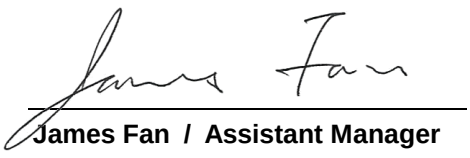
FCC Test Report

Equipment	:	**abgn WiFi Module**
Brand Name	:	**Senao**
Model No.	:	**EUB600-DM**
FCC ID	:	**U2M-EUB600DM**
Standard	:	**47 CFR FCC Part 15.247**
Operating Band	:	**2400 MHz – 2483.5 MHz**
Equipment Class	:	**DTS**
Applicant	:	**Senao Networks, Inc. 3F, No. 529, Chung Cheng Rd., Hsintien,Taipei,Taiwan**

The product sample received on Aug. 30, 2013 and completely tested on Nov. 01, 2013. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2009 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:



James Fan / Assistant Manager

Testing Laboratory
1190

Table of Contents

Summary of Test Result

Conformance Test Specifications					
Report Clause	**Ref. Std. Clause**	**Description**	**Measured**	**Limit**	**Result**
1.1.2	15.203	Antenna Requirement	Antenna connector mechanism complied	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	[dBuV]: 0.201MHz 41.86 (Margin 11.72dB) - AV 49.89 (Margin 13.69dB) - QP	FCC 15.207	Complied
3.2	15.247(a)	6dB Bandwidth	6dB Bandwidth Unit [MHz] 20M: 12.06 / 40M: 36.41	≥500kHz	Complied
3.3	15.247(b)	RF Output Power (Maximum Peak Conducted Output Power)	Power [dBm]: 27.99	Power [dBm]: 30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/30kHz]: -6.58	PSD [dBm/3kHz]: 8	Complied
3.5	15.247(d)	Emissions in non-restricted frequency bands	Out-of -band emissions are 20dB below the highest power	Non-Restricted Bands: > 20 dBc Restricted Bands: FCC 15.209	Complied
3.6	15.247(d)	Transmitter Radiated Unwanted Emissions	Restricted Bands [dBuV/m at 3m]: 2483.5MHz 72.92 (Margin 1.08dB) - PK	Non-Restricted Bands: > 20 dBc Restricted Bands: FCC 15.209	Complied

Revision History

Report No.	Version	Description	Issued Date
FR383051AC	Rev. 01	Initial issue of report	Dec. 25, 2013

1 General Description

1.1 Information

1.1.1 RF General Information

RF General Information						
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**RF Output Power (dBm)**	**Co-location**
2400-2483.5	b	2412-2462	1-11 [11]	1	20.21	N/A
2400-2483.5	g	2412-2462	1-11 [11]	1	24.68	N/A
2400-2483.5	n (HT-20)	2412-2462	1-11 [11]	2	27.99	N/A
2400-2483.5	n (HT-40)	2422-2452	3-9 [7]	2	23.91	N/A
Note 1: RF output power specifies that Maximum Peak Conducted Output Power. Note 2: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation. Note 3: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.						

1.1.2 Antenna Information

Antenna Category	
☐	Equipment placed on the market without antennas
☐	Integral antenna (antenna permanently attached)
	☐ Temporary RF connector provided
	☐ No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.
☒	External antenna (dedicated antennas)
	☐ Single power level with corresponding antenna(s).
	☐ Multiple power level and corresponding antenna(s).
	☒ RF connector provided
	☒ Unique antenna connector. (e.g., MMCX, U.FL, IPX, and RP-SMA, RP-N type…)
	☐ Standard antenna connector. (e.g., SMA, N, BNC, and TNC type…)

Antenna General Information				
No.	**Ant. Cat.**	**Ant. Type**	**Gain (dBi)**	**Connector**
1	External	PCB Dipole	2	UFL
Note: The antenna has three combination of different cable length. Combination a. & c. were chosen for final test. a. 19cm black cable / 19.5cm white cable b. 30cm black cable / 20cm white cable c. 30cm black cable / 35cm white cable				

1.1.3 Type of EUT

Identify EUT	
EUT Serial Number	N/A
Presentation of Equipment	☐ Production ; ☒ Pre-Production ; ☐ Prototype
Type of EUT	
☐	Stand-alone
☐	Combined
☒	Plug-in radio
☐	Other:

1.1.4 Test Signal Duty Cycle

Operated Mode for Worst Duty Cycle	
☐ Operated normally mode for worst duty cycle	
☒ Operated test mode for worst duty cycle	
Test Signal Duty Cycle (x)	**Power Duty Factor [dB] – (10 log 1/x)**
☒ 100% - IEEE 802.11b	0
☒ 100% - IEEE 802.11g	0
☒ 100% - IEEE 802.11n (HT-20)	0
☒ 100% - IEEE 802.11n (HT-40)	0

1.1.5 EUT Operational Condition

Supply Voltage	☐ AC mains	☒ DC (5 Vdc)	
Type of DC Source	☐ Internal DC supply	☐ External DC adapter	☒ From Host

1.2 Support Equipment

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**Remarks**
1	Notebook	DELL	E6430	DoC

1.3 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2009
- FCC KDB 558074 v03r01
- FCC KDB 662911 v02r01
- FCC KDB 412172 v01

1.4 Testing Location Information

Testing Location					
☒	Sporton Lab	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055			
☒	ICC Lab	ADD : No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsein 333, Taiwan (R.O.C.) TEL : 886-3-271-8666 FAX : 886-3-318-0155			
Test Condition		**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
RF Conducted		TH01-HY	Mark Liao	23°C / 63%	Oct. 25, 2013
*AC Conduction		CO01-WS	Skys Huang	21°C / 63%	Nov. 01, 2013
*Radiated Emission		03CH02-WS	Skys Huang	24°C / 64%	Oct. 07 ~ 08, 2013
Test site registered number [657002] with FCC. Test site registered number [10807A-1] with IC.					

Note: * Sporton Lab subcontracts this test item to ICC lab (TAF: 2732).
ICC lab is a TAF accreditation test firm and also is an approved provider of Sporton lab.

1.5 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Uncertainty			
Test Item		**Uncertainty**	**Limit**
AC power-line conducted emissions		±2.80 dB	N/A
Emission bandwidth, 6dB bandwidth		±1.42 %	N/A
RF output power, conducted		±0.63 dB	N/A
Power density, conducted		±0.81 dB	N/A
All emissions, radiated	30 – 1000 MHz	±3.9 dB	N/A
	Above 1GHz	±4.2 dB	N/A
Temperature		±0.8 °C	N/A
Humidity		±3 %	N/A
DC and low frequency voltages		±3 %	N/A
Time		±1.42 %	N/A
Duty Cycle		±1.42 %	N/A

2 Test Configuration of EUT

2.1 The Worst Case Modulation Configuration

Worst Modulation Used for Conformance Testing			
Modulation Mode	**Transmit Chains (N_{TX})**	**Data Rate / MCS**	**Worst Data Rate / MCS**
11b	1	1-11 Mbps	1 Mbps
11g	1	6-54 Mbps	6 Mbps
HT-20	2	MCS 0-15	MCS 0
HT-40	2	MCS 0-15	MCS 0

2.2 Test Channel Frequencies Configuration

Test Channel Frequencies Configuration	
IEEE Std. 802.11	**Test Channel Frequencies (MHz)**
b, g, n (HT-20)	2412-(F1), 2437-(F2), 2462-(F3)
n (HT-40)	2422-(F4), 2437-(F5), 2452-(F6)

2.3 The Worst Case Power Setting Parameter

The Worst Case Power Setting Parameter (2400-2483.5MHz band)							
Test Software Version	MT5x7x QA, Version 1.0.4.9						
Modulation Mode	**N_{TX}**	**Test Frequency (MHz)**					
		NCB: 20MHz			**NCB: 40MHz**		
		2412	**2437**	**2462**	**2422**	**2437**	**2452**
11b	1	16	16	14	---	---	---
11g	1	10	15	0D	---	---	---
HT-20	2	11/19	19/22	0F/19	---	---	---
HT-40	2	---	---	---	0B/13	10/19	09/13

2.4 The Worst Case Measurement Configuration

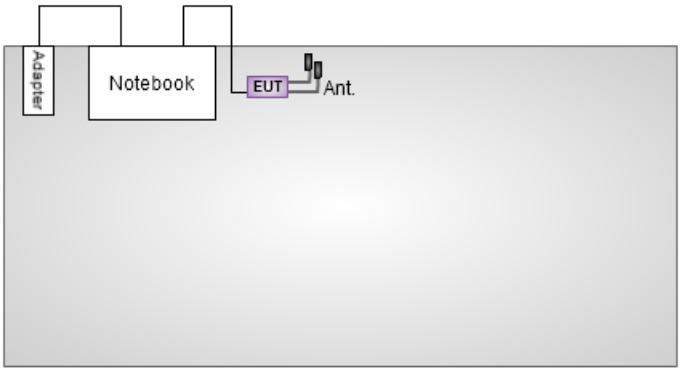
The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	Operating Mode Description
1	Radio link (WLAN)

The Worst Case Mode for Following Conformance Tests	
Tests Item	RF Output Power, Power Spectral Density, 6 dB Bandwidth
Test Condition	Conducted measurement at transmit chains
Modulation Mode	11b, 11g, HT-20, HT-40

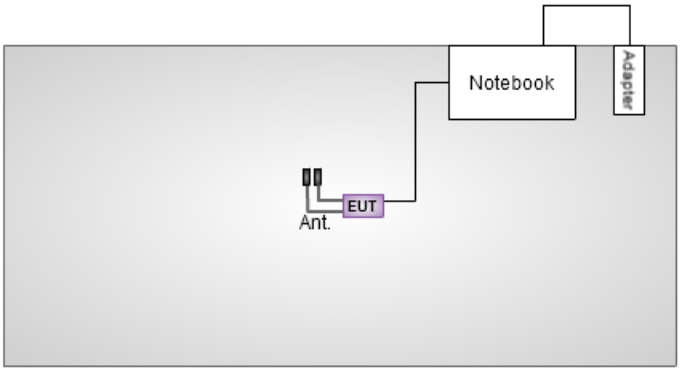
The Worst Case Mode for Following Conformance Tests			
Tests Item	Transmitter Radiated Unwanted Emissions Transmitter Radiated Bandedge Emissions		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
User Position	☒ EUT will be placed in fixed position. The applicant declared that the antenna plane is Y-axis only and the antenna separation distance is 20cm.		
	☐ EUT will be placed in mobile position and operating multiple positions. EUT shall be performed three orthogonal planes. The worst planes is X.		
	☐ EUT will be operating multiple positions. EUT shall be performed two or three orthogonal planes. The worst plane is Z		
Operating Mode <1GHz	☒ 1. Radio link (WLAN) with antenna cable length combination a.		
	☒ 2. Radio link (WLAN) with antenna cable length combination c.		
Operating Mode >1GHz	☒ 1. Radio link (WLAN) with antenna cable length combination a.		
Modulation Mode	11b, 11g, HT-20, HT-40		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			

2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Test Setup Diagram – Radiated Emission Test



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

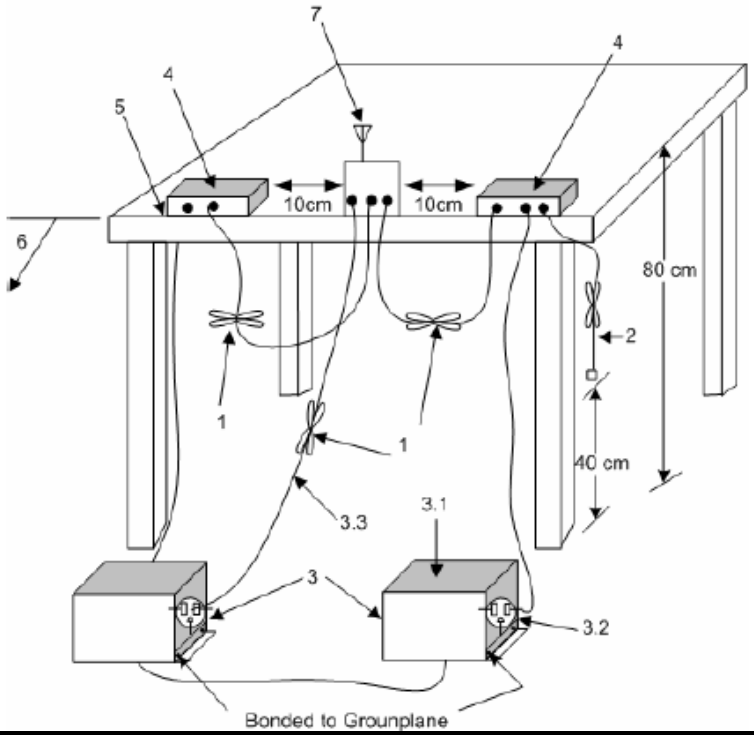
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2009, clause 6.2 for AC power-line conducted emissions.

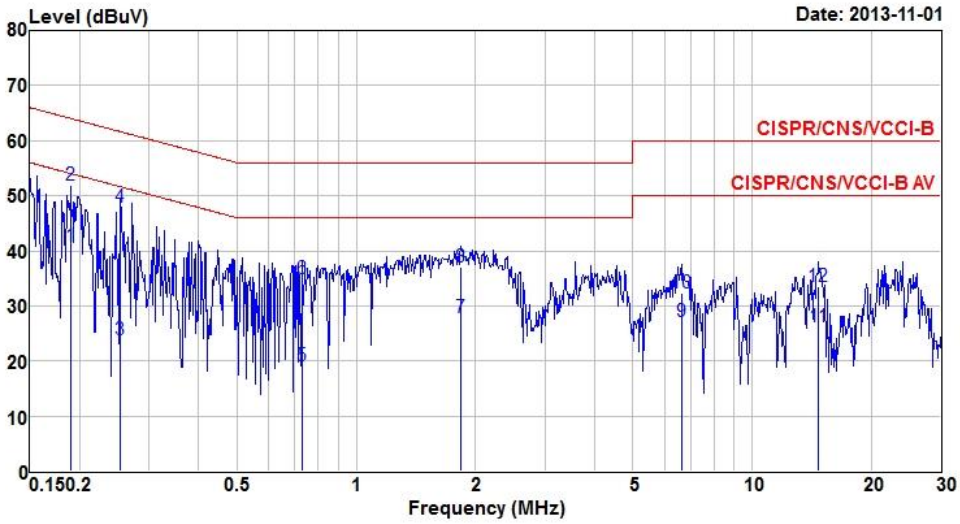
3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

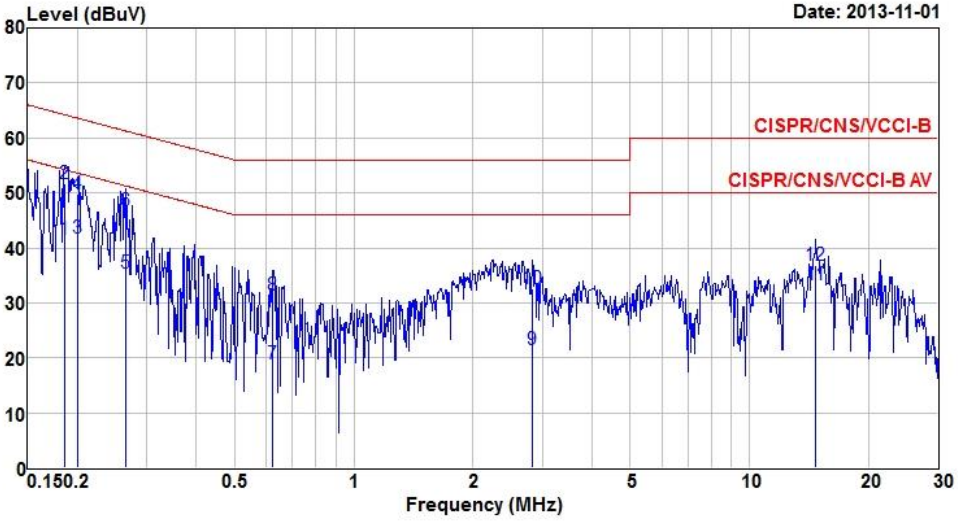
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Radio link (WLAN)		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.189	40.75	54.06	-13.31	40.57	0.02	0.16	Average
2	0.189	52.02	64.06	-12.04	51.84	0.02	0.16	QP
3	0.253	23.81	51.64	-27.83	23.65	0.02	0.14	Average
4	0.253	47.95	61.64	-13.69	47.79	0.02	0.14	QP
5	0.727	19.11	46.00	-26.89	18.96	0.11	0.04	Average
6	0.727	34.87	56.00	-21.13	34.72	0.11	0.04	QP
7	1.839	27.88	46.00	-18.12	27.70	0.03	0.15	Average
8	1.839	37.06	56.00	-18.94	36.88	0.03	0.15	QP
9	6.627	27.18	50.00	-22.82	26.94	0.07	0.17	Average
10	6.627	32.29	60.00	-27.71	32.05	0.07	0.17	QP
11	14.750	26.31	50.00	-23.69	26.07	0.11	0.13	Average
12	14.750	33.62	60.00	-26.38	33.38	0.11	0.13	QP

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Radio link (WLAN)		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.186	41.45	54.20	-12.75	41.27	0.03	0.15	Average
2	0.186	51.69	64.20	-12.51	51.51	0.03	0.15	QP
3	0.201	41.86	53.58	-11.72	41.65	0.03	0.18	Average
4	0.201	49.89	63.58	-13.69	49.68	0.03	0.18	QP
5	0.266	35.36	51.25	-15.89	35.20	0.03	0.13	Average
6	0.266	46.67	61.25	-14.58	46.51	0.03	0.13	QP
7	0.624	18.99	46.00	-27.01	18.91	0.03	0.05	Average
8	0.624	31.47	56.00	-24.53	31.39	0.03	0.05	QP
9	2.824	21.45	46.00	-24.55	21.20	0.05	0.20	Average
10	2.824	32.51	56.00	-23.49	32.26	0.05	0.20	QP
11	14.750	33.24	50.00	-16.76	32.99	0.12	0.13	Average
12	14.750	36.85	60.00	-23.15	36.60	0.12	0.13	QP

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

3.2 6dB Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
☒ 6 dB bandwidth ≥ 500 kHz.

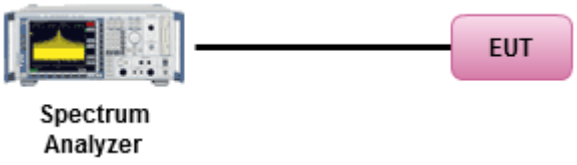
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

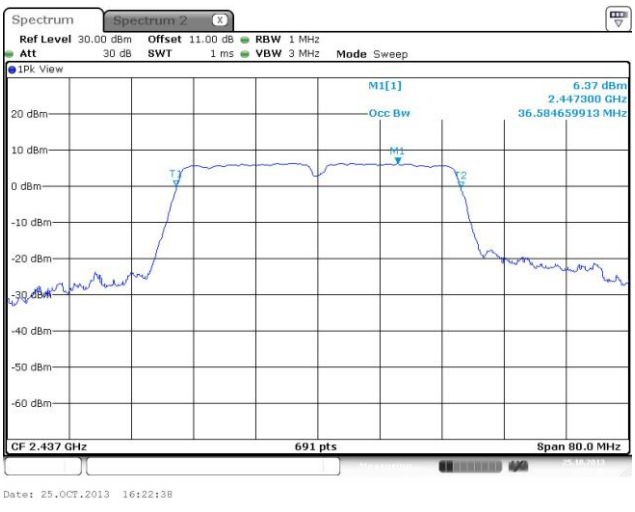
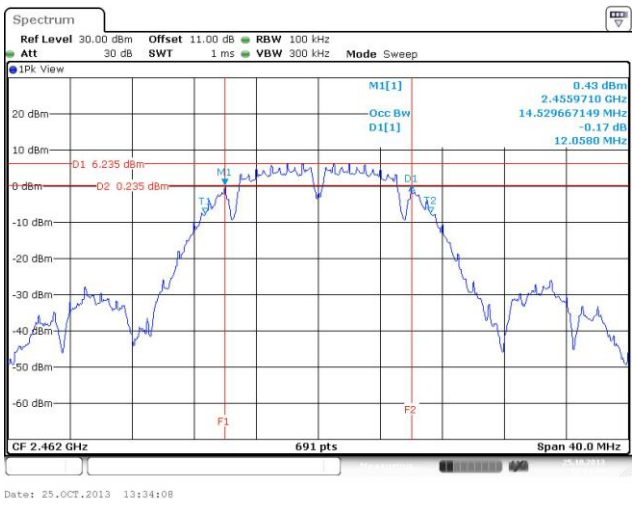
Test Method		
☒	For the emission bandwidth shall be measured using one of the options below:	
	☒	Refer as FCC KDB 558074 v03r01, clause 8.1 Option 1 for 6 dB bandwidth measurement.
	☐	Refer as FCC KDB 558074 v03r01, clause 8.2 Option 2 for 6 dB bandwidth measurement.
	☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☒	For conducted measurement.	
	☒	The EUT supports single transmit chain and measurements performed on this transmit chain.
	☐	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
	☒	The EUT supports multiple transmit chains using options given below:
		☐ Option 1: Multiple transmit chains measurements need to be performed on one of the active transmit chains (antenna outputs). All measurement had be performed on transmit chains 1.
		☒ Option 2: Multiple transmit chains measurements need to be performed on each transmit chains individually (antenna outputs). All measurement had be performed on all transmit chains.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Emission Bandwidth Result										
Condition			Emission Bandwidth (MHz)							
Modulation Mode	N_{TX}	Freq. (MHz)	99% Bandwidth				6dB Bandwidth			
			Chain-Port 1	Chain-Port 2	Chain-Port 3	-	Chain-Port 1	Chain-Port 2	Chain-Port 3	-
11b	1	2412	14.59	---	---	---	12.06	---	---	---
11b	1	2437	14.59	---	---	---	12.06	---	---	---
11b	1	2462	14.53	---	---	---	12.06	---	---	---
11g	1	2412	16.85	---	---	---	16.35	---	---	---
11g	1	2437	17.89	---	---	---	16.35	---	---	---
11g	1	2462	16.67	---	---	---	16.35	---	---	---
HT-20	2	2412	17.54	17.48	---	---	17.62	17.39	---	---
HT-20	2	2437	19.91	20.38	---	---	17.62	17.57	---	---
HT-20	2	2462	17.48	17.48	---	---	17.57	17.39	---	---
HT-40	2	2422	36.36	36.47	---	---	36.41	36.41	---	---
HT-40	2	2437	36.58	36.58	---	---	36.41	36.41	---	---
HT-40	2	2452	36.35	36.47	---	---	36.41	36.41	---	---
Limit			N/A				≥500 kHz			
Result			Complied							
Note 1: N_{TX} = Number of Transmit Chains										

Worst Emission Bandwidth Plots	
99% Bandwidth	6dB Bandwidth
	

3.3 RF Output Power

3.3.1 RF Output Power Limit

RF Output Power Limit			
Maximum Peak Conducted Output Power or Maximum Conducted Output Power Limit			
☒	2400-2483.5 MHz Band:		
	☒	If G_{TX} ≤ 6 dBi, then P_{Out} ≤ 30 dBm (1 W)	
	☐	Point-to-multipoint systems (P2M): If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6) dBm	
	☐	Point-to-point systems (P2P): If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm	
	☐	Smart antenna system (SAS):	
		☐	Single beam: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm
		☐	Overlap beam: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm
		☐	Aggregate power on all beams: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 + 8dB dBm
e.i.r.p. Power Limit:			
☒	2400-2483.5 MHz Band		
	☒	Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)	
	☐	Point-to-point systems (P2P): P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX}]) dBm	
	☐	Smart antenna system (SAS)	
		☐	Single beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		☐	Overlap beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		☐	Aggregate power on all beams: P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX} + 8]) dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi. **P_{eirp}** = e.i.r.p. Power in dBm.			

RF Output Power Limit - IC			
Maximum Peak Conducted Output Power or Maximum Conducted Output Power Limit and e.i.r.p.			
☒	2400-2483.5 MHz Band:		
	☒	Point-to-multipoint systems (P2M): P_{Out} ≤ 30 dBm (1 W); P_{eirp} ≤ 36 dBm (4 W)	
	☒	Point-to-point systems (P2P): If P_{eirp} > 36 dBm, G_{TX} ≤ P_{Out}	
	☐	Smart antenna system (SAS): If P_{eirp} > 36 dBm, G_{TX} ≤ P_{Out}	
		☐	Single beam: follow P2M, P2P limits
		☐	Overlap beam: follow P2M limit
		☐	Aggregate power on all beams: follow P2M limit + 8dB
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi. **P_{eirp}** = e.i.r.p. Power in dBm.			

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
☒	Maximum Peak Conducted Output Power
	☐ Refer as FCC KDB 558074 v03r01, clause 9.1.1 Option 1 (RBW ≥ EBW method).
	☐ Refer as FCC KDB 558074 v03r01, clause 9.1.2 Option 2 (integrated band power method).
	☒ Refer as FCC KDB 558074 v03r01, clause 9.1.3 Option 3 (peak power meter for VBW ≥ DTS BW)
☒	Maximum Conducted (Average) Output Power
	☐ Refer as FCC KDB 558074 v03r01, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
	☐ Refer as FCC KDB 558074 v03r01, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
	☐ Refer as FCC KDB 558074 v03r01, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 558074 v03r01, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
	RF power meter and average over on/off periods with duty factor or gated trigger
	☒ Refer as FCC KDB 558074 v03r01, clause 9.2.3 Method AVGPM-G (using a gated RF average power meter)
☒	For conducted measurement.
	☒ The EUT supports single transmit chain and measurements performed on this transmit chain.
	☐ The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
	☒ The EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	☒ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

RF Output Power (Power meter)


3.3.5 Directional Gain for Power Measurement

Directional Gain (DG) Result					
Transmit Chains No.		1	2	-	-
Maximum G_{ANT} (dBi)		2	2	-	-
Modulation Mode	**DG (dBi)**	**N_{TX}**	**N_{SS}**	**STBC**	**Array Gain (dB)**
11b	2	1	1	-	0
11g	2	1	1	-	0
HT-20	5	2	1	-	3
HT-40	5	2	1	-	3
Note: Directional gain = 3 + 10*log(2/1) = 5dBi					

3.3.6 Test Result of Maximum Conducted Output Power

Maximum Conducted Output Power											
Condition			RF Output Power (dBm)								
Modulation Mode	N_{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	-	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit
11b	1	2412	20.03	---	---	---	20.03	30.00	2.00	22.03	36.00
11b	1	2437	20.21	---	---	---	20.21	30.00	2.00	22.21	36.00
11b	1	2462	19.45	---	---	---	19.45	30.00	2.00	21.45	36.00
11g	1	2412	22.81	---	---	---	22.81	30.00	2.00	24.81	36.00
11g	1	2437	24.68	---	---	---	24.68	30.00	2.00	26.68	36.00
11g	1	2462	21.95	---	---	---	21.95	30.00	2.00	23.95	36.00
HT-20	2	2412	21.35	21.98	---	---	24.69	30.00	5.00	29.69	36.00
HT-20	2	2437	25.04	24.92	---	---	27.99	30.00	5.00	32.99	36.00
HT-20	2	2462	20.75	21.00	---	---	23.89	30.00	5.00	28.89	36.00
HT-40	2	2422	17.80	18.86	---	---	21.37	30.00	5.00	26.37	36.00
HT-40	2	2437	20.66	21.13	---	---	23.91	30.00	5.00	28.91	36.00
HT-40	2	2452	16.96	17.95	---	---	20.49	30.00	5.00	25.49	36.00
Result			Complied								

3.3.7 Test Result of Maximum Conducted (Average) Output Power

Maximum Conducted (Average) Output Power											
Condition			RF Output Power (dBm)								
Modulation Mode	N_{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	-	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit
11b	1	2412	17.95	---	---	---	17.95	30.00	2.00	19.95	36.00
11b	1	2437	18.02	---	---	---	18.02	30.00	2.00	20.02	36.00
11b	1	2462	17.23	---	---	---	17.23	30.00	2.00	19.23	36.00
11g	1	2412	14.12	---	---	---	14.12	30.00	2.00	16.12	36.00
11g	1	2437	16.90	---	---	---	16.90	30.00	2.00	18.90	36.00
11g	1	2462	12.92	---	---	---	12.92	30.00	2.00	14.92	36.00
HT-20	2	2412	12.80	13.42	---	---	16.13	30.00	5.00	21.13	36.00
HT-20	2	2437	18.36	18.16	---	---	21.27	30.00	5.00	26.27	36.00
HT-20	2	2462	12.10	12.61	---	---	15.37	30.00	5.00	20.37	36.00
HT-40	2	2422	9.53	10.42	---	---	13.01	30.00	5.00	18.01	36.00
HT-40	2	2437	12.49	12.93	---	---	15.73	30.00	5.00	20.73	36.00
HT-40	2	2452	8.78	9.61	---	---	12.23	30.00	5.00	17.23	36.00
Result			Complied								

Note: AV power is for reference only.

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
☒ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

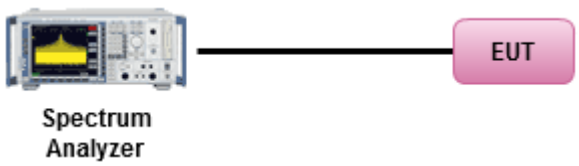
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method			
☒	Power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the power spectral density. In addition, the use of a peak PSD procedure will always result in a “worst-case” measured level for comparison to the limit. Therefore, whenever the DTS bandwidth exceeds 500 kHz, it is acceptable to utilize the peak PSD procedure to demonstrate compliance to the PSD limit, regardless of how the fundamental output power was measured. For the power spectral density shall be measured using below options:		
	☒	Refer as FCC KDB 558074 v03r01, clause 10.2 Method PKPSD (RBW=3kHz; detector=peak)..	
	☐	Refer as FCC KDB 558074 v03r01, clause 10.3 Method AVGPSD-1 (spectral trace averaging).	
	☐	Refer as FCC KDB 558074 v03r01, clause 10.4 Method AVGPSD-1 Alt. (slow sweep speed)	
	☐	Refer as FCC KDB 558074 v03r01, clause 10.5 Method AVGPSD-2 (spectral trace averaging).	
	☐	Refer as FCC KDB 558074 v03r01, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)	
☒	For conducted measurement.		
	☒	The EUT supports single transmit chain and measurements performed on this transmit chain.	
	☐	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.	
	☒	The EUT supports multiple transmit chains using options given below:	
		☒	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the N_{TX} output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
		☐	Option 2: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup

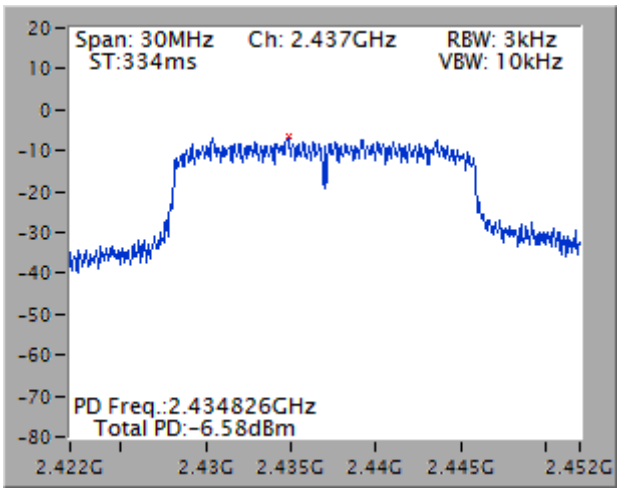
Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Power Spectral Density Result				
Condition			Power Spectral Density	
Modulation Mode	N_{TX}	Freq. (MHz)	Sum Chain (dBm/3kHz)	Power Limit (dBm/3kHz)
11b	1	2412	-10.82	8.00
11b	1	2437	-11.23	8.00
11b	1	2462	-11.37	8.00
11g	1	2412	-12.48	8.00
11g	1	2437	-10.47	8.00
11g	1	2462	-14.06	8.00
HT-20	2	2412	-11.20	8.00
HT-20	2	2437	-6.58	8.00
HT-20	2	2462	-12.24	8.00
HT-40	2	2422	-14.45	8.00
HT-40	2	2437	-12.11	8.00
HT-40	2	2452	-15.97	8.00
Result			Complied	

Note: Test result of HT20 / 40 is bin-by-bin summing measured value of each TX port.

Worst Power Spectral Density Plots



3.5 Emissions in non-restricted frequency bands

3.5.1 Emissions in non-restricted frequency bands limit

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz

3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Reference level measurement

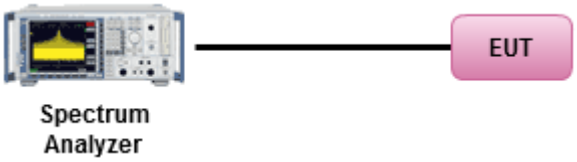
1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

Emission level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

3.5.4 Test Setup

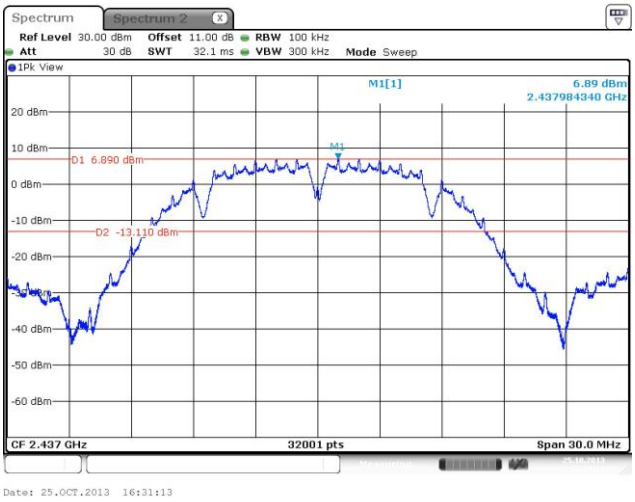
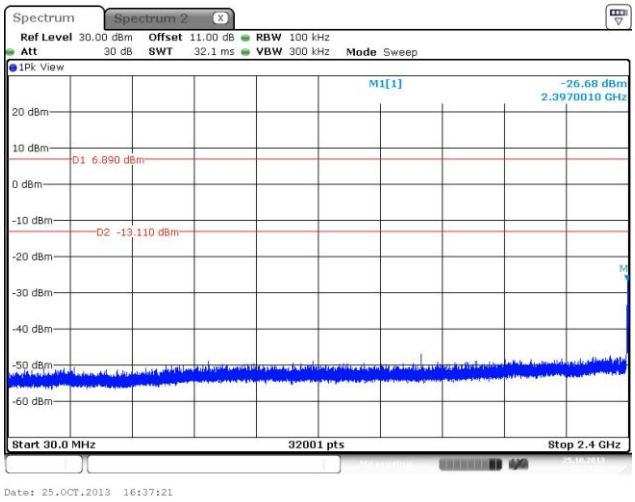
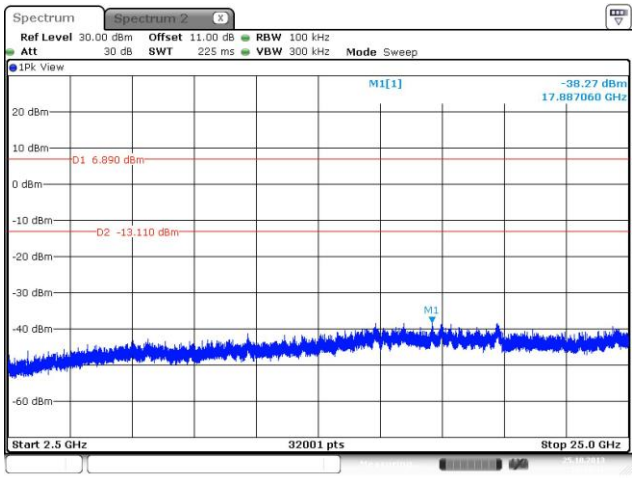
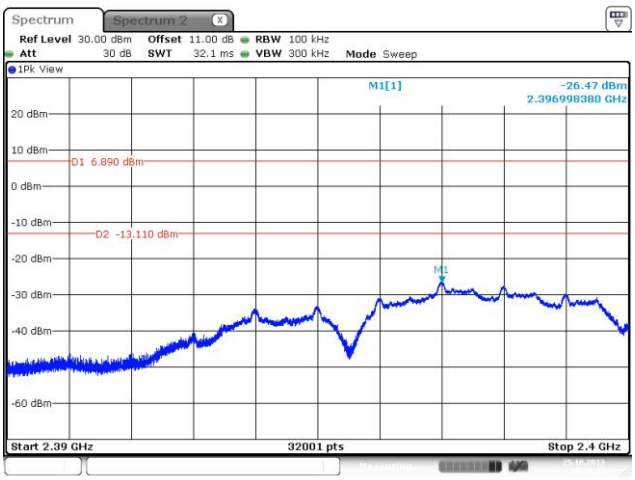
Transmitter Radiated Bandedge Emissions

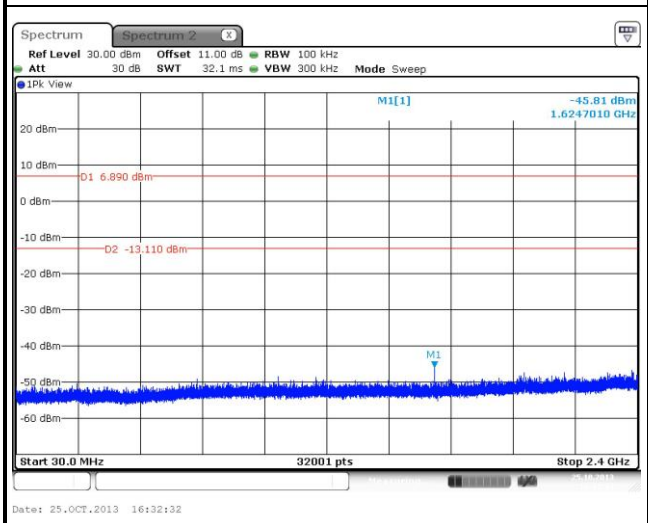
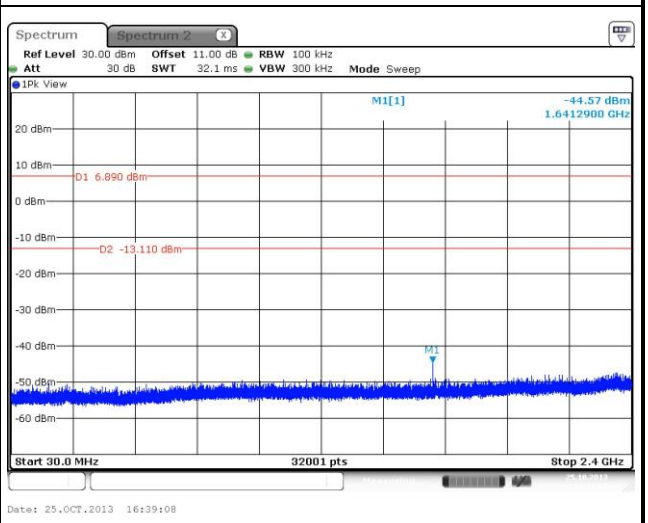
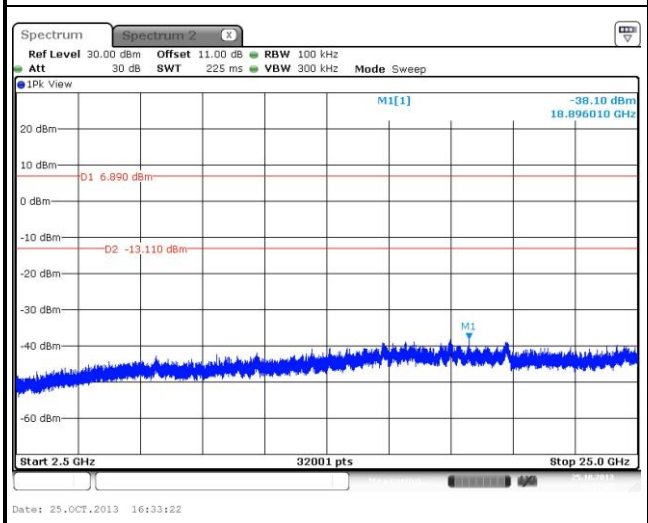
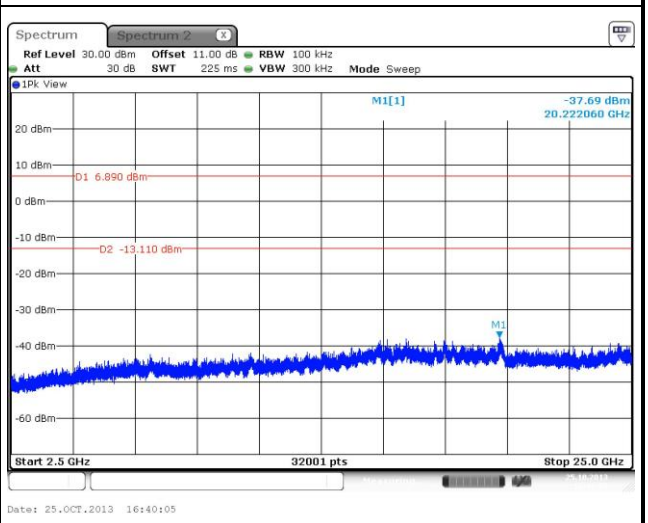
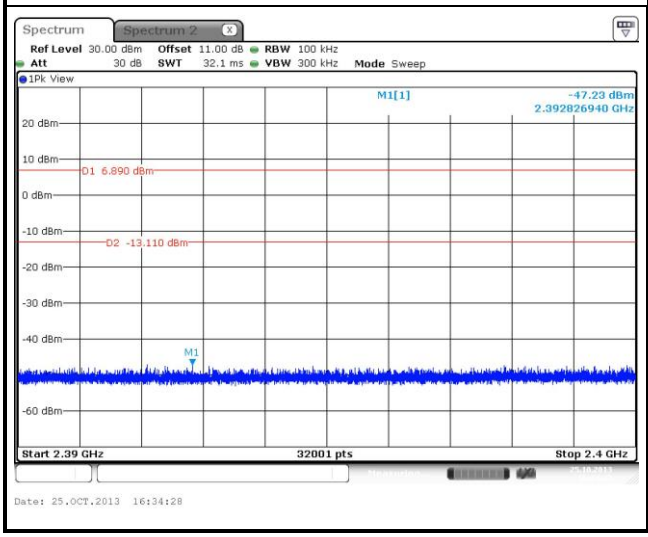
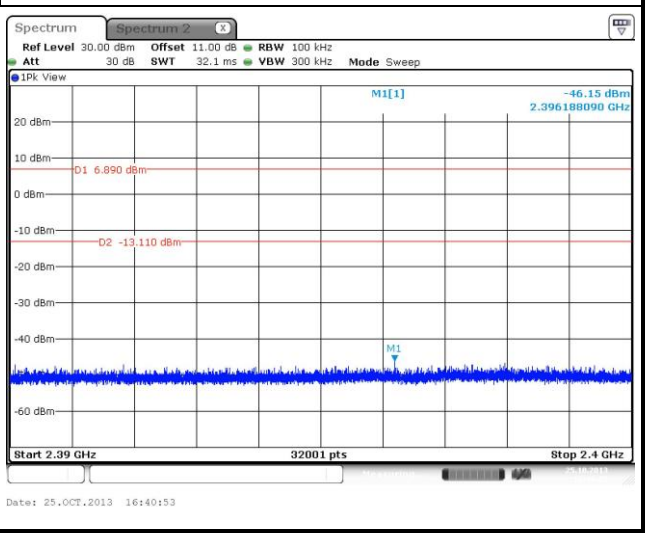


3.5.5 Test Result of Emissions in non-restricted frequency bands

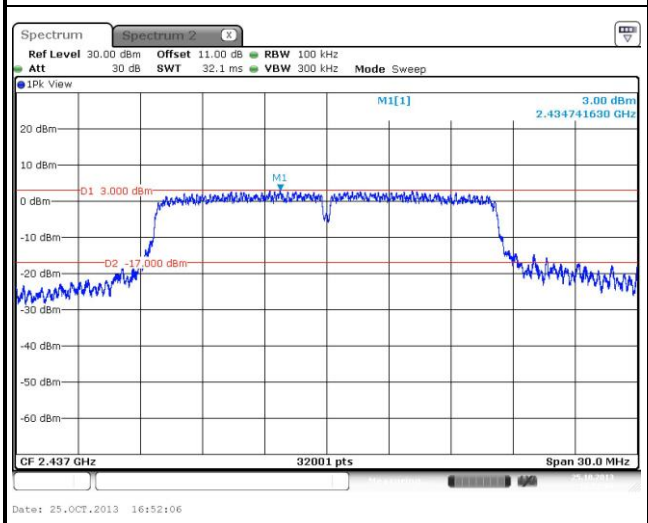
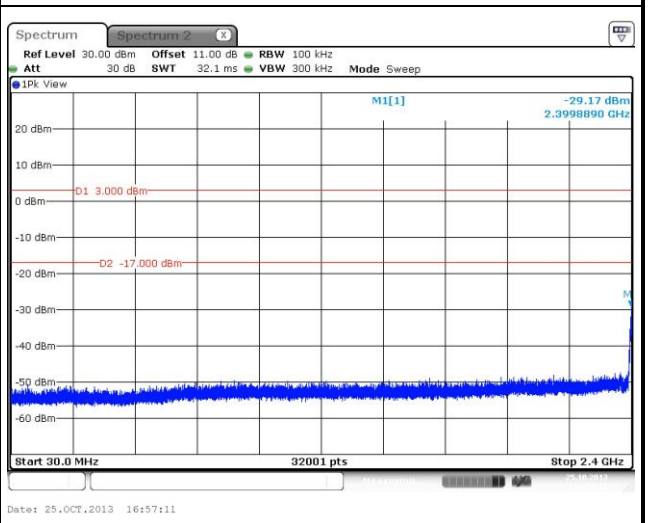
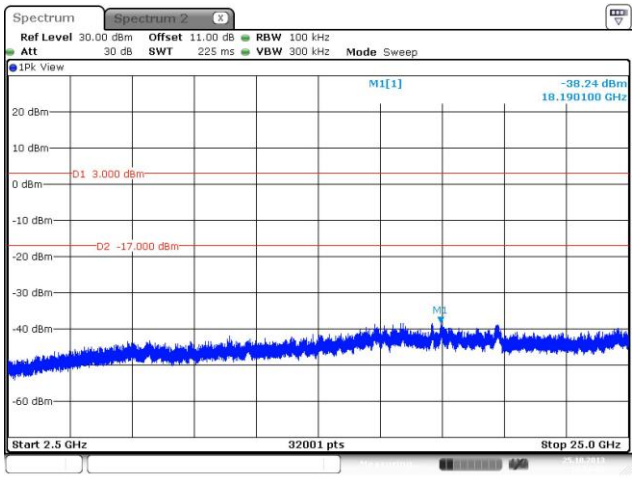
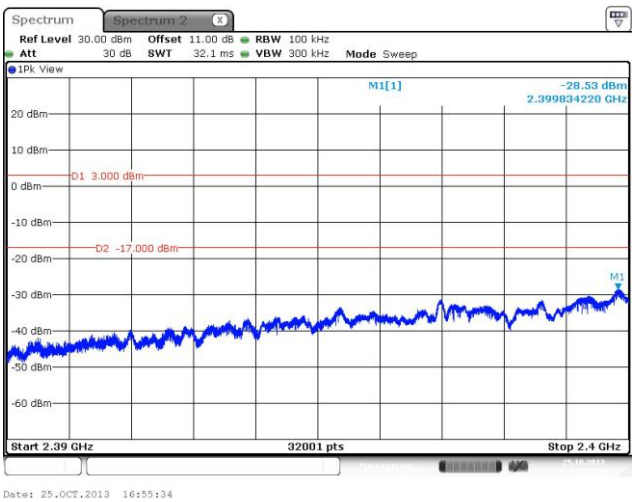
This test item is performed on each TX output individually without summing or adding 10 log(N_{ANT}) since measurements are made relative to the in-band emissions on the individual outputs. Only worst test result of each operating mode is presented.

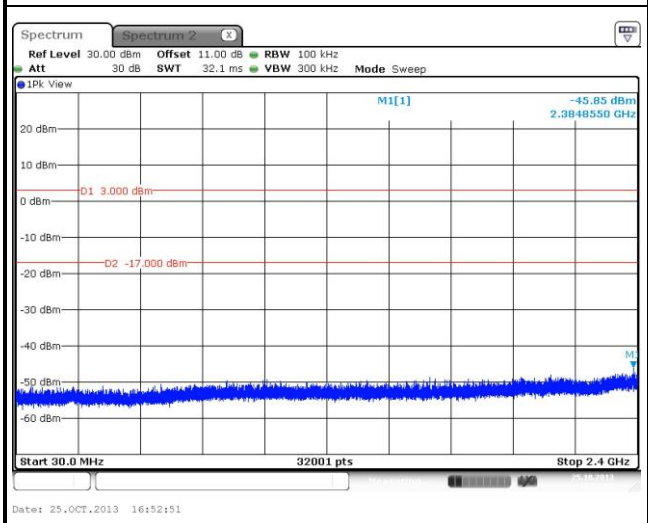
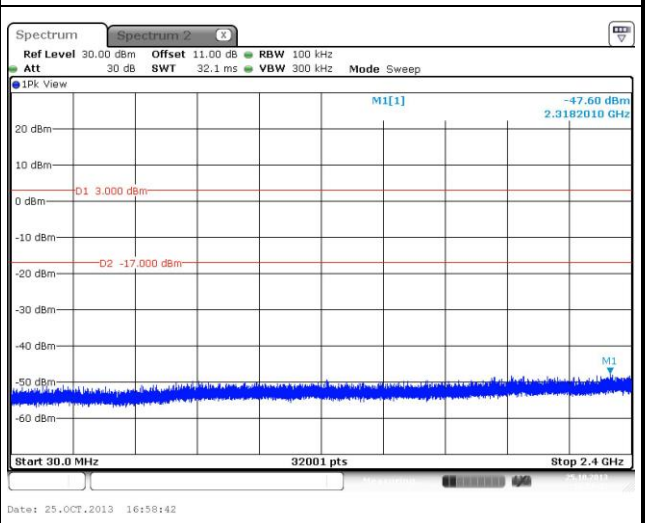
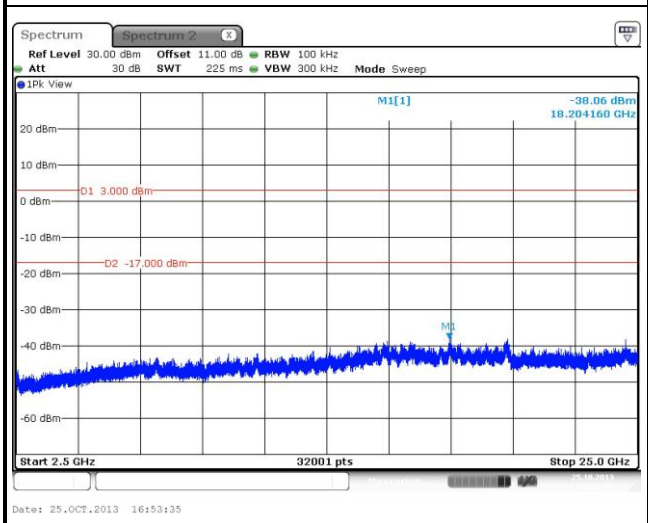
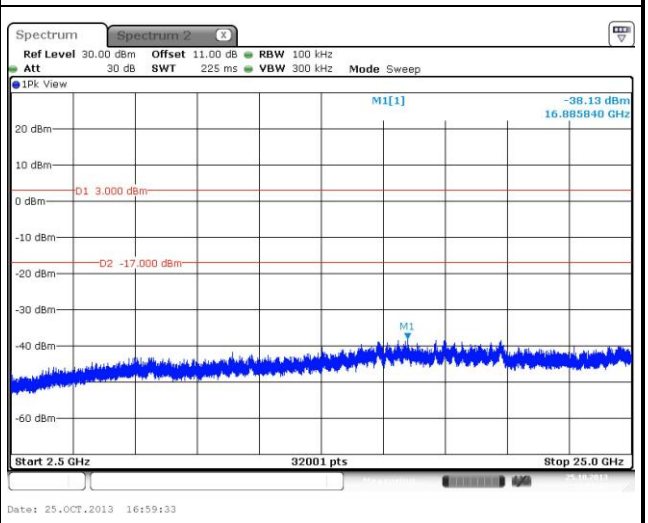
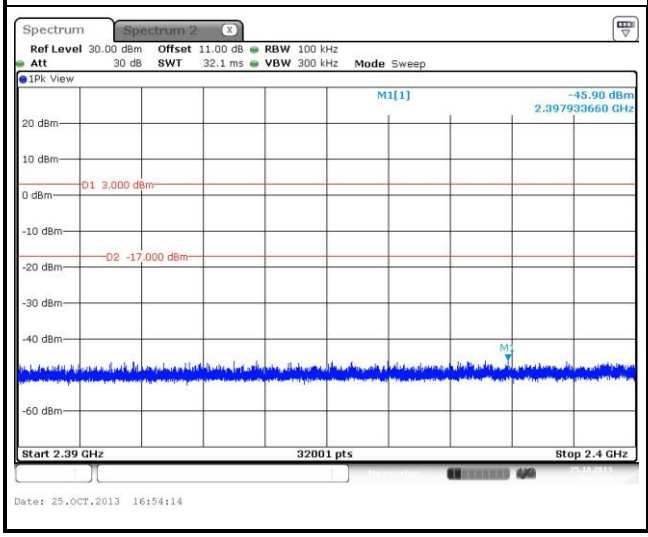
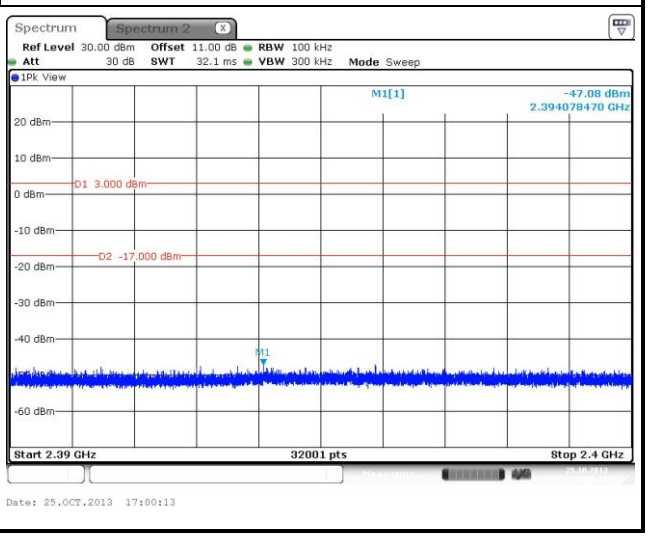
802.11b

Reference Level	TX 2412 MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

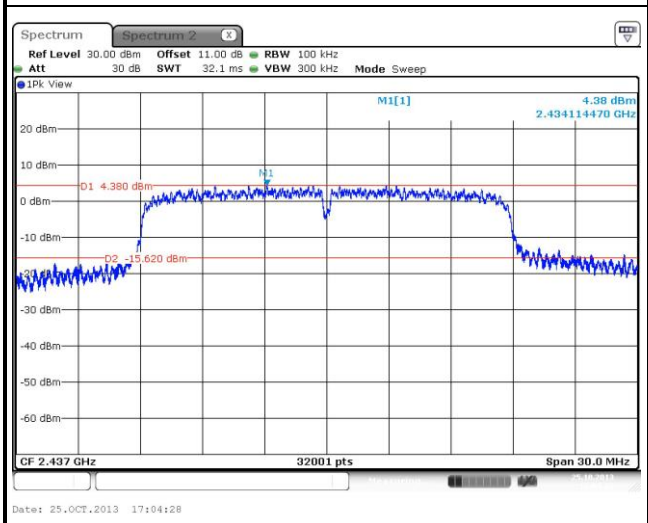
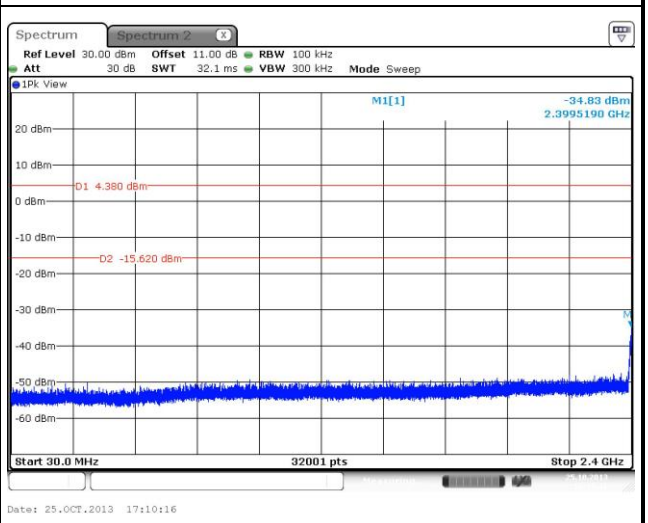
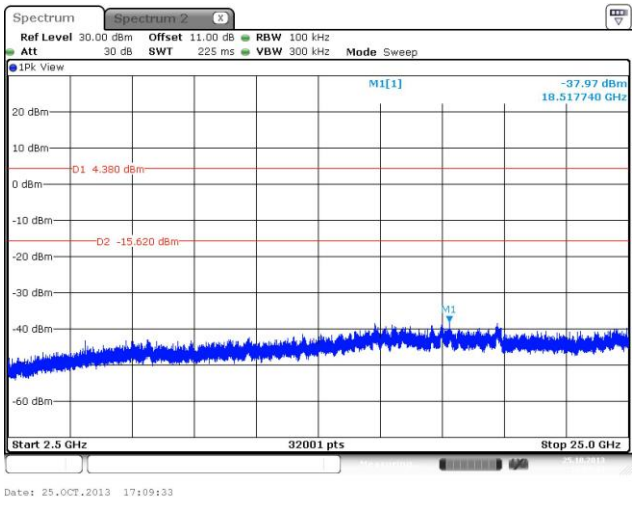
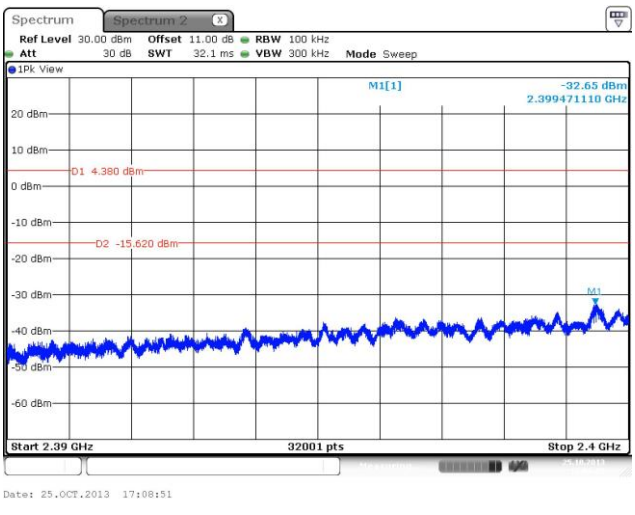
TX 2437 MHz / 30MHz~25GHz (down 20dBc)	TX 2462 MHz / 30MHz~25GHz (down 20dBc)
	
	
	

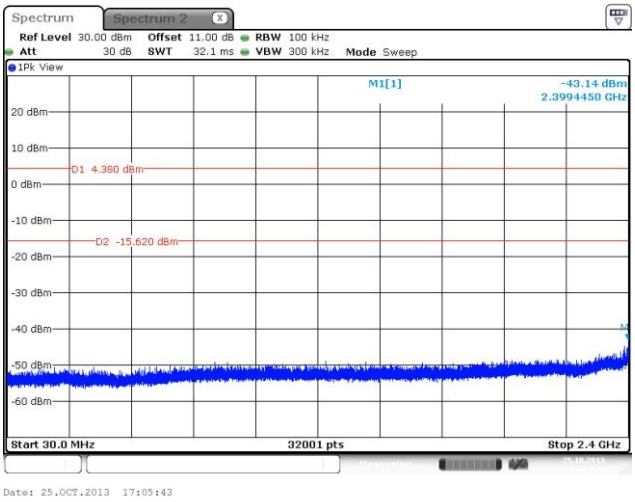
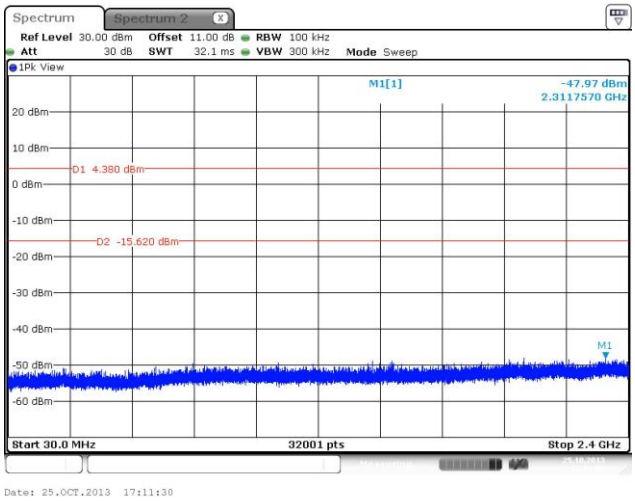
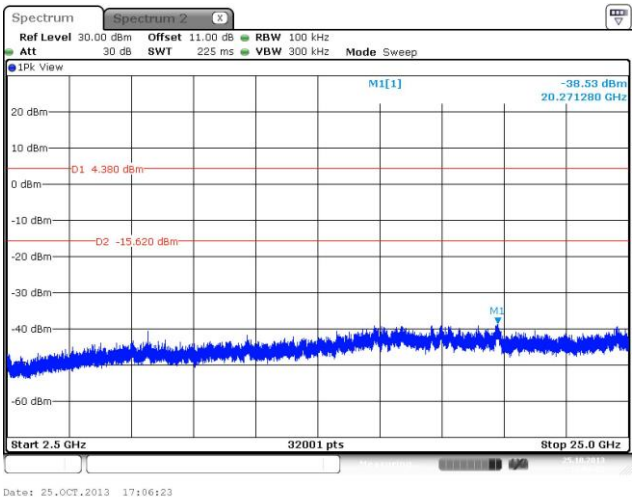
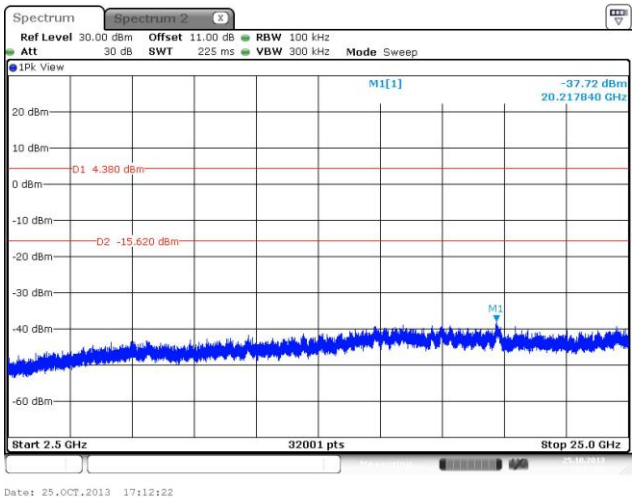
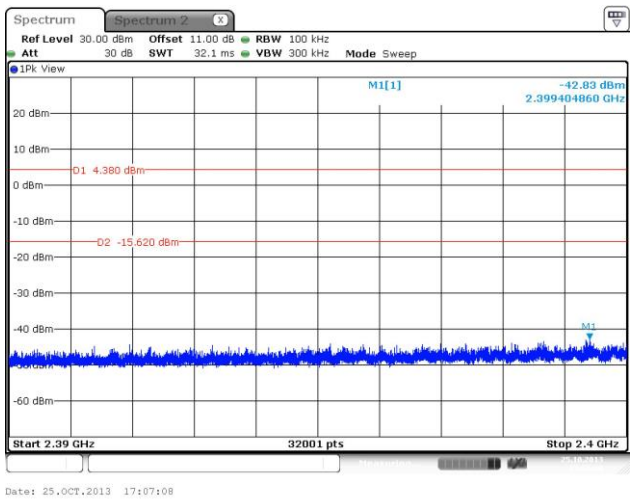
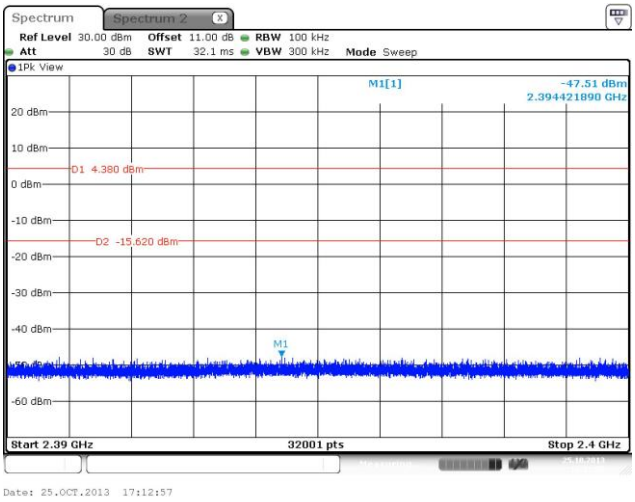
802.11g

Reference Level	TX 2412 MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

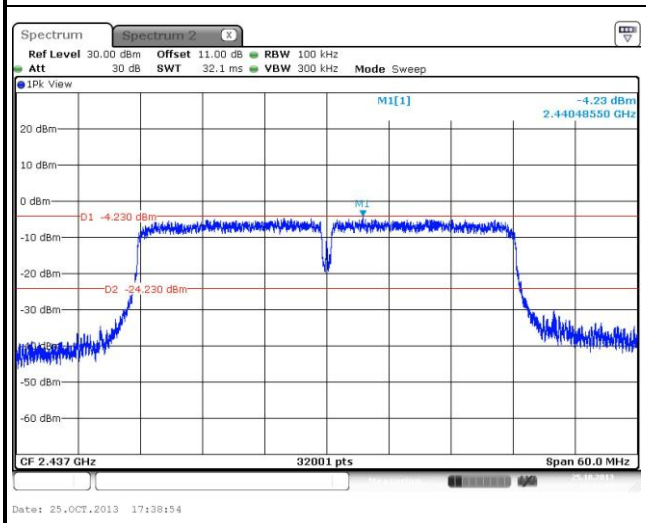
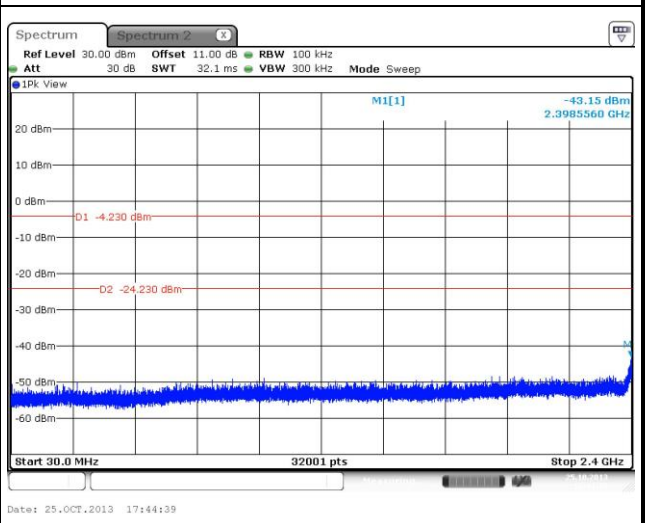
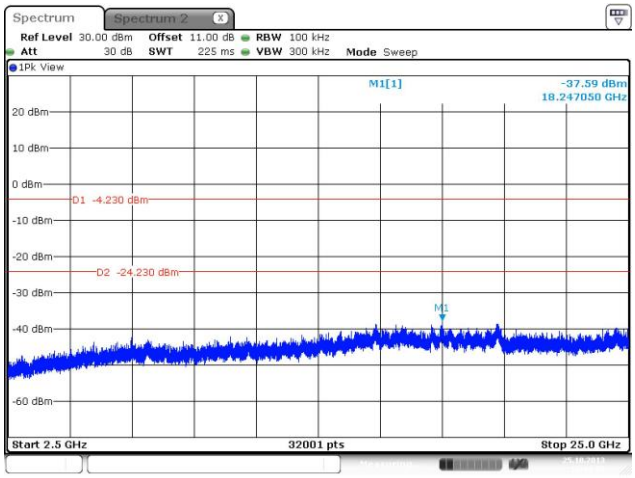
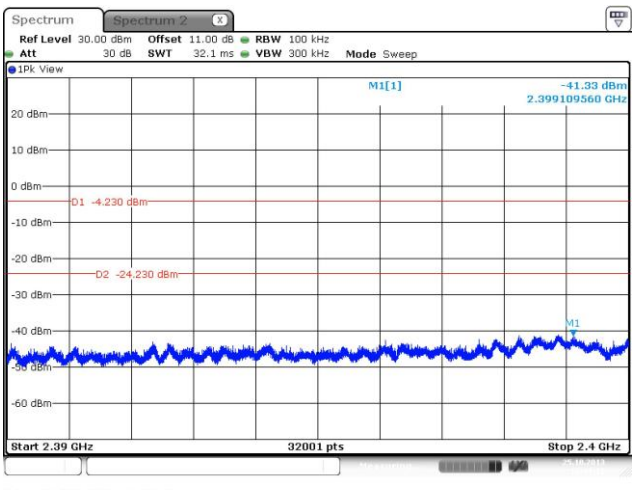
TX 2437 MHz / 30MHz~25GHz (down 20dBc)	TX 2462 MHz / 30MHz~25GHz (down 20dBc)
	
	
	

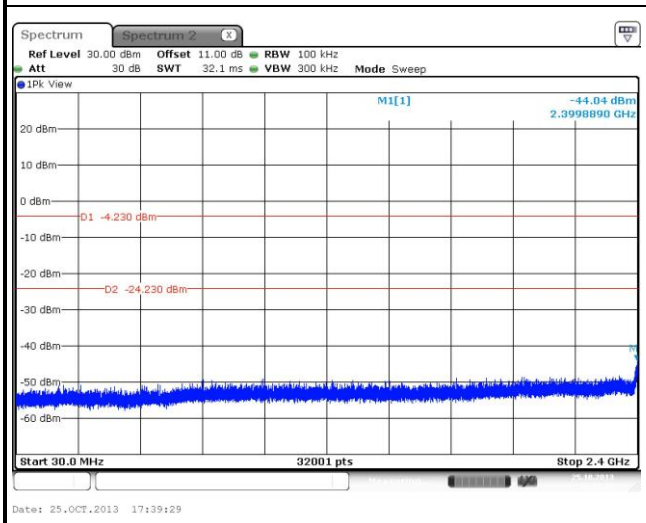
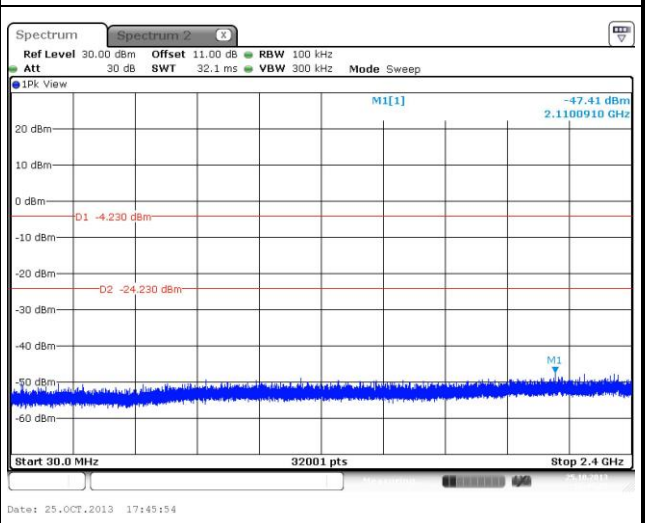
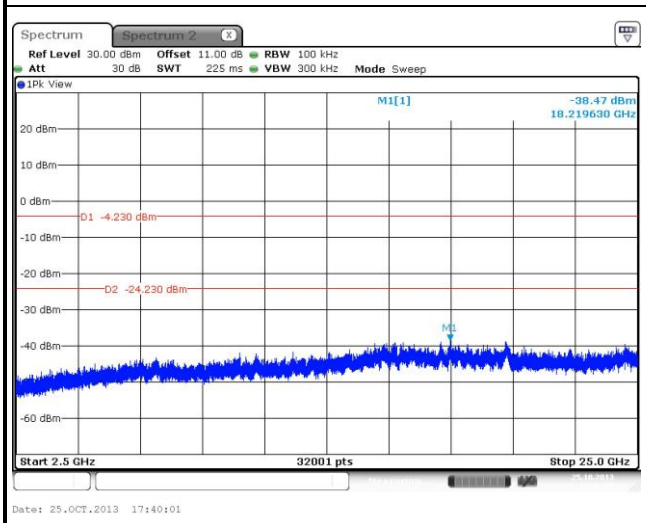
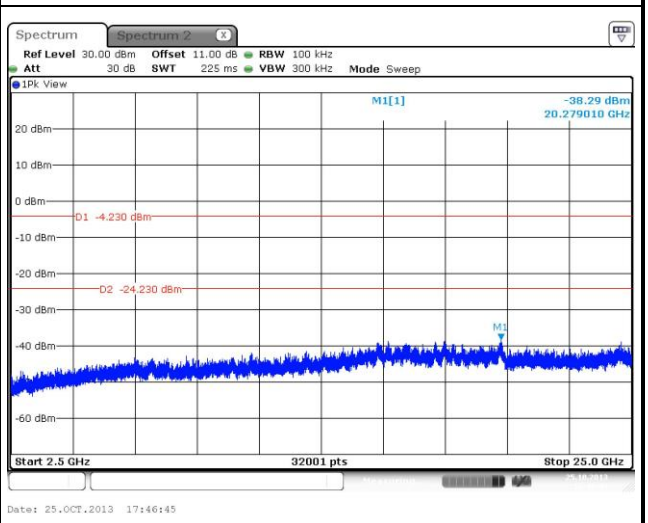
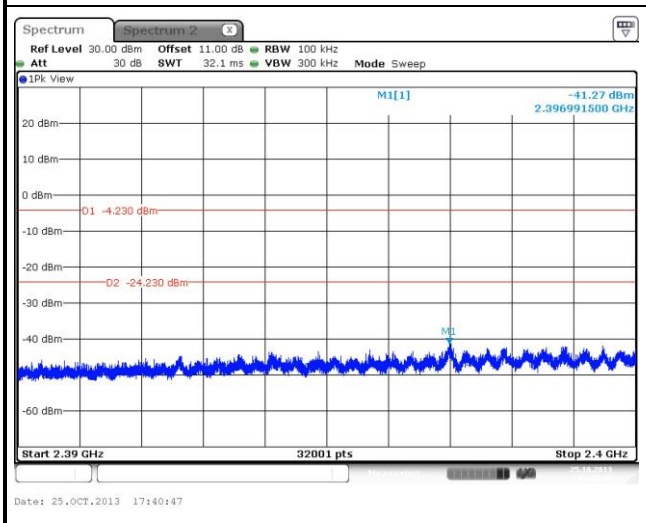
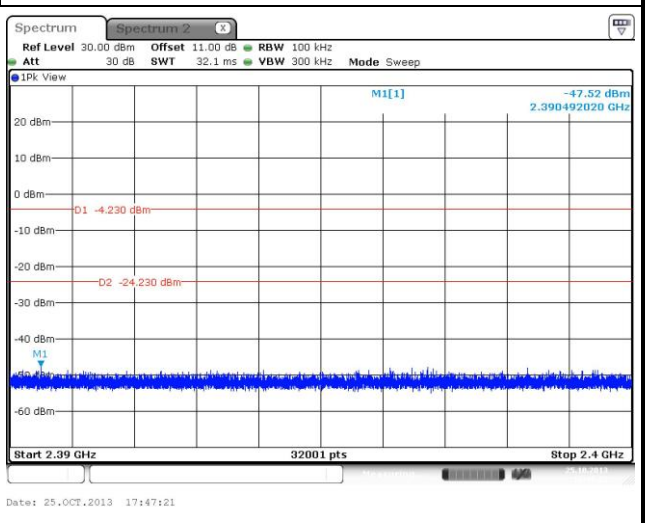
802.11n HT20

Reference Level	TX 2412 MHz / 30MHz~25GHz (down 20dBc)
	
--	
---	

TX 2437 MHz / 30MHz~25GHz (down 20dBc)	TX 2462 MHz / 30MHz~25GHz (down 20dBc)
	
	
	

802.11n HT40

Reference Level	Tx 2422MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

Tx 2437MHz / 30MHz~25GHz (down 20dBc)	Tx 2452 / 30MHz~25GHz (down 20dBc)
	
	
	

3.6 Transmitter Radiated Unwanted Emissions

3.6.1 Transmitter Radiated Unwanted Emissions Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dB)**
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

3.6.2 Measuring Instruments

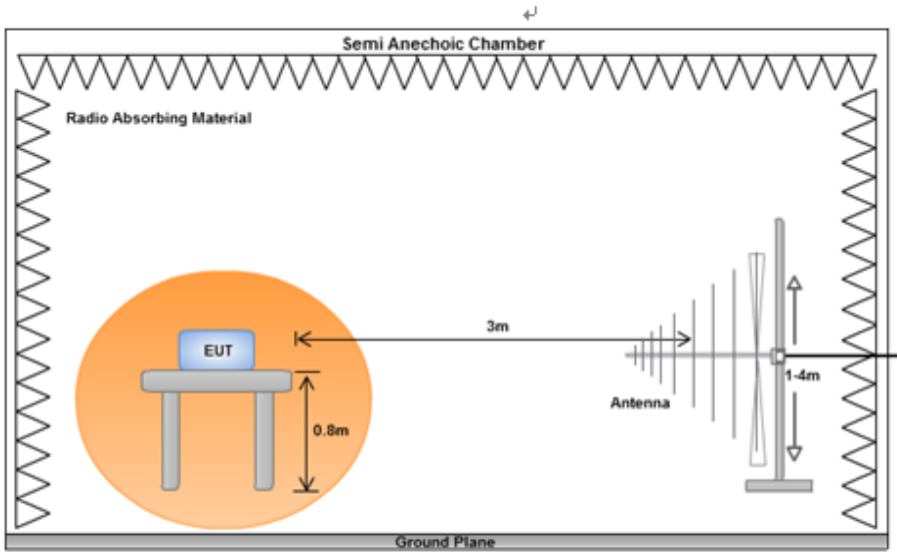
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

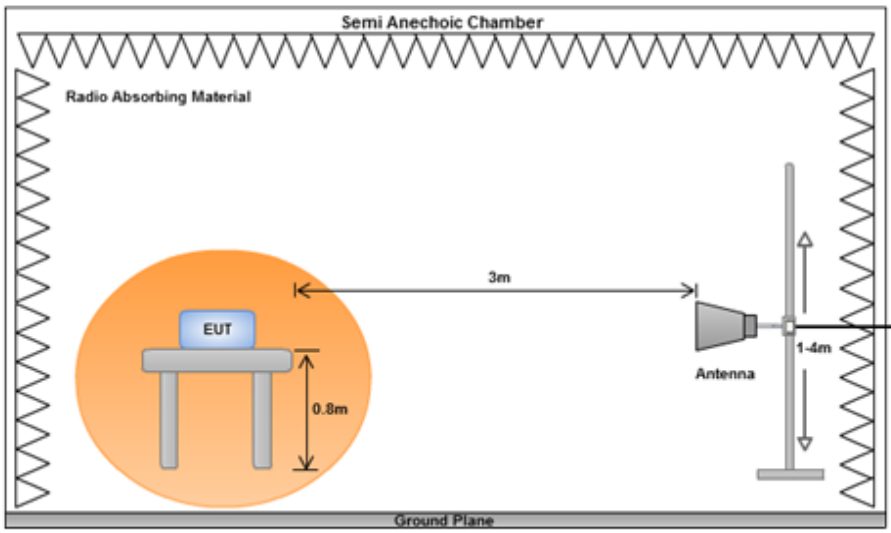
Test Method			
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		
☒	For the transmitter unwanted emissions shall be measured using following options below:		
	☒	Refer as FCC KDB 558074 v03r01, clause 11 for unwanted emissions into non-restricted bands.	
	☒	Refer as FCC KDB 558074 v03r01, clause 12 for unwanted emissions into restricted bands.	
		☐	Refer as FCC KDB 558074 v03r01, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%)
		☐	Refer as FCC KDB 558074 v03r01, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
		☒	Refer as FCC KDB 558074 v03r01, clause 12.2.5.3 Option 3 (Reduced VBW≥1/T).
		☐	Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time
		☐	Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒	Refer as FCC KDB 558074 v03r01, clause 11.3 and 12.2.4 measurement procedure peak limit.
		☒	Refer as FCC KDB 558074 v03r01, clause 12.2.3 measurement procedure Quasi-Peak limit.
☒	For radiated measurement, refer as FCC KDB 558074 v03r01, clause 12.2.7.		
	☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz.	
	☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1000 MHz.	
	☒	Refer as ANSI C63.10, clause 6.6 for radiated emissions from above 1 GHz.	
☐	For conducted and cabinet radiation measurement, refer as FCC KDB 558074 v03r01, clause 12.2.2.		
	☐	For conducted unwanted emissions into non-restricted bands (relative emission limits). Devices with multiple transmit chains: Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs.	
	☐	For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB	

3.6.4 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz

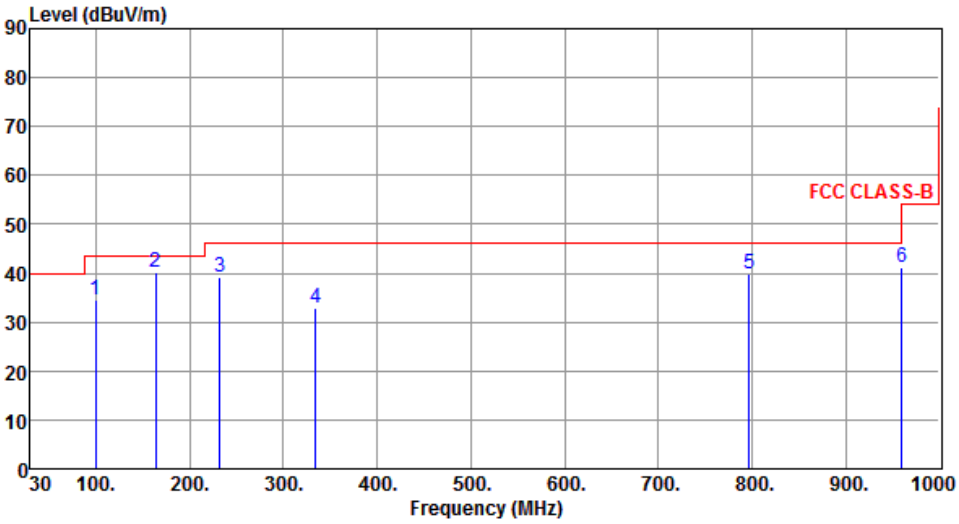


3.6.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.6.6 Radiated Emissions (Below 1GHz)

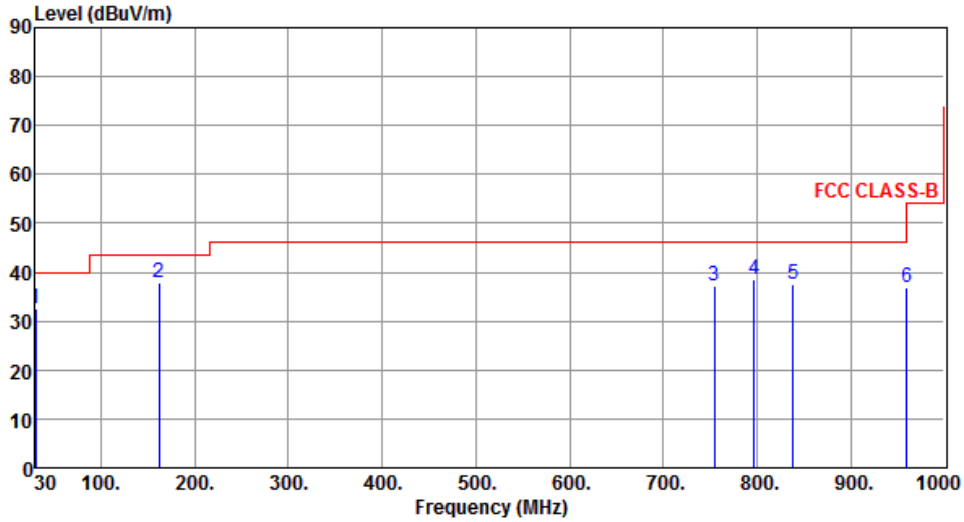
Radiated Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	H
Operating Function	Radio link (WLAN) with antenna cable length combination a.		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	99.84	34.56	43.50	-8.94	55.88	-21.32	Peak	---	---
2	163.86	40.22	43.50	-3.28	56.73	-16.51	Peak	---	---
3	231.76	39.20	46.00	-6.80	57.18	-17.98	Peak	---	---
4	334.58	32.88	46.00	-13.12	47.64	-14.76	Peak	---	---
5	797.27	39.83	46.00	-6.17	45.94	-6.11	Peak	---	---
6	960.23	41.13	54.00	-12.87	44.90	-3.77	Peak	---	---

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

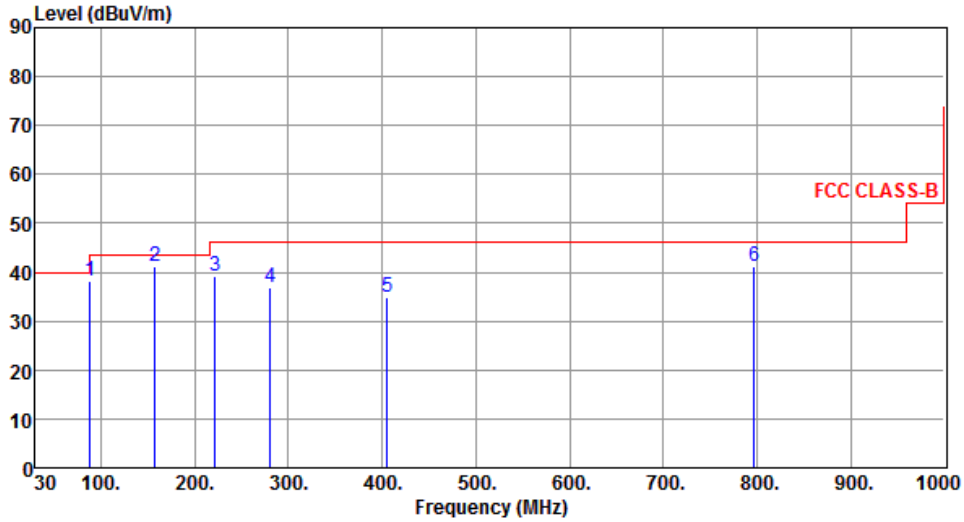
Radiated Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	V
Operating Function	Radio link (WLAN) with antenna cable length combination a.		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.00	32.51	40.00	-7.49	49.55	-17.04	Peak	---	---
2	161.92	37.89	43.50	-5.61	54.33	-16.44	Peak	---	---
3	754.59	37.35	46.00	-8.65	43.92	-6.57	Peak	---	---
4	797.27	38.54	46.00	-7.46	44.65	-6.11	Peak	---	---
5	838.98	37.63	46.00	-8.37	43.19	-5.56	Peak	---	---
6	960.23	36.71	54.00	-17.29	40.48	-3.77	Peak	---	---

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

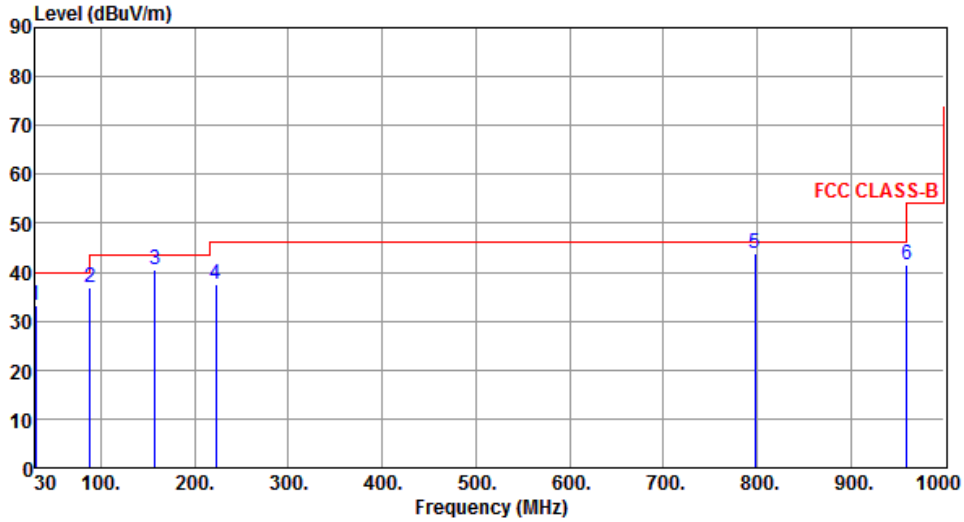
Radiated Emissions (Below 1GHz)			
Operating Mode	2	**Polarization**	H
Operating Function	Radio link (WLAN) with antenna cable length combination c.		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	88.20	38.15	43.50	-5.35	60.28	-22.13	Peak	---	---
2	158.04	41.14	43.50	-2.36	57.48	-16.34	Peak	---	---
3	222.06	39.27	46.00	-6.73	57.78	-18.51	Peak	---	---
4	280.26	36.96	46.00	-9.04	53.00	-16.04	Peak	---	---
5	405.39	35.00	46.00	-11.00	47.91	-12.91	Peak	---	---
6	797.27	41.15	46.00	-4.85	47.26	-6.11	Peak	---	---

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Radiated Emissions (Below 1GHz)			
Operating Mode	2	**Polarization**	V
Operating Function	Radio link (WLAN) with antenna cable length combination c.		

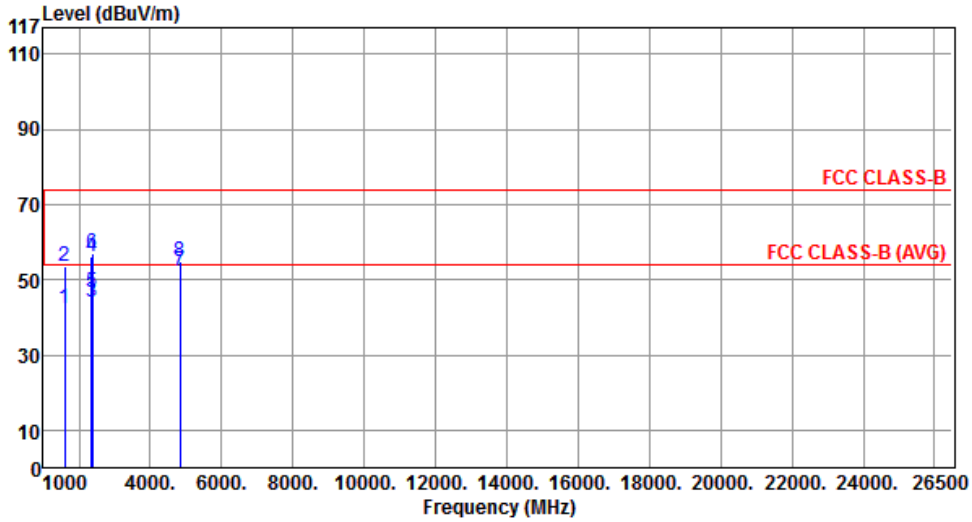


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.00	33.27	40.00	-6.73	50.31	-17.04	Peak	---	---
2	88.20	36.74	43.50	-6.76	58.87	-22.13	Peak	---	---
3	158.04	40.68	43.50	-2.82	57.02	-16.34	Peak	---	---
4	223.03	37.37	46.00	-8.63	55.82	-18.45	Peak	---	---
5	798.24	43.87	46.00	-2.13	49.97	-6.10	Peak	---	---
6	960.23	41.56	54.00	-12.44	45.33	-3.77	Peak	---	---

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

3.6.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11b

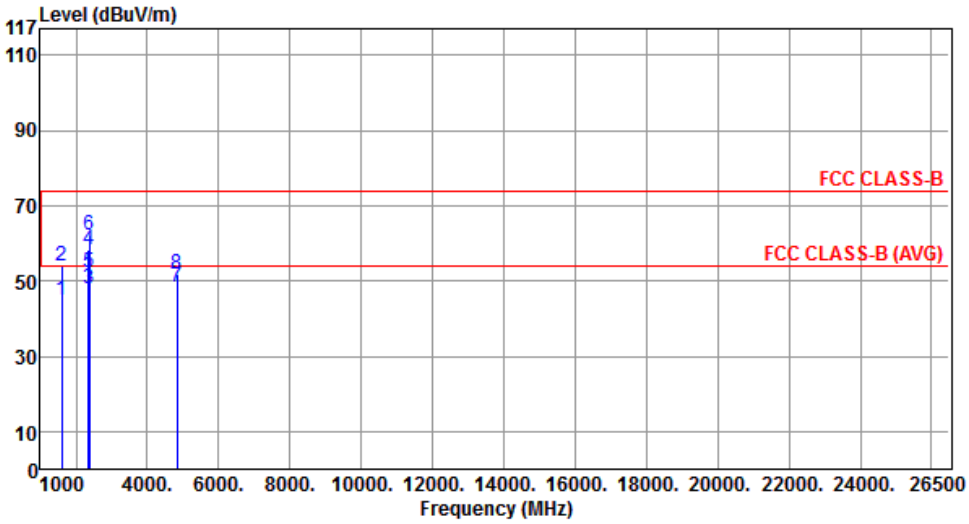
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11b	**Test Freq. (FX)**	F1
N_{TX}	1	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1608.00	42.41	54.00	-11.59	48.39	-5.98	Average	---	---
2	1608.00	53.41	74.00	-20.59	59.39	-5.98	Peak	---	---
3	2356.00	44.23	54.00	-9.77	47.30	-3.07	Average	---	---
4	2356.00	56.13	74.00	-17.87	59.20	-3.07	Peak	---	---
5	2386.00	46.48	54.00	-7.52	49.40	-2.92	Average	---	---
6	2386.00	57.18	74.00	-16.82	60.10	-2.92	Peak	---	---
7	4824.00	52.19	54.00	-1.81	47.50	4.69	Average	---	---
8	4824.00	54.69	74.00	-19.31	50.00	4.69	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

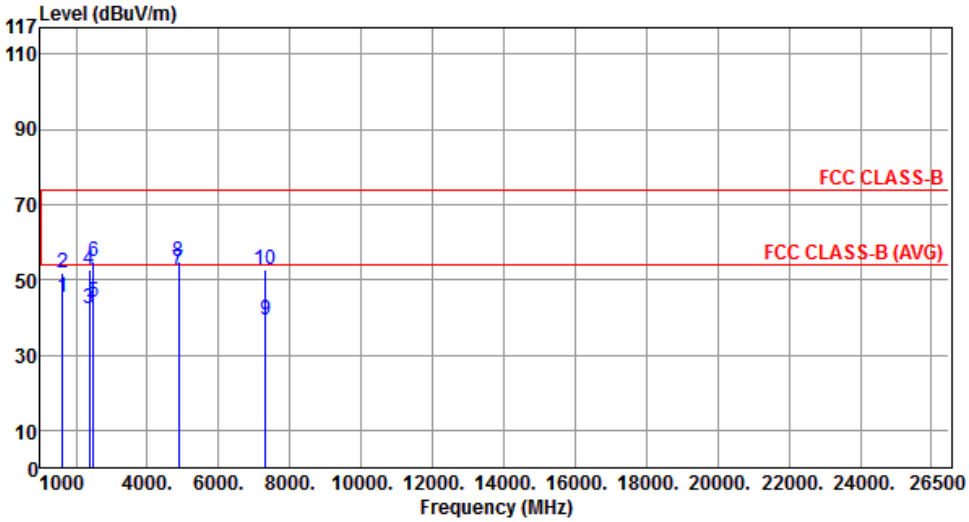
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11b	**Test Freq. (FX)**	F1
N_{TX}	1	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1608.00	44.95	54.00	-9.05	50.93	-5.98	Average	---	---
2	1608.00	53.88	74.00	-20.12	59.86	-5.98	Peak	---	---
3	2356.00	48.03	54.00	-5.97	51.10	-3.07	Average	---	---
4	2356.00	58.43	74.00	-15.57	61.50	-3.07	Peak	---	---
5	2386.00	52.18	54.00	-1.82	55.10	-2.92	Average	---	---
6	2386.00	62.18	74.00	-11.82	65.10	-2.92	Peak	---	---
7	4824.00	48.33	54.00	-5.67	43.64	4.69	Average	---	---
8	4824.00	51.69	74.00	-22.31	47.00	4.69	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

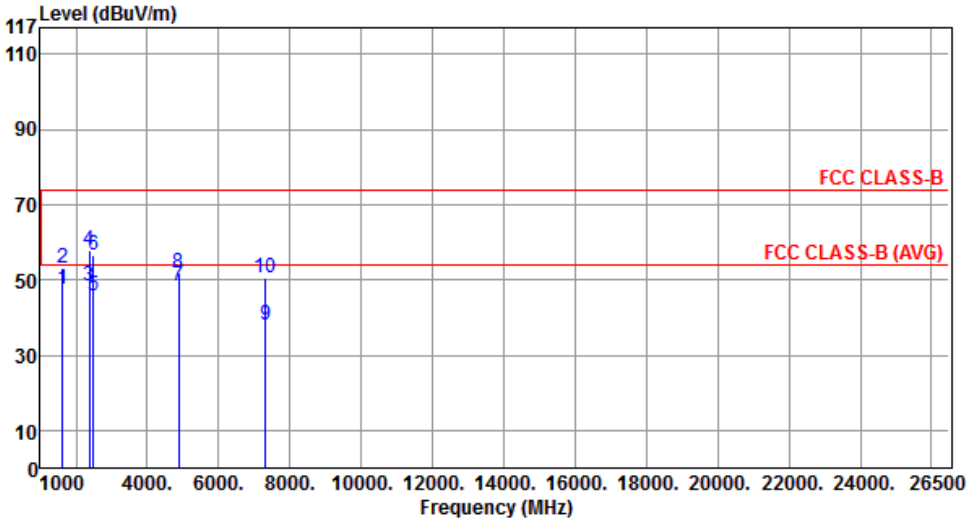
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11b	**Test Freq. (FX)**	F2
N_{TX}	1	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1624.70	45.39	54.00	-8.61	51.31	-5.92	Average	---	---
2	1624.70	51.69	74.00	-22.31	57.61	-5.92	Peak	---	---
3	2381.00	42.16	54.00	-11.84	45.10	-2.94	Average	---	---
4	2381.00	52.46	74.00	-21.54	55.40	-2.94	Peak	---	---
5	2491.00	43.91	54.00	-10.09	46.29	-2.38	Average	---	---
6	2491.00	54.81	74.00	-19.19	57.19	-2.38	Peak	---	---
7	4874.00	52.47	54.00	-1.53	47.70	4.77	Average	---	---
8	4874.00	54.87	74.00	-19.13	50.10	4.77	Peak	---	---
9	7311.00	39.36	54.00	-14.64	29.79	9.57	Average	---	---
10	7311.00	52.46	74.00	-21.54	42.89	9.57	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

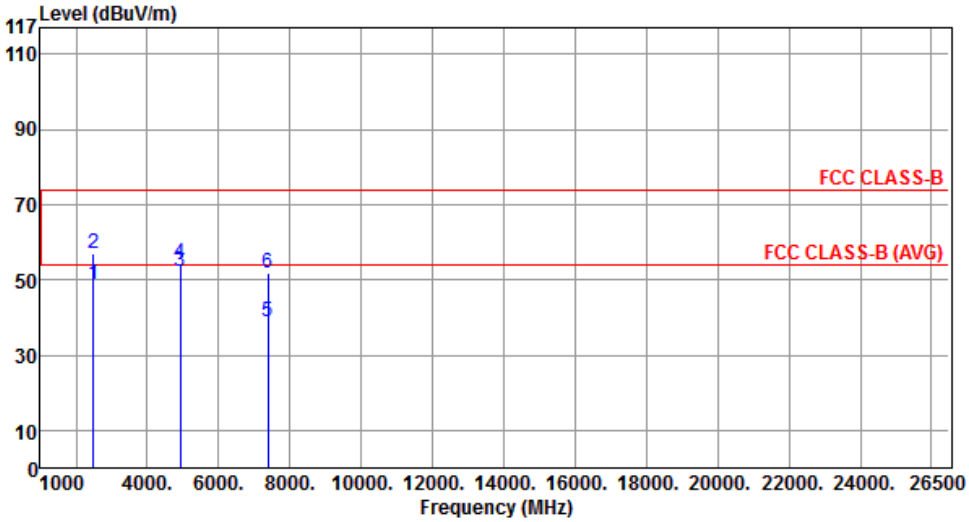
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11b	**Test Freq. (FX)**	F2
N_{TX}	1	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1624.70	47.69	54.00	-6.31	53.61	-5.92	Average	---	---
2	1624.70	53.05	74.00	-20.95	58.97	-5.92	Peak	---	---
3	2381.00	48.36	54.00	-5.64	51.30	-2.94	Average	---	---
4	2381.00	57.86	74.00	-16.14	60.80	-2.94	Peak	---	---
5	2491.00	45.81	54.00	-8.19	48.19	-2.38	Average	---	---
6	2491.00	56.41	74.00	-17.59	58.79	-2.38	Peak	---	---
7	4874.00	48.17	54.00	-5.83	43.40	4.77	Average	---	---
8	4874.00	51.60	74.00	-22.40	46.83	4.77	Peak	---	---
9	7311.00	37.86	54.00	-16.14	28.29	9.57	Average	---	---
10	7311.00	50.66	74.00	-23.34	41.09	9.57	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

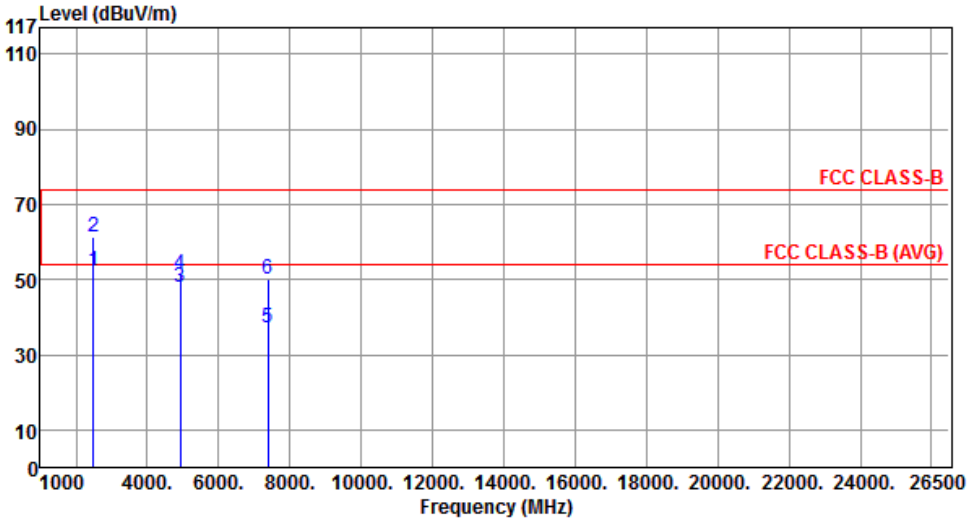
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11b	**Test Freq. (FX)**	F3
N_{TX}	1	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	48.78	54.00	-5.22	51.20	-2.42	Average	---	---
2	2483.50	57.08	74.00	-16.92	59.50	-2.42	Peak	---	---
3	4924.00	52.05	54.00	-1.95	47.19	4.86	Average	---	---
4	4924.00	54.35	74.00	-19.65	49.49	4.86	Peak	---	---
5	7386.00	38.81	54.00	-15.19	29.13	9.68	Average	---	---
6	7386.00	51.93	74.00	-22.07	42.25	9.68	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11b	**Test Freq. (FX)**	F3
N_{TX}	1	**Polarization**	V

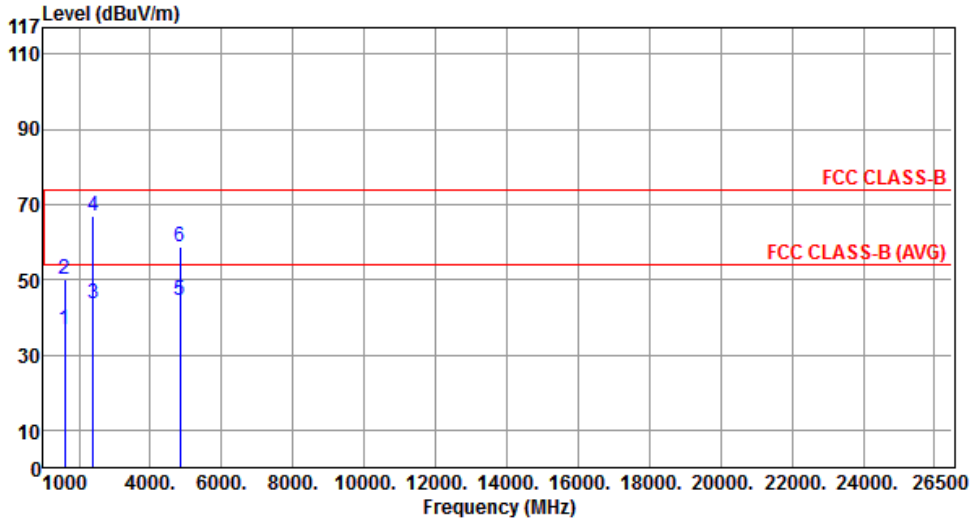


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.28	54.00	-1.72	54.70	-2.42	Average	---	---
2	2483.50	61.18	74.00	-12.82	63.60	-2.42	Peak	---	---
3	4924.00	48.05	54.00	-5.95	43.19	4.86	Average	---	---
4	4924.00	51.45	74.00	-22.55	46.59	4.86	Peak	---	---
5	7386.00	37.21	54.00	-16.79	27.53	9.68	Average	---	---
6	7386.00	50.15	74.00	-23.85	40.47	9.68	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

3.6.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11g

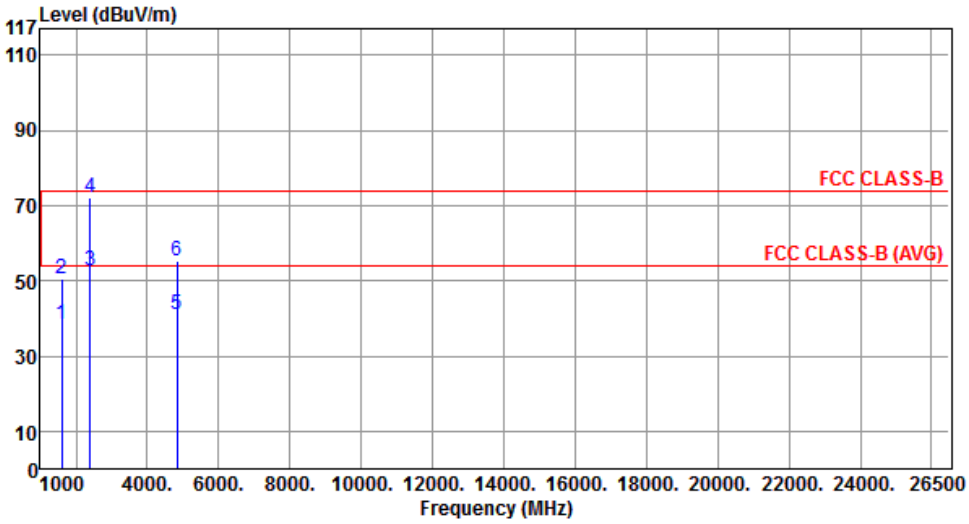
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11g	**Test Freq. (FX)**	F1
N_{TX}	1	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1608.00	36.85	54.00	-17.15	42.83	-5.98	Average	---	---
2	1608.00	50.02	74.00	-23.98	56.00	-5.98	Peak	---	---
3	2390.00	43.81	54.00	-10.19	46.71	-2.90	Average	---	---
4	2390.00	67.11	74.00	-6.89	70.01	-2.90	Peak	---	---
5	4824.00	44.52	54.00	-9.48	39.83	4.69	Average	---	---
6	4824.00	58.73	74.00	-15.27	54.04	4.69	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

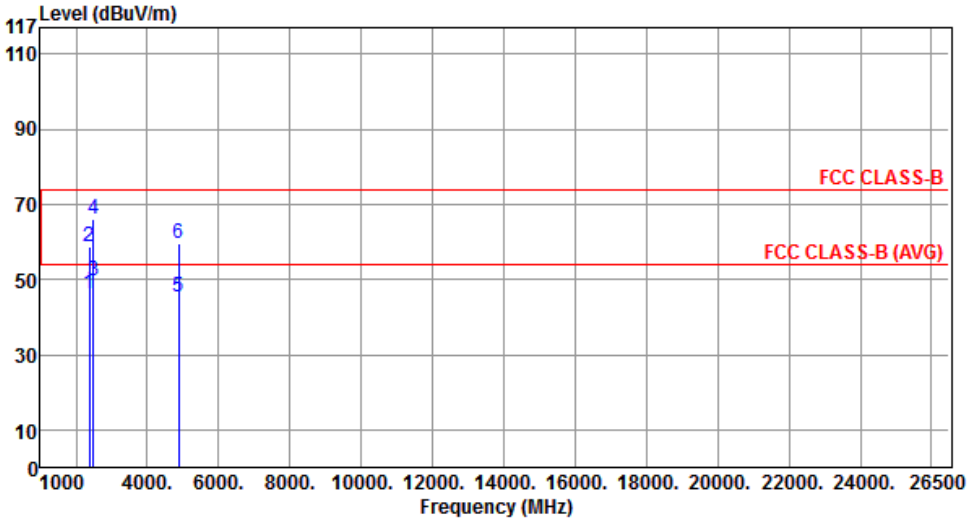
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11g	**Test Freq. (FX)**	F1
N_{TX}	1	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1608.00	38.52	54.00	-15.48	44.50	-5.98	Average	---	---
2	1608.00	50.42	74.00	-23.58	56.40	-5.98	Peak	---	---
3	2390.00	52.88	54.00	-1.12	55.78	-2.90	Average	---	---
4	2390.00	72.31	74.00	-1.69	75.21	-2.90	Peak	---	---
5	4824.00	41.06	54.00	-12.94	36.37	4.69	Average	---	---
6	4824.00	55.23	74.00	-18.77	50.54	4.69	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

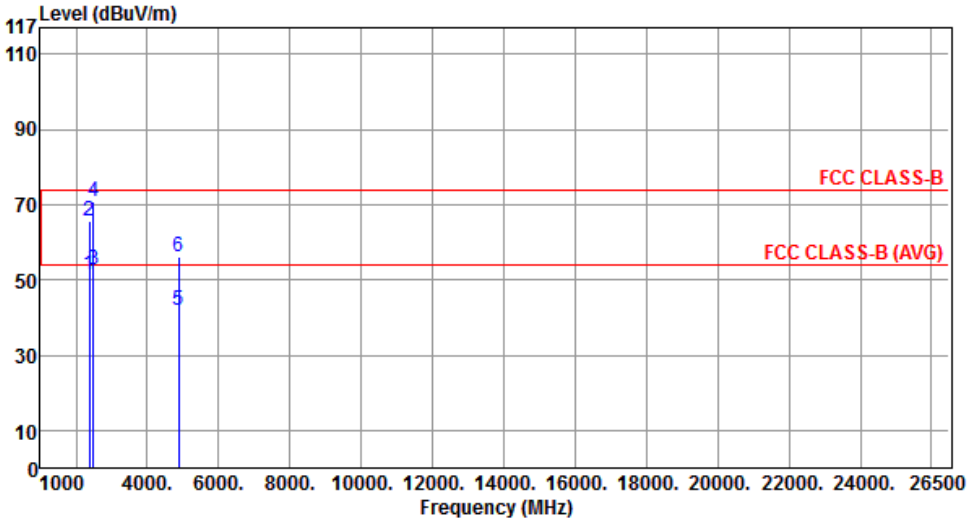
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11g	**Test Freq. (FX)**	F2
N_{TX}	1	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2384.00	46.37	54.00	-7.63	49.29	-2.92	Average	---	---
2	2384.00	58.87	74.00	-15.13	61.79	-2.92	Peak	---	---
3	2489.00	49.70	54.00	-4.30	52.10	-2.40	Average	---	---
4	2489.00	66.10	74.00	-7.90	68.50	-2.40	Peak	---	---
5	4874.00	45.37	54.00	-8.63	40.60	4.77	Average	---	---
6	4874.00	59.67	74.00	-14.33	54.90	4.77	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

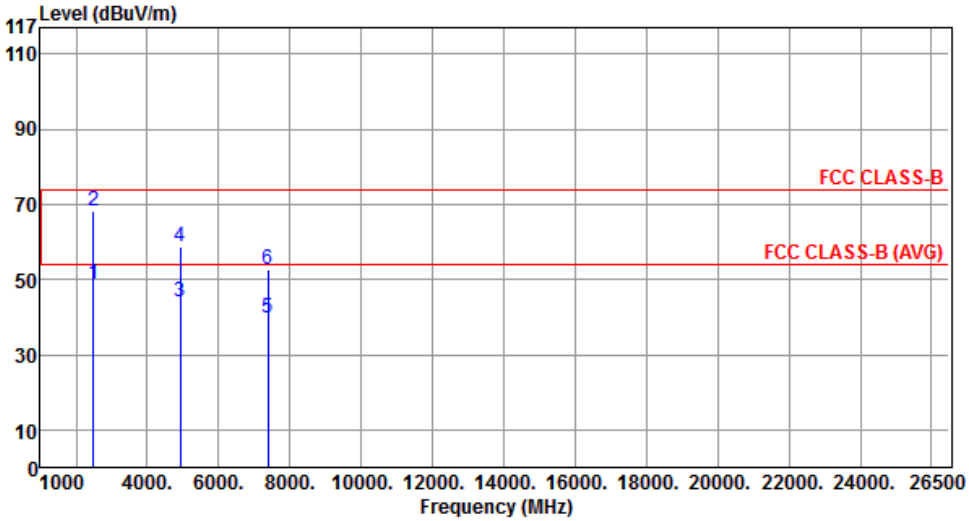
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11g	**Test Freq. (FX)**	F2
N_{TX}	1	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2384.00	51.37	54.00	-2.63	54.29	-2.92	Average	---	---
2	2384.00	65.77	74.00	-8.23	68.69	-2.92	Peak	---	---
3	2489.00	52.80	54.00	-1.20	55.20	-2.40	Average	---	---
4	2489.00	70.60	74.00	-3.40	73.00	-2.40	Peak	---	---
5	4874.00	41.99	54.00	-12.01	37.22	4.77	Average	---	---
6	4874.00	56.07	74.00	-17.93	51.30	4.77	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

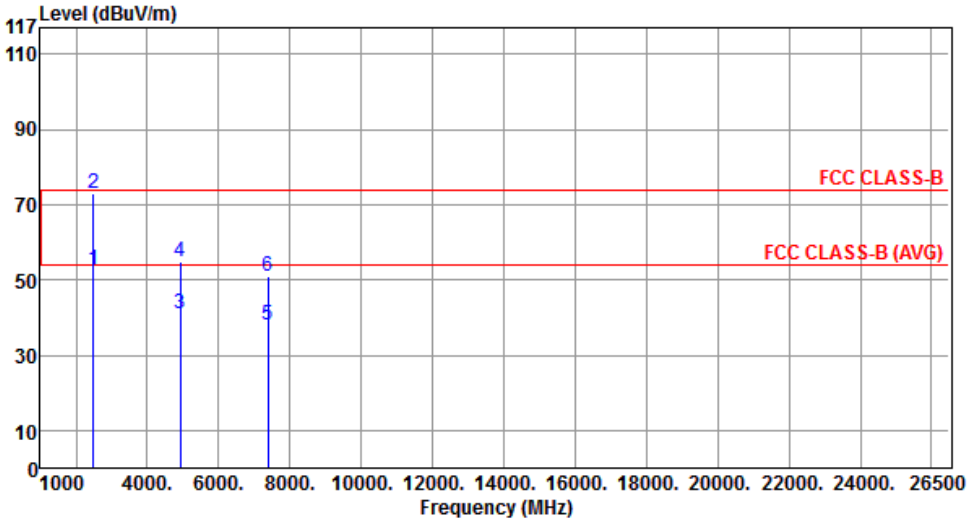
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11g	**Test Freq. (FX)**	F3
N_{TX}	1	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	48.88	54.00	-5.12	51.30	-2.42	Average	---	---
2	2483.50	68.18	74.00	-5.82	70.60	-2.42	Peak	---	---
3	4924.00	44.13	54.00	-9.87	39.27	4.86	Average	---	---
4	4924.00	58.53	74.00	-15.47	53.67	4.86	Peak	---	---
5	7386.00	39.88	54.00	-14.12	30.20	9.68	Average	---	---
6	7386.00	52.88	74.00	-21.12	43.20	9.68	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11g	**Test Freq. (FX)**	F3
N_{TX}	1	**Polarization**	V

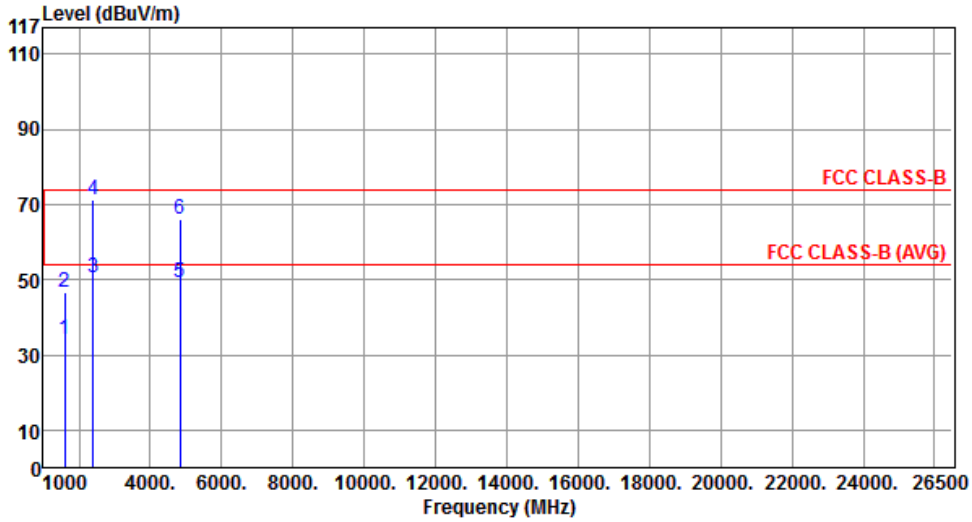


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.78	54.00	-1.22	55.20	-2.42	Average	---	---
2	2483.50	72.92	74.00	-1.08	75.34	-2.42	Peak	---	---
3	4924.00	40.85	54.00	-13.15	35.99	4.86	Average	---	---
4	4924.00	55.01	74.00	-18.99	50.15	4.86	Peak	---	---
5	7386.00	38.10	54.00	-15.90	28.42	9.68	Average	---	---
6	7386.00	50.80	74.00	-23.20	41.12	9.68	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

3.6.9 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT-20

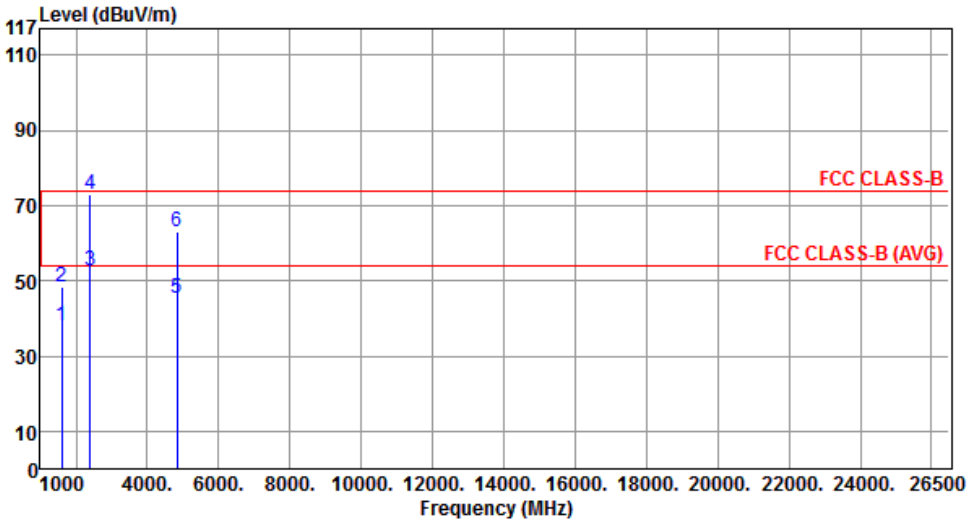
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-20	**Test Freq. (FX)**	F1
N_{TX}	2	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1608.00	34.22	54.00	-19.78	40.20	-5.98	Average	---	---
2	1608.00	46.82	74.00	-27.18	52.80	-5.98	Peak	---	---
3	2390.00	50.31	54.00	-3.69	53.21	-2.90	Average	---	---
4	2390.00	71.05	74.00	-2.95	73.95	-2.90	Peak	---	---
5	4824.00	49.03	54.00	-4.97	44.34	4.69	Average	---	---
6	4824.00	66.11	74.00	-7.89	61.42	4.69	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

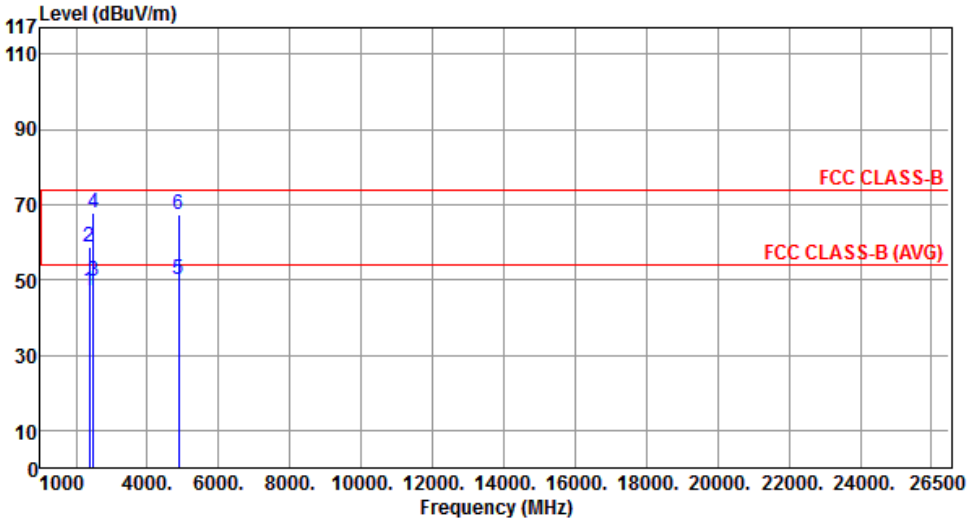
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-20	**Test Freq. (FX)**	F1
N_{TX}	2	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1608.00	38.12	54.00	-15.88	44.10	-5.98	Average	---	---
2	1608.00	48.52	74.00	-25.48	54.50	-5.98	Peak	---	---
3	2390.00	52.51	54.00	-1.49	55.41	-2.90	Average	---	---
4	2390.00	72.91	74.00	-1.09	75.81	-2.90	Peak	---	---
5	4824.00	45.51	54.00	-8.49	40.82	4.69	Average	---	---
6	4824.00	62.93	74.00	-11.07	58.24	4.69	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

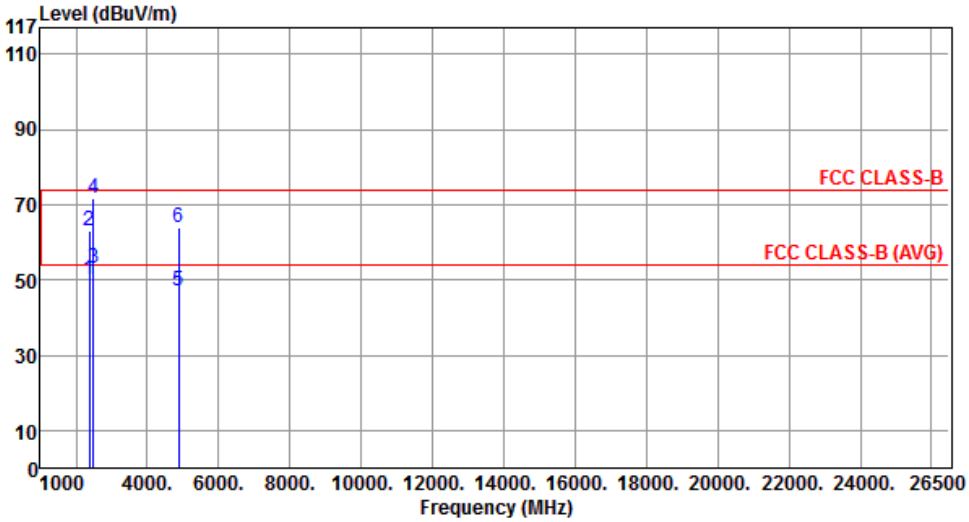
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-20	**Test Freq. (FX)**	F2
N_{TX}	2	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2385.00	46.88	54.00	-7.12	49.80	-2.92	Average	---	---
2	2385.00	58.88	74.00	-15.12	61.80	-2.92	Peak	---	---
3	2489.00	49.70	54.00	-4.30	52.10	-2.40	Average	---	---
4	2489.00	67.90	74.00	-6.10	70.30	-2.40	Peak	---	---
5	4874.00	50.17	54.00	-3.83	45.40	4.77	Average	---	---
6	4874.00	67.27	74.00	-6.73	62.50	4.77	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

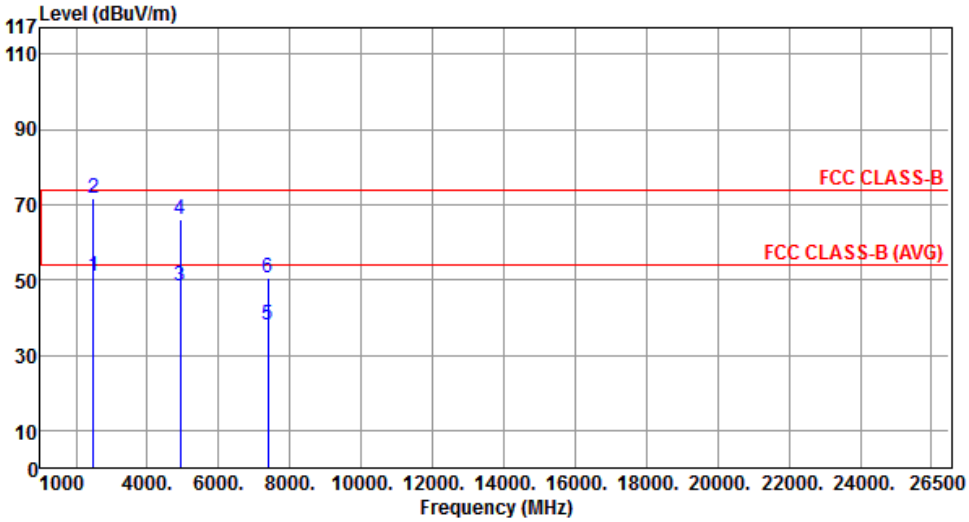
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-20	**Test Freq. (FX)**	F2
N_{TX}	2	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2385.00	49.98	54.00	-4.02	52.90	-2.92	Average	---	---
2	2385.00	63.08	74.00	-10.92	66.00	-2.92	Peak	---	---
3	2489.00	52.90	54.00	-1.10	55.30	-2.40	Average	---	---
4	2489.00	71.60	74.00	-2.40	74.00	-2.40	Peak	---	---
5	4874.00	46.89	54.00	-7.11	42.12	4.77	Average	---	---
6	4874.00	64.07	74.00	-9.93	59.30	4.77	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

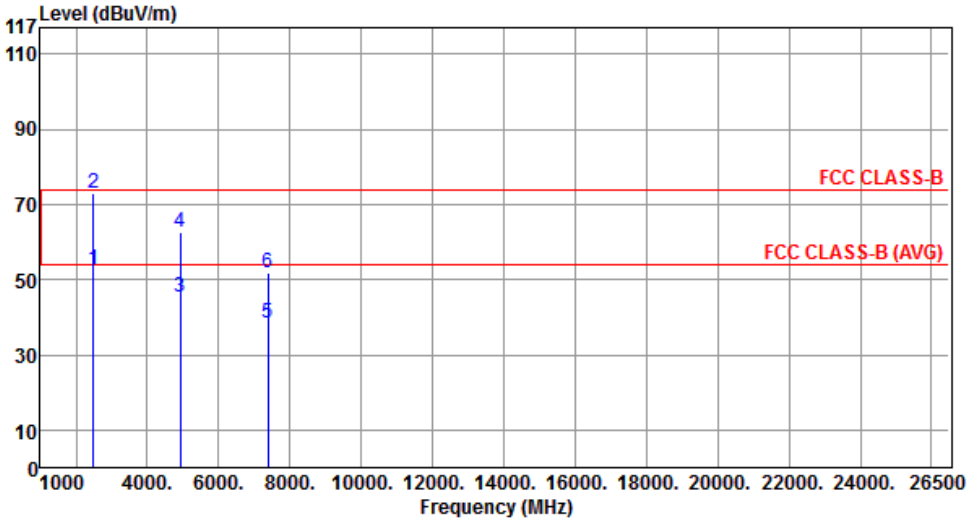
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-20	**Test Freq. (FX)**	F3
N_{TX}	2	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	50.78	54.00	-3.22	53.20	-2.42	Average	---	---
2	2483.50	71.68	74.00	-2.32	74.10	-2.42	Peak	---	---
3	4924.00	48.23	54.00	-5.77	43.37	4.86	Average	---	---
4	4924.00	66.02	74.00	-7.98	61.16	4.86	Peak	---	---
5	7386.00	37.88	54.00	-16.12	28.20	9.68	Average	---	---
6	7386.00	50.48	74.00	-23.52	40.80	9.68	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-20	**Test Freq. (FX)**	F3
N_{TX}	2	**Polarization**	V

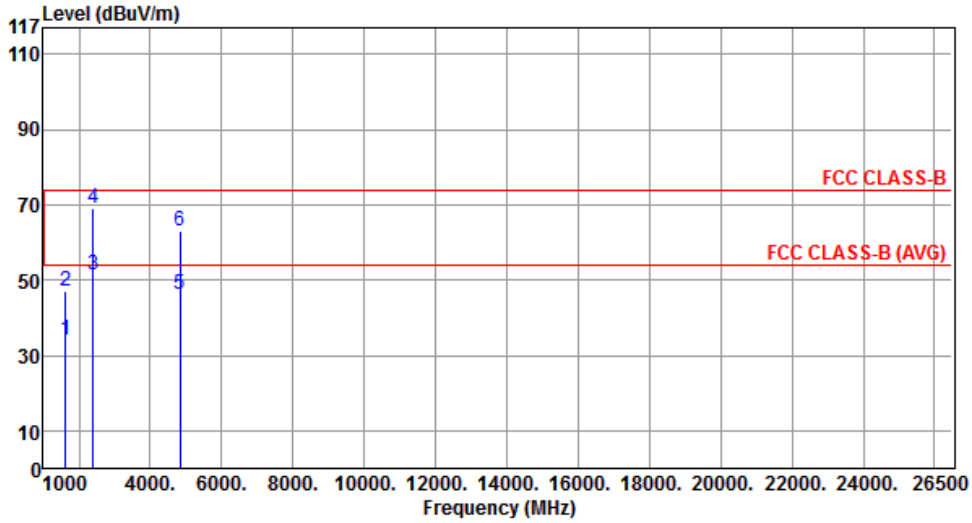


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.54	54.00	-1.46	54.96	-2.42	Average	---	---
2	2483.50	72.91	74.00	-1.09	75.33	-2.42	Peak	---	---
3	4924.00	45.13	54.00	-8.87	40.27	4.86	Average	---	---
4	4924.00	62.76	74.00	-11.24	57.90	4.86	Peak	---	---
5	7386.00	38.38	54.00	-15.62	28.70	9.68	Average	---	---
6	7386.00	51.68	74.00	-22.32	42.00	9.68	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

3.6.10 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT-40

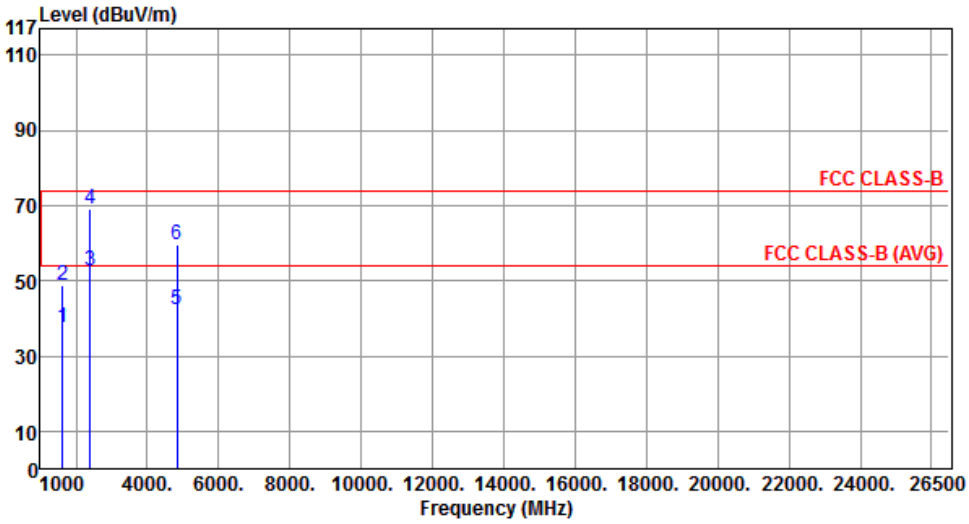
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-40	**Test Freq. (FX)**	F4
N_{TX}	2	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1614.70	34.25	54.00	-19.75	40.20	-5.95	Average	---	---
2	1614.70	47.05	74.00	-26.95	53.00	-5.95	Peak	---	---
3	2390.00	51.51	54.00	-2.49	54.41	-2.90	Average	---	---
4	2390.00	69.01	74.00	-4.99	71.91	-2.90	Peak	---	---
5	4844.00	46.19	54.00	-7.81	41.48	4.71	Average	---	---
6	4844.00	63.00	74.00	-11.00	58.29	4.71	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

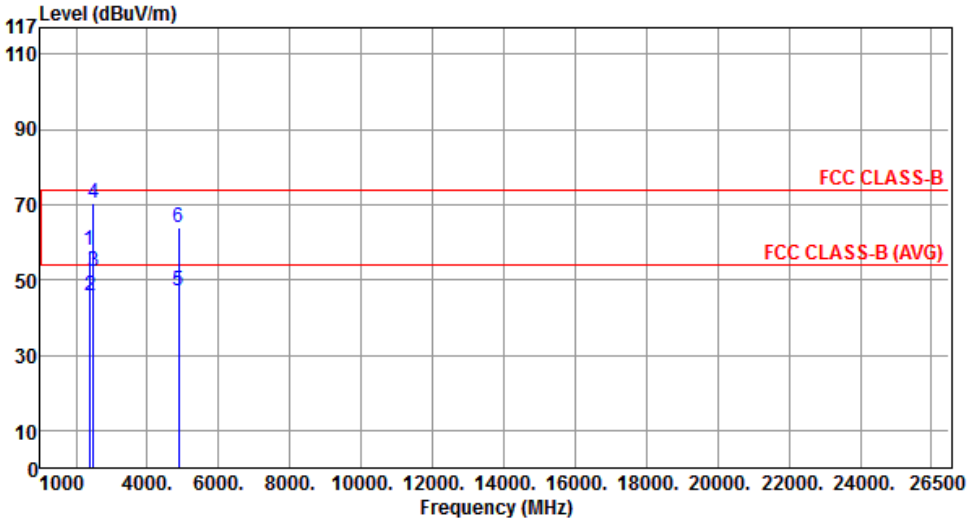
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-40	**Test Freq. (FX)**	F4
N_{TX}	2	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1614.70	37.35	54.00	-16.65	43.30	-5.95	Average	---	---
2	1614.70	48.85	74.00	-25.15	54.80	-5.95	Peak	---	---
3	2390.00	52.61	54.00	-1.39	55.51	-2.90	Average	---	---
4	2390.00	69.01	74.00	-4.99	71.91	-2.90	Peak	---	---
5	4844.00	42.13	54.00	-11.87	37.42	4.71	Average	---	---
6	4844.00	59.75	74.00	-14.25	55.04	4.71	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

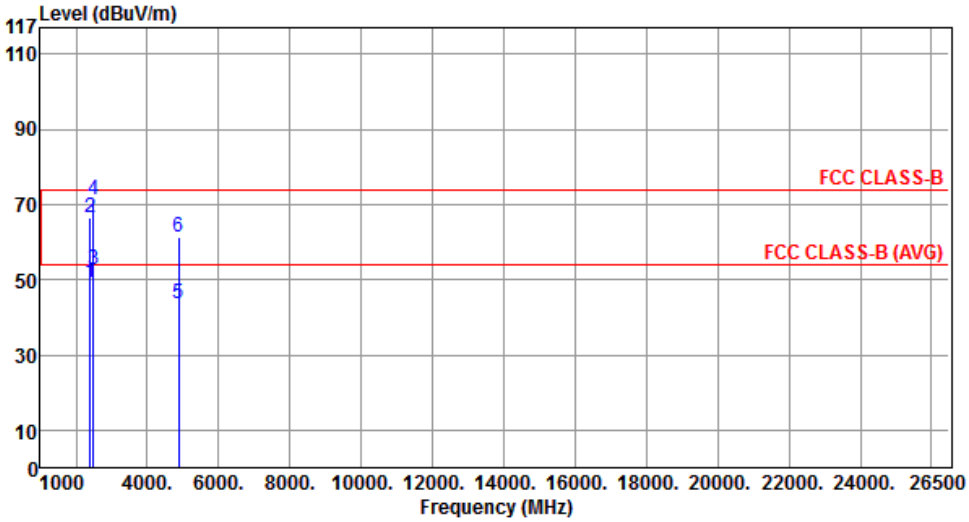
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-40	**Test Freq. (FX)**	F5
N_{TX}	2	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2385.00	57.88	74.00	-16.12	60.80	-2.92	Peak	---	---
2	2390.00	45.81	54.00	-8.19	48.71	-2.90	Average	---	---
3	2483.50	52.28	54.00	-1.72	54.70	-2.42	Average	---	---
4	2483.50	70.38	74.00	-3.62	72.80	-2.42	Peak	---	---
5	4874.00	46.89	54.00	-7.11	42.12	4.77	Average	---	---
6	4874.00	64.09	74.00	-9.91	59.32	4.77	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

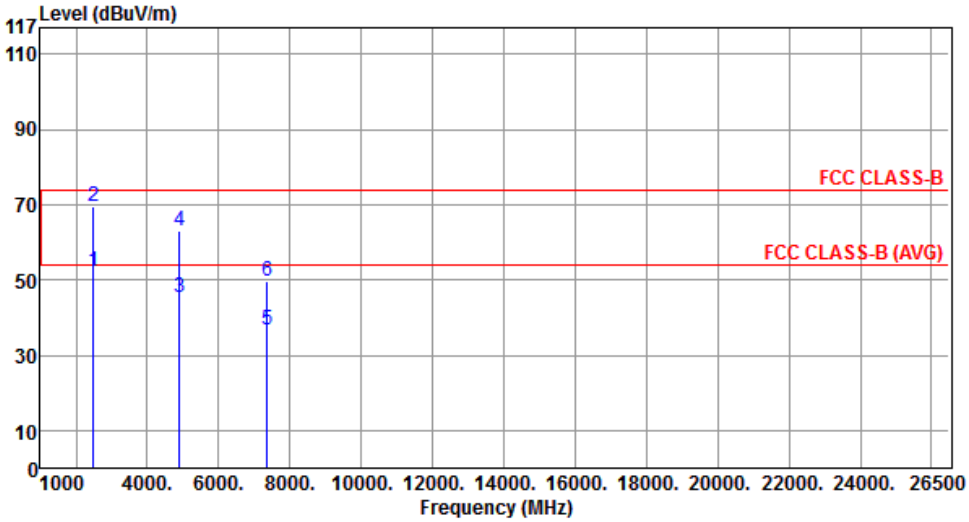
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-40	**Test Freq. (FX)**	F5
N_{TX}	2	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	49.21	54.00	-4.79	52.11	-2.90	Average	---	---
2	2390.00	66.41	74.00	-7.59	69.31	-2.90	Peak	---	---
3	2483.50	52.58	54.00	-1.42	55.00	-2.42	Average	---	---
4	2483.50	71.22	74.00	-2.78	73.64	-2.42	Peak	---	---
5	4874.00	43.59	54.00	-10.41	38.82	4.77	Average	---	---
6	4874.00	61.15	74.00	-12.85	56.38	4.77	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

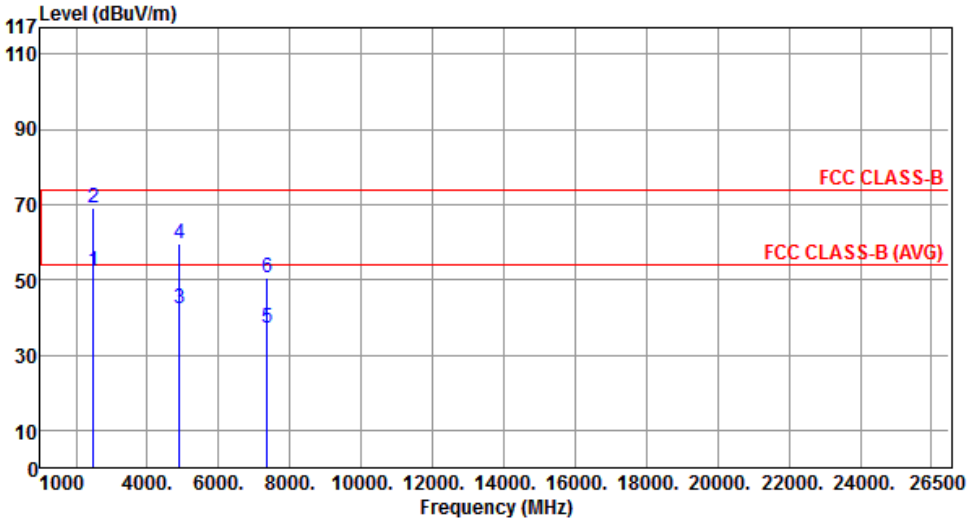
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-40	**Test Freq. (FX)**	F6
N_{TX}	2	**Polarization**	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.08	54.00	-1.92	54.50	-2.42	Average	---	---
2	2483.50	69.48	74.00	-4.52	71.90	-2.42	Peak	---	---
3	4904.00	45.19	54.00	-8.81	40.37	4.82	Average	---	---
4	4904.00	62.93	74.00	-11.07	58.11	4.82	Peak	---	---
5	7356.00	36.58	54.00	-17.42	26.95	9.63	Average	---	---
6	7356.00	49.78	74.00	-24.22	40.15	9.63	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT-40	**Test Freq. (FX)**	F6
N_{TX}	2	**Polarization**	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.28	54.00	-1.72	54.70	-2.42	Average	---	---
2	2483.50	69.28	74.00	-4.72	71.70	-2.42	Peak	---	---
3	4904.00	42.10	54.00	-11.90	37.28	4.82	Average	---	---
4	4904.00	59.55	74.00	-14.45	54.73	4.82	Peak	---	---
5	7356.00	37.15	54.00	-16.85	27.52	9.63	Average	---	---
6	7356.00	50.52	74.00	-23.48	40.89	9.63	Peak	---	---

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
Note 5: For un-restricted bands, unwanted emissions (item 3) shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

4 Test Equipment and Calibration Data

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
EMC Receiver	R&S	ESCS 30	100169	Oct. 15, 2013	Oct. 14, 2014
LISN	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-667	Dec. 04, 2012	Dec. 03, 2013
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-666	Dec. 04, 2012	Dec. 03, 2013
ISN	TESEQ	ISN T800	34406	Apr. 08, 2013	Apr. 07, 2014
ISN	TESEQ	ISN T200A	30494	Apr. 09, 2013	Apr. 08, 2014
ISN	TESEQ	ISN ST08	22589	Jan. 24, 2013	Jan. 23, 2014
RF Current Probe	FCC	F-33-4	121630	Dec. 04, 2012	Dec. 03, 2013
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 25, 2012	Dec. 24, 2013
ESH3-Z6 V-Network(+)	R&S	ESH3-Z6	100920	Nov. 21, 2012	Nov. 20, 2013
ESH3-Z6 V-Network(-)	R&S	ESH3-Z6	100951	Jan. 30, 2013	Jan. 29, 2014
Two-Line V-Network	R&S	ENV216	101579	Jan. 07, 2013	Jan. 06, 2014
50 ohm terminal	NA	50	01	Apr. 22, 2013	Apr. 21, 2014
50 ohm terminal	NA	50	02	Apr. 22, 2013	Apr. 21, 2014
50 ohm terminal	NA	50	03	Apr. 22, 2013	Apr. 21, 2014
50 ohm terminal (Support Unit)	NA	50	04	Apr. 22, 2013	Apr. 21, 2014
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission above 1GHz				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
3m semi-anechoic chamber	CHAMPRO	SAC-03	03CH01-WS	Jan. 04, 2013	Jan. 03, 2014
Spectrum Analyzer	R&S	FSV40	101498	Jan. 24, 2013	Jan. 23, 2014
Receiver	R&S	ESR3	101658	Jan. 28, 2013	Jan. 27, 2014
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jan. 11, 2013	Jan. 10, 2014
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Feb. 18, 2013	Feb. 17, 2014
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Jan. 14, 2013	Jan. 13, 2014
Amplifier	Burgeon	BPA-530	100219	Nov. 28, 2012	Nov. 27, 2013
Amplifier	Agilent	83017A	MY39501308	Dec. 18, 2012	Dec. 17, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-001	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-002	Dec. 25, 2012	Dec. 24, 2013
control	EM Electronics	EM1000	60612	N/A	N/A
Note: Calibration Interval of instruments listed above is one year.					

Loop Antenna	R&S	HFH2-Z2	100330	Nov. 15, 2012	Nov. 14, 2014
Amplifier	MITEQ	AMF-6F-260400	9121372	Apr. 19, 2013	Apr. 18, 2015
Note: Calibration Interval of instruments listed above is two year.					

Test Item	RF Conducted				
Test Site	TH01-HY				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV 40	101063	Feb. 18, 2013	Feb. 17, 2014
Spectrum Analyzer	R&S	FSP 40	100305	Mar. 20, 2013	Mar. 19, 2014
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	Nov. 21, 2012	Nov. 20, 2013
Signal Generator	R&S	SMB100A	175727	Jan. 14, 2013	Jan. 14, 2014
Power Sensor	Anritsu	MA2411B	0917017	Feb. 02, 2013	Feb. 01, 2014
Power Meter	Anritsu	ML2495A	0949003	Feb. 02, 2013	Feb. 01, 2014
DC Power Source	G.W.	GPC-6030D	C671845	Jun. 21, 2013	Jun. 20, 2014
AC Power Source	G.W	APS-9102	EL920581	Jul. 16, 2013	Jul. 15, 2014
Note: Calibration Interval of instruments listed above is one year.					