

Equipment : ASUS Tablet

Marketing Name : ASUS Transformer Pad

Brand Name : ASUS Model No. : K010

FCC ID : MSQK010

Standard : 47 CFR FCC Part 15.407

Operating Band : 5150 MHz - 5250 MHz

5250 MHz - 5350 MHz 5470 MHz - 5725 MHz

FCC Classification: NII

Applicant : ASUSTeK COMPUTER INC.

4F, No. 150, LI-TE RD., PEITOU, TAIPEI, TAIWAN

Manufacturer : See section 1.1.1 for more details

The product sample received on Mar. 13, 2014 and completely tested on Mar. 19, 2014. 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:

🔏 ames Fan / Assistant Manager





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# **Summary of Test Result**

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	Conformance Test Specifications								
Report Clause	Ref. Std. Clause	Description	Measured	Limit	Result				
1.1.3	15.203	Antenna Requirement	Antenna connector mechanism complied	FCC 15.203	Complied				
3.1	15.207	AC Power-line Conducted Emissions	[dBuV]: 0.444MHz 41.18 (Margin 5.80dB) - AV 50.92 (Margin 6.06dB) - QP	FCC 15.207	Complied				
3.2	15.407(a)	Emission Bandwidth	Bandwidth [MHz] 20M:19.48 / 40M:40.81	Information only	Complied				
3.3	15.407(a)	RF Output Power (Maximum Conducted Output Power)	Power [dBm] 5150-5250MHz:11.99 5250-5350MHz:11.96 5470-5725MHz:11.93	Power [dBm] 5150-5250MHz:17 5250-5350MHz:24 5470-5725MHz:24	Complied				
3.4	15.407(a)	Peak Power Spectral Density	PPSD [dBm/MHz] 5150-5250MHz:0.72 5250-5350MHz:0.79 5470-5725MHz:0.62	PPSD [dBm/MHz] 5150-5250MHz:4 5250-5350MHz:11 5470-5725MHz:11	Complied				
3.5	15.407(a)	Peak Excursion	10.55 dB	13 dB	Complied				
3.6	15.407(b)	Transmitter Unwanted Emissions	Restricted Bands [dBuV/m at 3m]: 5725.00MHz, 65.21 (Margin 2.99dB) - PK	Non-Restricted Bands: ≤ -27dBm (68.3dBuV/m@3m) Restricted Bands: FCC 15.209	Complied				
3.7	15.407(g)	Frequency Stability	3.6297 ppm	Signal shall remain in-band	Complied				

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# **Revision History**

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Report No.	Version	Description	Issued Date
FR430802AN	Rev. 01	Initial issue of report	Apr. 03, 2014

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# 1 General Description

## 1.1 Information

## 1.1.1 Manufacturer Information

Manufacturer1	: PROTEK (SHANGHAI) LTD 3768 XIU YAN RD KANG QIAO TOWN PU DONG NEW District , Shanghai, China
Manufacturer2	: TECH-COM (SHANGHAI) COMPUTER CO., LTD 68 SANZHUANG RD, SONGJIANG EXPORT PROCESSING ZONE, SHANGHAI 201613, CHINA
Manufacturer3	: DIGITEK (CHONGQING)LIMITED B01,SECTION C, AIRPORT FUNCTION ZONE,LIANGLU CUNTAN FREE TRADE PORT AREA, YUBEI DISTRICT CHONGQING CITY, CHINA
Manufacturer4	: WISTRON INFOCOMM (SUNSHAN) CO LTD FIRST AVE KUNSHAN INTEGRATED FREE TRADE ZONE KUNSHAN JIANGSU CHINA
Manufacturer5	: COTEK ELECTRONICS (KUZHOU) CO LTD 288 MAYUN RD NEW DISTRICT SUZHOU JIANGSU 215011 CHINA
Manufacturer6	: TECH-FRONT (CHONGQING)COMPUTER CO LTD 18,ZONGBAO ROAD, SHAPINGBA DISTRICT, CHONGQING, CHINA
Manufacturer7	: WISTRON INFOCOMM(CHONGQING)CO LTD No. 18-9 baohong Avenue, Wangjia Sub-district, Yubei District, Chongging, China

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## 1.1.2 RF General Information

RF General Information							
Frequency Range (MHz)	IEEE Std. 802.11			Transmit Chains (N <sub>TX</sub> )	RF Output Power (dBm)	Co-location	
5150-5250	а	5180-5240	36-48 [4]	1	11.99	N/A	
5250-5350		5260-5320	52-64 [4]	1	11.96		
5470-5725		5500-5700	100-140 [8]	1	11.93		
5150-5250	n (HT20)	5180-5240	36-48 [4]	1	9.91	N/A	
5250-5350		5260-5320	52-64 [4]	1	9.88		
5470-5725		5500-5700	100-140 [8]	1	9.99		
5150-5250	n (HT40)	5190-5230	38-46 [2]	1	9.55	N/A	
5250-5350		5270-5310	54-62 [2]	1	9.60		
5470-5725		5510-5670	102-134 [3]	1	9.99		

Note 1: RF output power specifies that Maximum Conducted Output Power.

Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM 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.)

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## 1.1.3 Antenna Information

		Antenna Category				
$\boxtimes$	Inte	gral antenna (antenna permanently attached)				
	$\boxtimes$	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.				
	Exte	ernal antenna (dedicated antennas)				
		Single power level with corresponding antenna(s).				
		Multiple power level and corresponding antenna(s).				
	RF connector provided					
	☐ Unique antenna connector. (e.g., MMCX, U.FL, IPX, and RP-SMA, RP-N type)					
		☐ Standard antenna connector. (e.g., SMA, N, BNC, and TNC type)				

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	Antenna General Information							
No.	Ant. Cat.	Ant. Type	Gain (dBi)					
1	Integral	PIFA	5150~5250MHz : 2.82 5250~5350MHz : 2.06 5470~5725MHz : 1.23					

## 1.1.4 Type of EUT

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

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## 1.1.5 Test Signal Duty Cycle

	Operated Mode for Worst Duty Cycle						
	Operated normally mode for worst duty cycle						
$\boxtimes$	○ Operated test mode for worst duty cycle						
	Test Signal Duty Cycle (x)  Power Duty Factor [dB] – (10 log 1/x)						
$\boxtimes$	94.33% - IEEE 802.11a	0.25					
$\boxtimes$	93.99% - IEEE 802.11n (HT20)	0.27					
$\boxtimes$	88.56% - IEEE 802.11n (HT40)	0.53					

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## 1.1.6 EUT Operational Condition

Supply Voltage		□ DC	
Type of DC Source	☐ Internal DC supply		Battery
Test Voltage		∨ Max (4.2 V)	
Test Climatic	⊠ Tnom (20°C)		☐ Tmin (-30°C)

## 1.2 Accessories

	Accessories							
No.	Equipment	Model Name	Remarks					
1	AC Adapter 1	ASUS	PSM06A-050Q	I/P: 100-240Vac, 0.25A O/P: 5.2Vdc, 1.35A				
2	AC Adapter 2	ASUS	PA-1070-07	I/P: 100-240Vac, 0.25A O/P: 5.2Vdc, 1.35A				
3	USB cable	ASUS		0.97m shielding cable				
4	Battery	ASUS	C11P1328	Power Rating: 3.75Vdc or 3.7Vdc 19Wh				

## 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 789033
- FCC KDB 644545 D01
- FCC KDB 662911
- FCC KDB 412172

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#### **Testing Location Information** 1.4

	Testing Location							
$\boxtimes$	Sporton Lab	ADD	) :	No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, : Tao Yuan Hsien, Taiwan, R.O.C.				
		TEL	:	886-3-327-3450	6 FAX : 886	6-3-327-0973		
$\boxtimes$	ICC Lab	ADD TEL	Taiwan (R.O.C.)					
Te	est Conditio	n	Т	est Site No.	Test Engineer	Test Environment	Test Date	
RF Conducted TH01-HY Mark Liao 21°C / 62% Mar.				Mar. 17, 2014				
AC Conduction* CO01-WS Skys Huang 19°C / 65% Mar.			Mar. 17, 2014					
Rac	liated Emiss	ion*	C	3CH02-WS	Skys Huang	20°C / 64%	Mar. 13 ~ 19, 2014	

Note: \* Sporton Lab subcontracts this test item to ICC lab (TAF:2732).

ICC lab is a TAF accreditation test firm and also is an approved provider of Sporton Lab.

#### 1.5 **Measurement Uncertainty**

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

Measurement Uncertainty					
Test Item	Uncertainty	Limit			
AC power-line conducted emissions		±2.26 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			
All emissions, radiated	30 – 1000 MHz	±3.90 dB	N/A		
	1 – 25 GHz	±4.20 dB	N/A		
Temperature		±0.8 °C	N/A		
Humidity		±3 %	N/A		
DC and low frequency voltages	±3 %	N/A			
Time	±1.42 %	N/A			
Duty Cycle		±1.42 %	N/A		

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2 Test Configuration of EUT

# 2.1 The Worst Case Modulation Configuration

	Worst Modulation Used f	for Conformance Testing	
Modulation Mode	Transmit Chains (N <sub>TX</sub> )	Data Rate / MCS	Worst Data Rate / MCS
11a,6-54Mbps	1	6-54Mbps	6 Mbps
HT20,M0-7	1	M0-7	M0
HT40,M0-7	1	M0-7	M0

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## 2.2 The Worst Case Power Setting Parameter

The V	Vorst (	Case Power	r Setting Pa	rameter (51	50-5250MH	z band)	
Test Software Version	adb (	db command, version: 1.0.31					
Test Frequency (MHz)							
<b>Modulation Mode</b>	N <sub>TX</sub> NCB: 20MHz		NCB: 40MHz				
		5180	5200	5240	5190	5230	
11a,6-54Mbps	1	13.5	13.5	13.5			
HT20,M0-7	1	11.5	11.5	11.5			
HT40,M0-7	1				11	11	

The V	orst (	Case Power	r Setting Pa	rameter (52	50-5350MH	z band)	
Test Software Version	adb (	ndb command, version: 1.0.31					
				Test Fred	uency (MH	z)	
<b>Modulation Mode</b>	N <sub>TX</sub>	NCB: 20MHz		NCB: 40MHz			
		5260	5300	5320	5270	5310	
11a,6-54Mbps	1	13.5	13.5	13.5			
HT20,M0-7	1	11.5	11.5	11.5			
HT40,M0-7	1				11	11	

The W	orst C	ase Power	Setting Para	meter (5470	)-5725 MHz k	oand)	
Test Software Version	adb o	adb command, version: 1.0.31					
				Test Frequ	ency (MHz)		
<b>Modulation Mode</b>	N <sub>TX</sub>	NCB: 20MHz			NCB: 40MHz		
		5500	5580	5700	5510	5550	5670
11a,6-54Mbps	1	13.5	13.5	13.5			
HT20,M0-M7	1	12	12	12			
HT40,M0-M7	1				11.5	11.5	11.5

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## 2.3 The Worst Case Measurement Configuration

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

Note: Adapter 1 and Adapter 2 had been pretested and found that **Adapter 1** was the worst case and was selected for final testing (Adapter 1: PSM06A-050Q; Adapter 2: PA-1070-07).

The Worst Case Mode for Following Conformance Tests				
Tests Item	RF Output Power, Peak Power Spectral Density, Emission Bandwidth, Peak Excursion			
Test Condition	Conducted measurement at transmit chains			
Modulation Mode	11a, HT20, HT40			

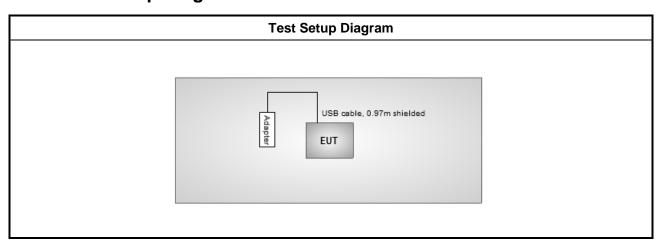
Th	The Worst Case Mode for Following Conformance Tests					
Tests Item		Transmitter Radiated Unwanted Emissions Transmitter Radiated Bandedge Emissions				
Test Condition	Radiated measurement  If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.					
User Position	☐ EUT will be placed in	fixed position.				
	EUT will be placed in mobile position and operating multiple positions. EUT shall be performed three orthogonal planes. The worst planes is Z.					
	EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions. EUT shall be performed two or three orthogonal planes. The worst planes is X.					
Operating Mode						
Modulation Mode	11a, HT20, HT40	11a, HT20, HT40				
	X Plane	Y Plane	Z Plane			
Orthogonal Planes of EUT						

Note: Adapter 1 and Adapter 2 had been pretested and found that **Adapter 1** was the worst case and was selected for final testing (Adapter 1: PSM06A-050Q; Adapter 2: PA-1070-07).

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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

AC Power	er-line Conducted Emissions L	imit
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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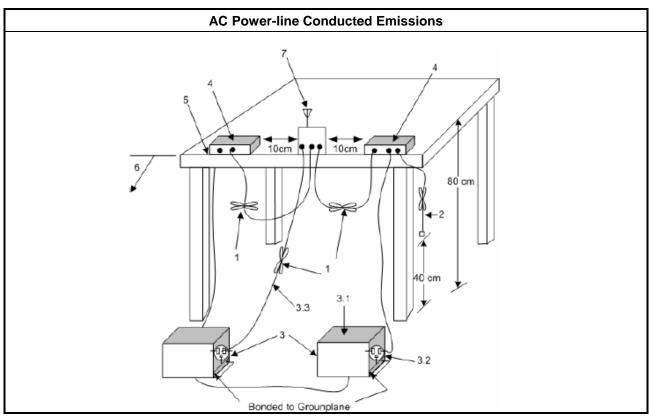
## 3.1.2 Measuring Instruments

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.

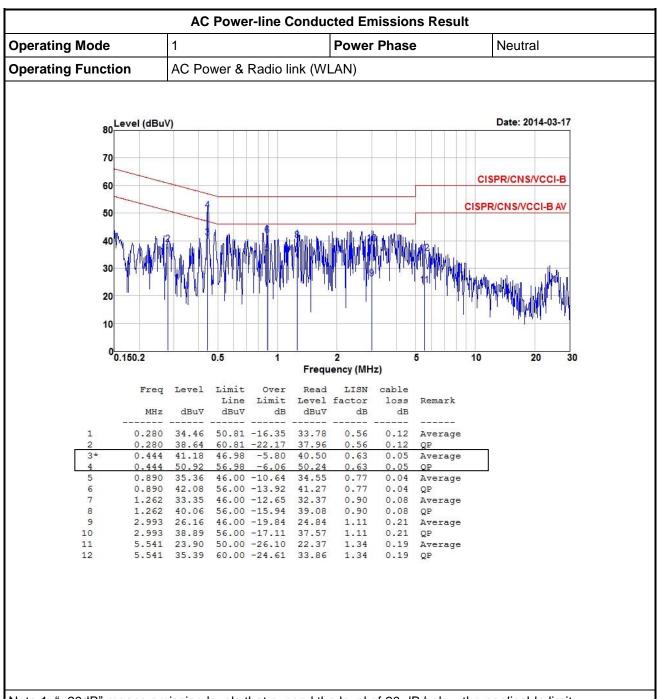
## 3.1.4 Test Setup



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#### 3.1.5 Test Result of AC Power-line Conducted Emissions



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.)

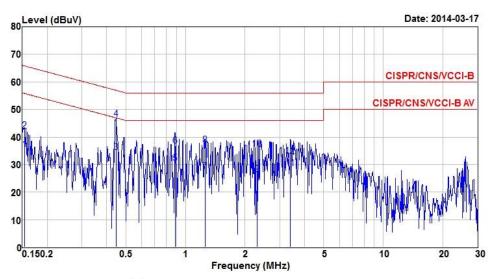
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AC Power-line Conducted Emissions Result

Operating Mode 1 Power Phase Line

Operating Function AC Power & Radio link (WLAN)

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	Freq	Level	Limit	Over	Read	LISN	cable	
			Line	Limit	Level	factor	loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.154	35.34	55.78	-20.44	34.86	0.41	0.07	Average
2	0.154	42.20	65.78	-23.58	41.72	0.41	0.07	QP
3	0.447	34.49	46.93	-12.44	33.89	0.55	0.05	Average
4*	0.447	46.57	56.93	-10.36	45.97	0.55	0.05	QP
5	0.890	30.49	46.00	-15.51	29.75	0.70	0.04	Average
6	0.890	36.78	56.00	-19.22	36.04	0.70	0.04	QP
7	1.262	27.27	46.00	-18.73	26.37	0.82	0.08	Average
8	1.262	37.08	56.00	-18.92	36.18	0.82	0.08	QP
9	2.309	26.44	46.00	-19.56	25.24	1.02	0.18	Average
10	2.309	35.72	56.00	-20.28	34.52	1.02	0.18	QP
11	3.399	28.68	46.00	-17.32	27.40	1.06	0.22	Average
12	3.399	33.16	56.00	-22.84	31.88	1.06	0.22	QP

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

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

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## 3.2 Emission Bandwidth

## 3.2.1 Emission Bandwidth (EBW) Limit

	Emission Bandwidth (EBW) Limit
UNI	I Devices
$\boxtimes$	For the $5.15-5.25$ GHz band, the maximum conducted output power shall not exceed the lesser of $50$ mW or $4 \text{ dBm} + 10 \log B$ , where B is the $26 \text{ dB}$ emission bandwidth in MHz.
$\boxtimes$	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
$\boxtimes$	For the $5.47-5.725$ GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
	For the $5.725$ - $5.825$ GHz band, the maximum conducted output power shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz
LE-	LAN Devices
$\boxtimes$	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
$\boxtimes$	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
$\boxtimes$	For the $5.47$ - $5.6$ GHz band and $5.65$ - $5.725$ GHz band, the maximum e.i.r.p. shall not exceed $1.0$ W or $17 + 10 \log B$ , dBm, whichever power is less. B is the $99\%$ emission bandwidth in MHz
	For the 5.725-5.825 GHz band, the maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

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## 3.2.2 Measuring Instruments

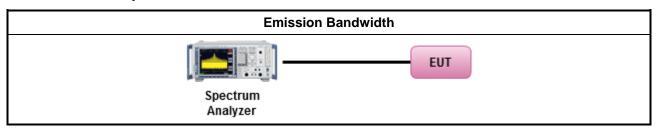
Refer a test equipment and calibration data table in this test report.

## 3.2.3 Test Procedures

		Test Method										
$\boxtimes$	For	the emission bandwidth shall be measured using one of the options below:										
	$\boxtimes$	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.										
		Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.										
	$\boxtimes$	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.										
$\boxtimes$	For	For conducted measurement.										
	$\boxtimes$	The EUT supports single transmit chain and measurements performed on this transmit chain.										
		The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.										
		The EUT supports multiple transmit chains using options given below:										
		Option 1: Multiple transmit chains measurements need to be performed on one of the active transmit chains (antenna outputs). All measurement had be performed on transmit chains 1.										
		Option 2: Multiple transmit chains measurements need to be performed on each transmit chains individually (antenna outputs). All measurement had be performed on all transmit chains.										

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## 3.2.4 Test Setup



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## 3.2.5 Test Result of Emission Bandwidth

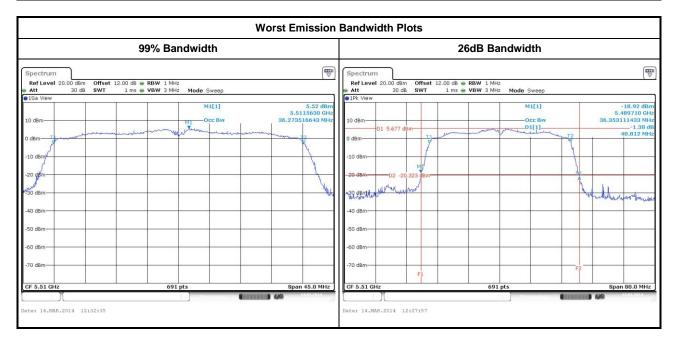
		UNII	Emissio	n Bandw	vidth Re	sult (51	50-5250 <b>l</b>	MHz ban	d)				
Condit	ion		Emission Bandwidth (MHz)										
		Freq.		26dB Ba	ndwidth	1		99% Ba	ndwidth		Power	Power Limit	
Modulation Mode	N <sub>TX</sub>	(MHz)	Chain- Port 1	Chain- Port 2	Chain- Port 3	Chain- Port 4	Chain- Port 1	Chain- Port 2	Chain- Port 3	Chain- Port 4	26dB BW	99% BW	
11a	5180	19.07				16.50				16.80	16.17		
11a	1	5200	19.13				16.53				16.82	16.18	
11a	1	5240	19.19				16.53				16.83	16.18	
HT20	1	5180	19.42				17.47				16.88	16.42	
HT20	1	5200	19.36				17.47				16.87	16.42	
HT20	1	5240	19.48				17.47				16.90	16.42	
HT40	40.70				36.14				17.00	17.00			
HT40	1	5230	40.46				36.21				17.00	17.00	
Resu			Complied										

		UNII E	Emissio	n Bandv	vidth Re	sult (52	50-5350	MHz ban	d)				
Condit	ion		Emission Bandwidth (MHz)										
		Eroa	:	26dB Ba	ndwidth	1		99% Ba	ndwidth		Power	r Limit	
Modulation Mode	N <sub>TX</sub>	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	26dB BW	99% BW	
11a	1	5260	19.25				16.53				23.84	23.18	
11a	1	5300	19.19				16.53				23.83	23.18	
11a	1	5320	18.96				16.53				23.78	23.18	
HT20	1	5260	19.48				17.47				23.90	23.42	
HT20	1	5300	19.42				17.51				23.88	23.43	
HT20	HT20 1 5320						17.47				23.86	23.42	
HT40	40.70				36.14				24.00	24.00			
HT40	HT40 1 5310						36.21				24.00	24.00	
Resu			Complied										

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		UNII	Emissio	n Bandw	vidth Re	sult (547	70-5725	MHz ban	d)				
Condit	ion		Emission Bandwidth (MHz)										
		Freq.	:	26dB Ba	ndwidth	1	99% Bandwidth				Power Limit		
Modulation Mode	N <sub>TX</sub>	(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	26dB BW	99% BW	
11a	1	5500	19.07				16.53		1		23.80	23.18	
11a	1	5580	19.13				16.50		1		23.82	23.17	
11a	1	5700	19.13				16.50		1		23.82	23.17	
HT20	1	5500	19.36				17.51				23.87	23.43	
HT20	1	5580	19.42				17.51				23.88	23.43	
HT20	1	5700	19.48				17.51				23.90	23.43	
HT40	1	5510	40.81				36.27				24.00	24.00	
HT40	40.35				36.21				24.00	24.00			
HT40	40.58				36.27				24.00	24.00			
Resu	lt						Com	plied					



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## 3.3 RF Output Power

## 3.3.1 RF Output Power Limit

	Maximum Conducted Output Power Limit
UNI	Il Devices
$\boxtimes$	For the 5.15-5.25 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$ .
	For the 5.25-5.35 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .
$\boxtimes$	For the 5.47-5.725 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX}$ > 6 dBi, then $P_{Out}$ = 24 – ( $G_{TX}$ – 6).
	For the 5.725-5.825 GHz band:
	Point-to-multipoint systems (P2M): the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ .
	Point-to-point systems (P2P): the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$ .
LE-	LAN Devices
	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
	For the 5.725-5.825 GHz band, the maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
	Point-to-multipoint systems (P2M): the maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
	Point-to-point systems (P2P): the maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. If e.i.r.p. > 36 dBm, $G_{TX} \le P_{Out}$
	= maximum conducted output power in dBm, = the maximum transmitting antenna directional gain in dBi.

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## 3.3.2 Measuring Instruments

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

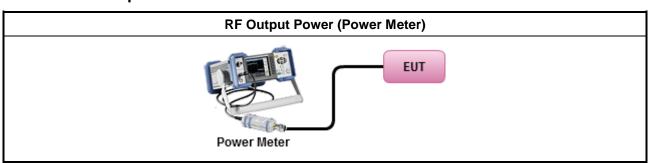
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## 3.3.3 Test Procedures

		Test Method
$\boxtimes$	Max	imum Conducted Output Power
	[dut	y cycle ≥ 98% or external video / power trigger]
		Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
		Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty	cycle < 98% and average over on/off periods with duty factor
		Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
		Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wid	eband RF power meter and average over on/off periods with duty factor
	$\boxtimes$	Refer as FCC KDB 789033, clause E Method PM (using an RF average power meter).
$\boxtimes$	For	conducted measurement.
	$\boxtimes$	The EUT supports single transmit chain and measurements performed on this transmit chain.
		The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
		The EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
		If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

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## 3.3.4 Test Setup



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## 3.3.5 Directional Gain for Power Measurement

Directio	nal Gain	(DG) Result for	5150 ~ 5250 MF	lz band	
Transmit Chains No.		1		-	-
Maximum G <sub>ANT</sub> (dBi)		2.82		-	-
Modulation Mode	DG (dBi)	N <sub>TX</sub>	N <sub>SS</sub> (Min.)	STBC	Array Gain (dB)
11a,6-54Mbps	2.82	1	1	-	-
HT20,M0-7	2.82	1	1	=	=
HT40,M0-7	2.82	1	1	-	-

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Direction	nal Gain	(DG) Result for	5250 ~ 5350 MH	Iz band	
Transmit Chains No.		1		-	-
Maximum G <sub>ANT</sub> (dBi)		2.06		-	-
Modulation Mode	DG (dBi)	N <sub>TX</sub>	N <sub>ss</sub> (Min.)	STBC	Array Gain (dB)
11a,6-54Mbps	2.06	1	1	-	-
HT20,M0-7	2.06	1	1	-	-
HT40,M0-7	2.06	1	1	-	-

Direction	nal Gain	(DG) Result for	5470 ~ 5725 MH	lz band	
Transmit Chains No.		1			
Maximum G <sub>ANT</sub> (dBi)		1.23			
Modulation Mode	DG (dBi)	N <sub>TX</sub>	N <sub>SS</sub>	STBC	Array Gain (dB)
11a,6-54Mbps	1.23	1	1	-	-
HT20,M0-7	1.23	1	1	-	-
HT40,M0-7	1.23	1	1	-	-

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## 3.3.6 Test Result of Maximum Conducted Output Power

		Maxim	num Cond	ucted Out	put Powe	r (5150-52	50MHz ba	and)					
Condit	tion		RF Output Power (dBm)										
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit		
11a	1	5180	11.94				11.94	16.80	2.82	14.76	22.80		
11a	1	5200	11.96				11.96	16.82	2.82	14.78	22.82		
11a	1	5240	11.99				11.99	16.83	2.82	14.81	22.83		
HT20	1	5180	9.76				9.76	16.88	2.82	12.58	22.88		
HT20	1	5200	9.87				9.87	16.87	2.82	12.69	22.87		
HT20	1	5240	9.91				9.91	16.90	2.82	12.73	22.90		
HT40	1	5190	9.51				9.51	17.00	2.82	12.33	23.00		
HT40	1	5230	9.55				9.55	17.00	2.82	12.37	23.00		
Resu	ılt			Complied									

		Maxim	num Cond	ucted Out	put Powe	r (5250-53	50MHz ba	and)				
Condit	ion		RF Output Power (dBm)									
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit	
11a	1	5260	11.89				11.89	23.84	2.06	13.95	29.84	
11a	1	5300	11.90				11.90	23.83	2.06	13.96	29.83	
11a	1	5320	11.96				11.96	23.78	2.06	14.02	29.78	
HT20	1	5260	9.80				9.80	23.90	2.06	11.86	29.90	
HT20	1	5300	9.86				9.86	23.88	2.06	11.92	29.88	
HT20	1	5320	9.88				9.88	23.86	2.06	11.94	29.86	
HT40	1	5270	9.57				9.57	24.00	2.06	11.63	30.00	
HT40	1	5310	9.60				9.60	24.00	2.06	11.66	30.00	
Resu	ılt						Complied					

		Maxin	num Cond	ucted Out	put Powe	r (5470-57	25MHz ba	and)				
Condi	tion		RF Output Power (dBm)									
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit	
11a	1	5500	11.75				11.75	23.80	1.23	12.98	29.80	
11a	1	5580	11.86				11.86	23.82	1.23	13.09	29.82	
11a	1	5700	11.93				11.93	23.82	1.23	13.16	29.82	
HT20	1	5500	9.87				9.87	23.87	1.23	11.10	29.87	
HT20	1	5580	9.95				9.95	23.88	1.23	11.18	29.88	
HT20	1	5700	9.99				9.99	23.90	1.23	11.22	29.90	
HT40	1	5510	9.91				9.91	24.00	1.23	11.14	30.00	
HT40	1	5550	9.93				9.93	24.00	1.23	11.16	30.00	
HT40	1	5670	9.99				9.99	24.00	1.23	11.22	30.00	
Resu	ılt						Complied					

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## 3.4 Peak Power Spectral Density

## 3.4.1 Peak Power Spectral Density Limit

	Peak Power Spectral Density Limit
UNI	II Devices
$\boxtimes$	For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) $\leq$ 4 dBm/MHz. If $G_{TX} >$ 6 dBi, then PPSD = 4 – ( $G_{TX}$ – 6).
$\boxtimes$	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq$ 11 dBm/MHz. If $G_{TX} >$ 6 dBi, then PPSD= 11 – $(G_{TX} - 6)$ .
$\boxtimes$	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) $\leq$ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then PPSD= 11 – $(G_{TX} - 6)$ .
	For the 5.725-5.825 GHz band:
	Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) $\leq$ 17 dBm/MHz. If $G_{TX}$ > 6 dBi, then PPSD= 17 – ( $G_{TX}$ – 6).
	Point-to-point systems (P2P): the peak power spectral density (PPSD) $\leq$ 17 dBm/MHz. If $G_{TX} > 23$ dBi, then PPSD = 17 – ( $G_{TX} - 23$ ).
LE-	LAN Devices
	For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) $\leq$ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) $\leq$ 10 dBm/MHz.
$\boxtimes$	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq$ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) $\leq$ 17 dBm/MHz.
$\boxtimes$	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) $\leq$ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) $\leq$ 17 dBm/MHz.
	For the 5.725-5.825 GHz band, the peak power spectral density (PPSD) $\leq$ 17 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) $\leq$ 23 dBm/MHz.
pow	<b>SD</b> = peak power spectral density that he same method as used to determine the conducted output ver shall be used to determine the power spectral density. And power spectral density in dBm/MHz = the maximum transmitting antenna directional gain in dBi.

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## 3.4.2 Measuring Instruments

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

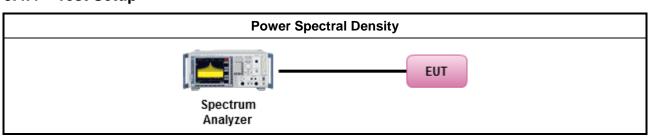
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## 3.4.3 Test Procedures

		Test Method
$\boxtimes$	outp func	c power spectral density procedures that the same method as used to determine the conducted out power shall be used to determine the peak power spectral density and use the peak search tion on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density be measured using below options:
		Refer as FCC KDB 789033, F)5) power spectral density can be measured using resolution bandwidths $<$ 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty	cycle ≥ 98% or external video / power trigger]
		Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
		Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty	cycle < 98% and average over on/off periods with duty factor
		Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	$\boxtimes$	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
$\boxtimes$	For	conducted measurement.
	$\boxtimes$	The EUT supports single transmit chain and measurements performed on this transmit chain.
		The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
		The EUT supports multiple transmit chains using options given below:
		Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power 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.
		Option 2: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
		If multiple transmit chains, EIRP PPSD calculation could be following as methods: $ PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n \\ (calculated in linear unit [mW] and transfer to log unit [dBm]) \\ EIRP_{total} = PPSD_{total} + DG $
		Each individually PPSD plots refer as test report clause 3.3.5 with each individually PPSD plots.

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## 3.4.4 Test Setup



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3.4.5 Test Result of Peak Power Spectral Density

	Peak Power Spectral Density Result (5150-5250MHz band)										
Condi	tion				Peak	Power Sp	ectral Den	sity (dBm	n/MHz)		
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	PSD Limit	DG (dBi)	EIRP PSD	EIRP Limit
11a	1	5180	0.50				0.50	4.00	2.82	3.32	10.00
11a	1	5200	0.61				0.61	4.00	2.82	3.43	10.00
11a	1	5240	0.72				0.72	4.00	2.82	3.54	10.00
HT20	1	5180	-1.85				-1.85	4.00	2.82	0.97	10.00
HT20	1	5200	-1.70				-1.70	4.00	2.82	1.12	10.00
HT20	1	5240	-1.65				-1.65	4.00	2.82	1.17	10.00
HT40	1	5190	-4.22				-4.22	4.00	2.82	-1.40	10.00
HT40	1	5230	-4.06				-4.06	4.00	2.82	-1.24	10.00
Result				Complied							

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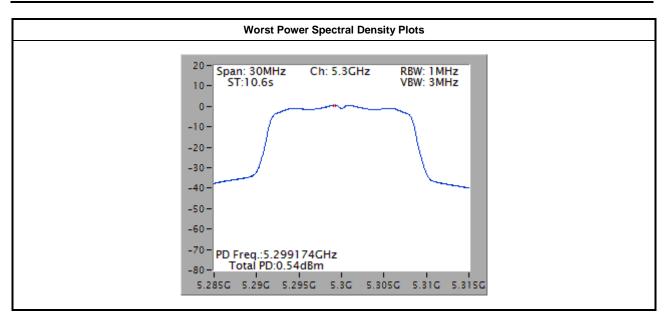
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	Peak Power Spectral Density Result (5250-5350MHz band)										
Condit	tion				Peak	Power Sp	ectral Der	sity (dBm	n/MHz)		
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	PSD Limit	DG (dBi)	EIRP PSD	EIRP Limit
11a	1	5260	0.78				0.78	11.00	2.06	2.84	17.00
11a	1	5300	0.79				0.79	11.00	2.06	2.85	17.00
11a	1	5320	0.69				0.69	11.00	2.06	2.75	17.00
HT20	1	5260	-1.46				-1.46	11.00	2.06	0.60	17.00
HT20	1	5300	-1.52				-1.52	11.00	2.06	0.54	17.00
HT20	1	5320	-1.65				-1.65	11.00	2.06	0.41	17.00
HT40	1	5270	-4.01				-4.01	11.00	2.06	-1.95	17.00
HT40	1	5310	-4.04				-4.04	11.00	2.06	-1.98	17.00
Resu	Result						Complied				

	Peak Power Spectral Density Result (5470-5725MHz band)										
Condit	ion			Peak Power Spectral Density (dBm/MHz)							
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 4	Sum Chain	PSD Limit	DG (dBi)	EIRP PSD	EIRP Limit
11a	1	5500	0.24				0.24	11.00	1.23	1.47	17.00
11a	1	5580	0.27				0.27	11.00	1.23	1.50	17.00
11a	1	5700	0.62				0.62	11.00	1.23	1.85	17.00
HT20	1	5500	-1.12				-1.12	11.00	1.23	0.11	17.00
HT20	1	5580	-1.09				-1.09	11.00	1.23	0.14	17.00
HT20	1	5700	-0.58				-0.58	11.00	1.23	0.65	17.00
HT40	1	5510	-4.58				-4.58	11.00	1.23	-3.35	17.00
HT40	1	5550	-4.62				-4.62	11.00	1.23	-3.39	17.00
HT40	1	5670	-4.23				-4.23	11.00	1.23	-3.00	17.00
Resu	Result						Complied				

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Note: Power Spectral Density plot without duty factor.

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## 3.5 Peak Excursion

#### 3.5.1 Peak Excursion Limit

# Peak Excursion Limit UNII Devices Peak excursion ≤ 13 dB. The ratio of the maximum of the peak-max-hold spectrum to the maximum of the average spectrum for continuous transmission does not exceed 13 dB. (Earlier procedures that required computing the ratio of the two spectra at each frequency across the emission bandwidth can lead to unintended failures at band edges and will no longer be required.) LE-LAN Devices N/A

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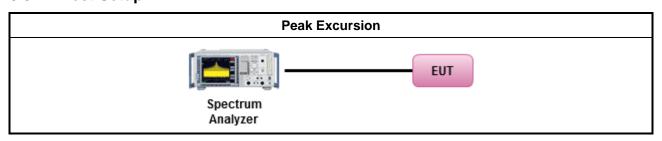
## 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

	Test Method
$\boxtimes$	Refer as FCC KDB 789033, clause G peak excursion method.
$\boxtimes$	Testing each modulation mode on a single channel is sufficient to demonstrate compliance with the peak excursion requirement
$\boxtimes$	For conducted measurement.
	☐ Testing a single output port is sufficient to demonstrate compliance with the peak excursion.

## 3.5.4 Test Setup



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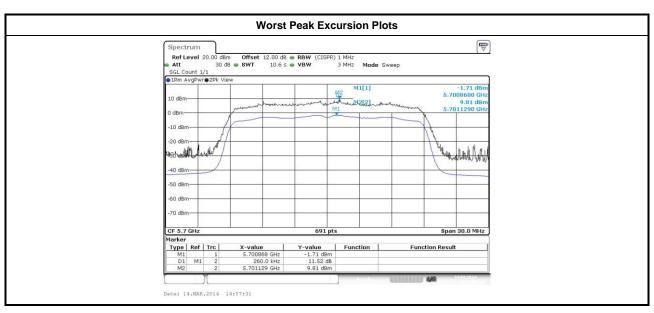
3.5.5 Test Result of Peak Excursion

	UNII Peak Excursion Result (5150-5250MHz band)						
Condit	ion			Р	eak Excursion (di	3)	
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	BPSK	QPSK	16QAM	64QAM	Limit
11a	1	5240	8.67	9.65	9.30	8.91	13.0
HT20	1	5240	8.70	9.24	9.56	9.29	13.0
HT40	1	5230	8.94	9.57	9.55	10.51	13.0
Resu	lt				Complied		

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			UNII Peak Excurs	ion Result (5250-	5350MHz band)		
Condit	ion			ı	Peak Excursion (di	3)	
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	BPSK	QPSK	16QAM	64QAM	Limit
11a	1	5320	8.55	8.99	9.54	9.32	13.0
HT20	1	5320	8.54	8.99	10.32	9.48	13.0
HT40	1	5310	8.50	9.34	9.54	8.43	13.0
Resu	lt				Complied		

		ı	UNII Peak Excursi	ion Result (5470-	5725MHz band)		
Condit	ion			ı	Peak Excursion (dl	В)	
Modulation Mode	N <sub>TX</sub>	Freq. (MHz)	BPSK	QPSK	16QAM	64QAM	Limit
11a	1	5700	8.48	8.89	9.13	9.16	13.0
HT20	1	5700	8.44	9.37	10.55	9.35	13.0
HT40	1	5670	8.58	9.36	8.68	8.63	13.0
Resu	lt				Complied		



Note: Peak excursion plot without duty factor.

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3.6 Transmitter Radiated Unwanted Emissions and Band Edge

## 3.6.1 Transmitter Radiated Unwanted Emissions and Band Edge Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz 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 above 1GHz Limit						
Operating Band	Limit						
5.15 - 5.25 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
5.25 - 5.35 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
5.47 - 5.725 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
5.725 - 5.825 GHz	5.715 5.725 GHz: e.i.r.p17 dBm [78.2 dBuV/m@3m] 5.825 5.835 GHz: e.i.r.p17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p27 dBm [68.2 dBuV/m@3m]						

Note 1: 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).

#### 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

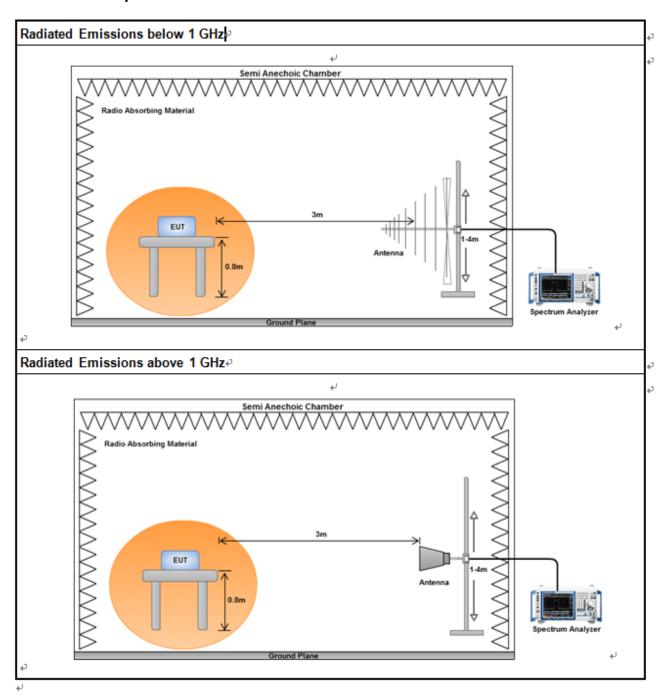
		Test Method
	perfe equi abov are i be e dista	issurements may be performed at a distance other than the limit distance provided they are not ormed in the near field and the emissions to be measured can be detected by the measurement ipment. Measurements shall not be performed at a distance greater than 30 m for frequencies we 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less impractical. When performing measurements at a distance other than that specified, the results shall extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear ance for field-strength measurements, inverse of linear distance-squared for power-density issurements).
		Measurements in the frequency range 5 GHz - 10GHz are typically made at a closer distance 3m, because the instrumentation noise floor is typically close to the radiated emission limit.
	$\boxtimes$	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.
	$\boxtimes$	Measurements in the frequency range above 18 GHz - 40GHz 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 789033, clause H)2) for unwanted emissions into non-restricted bands.
	$\boxtimes$	Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.
		Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
		Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
		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 789033, clause H)5) measurement procedure peak limit.
		Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
$\boxtimes$	For	radiated measurement.
	$\boxtimes$	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
	For	conducted and cabinet radiation measurement, refer as FCC KDB 789033, clause H)3).
		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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#### **Test Setup** 3.6.4



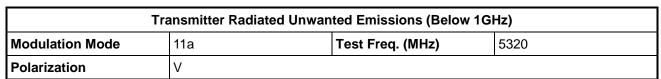
## **Transmitter Radiated Unwanted Emissions (Below 30MHz)**

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

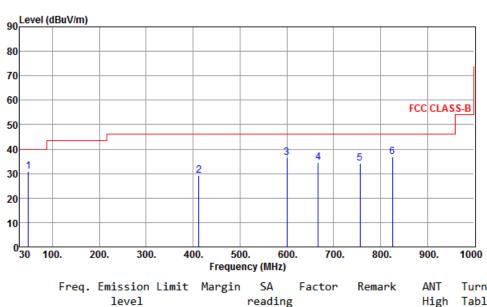
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3.6.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)



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	rreq.	level	LIMIT		reading		Kellidi K		Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	48.43	30.79	40.00	-9.21	47.20	-16.41	Peak		
2	412.18	29.38	46.00	-16.62	42.80	-13.42	Peak		
3	600.36	36.37	46.00	-9.63	45.94	-9.57	Peak		
4	667.29	34.51	46.00	-11.49	43.30	-8.79	Peak		
5	756.53	34.31	46.00	-11.69	41.63	-7.32	Peak		
6	825.40	36.79	46.00	-9.21	43.27	-6.48	Peak		

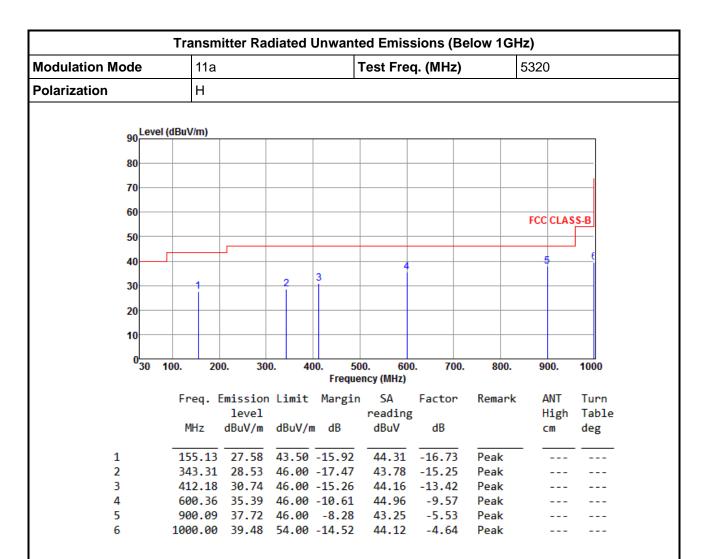
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

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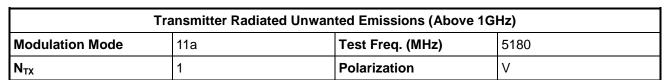
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

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

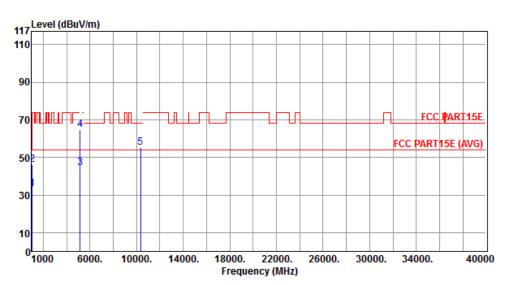
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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



Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.11	54.00	-20.89	42.70	-9.59	Average		
2	1031.00	46.04	74.00	-27.96	55.63	-9.59	Peak		
3	5150.00	44.31	54.00	-9.69	38.60	5.71	Average		
4	5150.00	64.71	74.00	-9.29	59.00	5.71	Peak		
5	10360.00	55.06	68.20	-13.14	40.62	14.44	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.

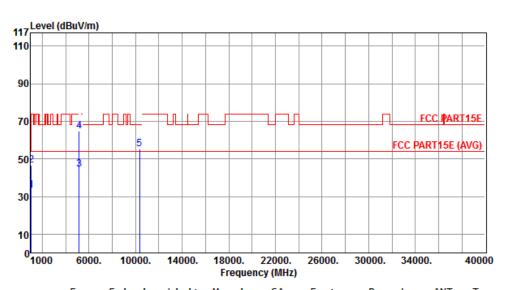


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5180

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.42	54.00	-20.58	43.01	-9.59	Average		
2		46.42				-9.59			
3	5150.00	44.28	54.00	-9.72	38.57	5.71	Average		
4	5150.00	64.65	74.00	-9.35	58.94	5.71	Peak		
5	10360.00	55.08	68.20	-13.12	40.64	14.44	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.

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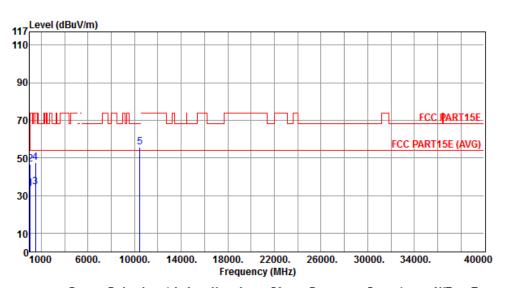


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5200

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.61	54.00	-20.39	43.20	-9.59	Average		
2		46.72			56.31	-9.59	Peak		
3	1500.00	34.43	54.00	-19.57	40.90	-6.47	Average		
4	1500.00	47.53	74.00	-26.47	54.00	-6.47	Peak		
5	10440.00	55.64	68.20	-12.56	41.07	14.57	Peak		

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

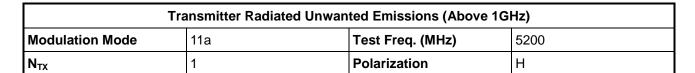
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

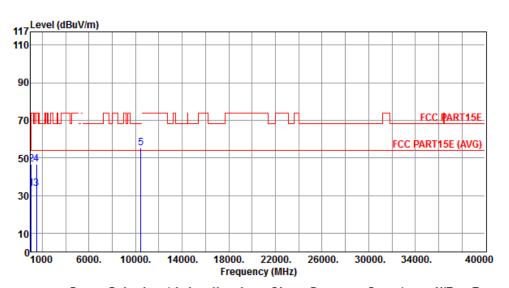
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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

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	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.86	54.00	-20.14	43.45	-9.59	Average		
2		46.75				-9.59	Peak		
3	1500.00	33.74	54.00	-20.26	40.21	-6.47	Average		
4	1500.00	46.49	74.00	-27.51	52.96	-6.47	Peak		
5	10440.00	55.42	68.20	-12.78	40.85	14.57	Peak		

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

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

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

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

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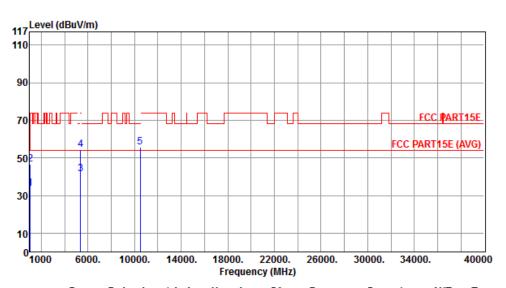


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5240

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.78	54.00	-20.22	43.37	-9.59	Average		
2	1031.00	46.62	74.00	-27.38	56.21	-9.59	Peak		
3	5350.00	41.46	54.00	-12.54	35.47	5.99	Average		
4	5350.00	54.29	74.00	-19.71	48.30	5.99	Peak		
5	10480.00	55.50	68.20	-12.70	40.87	14.63	Peak		

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

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

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

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

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Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5240

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



			reading			Table		
	MHz	dBuV/m	dBuV/m dB	dBuV	dB		cm	deg
1	1031.00	34.22	54.00 -19.78	43.81	-9.59	Average		
2	1031.00	47.10	74.00 -26.90	56.69	-9.59	Peak		
3	5350.00	42.09	54.00 -11.91	36.10	5.99	Average		
4	5350.00	55.29	74.00 -18.71	49.30	5.99	Peak		
5	10480.00	55.68	68.20 -12.52	41.05	14.63	Peak		

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

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

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

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

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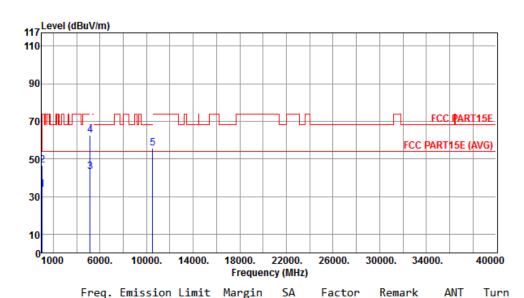


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5260

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	MHz	level dBuV/m	dBuV/m dB	reading dBuV	dB		High cm	Table deg
1	1031.00	33.49	54.00 -20.51	43.08	-9.59	Average		
2	1031.00	46.50	74.00 -27.50	56.09	-9.59	Peak		
3	5150.00	43.15	54.00 -10.85	37.44	5.71	Average		
4	5150.00	62.55	74.00 -11.45	56.84	5.71	Peak		
5	10520.00	55.80	68.20 -12.40	41.10	14.70	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.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5260

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	MHz	level dBuV/m	dBuV/m dB	reading dBuV	dB		High cm	Table deg
1	1031.00	33.59	54.00 -20.41	43.18	-9.59	Average		
2	1031.00	46.78	74.00 -27.22	56.37	-9.59	Peak		
3	5150.00	43.08	54.00 -10.92	37.37	5.71	Average		
4	5150.00	62.70	74.00 -11.30	56.99	5.71	Peak		
5	10520.00	55.43	68.20 -12.77	40.73	14.70	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.

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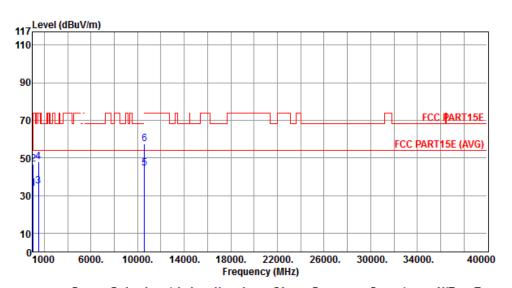


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5300

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
4	4074 00		<u></u>	20. 20	43.34				
1	1031.00	33.72	54.00	-20.28	43.31	-9.59	Average		
2	1031.00	46.59	74.00	-27.41	56.18	-9.59	Peak		
3	1500.00	34.78	54.00	-19.22	41.25	-6.47	Average		
4	1500.00	47.93	74.00	-26.07	54.40	-6.47	Peak		
5	10600.00	44.55	54.00	-9.45	29.69	14.86	Average		
6	10600.00	57.27	74.00	-16.73	42.41	14.86	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.

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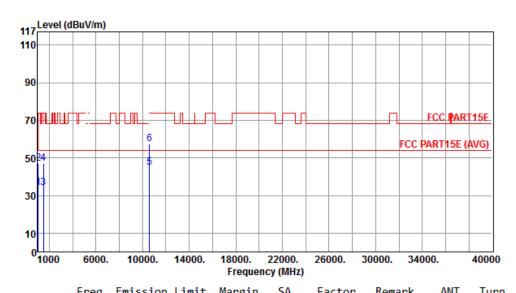


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5300

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	level	Limit	Margin	reading		Kemark	ANI High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.94	54.00	-20.06	43.53	-9.59	Average		
2	1031.00	47.13	74.00	-26.87	56.72	-9.59	Peak		
3	1500.00	34.12	54.00	-19.88	40.59	-6.47	Average		
4	1500.00	47.00	74.00	-27.00	53.47	-6.47	Peak		
5	10600.00	44.82	54.00	-9.18	29.96	14.86	Average		
6	10600.00	57.63	74.00	-16.37	42.77	14.86	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.

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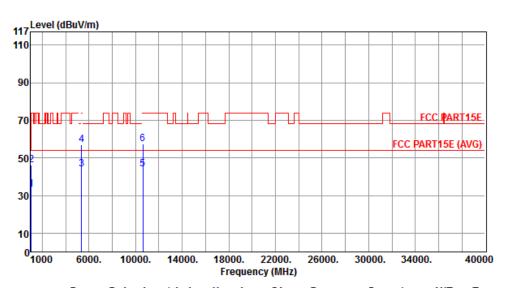


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5320

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.43	54.00	-20.57	43.02	-9.59	Average		
2	1031.00	46.28	74.00	-27.72	55.87	-9.59	Peak		
3	5350.00	43.97	54.00	-10.03	37.98	5.99	Average		
4	5350.00	57.19	74.00	-16.81	51.20	5.99	Peak		
5	10640.00	44.25	54.00	-9.75	29.30	14.95	Average		
6	10640.00	57.59	74.00	-16.41	42.64	14.95	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.

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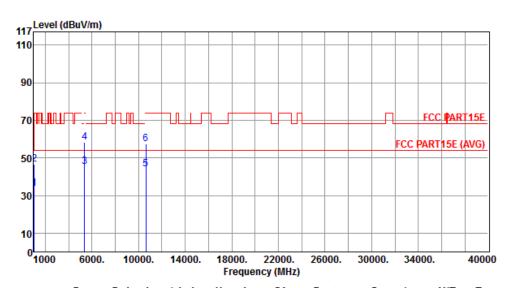


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5320

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	tmission	Limit	Margın	SA	Factor	Kemark	ANI	lurn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.88	54.00	-20.12	43.47	-9.59	Average		
2	1031.00	46.84	74.00	-27.16	56.43	-9.59	Peak		
3	5350.00	45.25	54.00	-8.75	39.26	5.99	Average		
4	5350.00	58.23	74.00	-15.77	52.24	5.99	Peak		
5	10640.00	44.17	54.00	-9.83	29.22	14.95	Average		
6	10640.00	57.27	74.00	-16.73	42.32	14.95	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.

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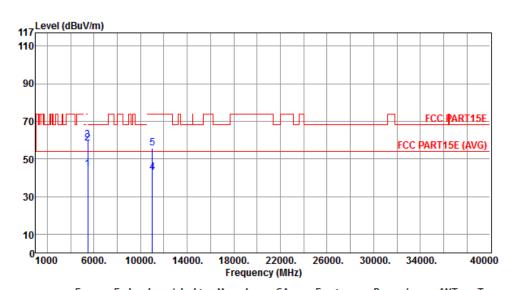


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5500

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission	Limit	Margin	SA	Factor	Kemark	ANI	Turn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5460.00	44.42	54.00	-9.58	38.30	6.12	Average		
2	5460.00	58.30	74.00	-15.70	52.18	6.12	Peak		
3	5470.00	60.03	68.20	-8.17	53.89	6.14	Peak		
4	11000.00	42.78	54.00	-11.22	27.09	15.69	Average		
5	11000.00	55.82	74.00	-18 - 18	40.13	15.69	Peak		

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

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

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

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

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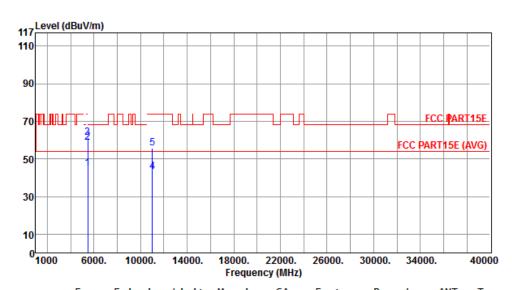


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5500

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5460.00	44.83	54.00	-9.17	38.71	6.12	Average		
2	5460.00	58.60	74.00	-15.40	52.48	6.12	Peak		
3	5470.00	61.27	68.20	-6.93	55.13	6.14	Peak		
4	11000.00	43.32	54.00	-10.68	27.63	15.69	Average		
5	11000.00	55.82	74.00	-18.18	40.13	15.69	Peak		

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

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

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

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

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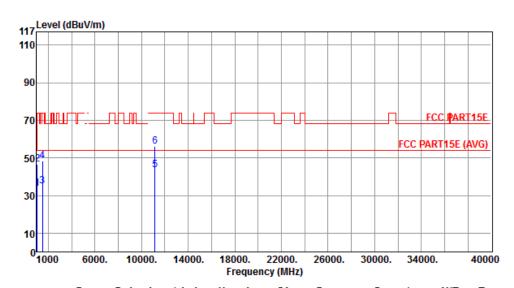


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5580

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission	Limit	Margin			Kemark	ANI	lurn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.57	54.00	-20.43	43.16	-9.59	Average		
2	1031.00	46.58	74.00	-27.42	56.17	-9.59	Peak		
3	1500.00	34.96	54.00	-19.04	41.43	-6.47	Average		
4	1500.00	48.17	74.00	-25.83	54.64	-6.47	Peak		
5	11160.00	43.55	54.00	-10.45	28.02	15.53	Average		
6	11160.00	56.30	74.00	-17.70	40.77	15.53	Peak		

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

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

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

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.

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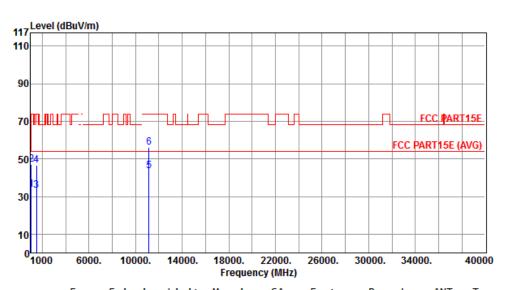


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5580

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	High	Table
level reading		Iante
MHz dBuV/m dBuV/m dB dBuV dB	cm	deg
1 1031.00 33.89 54.00 -20.11 43.48 -9.59 Average		
2 1031.00 47.10 74.00 -26.90 56.69 -9.59 Peak		
3 1500.00 33.45 54.00 -20.55 39.92 -6.47 Average		
4 1500.00 46.63 74.00 -27.37 53.10 -6.47 Peak		
5 11160.00 43.75 54.00 -10.25 28.22 15.53 Average		
6 11160.00 56.08 74.00 -17.92 40.55 15.53 Peak		

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

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

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

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.

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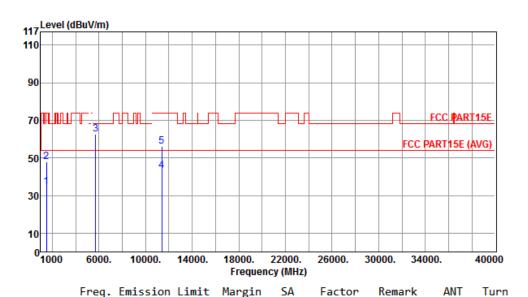


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5700

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	MHz	level dBuV/m	dBuV/m dB	reading dBuV	dB		High cm	Table deg
1	1500.00	34.66	54.00 -19.34	41.13	-6.47	Average		
2	1500.00	47.80	74.00 -26.20	54.27	-6.47	Peak		
3	5725.00	62.59	68.20 -5.61	56.00	6.59	Peak		
4	11400.00	43.28	54.00 -10.72	27.99	15.29	Average		
5	11400.00	55.92	74.00 -18.08	40.63	15.29	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.

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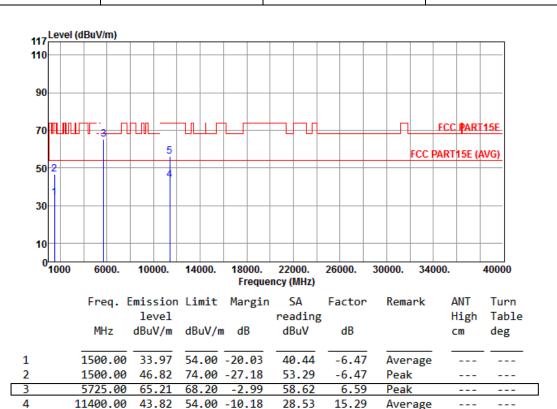


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode 11a Test Freq. (MHz) 5700

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



41.05

15.29

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.)

74.00 -17.66

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

11400.00 56.34

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.

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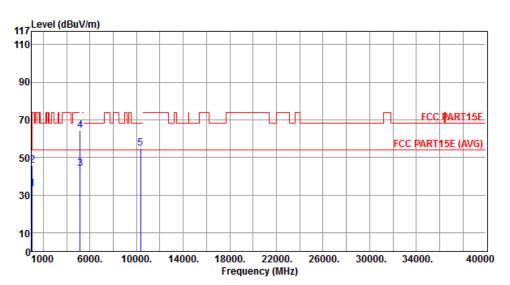
FAX: 886-3-3270973

5

## 3.6.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	HT20	Test Freq. (MHz)	5180						
N <sub>TX</sub>	1	Polarization	V						

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.05	54.00	-20.95	42.64	-9.59	Average		
2	1031.00	45.66	74.00	-28.34	55.25	-9.59	Peak		
3	5150.00	44.14	54.00	-9.86	38.43	5.71	Average		
4	5150.00	64.46	74.00	-9.54	58.75	5.71	Peak		
5	10360.00	54.82	68.20	-13.38	40.38	14.44	Peak		

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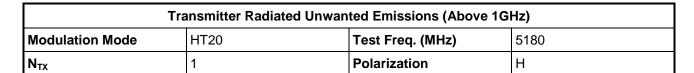
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

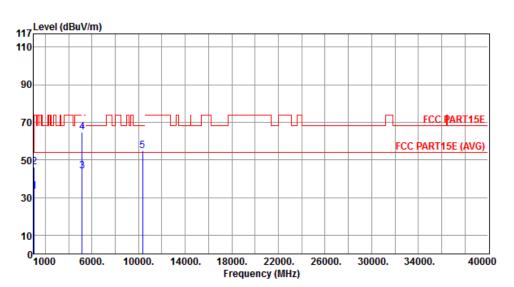
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Report No.: FR430802AN





	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.27	54.00	-20.73	42.86	-9.59	Average		
2	1031.00	46.18	74.00	-27.82	55.77	-9.59	Peak		
3	5150.00	44.14	54.00	-9.86	38.43	5.71	Average		
4	5150.00	64.86	74.00	-9.14	59.15	5.71	Peak		
5	10360.00	54.79	68.20	-13.41	40.35	14.44	Peak		

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

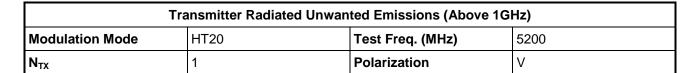
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

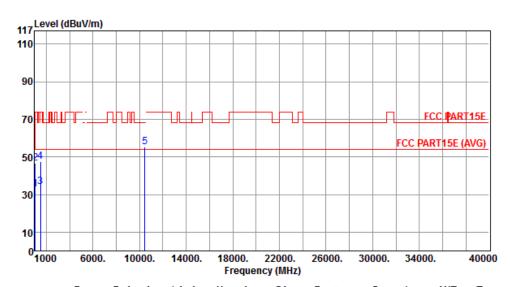
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.

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Report No.: FR430802AN





	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	32.73	54.00	-21.27	42.32	-9.59	Average		
2	1031.00	46.66	74.00	-27.34	56.25	-9.59	Peak		
3	1500.00	33.91	54.00	-20.09	40.38	-6.47	Average		
4	1500.00	47.46	74.00	-26.54	53.93	-6.47	Peak		
5	10440.00	55.10	68.20	-13.10	40.53	14.57	Peak		

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

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

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

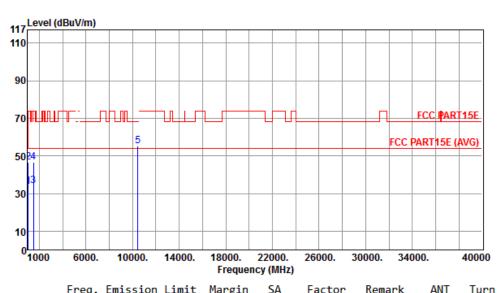
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	HT20	Test Freq. (MHz)	5200					
N <sub>TX</sub>	1	Polarization	Н					

Report No.: FR430802AN



		level	LIMIL	riai Biii	reading		NCIIIOT K	High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.67	54.00	-20.33	43.26	-9.59	Average		
2	1031.00	46.57	74.00	-27.43	56.16	-9.59	Peak		
3	1500.00	33.91	54.00	-20.09	40.38	-6.47	Average		
4	1500.00	46.48	74.00	-27.52	52.95	-6.47	Peak		
5	10440.00	55.31	68.20	-12.89	40.74	14.57	Peak		

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

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

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

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

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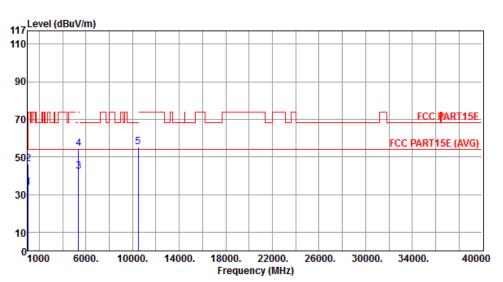


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5240

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.54	54.00	-20.46	43.13	-9.59	Average		
2	1031.00	46.40	74.00	-27.60	55.99	-9.59	Peak		
3	5350.00	42.20	54.00	-11.80	36.21	5.99	Average		
4	5350.00	54.51	74.00	-19.49	48.52	5.99	Peak		
5	10480.00	55.18	68.20	-13.02	40.55	14.63	Peak		

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

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

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

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

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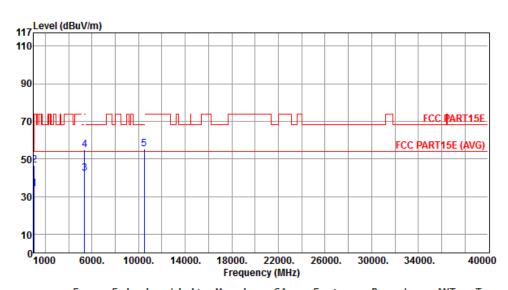


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5240

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031 00	33.95	54 00	20 05	43.54	-9.59	Average		
2		46.63			56.22	-9.59	Peak		
3		42.34				5.99	Average		
4	5350.00	55.01	74.00	-18.99	49.02	5.99	Peak		
5	10480.00	55.08	68.20	-13.12	40.45	14.63	Peak		

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

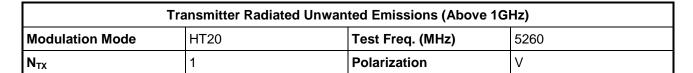
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

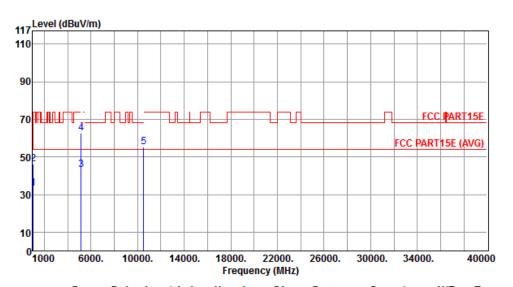
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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

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Report No.: FR430802AN





	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
_	1021 00								
1	1031.00	33.28	54.00	-20./2	42.8/	-9.59	Average		
2	1031.00	46.13	74.00	-27.87	55.72	-9.59	Peak		
3	5150.00	43.19	54.00	-10.81	37.48	5.71	Average		
4	5150.00	62.46	74.00	-11.54	56.75	5.71	Peak		
5	10520.00	55.24	68.20	-12.96	40.54	14.70	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.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5260

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	level			reading			High	Table
	MHz	dBuV/m	dBuV/m dB	dBuV	dB		cm	deg
1	1031.00	33.60	54.00 -20.40	43.19	-9.59	Average		
2	1031.00	46.25	74.00 -27.75	55.84	-9.59	Peak		
3	5150.00	43.12	54.00 -10.88	37.41	5.71	Average		
4	5150.00	60.92	74.00 -13.08	55.21	5.71	Peak		
5	10520.00	54.95	68.20 -13.25	40.25	14.70	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.

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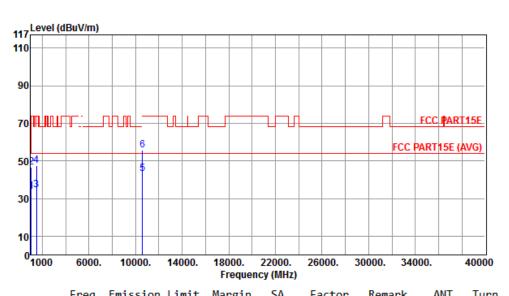


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5300

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	level	Limit	Margin	reading		Kemark	ANI High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.62	54.00	-20.38	43.21	-9.59	Average		
2	1031.00	46.54	74.00	-27.46	56.13	-9.59	Peak		
3	1500.00	34.41	54.00	-19.59	40.88	-6.47	Average		
4	1500.00	47.50	74.00	-26.50	53.97	-6.47	Peak		
5	10600.00	43.22	54.00	-10.78	28.36	14.86	Average		
6	10600.00	55.65	74.00	-18.35	40.79	14.86	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.

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

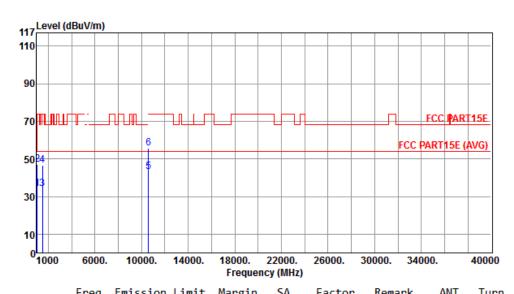


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5300

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq. I	level	LIMIC	margin	reading	Factor	Kemark	High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	34.05	54.00	-19.95	43.64	-9.59	Average		
2	1031.00	46.93	74.00	-27.07	56.52	-9.59	Peak		
3	1500.00	33.97	54.00	-20.03	40.44	-6.47	Average		
4	1500.00	46.74	74.00	-27.26	53.21	-6.47	Peak		
5	10600.00	43.02	54.00	-10.98	28.16	14.86	Average		
6	10600.00	55.70	74.00	-18.30	40.84	14.86	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.

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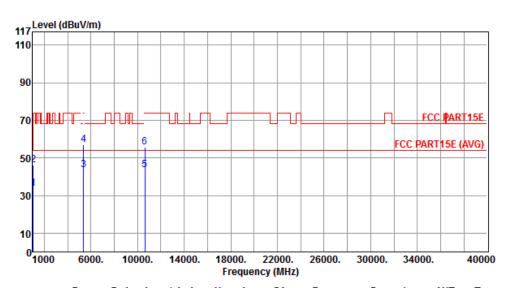


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5320

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.58	54.00	-20.42	43.17	-9.59	Average		
2	1031.00	46.09	74.00	-27.91	55.68	-9.59	Peak		
3	5350.00	43.82	54.00	-10.18	37.83	5.99	Average		
4	5350.00	56.85	74.00	-17.15	50.86	5.99	Peak		
5	10640.00	43.58	54.00	-10.42	28.63	14.95	Average		
6	10640.00	55.79	74.00	-18.21	40.84	14.95	Peak		

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

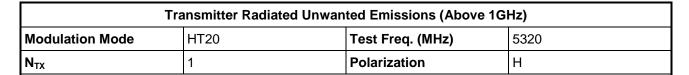
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

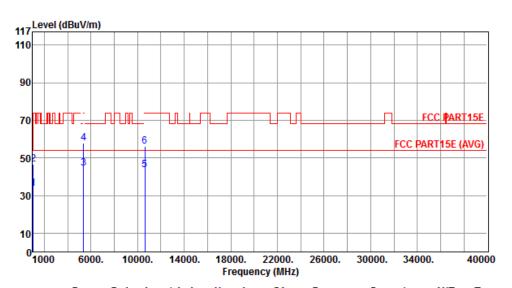
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.

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	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.73	54.00	-20.27	43.32	-9.59	Average		
2	1031.00	46.60	74.00	-27.40	56.19	-9.59	Peak		
3	5350.00	44.62	54.00	-9.38	38.63	5.99	Average		
4	5350.00	57.77	74.00	-16.23	51.78	5.99	Peak		
5	10640.00	43.59	54.00	-10.41	28.64	14.95	Average		
6	10640.00	55.98	74.00	-18.02	41.03	14.95	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.

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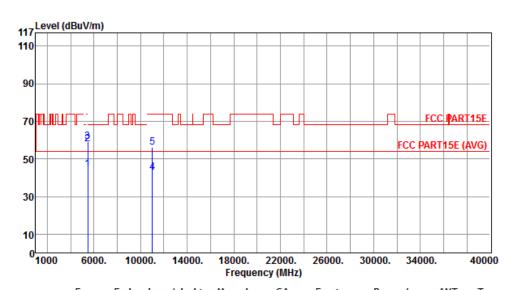


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5500

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5460 00	44.57	54 00	-9 43	38.45	6.12	Average		
2		58.00				6.12			
3	5470.00	59.15	68.20	-9.05	53.01	6.14	Peak		
4	11000.00	42.85	54.00	-11.15	27.16	15.69	Average		
5	11000.00	55.93	74.00	-18.07	40.24	15.69	Peak		

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

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

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

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

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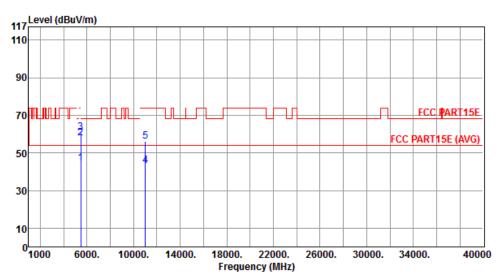


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5500

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5460.00	44.56	54.00	-9.44	38.44	6.12	Average		
2	5460.00	57.79	74.00	-16.21	51.67	6.12	Peak		
3	5470.00	60.85	68.20	-7.35	54.71	6.14	Peak		
4	11000.00	43.24	54.00	-10.76	27.55	15.69	Average		
5	11000.00	55.93	74.00	-18.07	40.24	15.69	Peak		

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

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

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

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

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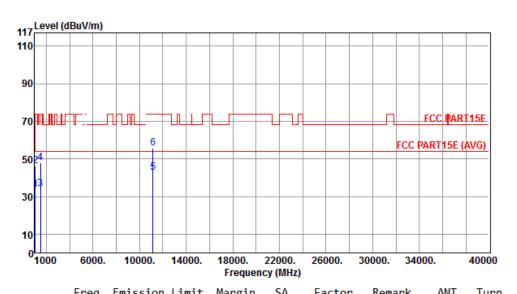


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5580

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	level	Limit	Margin	reading		Kemark	ANI High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.63	54.00	-20.37	43.22	-9.59	Average		
2	1031.00	46.20	74.00	-27.80	55.79	-9.59	Peak		
3	1500.00	34.11	54.00	-19.89	40.58	-6.47	Average		
4	1500.00	47.84	74.00	-26.16	54.31	-6.47	Peak		
5	11160.00	42.88	54.00	-11.12	27.35	15.53	Average		
6	11160.00	55.77	74.00	-18.23	40.24	15.53	Peak		

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

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

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

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.

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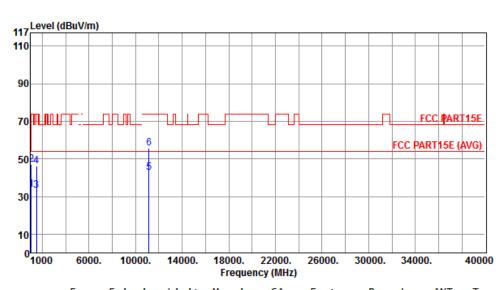


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5580

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1021 00	33.73	E4 00	20 27	43.32	-9.59	Augnoss		
							Average		
2	1031.00	46.99	74.00	-27.01	56.58	-9.59	Peak		
3	1500.00	33.35	54.00	-20.65	39.82	-6.47	Average		
4	1500.00	46.31	74.00	-27.69	52.78	-6.47	Peak		
5	11160.00	42.86	54.00	-11.14	27.33	15.53	Average		
6	11160.00	55.80	74.00	-18.20	40.27	15.53	Peak		

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

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

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

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.

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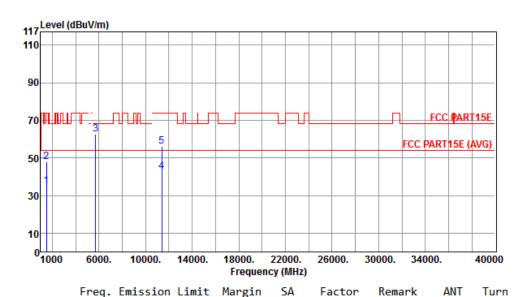


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT20 Test Freq. (MHz) 5700

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	MHz	level dBuV/m	dBuV/m dB	reading dBuV	dB		High cm	Table deg
1	1500.00	34.86	54.00 -19.14	41.33	-6.47	Average		
2	1500.00	47.88	74.00 -26.12	54.35	-6.47	Peak		
3	5725.00	62.51	68.20 -5.69	55.92	6.59	Peak		
4	11400.00	42.74	54.00 -11.26	27.45	15.29	Average		
5	11400.00	56.07	74.00 -17.93	40.78	15.29	Peak		

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

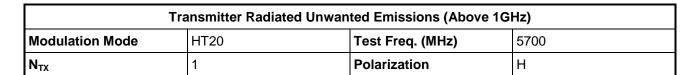
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

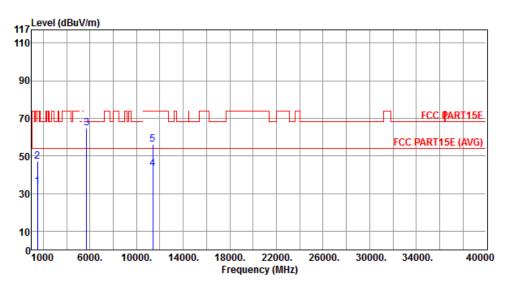
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.

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	Freq.	Emission	Limit	Margin			Remark	ANT	Turn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	33.82	54.00	-20.18	40.29	-6.47	Average		
2	1500.00	46.90	74.00	-27.10	53.37	-6.47	Peak		
3	5725.00	64.75	68.20	-3.45	58.16	6.59	Peak		
4	11400.00	43.14	54.00	-10.86	27.85	15.29	Average		
5	11400.00	56.08	74.00	-17.92	40.79	15.29	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)

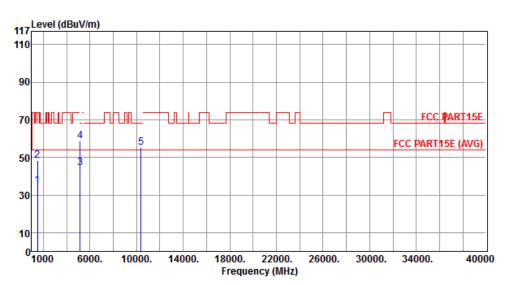
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

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

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode HT40 Test Freq. (MHz) 5190								
N <sub>TX</sub>	1	Polarization	V					

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	34.84	54.00	-19.16	41.31	-6.47	Average		
2	1500.00	48.20	74.00	-25.80	54.67	-6.47	Peak		
3	5150.00	44.51	54.00	-9.49	38.80	5.71	Average		
4	5150.00	58.78	74.00	-15.22	53.07	5.71	Peak		
5	10380.00	55.24	68.20	-12.96	40.78	14.46	Peak		

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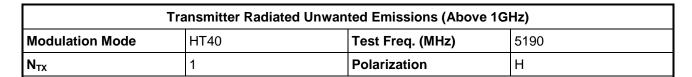
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

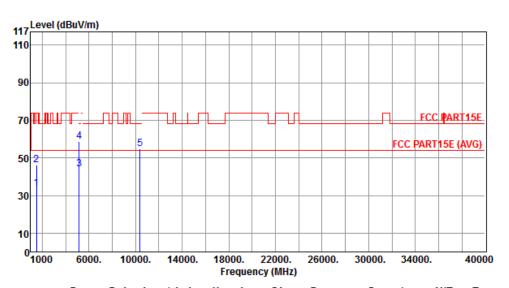
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Report No.: FR430802AN





	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	33.74	54.00	-20.26	40.21	-6.47	Average		
2	1500.00	46.31	74.00	-27.69	52.78	-6.47	Peak		
3	5150.00	44.08	54.00	-9.92	38.37	5.71	Average		
4	5150.00	58.71	74.00	-15.29	53.00	5.71	Peak		
5	10380.00	55.00	68.20	-13.20	40.54	14.46	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.

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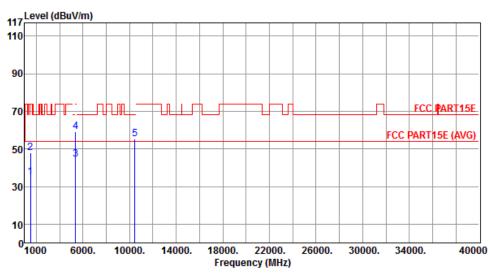


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5230

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	34.97	54.00	-19.03	41.44	-6.47	Average		
2	1500.00	48.11	74.00	-25.89	54.58	-6.47	Peak		
3	5350.00	44.40	54.00	-9.60	38.41	5.99	Average		
4	5350.00	59.14	74.00	-14.86	53.15	5.99	Peak		
5	10460.00	55.17	68.20	-13.03	40.57	14.60	Peak		

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

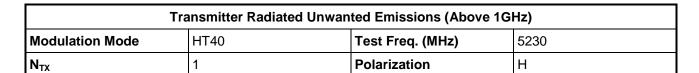
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

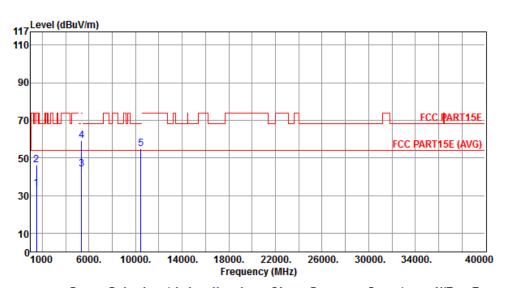
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.

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Report No.: FR430802AN





	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	33.71	54.00	-20.29	40.18	-6.47	Average		
2	1500.00	46.17	74.00	-27.83	52.64	-6.47	Peak		
3	5350.00	44.23	54.00	-9.77	38.24	5.99	Average		
4	5350.00	58.97	74.00	-15.03	52.98	5.99	Peak		
5	10460.00	54.97	68.20	-13.23	40.37	14.60	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.

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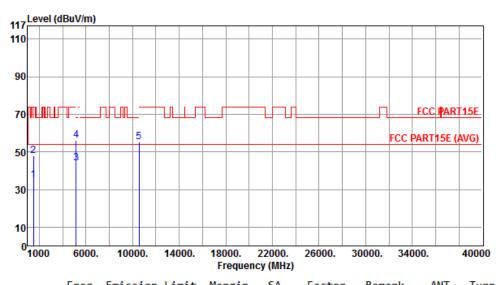


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5270

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	tmission	Limit	Margin			Kemark	ANI	Turn
	MHz	level dBuV/m	dBuV/m	dB	reading dBuV	dB		cm	Table deg
1	1500.00	34.77	54.00	-19.23	41.24	-6.47	Average		
2		47.88				-6.47	Peak		
3	5150.00	43.94	54.00 -	10.06	38.23	5.71	Average		
4	5150.00	56.03	74.00 -	-17.97	50.32	5.71	Peak		
5	10540.00	55.15	68.20 -	-13.05	40 40	14 75	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.

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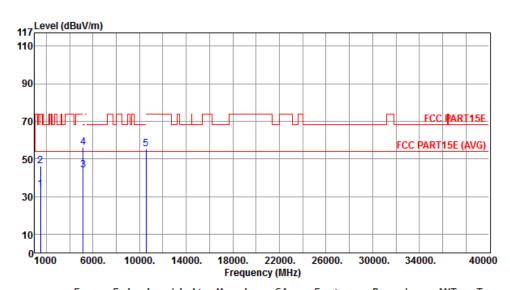


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5270

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500 00	33.74	54 00	20 26	40.21	-6.47	Average		
2		46.16			52.63	-6.47	Peak		
3		43.92				5.71	Average		
4	5150.00	56.21	74.00	-17.79	50.50	5.71	Peak		
5	10540.00	55.07	68.20	-13.13	40.32	14.75	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.

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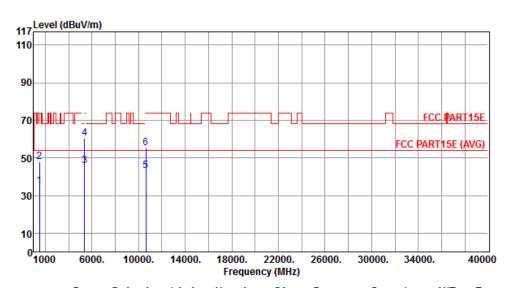


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5310

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	tmission	Limit	Margin	SA	Factor	Kemark	ANI	lurn
		level			reading			High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	34.91	54.00	-19.09	41.38	-6.47	Average		
2	1500.00	47.78	74.00	-26.22	54.25	-6.47	Peak		
3	5350.00	45.79	54.00	-8.21	39.80	5.99	Average		
4	5350.00	60.59	74.00	-13.41	54.60	5.99	Peak		
5	10620.00	43.07	54.00	-10.93	28.17	14.90	Average		
6	10620.00	55.32	74.00	-18.68	40.42	14.90	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.

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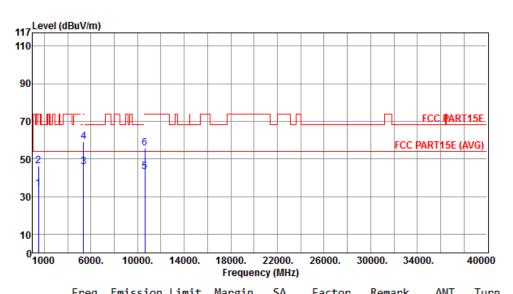


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5310

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	level	Limit	Margin	reading		Kemark	ANI High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	33.90	54.00	-20.10	40.37	-6.47	Average		
2	1500.00	46.21	74.00	-27.79	52.68	-6.47	Peak		
3	5350.00	45.60	54.00	-8.40	39.61	5.99	Average		
4	5350.00	59.28	74.00	-14.72	53.29	5.99	Peak		
5	10620.00	43.12	54.00	-10.88	28.22	14.90	Average		
6	10620.00	55.49	74.00	-18.51	40.59	14.90	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.

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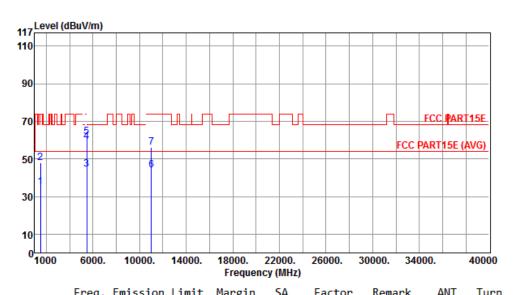


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5510

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	level	LIMIT	margin	reading		Kemark	High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	35.06	54.00	-18.94	41.53	-6.47	Average		
2	1500.00	47.77	74.00	-26.23	54.24	-6.47	Peak		
3	5460.00	44.42	54.00	-9.58	38.30	6.12	Average		
4	5460.00	59.30	74.00	-14.70	53.18	6.12	Peak		
5	5470.00	61.70	68.20	-6.50	55.56	6.14	Peak		
6	11020.00	43.98	54.00	-10.02	28.32	15.66	Average		
7	11020.00	56.24	74.00	-17.76	40.58	15.66	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.

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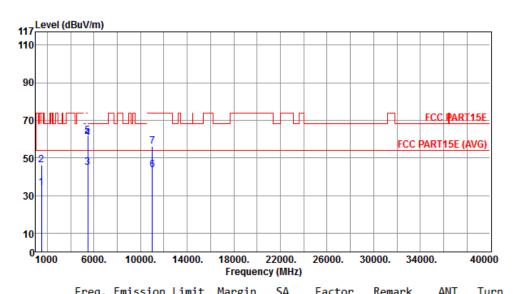


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5510

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	level	LIMIC	margin	reading	Factor	Kemark	High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	34.04	54.00	-19.96	40.51	-6.47	Average		
2	1500.00	46.21	74.00	-27.79	52.68	-6.47	Peak		
3	5460.00	44.72	54.00	-9.28	38.60	6.12	Average		
4	5460.00	60.31	74.00	-13.69	54.19	6.12	Peak		
5	5470.00	61.86	68.20	-6.34	55.72	6.14	Peak		
6	11020.00	43.82	54.00	-10.18	28.16	15.66	Average		
7	11020.00	56.12	74.00	-17.88	40.46	15.66	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.

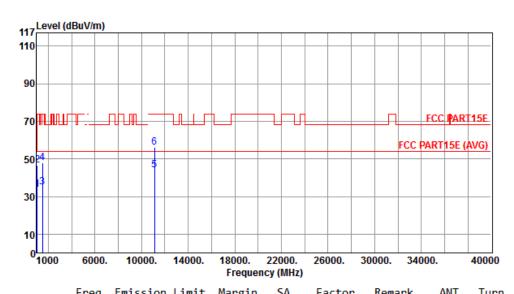
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Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5550

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	Freq.	level	Limit	Margin	reading		Kemark	ANI High	Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.74	54.00	-20.26	43.33	-9.59	Average		
2	1031.00	46.83	74.00	-27.17	56.42	-9.59	Peak		
3	1500.00	34.98	54.00	-19.02	41.45	-6.47	Average		
4	1500.00	47.84	74.00	-26.16	54.31	-6.47	Peak		
5	11100.00	44.13	54.00	-9.87	28.54	15.59	Average		
6	11100.00	56.16	74.00	-17.84	40.57	15.59	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.

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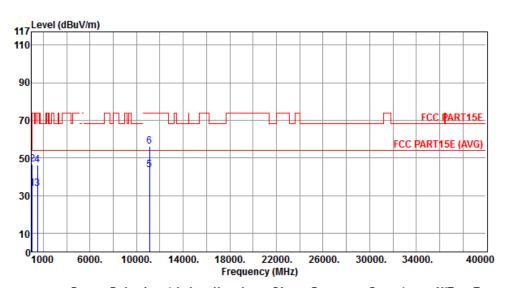


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5550

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1031.00	33.67	54.00	-20.33	43.26	-9.59	Average		
2	1031.00	46.81	74.00	-27.19	56.40	-9.59	Peak		
3	1500.00	33.87	54.00	-20.13	40.34	-6.47	Average		
4	1500.00	46.00	74.00	-28.00	52.47	-6.47	Peak		
5	11100.00	43.75	54.00	-10.25	28.16	15.59	Average		
6	11100.00	55.97	74.00	-18.03	40.38	15.59	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.

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Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5670

N<sub>TX</sub> 1 Polarization V

Report No.: FR430802AN



	level			reading				Table
	MHz	dBuV/m	dBuV/m dB	dBuV	dB		cm	deg
1	1500.00	35.21	54.00 -18.79	41.68	-6.47	Average		
2	1500.00	48.08	74.00 -25.92	54.55	-6.47	Peak		
3	5725.00	59.78	68.20 -8.42	53.19	6.59	Peak		
4	11340.00	43.66	54.00 -10.34	28.31	15.35	Average		
5	11340.00	55.89	74.00 -18.11	40.54	15.35	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.

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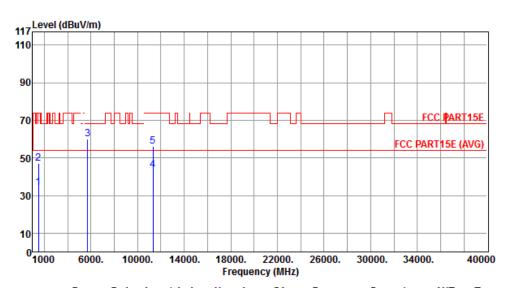


Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode HT40 Test Freq. (MHz) 5670

N<sub>TX</sub> 1 Polarization H

Report No.: FR430802AN



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1500.00	34.06	54.00	-19.94	40.53	-6.47	Average		
2	1500.00	47.01	74.00	-26.99	53.48	-6.47	Peak		
3	5725.00	59.81	68.20	-8.39	53.22	6.59	Peak		
4	11340.00	43.77	54.00	-10.23	28.42	15.35	Average		
5	11340.00	55.96	74.00	-18.04	40.61	15.35	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.

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3.7 Frequency Stability

#### 3.7.1 Frequency Stability Limit

	Frequency Stability Limit
UN	II Devices
	In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
LE-	-LAN Devices
$\boxtimes$	N/A
IEE	E Std. 802.11n-2009
	The transmitter center frequency tolerance shall be $\pm$ 20 ppm maximum for the 5 GHz band and $\pm$ 25 ppm maximum for the 2.4 GHz band.

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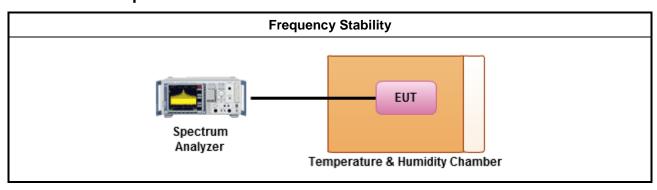
## 3.7.2 Measuring Instruments

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

#### 3.7.3 Test Procedures

	Test Method
$\boxtimes$	Refer as ANSI C63.10, clause 6.8 for frequency stability tests
	Frequency stability with respect to ambient temperature
	Frequency stability when varying supply voltage
$\boxtimes$	For conducted measurement.
	For conducted measurements on devices with multiple transmit chains:  Measurements need only to be performed on one of the active transmit chains (antenna outputs)
	For radiated measurement. The equipment to be measured and the test antenna shall be oriented to obtain the maximum emitted power level.

## 3.7.4 Test Setup



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#### **Test Result of Frequency Stability** 3.7.5

	Frequency Stability Result				
Mode		Frequency Stability (ppm)			
Condition	Freq. (MHz)	Test Frequency (MHz)	Frequency Stability (ppm)		
T <sub>20°C</sub> Vmax	5320	5319.99352	-1.2180		
T <sub>20°C</sub> Vmin	5320	5320.00855	1.6071		
T <sub>55°C</sub> Vnom	5320	5320.00739	1.3891		
T <sub>50°C</sub> Vnom	5320	5320.00515	0.9680		
T <sub>40°C</sub> Vnom	5320	5319.99487	-0.9643		
T <sub>30°C</sub> Vnom	5320	5320.00184	0.3459		
T <sub>20°C</sub> Vnom	5320	5320.00256	0.4812		
T <sub>10°C</sub> Vnom	5320	5320.00488	0.9173		
T <sub>0°C</sub> Vnom	5320	5320.00257	0.4831		
T <sub>-10°C</sub> Vnom	5320	5320.00643	1.2086		
T <sub>-20°C</sub> Vnom	5320	5320.01931	3.6297		
T <sub>-30°C</sub> Vnom	5320	5320.01585	2.9793		
Limit (	ppm)	20			
Res	ult	Con	nplied		

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Note 1: Measure at 85 % [Vmin] and 115 % [Vmax] of the nominal voltage [Vnom]. Note 2: The nominal voltage refer test report clause 1.1.6 for EUT operational condition.

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4 Test Equipment and Calibration Data

Test Item	Conducted Emission Conduction room 1 / (CO01-WS)				
Test Site					
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Oct. 15, 2013	Oct. 14, 2014
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 23, 2013	Nov. 22, 2014
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127-666	Dec. 04, 2013	Dec. 03, 2014
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Apr. 24, 2013	Apr. 23, 2014
50 ohm terminal (Support Unit)	NA	50	04	Apr. 22, 2013	Apr. 21, 2014
Note: Calibration Inte	rval of instruments liste	d above is one year.		•	

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Test Item	Radiated Emission				
Test Site	966 chamber 2 / (03CH02-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101499	Feb. 08, 2014	Feb. 07, 2015
Receiver	R&S	ESR3	101657	Jan. 18,2014	Jan. 17, 2015
Bilog Antenna	ScHwarzbeck	VULB9168	VULB9168-524	Jan. 08, 2014	Jan. 07, 2015
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120D	BBHA 9120 D 1095	Jan. 07, 2014	Jan. 06, 2015
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Dec. 27, 2013	Dec. 26, 2014
Amplifier	Burgeon	BPA-530	100218	Dec. 09, 2013	Dec. 08, 2014
Amplifier	Agilent	83017A	MY39501309	Dec. 09, 2013	Dec. 08, 2014
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	Dec. 17, 2013	Dec. 16, 2014
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Dec. 17, 2013	Dec. 16, 2014
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16015/4	Dec. 17, 2013	Dec. 16, 2014
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-003	Dec. 17, 2013	Dec. 16, 2014
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-004	Dec. 17, 2013	Dec. 16, 2014
control	EM Electronics	EM1000	060608	N/A	N/A
Note: Calibration Inter-	val of instruments listed	above is one year.			

Loop Antenna	R&S	HFH2-Z2	100330	Nov. 15, 2012	Nov. 14, 2014
Amplifier	EM	EM18G40G	060572	Jun. 20, 2013	Jun. 19, 2015
Note: Calibration Interval of instruments listed above is two year.					

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Test Item	RF Conducted					
Test Site Instrument	TH01-HY					
	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until	
Spectrum Analyzer	R&S	FSV 40	101013	Jan. 25, 2014	Jan. 24, 2015	
AC Power Source	G.W	APS-9102	EL920581	Jul. 16, 2013	Jul. 15, 2014	
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	Nov. 20, 2013	Nov. 19, 2014	
Signal Generator	R&S	SMR40	100116	Jun. 27, 2013	Jun. 26, 2014	
Power Sensor	Anritsu	MA2411B	0917017	Jan. 28, 2014	Jan. 27, 2015	
Power Meter	Anritsu	ML2495A	0949003	Jan. 28, 2014	Jan. 27, 2015	
RF Cable-2m	HUBER+SUHNER	SUCOFLEX_104	SN 345675/4	Dec. 02, 2013	Dec. 01, 2014	
RF Cable-3m	HUBER+SUHNER	SUCOFLEX_104	SN 345669/4	Dec. 02, 2013	Dec. 01, 2014	

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