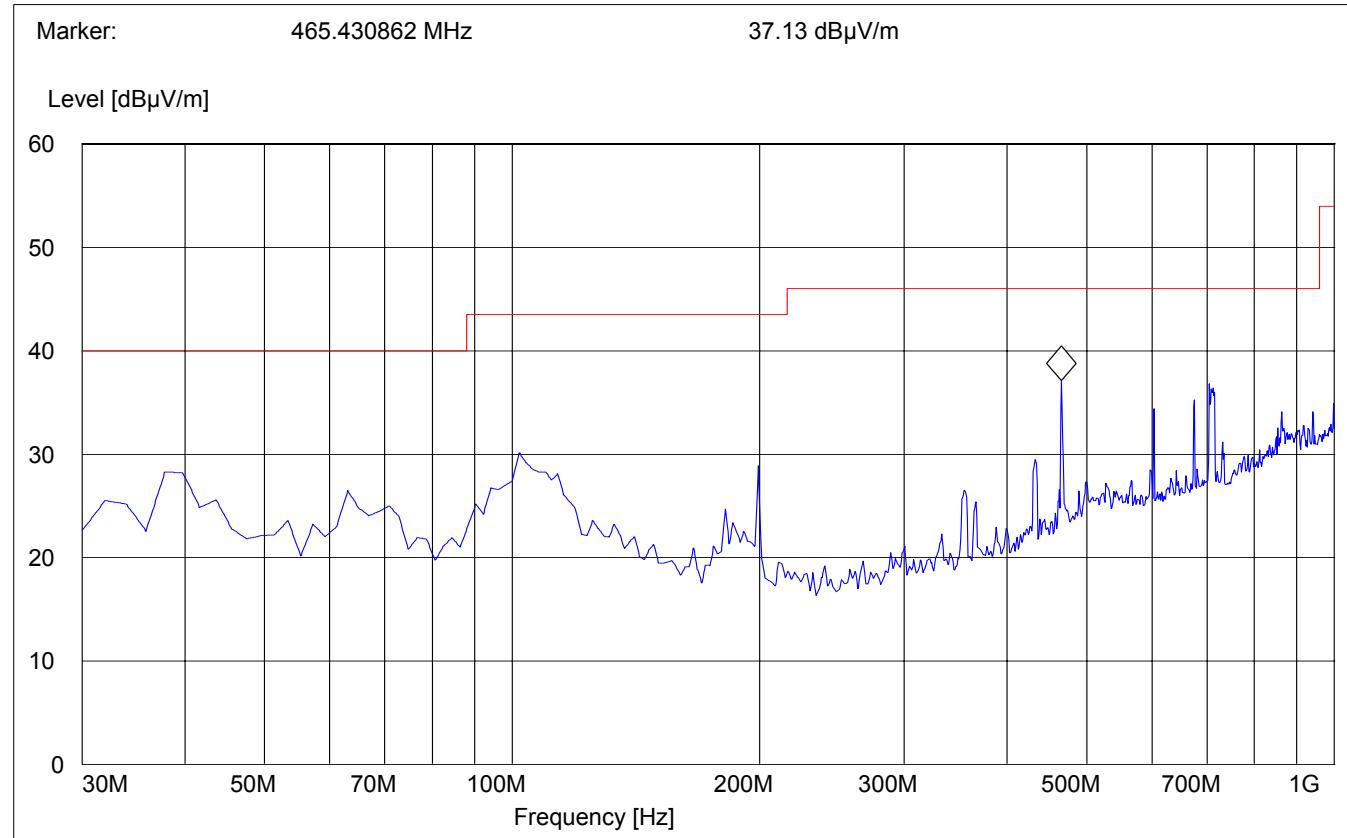
NOTE:

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.

RECEIVER SPURIOUS RADIATION**§ 15.209****Data rate – 54Mbps**Antenna: **vertical**EUT plane: **Horizontal with screen vertical @ 90°**

SWEEP TABLE: "WLAN Spuri hi 30-1G"

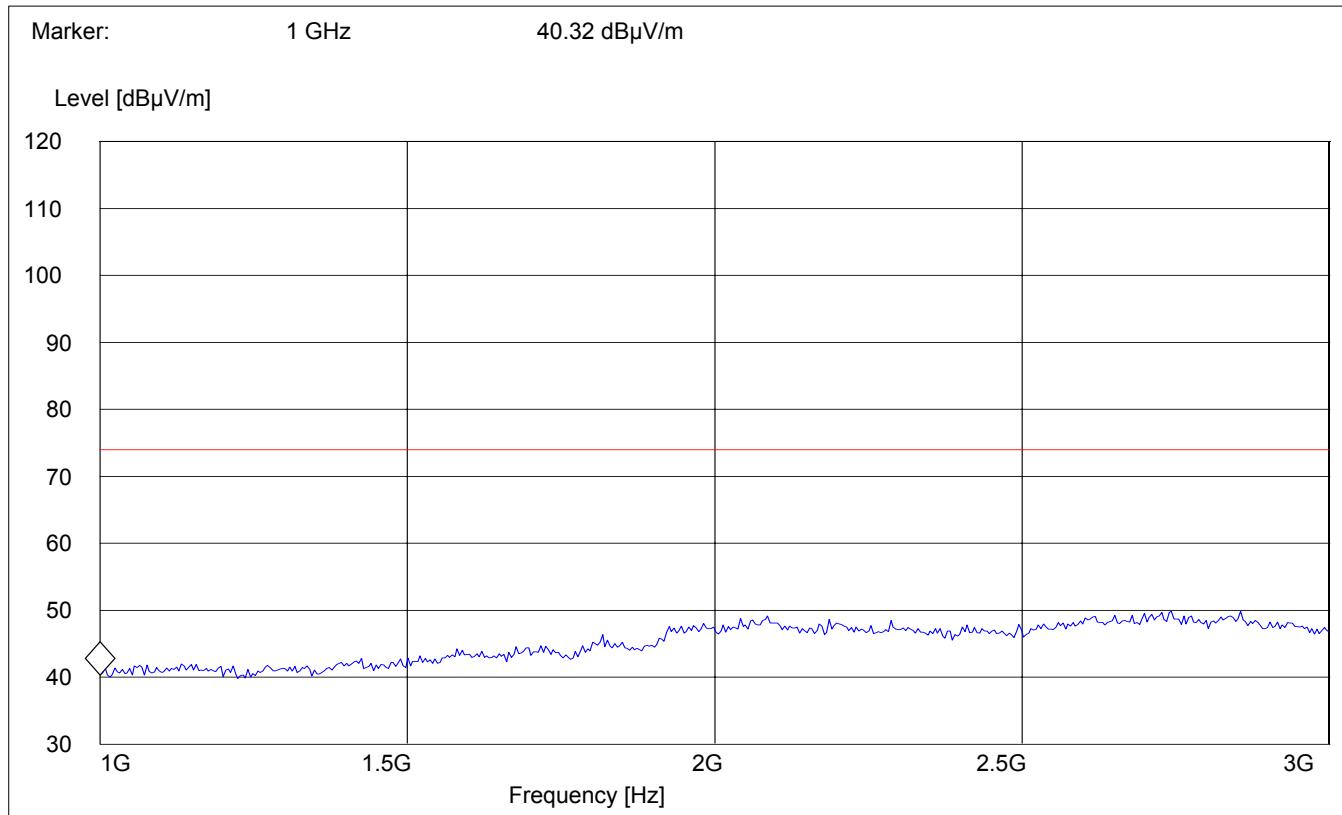
Start Frequency	Stop Frequency	Detector	Meas. Time	RBW	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186



RECEIVER SPURIOUS RADIATION**§ 15.209****1GHz – 3GHz****Peak Measurement****worst-case plot valid for all antennas**Antenna: **Horizontal**EUT plane: **Horizontal with screen vertical @ 90°**

SWEEP TABLE: "WLAN Spuri hi 1-3G"

Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	VBW	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	1MHz	#326 horn (dBi)

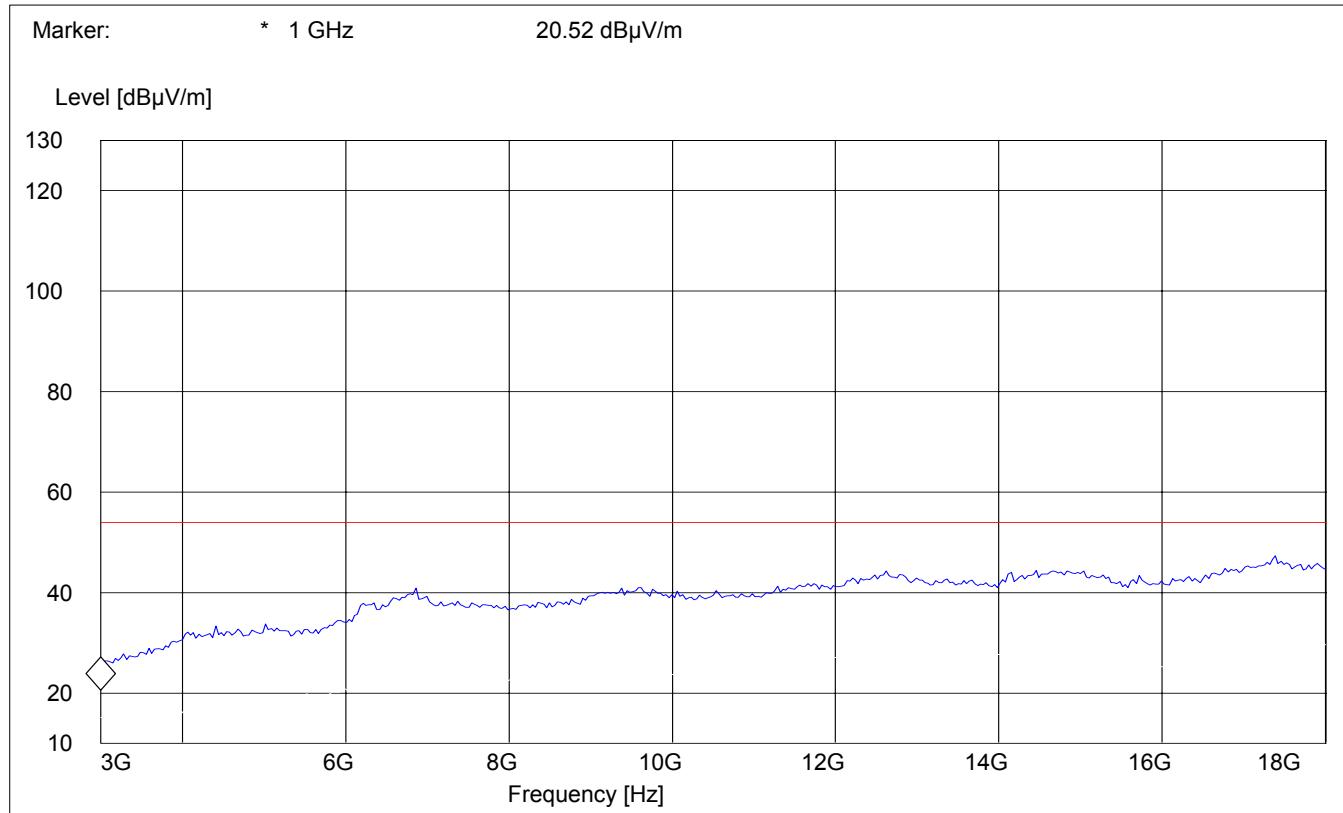


**RECEIVER SPURIOUS RADIATION
3GHz – 18GHz****§ 15.209**

Antenna: Horizontal
EUT plane: Horizontal with screen vertical @ 90°

SWEEP TABLE: "WLAN Spuri hi 3-18G"

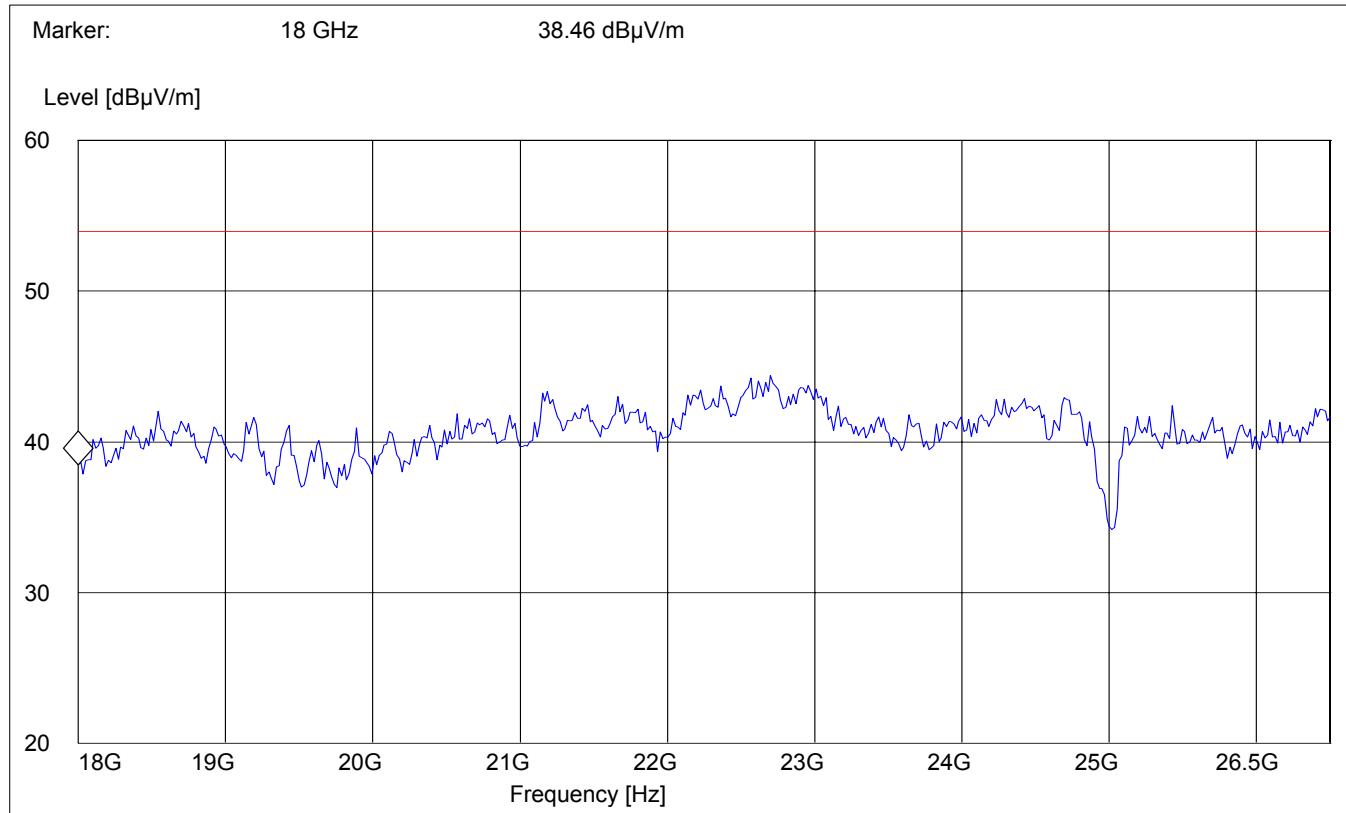
Start Frequency	Stop Frequency	Detector Time	Meas. Bandw.	RBW	Transducer
3.0 GHz	18 GHz	MaxPeak	Coupled	1 MHz	#326 horn (dBi)



**RECEIVER SPURIOUS RADIATION
18GHz – 26.5GHz****§ 15.209**

Antenna: **Horizontal**
EUT plane: **Horizontal with screen vertical @ 90°**

SWEEP TABLE: "WLAN Spuri hi 18-26.5G"
Start Stop Detector Meas. RBW Transducer
Frequency Frequency Time Bandw. VBW
18 GHz 26.5 GHz MaxPeak Coupled 1 MHz #141 horn (dBi)

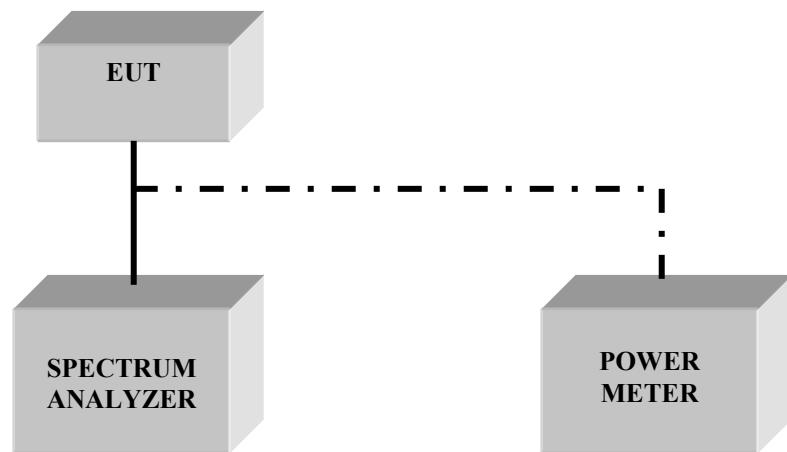


TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
01	Spectrum Analyzer	ESIB 40	Rohde & Schwarz	100107
02	Spectrum Analyzer	FSEM 30	Rohde & Schwarz	826880/010
03	Biconilog Antenna	3141	EMCO	0005-1186
04	Horn Antenna (700M-18GHz)	SAS-200/571	AH Systems	325
05	Horn Antenna (18-26.5GHz)	3160-09	EMCO	1240
06	2-3GHz Band reject filter	BRM50701	Microtronics	6
07	Power-Meter	NRVD	Rohde & Schwarz	0857.8008.02
08	Pre-Amplifier	TS-ANA	Rohde & Schwarz	--
09	Pre-Amplifier	JS4-00102600	Miteq	00616

BLOCK DIAGRAMS

Conducted Testing



Radiated Testing**ANECHOIC CHAMBER**