FCC Test Report

Equipment	:	**2T2R 11ac Wireless LAN Concurrent Dual Band Gigabit Router**
Brand Name	:	**EDIMAX**
Model No.	:	**BR-6478AC / GR-478AC**
FCC ID	:	**NDD9564781213**
Standard	:	**47 CFR FCC Part 15.247**
Operating Band	:	**5725 MHz – 5850 MHz**
Equipment Class	:	**DTS**
Applicant Manufacturer	:	**EDIMAX TECHNOLOGY CO., LTD. No.3,Wu-Chuan 3rd Road,Wu-Ku Industrial Park, New Taipei City, Taiwan**
Multiple Listing	:	**Please refer to section 1.3**

The product sample received on Dec. 17, 2012 and completely tested on Apr. 03, 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:

Vic Hsiao / Supervisor

Testing Laboratory
1190

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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]: 0.2340870MHz 57.21 (Margin 5.09dB) - QP 46.03 (Margin 6.27dB) - AV	FCC 15.207	Complied
3.2	15.247(a)	6dB Bandwidth	6dB Bandwidth [MHz] 20M:17.64 / 40M:36.36 80M: 76.24	≥500kHz	Complied
3.3	15.247(b)	RF Output Power (Maximum Peak Conducted Output Power)	Power [dBm]:26.46	Power [dBm]:30	Complied
3.4	15.247(d)	Power Spectral Density	PSD [dBm/3kHz]:-11.03	PSD [dBm/3kHz]:8	Complied
3.5	15.247(c)	Transmitter Radiated Bandedge Emissions	Non-Restricted Bands: 5724.310MHz: 23.91dB	Non-Restricted Bands: > 20 dBc Restricted Bands: FCC 15.209	Complied
3.6	15.247(c)	Transmitter Radiated Unwanted Emissions	Restricted Bands [dBuV/m at 1m]:11490MHz 73.27 (Margin 10.27dB) - PK 62.37 (Margin 1.17dB) - AV	Non-Restricted Bands: > 20 dBc Restricted Bands: FCC 15.209	Complied

Revision History

Report No.	Version	Description	Issued Date
FR2D1259AI	Rev. 01	Initial issue of report	Apr. 23, 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**
5725-5850	a	5745-5825	149-165 [5]	1	23.06	Yes
5725-5850	n(HT20	5745-5825	149-165 [5]	2	26.46	Yes
5725-5850	n(HT40)	5755-5795	151-159 [2]	2	25.94	Yes
5725-5850	ac(VHT80)	5775	155 [1]	2	26.37	Yes

Note 1: RF output power specifies that Maximum Peak Conducted Output Power.
Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
Note 3: 802.11ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
Note 4: Co-location, Co-location is generally defined as simultaneously transmitting (co-transmitting) antennas within 20 cm of each other. (i.e., EUT has simultaneously co-transmitting that operating 2.4GHz and 5GHz.)

1.1.2 Antenna Information

Antenna Category	
☐	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).

Antenna General Information			
No.	**Ant. Cat.**	**Ant. Type**	**Gain (dBi)**
1	External	Dipole	3.00

Reminder: The EUT was pre-tested Antenna Port 1 and Antenna Port 2 for single chain, the worst case was Antenna Port 1. Therefore only the test data recorded in this report.

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 (EUT where the radio part is fully integrated within another device) Combined Equipment - Brand Name / Model No.: …
☐	Plug-in radio (EUT intended for a variety of host systems) Host System - Brand Name / Model No.: …
☐	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)**
☒ 100.00% - IEEE 802.11a	0
☒ 100.00% - IEEE 802.11n (HT20)	0
☒ 100.00% - IEEE 802.11n (HT40)	0
☒ 100.00% - IEEE 802.11ac (VHT80)	0

1.1.5 EUT Operational Condition

Supply Voltage	☒ AC mains	☐ DC	
Type of DC Source	☐ Internal DC supply	☒ External DC adapter	☐ Battery

1.2 Product Details

The equipment is 2T2R 11ac Wireless LAN Concurrent Dual Band Gigabit Router. There are two types of EUT. The only difference is the appearance. For more detailed features description, please refer to the manufacturer's specifications or user's manual.

1.3 Table for Multiple Listing

The models are exactly same in both physical and electrical. The different in model number for marketing purpose.

No.	Brand Name	Model Name
1	Edimax	BR-6478AC,GR-478AC
2	ZyXEL	X650

1.4 Accessories

Accessories Information				
AC Adaptor	Brand Name	DVE	Model Name	DSA-12PFA-05 FUS
	Power Rating	I/P: 100-240V ~ 50/60Hz 0.5A; O/P: +5V⎓ 2A		

Note: Regarding to more detail and other information, please refer to user manual.

1.5 Support Equipment

Support Equipment - Conducted Emissions				
No.	**Equipment**	**Brand Name**	**Model Name**	**Serial No.**
1	Notebook	DELL	VOSTRO 3350	DoC
2	(USB)Mouse	Microsoft	1113	DoC
3	(USB) Printer	EPSON	STYLUS C61	DoC
4	Dummy Load	-	-	-
5	Notebook	DELL	PP32LB	DoC
6	PC (Remote workstation)	HP	d330uT	DoC
7	LCD Monitor (Remote workstation)	DELL	2408WFPb	DoC
8	(PS2)Keyboard (Remote workstation)	HP	KB-0133	DoC
9	(PS2)Mouse (Remote workstation)	HP	M-S69	DoC

Support Equipment - Radiated Emissions				
No.	**Equipment**	**Brand Name**	**Model Name**	**Serial No.**
1	Notebook	DELL	E5520	DoC
2	(USB)Mouse	Microsoft	1004	DoC
3	(USB) Printer	EPSON	STYLUS C61	DoC
4	Notebook (Remote workstation)	DELL	E5520	DoC

1.6 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
- FCC KDB 662911
- FCC KDB 644545
- FCC KDB 412172

1.7 Testing Location Information

Testing Location					
☒	HWA YA	ADD :	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.		
		TEL :	886-3-327-3456	FAX :	886-3-327-0973

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Wei	22.8°C / 48.4%	Mar. 27, 2013
AC Conduction	CO04-HY	Zevs	23°C / 49.1%	Apr. 03, 2013
Radiated Emission	03CH02-HY	Hsiao	23.1°C / 60%	Feb. 27, 2013~ Mar. 02, 2013

1.8 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		±2.26 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
Unwanted emissions, conducted	30 – 1000 MHz	±0.51 dB	N/A
	1 – 18 GHz	±0.67 dB	N/A
	18 – 40 GHz	±0.83 dB	N/A
	40 – 200 GHz	N/A	N/A
All emissions, radiated	30 – 1000 MHz	±2.56 dB	N/A
	1 – 18 GHz	±3.59 dB	N/A
	18 – 40 GHz	±3.82 dB	N/A
	40 – 200 GHz	N/A	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**	**RF Output Power (dBm)**
11a,6-54Mbps	1	6-54Mbps	6 Mbps	23.06
HT20,M0-15	2	M0-15	M0	26.46
HT40,M0-15	2	M0-15	M0	25.94
VHT80,M0-9	2	M0-9	M9	26.37
Note 1: Modulation modes consist of below configuration: 11a: IEEE 802.11a, HT20/HT40: IEEE 802.11n, VHT20/VHT40/VHT80: IEEE 802.11ac Note 2: IEEE Std. 802.11n/ac modulation consists of HT20, HT40, VHT20, VHT40, VHT80 and VHT160. Then EUT support HT20, HT40, VHT20, VHT40 and VHT80. Worst modulation mode: HT20, HT40, VHT80. Worst modulation of Guard Interval (GI) is 800ns. Note 3: RF output power specifies that Maximum Peak Conducted Output Power.				

2.2 Test Channel Frequencies Configuration

Test Channel Frequencies Configuration	
IEEE Std. 802.11	**Test Channel Frequencies (MHz) – FX (Frequencies Abbreviations)**
a, n (HT20)	5745-(F1), 5785-(F2), 5825-(F3)
n (HT40)	5755-(F1'), 5795-(F2')
ac (VHT80)	5210-(F1'')

2.3 The Worst Case Power Setting Parameter

The Worst Case Power Setting Parameter (5725-5850 MHz band)							
Test Software Version	RTL819x_2.2.5						
Modulation Mode	**N_{TX}**	**Test Frequency (MHz)**					
		NCB: 20MHz			**NCB: 40MHz**		**NCB: 80MHz**
		5745	**5785**	**5825**	**5755**	**5795**	**5775**
11a,6-54Mbps	1	49	47	46	-	-	-
HT20,M0-15	2	53,55	52,54	50,51	-	-	-
HT40,M0-15	2	-	-	-	53,55	52,54	-
VHT80,M0-9	2	-	-	-	-	-	53,55

2.4 The Worst Case Measurement Configuration

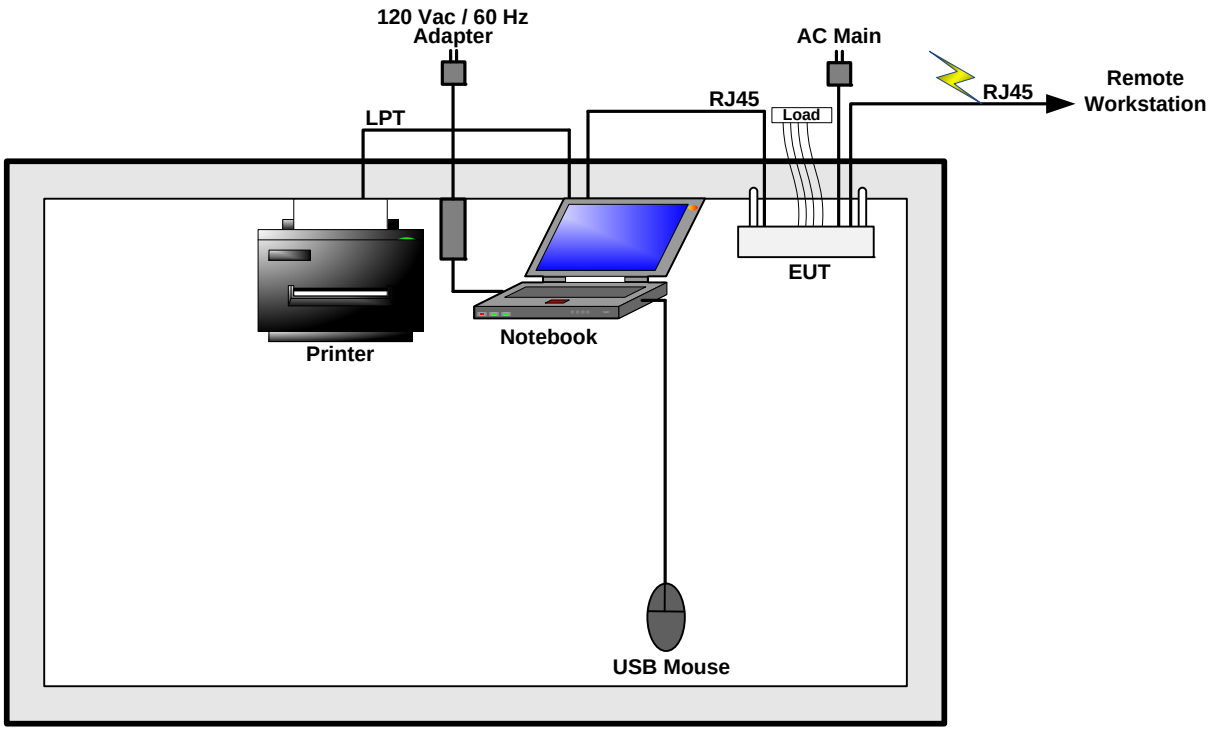
The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	Operating Mode Description
1	Radio link (WLAN)

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	11a, HT20, HT40, VHT80

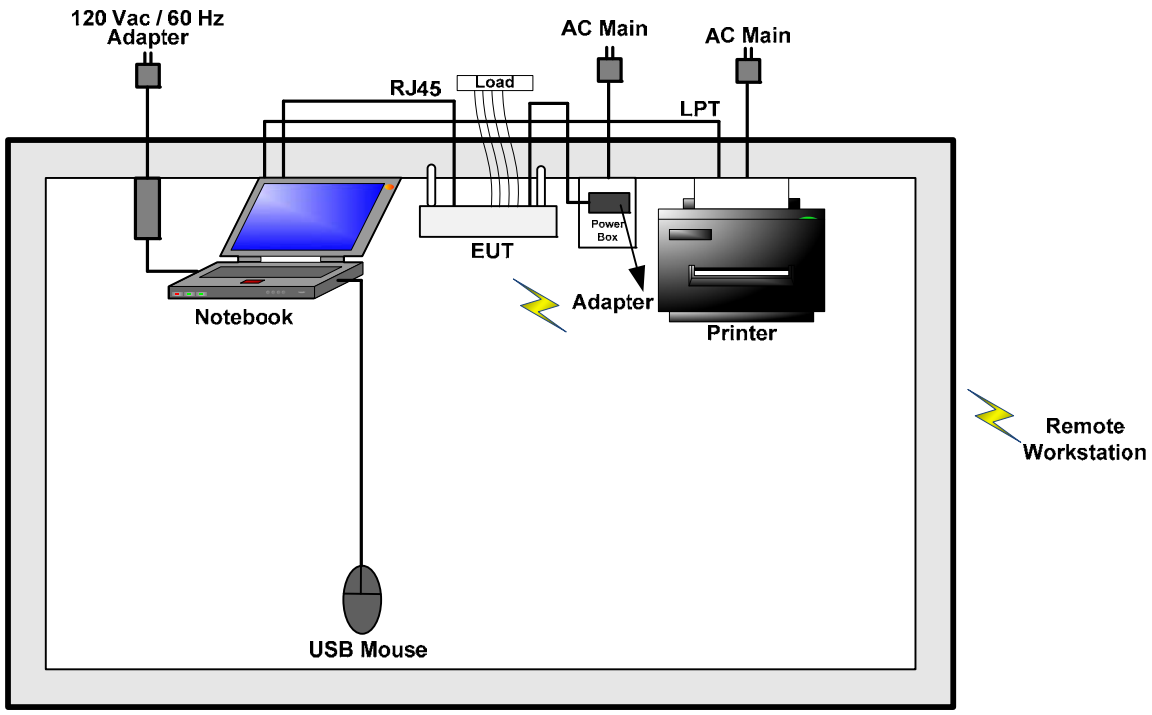
The Worst Case Mode for Following Conformance Tests			
Tests Item	Transmitter Radiated Unwanted Emissions Transmitter Radiated Bandedge Emissions		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO 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 worst planes is X.		
	☐ EUT will be placed in mobile position and operating multiple positions. EUT shall be performed two orthogonal planes.		
	☐ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions. EUT shall be performed two or three orthogonal planes.		
Operating Mode < 1GHz	☒ 1. Radio link (WLAN)		
Modulation Mode	11a, HT20, HT40, VHT80		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			

2.5 Test Setup Diagram

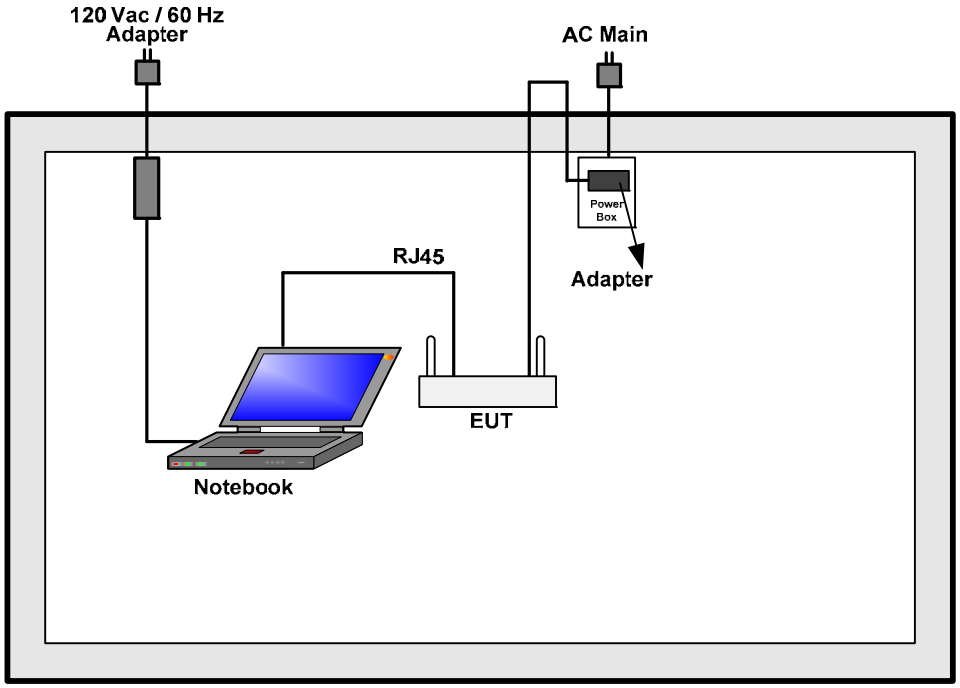
Test Setup Diagram – AC Line Conducted Emission Test	
Operating Mode 1	**Radio link (WLAN)**



Test Setup Diagram - Radiated Test (Below 1GHz)	
Operating Mode	Radio link (WLAN)



Test Setup Diagram - Radiated Test (Above 1GHz)	
Operating Mode	Transmission Mode



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

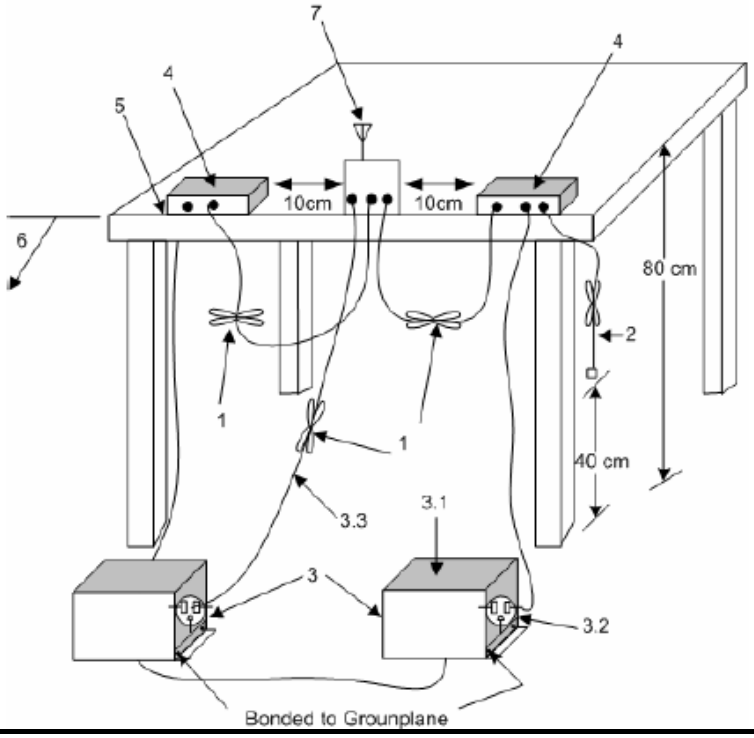
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

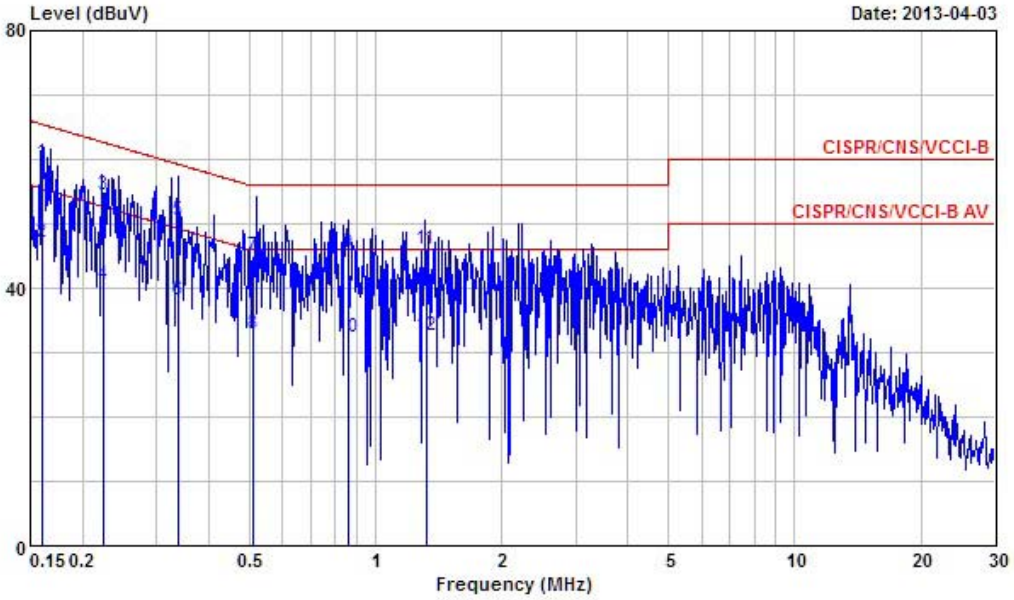
3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

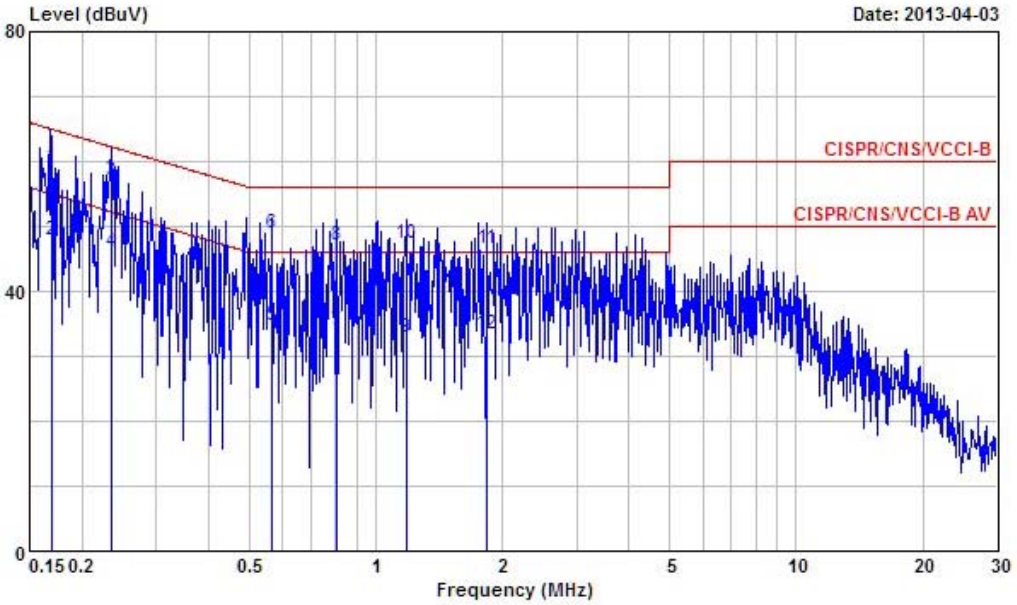
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Radio link (WLAN)		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1600960	59.53	-5.93	65.46	59.19	0.11	0.23	QP
2	0.1600960	46.99	-8.47	55.46	46.65	0.11	0.23	Average
3	0.2232070	54.39	-8.31	62.70	54.18	0.11	0.10	QP
4	0.2232070	40.60	-12.10	52.70	40.39	0.11	0.10	Average
5	0.3376030	50.45	-8.81	59.26	50.25	0.10	0.10	QP
6	0.3376030	38.18	-11.08	49.26	37.98	0.10	0.10	Average
7	0.5083420	45.06	-10.94	56.00	44.83	0.10	0.13	QP
8	0.5083420	32.94	-13.06	46.00	32.71	0.10	0.13	Average
9	0.8574950	45.60	-10.40	56.00	45.31	0.11	0.18	QP
10	0.8574950	32.42	-13.58	46.00	32.13	0.11	0.18	Average
11	1.320	45.96	-10.04	56.00	45.60	0.12	0.24	QP
12	1.320	32.74	-13.26	46.00	32.38	0.12	0.24	Average

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	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1689540	59.15	-5.86	65.01	58.72	0.24	0.19	QP
2	0.1689540	47.80	-7.21	55.01	47.37	0.24	0.19	Average
3	@0.2340870	57.21	-5.09	62.30	56.88	0.23	0.10	QP
4	0.2340870	46.03	-6.27	52.30	45.70	0.23	0.10	Average
5	0.5640910	34.80	-11.20	46.00	34.44	0.22	0.14	Average
6	0.5640910	48.94	-7.06	56.00	48.58	0.22	0.14	QP
7	0.8087580	33.99	-12.01	46.00	33.58	0.23	0.18	Average
8	0.8087580	47.21	-8.79	56.00	46.80	0.23	0.18	QP
9	1.180	32.87	-13.13	46.00	32.42	0.23	0.22	Average
10	1.180	47.49	-8.51	56.00	47.04	0.23	0.22	QP
11	1.840	46.56	-9.44	56.00	46.02	0.25	0.29	QP
12	1.840	33.35	-12.65	46.00	32.81	0.25	0.29	Average

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.

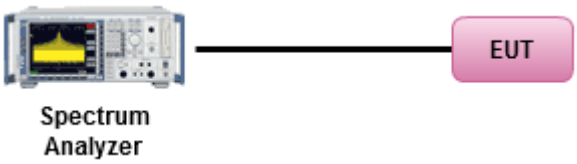
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

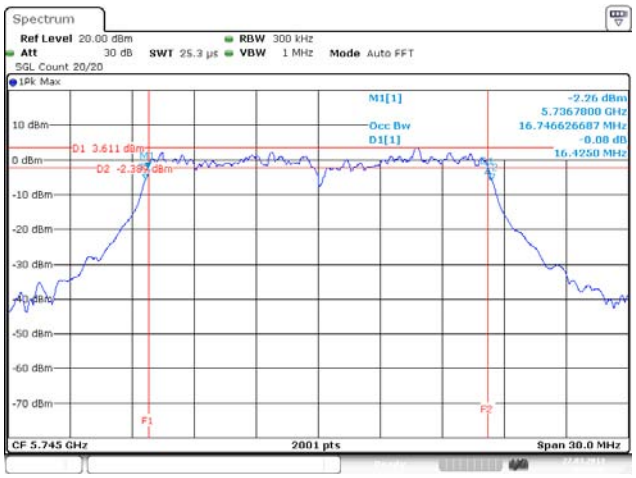
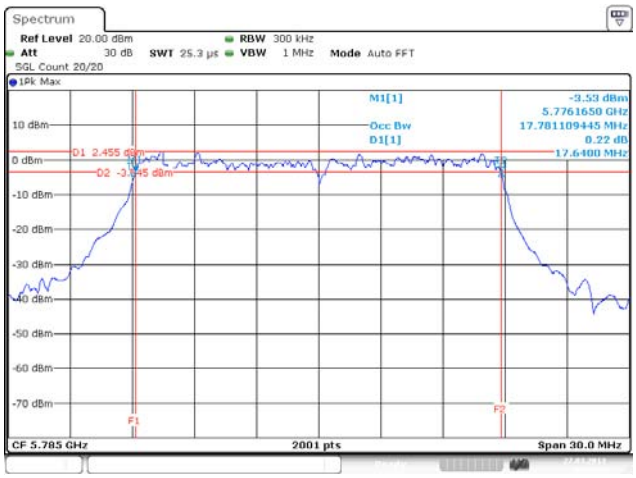
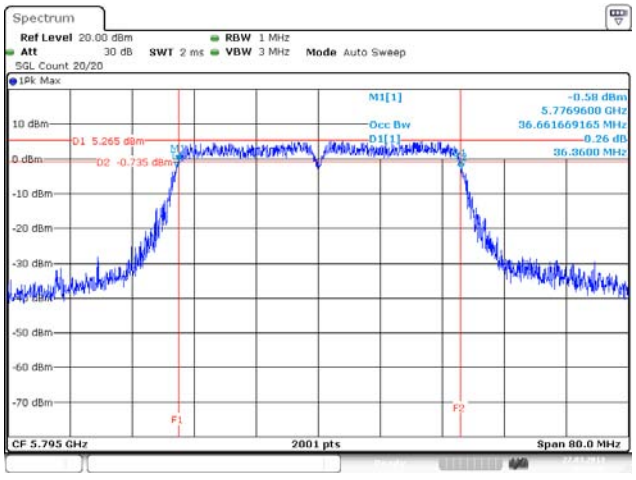
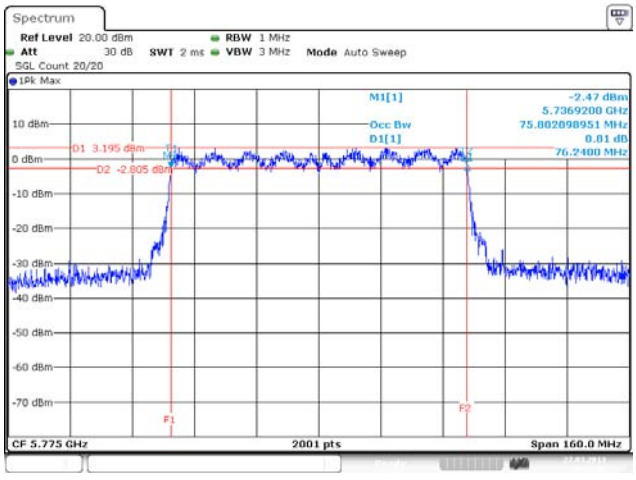
Test Method		
☒	For the emission bandwidth shall be measured using one of the options below:	
	☒	Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
	☐	Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
	☐	Refer as ANSI C63.10, clause 6.9.1 for occupied 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 1	Chain-Port 2	-	-
11a	1	5745	16.74	-	-	-	16.42	-	-	-
11a	1	5785	16.46	-	-	-	16.29	-	-	-
11a	1	5825	16.64	-	-	-	16.20	-	-	-
HT20	2	5745	17.57	17.78	-	-	17.29	17.58	-	-
HT20	2	5785	17.66	17.78	-	-	17.53	17.64	-	-
HT20	2	5825	17.78	17.67	-	-	17.58	17.61	-	-
HT40	2	5755	36.58	36.54	-	-	36.24	36.20	-	-
HT40	2	5795	36.66	36.46	-	-	36.36	36.12	-	-
VHT80	2	5775	75.80	75.72	-	-	76.24	75.84	-	-
Limit			N/A				≥500 kHz			
Result			Complied							
Note 1: N_{TX} = Number of Transmit Chains										

Worst Emission Bandwidth Plots	
11a	**HT20**
 Date: 27.MAR.2013 19:45:31	 Date: 27.MAR.2013 19:35:32
HT40	**HT80**
 Date: 27.MAR.2013 19:19:35	 Date: 27.MAR.2013 19:26:03

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	
☒	5725-5850 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 dBm
e.i.r.p. Power Limit:	
☒	5725-5850 MHz Band
☒	Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)
☐	Point-to-point systems (P2P): N/A
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.	

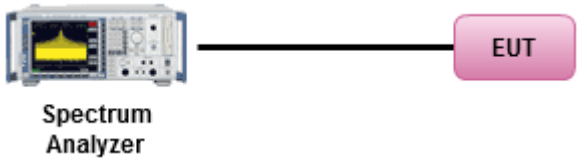
3.3.2 Measuring Instruments

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, clause 9.1.1 Option 1 (RBW ≥ EBW method).
	☒ Refer as FCC KDB 558074, clause 9.1.2 Option 2 (integrated band power method).
	☐ Refer as FCC KDB 558074, clause 9.1.3 Option 2 (peak power meter for VBW ≥ DTS BW)
☒	Maximum Conducted Output Power
	[duty cycle ≥ 98% or external video / power trigger]
	☒ Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
	☐ Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 558074, 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, clause 9.2.3 Method AVGPM (using an 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 (Spectrum Analyzer)


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)		3.00	3.00	-	-
Modulation Mode	**DG (dBi)**	**N_{TX}**	**N_{SS}**	**STBC**	**Array Gain (dB)**
11a,6-54Mbps	3.00	1	1	-	-
HT40,M0-M15	3.00	2	1	-	-
HT40,M0-M15	3.00	2	1	-	-
VHT80,M0-9	3.00	2	1	-	-

Note 1: For all transmitter outputs with equal antenna gains, directional gain is to be computed as follows:
Any transmit signals are correlated, Directional Gain = $G_{ANT} + 10 \log(N_{TX})$
All transmit signals are completely uncorrelated, Directional Gain = G_{ANT}
Note 2: For all transmitter outputs with unequal antenna gains, directional gain is to be computed as follows:
Any transmit signals are correlated, Directional Gain =$10 \log[(10^{G1/20} + \ldots + 10^{GN/20})^2 / N_{TX}]$
All transmit signals are completely uncorrelated, Directional Gain = $10 \log[(10^{G1/10} + \ldots + 10^{GN/10)}/N_{TX}]$
Note 3: For Spatial Multiplexing, Directional Gain (DG) = $G_{ANT} + 10 \log(N_{TX}/N_{SS})$,
where Nss = the number of independent spatial streams data.
Note 4: For CDD transmissions, directional gain is calculated as power measurements:
Directional Gain (DG) = G_{ANT} + Array Gain, where Array Gain is as follows:
Array Gain = 0 dB (i.e., no array gain) for $N_{TX} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{TX};

3.3.6 Test Result of Maximum Peak Conducted Output Power

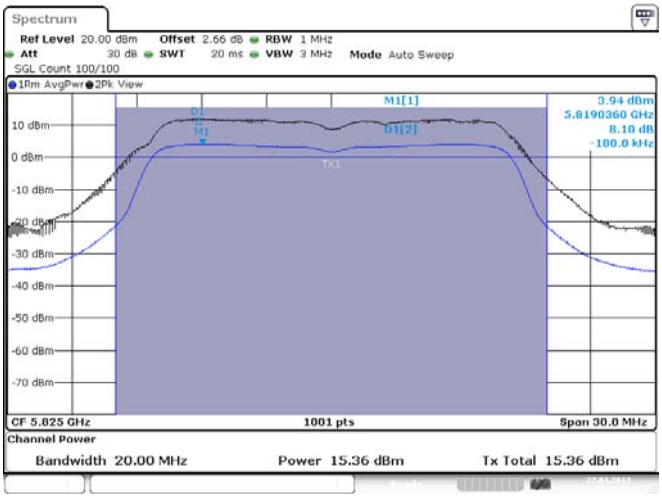
Maximum Peak Conducted Output Power Result											
Condition			RF Output Power (dBm)								
Modulation Mode	N_{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	-	-	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit
11a	1	5745	23.02	-	-	-	23.02	30	3.00	26.02	36.00
11a	1	5785	23.06	-	-	-	23.06	30	3.00	26.06	36.00
11a	1	5825	23.04	-	-	-	23.04	30	3.00	26.04	36.00
HT20	2	5745	23.52	23.38	-	-	26.46	30	3.00	29.46	36.00
HT20	2	5785	23.15	23.49	-	-	26.33	30	3.00	29.33	36.00
HT20	2	5825	23.38	23.29	-	-	26.35	30	3.00	29.35	36.00
HT40	2	5755	23.00	22.83	-	-	25.93	30	3.00	28.93	36.00
HT40	2	5795	23.02	22.84	-	-	25.94	30	3.00	28.94	36.00
VHT80	2	5775	23.47	23.25	-	-	26.37	30	3.00	29.37	36.00
Result			Complied								

3.3.7 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	-	-	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit
11a	1	5745	15.39	-	-	-	15.39	30	3.00	18.39	36.00
11a	1	5785	15.40	-	-	-	15.40	30	3.00	18.40	36.00
11a	1	5825	15.36	-	-	-	15.36	30	3.00	18.36	36.00
HT20	2	5745	15.46	15.34	-	-	18.41	30	3.00	21.41	36.00
HT20	2	5785	15.17	15.45	-	-	18.32	30	3.00	21.32	36.00
HT20	2	5825	15.39	15.21	-	-	18.31	30	3.00	21.31	36.00
HT40	2	5755	15.10	15.03	-	-	18.08	30	3.00	21.08	36.00
HT40	2	5795	15.13	15.04	-	-	18.10	30	3.00	21.10	36.00
VHT80	2	5775	15.29	15.13	-	-	18.22	30	3.00	21.22	36.00
Result			Complied								

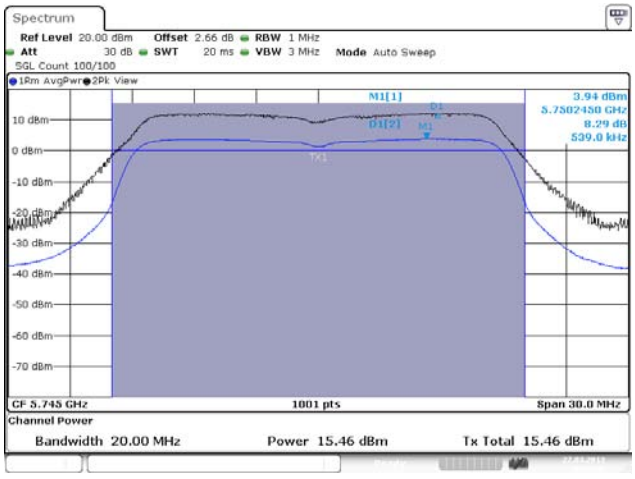
Worst RF Output Power Plots

11a [Port 1]



Date: 27.MAR.2013 19:49:57

HT20 [Port 1]



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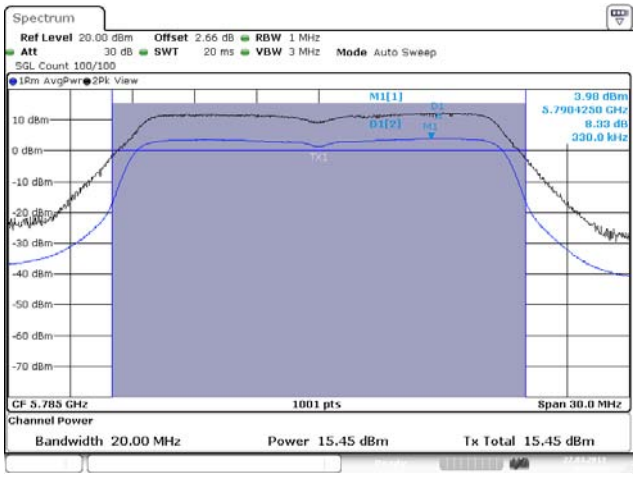
HT20 [Port 2]



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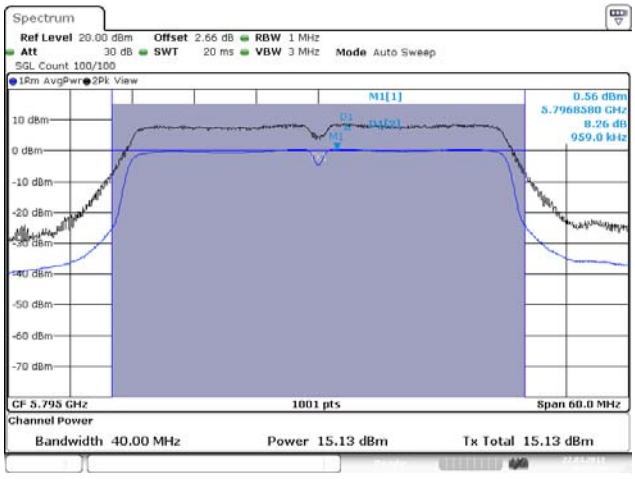
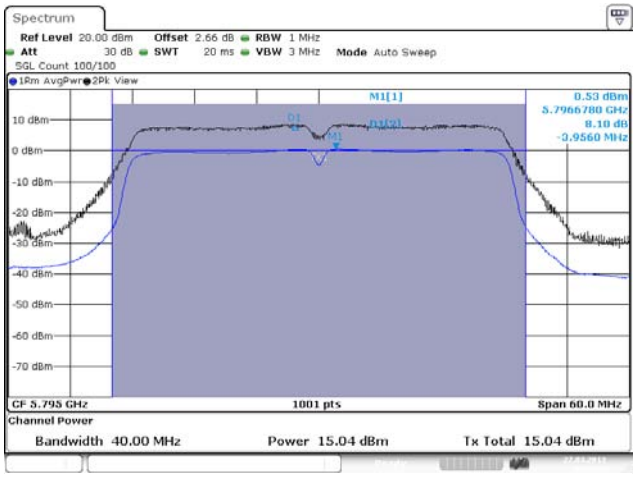
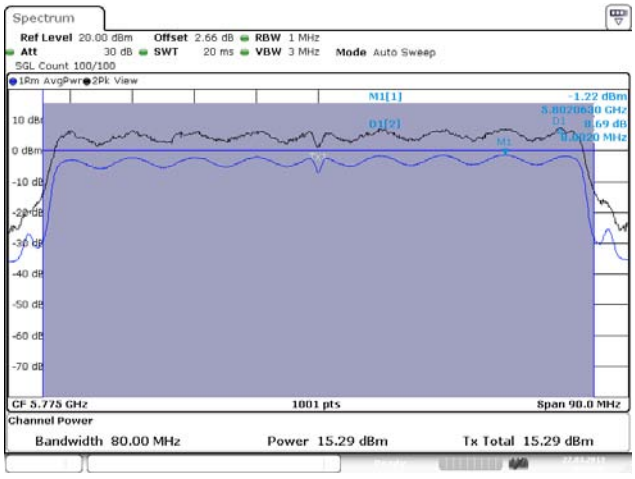
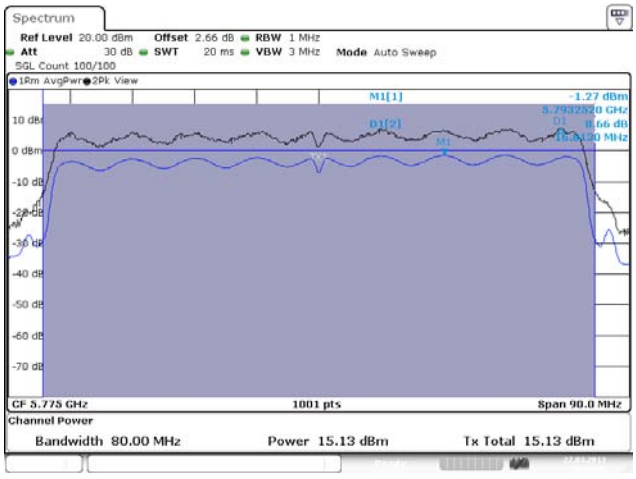
Worst RF Output Power Plots	
HT40 [Port 1]	**HT40 [Port 2]**
	
VHT80 [Port 1]	**VHT80 [Port 2]**
	

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

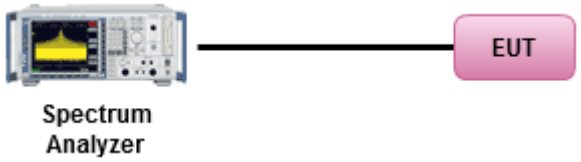
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

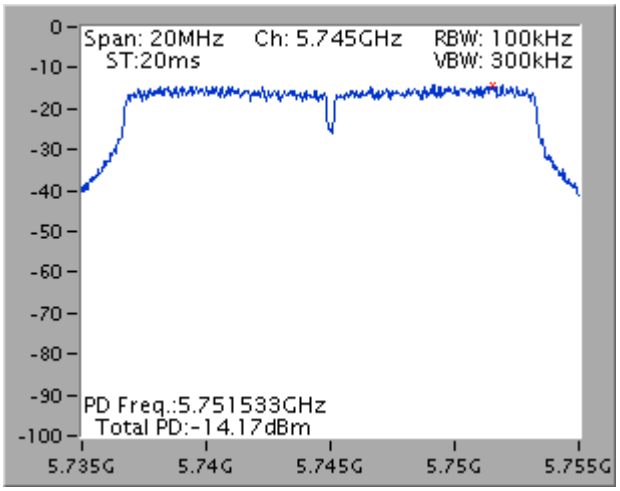
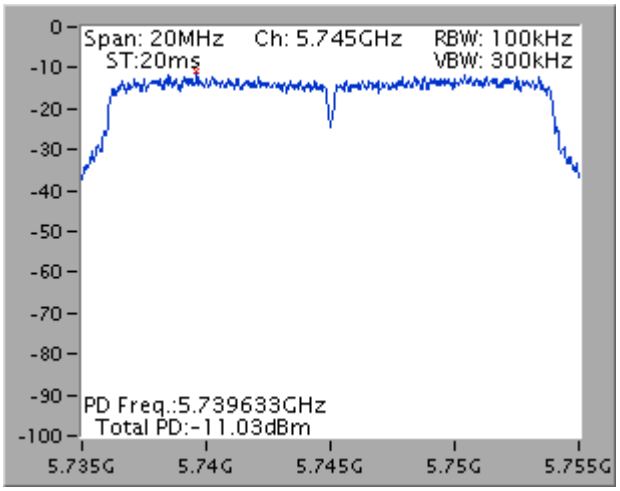
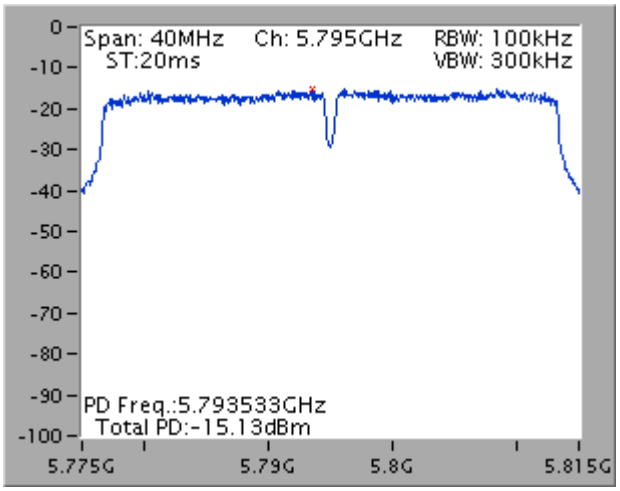
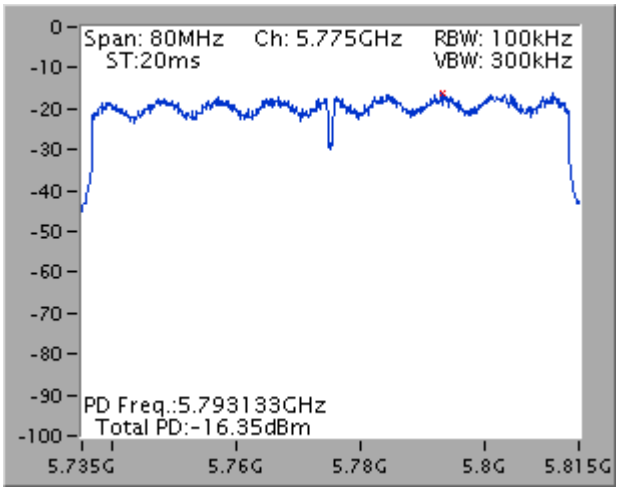
Test Method			
☒	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒	Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz;detector=peak)..	
	[duty cycle ≥ 98% or external video / power trigger]		
	☒	Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).	
	☐	Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-1 Alt. (slow sweep speed)	
	duty cycle < 98% and average over on/off periods with duty factor		
	☐	Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-2 (spectral trace averaging).	
	☐	Refer as FCC KDB 558074, 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

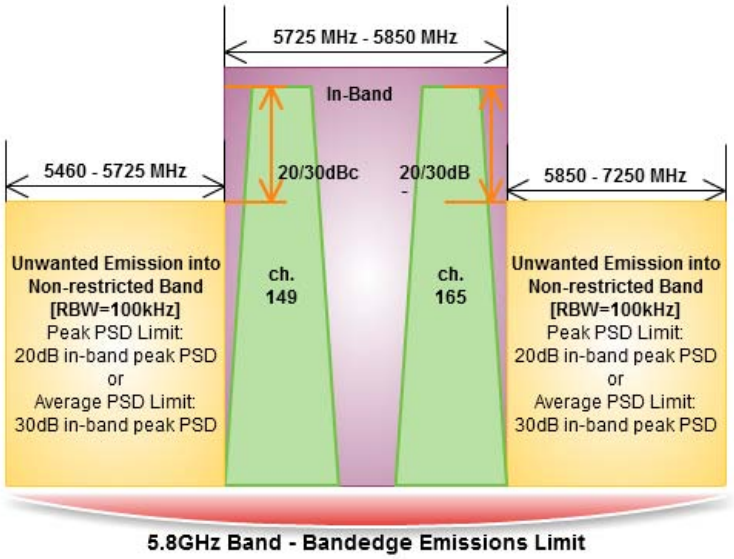
Power Spectral Density Result								
Condition			Power Spectral Density (dBm/100kHz)					
Modulation Mode	N_{TX}	Freq. (MHz)	-	-	-	-	Sum Chain	Power Limit
11a	1	5745	-	-	-	-	-14.17	8
11a	1	5785	-	-	-	-	-14.31	8
11a	1	5825	-	-	-	-	-14.41	8
HT20	2	5745	-	-	-	-	-11.03	8
HT20	2	5785	-	-	-	-	-11.33	8
HT20	2	5825	-	-	-	-	-11.38	8
HT40	2	5755	-	-	-	-	-15.50	8
HT40	2	5795	-	-	-	-	-15.13	8
VHT80	2	5775	-	-	-	-	-16.35	8
Result			Complied					
Note 1: PSD = sum each transmit chains by bin-to-bin PSD								

Worst Power Spectral Density Plots	
11a [Sum All Chains]	**HT20 [Sum All Chains]**
	
HT20 [Sum All Chains]	**VHT80 [Sum All Chains]**
	

3.5 Transmitter Radiated Bandedge Emissions

3.5.1 Transmitter Radiated Bandedge Emissions Limit

Transmitter Radiated Bandedge Emissions Limit



3.5.2 Measuring Instruments

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

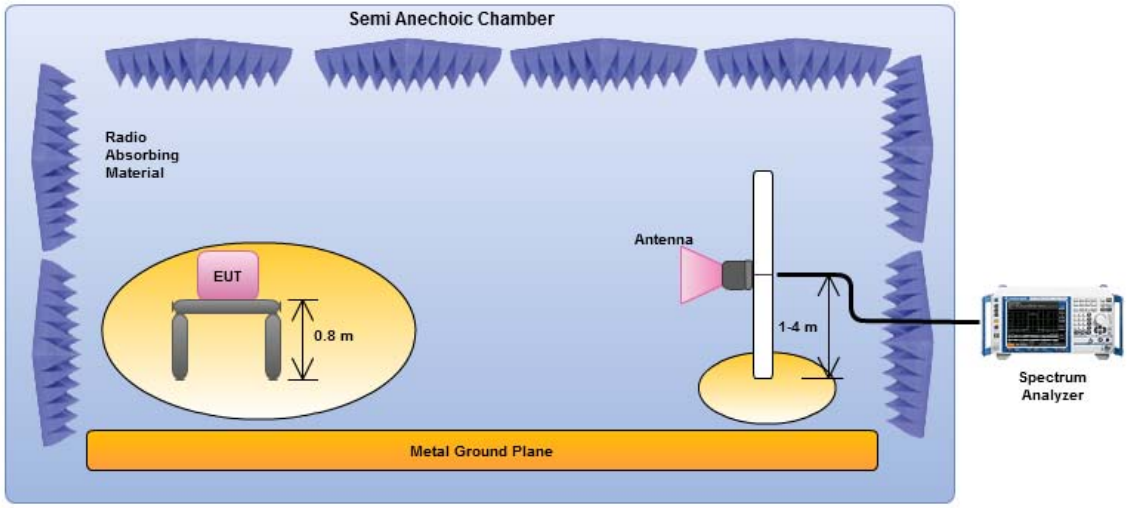
3.5.3 Test Procedures

Test Method	
☒	The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
☒	Refer as ANSI C63.10, clause 6.9.2.2 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
☒	For the transmitter unwanted emissions shall be measured using following options below:
☒	Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.
☒	Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.
☐	Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%)
☐	Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
☐	Refer as FCC KDB 558074, 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, clause 11.3 and 12.2.4 measurement procedure peak limit.
☒	For the transmitter bandedge emissions shall be measured using following options below:
☐	Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
☒	Refer as ANSI C63.10, clause 6.9.2 for band-edge testing.
☐	Refer as ANSI C63.10, clause 6.9.3 for marker-delta method for band-edge measurements.
☒	For radiated measurement, refer as FCC KDB 558074, clause 12.2.7.
☒	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). Measurements in the bandedge are typically made at a closer distance 1.0m, because the instrumentation noise floor is typically close to the radiated emission limit.

Test Method	
☐	For conducted and cabinet radiation measurement, refer as FCC KDB 558074, 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

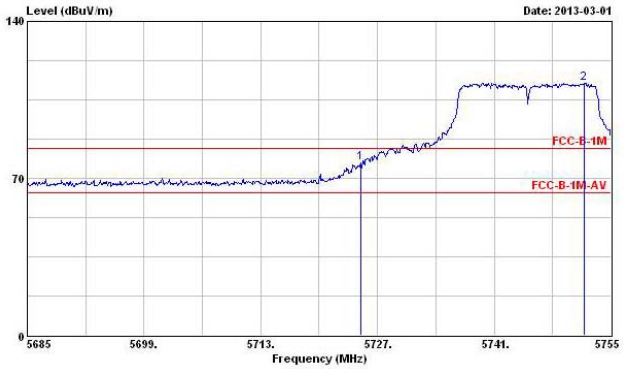
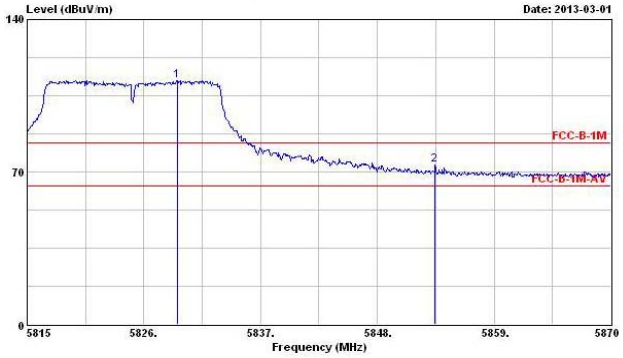
3.5.4 Test Setup

Transmitter Radiated Bandedge Emissions

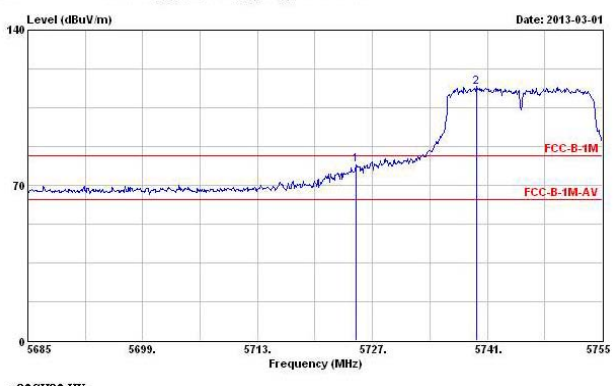
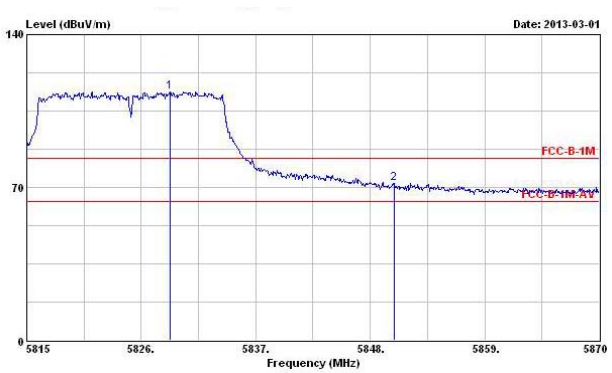


Electric field tests shall be performed in transmitter bandedge emissions using a calibrated horn antenna.

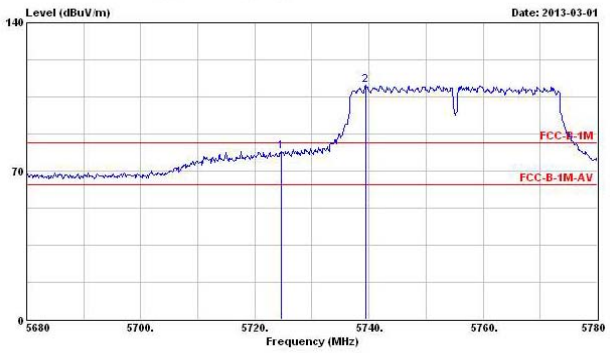
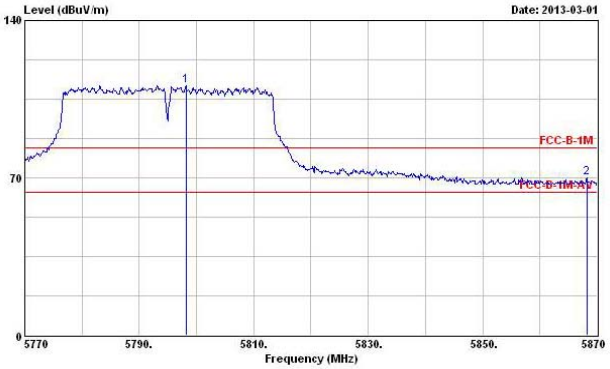
3.5.5 Test Result of Transmitter Radiated Bandedge Emissions

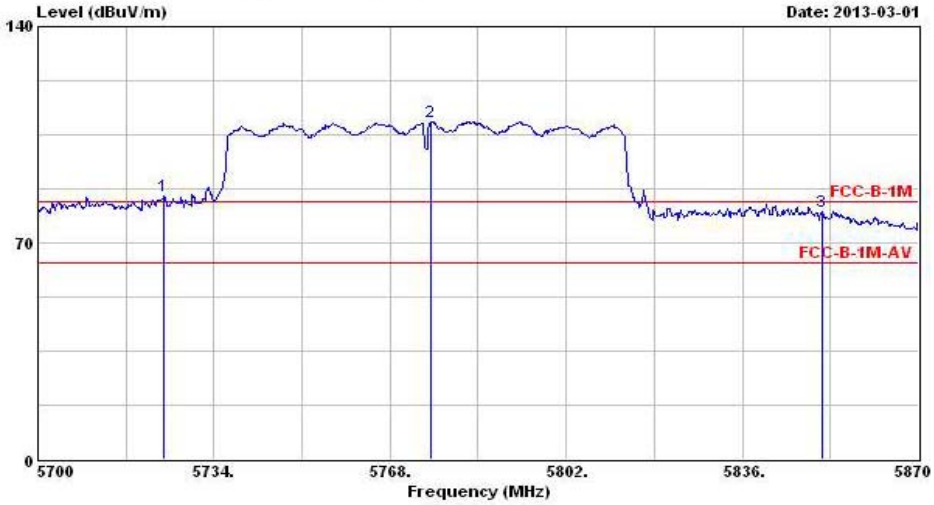
Transmitter Radiated Bandedge Emissions Result								
Modulation	11a			**N_{TX}**	1			
Non-restricted Band (MHz)	**Test Ch. Freq. (MHz)**	**In-band PSD [i] (dBuV/100kHz)**	**NBE Freq. (MHz)**	**Out-band PSD [o] (dBuV/100kHz)**	**[i] – [o] (dB)**	**Limit (dB)**	**Level Type**	**Pol. note 1**
5460-5725	5745	112.53	5725.000	76.72	35.81	20	PK	V
5850-7250	5825	111.93	5853.450	73.24	38.69	20	PK	V
Low Bandedge				**Up Bandedge**				
								

Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)

Transmitter Radiated Bandedge Emissions Result								
Modulation	HT20			**N_{TX}**	2			
Non-restricted Band (MHz)	**Test Ch. Freq. (MHz)**	**In-band PSD [i] (dBuV/100kHz)**	**NBE Freq. (MHz)**	**Out-band PSD [o] (dBuV/100kHz)**	**[i] – [o] (dB)**	**Limit (dB)**	**Level Type**	**Pol. note 1**
5460-5725	5745	114.44	5724.970	79.07	35.37	20	PK	V
5850-7250	5825	113.84	5850.310	71.77	42.07	20	PK	V
Low Bandedge				**Up Bandedge**				
								

Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)

Transmitter Radiated Bandedge Emissions Result								
Modulation	HT40			**N_{TX}**	2			
Non-restricted Band (MHz)	**Test Ch. Freq. (MHz)**	**In-band PSD [i] (dBuV/100kHz)**	**NBE Freq. (MHz)**	**Out-band PSD [o] (dBuV/100kHz)**	**[i] – [o] (dB)**	**Limit (dB)**	**Level Type**	**Pol. note 1**
5460-5725	5755	110.53	5724.600	79.26	31.27	20	PK	V
5850-7250	5795	111.03	5868.200	69.95	41.08	20	PK	V
Low Bandedge				**Up Bandedge**				
							
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)								

Transmitter Radiated Bandedge Emissions Result								
Modulation	VHT80			**N_{TX}**	2			
Non-restricted Band (MHz)	**Test Ch. Freq. (MHz)**	**In-band PSD [i] (dBuV/100kHz)**	**NBE Freq. (MHz)**	**Out-band PSD [o] (dBuV/100kHz)**	**[i] – [o] (dB)**	**Limit (dB)**	**Level Type**	**Pol. note 1**
5460-5725	5775	109.32	5724.310	85.41	23.91	20	PK	V
5850-7250	5775	109.32	5851.300	80.05	29.27	20	PK	V
Low Bandedge								
								
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)								

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.

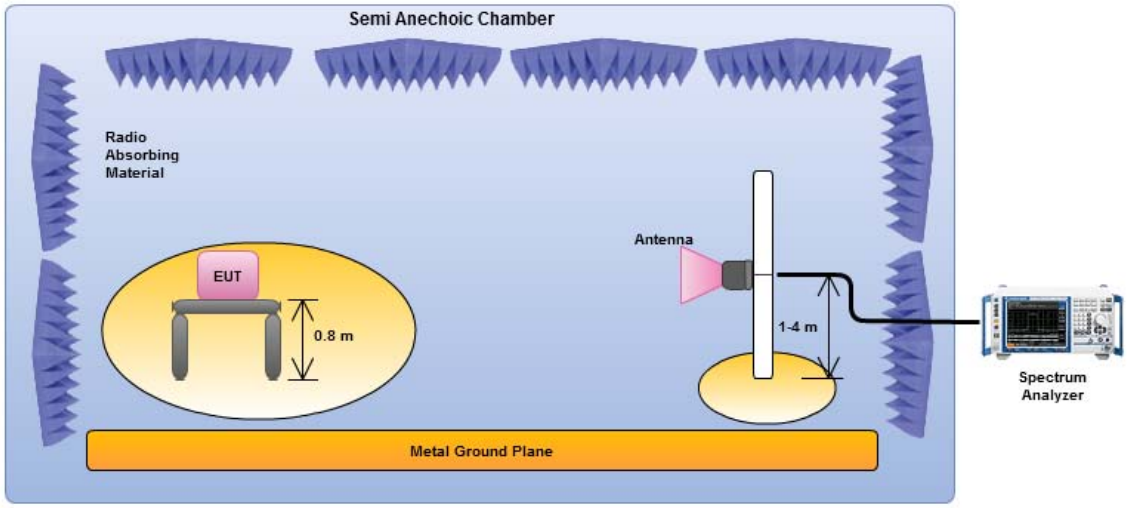
3.6.3 Test Procedures

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).		
	☒	Measurements in the frequency range 10 GHz - 18GHz are typically made at a closer distance 1m, because the instrumentation noise floor is typically close to the radiated emission limit.	
	☒	Measurements in the frequency range above 18 GHz - 25GHz are typically made at a closer distance 0.5m, because the instrumentation noise floor is typically close to the radiated emission limit.	
☒	The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
☒	For the transmitter unwanted emissions shall be measured using following options below:		
	☒	Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.	
	☒	Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.	
		☐	Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%)
		☐	Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
		☐	Refer as FCC KDB 558074, 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, clause 11.3 and 12.2.4 measurement procedure peak limit.
		☐	Refer as FCC KDB 558074, clause 12.2.3 measurement procedure Quasi-Peak limit.
☒	For radiated measurement, refer as FCC KDB 558074, 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.	

Test Method		
☐	For conducted and cabinet radiation measurement, refer as FCC KDB 558074, 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

Transmitter Radiated Unwanted Emissions



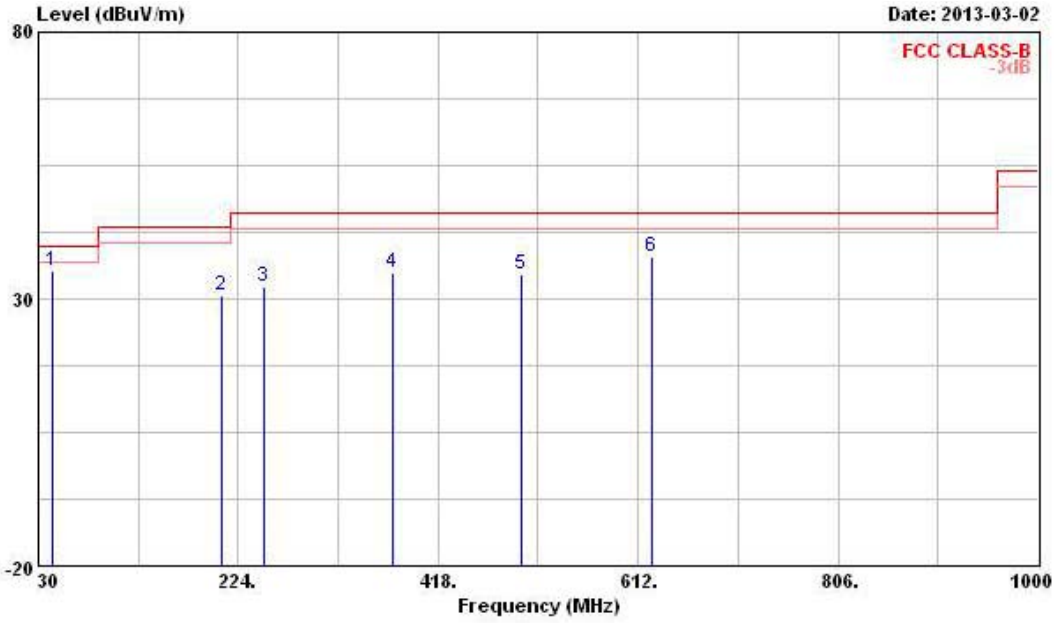
Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna and the frequency range of 1 GHz to 40 GHz using a calibrated horn antenna.

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 Transmitter Radiated Unwanted Emissions (Below 1GHz)

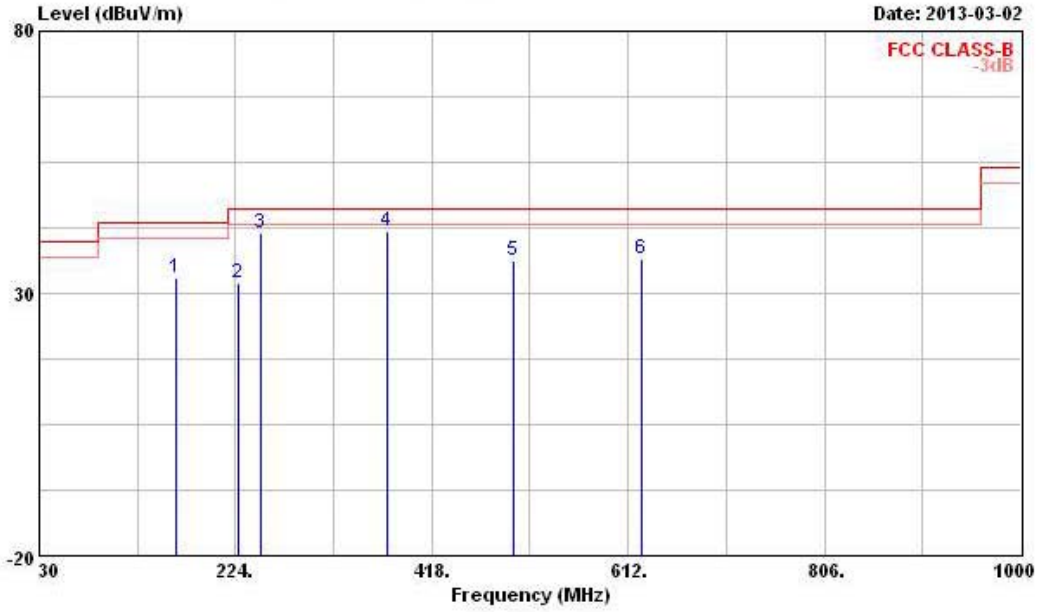
Transmitter Radiated Unwanted Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	V
Operating Function	Radio link (WLAN)		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	43.580	35.31	-4.69	40.00	50.02	12.27	0.91	27.89	Peak	---	---
2	207.510	30.75	-12.75	43.50	44.51	11.60	2.12	27.48	Peak	---	---
3	249.220	32.32	-13.68	46.00	44.33	12.97	2.38	27.36	Peak	---	---
4	374.350	35.00	-11.00	46.00	45.00	14.86	2.90	27.76	Peak	---	---
5	498.510	34.58	-11.42	46.00	42.38	17.26	3.41	28.47	Peak	---	---
6	625.580	37.86	-8.14	46.00	42.75	19.84	3.80	28.53	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)

Transmitter Radiated Unwanted Emissions (Below 1GHz)			
Operating Mode	1	**Polarization**	H
Operating Function	Radio link (WLAN)		

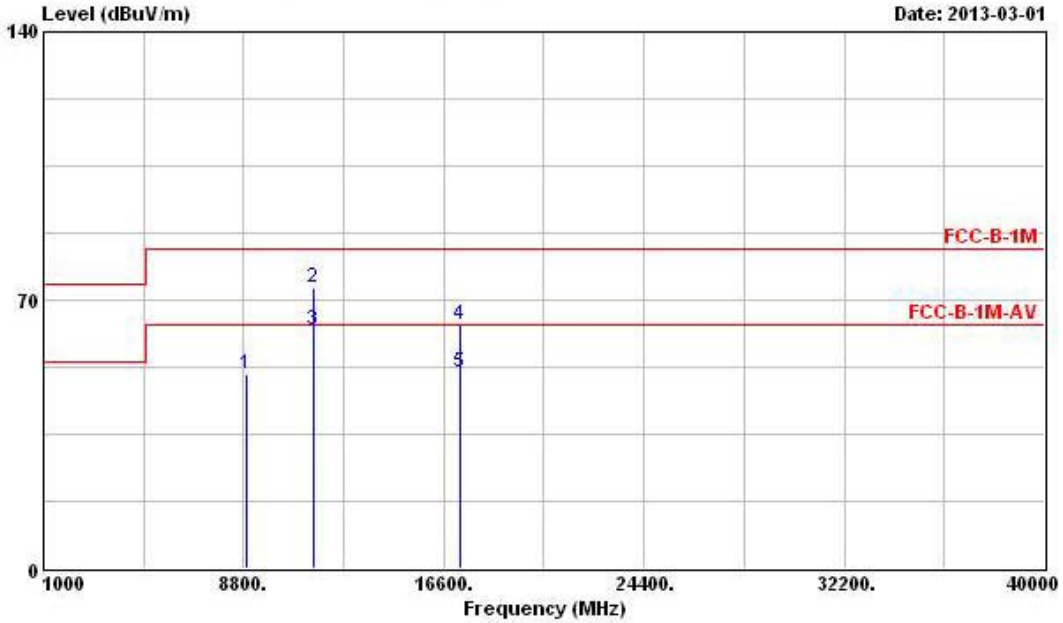


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	164.830	33.00	-10.50	43.50	48.48	10.34	1.82	27.64	Peak	---	---
2	225.940	31.94	-14.06	46.00	44.92	12.21	2.23	27.42	Peak	---	---
3	249.220	41.47	-4.53	46.00	53.48	12.97	2.38	27.36	Peak	---	---
4	374.350	41.72	-4.28	46.00	51.72	14.86	2.90	27.76	Peak	---	---
5	498.510	36.33	-9.67	46.00	44.13	17.26	3.41	28.47	Peak	---	---
6	625.580	36.72	-9.28	46.00	41.61	19.84	3.80	28.53	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)

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

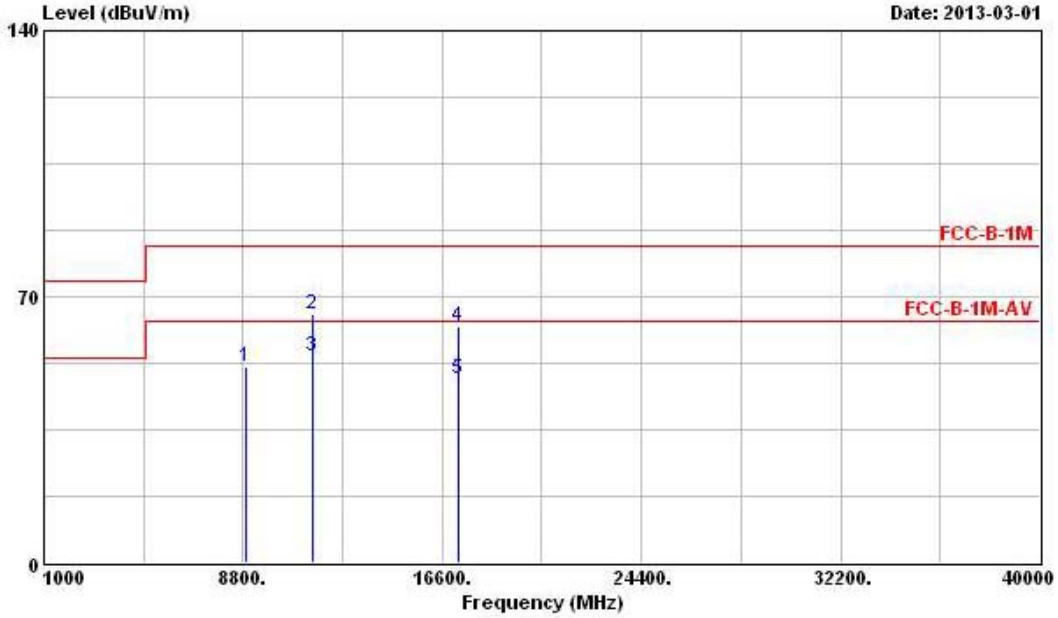
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (FX)**	F1
N_{TX}	1	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8904.000	50.62			43.77	35.84	6.40	35.39	PK	---	---
2	11490.000	73.27	-10.27	83.54	63.21	38.29	6.60	34.83	Peak	---	---
3	@11490.000	62.37	-1.17	63.54	52.31	38.29	6.60	34.83	Average	---	---
4	17235.000	63.42			48.10	40.95	8.44	34.07	Peak	---	---
5	17235.000	50.97			35.65	40.95	8.44	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

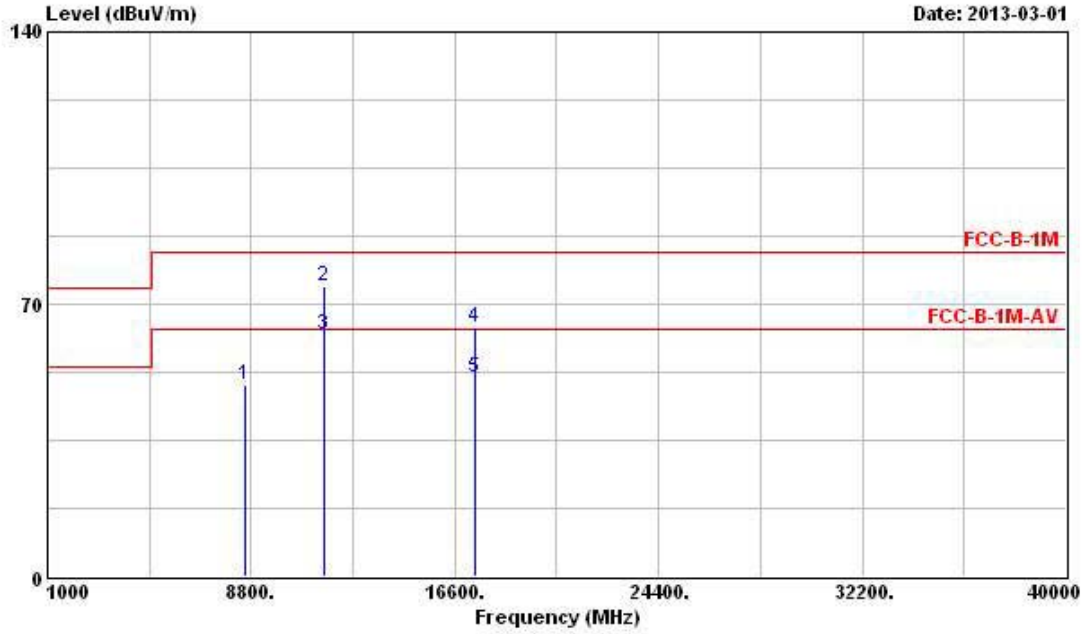
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (FX)**	F1
N_{TX}	1	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8904.000	51.44			44.59	35.84	6.40	35.39	PK	---	---
2	11490.000	65.46	-18.08	83.54	55.40	38.29	6.60	34.83	Peak	---	---
3	11490.000	54.21	-9.33	63.54	44.15	38.29	6.60	34.83	Average	---	---
4	17235.000	62.34			47.02	40.95	8.44	34.07	Peak	---	---
5	17235.000	48.55			33.23	40.95	8.44	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

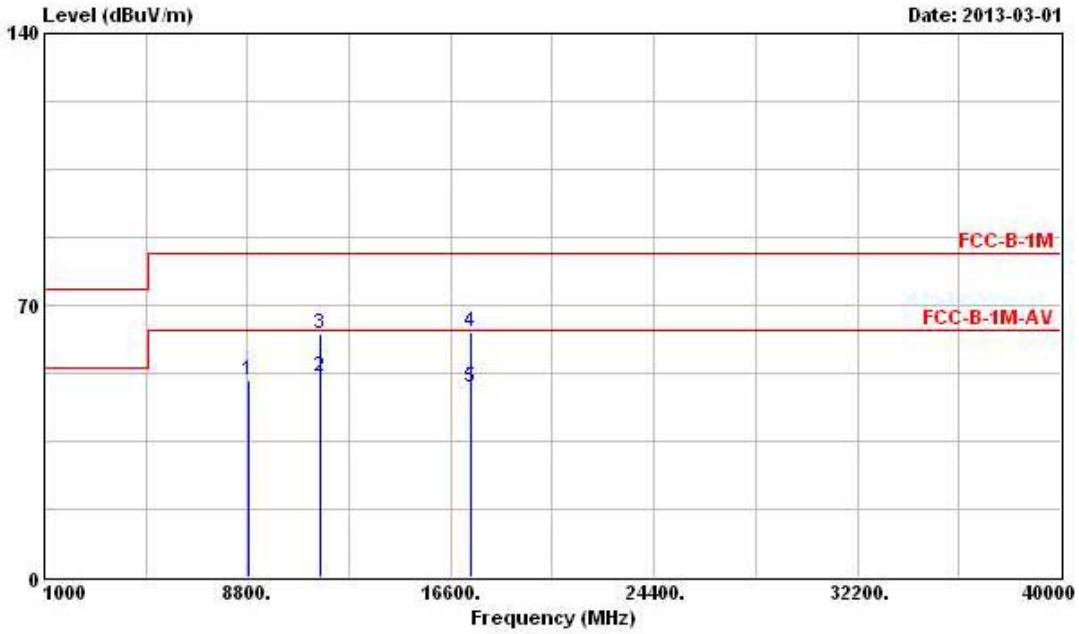
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (FX)**	F2
N_{TX}	1	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8568.000	49.40			43.10	35.64	5.99	35.33	PK	---	---
2	11570.000	74.72	-8.82	83.54	64.68	38.36	6.55	34.87	Peak	---	---
3	11570.000	62.17	-1.37	63.54	52.13	38.36	6.55	34.87	Average	---	---
4	17355.000	63.82			48.54	40.97	8.38	34.07	Peak	---	---
5	17355.000	51.00			35.72	40.97	8.38	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

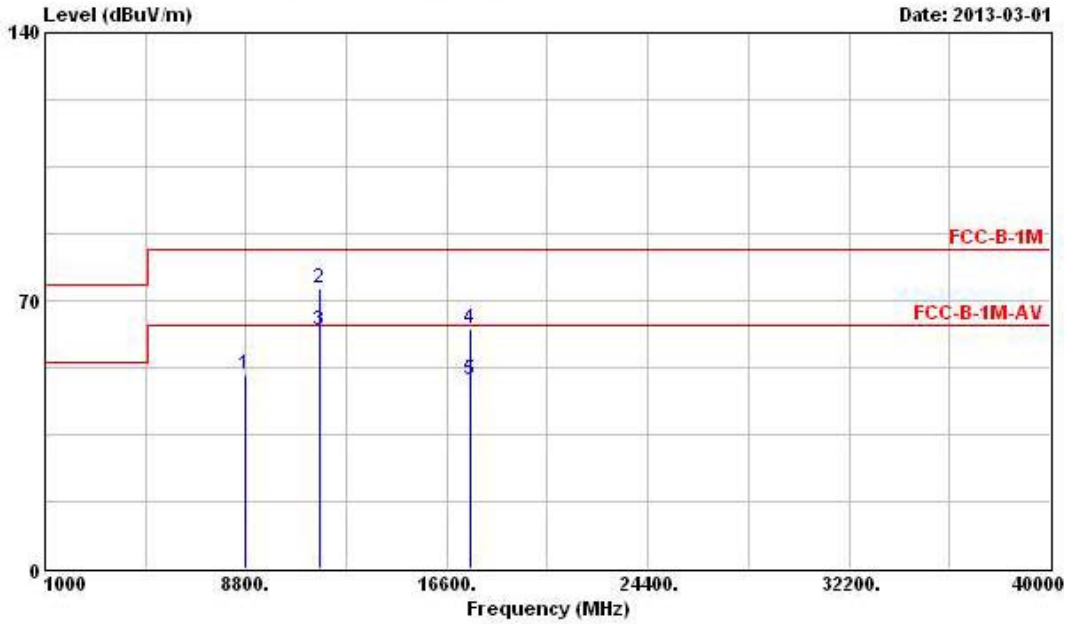
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (FX)**	F2
N_{TX}	1	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8820.000	50.71			43.99	35.79	6.31	35.38	PK	---	---
2	11570.000	51.81	-11.73	63.54	41.77	38.36	6.55	34.87	Average	---	---
3	11570.000	62.80	-20.74	83.54	52.76	38.36	6.55	34.87	Peak	---	---
4	17355.000	62.94			47.66	40.97	8.38	34.07	Peak	---	---
5	17355.000	48.75			33.47	40.97	8.38	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

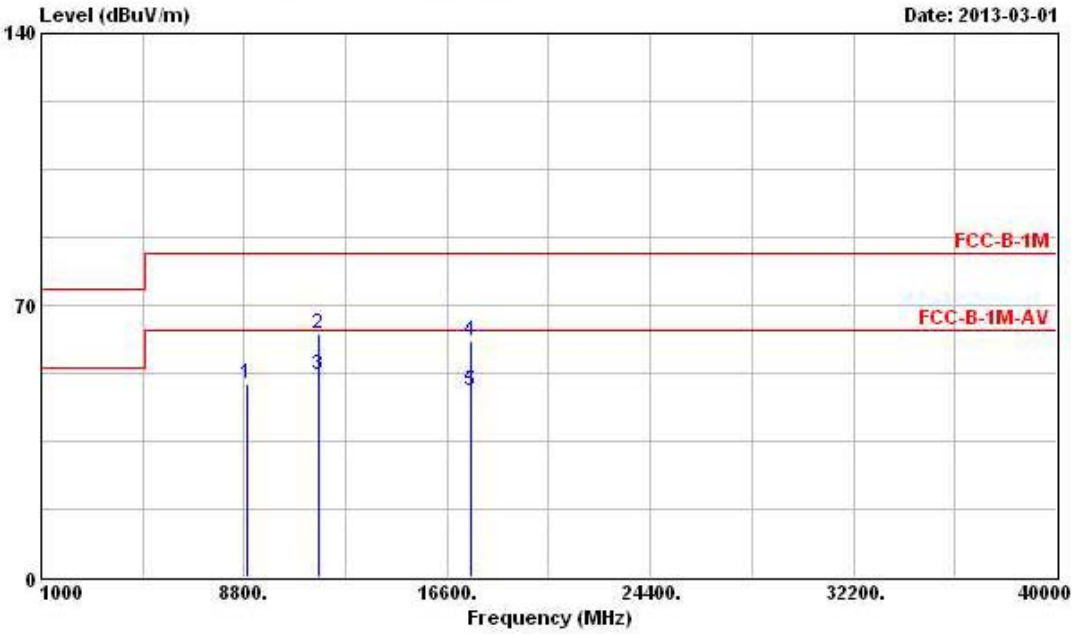
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	11a	**Test Freq. (FX)**	F3
N_{TX}	1	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8772.000	50.48			43.87	35.76	6.22	35.37	PK	---	---
2	11650.000	73.04	-10.50	83.54	63.03	38.41	6.51	34.91	Peak	---	---
3	@11650.000	61.94	-1.60	63.54	51.93	38.41	6.51	34.91	Average	---	---
4	17475.000	62.52			47.29	40.99	8.32	34.08	Peak	---	---
5	17475.000	49.35			34.12	40.99	8.32	34.08	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

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

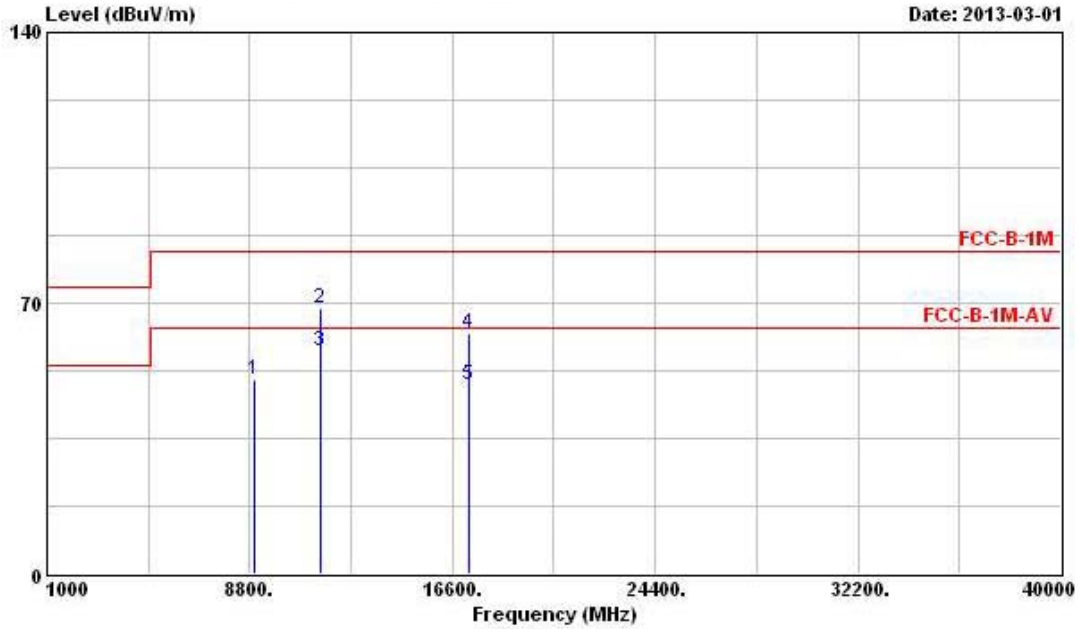


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8916.000	49.67			42.81	35.85	6.40	35.39	PK	---	---
2	11650.000	62.45	-21.09	83.54	52.44	38.41	6.51	34.91	Peak	---	---
3	11650.000	52.20	-11.34	63.54	42.19	38.41	6.51	34.91	Average	---	---
4	17475.000	60.65			45.42	40.99	8.32	34.08	Peak	---	---
5	17475.000	47.94			32.71	40.99	8.32	34.08	Average	---	---

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 shall (item 1, 4 and 5) 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 HT20

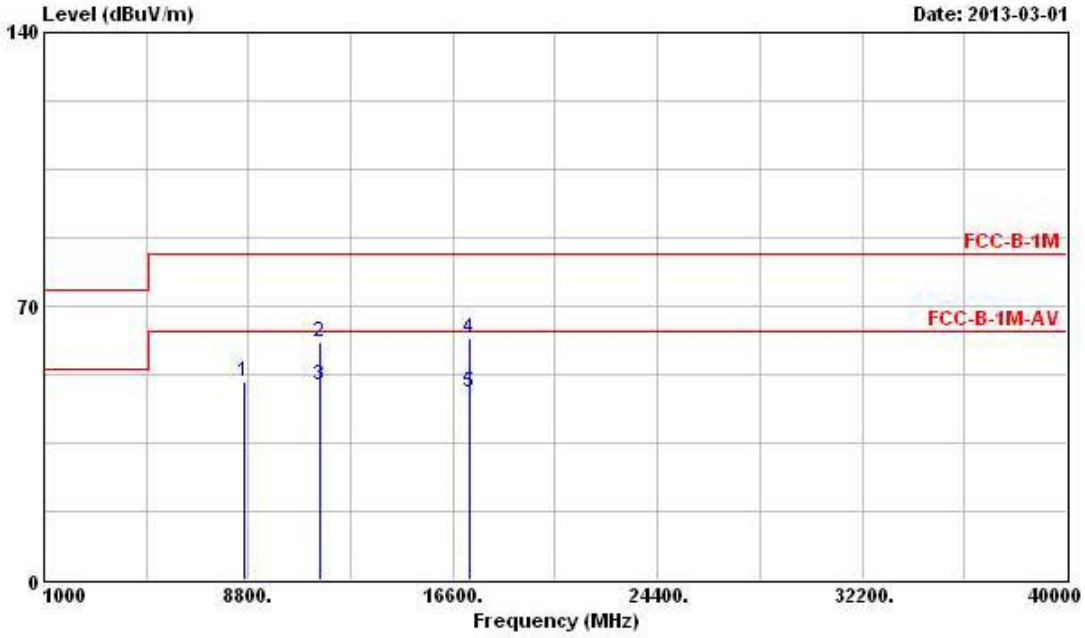
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (FX)**	F1
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8988.000	50.27			43.30	35.89	6.49	35.41	PK	---	---
2	11490.000	68.48	-15.06	83.54	58.42	38.29	6.60	34.83	Peak	---	---
3	11490.000	57.64	-5.90	63.54	47.58	38.29	6.60	34.83	Average	---	---
4	17235.000	62.37			47.05	40.95	8.44	34.07	Peak	---	---
5	17235.000	48.84			33.52	40.95	8.44	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

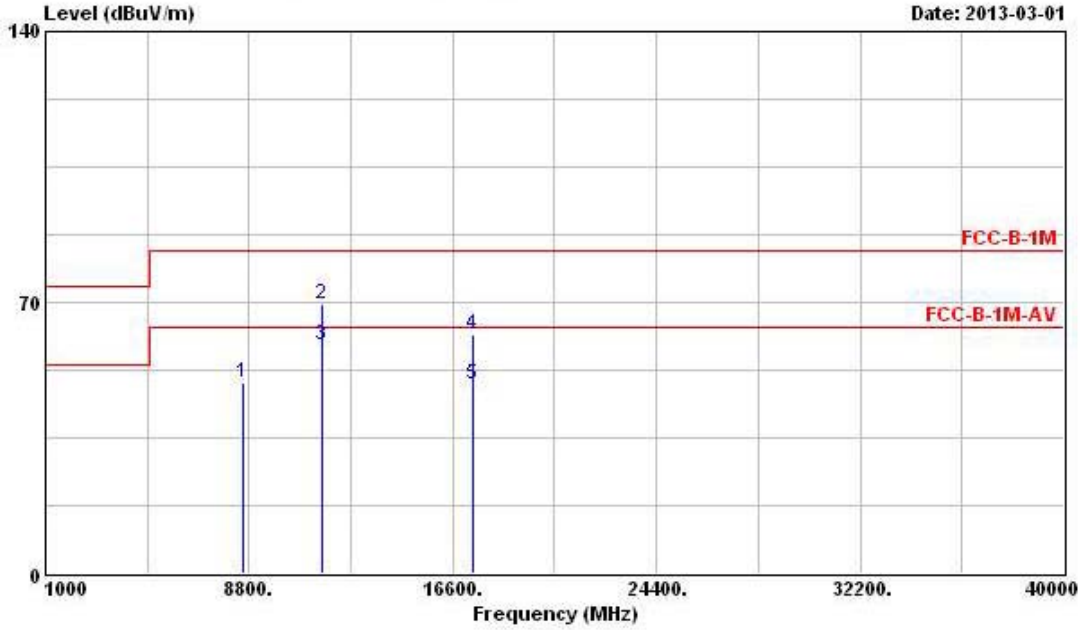
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (FX)**	F1
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8616.000	50.63			44.26	35.67	6.04	35.34	PK	---	---
2	11490.000	60.79	-22.75	83.54	50.73	38.29	6.60	34.83	Peak	---	---
3	11490.000	49.56	-13.98	63.54	39.50	38.29	6.60	34.83	Average	---	---
4	17235.000	61.72			46.40	40.95	8.44	34.07	Peak	---	---
5	17235.000	48.08			32.76	40.95	8.44	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

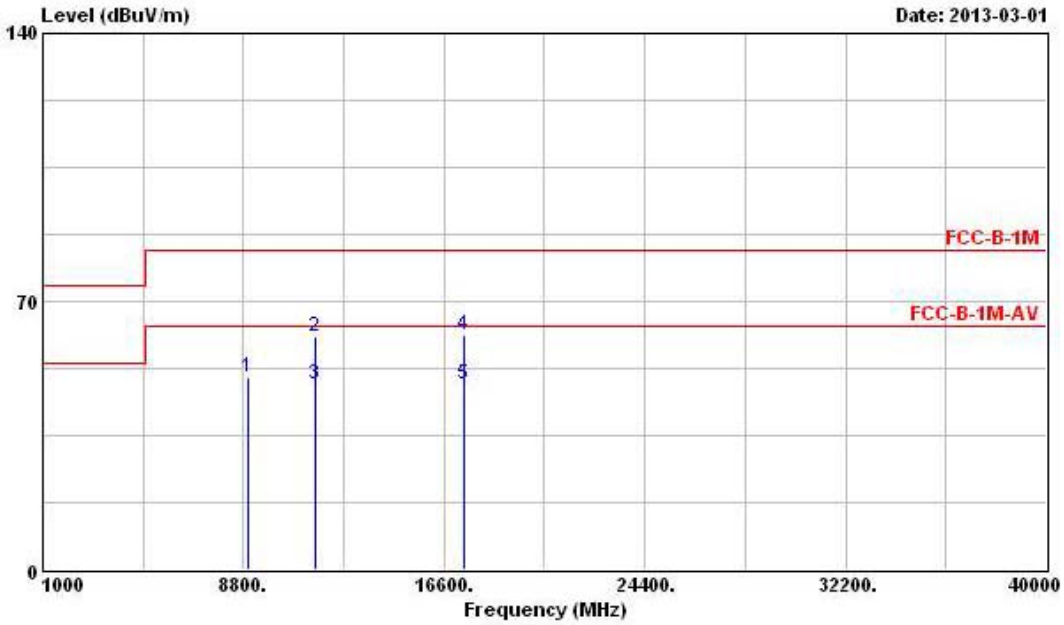
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (FX)**	F2
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8568.000	49.10			42.80	35.64	5.99	35.33	PK	---	---
2	11570.000	69.37	-14.17	83.54	59.33	38.36	6.55	34.87	Peak	---	---
3	11570.000	58.84	-4.70	63.54	48.80	38.36	6.55	34.87	Average	---	---
4	17355.000	61.56			46.28	40.97	8.38	34.07	Peak	---	---
5	17355.000	48.99			33.71	40.97	8.38	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

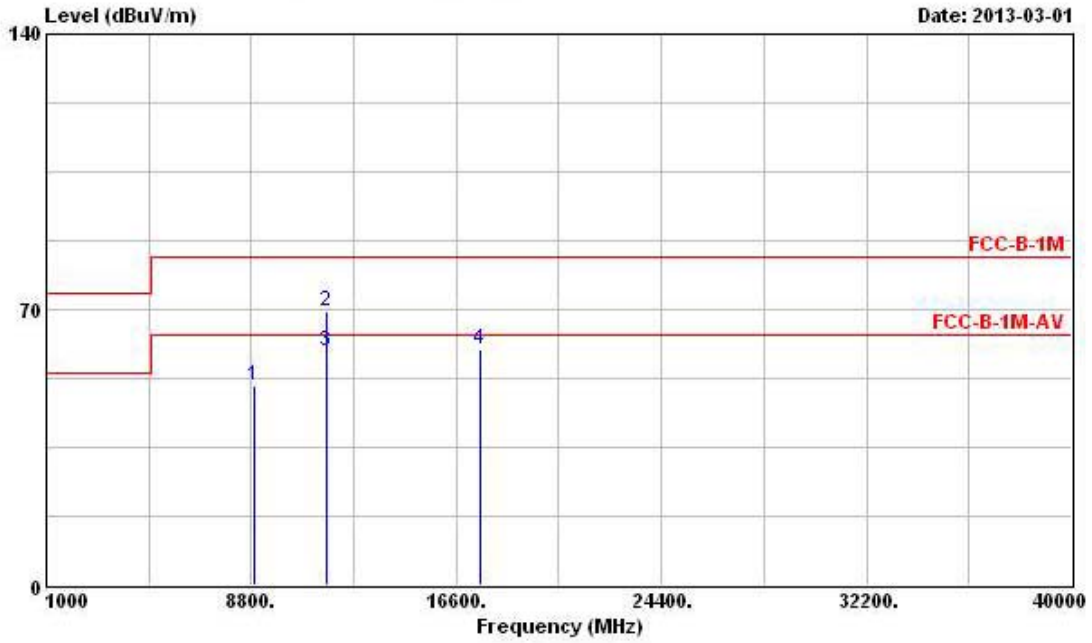
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (FX)**	F2
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8976.000	50.09			43.13	35.88	6.49	35.41	PK	---	---
2	11570.000	60.69	-22.85	83.54	50.65	38.36	6.55	34.87	Peak	---	---
3	11570.000	48.45	-15.09	63.54	38.41	38.36	6.55	34.87	Average	---	---
4	17355.000	61.17			45.89	40.97	8.38	34.07	Peak	---	---
5	17355.000	48.21			32.93	40.97	8.38	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

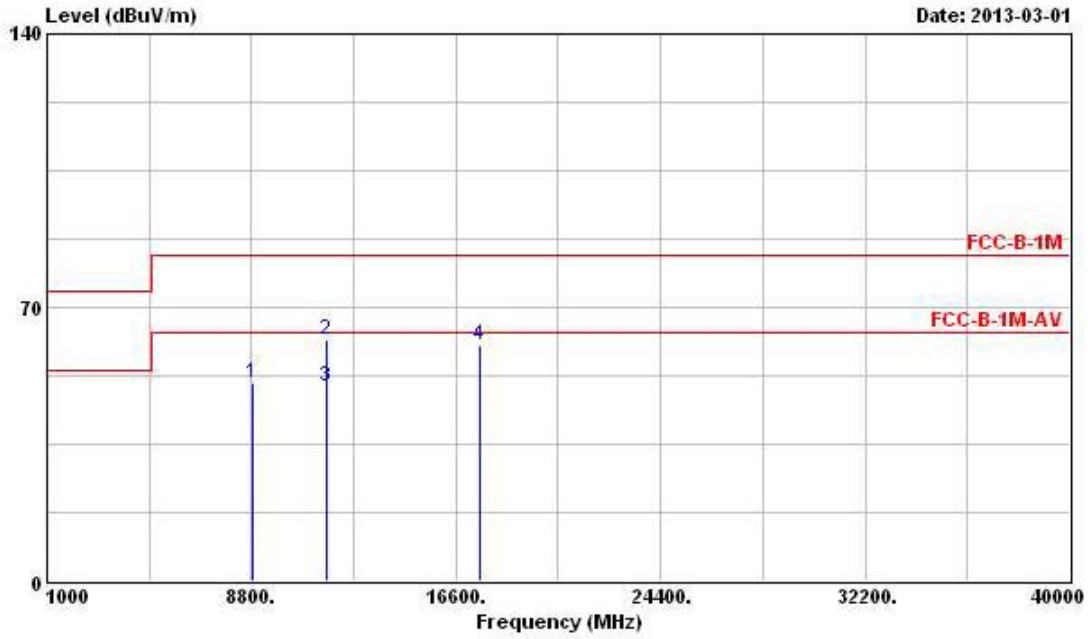
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (FX)**	F3
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8916.000	50.61			43.75	35.85	6.40	35.39	PK	---	---
2	11650.000	69.70	-13.84	83.54	59.69	38.41	6.51	34.91	Peak	---	---
3	11650.000	59.38	-4.16	63.54	49.37	38.41	6.51	34.91	Average	---	---
4	17475.000	60.08			44.85	40.99	8.32	34.08	PK	---	---

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 shall (item 1 and 4) be attenuated by at least 20 dB relative to the maximum measured in-band level.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT20	**Test Freq. (FX)**	F3
N_{TX}	2	**Polarization**	H

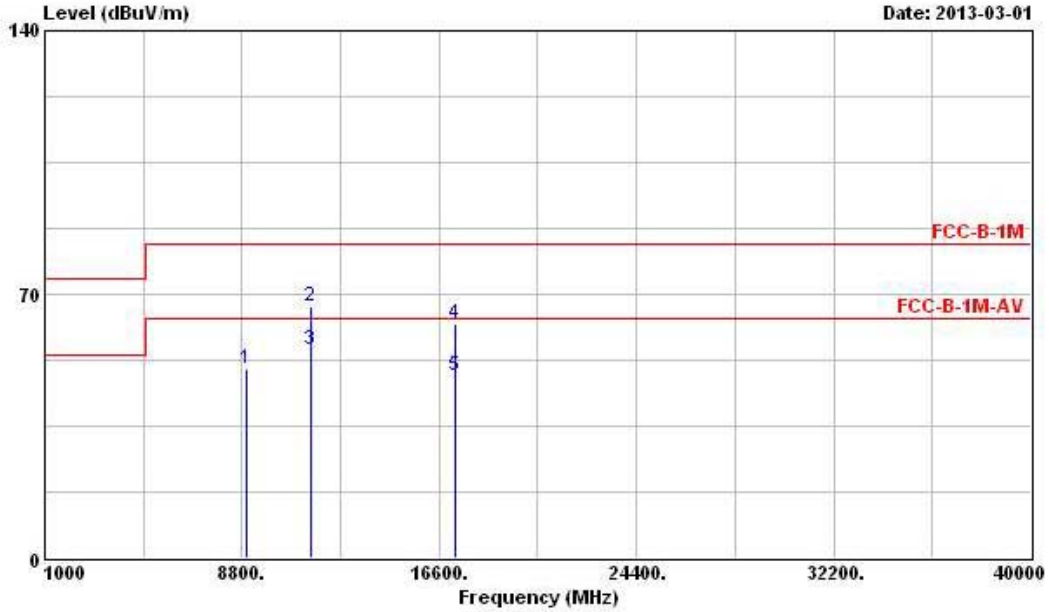


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8844.000	50.69			43.96	35.80	6.31	35.38	PK	---	---
2	11650.000	61.86	-21.68	83.54	51.85	38.41	6.51	34.91	Peak	---	---
3	11650.000	49.88	-13.66	63.54	39.87	38.41	6.51	34.91	Average	---	---
4	17475.000	60.38			45.15	40.99	8.32	34.08	PK	---	---

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 shall (item 1 and 4) 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 HT40

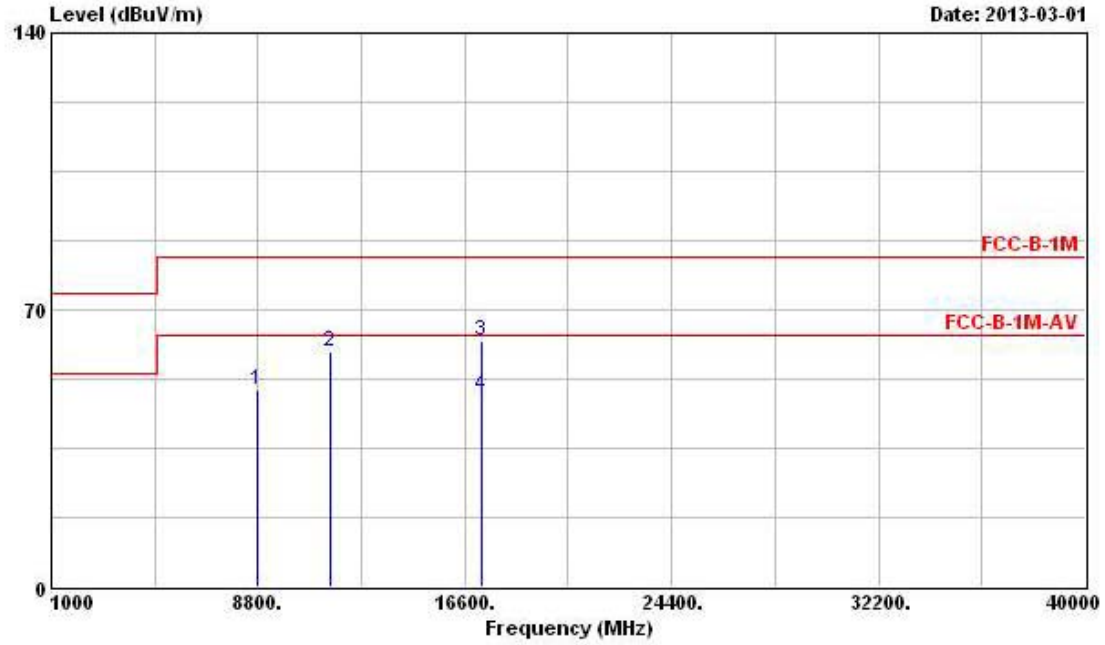
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (FX)**	F1'
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8976.000	50.37			43.41	35.88	6.49	35.41	PK	---	---
2	11510.000	66.56	-16.98	83.54	56.49	38.30	6.60	34.83	Peak	---	---
3	11510.000	55.12	-8.42	63.54	45.05	38.30	6.60	34.83	Average	---	---
4	17265.000	62.03			46.73	40.95	8.42	34.07	Peak	---	---
5	17265.000	48.46			33.16	40.95	8.42	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

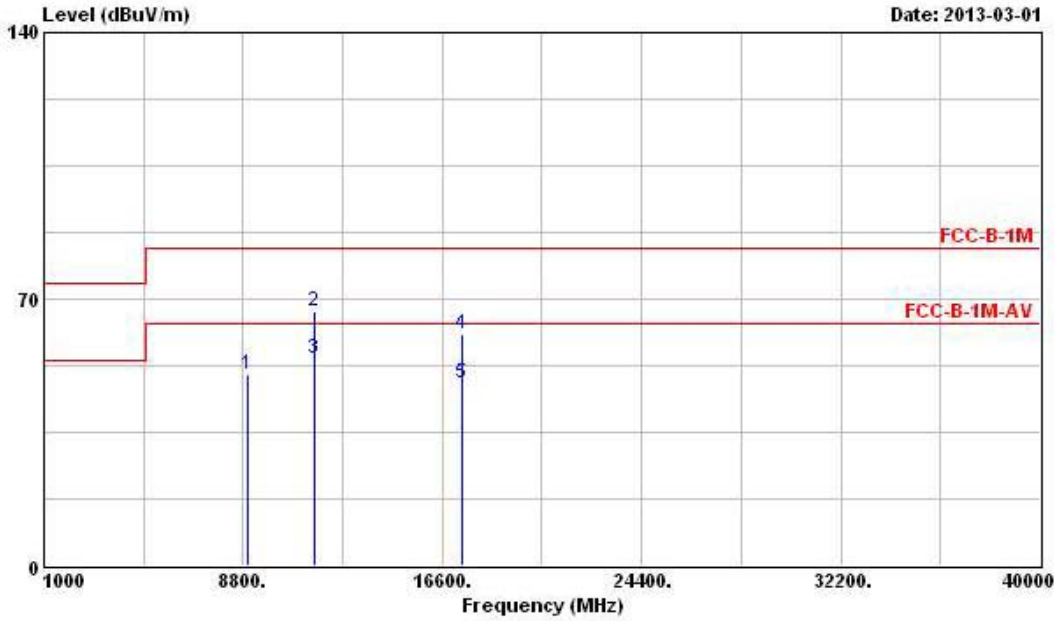
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (FX)**	F1'
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8772.000	49.56			42.95	35.76	6.22	35.37	PK	---	---
2	11510.000	59.63	-3.91	63.54	49.56	38.30	6.60	34.83	PK	---	---
3	17265.000	62.11			46.81	40.95	8.42	34.07	Peak	---	---
4	17265.000	48.38			33.08	40.95	8.42	34.07	Average	---	---

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 shall (item 1, 3 and 4) be attenuated by at least 20 dB relative to the maximum measured in-band level.

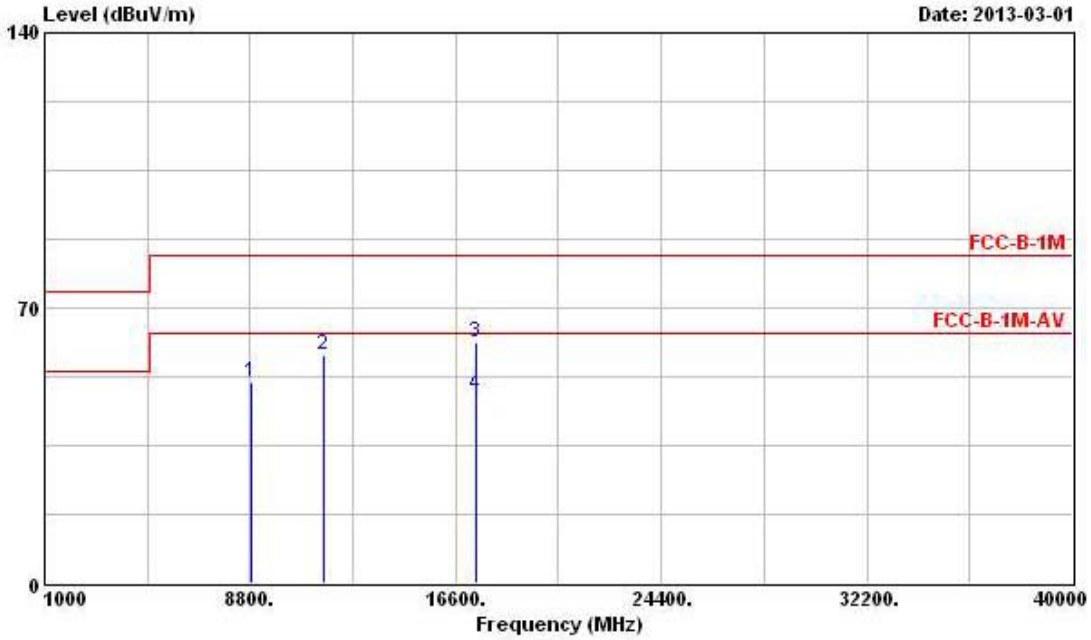
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (FX)**	F2'
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8976.000	50.14			43.18	35.88	6.49	35.41	PK	---	---
2	11590.000	66.78	-16.76	83.54	56.75	38.37	6.53	34.87	Peak	---	---
3	@11590.000	54.46	-9.08	63.54	44.43	38.37	6.53	34.87	Average	---	---
4	17385.000	61.01			45.74	40.98	8.36	34.07	Peak	---	---
5	17385.000	48.05			32.78	40.98	8.36	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	HT40	**Test Freq. (FX)**	F2'
N_{TX}	2	**Polarization**	H

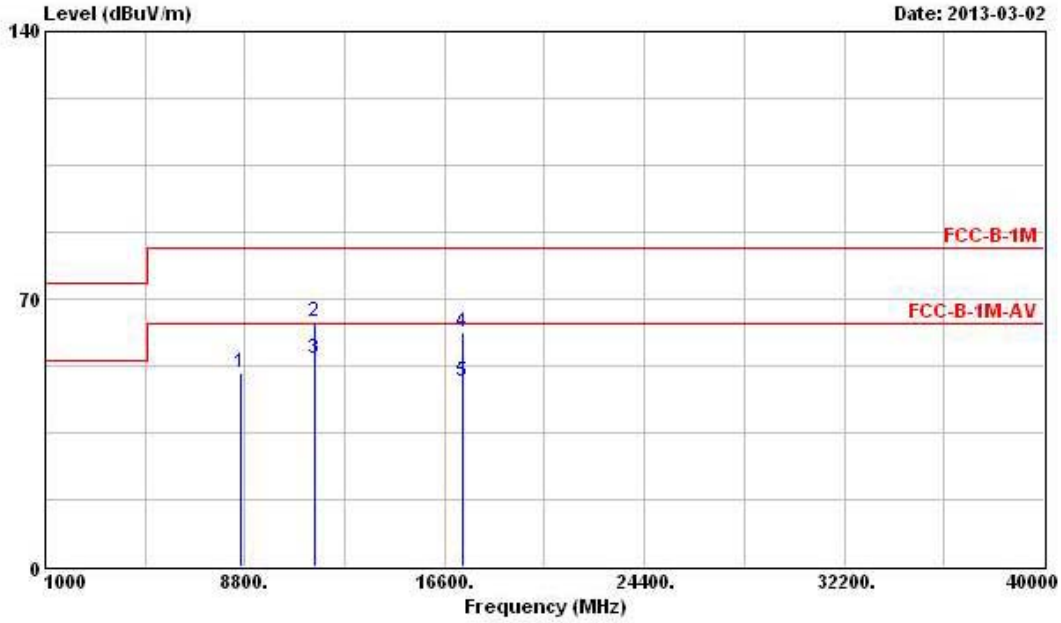


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8856.000	51.03			44.29	35.81	6.31	35.38	PK	---	---
2	11590.000	58.25	-5.29	63.54	48.22	38.37	6.53	34.87	PK	---	---
3	17385.000	61.15			45.88	40.98	8.36	34.07	Peak	---	---
4	17385.000	48.01			32.74	40.98	8.36	34.07	Average	---	---

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 shall (item 1, 3 and 4) 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 VHT80

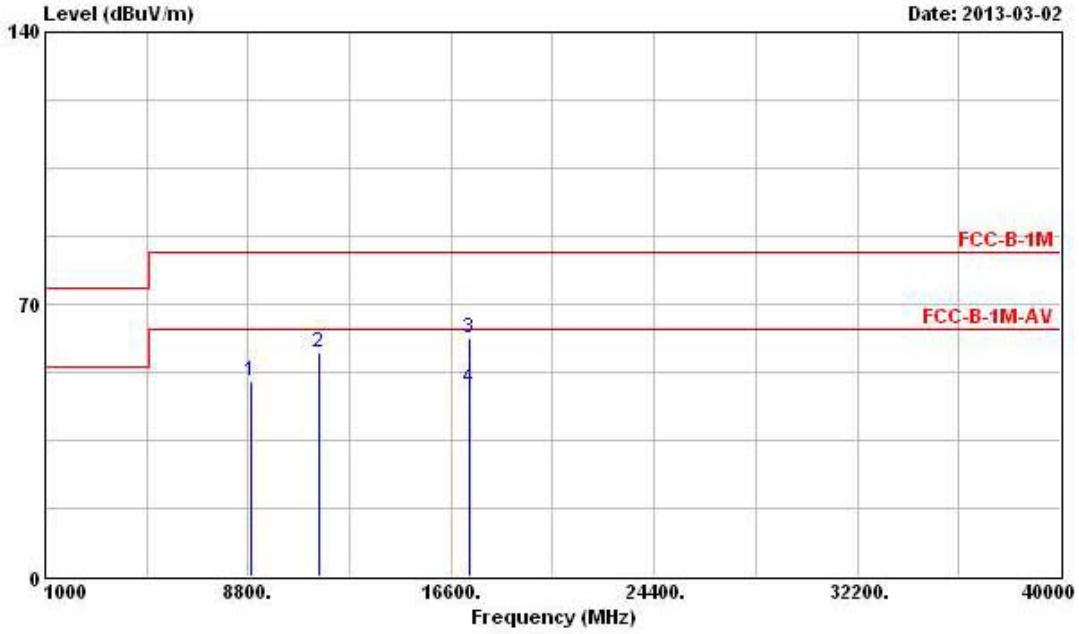
Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	VHT80	**Test Freq. (FX)**	F1"
N_{TX}	2	**Polarization**	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8664.000	50.60			44.12	35.70	6.13	35.35	PK	---	---
2	11550.000	64.03	-19.51	83.54	54.00	38.34	6.55	34.86	Peak	---	---
3	11550.000	54.30	-9.24	63.54	44.27	38.34	6.55	34.86	Average	---	---
4	17325.000	61.25			45.98	40.96	8.38	34.07	Peak	---	---
5	17325.000	48.41			33.14	40.96	8.38	34.07	Average	---	---

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 shall (item 1, 4 and 5) be attenuated by at least 20 dB relative to the maximum measured in-band level.

Transmitter Radiated Unwanted Emissions (Above 1GHz)			
Modulation Mode	VHT80	**Test Freq. (FX)**	F1"
N_{TX}	2	**Polarization**	H



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8916.000	50.21			43.35	35.85	6.40	35.39	PK	---	---
2	11550.000	57.60	-5.94	63.54	47.57	38.34	6.55	34.86	PK	---	---
3	17325.000	61.40			46.13	40.96	8.38	34.07	Peak	---	---
4	17325.000	48.34			33.07	40.96	8.38	34.07	Average	---	---

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 shall (item 1, 3 and 4) be attenuated by at least 20 dB relative to the maximum measured in-band level.

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz ~ 2.75GHz	Mar. 26, 2013	Conduction (CO04-HY)
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127-477	9kHz ~ 30MHz	Jan. 21, 2013	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz ~ 30MHz	Apr. 20, 2012	Conduction (CO04-HY)
RF Cable-CON	HUBER+SUHNER	RG213/U	CB049	9kHz ~ 30MHz	Nov. 09, 2012	Conduction (CO04-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP 30	100023/030	9KHz ~ 30GHz	Apr. 27, 2012	Conducted (TH01-HY)
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Jun. 19, 2012	Conducted (TH01-HY)
AC Power Source	G.W	APS-9102	EL920581	AC 0V ~ 300V	Jul. 02, 2012	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	-20 ~ 100℃	Nov. 21, 2012	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Jun. 26, 2012	Conducted (TH01-HY)
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	Feb. 02, 2013	Conducted (TH01-HY)
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	Feb. 02, 2013	Conducted (TH01-HY)
RF Cable-2m	HUBER+SUHNER	SUCOFLEX_104	SN 345675/4	1GHz ~ 26.5GHz	NA	Conducted (TH01-HY)
RF Cable-3m	HUBER+SUHNER	SUCOFLEX_104	SN 345669/4	1GHz ~ 26.5GHz	NA	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP40	100593	9kHz ~ 40GHz	Sep. 14, 2012	Radiation (03CH02-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	May 10, 2012	Radiation (03CH02-HY)
Amplifier	Agilent	8447D	2944A11146	100kHz ~ 1.3GHz	Jul. 23, 2012	Radiation (03CH02-HY)
Amplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	Aug. 10, 2012	Radiation (03CH02-HY)
Horn Antenna	ETS-LINDGREN	3117	00091920	1GHz ~ 18GHz	Nov. 16, 2012	Radiation (03CH02-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15GHz ~ 40GHz	Jan. 08, 2013	Radiation (03CH02-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	Nov. 10, 2012	Radiation (03CH02-HY)
RF Cable-high	SUHNER	SUCOFLEX106	03CH02-HY	1GHz ~ 40GHz	Mar. 06, 2012	Radiation (03CH02-HY)
Bilog Antenna	SCHAFFNER	CBL61128	2723	30MHz ~ 2GHz	Oct. 22, 2012	Radiation (03CH02-HY)
Turn Table	HD	DS 420	420/649/00	0~ 360 degree	N/A	Radiation (03CH02-HY)
Antenna Mast	HD	MA 240	240/559/00	1 ~ 4 m	N/A	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Loop Antenna	R&S	HFH2-Z2	860004/0001	9 kHz - 30 MHz	Jul. 03, 2012	Radiation (03CH02-HY)

Note: Calibration Interval of instruments listed above is two year.