

Report No.: FR341809AI

FCC Test Report

Equipment : 802.11 a/n/ac Module

Brand Name : Senao

Model No. : PCE4550AH

FCC ID : U2M-PCE4550AH

Standard : 47 CFR FCC Part 15.247

Operating Band : 5725 MHz - 5850 MHz

FCC Classification: DTS

Applicant : Senao Networks, Inc.

Manufacturer 3F, No. 529, Chung Cheng Rd., Hsintien, Taipei, Taiwan

The product sample received on Apr. 18, 2013 and completely tested on Apr. 25, 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: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

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TEL: 886-3-3273456 FAX: 886-3-3270973

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Summary of Test Result

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		Conforr	mance Test Specifications		
Report Ref. Std. Clause Clause		Description	Measured	Limit	Result
1.1.2			Antenna connector mechanism complied	FCC 15.203	Complied
3.1	3.1 15.207 AC Power-line Conducted Emissions		[dBuV]:0.4786490MHz 34.01 (Margin 12.35dB) – AV 37.14 (Margin 19.22dB) - QP	FCC 15.207	Complied
3.2	3.2 15.247(a) 6dB Bandwidth		6dB Bandwidth [MHz] 20M:17.57 / 40M:36.35 80M: 75.83	≥500kHz	Complied
3.3	3.3 15.247(b) RF Output Power (Maximum Peak Conducted Output Power)		Power [dBm]:29.92	Power [dBm]:30	Complied
3.4	3.4 15.247(e) Power Spectral Density PSD [PSD [dBm/3kHz]:1.39	PSD [dBm/3kHz]:8	Complied
3.5	3.6 15.247(d) Transmitter Radiated Unwanted Emissions		Non-Restricted Bands: 5723.8MHz:22.74dB	Non-Restricted Bands: > 20 dBc Restricted Bands: FCC 15.209	Complied
3.6			Restricted Bands [dBuV/m at 3m]:11570.00MHz 69.09 (Margin 4.91dB) - PK 52.96 (Margin 1.04dB) - AV	Non-Restricted Bands: > 20 dBc Restricted Bands: FCC 15.209	Complied

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Revision History

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Rev. 01		
	Initial issue of report	May 09, 2013

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1 General Description

1.1 Information

1.1.1 RF General Information

	RF General Information									
Frequency Range (MHz)		Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	RF Output Power (dBm)	Co-location				
5725-5850	а	5745-5825	149-165 [5]	3	29.92	N/A				
5725-5850	n(HT20)	5745-5825	149-165 [5]	3	29.91	N/A				
5725-5850	n(HT40)	5755-5795	151-159 [2]	3	29.84	N/A				
5725-5850	ac(VHT20)	5745-5825	149-165 [5]	3	29.87	N/A				
5725-5850	ac(VHT40)	5755-5795	151-159 [2]	3	29.80	N/A				
5725-5850	ac(VHT80)	5775	155 [1]	3	29.89	N/A				

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- 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						
	Equ	quipment placed on the market without antennas						
	Inte	gral 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.						
X	Exte	ernal antenna (dedicated antennas)						
		Single power level with corresponding antenna(s).						
	×	Multiple power level and corresponding antenna(s).						
	M	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)						

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Connector	Gain (dBi)					
UFL	3					
UFL	5.5					
3 Integral PIFA N/A 6						
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1.1.3 Type of EUT

	Identify EUT				
EU	Γ Serial Number	N/A			
Pre	sentation of Equipment	☐ Production ; ☐ Prototype			
		Type of EUT			
	Stand-alone				
	Combined (EUT where the	ne radio part is fully integrated within another device)			
	Combined Equipment - Brand Name / Model No.:				
\boxtimes	Plug-in radio (EUT intended for a variety of host systems)				
	Host System - Brand Name / Model No.:				
	Other:				

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1.1.4 Test Signal Duty Cycle

	Operated Mode for W	orst 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)			
×	98.96% - IEEE 802.11a	0.09			
×	98.32% - IEEE 802.11n (HT20)	0.08			
X	98.83% - IEEE 802.11n (HT40)	0.24			
X	99.37% - IEEE 802.11n (VHT20)	0.08			
X	98.79% - IEEE 802.11n (VHT40)	0.21			
M	98.21% - IEEE 802.11ac (VHT80)	0.44			

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1.1.5 EUT Operational Condition

Supply Voltage	AC mains	×	DC	
Type of DC Source	Internal DC supply	M	External DC adapter	Battery

1.2 Accessories and Support Equipment

	Accessories						
No.	Equipment	Brand Name	Model Name	P/N	Spec.		

	Support Equipment							
No.	Equipment	Model Name	Serial No.					
1	Notebook	DELL	E5420	DoC				
2	Extender card Senao		adapter	NA				
3	Carrier board	Senao	IAP6200AG-0 0.2 LFP	NA				

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 v03

FCC KDB 662911 v01r02

FCC KDB 412172 v01

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AC Conduction

Radiated Emission

1.4 Testing Location Information

	Testing Location									
D	HWA YA ADD : No. 52, Hwa Ya 1 st 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			on	T	est Site No.	Test Engineer	Test Environment	Test Date		
RF Conducted		ed		TH01-HY	lan Du	22.3°C / 62%	Apr.19 ~ Apr. 25, 2013			

Bill Hsiao

Sam Chang

21°C / 52%

25°C / 65%

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Apr. 25, 2013

Apr. 18 ~ Apr. 23, 2013

Test site registered number [643075] with FCC
Test site registered number [4086B-1] with IC

CO04-HY

03CH05-HY

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)

M	easurement 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

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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				
11a	3	6-54Mbps	6 Mbps				
HT20	3	M0-23	MO				
HT40	3	M0-23	MO				
VHT20	3	M0-9	MO				
VHT40	3	M0-9	MO				
VHT80	3	M0-9	MO				

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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.

The Worst Case Power Setting Parameter 2.2

The W	orst (Case Powe	er Setting P	arameter (57	′25-5850MH	z band)	
Operating Mode	1						
Test Software Version	AH-a	rt2 V4_9_5	51_b				
		Test Frequency (MHz)					
Modulation Mode	N _{TX}		NCB: 20MI	Ηz	NCB:	40MHz	NCB: 80MHz
		5745	5785	5825	5755	5795	5775
11a,6-54Mbps	3	23	23	23	-	-	-
HT20,M0-23	3	23	23	23	-	-	-
HT40,M0-23	3	-	-	-	23	23	1
VHT20,M0-9	3	23	23	23	-	-	-
VHT40,M0-9	3	-	-	-	23	23	-
VHT80,M0-9	3	-	-	-	-	-	17.5

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The W	orst (Case Powe	r Setting P	arameter (57	25-5850MH	z band)	
Operating Mode	3						
Test Software Version	AH-a	art2 V4_9_5	1_b				
				Test Fred	quency (MH	z)	
Modulation Mode	N _{TX}		NCB: 20M	łz	NCB:	NCB: 40MHz	
		5745	5785	5825	5755	5795	5775
11a,6-54Mbps	3	19.5	19.5	19.5	-	-	-
HT20,M0-23	3	19.5	19.5	19.5	-	-	-
HT40,M0-23	3	-	-	-	19.5	20.5	-
VHT20,M0-9	3	19.5	19.5	19.5	-	-	-
VHT40,M0-9	3	ı	-	-	19.5	20.5	-
VHT80,M0-9	3	-	-	-	-	-	17.5

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2.3 The Worst Case Measurement Configuration

TI	ne Worst Case Mode for Following Conformance Tests			
Tests Item	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	DC Power & Radio link (WLAN), Ant 1			
2	DC Power & Radio link (WLAN), Ant 2			
3	DC Power & Radio link (WLAN), Ant 3			

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Th	The Worst Case Mode for Following Conformance Tests					
Tests Item	RF Output Power					
Test Condition	Conducted measurement at transmit chains					
Modulation Mode	Modulation Mode 11a, HT20, HT40, VHT20, VHT40, VHT80					
Operating Mode	Operating Mode Description					
1	DC Power & Radio link (WLAN), Dipole antenna					
3	DC Power & Radio link (WLAN), PIFA antenna					

Th	The Worst Case Mode for Following Conformance Tests					
Tests Item	Power Spectral Density, 6 dB Bandwidth					
Test Condition Conducted measurement at transmit chains						
Modulation Mode	Modulation Mode 11a, HT20, HT40, VHT80					
Operating Mode	Operating Mode Description					
1	DC Power & Radio link (WLAN), Ant 1					
2	DC Power & Radio link (WLAN), Ant 2					
3	DC Power & Radio link (WLAN), Ant 3					

Note

802.11n/ac modulation modes consist of HT20, HT40, VHT20, VHT40 and VHT80. After pretested, HT20, HT40, and VHT80 were the worst cases and were selected for final test.

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Th	e Worst Case Mode for Fo	ollowing Conformance Te	sts			
Tests Item		Fransmitter Radiated Unwanted Emissions Fransmitter Radiated Bandedge Emissions				
Test Condition	regardless of spatial multip	Radiated measurement f EUT consist of multiple antenna assembly (multiple antenna are used in EUT egardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.				
	☐ EUT will be placed in	fixed position.				
User Position	•	EUT will be placed in mobile position and operating multiple positions. EUT shall be performed two orthogonal planes. The worst planes is X.				
	EUT will be operating multiple positions. The dipole antenna of EUT was pre-tested on the positioned of each 3 axis. The worst plane is Y.					
Operating Mode< 1GHz		o link (WLAN), Ant 1				
		o link (WLAN), Ant 2				
	☑ 3. DC Power & Radio link (WLAN), Ant 3					
Modulation Mode	11a, HT20, HT40, VHT80					
	X Plane Y Plane Z Plane					
Orthogonal Planes of EUT						

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Note:

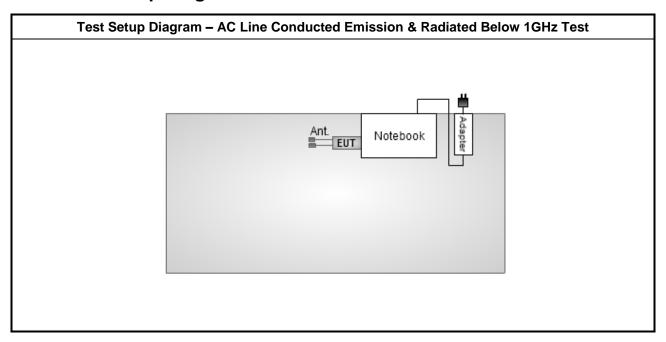
802.11n/ac modulation modes consist of HT20, HT40, VHT20, VHT40 and VHT80. After pretested, HT20, HT40, and VHT80 were the worst cases and were selected for final test.

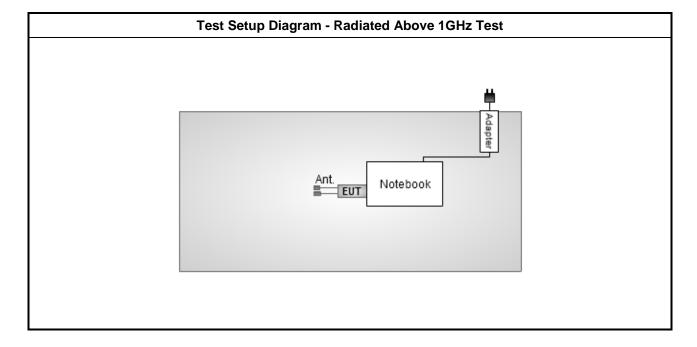
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2.4 Test Setup Diagram





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3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

line Conducted Emissions L	
Quasi-Peak	Average
66 – 56 *	56 – 46 *
56	46
60	50
	66 – 56 * 56

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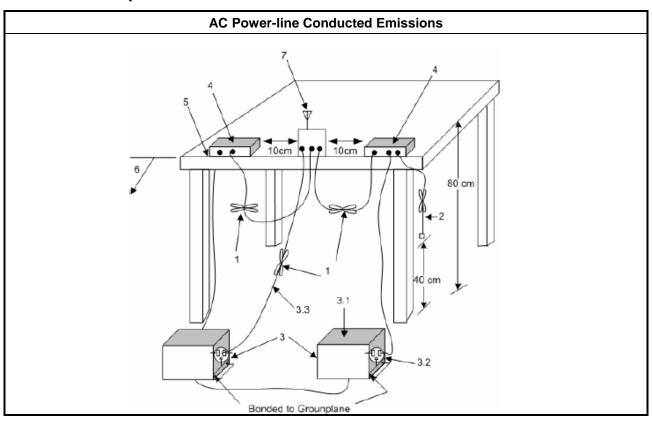
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

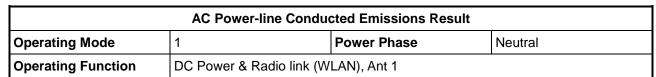
3.1.4 Test Setup



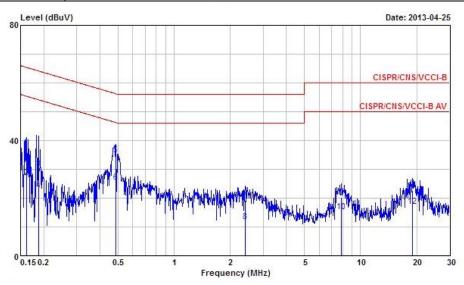
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3.1.5 Test Result of AC Power-line Conducted Emissions



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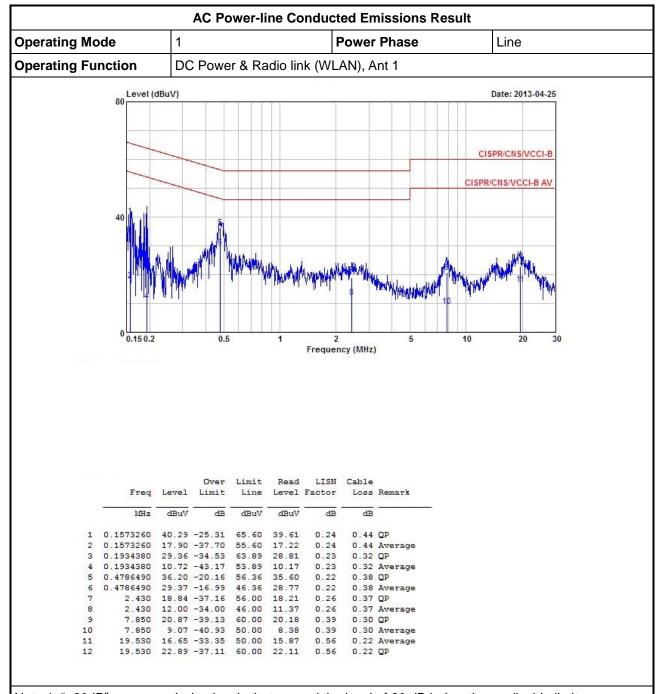
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	-
1	0.1615500	37.78	-27.60	65.38	37.25	0.11	0.42	QP
2	0.1615500	27.07	-28.31	55.38	26.54	0.11	0.42	Average
3	0.1873850	30.21	-33.94	64.15	29.76	0.11	0.34	QP
4	0.1873850	22.69	-31.46	54.15	22.24	0.11	0.34	Average
5	0.4863180	35.06	-21.17	56.23	34.58	0.10	0.38	QP
6	0.4863180	25.60	-20.63	46.23	25.12	0.10	0.38	Average
7	2.410	19.30	-36.70	56.00	18.79	0.14	0.37	QP
8	2.410	11.73	-34.27	46.00	11.22	0.14	0.37	Average
9	7.850	20.25	-39.75	60.00	19.73	0.22	0.30	QP
10	7.850	15.28	-34.72	50.00	14.76	0.22	0.30	Average
11	18.920	22.68	-37.32	60.00	22.14	0.30	0.24	QP
12	18.920	17.02	-32.98	50.00	16.48	0.30	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.)

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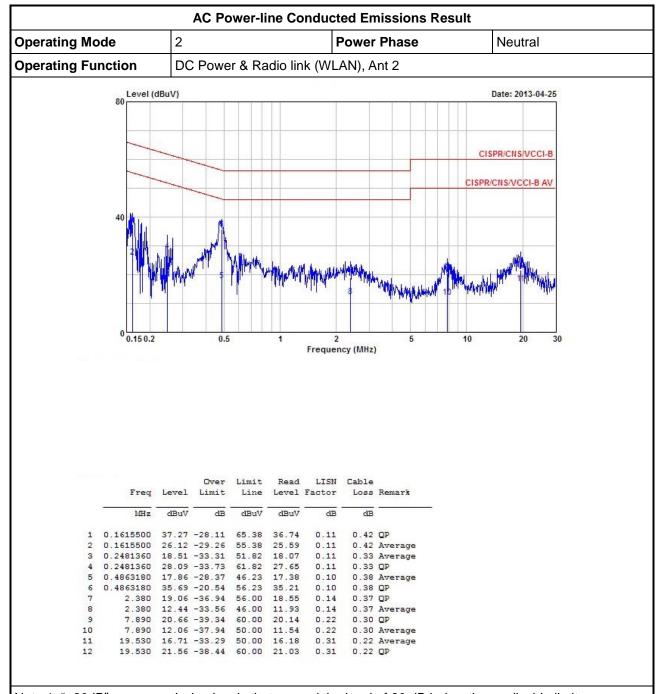


Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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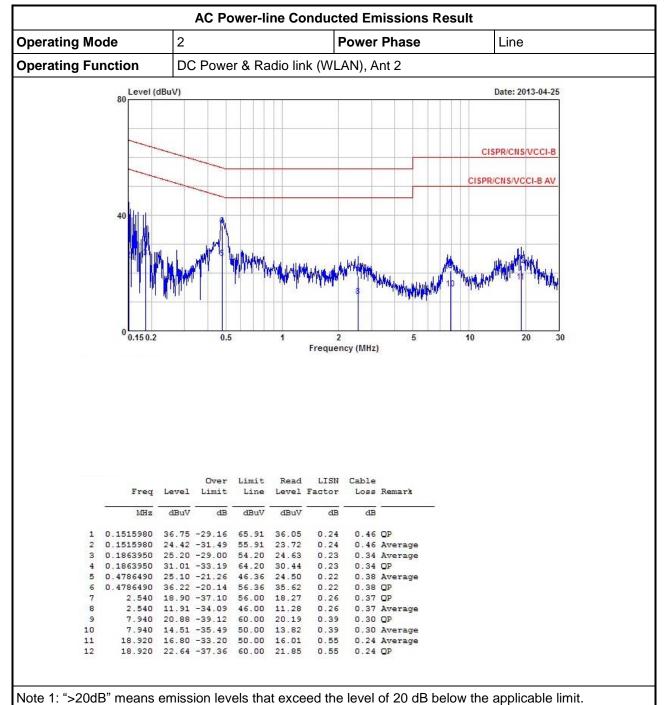


Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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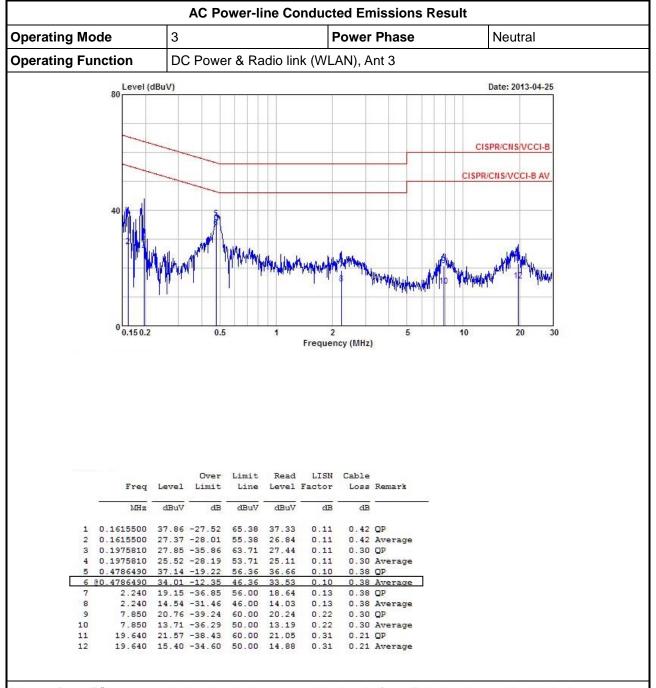
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Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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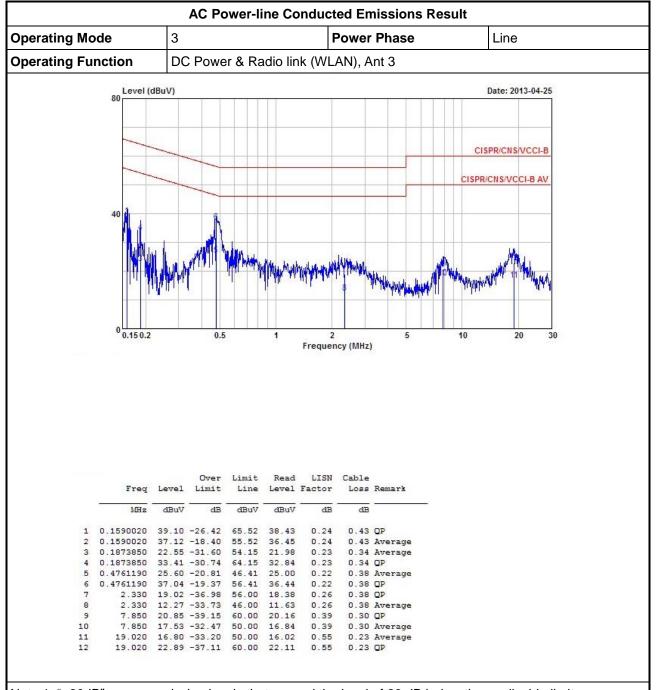


Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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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.)

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3.2 6dB Bandwidth

3.2.1 6dB Bandwidth Limit

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

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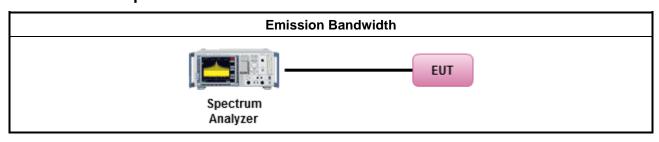
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

			Test Method						
\boxtimes	For	the e	mission bandwidth shall be measured using one of the options below:						
	\boxtimes	Ref	er as FCC KDB 558074 v03, clause 8.1 Option 1 for 6 dB bandwidth measurement.						
		Ref	er as FCC KDB 558074 v03, clause 8.2 Option 2 for 6 dB bandwidth measurement.						
		Ref	er as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.						
\boxtimes	For	or 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.						
	\boxtimes	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.						
		\boxtimes	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



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3.2.5 Test Result of Emission Bandwidth

Operatin	g Mod	е	1								
			Em	ission Ba	andwidth	Result					
Cond	ition				Emis	sion Bar	ndwidth (MHz)			
Maria de de co		F		99% Ba	ndwidth			6dB Ba	ndwidth		
Modulation Mode	N _{TX}	Freq. (MHz)	Chain- Port 1	Chain- Port 2	Chain- Port 3	Chain- Port 4	Chain- Port 1	Chain- Port 2	Chain- Port 3	Chain Port 4	
11a	3	5745	17.60	20.14	17.37	-	16.29	16.06	16.29	-	
11a	3	5785	17.37	19.10	17.37	-	16.29	16.35	16.06	-	
11a	3	5825	17.37	18.23	17.31	-	16.29	16.29	16.29	-	
HT20	3	5745	18.81	20.72	18.81	-	17.28	17.57	17.57	-	
HT20	3	5785	18.47	19.57	19.35	-	17.57	16.70	16.70	-	
HT20	3	5825	18.29	18.64	18.29	-	16.52	16.93	17.57	-	
HT40	3	5755	37.74	38.32	37.63	-	36.06	35.13	36.06	-	
HT40	3	5795	37.51	37.97	37.40	-	36.29	36.29	35.71	-	
VHT80	3	5775	78.03	78.26	77.80	-	73.04	75.83	75.83	-	
Lin			N/A ≥500 kHz								
Res		Complied									

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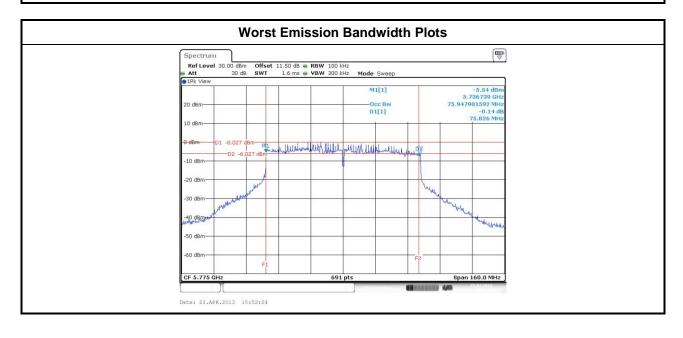


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Operating Mode 3 **Emission Bandwidth Result** Condition **Emission Bandwidth (MHz)** 99% Bandwidth 6dB Bandwidth Modulation Freq. \textbf{N}_{TX} Chain-Chain-Chain-Chain-Chain-Chain-Chain-Chain-Mode (MHz) Port 1 Port 2 Port 3 Port 4 Port 1 Port 2 Port 3 Port 4 11a 3 5745 17.06 17.24 16.98 16.29 16.35 16.35 11a 3 17.15 16.29 5785 17.06 16.93 16.35 16.35 3 17.02 11a 5825 16.98 16.93 16.12 16.35 16.29 HT20 3 5745 18.02 17.93 18.10 16.81 17.57 17.33 3 5785 17.57 HT20 18.10 18.10 18.10 _ 16.93 17.57 _ 3 HT20 5825 18.10 18.02 17.33 17.33 17.57 18.06 _ HT40 3 5755 37.42 37.60 37.25 35.71 36.35 35.71 HT40 3 5795 37.34 37.25 37.16 35.71 35.13 36.06 3 VHT80 5775 78.26 77.80 73.04 75.83 78.03 75.83 Limit N/A ≥500 kHz Result Complied Note 1: N_{TX} = Number of Transmit Chains

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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 (for ac(VHT80) only)								
☑ 5725-5850 MHz Band:								
☐ If $G_{TX} \le 6$ dBi, then $P_{Out} \le 30$ 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:								
Point-to-multipoint systems (P2M): P _{eirp} ≤ 36 dBm (4 W)								
☐ Point-to-point systems (P2P): N/A								
Pout = maximum peak conducted output power or maximum conducted output power in dBm, GTX = the maximum transmitting antenna directional gain in dBi. Peirp = e.i.r.p. Power in dBm.								

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3.3.2 Measuring Instruments

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

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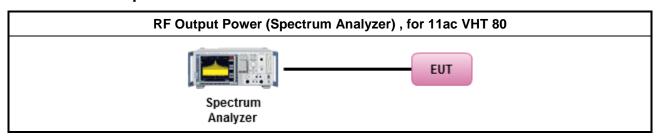
3.3.3 Test Procedures

		Test Method
\boxtimes	Max	imum Peak Conducted Output Power
		Refer as FCC KDB 558074 v03, clause 9.1.1 (RBW ≥ DTS BW).
	\boxtimes	Refer as FCC KDB 558074 v03, clause 9.1.2 (Integrated band power method). For 11ac VHT80 mode
	\boxtimes	Refer as FCC KDB 558074 v03, clause 9.1.3 (Peak power meter) For all modes except 11ac VHT80
\boxtimes	Max	imum Conducted Output Power
		Refer as FCC KDB 558074 v03, clause 9.2.1.2 Method AVGSA-1 (spectral trace averaging).
		Refer as FCC KDB 558074 v03, clause 9.2.1.3 Method AVGSA-1 Alt. (slow sweep speed)
		Refer as FCC KDB 558074 v03, clause 9.2.1.4 Method AVGSA-2 (spectral trace averaging).
	\boxtimes	Refer as FCC KDB 558074 v03, clause 9.2.1.5 Method AVGSA-2 Alt. (slow sweep speed) For 11ac VHT 80 mode
	RF	power meter and average over on/off periods with duty factor or gated trigger
	\boxtimes	Refer as FCC KDB 558074 v03, clause 9.2.2 Method AVGPM-G (using a gated RF average power meter)
		For all modes except 11ac VHT80.
\boxtimes	For	conducted measurement.
	Ш	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.
	\boxtimes	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: $P_{total} = P_1 + P_2 + \ldots + P_n \\ \text{(calculated in linear unit [mW] and transfer to log unit [dBm])} \\ \text{EIRP}_{total} = P_{total} + DG$

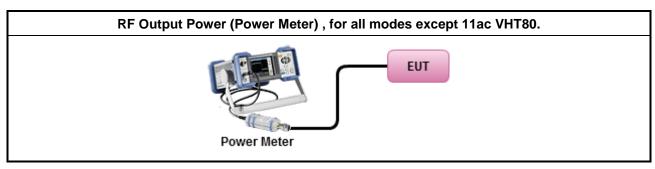
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3.3.4 Test Setup



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3.3.5 Directional Gain for Power Measurement

Operating Mode		1			
	Dire	ectional Gain (D	G) Result		
Transmit Chains No	٠.	1	2	3	-
Maximum G _{ANT} (dBi)	3	3	3	-
Modulation Mode	DG (dBi)	N _{TX}	N _{SS}	STBC	Array Gain (dB)
11a,6-54Mbps	3	3	1	-	-
HT20,M0-23	3	3	1	-	-
HT40,M0-23	3	3	1	-	-
VHT20,M0-9	3	3	1	-	-
VHT40,M0-9	3	3	1	-	-
VHT80,M0-9	3	3	1	-	-

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- 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} +... + 10^{GN/20})² /N_{TX}]

 All transmit signals are completely uncorrelated, Directional Gain = 10 log[(10^{G1/10} +... + 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} ≤ 4;

Array Gain = 0 dB (i.e., no array gain) for channel widths \geq 40 MHz for any N_{TX};

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Operating Mode		3									
	Directional Gain (DG) Result										
Transmit Chains No.		1	2	3	-						
Maximum G _{ANT} (dBi)		6	6	6	-						
Modulation Mode	DG (dBi)	N _{TX}	N _{ss}	STBC	Array Gain (dB)						
11a,6-54Mbps	6	3	1	-	-						
HT20,M0-23	6	3	1	-	-						
HT40,M0-23	6	3	1	-	-						
VHT20,M0-9	6	3	1	-	-						
VHT40,M0-9	6	3	1	-	-						
VHT80,M0-9	6	3	1	-	-						

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- 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} +... + 10^{GN/20})² /N_{TX}]

 All transmit signals are completely uncorrelated, Directional Gain = 10 log[(10^{G1/10} +... + 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} ≤ 4;

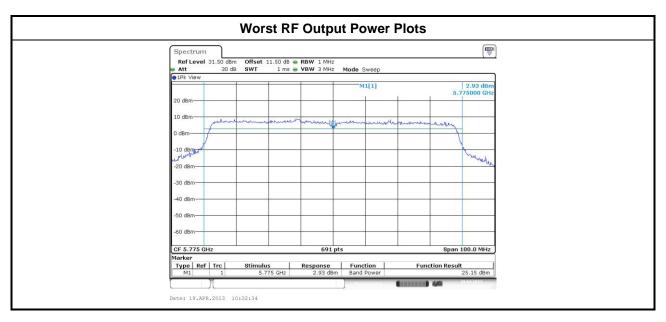
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{TX};

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3.3.6 Test Result of Maximum Peak Conducted Output Power

Operation	ng M	ode	1									
Maximum Peak Conducted Output Power Result												
Cond	ditior	1		RF Output Power (dBm)								
Modulatio N _{TX} Freq. (MHz)		Chain Port 1	Chain Port 2	Chain Port 3	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit			
VHT80 3 5775		25.09	25.11	25.15	29.89	30.00	3.00	32.89	36.00			
Res	sult		Complied									

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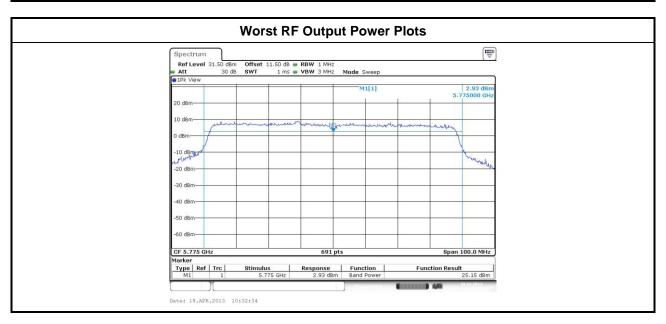


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Operation	ng M	ode	3									
Maximum Peak Conducted Output Power Result												
Cond	ditior	1	RF Output Power (dBm)									
Modulatio N _{TX} Freq. (MHz)		Chain Port 1	Chain Port 2	Chain Port 3	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit			
VHT80 3 5775		25.09	25.11	25.15	29.89	30.00	6.00	35.89	36.00			
Re	sult		Complied									

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3.3.7 Test Result of Maximum Conducted Output Power

Operatin	g Mode)	1										
			Maximum Conducted Output Power										
Cond	ition		RF Output Power (dBm)										
N-v		Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit			
11a	3	5745	25.53	24.55	25.31	-	29.92	30	3.00	32.92	36		
11a	3	5785	25.41	24.49	25.37	-	29.88	30	3.00	32.88	36		
11a	3	5825	25.39	24.45	25.54	-	29.92	30	3.00	32.92	36		
HT20	3	5745	25.54	24.49	25.24	-	29.88	30	3.00	32.88	36		
HT20	3	5785	25.43	24.47	25.39	-	29.89	30	3.00	32.89	36		
HT20	3	5825	25.36	24.48	25.51	-	29.91	30	3.00	32.91	36		
HT40	3	5755	25.47	24.46	25.21	-	29.84	30	3.00	32.84	36		
HT40	3	5795	25.32	24.43	25.31	-	29.81	30	3.00	32.81	36		
VHT20	3	5745	25.51	24.41	25.21	-	29.84	30	3.00	32.84	36		
VHT20	3	5785	25.41	24.43	25.33	-	29.85	30	3.00	32.85	36		
VHT20	3	5825	25.31	24.44	25.47	-	29.87	30	3.00	32.87	36		
VHT40	3	5755	25.42	24.41	25.18	-	29.80	30	3.00	32.80	36		
VHT40	3	5795	25.27	24.39	25.28	-	29.77	30	3.00	32.77	36		
Res	Result			Complied									

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Operatin	g Mode	e	3										
			Maximum Conducted Output Power										
Condi	ition		RF Output Power (dBm)										
Modulation Mode	N-v		Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit		
11a	3	5745	23.99	23.48	23.96	-	28.59	30	6.00	34.59	36		
11a	3	5785	23.76	23.14	23.56	-	28.27	30	6.00	34.27	36		
11a	3	5825	23.40	22.98	23.59	-	28.10	30	6.00	34.10	36		
HT20	3	5745	23.96	23.90	23.48	-	28.56	30	6.00	34.56	36		
HT20	3	5785	23.52	23.31	23.76	-	28.31	30	6.00	34.31	36		
HT20	3	5825	23.32	23.26	23.81	-	28.24	30	6.00	34.24	36		
HT40	3	5755	23.65	23.52	23.45	-	28.31	30	6.00	34.31	36		
HT40	3	5795	24.24	24.08	24.26	-	28.97	30	6.00	34.97	36		
VHT20	3	5745	23.92	23.88	23.46	-	28.53	30	6.00	34.53	36		
VHT20	3	5785	23.53	23.26	23.74	-	28.29	30	6.00	34.29	36		
VHT20	3	5825	23.29	23.26	23.77	-	28.22	30	6.00	34.22	36		
VHT40	3	5755	23.61	23.43	23.42	-	28.26	30	6.00	34.26	36		
VHT40	3	5795	24.16	24.11	24.21	-	28.93	30	6.00	34.93	36		
Res	Result				Complied								

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3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

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3.4.2 Measuring Instruments

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

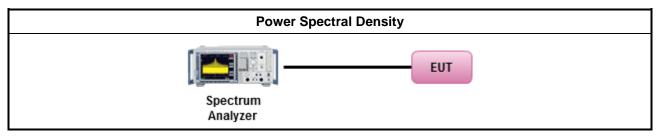
3.4.3 Test Procedures

		Test Method
	outp the c cond of th	k power spectral density procedures that the same method as used to determine the conducted out power. If maximum peak conducted output power was measured to demonstrate compliance to output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum ducted output power was measured to demonstrate compliance to the output power limit, then one average PSD procedures shall be used, as applicable based on the following criteria (the peak procedure is also an acceptable option).
	\boxtimes	Refer as FCC KDB 558074 v03, clause 10.2 Method PKPSD (RBW=3kHz; detector=peak)
		Refer as FCC KDB 558074 v03, clause 10.3 Method AVGPSD-1 (spectral trace averaging).
		Refer as FCC KDB 558074 v03, clause 10.4 Method AVGPSD-1 Alt. (slow sweep speed)
		Refer as FCC KDB 558074 v03, clause 10.5 Method AVGPSD-2 (spectral trace averaging).
		Refer as FCC KDB 558074 v03, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)
\boxtimes	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.
	\boxtimes	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 a FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chain 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.

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3.4.4 Test Setup



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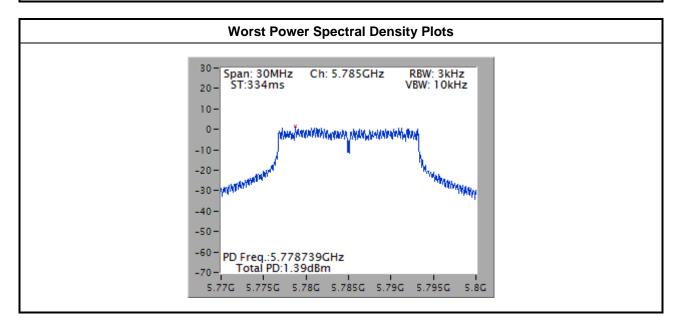
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3.4.5 Test Result of Power Spectral Density

Operating Mode			1				
Power Spectral Density Result							
Condition			Power Spectral Density (dBm/3kHz)				
Modulation Mode	N _{TX}	Freq. (MHz)	Sum Chain	Power Limit			
11a	3	5745	1.20	6.23			
11a	3	5785	1.39	6.23			
11a	3	5825	0.97	6.23			
HT20	3	5745	0.49	6.23			
HT20	3	5785	0.97	6.23			
HT20	3	5825	0.56	6.23			
HT40	3	5755	-2.88	6.23			
HT40	3	5795	-2.67	6.23			
VHT80	3	5775	-11.98	6.23			
Result			Complied				
Note 1: PSD = su	m each	transmit	chains by bin-to-bin PSD				

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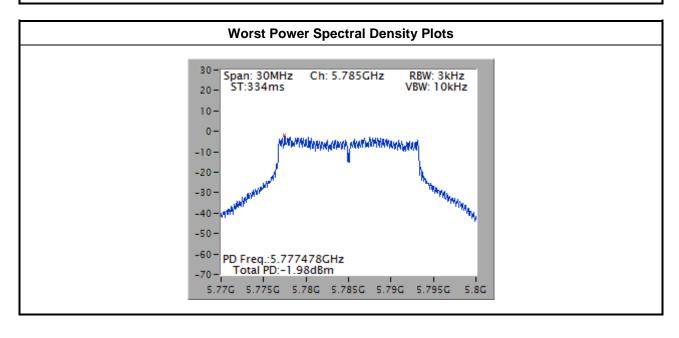


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Operating Mode			3				
Power Spectral Density Result							
Condition			Power Spectral Density (dBm/3kHz)				
Modulation Mode	N _{TX}	Freq. (MHz)	Sum Chain	Power Limit			
11a	3	5745	-2.19	3.23			
11a	3	5785	-1.98	3.23			
11a	3	5825	-2.42	3.23			
HT20	3	5745	-2.85	3.23			
HT20	3	5785	-2.48	3.23			
HT20	3	5825	-2.92	3.23			
HT40	3	5755	-5.62	3.23			
HT40	3	5795	-5.37	3.23			
VHT80	3	5775	-11.98	3.23			
Result			Complied				
lote 1: PSD = su	ım each	transmit	chains by bin-to-bin PSD				

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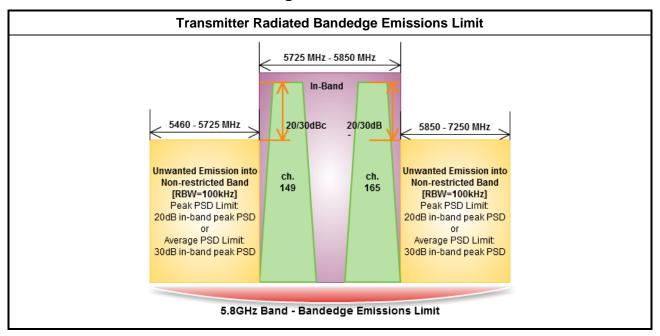
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3.5 **Transmitter Radiated Bandedge Emissions**

3.5.1 **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	
\boxtimes	The	average emission levels shall be measured in [duty cycle ≥ 98 or duty fa	actor].
\boxtimes		r as ANSI C63.10, clause 6.9.2.2 bandedge testing shall be performenel and highest frequency channel within the allowed operating band.	ed at the lowest frequency
\boxtimes	For	he transmitter unwanted emissions shall be measured using following o	ptions below:
	\boxtimes	Refer as FCC KDB 558074 v03, clause 11 for unwanted emissions into	non-restricted bands.
	\boxtimes	Refer as FCC KDB 558074 v03, clause 12 for unwanted emissions into	restricted bands.
		Refer as FCC KDB 558074 v03, clause 12.2.4.1 Option 1 (trac ≥98%)	e averaging for duty cycle
		Refer as FCC KDB 558074 v03, clause 12.2.4.2 Option 2 (trace av	veraging + duty factor).
		Refer as FCC KDB 558074 v03, clause 12.2.4.3 Option 3 (Reduce	ed VBW≥1/T).
		Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1	1/T, where T is pulse time.
		Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed e	emissions.
		Refer as FCC KDB 558074 v03, 12.2.3 measurement procedure p	eak limit.
\boxtimes	For	he transmitter bandedge emissions shall be measured using following o	pptions below:
		Refer as FCC KDB 558074 v03, clause 13.3 for narrower resolution band power and summing the spectral levels (i.e., 1 MHz).	ndwidth (100kHz) using the
	\boxtimes	Refer as ANSI C63.10, clause 6.9.2 for band-edge testing.	

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Test Method

☐ 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 v03, clause 12.2.6.

☐ 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 v03, clause 12.2
☐ 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

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log(N) if the measurements are made relative to the in-band emissions on the individual outputs.

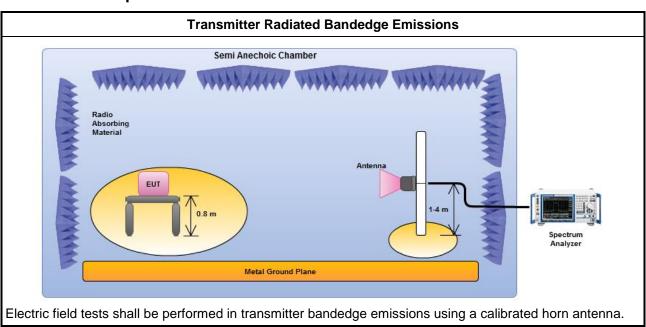
For conducted unwanted emissions into restricted bands (absolute emission limits).

Devices with multiple transmit chains using options given below:

emission limits, tests may be performed on each output individually without summing or adding 10

- (1) Measure and sum the spectra across the outputs or
- (2) Measure and add 10 log(N) dB

3.5.4 Test Setup



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Test Result of Transmitter Radiated Bandedge Emissions Operating Mode 1

	Tra	ansmitter Ra	diated Ba	ndedge Emis	sions Result	t		
Modulation		11a		N _{TX}	3			
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.
5460-5725	5745	112.75	5724.97	74.01	38.74	20	PK	V
5850-7250	5825	113.14	5850.00	73.47	39.67	20	PK	V
	Low Bande	edge			Up Ba	ndedge		
127 Level (dBuV/m) 114.3 101.6 88.9		A Company of the Comp	Date: 2013-04-22	127 Level (dBuV/im) 114.3 101.6 88.9	any on the same of	Wenner of the second of the se		013-04-23

63.5

38.1

25.4

12.7

5815 5820.

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

5750. 5755

FCC CLASS-B (AVG)

5740.

5730.

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63.5

50.8

38.1 25.4

12.7

05685 5690.

5710.

5720.

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	Tra	ansmitter Ra	diated Ba	ndedge Emis	sions Result			
Modulation		HT20		N _{TX}	3			
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.
5460-5725	5745	112.73	5724.76	76.37	36.36	20	PK	V
5850-7250	5825	111.32	5850.09	73.75	37.57	20	PK	V
	Low Bande	edge			Up Ba	ndedge		
127 Level (dBuV/m) 114.3			Date: 2013-04-22	127 Level (dBuV/m)	Johnman		Date: 20	

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

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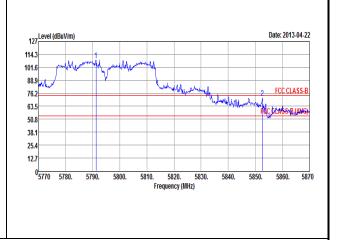
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	Tra	ansmitter Ra	diated Ba	ndedge Emis	sions Result	:		
Modulation		HT40		N _{TX}	3			
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol.
5460-5725	5755	112.71	5724.6	82.05	30.66	20	PK	V
5850-7250	5795	108.82	5852.6	71.49	37.33	20	PK	٧
	Low Band	edge			Up Ba	ndedge		

127 Level (dBuV/m) Date: 2013-04-22 114.3 101.6 76.2 63.5 FCC CLASS-B (AVG) 50.8 38.1 25.4 12.7 5700. 5710.). 5730. 5 Frequency (MHz) 5740. 5750. 5760. 5770.



Report No.: FR341809AI

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

SPORTON INTERNATIONAL INC.

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25.4

0 5685 5690.

5700.

5710.

FCC Test Report

5720. Frequency (MHz) 5730.

5740.

Modulation		VHT20	l	N _{TX}	3			
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.
5460-5725	5745	112.59	5724.9	80.8	31.79	20	PK	V
5850-7250	5825	108.44	5851.36	70.51	37.93	20	PK	V
	Low Bande	edge			Up Ba	andedge		
127 Level (dBuV/m) 114.3 101.6 88.9		potential	Date: 2013-04-22	127 Level (dBuV/m) 114.3 101.6	- Jackson and -		Date: 2	2013-04-22

50.8 38.1

25.4

0 5815 5820.

5830.

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

5750. 5755

FCC CLASS-B (AVG)

SPORTON INTERNATIONAL INC.

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Report Version

5840. Frequency (MHz) 5850.

5860.

5870

: Rev. 01



63.5

50.8

38.1

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5700.

5710.

5720.

FCC Test Report

). 5730. 5 Frequency (MHz)

5740.

5750.

5760.

Modulation		VHT40		N_{TX}	3			
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.
5460-5725	5755	109.88	5723.8	87.14	22.74	20	PK	V
5850-7250	5795	108.56	5857.7	68.27	40.29	20	PK	V
	Low Bande	edge			Up Ba	andedge		
127 Level (dBuV/m) 114.3 101.6		Manager and Market	Date: 2013-04-22	127 Level (dBuV/m) 114.3 101.6	MA Arman MA		Date: 2	2013-04-22

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0₅₇₇₀ 5780.

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0. 5820. (Frequency (MHz)

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

FCC CLASS-B (AVG)

5770.

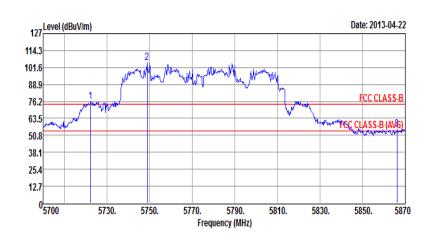
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	Transmitter Radiated Bandedge Emissions Result									
Modulation		VHT80		N _{TX}	3					
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol.		
5460-5725	5775	105.05	5722.27	75.94	29.11	20	PK	V		
5850-7250	5775	105.05	5866.09	55.41	49.64	20	PK	V		
	Low Rand	odao			Un Ra	ndodao				

Low Bandedge Up Bandedge



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

SPORTON INTERNATIONAL INC.

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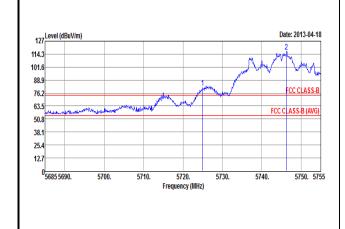
Report Version

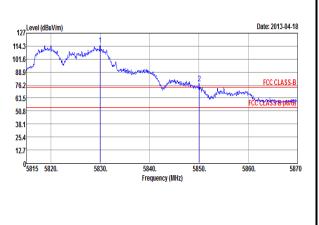
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Test Result of Transmitter Radiated Bandedge Emissions_Operating Mode 2

	Tra	ansmitter Ra	diated Bar	ndedge Emis	sions Result	t		
Modulation		11a		N _{TX}	3			
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.
5460-5725	5745	116.76	5724.97	81.17	35.59	20	PK	V
5850-7250	5825	115.49	5850.09	77.86	37.63	20	PK	V
	Low Bande	edge			Up Ba	ndedge		





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

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					1			
Modulation		HT20		N_{TX}	3			
lon-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.
5460-5725	5745	115.73	5724.69	80.87	34.86	20	PK	V
5850-7250	5825	115.67	5850.64	76.01	39.66	20	PK	V
	Low Bande	edge	Date: 2013-04-18	Level (dBuV/m)	U р Ва	ndedge	Date: 2	013-04-18
127 Level (dBuVim) 14.3 10.6 88.9 87.62		James Joseph W. W. James	Date: 2013-04-18 2 FCC CLASS-B	127 Level (dBuV/m) 114.3 101.6 88.9 76.2 63.5			FCC	CLASS-B

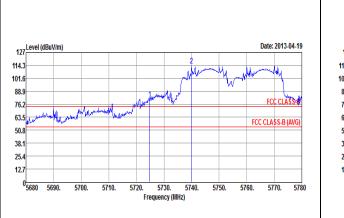
Note 1: Measurement worst emissions of receive antenna polarization: H (Horizontal) or V (Vertical)

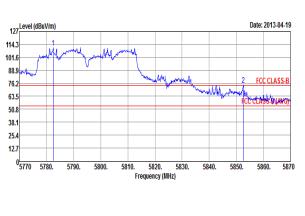
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	Tra	ansmitter Ra	diated Ba	ndedge Emis	sions Result	t		
Modulation HT40 N _{TX} 3								
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol.
5460-5725	5755	114.33	5724.9	81.26	33.07	20	PK	V
5850-7250	5795	111.21	5852.6	74.65	36.56	20	PK	V
	Low Band	edge			Up Ba	ndedge		





Report No.: FR341809AI

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

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	110	ansmitter Ra	idiated Bar	ndedge Emis	sions Result	:		
Modulation		VHT20		N _{TX}	3			
lon-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	Po
5460-5725	5745	115.49	5724.34	79.3	36.19	20	PK	V
5850-7250	5825	114.67	5850.37	75.49	39.18	20	PK	V
	Low Bande	edge			Up Ba	ndedge		
			Date: 2013-04-19	127 Level (dBuV/m)			Date: 20	013-04-1
14.3 11.6 18.9 76.2	Landard Company	- Lander of the same of the sa	2	114.3 101.6 88.9 76.2	1 1 mmany	madelyan and kindan 2	FCC	
127 Level (dBuVim) 14.3 15.6 18.9 16.2 15.5 15.5 15.6 15.7 15.7 15.7 15.7 15.7 15.7 15.7 15.7	Landard Company	1	2 onther market	114.3 101.6 88.9		Martin and the state of the sta	FCC	013-04-19 CLASS-B S-B-(AVG)

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

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5700.

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FCC Test Report

). 5730. 5 Frequency (MHz)

5740.

5750.

5760.

Non-restricted Band (MHz)	Modulation		VHT40		N _{TX}	3			
5850-7250 5795 112.27 5860.0 71.07 41.20 20 PK 10 10.0		Freq.	PSD [i]	Freq.	Out-band PSD [o]		Limit (dB)		Pol
Low Bandedge Up Bandedge 127 Level (dButVim) Date: 2013-04-19 114.3 101.6 101.6 102.0 103.04 104.0 105.0 106.0 107.0 108.0 1	5460-5725	5755	113.20	5724.9	82.35	30.85	20	PK	V
127 Level (dBuV/m) Date: 2013-04-19 114.3 110.6 99 0	5850-7250	5795	112.27	5860.0	71.07	41.20	20	PK	V
114.3		Low Band	edge			Up Ba	ndedge		
76.2 FCC CLASS.6 76.2 FCC CLASS.6				Date: 2013-04-19	127 Level (dBuV/m)			Date: 2 ¹	013-04-19

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0 5770

5780.

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0. 5820. (Frequency (MHz)

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5810.

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

5770. 5780

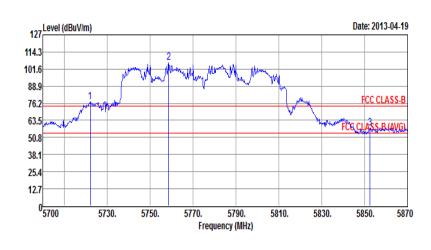
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	Transmitter Radiated Bandedge Emissions Result										
Modulation		VHT80		N _{TX}	3						
Non-restricted Band (MHz)	Test Ch. Freq. (MHz)	In-band PSD [i] (dBuV/100kHz)	NBE Freq. (MHz)	Out-band PSD [o] (dBuV/100kHz)	[i] – [o] (dB)	Limit (dB)	Level Type	Pol.			
5460-5725	5775	106.34	5722.10	76.99	29.35	20	PK	V			
5850-7250	5775	106.40	5852.49	57.66	48.74	20	PK	V			
	Law Dand	- da -			Un Da						

Low Bandedge Up Bandedge



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

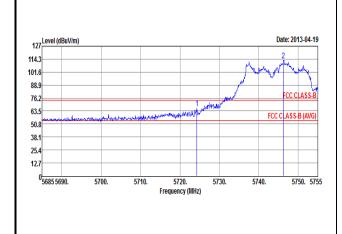
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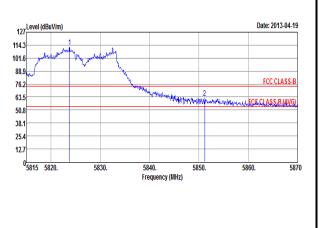
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3.5.7 Test Result of Transmitter Radiated Bandedge Emissions_Operating Mode 3

	Transmitter Radiated Bandedge Emissions Result										
Modulation	11a			N _{TX}	3						
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.			
5460-5725	5745	113.12	5724.34	65.97	47.15	20	PK	V			
5850-7250	5825	112.60	5851.19	62.70	49.90	20	PK	V			
	edge	Up Bandedge									





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

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25.4

0 5685 5690.

5700.

5710.

FCC Test Report

5720. Frequency (MHz) 5730.

5740.

Modulation		HT20		N _{TX}	3					
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.		
5460-5725	5745	112.42	5724.90	66.48	45.94	20	PK	V		
5850-7250	5825	111.63	5850.70	62.33	49.30	20	PK	V		
	Law Band	odgo		Up Bandedge						
	Low Bande				ор ва	naeage				
127 ^{Level} (dBuV/m) 114.3 101.6 88.9	LOW Band	euge	Date: 2013-04-19	127 Level (dBuV/m) 114.3 101.6 88.9	ор ва	naeage	Date: 20	013-04-19		

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

5750. 5755

5815 5820.

5830.

5840. Frequency (MHz) 5850.

5860.

5870

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25.4

0 5680 5690.

5700.

5710.

5720.

FCC Test Report

). 5730. 5 Frequency (MHz)

5740.

5750.

5760.

5770.

Modulation		HT40		N _{TX}	3					
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		
5460-5725	5755	108.35	5723.80	72.22	36.13	20	PK	V		
5850-7250	5795	109.92	5858.70	57.52	52.40	20	PK	V		
	Low Bande	edge		Up Bandedge						
127 Level (dBuV/m)			Date: 2013-04-20	127 Level (dBuV/m)			Date: 2	013-04-20		
114.3		Marin	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	114.3	My way when we want have					
88.9 76.2	1	/ " " 	FCC CLASSIB	76.2		Jan.	FCC	CLASS-B		

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o 5770 5780.

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5800.

5810. 5820.

Frequency (MHz)

5830.

5840. 5850.

5860.

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

SPORTON INTERNATIONAL INC.

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		ansmitter Ra		1	T			
Modulation		VHT20		N _{TX}	3			
lon-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	Po
5460-5725	5745	111.54	5724.34	64.42	47.12	20	PK	V
5850-7250	5825	111.16	5850.09	60.45	50.71	20	PK	V
127_Level (dBuV/m)	Low Bande	edge	Date: 2013-04-22	127 Level (dBuV/m)	U р Ва	ndedge	Date: 2	013-04-2
127 Level (dBuVim) 14.3 11.6 88.9 6.2 6.2		1 James 1	Date: 2013-04-22 2 FCC CLASS-B GC CLASS-B (AVG)	127 Level (dBuV/m) 114.3 101.6 88.9 76.2 63.5 50.8	agreement the latter than the same of the	ndedge	FCC	CLASS-B

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

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). 5730. 5 Frequency (MHz)

5710.

	Tra	ansmitter Ra	idiated Bar	ndedge Emis	sions Result			
Modulation		VHT40		N _{TX}	3			
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.
5460-5725	5755	107.06	5724.80	64.66	42.40	20	PK	V
5850-7250	5795	107.90	5858.80	53.58	54.32	20	PK	V
	Low Bande	edge			Up Ba	ndedge		
127 Level (dBuV/m) 114.3 101.6 88.9 76.2 63.5 50.8 38.1 25.4	Mary Mary	/	Date: 2013-04-22 FCC CLRS&B (AVG)	127 Level (dBuV/m) 114.3 101.6 88.9 76.2 63.5 50.8 38.1 25.4	A Mary Maron of May	along the same of		CLASS-8 S-8 (AVG)

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

5750. 5760. 5770. 5780

SPORTON INTERNATIONAL INC.

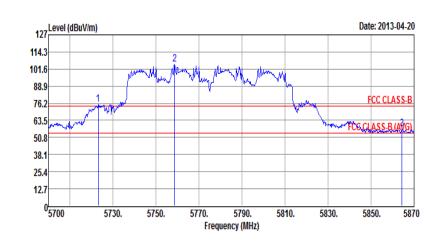
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0. 5820. (Frequency (MHz)



	Transmitter Radiated Bandedge Emissions Result										
Modulation		VHT80		N _{TX}	3						
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.			
5460-5725	5775	105.10	5723.12	75.15	29.95	20	PK	V			
5850-7250	5775	105.10	5864.39	57.41	47.69	20	PK	V			
	Law Dand	- das			Un Da						

Low Bandedge Up Bandedge



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

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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

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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.

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3.6.3 Test Procedures

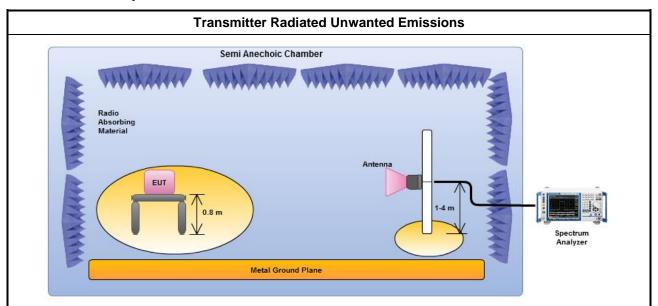
		Test Method
	perfo equi extra dista	surements may be performed at a distance other than the limit distance provided they are not bring or the near field and the emissions to be measured can be detected by the measurement pment. When performing measurements at a distance other than that specified, the results shall be applated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear unce for field-strength measurements, inverse of linear distance-squared for power-density surements).
		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.
\boxtimes	The	average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
\boxtimes	For	the transmitter unwanted emissions shall be measured using following options below:
	\boxtimes	Refer as FCC KDB 558074 v03, clause 11 for unwanted emissions into non-restricted bands.
	\boxtimes	Refer as FCC KDB 558074 v03, clause 12 for unwanted emissions into restricted bands.
		☐ Refer as FCC KDB 558074 v03, clause 12.2.4.1 Option 1 (trace averaging for duty cycle ≥98%)
		Refer as FCC KDB 558074 v03, clause 12.2.4.2 Option 2 (trace averaging + duty factor).
		Refer as FCC KDB 558074 v03, clause 12.2.4.3 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 v03, 12.2.3 measurement procedure peak limit.
		Refer as FCC KDB 558074 v03, clause 12.2.2 measurement procedure Quasi-Peak limit.
	For	radiated measurement, refer as FCC KDB 558074 v03, clause 12.2.6.
	\boxtimes	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz.
	\boxtimes	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1000 MHz.
	\boxtimes	Refer as ANSI C63.10, clause 6.6 for radiated emissions from above 1 GHz.
		Test Method
Ш		conducted and cabinet radiation measurement, refer as FCC KDB 558074 v03, clause 12.2
		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

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3.6.4 **Test Setup**



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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.

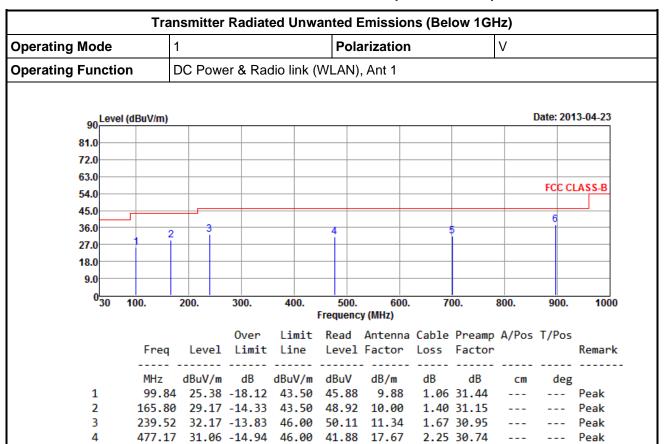
Transmitter Radiated Unwanted Emissions (Below 30MHz) 3.6.5

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

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3.6.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)



2.52 30.21

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Peak

--- 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.)

700.27 31.41 -14.59 46.00 38.39 20.71

896.21 37.40 -8.60 46.00 41.21 23.22 2.95 29.98

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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FAX: 886-3-3270973

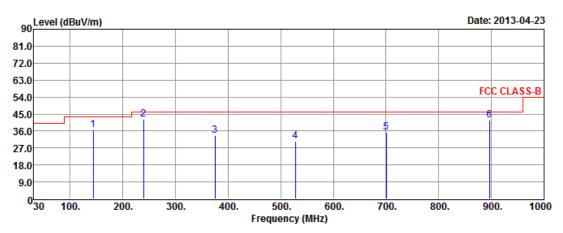
5

Transmitter Radiated Unwanted Emissions (Below 1GHz)

Operating Mode 1 Polarization H

Operating Function DC Power & Radio link (WLAN), Ant 1

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			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	143.49	36.53	-6.97	43.50	55.35	11.16	1.28	31.26			Peak
2	239.52	42.04	-3.96	46.00	59.98	11.34	1.67	30.95			Peak
3	375.32	33.42	-12.58	46.00	47.21	15.06	2.16	31.01			Peak
4	527.61	30.53	-15.47	46.00	40.75	18.38	2.25	30.85			Peak
5	700.27	35.22	-10.78	46.00	42.20	20.71	2.52	30.21			Peak
6	896.21	41.60	-4.40	46.00	45.41	23.22	2.95	29.98			Peak

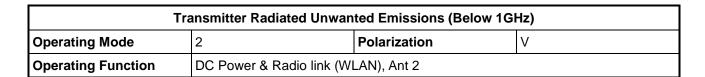
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

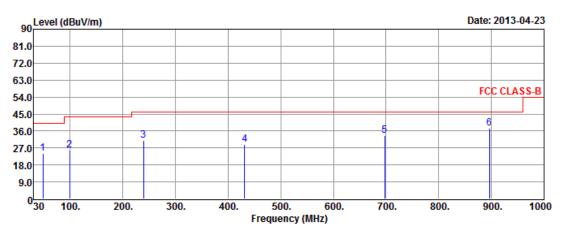
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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FCC Test Report No.: FR341809AI





		0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
48.43	24.16	-15.84	40.00	46.18	8.68	0.74	31.44			Peak
98.87	25.92	-17.58	43.50	46.56	9.74	1.06	31.44			Peak
239.52	31.08	-14.92	46.00	49.02	11.34	1.67	30.95			Peak
431.58	28.69	-17.31	46.00	40.77	16.73	2.20	31.01			Peak
697.36	33.71	-12.29	46.00	40.68	20.67	2.56	30.20			Peak
896.21	37.57	-8.43	46.00	41.38	23.22	2.95	29.98			Peak
	MHz 48.43 98.87 239.52 431.58 697.36	MHz dBuV/m 48.43 24.16 98.87 25.92 239.52 31.08 431.58 28.69 697.36 33.71	Freq Level Limit	Freq Level Limit Line MHz dBuV/m dB dBuV/m 48.43 24.16 -15.84 40.00 98.87 25.92 -17.58 43.50 239.52 31.08 -14.92 46.00 431.58 28.69 -17.31 46.00 697.36 33.71 -12.29 46.00	Freq Level Limit Line Level MHz dBuV/m dB dBuV/m dBuV 48.43 24.16 -15.84 40.00 46.18 98.87 25.92 -17.58 43.50 46.56 239.52 31.08 -14.92 46.00 49.02 431.58 28.69 -17.31 46.00 40.77 697.36 33.71 -12.29 46.00 40.68	Freq Level Limit Line Level Factor MHz dBuV/m dB dBuV/m dBuV dB/m 48.43 24.16 -15.84 40.00 46.18 8.68 98.87 25.92 -17.58 43.50 46.56 9.74 239.52 31.08 -14.92 46.00 49.02 11.34 431.58 28.69 -17.31 46.00 40.77 16.73 697.36 33.71 -12.29 46.00 40.68 20.67	Freq Level Limit Line Level Factor Loss MHz dBuV/m dB dBuV/m dBuV dB/m dB 48.43 24.16 -15.84 40.00 46.18 8.68 0.74 98.87 25.92 -17.58 43.50 46.56 9.74 1.06 239.52 31.08 -14.92 46.00 49.02 11.34 1.67 431.58 28.69 -17.31 46.00 40.77 16.73 2.20 697.36 33.71 -12.29 46.00 40.68 20.67 2.56	Freq Level Limit Line Level Factor Loss Factor MHz dBuV/m dB dBuV/m dBuV dB/m dB dB 48.43 24.16 -15.84 40.00 46.18 8.68 0.74 31.44 98.87 25.92 -17.58 43.50 46.56 9.74 1.06 31.44 239.52 31.08 -14.92 46.00 49.02 11.34 1.67 30.95 431.58 28.69 -17.31 46.00 40.77 16.73 2.20 31.01 697.36 33.71 -12.29 46.00 40.68 20.67 2.56 30.20	Freq Level Limit Line Level Factor Loss Factor MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm 48.43 24.16 -15.84 40.00 46.18 8.68 0.74 31.44 98.87 25.92 -17.58 43.50 46.56 9.74 1.06 31.44 239.52 31.08 -14.92 46.00 49.02 11.34 1.67 30.95 431.58 28.69 -17.31 46.00 40.77 16.73 2.20 31.01 697.36 33.71 -12.29 46.00 40.68 20.67 2.56 30.20	48.43 24.16 -15.84 40.00 46.18 8.68 0.74 31.44 98.87 25.92 -17.58 43.50 46.56 9.74 1.06 31.44 239.52 31.08 -14.92 46.00 49.02 11.34 1.67 30.95 431.58 28.69 -17.31 46.00 40.77 16.73 2.20 31.01

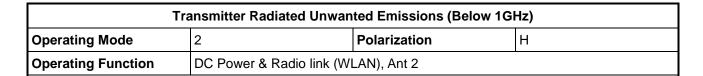
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

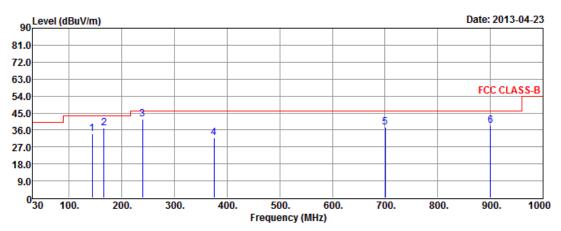
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	143.49	34.02	-9.48	43.50	52.84	11.16	1.28	31.26			Peak
2	165.80	37.17	-6.33	43.50	56.92	10.00	1.40	31.15			Peak
3	239.52	41.86	-4.14	46.00	59.80	11.34	1.67	30.95			Peak
4	375.32	31.76	-14.24	46.00	45.55	15.06	2.16	31.01			Peak
5	700.27	37.48	-8.52	46.00	44.46	20.71	2.52	30.21			Peak
6	900.09	38.36	-7.64	46.00	42.03	23.30	3.03	30.00			Peak

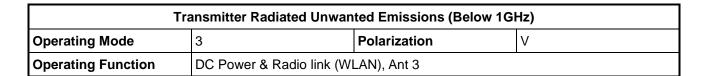
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

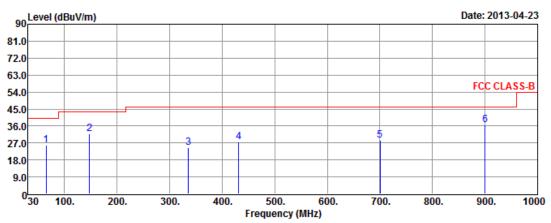
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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	Freq	Level				Antenna Factor			•	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	64.92	26.03	-13.97	40.00	50.79	5.90	0.88	31.54			Peak
2	147.37	31.81	-11.69	43.50	50.64	11.15	1.28	31.26			Peak
3	335.55	24.66	-21.34	46.00	39.85	13.97	1.93	31.09			Peak
4	431.58	27.35	-18.65	46.00	39.43	16.73	2.20	31.01			Peak
5	700.27	28.31	-17.69	46.00	35.29	20.71	2.52	30.21			Peak
6	900.09	36.44	-9.56	46.00	40.11	23.30	3.03	30.00			Peak

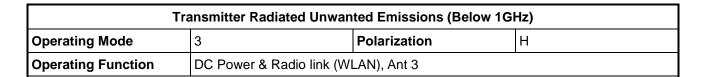
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

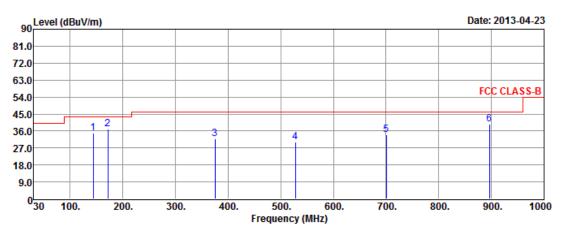
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	143.49	34.74	-8.76	43.50	53.56	11.16	1.28	31.26			Peak
2	171.62	36.82	-6.68	43.50	57.15	9.37	1.38	31.08			Peak
3	375.32	31.98	-14.02	46.00	45.77	15.06	2.16	31.01			Peak
4	527.61	29.96	-16.04	46.00	40.18	18.38	2.25	30.85			Peak
5	700.27	33.95	-12.05	46.00	40.93	20.71	2.52	30.21			Peak
6	896.21	39.66	-6.34	46.00	43.47	23.22	2.95	29.98			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)

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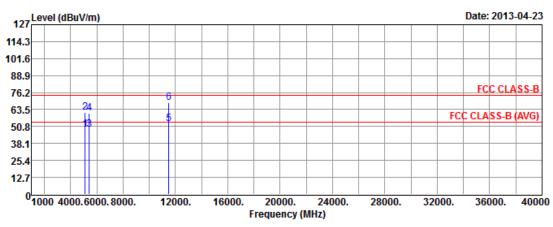


3.6.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11a

Operating Mode: 1

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5745									
N _{TX}	3	Polarization	V							

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	48.51	-5.49	54.00	42.41	34.40	6.66	34.96			Average
2	5104.00	61.43	-12.57	74.00	55.33	34.40	6.66	34.96			Peak
3	5419.00	48.43	-5.57	54.00	41.66	34.72	6.88	34.83			Average
4	5419.00	61.06	-12.94	74.00	54.29	34.72	6.88	34.83			Peak
5	11490.00	52.87	-1.13	54.00	4.03	38.49	10.35	0.00			Average
6	11490.00	68.46	-5.54	74.00	19.62	38.49	10.35	0.00			Peak

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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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

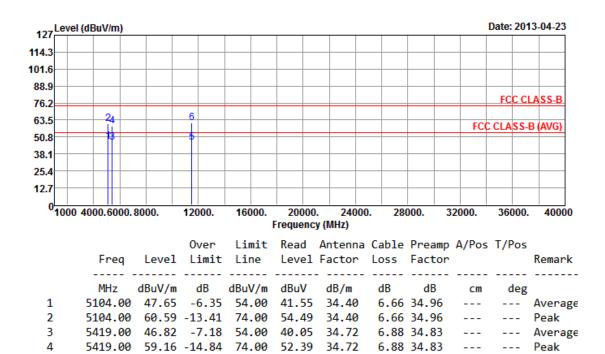


Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode11aTest Freq. (MHz)5745									
N _{TX} 3 Polarization H									

Report No.: FR341809AI

--- Average

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11490.00 46.94 -7.06 54.00 -1.90 38.49 10.35 0.00

11490.00 61.09 -12.91 74.00 12.25 38.49 10.35 0.00

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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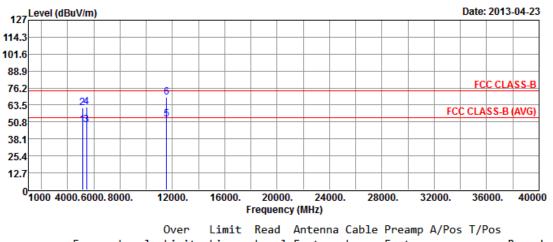
FAX: 886-3-3270973

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Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode 11a Test Freq. (MHz) 5785								
N _{TX} 3 Polarization V								

Report No.: FR341809AI



	Freq	Level				Antenna Factor			•	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5149.00	48.61	-5.39	54.00	42.41	34.45	6.69	34.94			Average
2	5149.00	61.51	-12.49	74.00	55.31	34.45	6.69	34.94			Peak
3	5456.00	48.55	-5.45	54.00	41.70	34.76	6.91	34.82			Average
4	5456.00	61.92	-12.08	74.00	55.07	34.76	6.91	34.82			Peak
5	11570.00	52.96	-1.04	54.00	4.01	38.56	10.39	0.00			Average
6	11570.00	69.09	-4.91	74.00	20.14	38.56	10.39	0.00			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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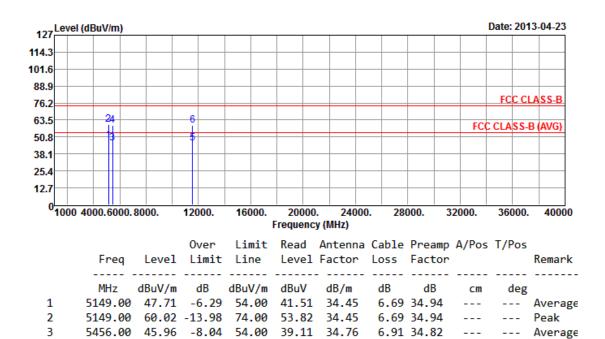


Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode 11a Test Freq. (MHz) 5785								
N _{TX} 3 Polarization H								

Report No.: FR341809AI

--- Average

--- Peak



5456.00 59.38 -14.62 74.00 52.53 34.76 6.91 34.82 --- Peak

11570.00 46.34 -7.66 54.00 32.29 38.56 10.39 34.90

11570.00 59.66 -14.34 74.00 45.61 38.56 10.39 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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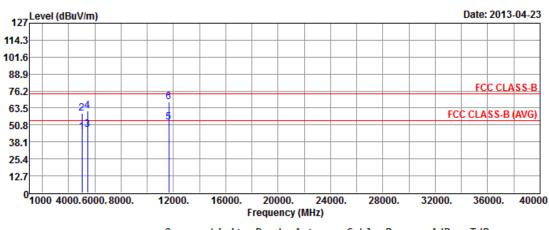
FAX: 886-3-3270973

4 5



Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode 11a Test Freq. (MHz) 5825								
N _{TX} 3 Polarization V								

Report No.: FR341809AI



	Freq	Level				Antenna Factor			-	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5020.00	45.62	-8.38	54.00	39.69	34.32	6.60	34.99			Average
2	5020.00	59.41	-14.59	74.00	53.48	34.32	6.60	34.99			Peak
3	5440.00	47.62	-6.38	54.00	40.80	34.74	6.90	34.82			Average
4	5440.00	61.34	-12.66	74.00	54.52	34.74	6.90	34.82			Peak
5	11650.00	52.94	-1.06	54.00	3.89	38.62	10.43	0.00			Average
6	11650.00	67.77	-6.23	74.00	18.72	38.62	10.43	0.00			Peak

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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)

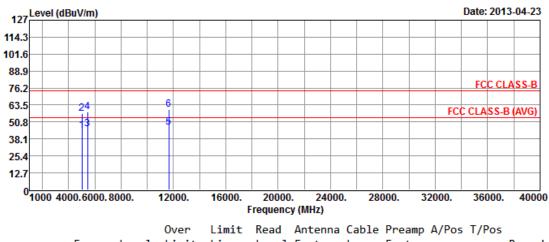
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands, unwanted emissions shall 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. (MHz) 5825								
N _{TX}	3	Polarization	Н					

Report No.: FR341809AI



				Over	Limit	Kead	Antenna	Cable	Preamp	A/Pos	I/Pos	
		Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	-											
		MHz o	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	. 50	20.00	44.26	-9.74	54.00	38.33	34.32	6.60	34.99			Average
2	50	20.00	57.21	-16.79	74.00	51.28	34.32	6.60	34.99			Peak
3	54	40.00	45.62	-8.38	54.00	38.80	34.74	6.90	34.82			Average
4	54	40.00	58.59	-15.41	74.00	51.77	34.74	6.90	34.82			Peak
5	116	50.00	46.85	-7.15	54.00	32.70	38.62	10.43	34.90			Average
6	116	50.00	59.99	-14.01	74.00	45.84	38.62	10.43	34.90			Peak

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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.

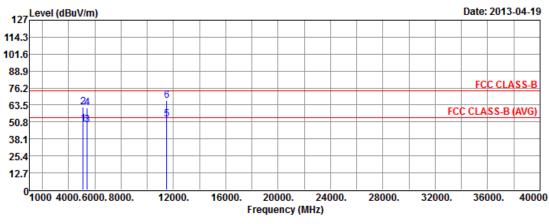
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



Operating Mode: 2

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	11a	Test Freq. (MHz)	5745				
N _{TX}	3	Polarization	V				

Report No.: FR341809AI



	Гпол	Lovel				Antenna			•	T/Pos	Remark
	Freq	rever	LIMIT	rine	rever	Factor	LOSS	ractor.			nemark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	48.98	-5.02	54.00	42.88	34.40	6.66	34.96			Average
2	5104.00	61.68	-12.32	74.00	55.58	34.40	6.66	34.96			Peak
3	5419.00	48.54	-5.46	54.00	41.77	34.72	6.88	34.83			Average
4	5419.00	61.09	-12.91	74.00	54.32	34.72	6.88	34.83			Peak
5	11490.00	52.80	-1.20	54.00	3.96	38.49	10.35	0.00			Average
6	11490.00	66.90	-7.10	74.00	18.06	38.49	10.35	0.00			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.

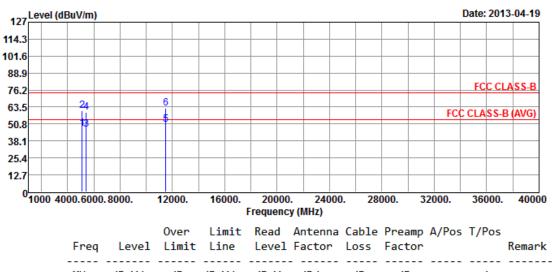
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	11a	Test Freq. (MHz)	5745				
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI



	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	47.63	-6.37	54.00	41.53	34.40	6.66	34.96			Average
2	5104.00	60.57	-13.43	74.00	54.47	34.40	6.66	34.96			Peak
3	5419.00	47.04	-6.96	54.00	40.27	34.72	6.88	34.83			Average
4	5419.00	59.33	-14.67	74.00	52.56	34.72	6.88	34.83			Peak
5	11490.00	50.14	-3.86	54.00	1.30	38.49	10.35	0.00			Average
6	11490.00	62.52	-11.48	74.00	13.68	38.49	10.35	0.00			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

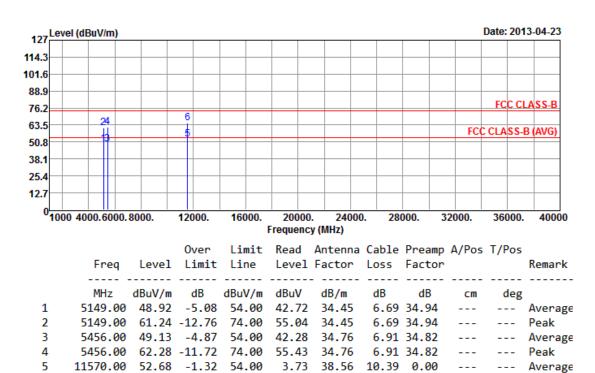
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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode 11a Test Freq. (MHz) 5785							
N _{TX}	3	Polarization	V				

Report No.: FR341809AI

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11570.00 65.12 -8.88 74.00 16.17 38.56 10.39 0.00

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.

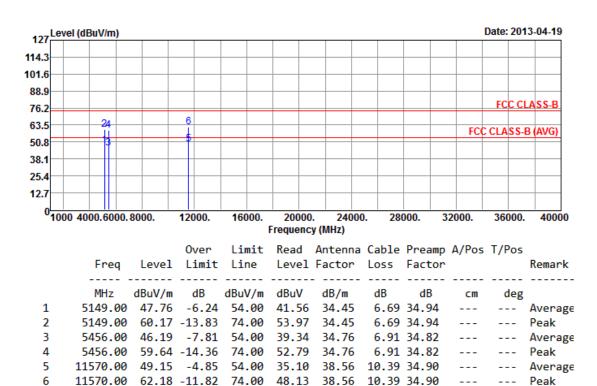
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5785							
N _{TX}	3	Polarization	Н					

Report No.: FR341809AI



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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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

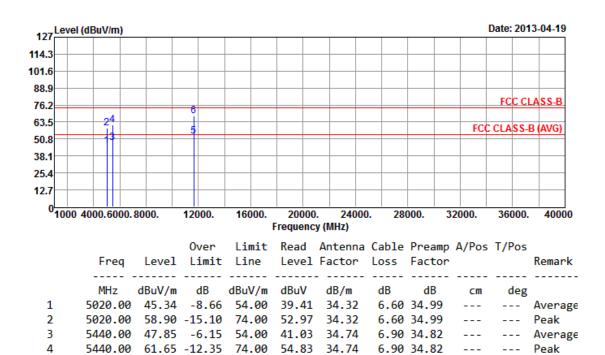


Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	11a	Test Freq. (MHz)	5825				
N _{TX}	3	Polarization	V				

Report No.: FR341809AI

--- Average

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11650.00 52.91 -1.09 54.00 3.86 38.62 10.43 0.00

11650.00 67.92 -6.08 74.00 18.87 38.62 10.43 0.00

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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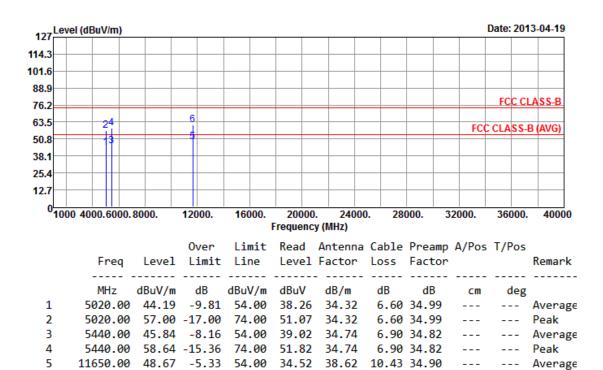
FAX: 886-3-3270973



Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	11a	Test Freq. (MHz)	5825				
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11650.00 61.64 -12.36 74.00 47.49 38.62 10.43 34.90

Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

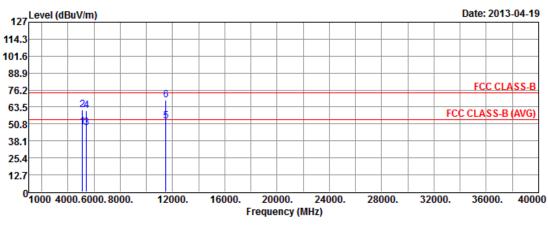
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



Operating Mode: 3

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	11a	Test Freq. (MHz)	5745						
N _{TX}	3	Polarization	V						

Report No.: FR341809AI



	Freq	Level				Antenna Factor			•	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	48.65	-5.35	54.00	42.55	34.40	6.66	34.96			Average
2	5104.00	61.32	-12.68	74.00	55.22	34.40	6.66	34.96			Peak
3	5419.00	48.25	-5.75	54.00	41.48	34.72	6.88	34.83			Average
4	5419.00	60.84	-13.16	74.00	54.07	34.72	6.88	34.83			Peak
5	11490.00	52.79	-1.21	54.00	38.85	38.49	10.35	34.90			Average
6	11490.00	68.56	-5.44	74.00	19.72	38.49	10.35	0.00			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.

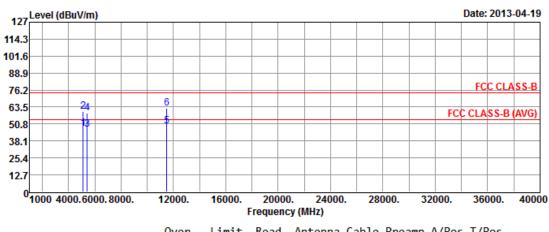
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	11a	Test Freq. (MHz)	5745				
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	47.25	-6.75	54.00	41.15	34.40	6.66	34.96			Average
2	5104.00	60.21	-13.79	74.00	54.11	34.40	6.66	34.96			Peak
3	5419.00	46.85	-7.15	54.00	40.08	34.72	6.88	34.83			Average
4	5419.00	58.86	-15.14	74.00	52.09	34.72	6.88	34.83			Peak
5	11490.00	49.03	-4.97	54.00	0.19	38.49	10.35	0.00			Average
6	11490.00	62.42	-11.58	74.00	13.58	38.49	10.35	0.00			Peak

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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)

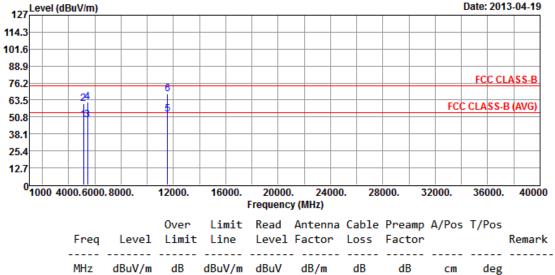
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands, unwanted emissions shall 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. (MHz)	5785				
N _{TX}	3	Polarization	V				

Report No.: FR341809AI



	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHZ	aBuv/m	ав	abuv/m	abuv	dB/m	ав	ав	cm	aeg	
1	5149.00	48.61	-5.39	54.00	42.41	34.45	6.69	34.94			Average
2	5149.00	60.86	-13.14	74.00	54.66	34.45	6.69	34.94			Peak
3	5456.00	48.85	-5.15	54.00	42.00	34.76	6.91	34.82			Average
4	5456.00	61.92	-12.08	74.00	55.07	34.76	6.91	34.82			Peak
5	11570.00	52.70	-1.30	54.00	3.75	38.56	10.39	0.00			Average
6	11570.00	67.87	-6.13	74.00	18.92	38.56	10.39	0.00			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.

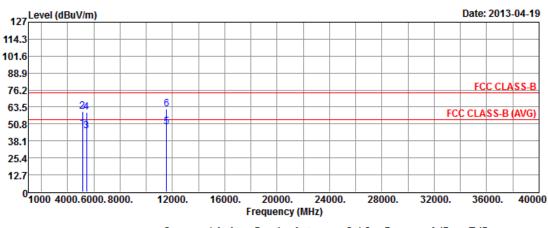
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)						
Modulation Mode	11a	Test Freq. (MHz)	5785			
N _{TX}	3	Polarization	Н			

Report No.: FR341809AI



	Freq	Level				Antenna Factor			•	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5149.00	47.56	-6.44	54.00	41.36	34.45	6.69	34.94			Average
2	5149.00	59.88	-14.12	74.00	53.68	34.45	6.69	34.94			Peak
3	5456.00	45.68	-8.32	54.00	38.83	34.76	6.91	34.82			Average
4	5456.00	59.42	-14.58	74.00	52.57	34.76	6.91	34.82			Peak
5	11570.00	48.75	-5.25	54.00	34.70	38.56	10.39	34.90			Average
6	11570.00	62.04	-11.96	74.00	47.99	38.56	10.39	34.90			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

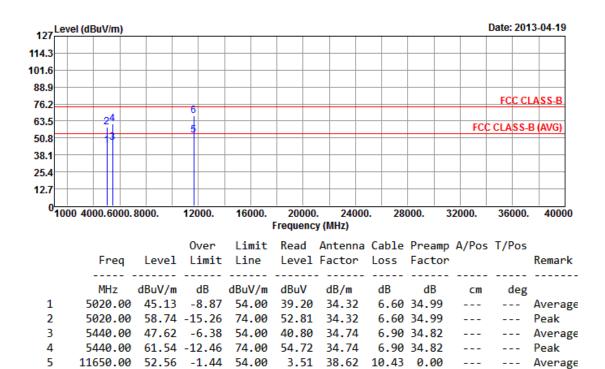
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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	Test Freq. (MHz)	5825					
N _{TX}	3	Polarization	V				

Report No.: FR341809AI

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11650.00 67.57 -6.43 74.00 18.52 38.62 10.43 0.00

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

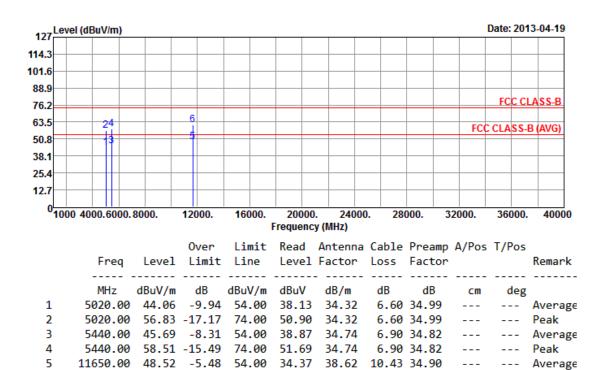
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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode 11a Test Freq. (MHz) 5825							
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11650.00 61.43 -12.57 74.00 47.28 38.62 10.43 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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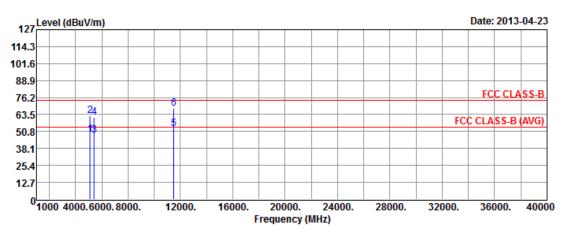


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Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20

Operating Mode: 1

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5745							
N _{TX}	3	Polarization	V				



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	48.83	-5.17	54.00	42.73	34.40	6.66	34.96			Average
2	5104.00	62.40	-11.60	74.00	56.30	34.40	6.66	34.96			Peak
3	5419.00	48.25	-5.75	54.00	41.48	34.72	6.88	34.83			Average
4	5419.00	61.55	-12.45	74.00	54.78	34.72	6.88	34.83			Peak
5	11490.00	52.80	-1.20	54.00	3.96	38.49	10.35	0.00			Average
6	11490.00	67.96	-6.04	74.00	19.12	38.49	10.35	0.00			Peak

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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.

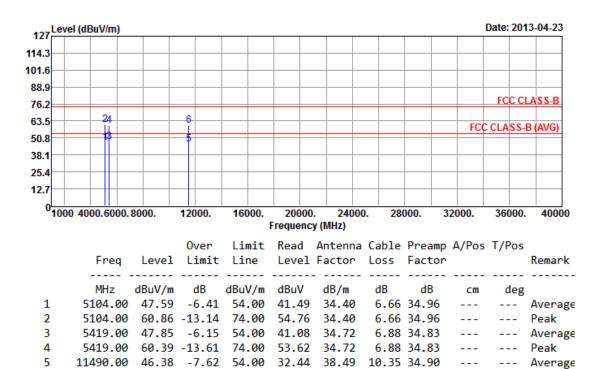
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	HT20	Test Freq. (MHz)	5745				
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI

--- Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11490.00 60.27 -13.73 74.00 46.33 38.49 10.35 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

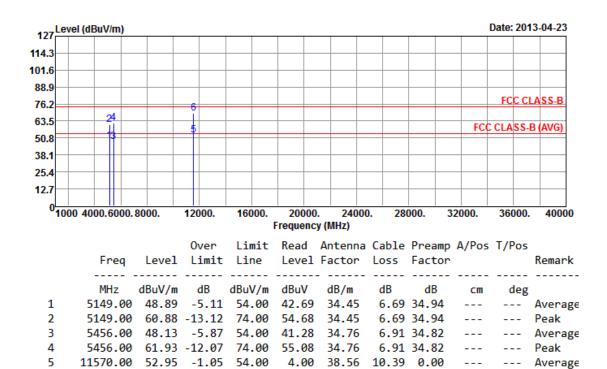
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Transmitter Radiated Unwanted Emissions (Above 1GHz)						
Modulation Mode HT20 Test Freq. (MHz) 5785						
N _{TX}	3	Polarization	V			

Report No.: FR341809AI

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11570.00 69.26 -4.74 74.00 20.31 38.56 10.39 0.00

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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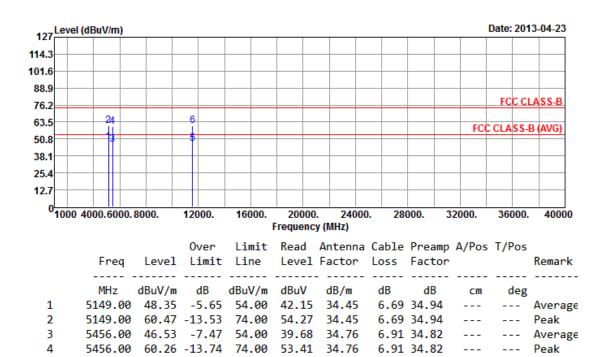


Transmitter Radiated Unwanted Emissions (Above 1GHz)						
Modulation Mode HT20 Test Freq. (MHz) 5785						
N _{TX}	3	Polarization	Н			

Report No.: FR341809AI

--- Average

--- Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11570.00 47.28 -6.72 54.00 33.23 38.56 10.39 34.90

11570.00 60.59 -13.41 74.00 46.54 38.56 10.39 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

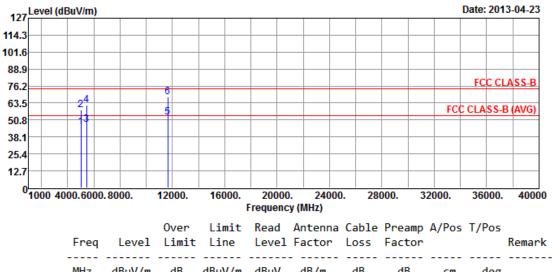
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FAX: 886-3-3270973



Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5825							
N _{TX}	3	Polarization	V				

Report No.: FR341809AI



	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	.,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5020.00	45.51	-8.49	54.00	39.58	34.32	6.60	34.99			Average
2	5020.00	58.63	-15.37	74.00	52.70	34.32	6.60	34.99			Peak
3	5440.00	47.62	-6.38	54.00	40.80	34.74	6.90	34.82			Average
4	5440.00	61.86	-12.14	74.00	55.04	34.74	6.90	34.82			Peak
5	11650.00	52.57	-1.43	54.00	3.52	38.62	10.43	0.00			Average
6	11650.00	68.01	-5.99	74.00	18.96	38.62	10.43	0.00			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

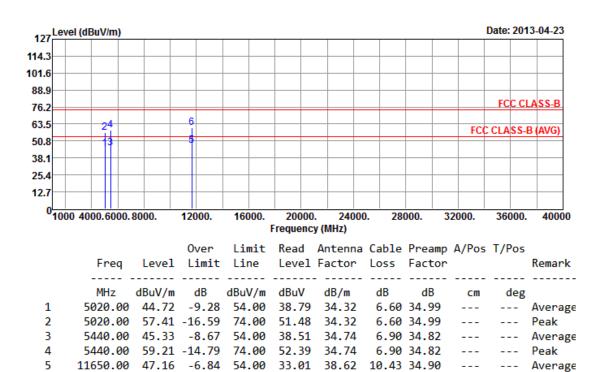
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Transmitter Radiated Unwanted Emissions (Above 1GHz)						
Modulation Mode	5825					
N _{TX}	3	Polarization	Н			

Report No.: FR341809AI

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11650.00 60.57 -13.43 74.00 46.42 38.62 10.43 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

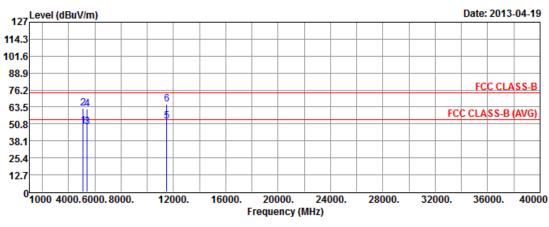
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Operating Mode: 2

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT20 Test Freq. (MHz) 5745								
N _{TX}								

Report No.: FR341809AI



	Freq	Level				Antenna Factor			-	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	49.21	-4.79	54.00	43.11	34.40	6.66	34.96			Average
2	5104.00	62.53	-11.47	74.00	56.43	34.40	6.66	34.96			Peak
3	5419.00	48.67	-5.33	54.00	41.90	34.72	6.88	34.83			Average
4	5419.00	61.83	-12.17	74.00	55.06	34.72	6.88	34.83			Peak
5	11490.00	52.90	-1.10	54.00	4.06	38.49	10.35	0.00			Average
6	11490.00	65.66	-8.34	74.00	16.82	38.49	10.35	0.00			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5745							
N _{TX}	3	Polarization	Н				

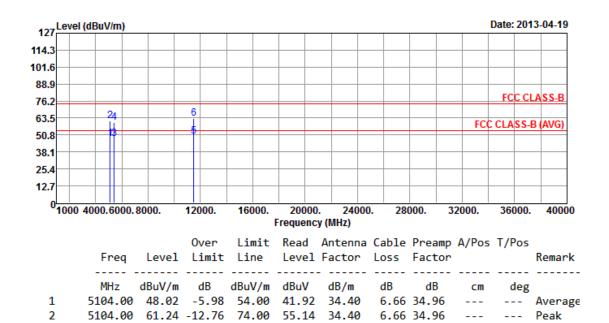
Report No.: FR341809AI

--- Average

--- Average

--- Peak

--- --- Peak



5419.00 47.75 -6.25 54.00 40.98 34.72 6.88 34.83 ---

5419.00 60.31 -13.69 74.00 53.54 34.72 6.88 34.83

11490.00 49.85 -4.15 54.00 35.91 38.49 10.35 34.90

11490.00 63.43 -10.57 74.00 49.49 38.49 10.35 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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FAX: 886-3-3270973

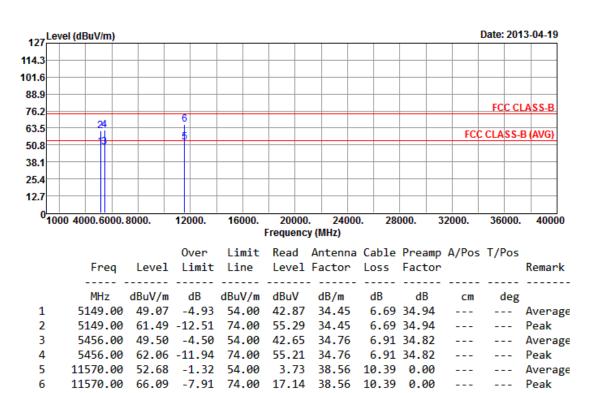
3

4



Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5785							
N _{TX}	3	Polarization	V				

Report No.: FR341809AI



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.

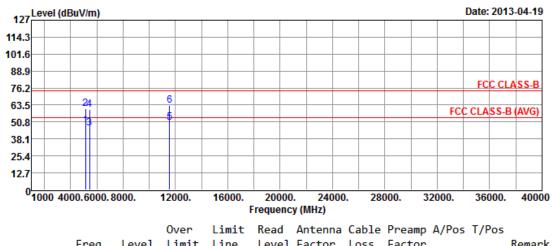
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5785							
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5149.00	48.21	-5.79	54.00	42.01	34.45	6.69	34.94			Average
2	5149.00	60.52	-13.48	74.00	54.32	34.45	6.69	34.94			Peak
3	5456.00	46.38	-7.62	54.00	39.53	34.76	6.91	34.82			Average
4	5456.00	60.17	-13.83	74.00	53.32	34.76	6.91	34.82			Peak
5	11570.00	50.46	-3.54	54.00	36.41	38.56	10.39	34.90			Average
6	11570.00	63.45	-10.55	74.00	49.40	38.56	10.39	34.90			Peak

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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)

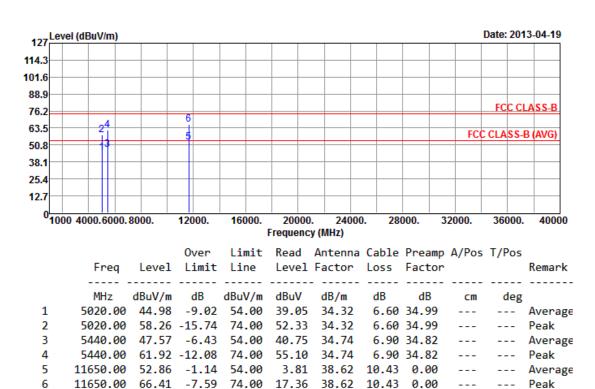
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation ModeHT20Test Freq. (MHz)5825							
N _{TX}	3	Polarization	V				

Report No.: FR341809AI



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.

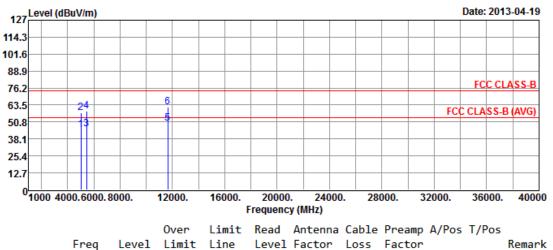
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5825							
N _{TX}	N _{TX} 3 Polarization						

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5020.00	44.93	-9.07	54.00	39.00	34.32	6.60	34.99			Average
2	5020.00	57.58	-16.42	74.00	51.65	34.32	6.60	34.99			Peak
3	5440.00	45.29	-8.71	54.00	38.47	34.74	6.90	34.82			Average
4	5440.00	58.91	-15.09	74.00	52.09	34.74	6.90	34.82			Peak
5	11650.00	49.99	-4.01	54.00	35.84	38.62	10.43	34.90			Average
6	11650.00	61.76	-12.24	74.00	47.61	38.62	10.43	34.90			Peak

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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.

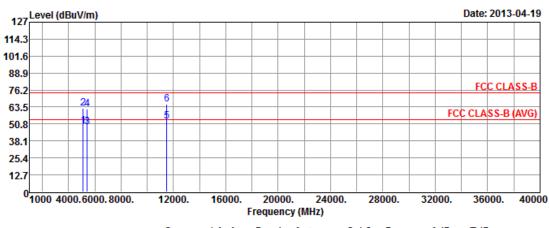
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.



Operating Mode: 3

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5745							
N _{TX}	N _{TX} 3 Polarization						

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	49.15	-4.85	54.00	43.05	34.40	6.66	34.96			Average
2	5104.00	62.41	-11.59	74.00	56.31	34.40	6.66	34.96			Peak
3	5419.00	48.54	-5.46	54.00	41.77	34.72	6.88	34.83			Average
4	5419.00	61.69	-12.31	74.00	54.92	34.72	6.88	34.83			Peak
5	11490.00	52.79	-1.21	54.00	3.95	38.49	10.35	0.00			Average
6	11490.00	65.53	-8.47	74.00	16.69	38.49	10.35	0.00			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.

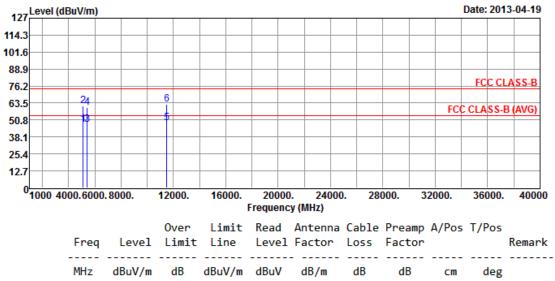
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5745							
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI



	MHZ	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5104.00	47.68	-6.32	54.00	41.58	34.40	6.66	34.96			Average
2	5104.00	61.12	-12.88	74.00	55.02	34.40	6.66	34.96			Peak
3	5419.00	47.65	-6.35	54.00	40.88	34.72	6.88	34.83			Average
4	5419.00	60.23	-13.77	74.00	53.46	34.72	6.88	34.83			Peak
5	11490.00	48.76	-5.24	54.00	34.82	38.49	10.35	34.90			Average
6	11490.00	62.31	-11.69	74.00	48.37	38.49	10.35	34.90			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

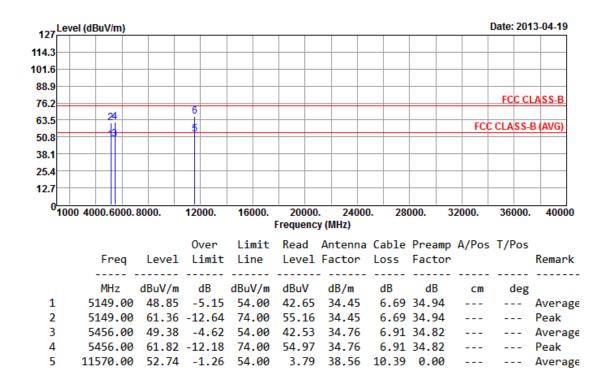
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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT20 Test Freq. (MHz) 5785							
N _{TX}	3	Polarization	V				

Report No.: FR341809AI

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11570.00 66.45 -7.55 74.00 17.50 38.56 10.39 0.00

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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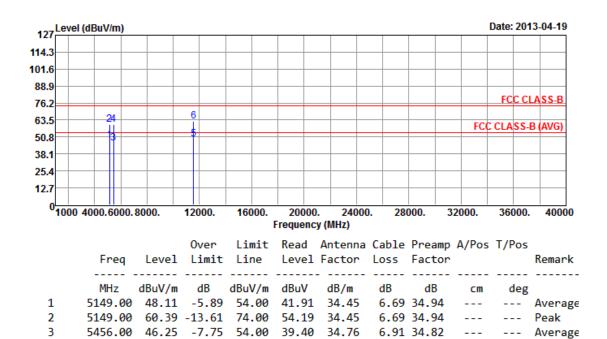


Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	Modulation Mode HT20 Test Freq. (MHz) 5785							
N _{TX}	3	Polarization	Н					

Report No.: FR341809AI

--- Average

--- Peak



5456.00 60.12 -13.88 74.00 53.27 34.76 6.91 34.82 --- Peak

11570.00 49.43 -4.57 54.00 35.38 38.56 10.39 34.90

11570.00 62.34 -11.66 74.00 48.29 38.56 10.39 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

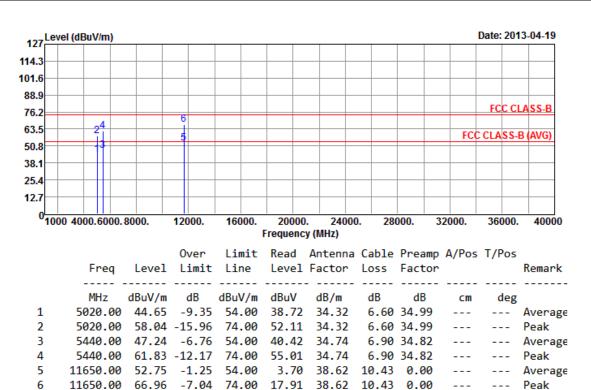
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FAX: 886-3-3270973



Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	HT20	Test Freq. (MHz)	5825					
N _{TX}			V					

Report No.: FR341809AI



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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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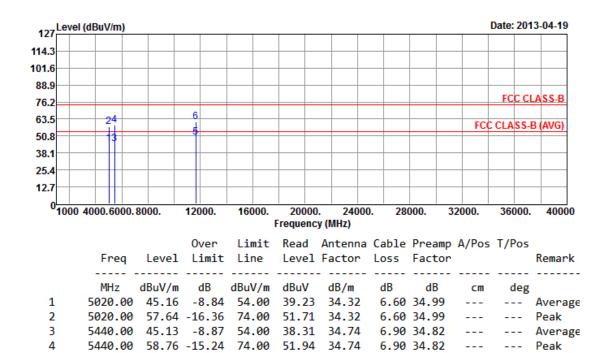


Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT20 Test Freq. (MHz) 5825								
N _{TX}	N _{TX} 3		Н					

Report No.: FR341809AI

--- Average

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11650.00 49.56 -4.44 54.00 35.41 38.62 10.43 34.90

11650.00 61.32 -12.68 74.00 47.17 38.62 10.43 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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FAX: 886-3-3270973

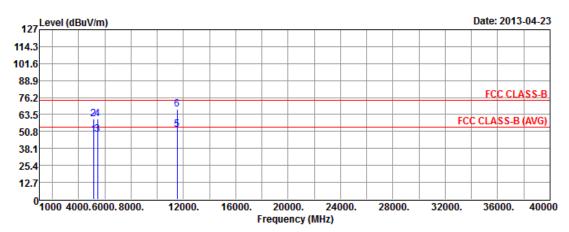


Report No.: FR341809AI

3.6.9 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT40

Operating Mode: 1

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT40 Test Freq. (MHz) 5755								
N _{TX}	3	Polarization	V					



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5125.00	48.13	-5.87	54.00	41.98	34.42	6.68	34.95			Average
2	5125.00	60.22	-13.78	74.00	54.07	34.42	6.68	34.95			Peak
3	5443.00	48.31	-5.69	54.00	41.49	34.74	6.90	34.82			Average
4	5443.00	60.23	-13.77	74.00	53.41	34.74	6.90	34.82			Peak
5	11510.00	52.03	-1.97	54.00	3.16	38.51	10.36	0.00			Average
6	11510.00	67.74	-6.26	74.00	18.87	38.51	10.36	0.00			Peak

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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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

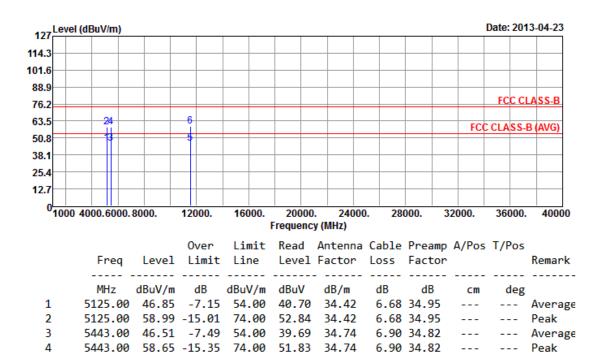


Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	Modulation Mode HT40 Test Freq. (MHz) 5755							
N _{TX}	3	Polarization	Н					

Report No.: FR341809AI

--- Average

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11510.00 46.57 -7.43 54.00 32.60 38.51 10.36 34.90

11510.00 59.46 -14.54 74.00 45.49 38.51 10.36 34.90

Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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FAX: 886-3-3270973

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

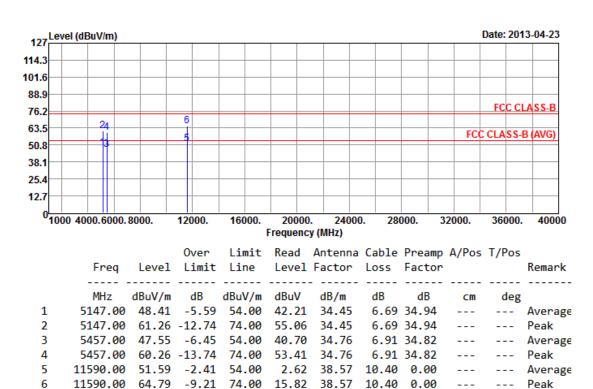
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.



Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	HT40	Test Freq. (MHz)	5795					
N _{TX}	3	Polarization	V					

Report No.: FR341809AI



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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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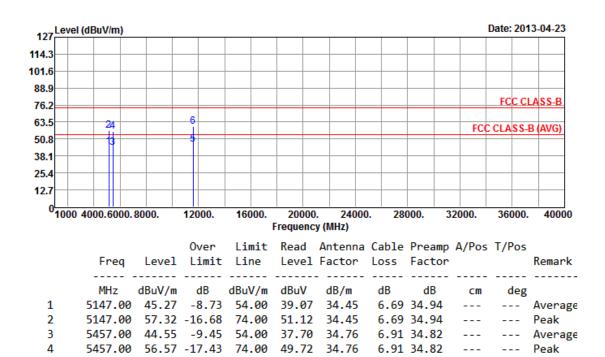


Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode HT40 Test Freq. (MHz) 5795							
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI

--- Average

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11590.00 46.58 -7.42 54.00 32.51 38.57 10.40 34.90

11590.00 60.11 -13.89 74.00 46.04 38.57 10.40 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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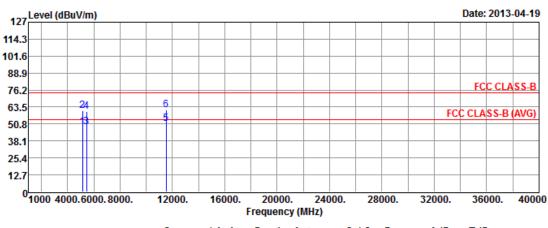
FAX: 886-3-3270973



Operating Mode: 2

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT40 Test Freq. (MHz) 5755								
N _{TX}	3	Polarization	V					

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
						dB/m				_	
1	5125.00	48.43	-5.57	54.00	42.28	34.42	6.68	34.95			Average
2	5125.00	60.62	-13.38	74.00	54.47	34.42	6.68	34.95			Peak
3	5443.00	48.69	-5.31	54.00	41.87	34.74	6.90	34.82			Average
4	5443.00	60.35	-13.65	74.00	53.53	34.74	6.90	34.82			Peak
5	11510.00	51.31	-2.69	54.00	2.44	38.51	10.36	0.00			Average
6	11510.00	61.46	-12.54	74.00	12.59	38.51	10.36	0.00			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

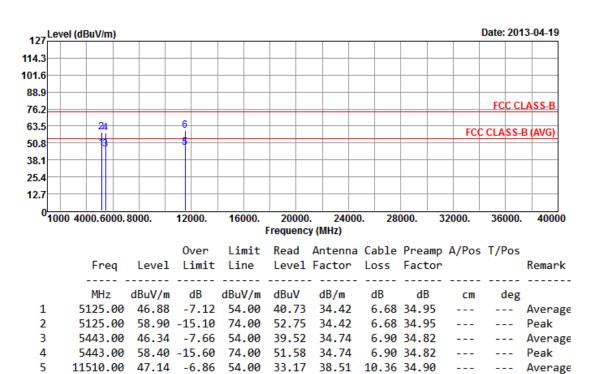
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Transmitter Radiated Unwanted Emissions (Above 1GHz)					
Modulation Mode	HT40	Test Freq. (MHz)	5755		
N _{TX}	3	Polarization	Н		

Report No.: FR341809AI

--- Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11510.00 60.31 -13.69 74.00 46.34 38.51 10.36 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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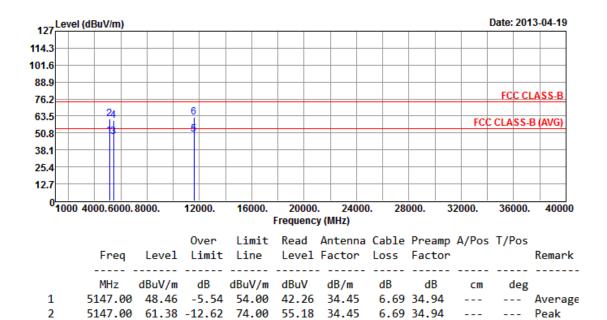
Transmitter Radiated Unwanted Emissions (Above 1GHz)					
Modulation Mode	HT40	Test Freq. (MHz)	5795		
N _{TX}	3	Polarization	V		

Report No.: FR341809AI

--- Average

Average

--- Peak



6	11590.00	62.45 -11.55	74.00	13.48	38.57	10.40	0.00	 	Peak	

5457.00 47.73 -6.27 54.00 40.88 34.76 6.91 34.82 ---

5457.00 60.10 -13.90 74.00 53.25 34.76 6.91 34.82

11590.00 49.53 -4.47 54.00 0.56 38.57 10.40 0.00

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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FAX: 886-3-3270973

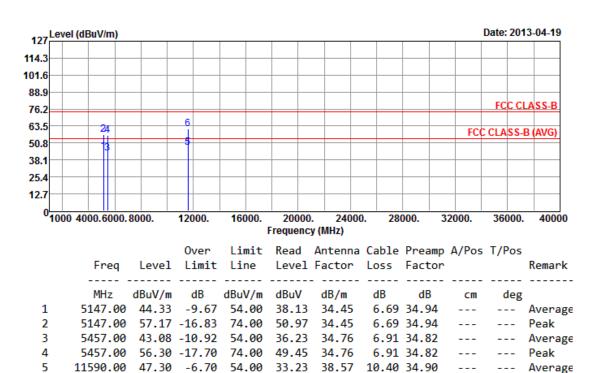
3



Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT40 Test Freq. (MHz) 5795								
N _{TX}	3	Polarization	Н					

Report No.: FR341809AI

--- Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11590.00 61.40 -12.60 74.00 47.33 38.57 10.40 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

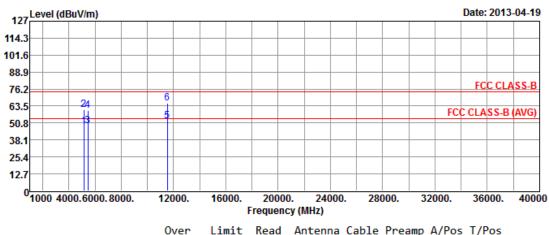
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Operating Mode: 3

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	Modulation Mode HT40 Test Freq. (MHz) 5755								
N _{TX}	3	Polarization	V						

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5125.00	48.25	-5.75	54.00	42.10	34.42	6.68	34.95			Average
2	5125.00	60.53	-13.47	74.00	54.38	34.42	6.68	34.95			Peak
3	5443.00	48.52	-5.48	54.00	41.70	34.74	6.90	34.82			Average
4	5443.00	60.11	-13.89	74.00	53.29	34.74	6.90	34.82			Peak
5	11510.00	52.50	-1.50	54.00	3.63	38.51	10.36	0.00			Average
6	11510.00	65.34	-8.66	74.00	16.47	38.51	10.36	0.00			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.

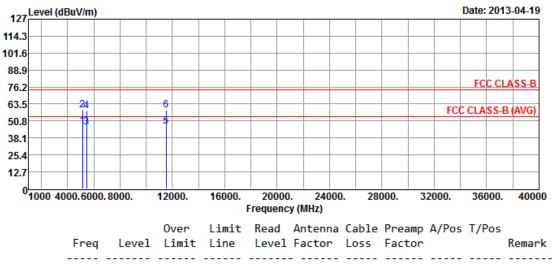
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT40 Test Freq. (MHz) 5755								
N _{TX}	3	Polarization	Н					

Report No.: FR341809AI



	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5125.00	46.68	-7.32	54.00	40.53	34.42	6.68	34.95			Average
2	5125.00	58.72	-15.28	74.00	52.57	34.42	6.68	34.95			Peak
3	5443.00	46.15	-7.85	54.00	39.33	34.74	6.90	34.82			Average
4	5443.00	58.24	-15.76	74.00	51.42	34.74	6.90	34.82			Peak
5	11510.00	47.06	-6.94	54.00	33.09	38.51	10.36	34.90			Average
6	11510.00	59.18	-14.82	74.00	45.21	38.51	10.36	34.90			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.

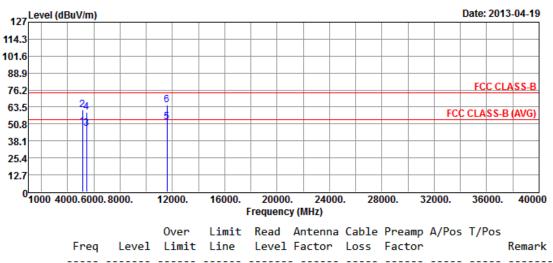
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT40 Test Freq. (MHz) 5795								
N _{TX}	3	Polarization	V					

Report No.: FR341809AI



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5147.00	48.35	-5.65	54.00	42.15	34.45	6.69	34.94			Average
2	5147.00	61.18	-12.82	74.00	54.98	34.45	6.69	34.94			Peak
3	5457.00	47.56	-6.44	54.00	40.71	34.76	6.91	34.82			Average
4	5457.00	59.85	-14.15	74.00	53.00	34.76	6.91	34.82			Peak
5	11590.00	52.25	-1.75	54.00	3.28	38.57	10.40	0.00			Average
6	11590.00	65.13	-8.87	74.00	16.16	38.57	10.40	0.00			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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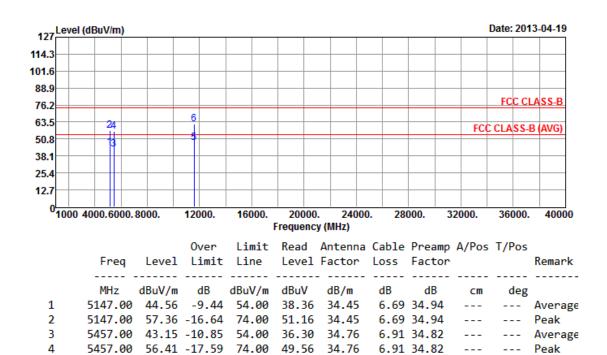


Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT40 Test Freq. (MHz) 5795								
N _{TX}	3	Polarization	Н					

Report No.: FR341809AI

--- Average

Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11590.00 47.86 -6.14 54.00 33.79 38.57 10.40 34.90

11590.00 61.68 -12.32 74.00 47.61 38.57 10.40 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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FAX: 886-3-3270973

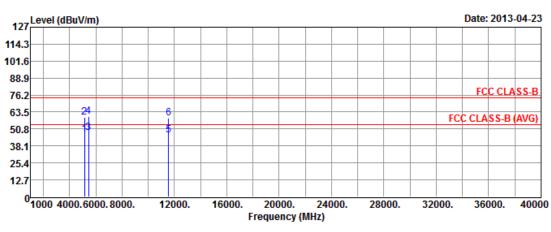
5

3.6.10 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT80

Report No.: FR341809AI

Operating Mode: 1

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode VHT80 Test Freq. (MHz) 5775									
N _{TX}	3	Polarization	V						



			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5136.00	46.55	-7.45	54.00	40.37	34.44	6.69	34.95			Average
2	5136.00	59.31	-14.69	74.00	53.13	34.44	6.69	34.95			Peak
3	5440.00	47.85	-6.15	54.00	41.03	34.74	6.90	34.82			Average
4	5440.00	60.11	-13.89	74.00	53.29	34.74	6.90	34.82			Peak
5	11550.00	46.29	-7.71	54.00	32.27	38.54	10.38	34.90			Average
6	11550.00	59.18	-14.82	74.00	45.16	38.54	10.38	34.90			Peak

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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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

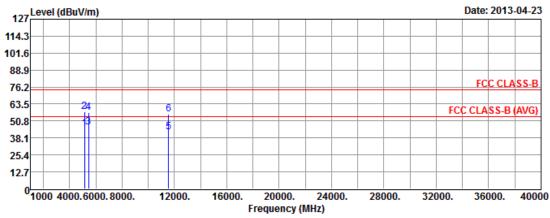


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode VHT80 Test Freq. (MHz) 5775

N_{TX} 3 Polarization H

Report No.: FR341809AI



	Freq	Level				Antenna Factor			•	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5136.00	44.68	-9.32	54.00	38.50	34.44	6.69	34.95			Average
2	5136.00	57.93	-16.07	74.00	51.75	34.44	6.69	34.95			Peak
3	5440.00	46.21	-7.79	54.00	39.39	34.74	6.90	34.82			Average
4	5440.00	57.26	-16.74	74.00	50.44	34.74	6.90	34.82			Peak
5	11550.00	42.44	-11.56	54.00	28.42	38.54	10.38	34.90			Average
6	11550.00	55.89	-18.11	74.00	41.87	38.54	10.38	34.90			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 shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

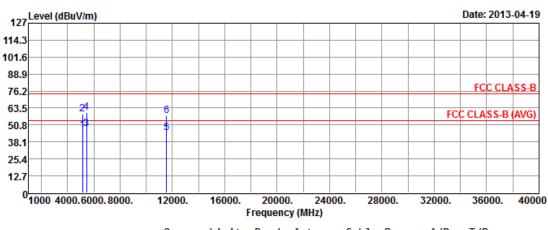
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Operating Mode: 2

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode VHT80 Test Freq. (MHz) 5775								
N _{TX}	3	Polarization	V					

Report No.: FR341809AI



	Freq	Level				Antenna Factor			-	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5136.00	46.61	-7.39	54.00	40.43	34.44	6.69	34.95			Average
2	5136.00	59.21	-14.79	74.00	53.03	34.44	6.69	34.95			Peak
3	5440.00	48.01	-5.99	54.00	41.19	34.74	6.90	34.82			Average
4	5440.00	60.34	-13.66	74.00	53.52	34.74	6.90	34.82			Peak
5	11550.00	45.27	-8.73	54.00	31.25	38.54	10.38	34.90			Average
6	11550.00	57.68	-16.32	74.00	43.66	38.54	10.38	34.90			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.

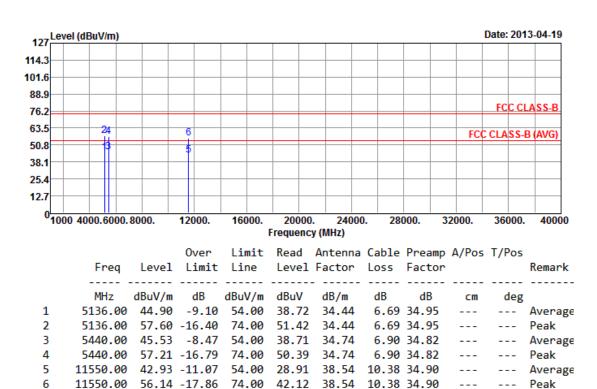
Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	VHT80	Test Freq. (MHz)	5775				
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI



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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

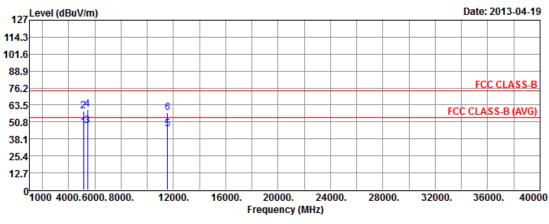
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TEL: 886-3-3273456 Report Version : Rev. 01



Operating Mode: 3

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	VHT80	Test Freq. (MHz)	5775				
N _{TX}	3	Polarization	V				

Report No.: FR341809AI



	Freq	Level				Antenna Factor			•	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5136.00	46.53	-7.47	54.00	40.35	34.44	6.69	34.95			Average
2	5136.00	59.12	-14.88	74.00	52.94	34.44	6.69	34.95			Peak
3	5440.00	47.86	-6.14	54.00	41.04	34.74	6.90	34.82			Average
4	5440.00	60.15	-13.85	74.00	53.33	34.74	6.90	34.82			Peak
5	11550.00	45.69	-8.31	54.00	31.67	38.54	10.38	34.90			Average
6	11550.00	57.88	-16.12	74.00	43.86	38.54	10.38	34.90			Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 5: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

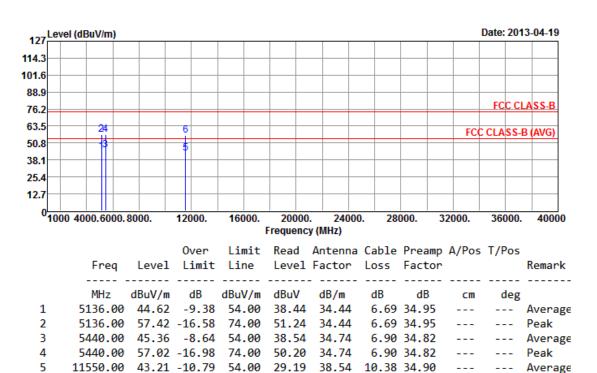
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	VHT80	Test Freq. (MHz)	5775				
N _{TX}	3	Polarization	Н				

Report No.: FR341809AI

--- Peak



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

11550.00 56.62 -17.38 74.00 42.60 38.54 10.38 34.90

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 be attenuated by at least 20 dB relative to the maximum measured in-band level.

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4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9 kHz ~ 2.75 GHz	Mar. 26, 2013	Conduction (CO04-HY)
LISN	SCHWARZBECK MESS-ELEKTRO NIK	NSLK 8127	8127-477	9kHz – 30MHz	Jan. 21, 2013	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9 kHz ~ 30 MHz	Apr. 18, 2013	Conduction (CO04-HY)
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832010001	9 kHz ~ 30 MHz	Nov. 09, 2012	Conduction (CO04-HY)

Report No.: FR341809AI

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	100055	9Kz – 40GHz	Jun. 06, 2012	Radiation (03CH05-HY)
Receiver	R&S	ESIB26	100337	20Hz – 26.5GHz	Jun.21, 2012	Radiation (03CH05-HY)
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH05-HY	30 MHz - 1 GHz 3m	N/A	Radiation (03CH05-HY)
Amplifier	COM-POWER	PA-103	161241	1 MHz ~ 1 GHz	Feb. 26, 2013	Radiation (03CH05-HY)
Amplifier	Agilent	8449B	3008A02665	1GHz – 26.5 GHz	Aug. 28, 2012	Radiation (03CH05-HY)
Horn Antenna	ETS-LINDGREN	3117	66584	1GHz~18GHz	Aug. 09, 2012	Radiation (03CH05-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15GHz ~ 40GHz	Jan. 08, 2013	Radiation (03CH05-HY
RF Cable-R03m	Jye Bao	RG142	03CH05-HY	30 MHz - 1 GHz	Oct. 14, 2012	Radiation (03CH05-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX104	03CH05-HY	1GHz~40GHz	Oct. 14, 2012	Radiation (03CH05-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2725	30 MHz - 1 GHz	Oct. 06, 2012	Radiation (03CH05-HY)
Turn Table	HD	HD100	420/611	0 - 360 degree	N/A	Radiation (03CH05-HY)
Antenna Mast	HD	HD100	240/666	1 m - 4 m	N/A	Radiation (03CH05-HY)

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

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5GHz ~ 40GHz	Apr. 19, 2013	Radiation (03CH05-HY)
Loop Antenna	R&S	HFH2-Z2	860004/0001	9 kHz - 30 MHz	Jul. 03, 2012	Radiation (03CH05-HY)

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

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Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSV 40	101486	9KHz~40GHz	Nov. 14, 2012	Conducted (TH01-HY)
Spectrum Analyzer	R&S	FSP 40	100593	9KHz ~ 40GHz	Aug. 14, 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	1027452	300MHz ~ 40GHz	Sep. 08, 2012	Conducted (TH01-HY)
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	Sep. 08, 2012	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)

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

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