

FCC Test Report

Equipment : ASUS Tablet
Marketing Name : ASUS Transformer Pad
Brand Name : ASUS
Model No. : K010
FCC ID : MSQK0101
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:

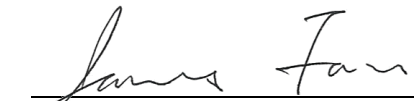

James Fan / Assistant Manager



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Summary of Test Result

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

Revision History

[illegible]

1 General Description

1.1 Information

This is a variant of MSQK010 with the NFC transmitter removed, and the other design is exactly identical. The change is deemed to have no impact on NFC performance. The MSQK010 NFC test results report is Sporton FCC NFC report FR430802 is representative and are referenced in this report.

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 (KUZHO) 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, Chongqing, China

1.1.2 RF General Information

RF General Information						
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	RF Output Power (dBm)	Co-location
5150-5250	a	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.)

1.1.3 Antenna Information

Antenna Category	
☒	Integral antenna (antenna permanently attached)
☒	Temporary RF connector provided
☐	No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.
☐	External antenna (dedicated antennas)
☐	Single power level with corresponding antenna(s).
☐	Multiple power level and corresponding antenna(s).
☐	RF connector provided
☐	Unique antenna connector. (e.g., MMCX, U.FL, IPX, and RP-SMA, RP-N type...)
☐	Standard antenna connector. (e.g., SMA, N, BNC, and TNC type...)

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

1.1.4 Type of EUT

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

1.1.5 Test Signal Duty Cycle

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

1.1.6 EUT Operational Condition

Supply Voltage	☒ AC mains	☒ DC	
Type of DC Source	☐ Internal DC supply	☒ External DC adapter	☒ Battery
Test Voltage	☒ Vnom (3.8 V)	☒ Vmax (4.2 V)	☒ Vmin (3.5 V)
Test Climatic	☒ Tnom (20°C)	☒ Tmax (55°C)	☒ Tmin (-30°C)

1.2 Accessories

Accessories				
No.	Equipment	Brand Name	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 D01 General UNII Test Procedures Old Rules v01r04
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01

1.4 Testing Location Information

Testing Location				
☒	Sporton Lab	ADD : No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.	TEL : 886-3-327-3456	FAX : 886-3-327-0973
☒	ICC Lab	ADD : No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsein 333, Taiwan (R.O.C.)	TEL : 886-3-271-8666	FAX : 886-3-318-0155
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Mark Liao	21°C / 62%	Mar. 17, 2014
AC Conduction*	CO01-WS	Skys Huang	19°C / 65%	Mar. 17, 2014
Radiated Emission*	03CH02-WS	Skys Huang	20°C / 64%	Mar. 13 ~ 19, 2014

FCC site registration No.: 657002

IC site registration No.: 10807A-2

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

2 Test Configuration of EUT

2.1 The Worst Case Modulation Configuration

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

2.2 The Worst Case Power Setting Parameter

The Worst Case Power Setting Parameter (5150-5250MHz band)							
Test Software Version	adb command, version: 1.0.31						
Modulation Mode	N _{TX}	Test Frequency (MHz)					
		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 Worst Case Power Setting Parameter (5250-5350MHz band)							
Test Software Version	adb command, version: 1.0.31						
Modulation Mode	N _{TX}	Test Frequency (MHz)					
		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 Worst Case Power Setting Parameter (5470-5725 MHz band)							
Test Software Version	adb command, version: 1.0.31						
Modulation Mode	N _{TX}	Test Frequency (MHz)					
		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

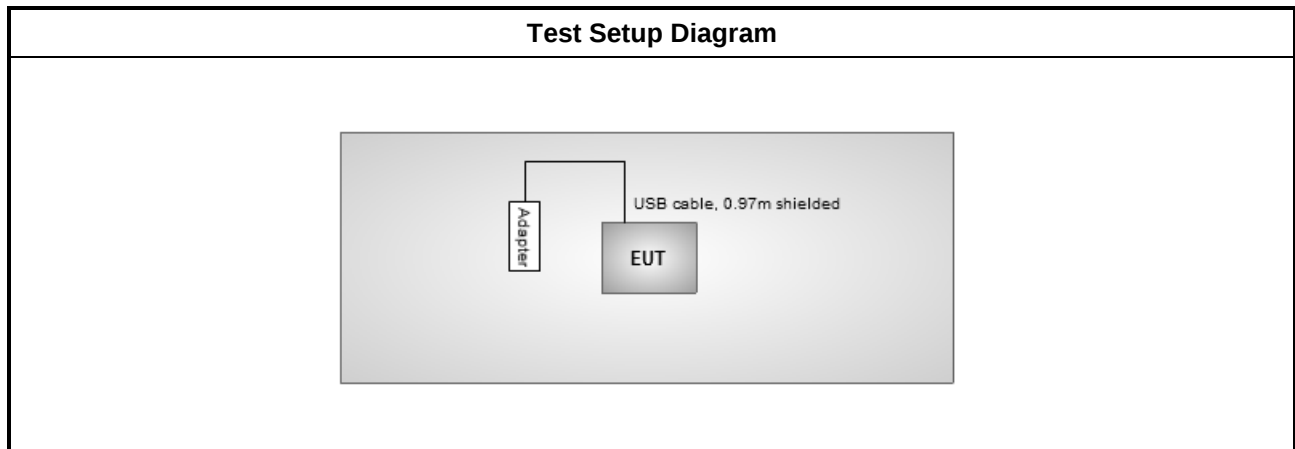
2.3 The Worst Case Measurement Configuration

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

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	☒ 1. AC Power & Radio link (WLAN)		
Modulation Mode	11a, HT20, HT40		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
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).			

2.4 Test Setup Diagram



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

Note 1: * Decreases with the logarithm of the frequency.

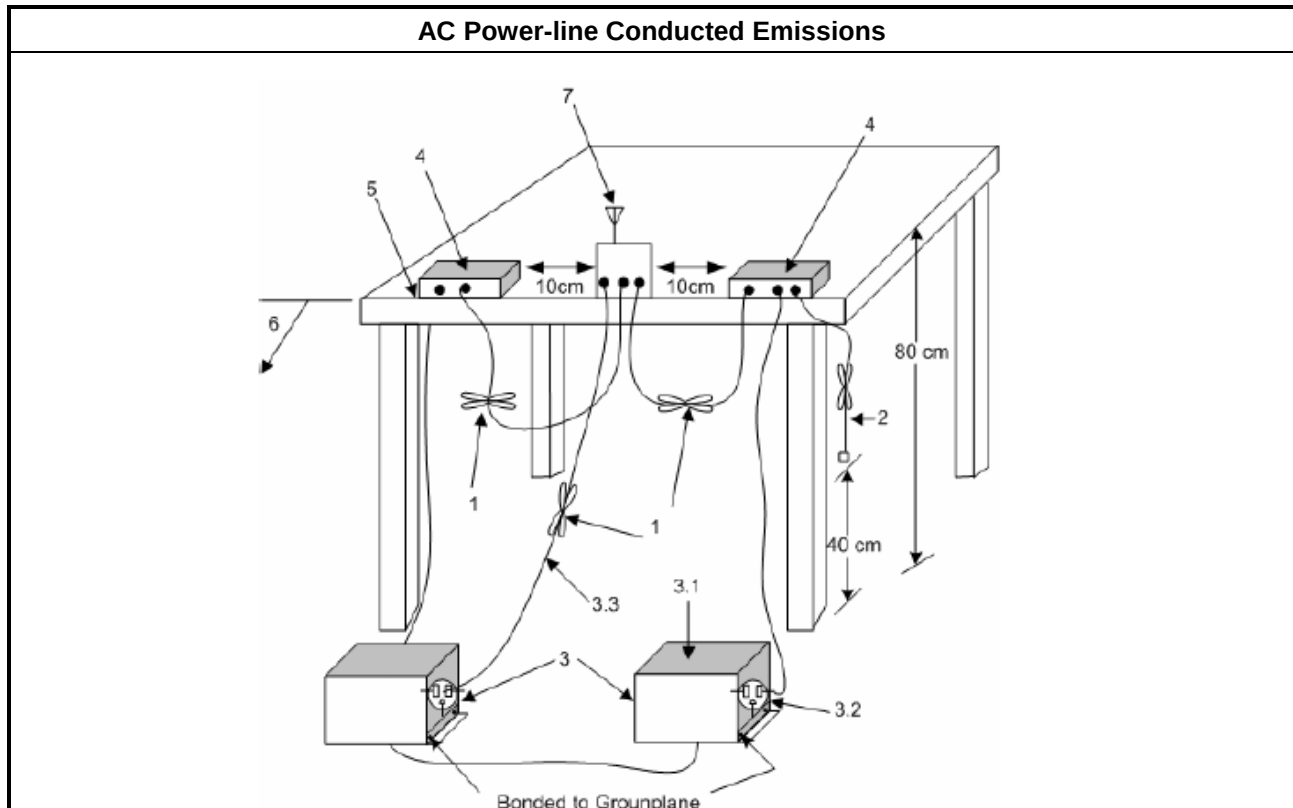
3.1.2 Measuring Instruments

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

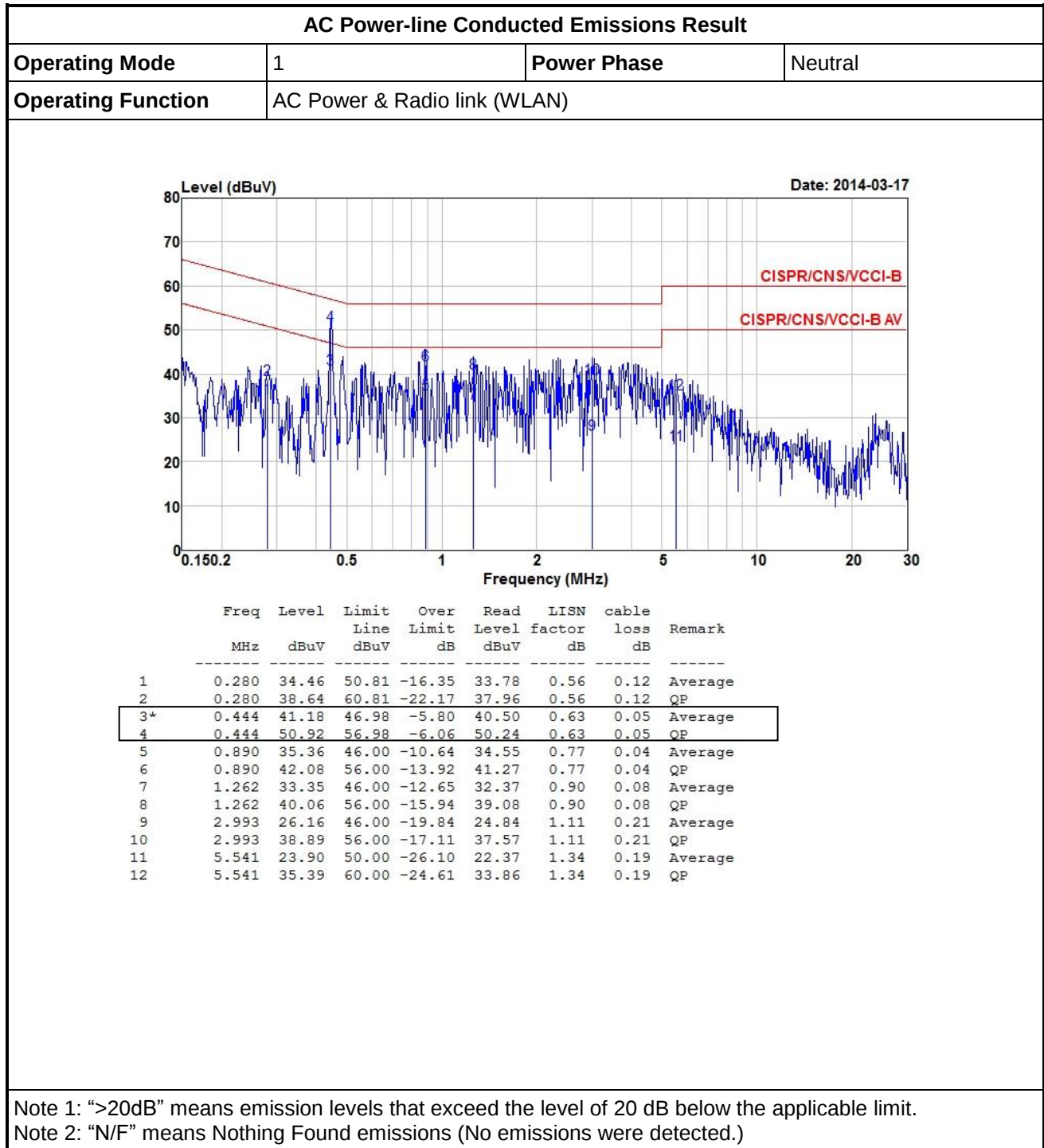
3.1.3 Test Procedures

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

3.1.4 Test Setup

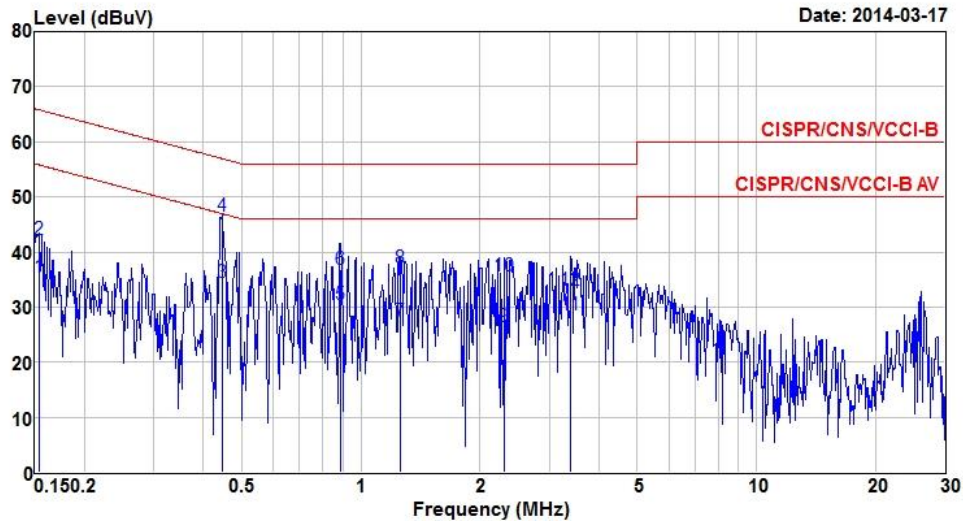


3.1.5 Test Result of AC Power-line Conducted Emissions



AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	AC Power & Radio link (WLAN)		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
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.)

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth (EBW) Limit

Emission Bandwidth (EBW) Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, the maximum conducted output power shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	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.
☒	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	
☒	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.
☒	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.

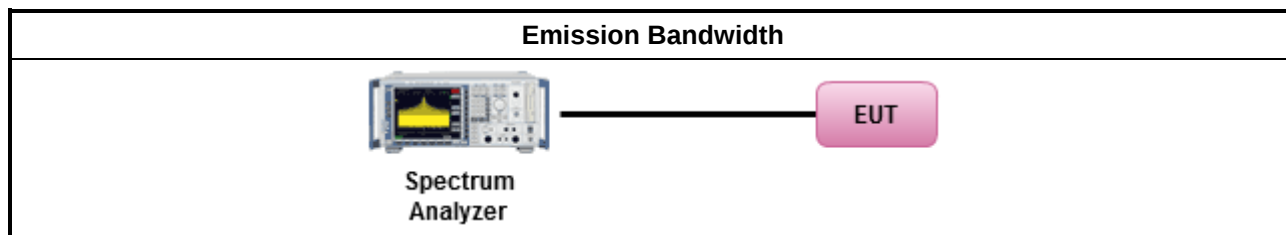
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
☒	For the emission bandwidth shall be measured using one of the options below:
☒	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☒	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.
☒	For conducted measurement.
☒	The EUT supports single transmit chain and measurements performed on this transmit chain.
☐	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
☐	The EUT supports multiple transmit chains using options given below:
☐	Option 1: Multiple transmit chains measurements need to be performed on one of the active transmit chains (antenna outputs). All measurement had be performed on transmit chains 1.
☐	Option 2: Multiple transmit chains measurements need to be performed on each transmit chains individually (antenna outputs). All measurement had be performed on all transmit chains.

3.2.4 Test Setup



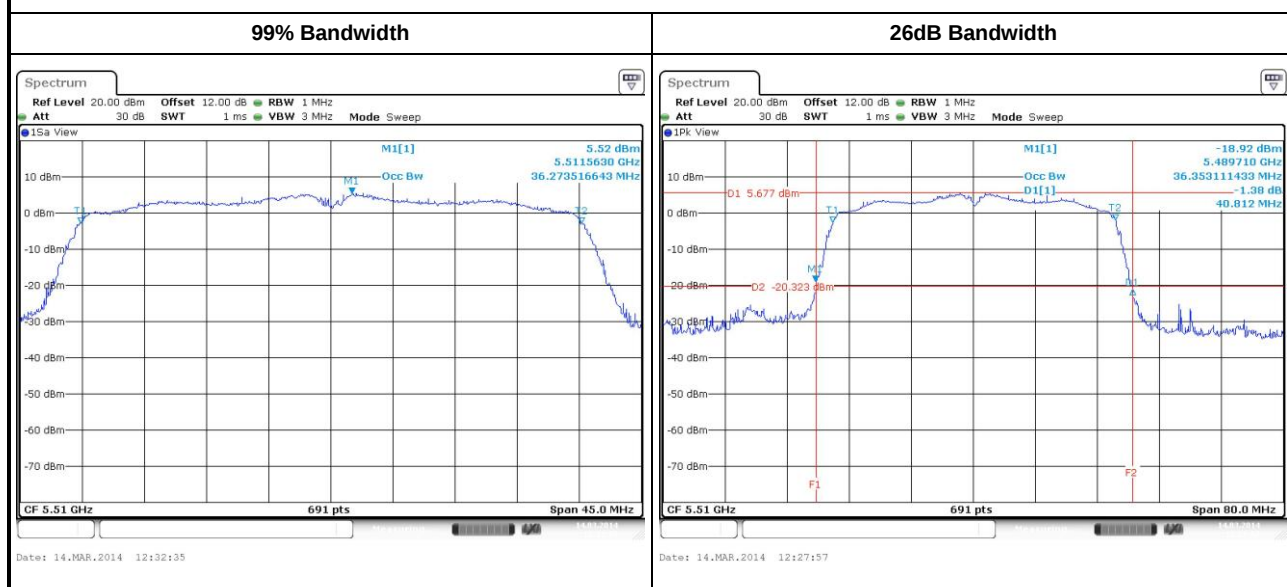
3.2.5 Test Result of Emission Bandwidth

UNII Emission Bandwidth Result (5150-5250MHz band)												
Condition			Emission Bandwidth (MHz)									
Modulation Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth				99% Bandwidth				Power Limit	
			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	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	1	5190	40.70	--	--	--	36.14	--	--	--	17.00	17.00
HT40	1	5230	40.46	--	--	--	36.21	--	--	--	17.00	17.00
Result			Complied									

UNII Emission Bandwidth Result (5250-5350MHz band)												
Condition			Emission Bandwidth (MHz)									
Modulation Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth				99% Bandwidth				Power Limit	
			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	1	5320	19.30	--	--	--	17.47	--	--	--	23.86	23.42
HT40	1	5270	40.70	--	--	--	36.14	--	--	--	24.00	24.00
HT40	1	5310	40.46	--	--	--	36.21	--	--	--	24.00	24.00
Result			Complied									

UNII Emission Bandwidth Result (5470-5725MHz band)

Condition			Emission Bandwidth (MHz)									
Modulation Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth				99% Bandwidth				Power Limit	
			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	--	--	--	23.80	23.18
11a	1	5580	19.13	--	--	--	16.50	--	--	--	23.82	23.17
11a	1	5700	19.13	--	--	--	16.50	--	--	--	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	1	5550	40.35	--	--	--	36.21	--	--	--	24.00	24.00
HT40	1	5670	40.58	--	--	--	36.27	--	--	--	24.00	24.00
Result			Complied									

Worst Emission Bandwidth Plots


3.3 RF Output Power

3.3.1 RF Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☒	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 $P_{Out} = 24 - (G_{TX} - 6)$.
☒	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, $G_{TX} \leq P_{Out}$
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

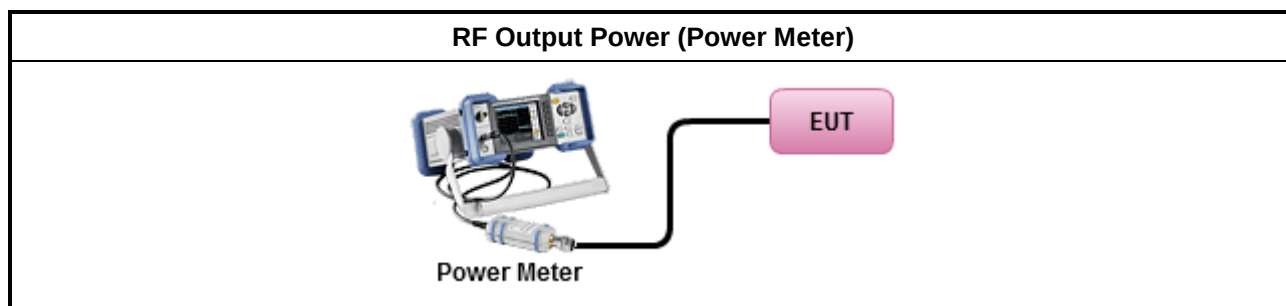
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
☒	Maximum Conducted Output Power
	[duty cycle $\geq 98\%$ or external video / power trigger]
☐	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause E Method SA-1 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, 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 D01 General UNII Test Procedures Old Rules v01r04, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause E Method PM (using an RF average power meter).
☒	For conducted measurement.
☒	The EUT supports single transmit chain and measurements performed on this transmit chain.
☐	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
☐	The EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
☐	If multiple transmit chains, EIRP calculation could be following as methods: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$

3.3.4 Test Setup



3.3.5 Directional Gain for Power Measurement

Directional Gain (DG) Result for 5150 ~ 5250 MHz band					
Transmit Chains No.		1	--	-	-
Maximum G _{ANT} (dBi)		2.82	--	-	-
Modulation Mode	DG (dBi)	N _{TX}	N _{SS} (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	-	-

Directional Gain (DG) Result for 5250 ~ 5350 MHz band					
Transmit Chains No.		1	--	-	-
Maximum G _{ANT} (dBi)		2.06	--	-	-
Modulation Mode	DG (dBi)	N _{TX}	N _{SS} (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	-	-

Directional Gain (DG) Result for 5470 ~ 5725 MHz band					
Transmit Chains No.		1	--	--	--
Maximum G _{ANT} (dBi)		1.23	--	--	--
Modulation Mode	DG (dBi)	N _{TX}	N _{SS}	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	-	-

3.3.6 Test Result of Maximum Conducted Output Power

Maximum Conducted Output Power (5150-5250MHz band)											
Condition			RF Output Power (dBm)								
Modulation Mode	N _{TX}	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
Result			Complied								

Maximum Conducted Output Power (5250-5350MHz band)											
Condition			RF Output Power (dBm)								
Modulation Mode	N _{TX}	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
Result			Complied								

Maximum Conducted Output Power (5470-5725MHz band)											
Condition			RF Output Power (dBm)								
Modulation Mode	N _{TX}	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
Result			Complied								

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 4 - (G_{TX} - 6)$.
☒	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☒	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 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) ≤ 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) ≤ 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) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.
☒	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
☒	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
☐	For the 5.725-5.825 GHz band, the peak power spectral density (PPSD) ≤ 17 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 23 dBm/MHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

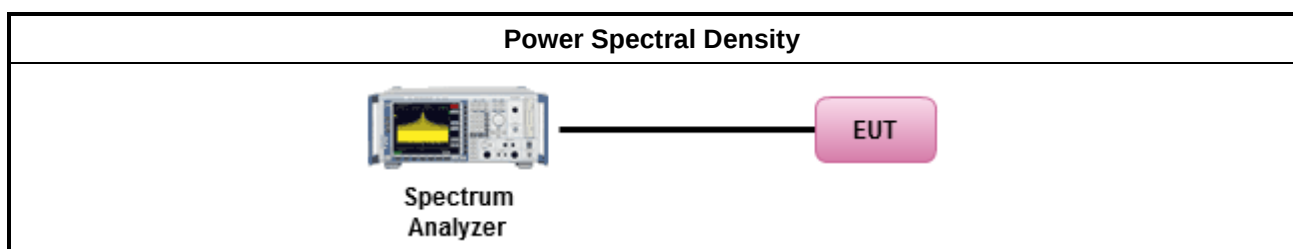
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
☒	Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:
☐	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, 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 D01 General UNII Test Procedures Old Rules v01r04, clause E Method SA-1 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, 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 D01 General UNII Test Procedures Old Rules v01r04, clause E Method SA-2 (spectral trace averaging).
☒	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
☒	For conducted measurement.
☒	The EUT supports single transmit chain and measurements performed on this transmit chain.
☐	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
☐	The EUT supports multiple transmit chains using options given below:
☐	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power 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: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (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.

3.4.4 Test Setup



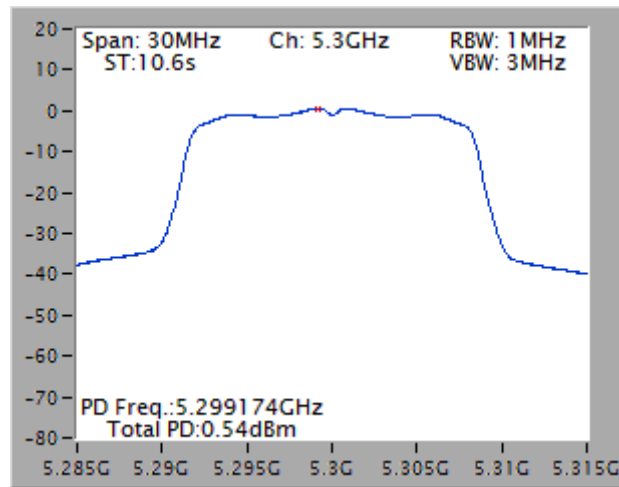
3.4.5 Test Result of Peak Power Spectral Density

Peak Power Spectral Density Result (5150-5250MHz band)											
Condition			Peak Power Spectral Density (dBm/MHz)								
Modulation Mode	N _{TX}	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								

Peak Power Spectral Density Result (5250-5350MHz band)											
Condition			Peak Power Spectral Density (dBm/MHz)								
Modulation Mode	N _{TX}	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
Result			Complied								

Peak Power Spectral Density Result (5470-5725MHz band)											
Condition			Peak Power Spectral Density (dBm/MHz)								
Modulation Mode	N _{TX}	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
Result			Complied								

Worst Power Spectral Density Plots



Note: Power Spectral Density plot without duty factor.

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

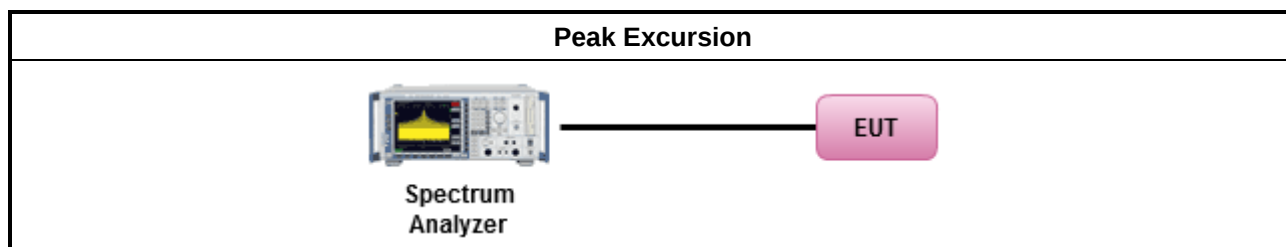
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
☒	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause G peak excursion method.
☒	Testing each modulation mode on a single channel is sufficient to demonstrate compliance with the peak excursion requirement
☒	For conducted measurement.
☐	☒ Testing a single output port is sufficient to demonstrate compliance with the peak excursion.

3.5.4 Test Setup

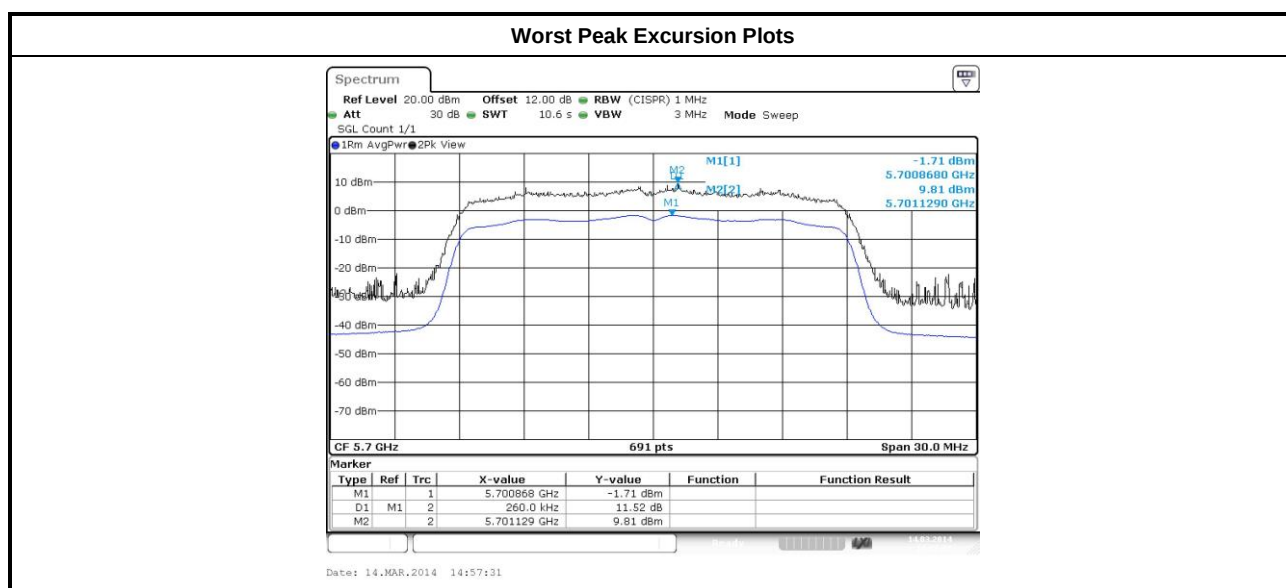


3.5.5 Test Result of Peak Excursion

UNII Peak Excursion Result (5150-5250MHz band)							
Condition			Peak Excursion (dB)				
Modulation Mode	N _{TX}	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
Result			Complied				

UNII Peak Excursion Result (5250-5350MHz band)							
Condition			Peak Excursion (dB)				
Modulation Mode	N _{TX}	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
Result			Complied				

UNII Peak Excursion Result (5470-5725MHz band)							
Condition			Peak Excursion (dB)				
Modulation Mode	N _{TX}	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
Result			Complied				



Note: Peak excursion plot without duty factor.

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

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.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.825 GHz	5.715 5.725 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] 5.825 5.835 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 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.

3.6.3 Test Procedures

Test Method	
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
☒	Measurements in the frequency range 5 GHz - 10GHz are typically made at a closer distance 3m, because the instrumentation noise floor is typically close to the radiated emission limit.
☒	Measurements in the frequency range 10 GHz - 18GHz are typically made at a closer distance 1m, because the instrumentation noise floor is typically close to the radiated emission limit.
☒	Measurements in the frequency range above 18 GHz - 40GHz are typically made at a closer distance 0.5m, because the instrumentation noise floor is typically close to the radiated emission limit.
☒	The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].
☒	For the transmitter unwanted emissions shall be measured using following options below:
☒	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause H)2) for unwanted emissions into non-restricted bands.
☒	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause H)1) for unwanted emissions into restricted bands.
☐	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, H)6) Method AD (Trace Averaging).
☐	Refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, H)6) Method VB (Reduced VBW).
☒	Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 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 D01 General UNII Test Procedures Old Rules v01r04, clause H)5) measurement procedure peak limit.
☐	Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
☒	For radiated measurement.
☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz.
☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1000 MHz.
☒	Refer as ANSI C63.10, clause 6.6 for radiated emissions from above 1 GHz.

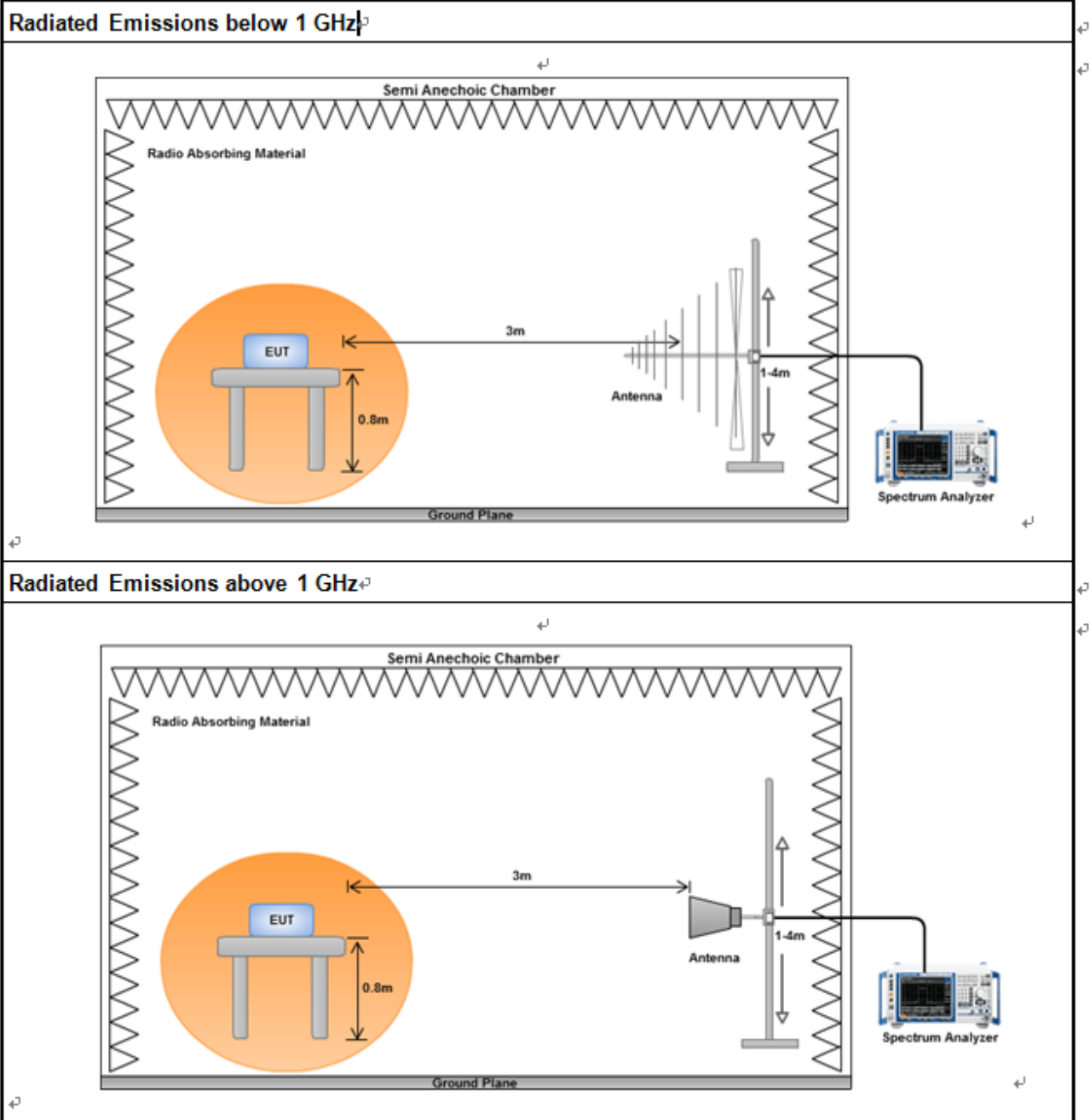
Test Method	
☐	For conducted and cabinet radiation measurement, refer as FCC KDB 789033 D01 General UNII Test Procedures Old Rules v01r04, clause H)3).
☐	For conducted unwanted emissions into non-restricted bands (relative emission limits). Devices with multiple transmit chains: Refer as FCC KDB 662911, 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

3.6.4 Test Setup



3.6.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

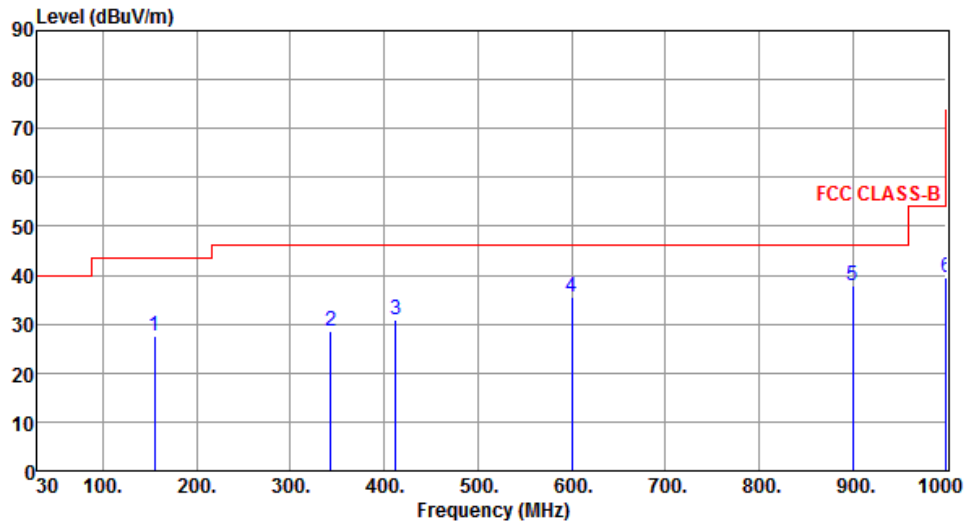
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.6.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Transmitter Radiated Unwanted Emissions (Below 1GHz)									
Modulation Mode		11a			Test Freq. (MHz)		5320		
Polarization		V							
Level (dBuV/m) <									

Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5320
Polarization	H		

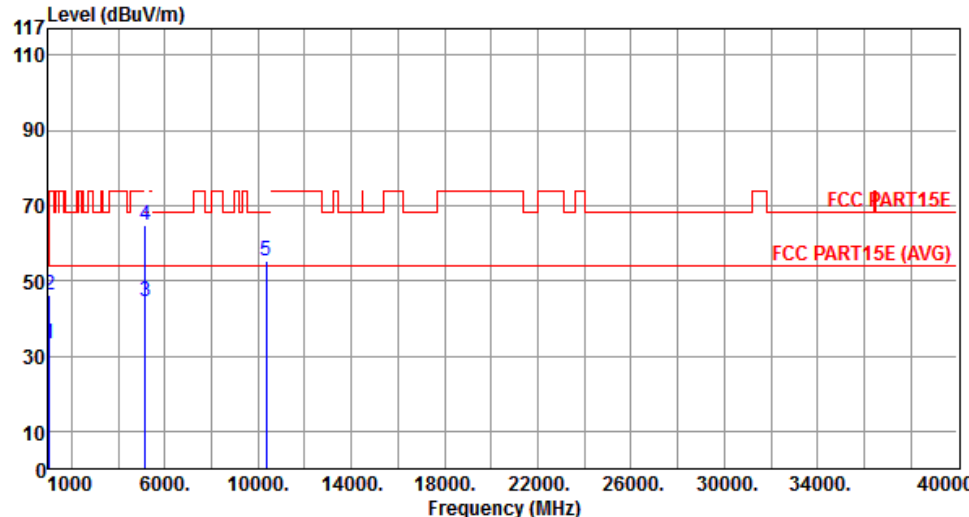


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	155.13	27.58	43.50	-15.92	44.31	-16.73	Peak	---	---
2	343.31	28.53	46.00	-17.47	43.78	-15.25	Peak	---	---
3	412.18	30.74	46.00	-15.26	44.16	-13.42	Peak	---	---
4	600.36	35.39	46.00	-10.61	44.96	-9.57	Peak	---	---
5	900.09	37.72	46.00	-8.28	43.25	-5.53	Peak	---	---
6	1000.00	39.48	54.00	-14.52	44.12	-4.64	Peak	---	---

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

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

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	11a				Test Freq. (MHz)	5180			
N _{TX}	1				Polarization	V			

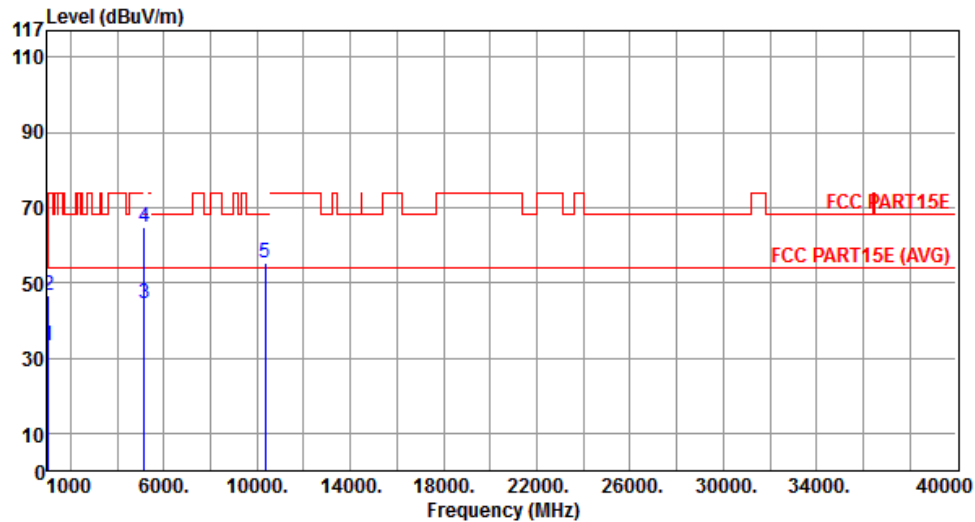


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.11	54.00	-20.89	42.70	-9.59	Average	---	---
2	1031.00	46.04	74.00	-27.96	55.63	-9.59	Peak	---	---
3	5150.00	44.31	54.00	-9.69	38.60	5.71	Average	---	---
4	5150.00	64.71	74.00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

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 _{TX}	1	Polarization	H



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.42	54.00	-20.58	43.01	-9.59	Average	---	---
2	1031.00	46.42	74.00	-27.58	56.01	-9.59	Peak	---	---
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.

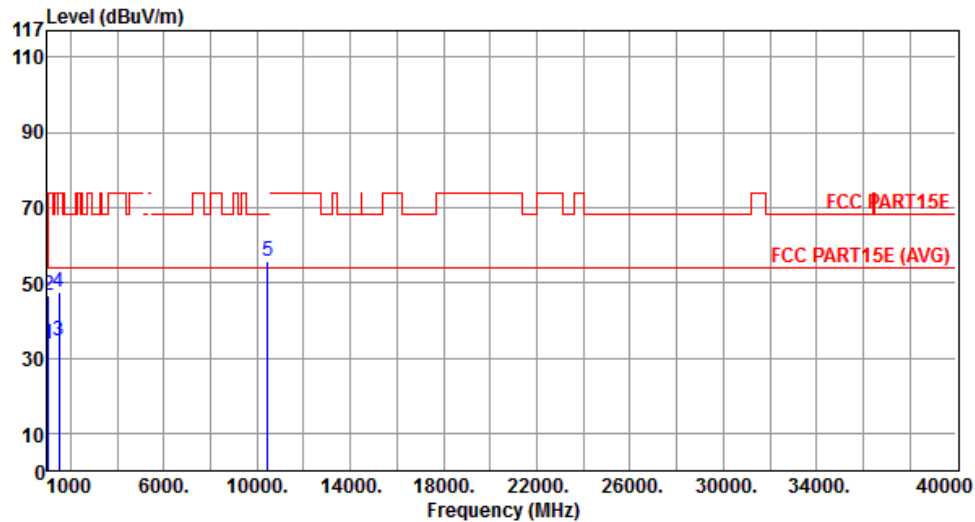
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5200
N _{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.61	54.00	-20.39	43.20	-9.59	Average	---	---
2	1031.00	46.72	74.00	-27.28	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.

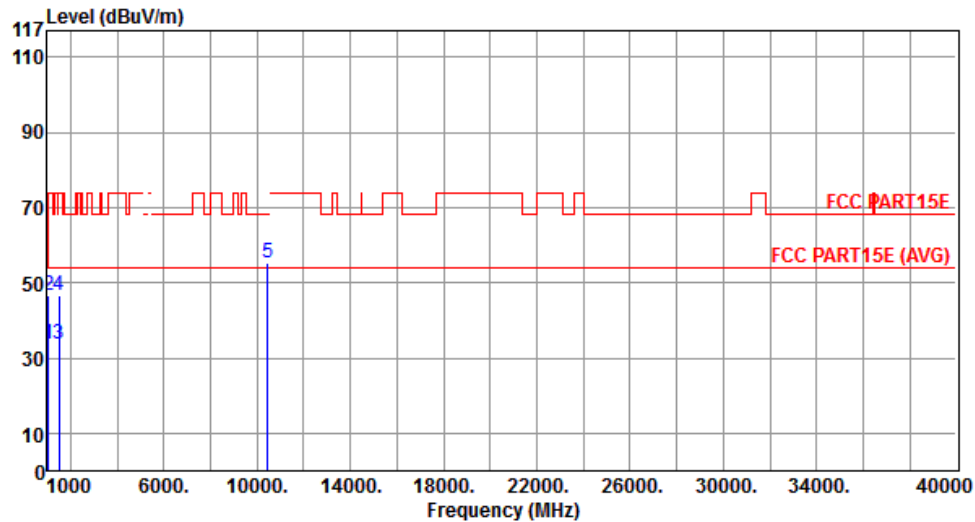
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5200
N _{TX}	1	Polarization	H



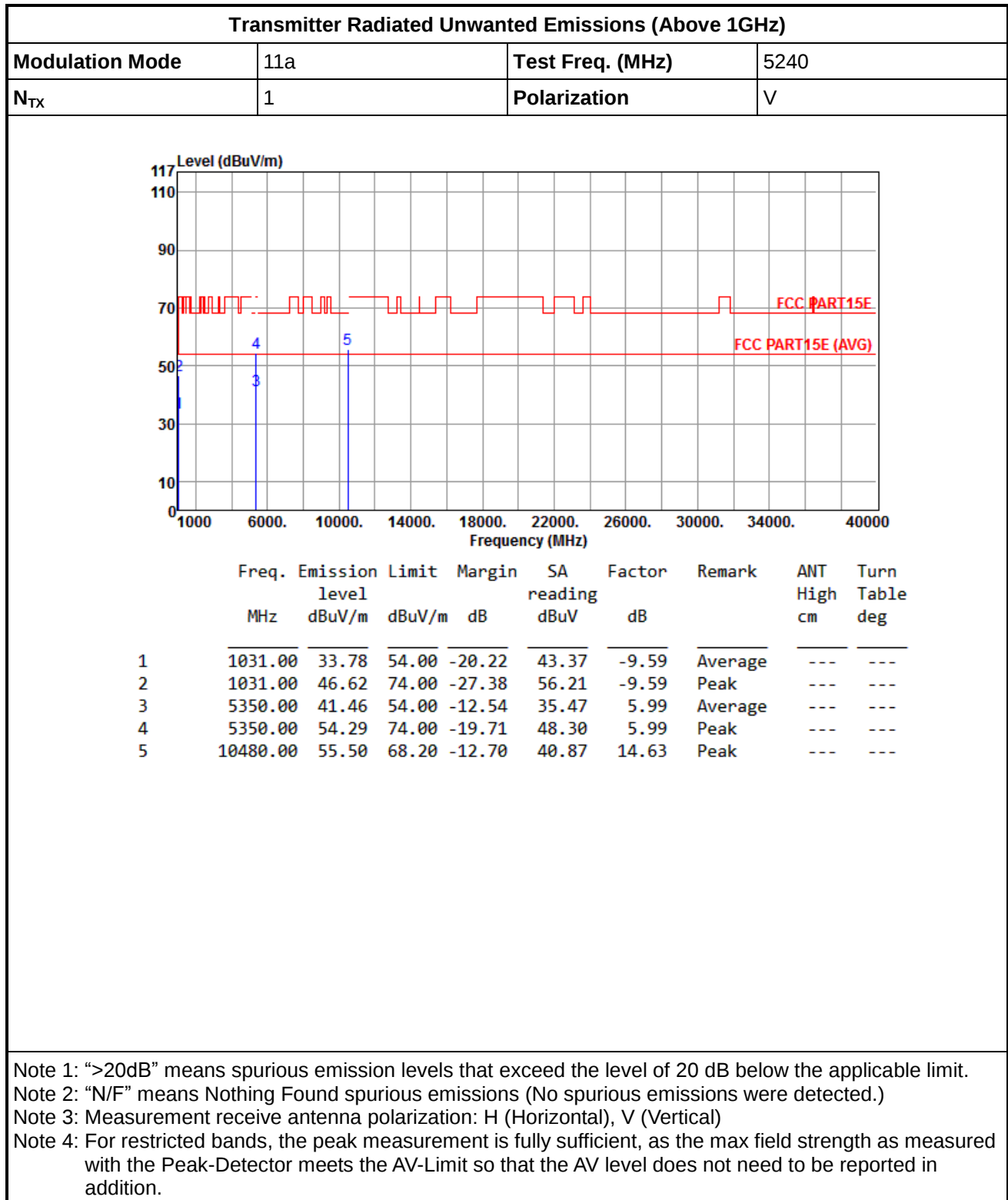
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.86	54.00	-20.14	43.45	-9.59	Average	---	---
2	1031.00	46.75	74.00	-27.25	56.34	-9.59	Peak	---	---
3	1500.00	33.74	54.00	-20.26	40.21	-6.47	Average	---	---
4	1500.00	46.49	74.00	-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.)

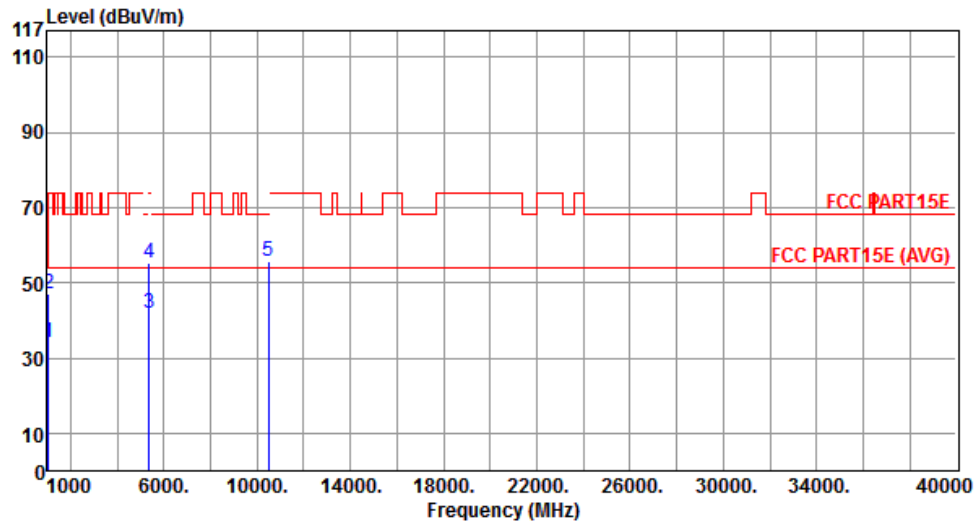
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5240
N _{TX}	1	Polarization	H



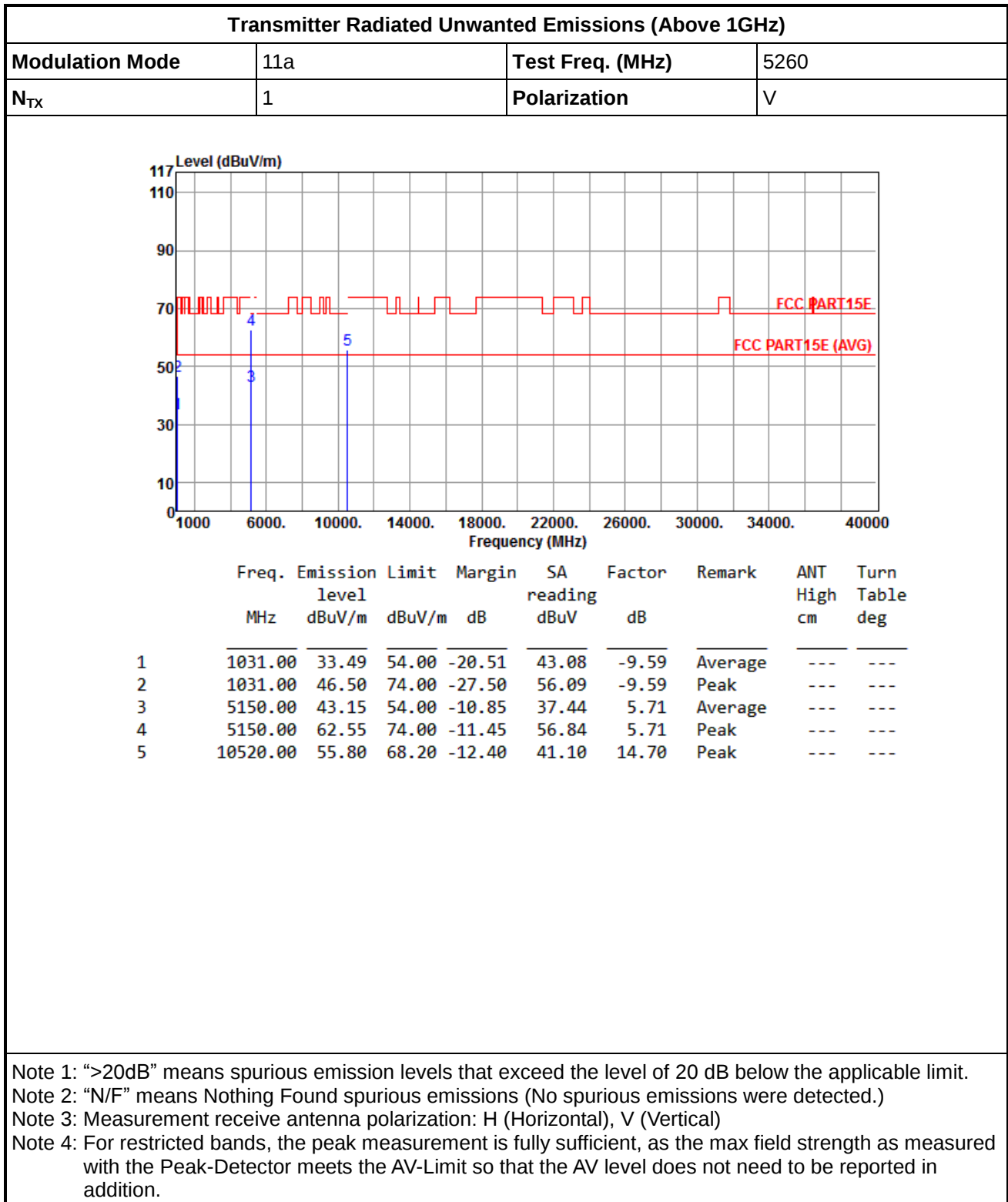
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	34.22	54.00	-19.78	43.81	-9.59	Average	---	---
2	1031.00	47.10	74.00	-26.90	56.69	-9.59	Peak	---	---
3	5350.00	42.09	54.00	-11.91	36.10	5.99	Average	---	---
4	5350.00	55.29	74.00	-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.)

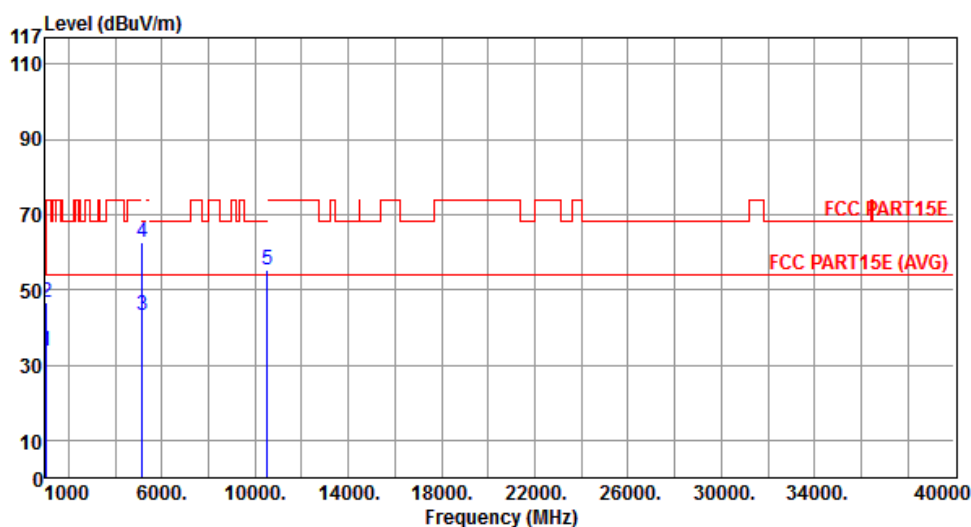
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5260
N _{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

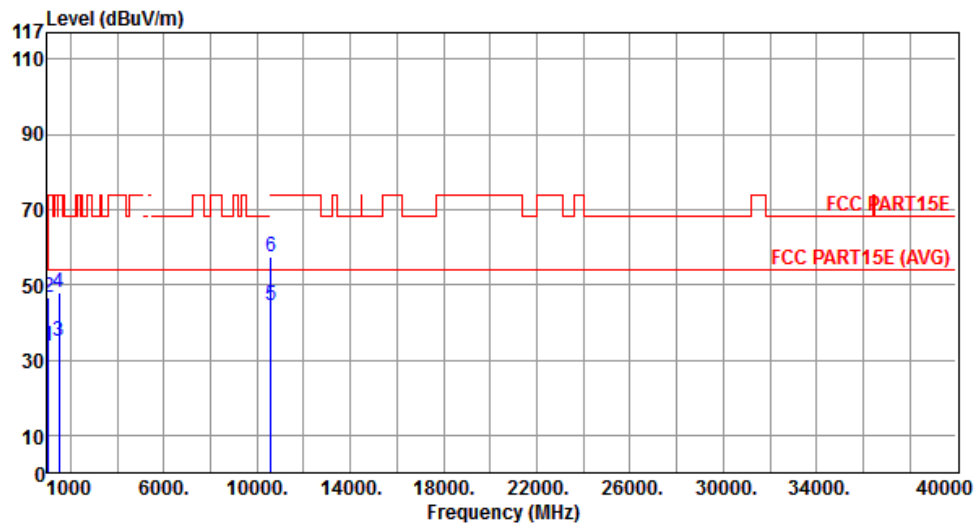
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5300
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

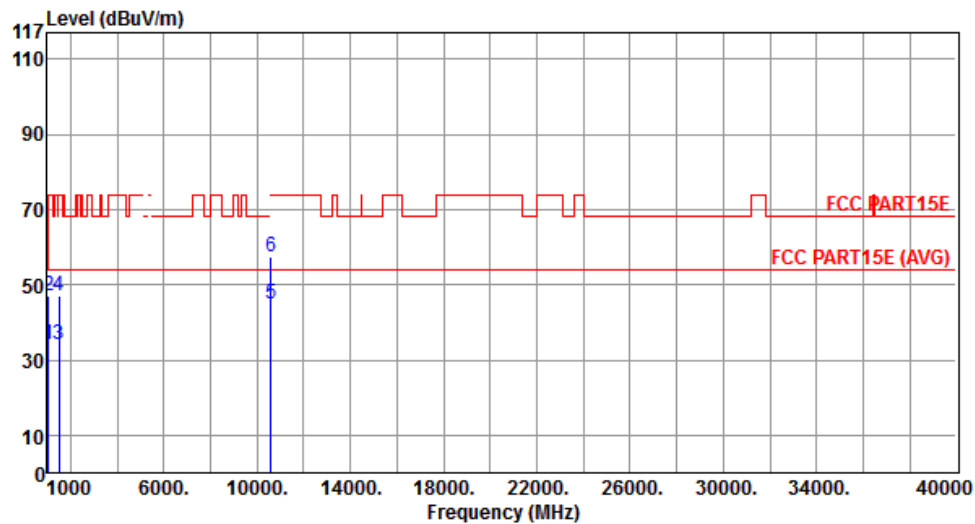
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5300
N_{TX}	1	Polarization	H



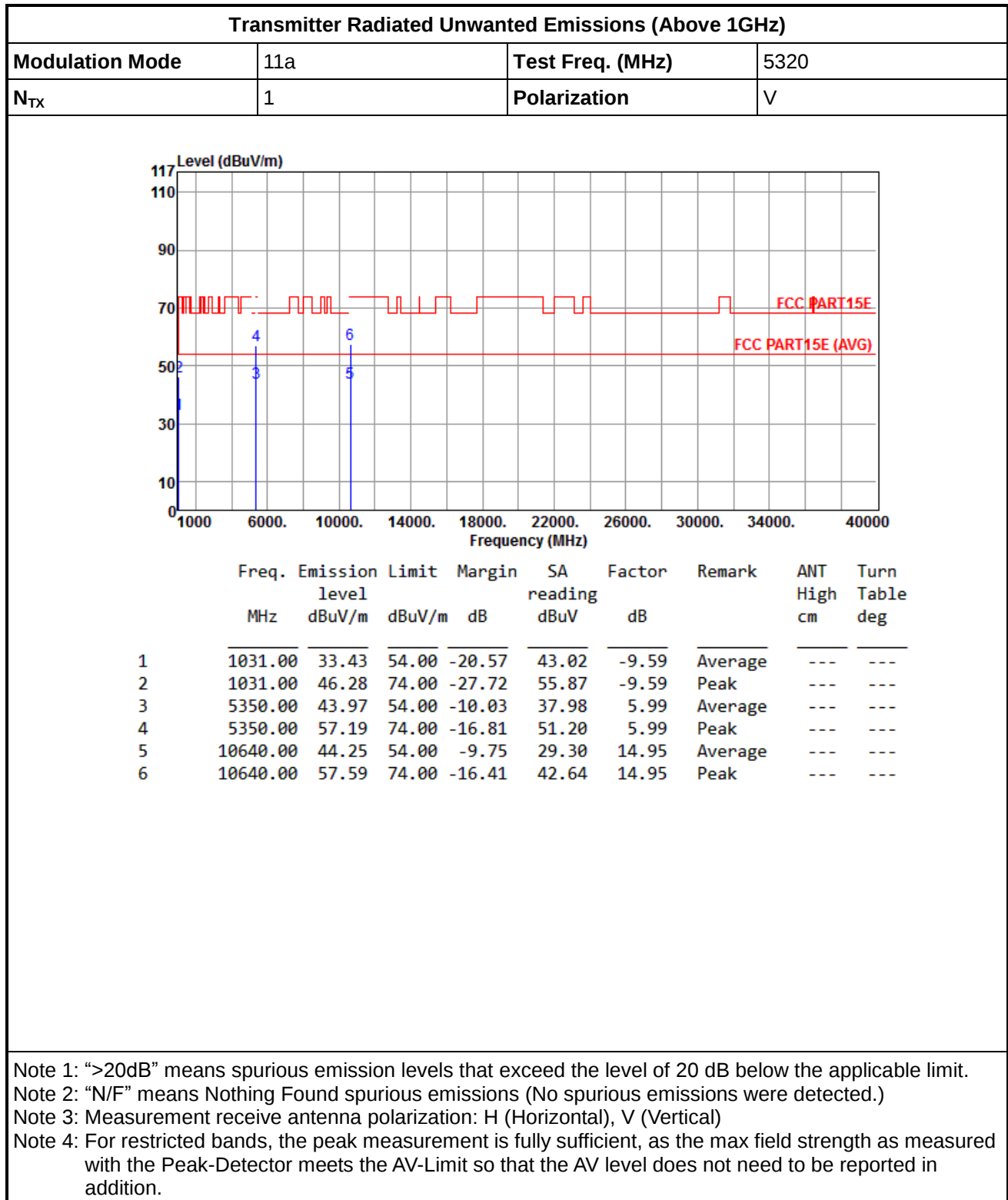
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.94	54.00	-20.06	43.53	-9.59	Average	---	---
2	1031.00	47.13	74.00	-26.87	56.72	-9.59	Peak	---	---
3	1500.00	34.12	54.00	-19.88	40.59	-6.47	Average	---	---
4	1500.00	47.00	74.00	-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.)

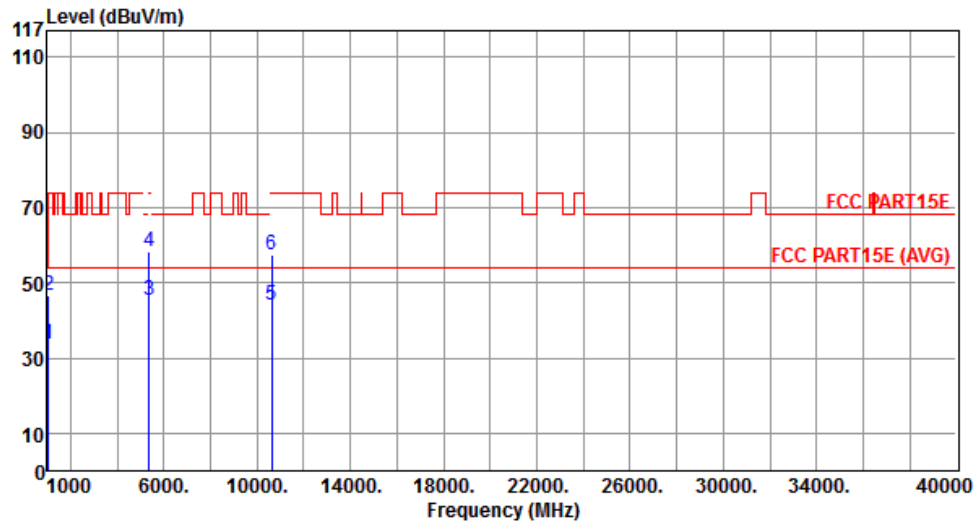
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5320
N _{TX}	1	Polarization	H



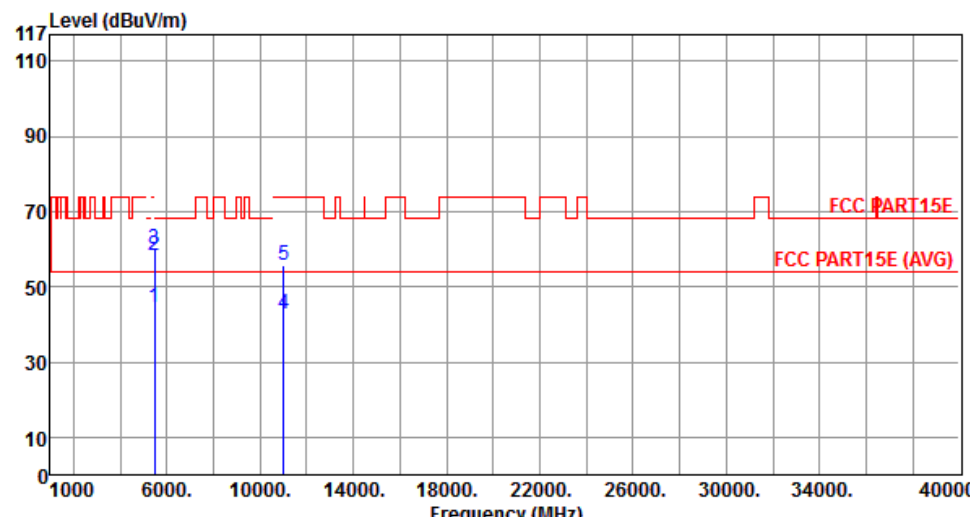
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.88	54.00	-20.12	43.47	-9.59	Average	---	---
2	1031.00	46.84	74.00	-27.16	56.43	-9.59	Peak	---	---
3	5350.00	45.25	54.00	-8.75	39.26	5.99	Average	---	---
4	5350.00	58.23	74.00	-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	---	---

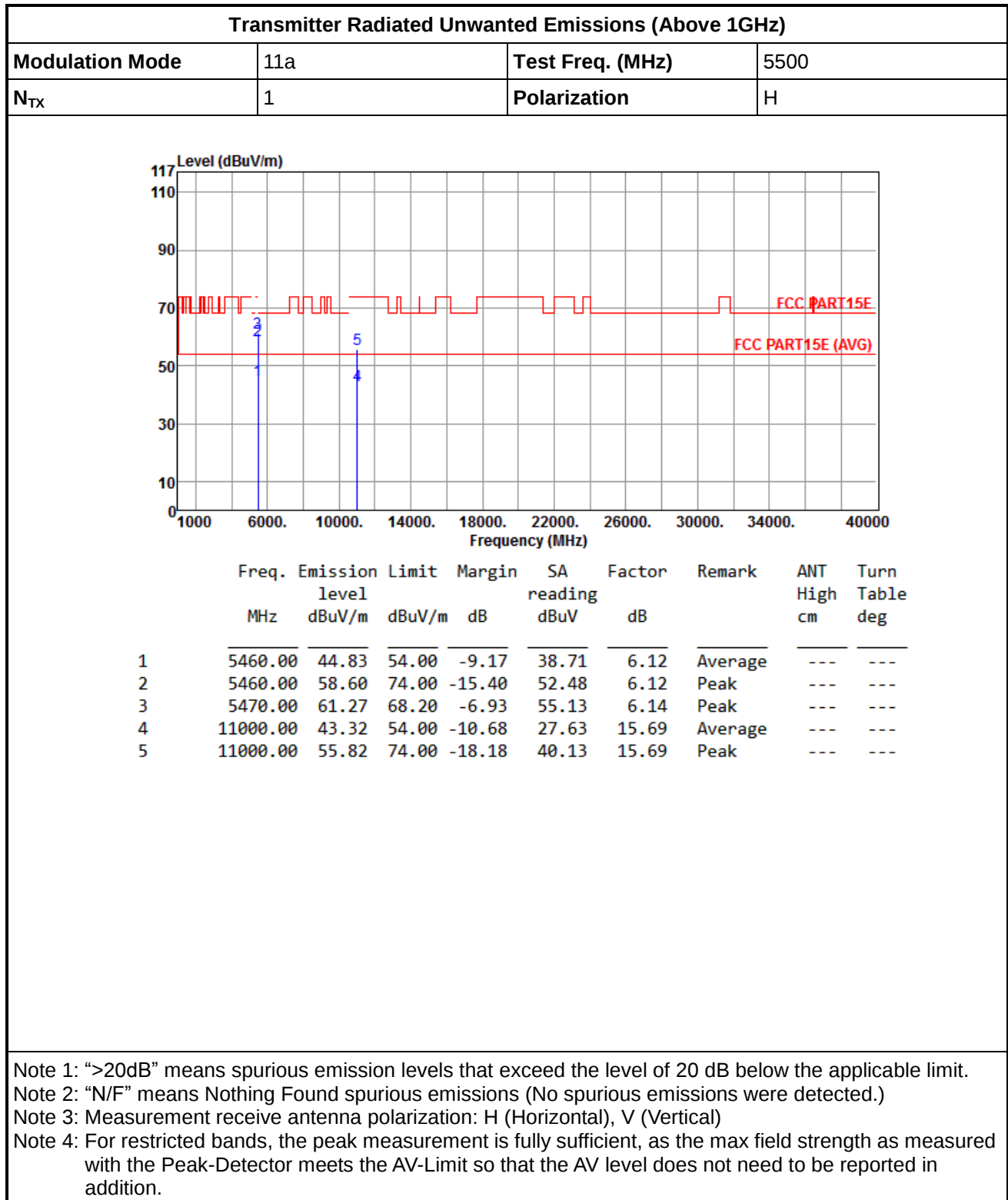
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

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

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

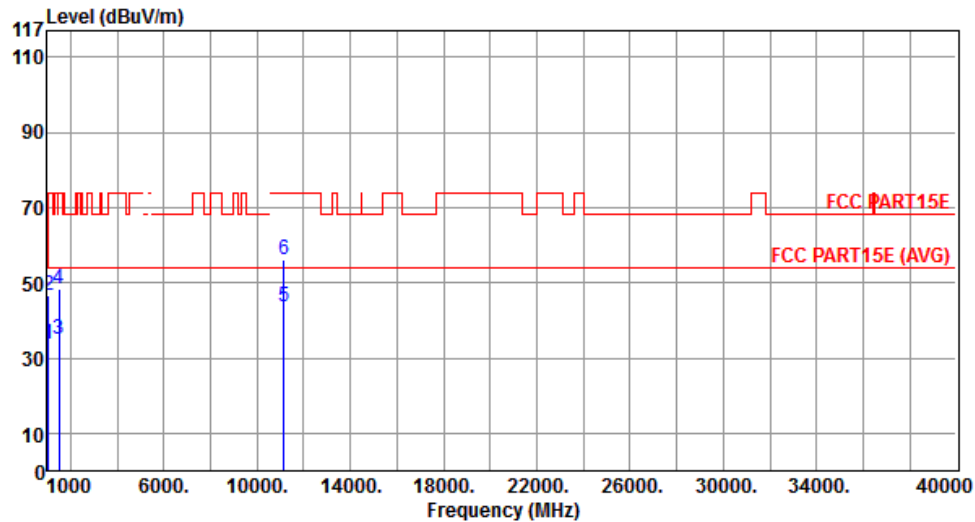
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Transmitter Radiated Unwanted Emissions (Above 1GHz)																																																																					
Modulation Mode	11a				Test Freq. (MHz)	5500																																																															
N _{TX}	1				Polarization	V																																																															
 <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5460.00</td><td>44.42</td><td>54.00</td><td>-9.58</td><td>38.30</td><td>6.12</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>5460.00</td><td>58.30</td><td>74.00</td><td>-15.70</td><td>52.18</td><td>6.12</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>5470.00</td><td>60.03</td><td>68.20</td><td>-8.17</td><td>53.89</td><td>6.14</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>4</td><td>11000.00</td><td>42.78</td><td>54.00</td><td>-11.22</td><td>27.09</td><td>15.69</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>5</td><td>11000.00</td><td>55.82</td><td>74.00</td><td>-18.18</td><td>40.13</td><td>15.69</td><td>Peak</td><td>---</td><td>---</td></tr></tbody></table>											Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table 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	---	---
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table 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	---	---																																																												
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Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5580
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

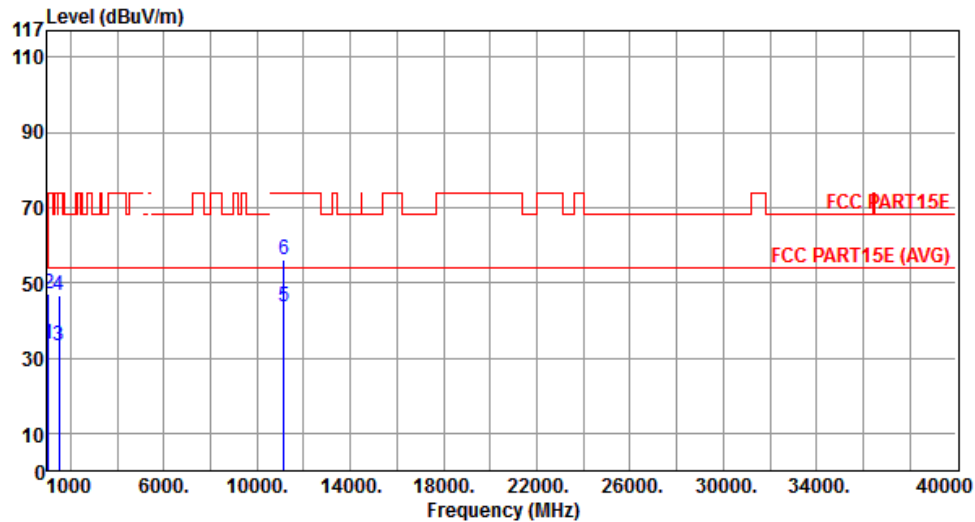
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5580
N_{TX}	1	Polarization	H



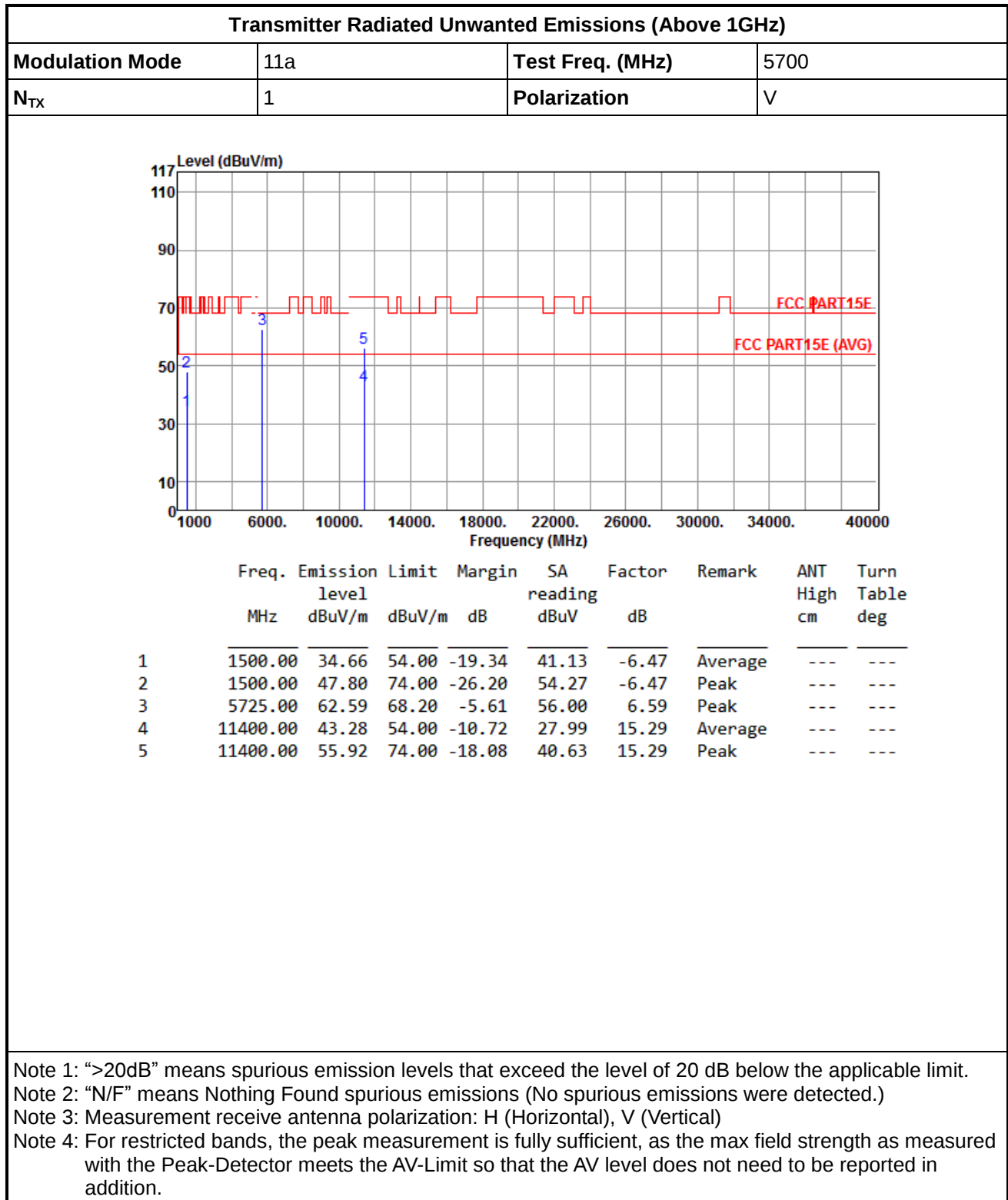
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.89	54.00	-20.11	43.48	-9.59	Average	---	---
2	1031.00	47.10	74.00	-26.90	56.69	-9.59	Peak	---	---
3	1500.00	33.45	54.00	-20.55	39.92	-6.47	Average	---	---
4	1500.00	46.63	74.00	-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.)

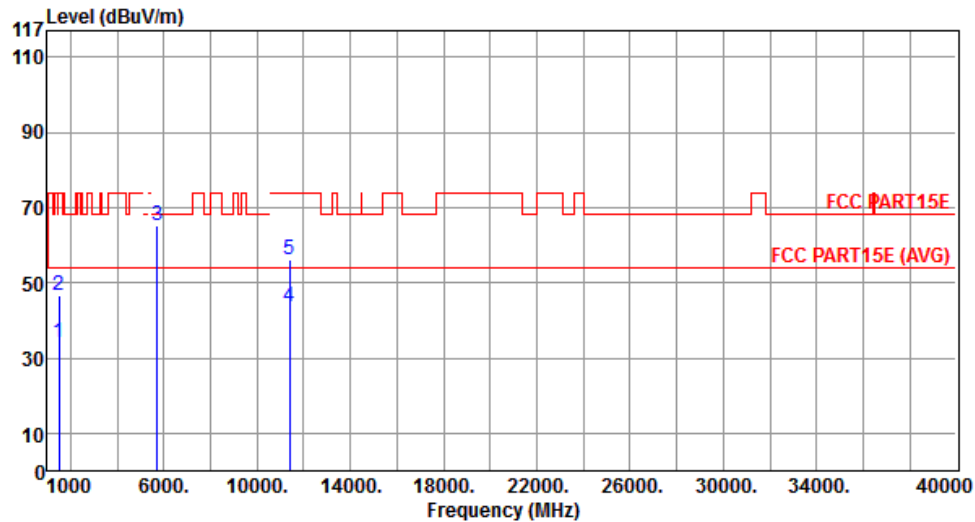
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5700
N_{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1500.00	33.97	54.00	-20.03	40.44	-6.47	Average	---	---
2	1500.00	46.82	74.00	-27.18	53.29	-6.47	Peak	---	---
3	5725.00	65.21	68.20	-2.99	58.62	6.59	Peak	---	---
4	11400.00	43.82	54.00	-10.18	28.53	15.29	Average	---	---
5	11400.00	56.34	74.00	-17.66	41.05	15.29	Peak	---	---

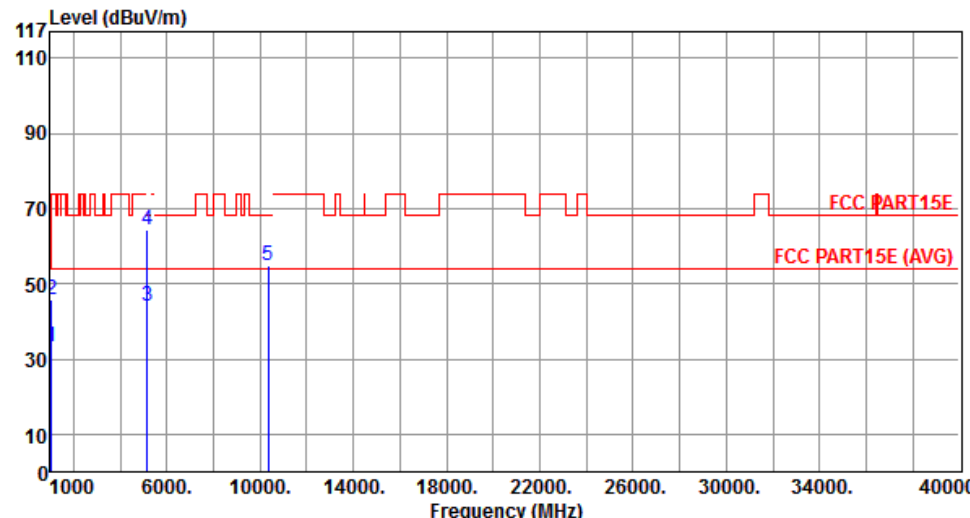
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

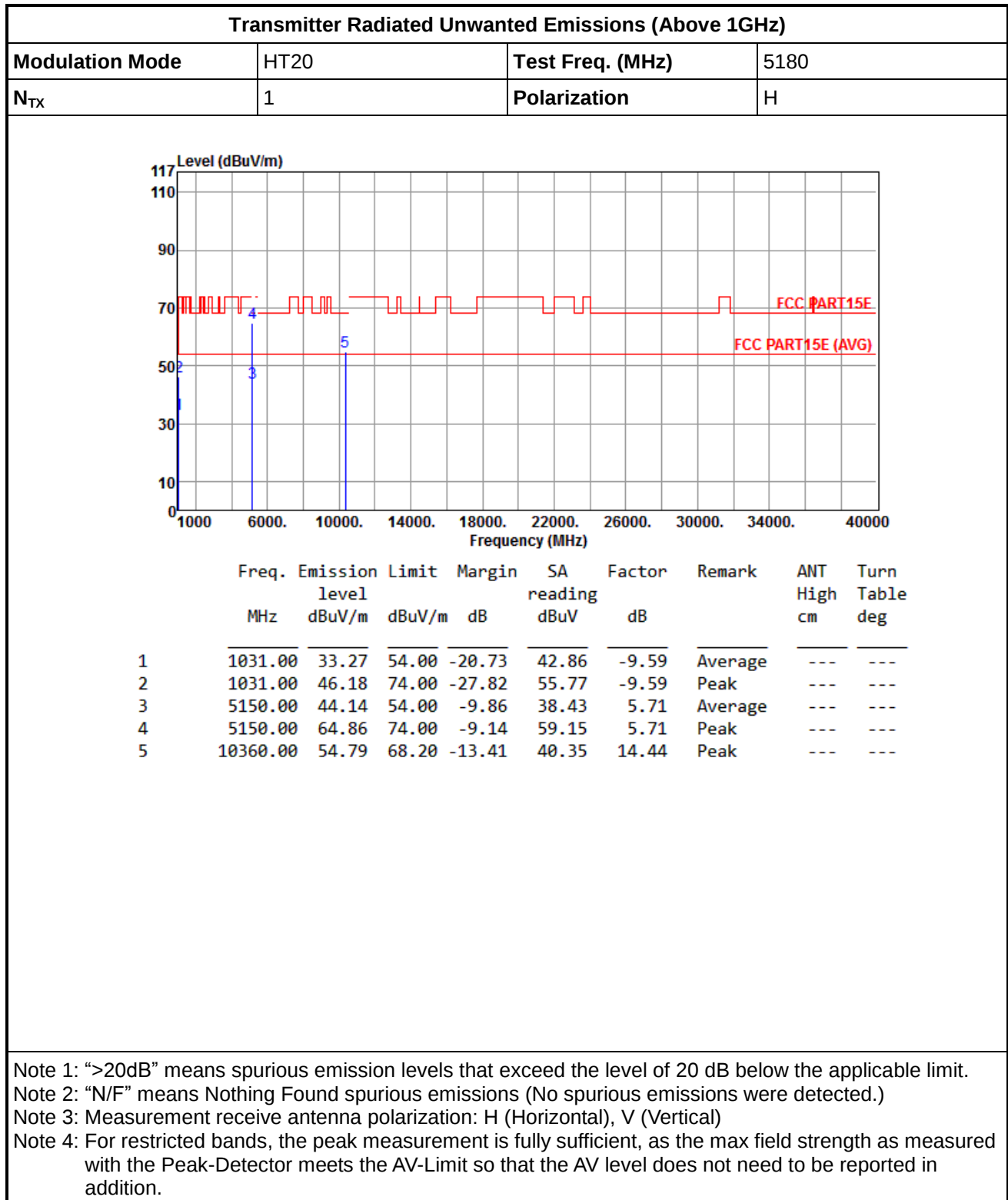
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

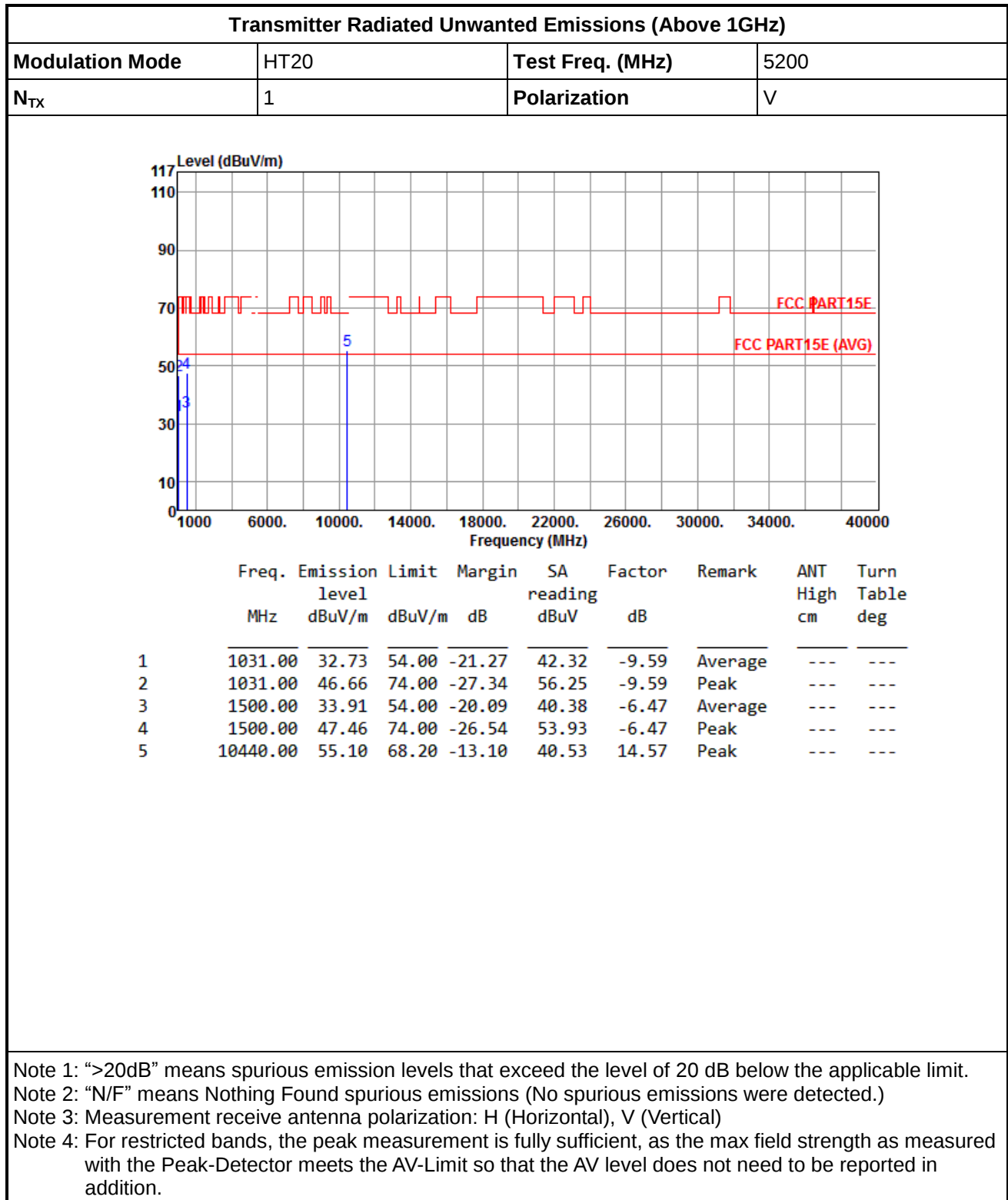
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.

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

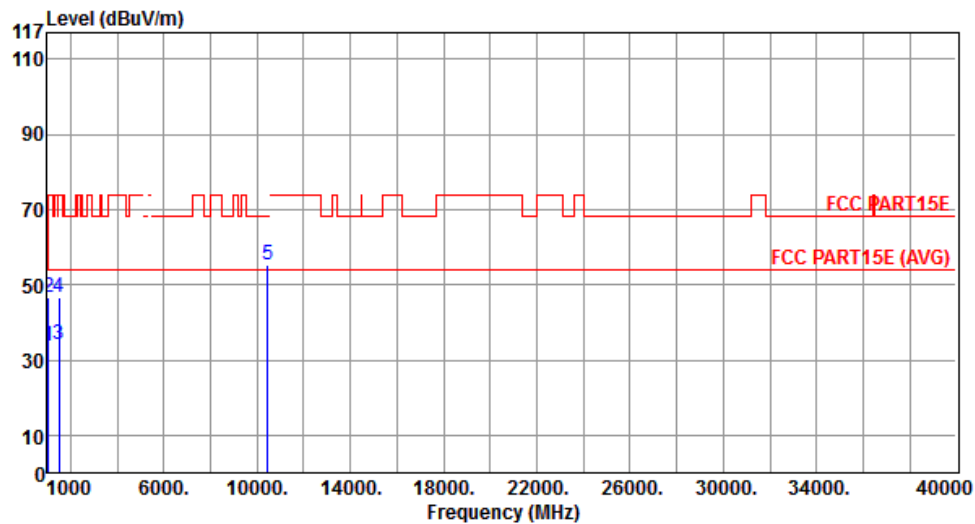
Transmitter Radiated Unwanted Emissions (Above 1GHz)																																																																																									
Modulation Mode	HT20				Test Freq. (MHz)	5180																																																																																			
N _{TX}	1				Polarization	V																																																																																			
Level (dBuV/m)  <table><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th>dBuV/m</th><th>dB</th><th>reading</th><th>dB</th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>1031.00</td><td>33.05</td><td>54.00</td><td>-20.95</td><td>42.64</td><td>-9.59</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1031.00</td><td>45.66</td><td>74.00</td><td>-28.34</td><td>55.25</td><td>-9.59</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>5150.00</td><td>44.14</td><td>54.00</td><td>-9.86</td><td>38.43</td><td>5.71</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>5150.00</td><td>64.46</td><td>74.00</td><td>-9.54</td><td>58.75</td><td>5.71</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>10360.00</td><td>54.82</td><td>68.20</td><td>-13.38</td><td>40.38</td><td>14.44</td><td>Peak</td><td>---</td><td>---</td></tr></table>											Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level	dBuV/m	dB	reading	dB		High	Table									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	---	---
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																
	MHz	level	dBuV/m	dB	reading	dB		High	Table																																																																																
								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	---	---																																																																																
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	HT20	Test Freq. (MHz)	5200
N_{TX}	1	Polarization	H



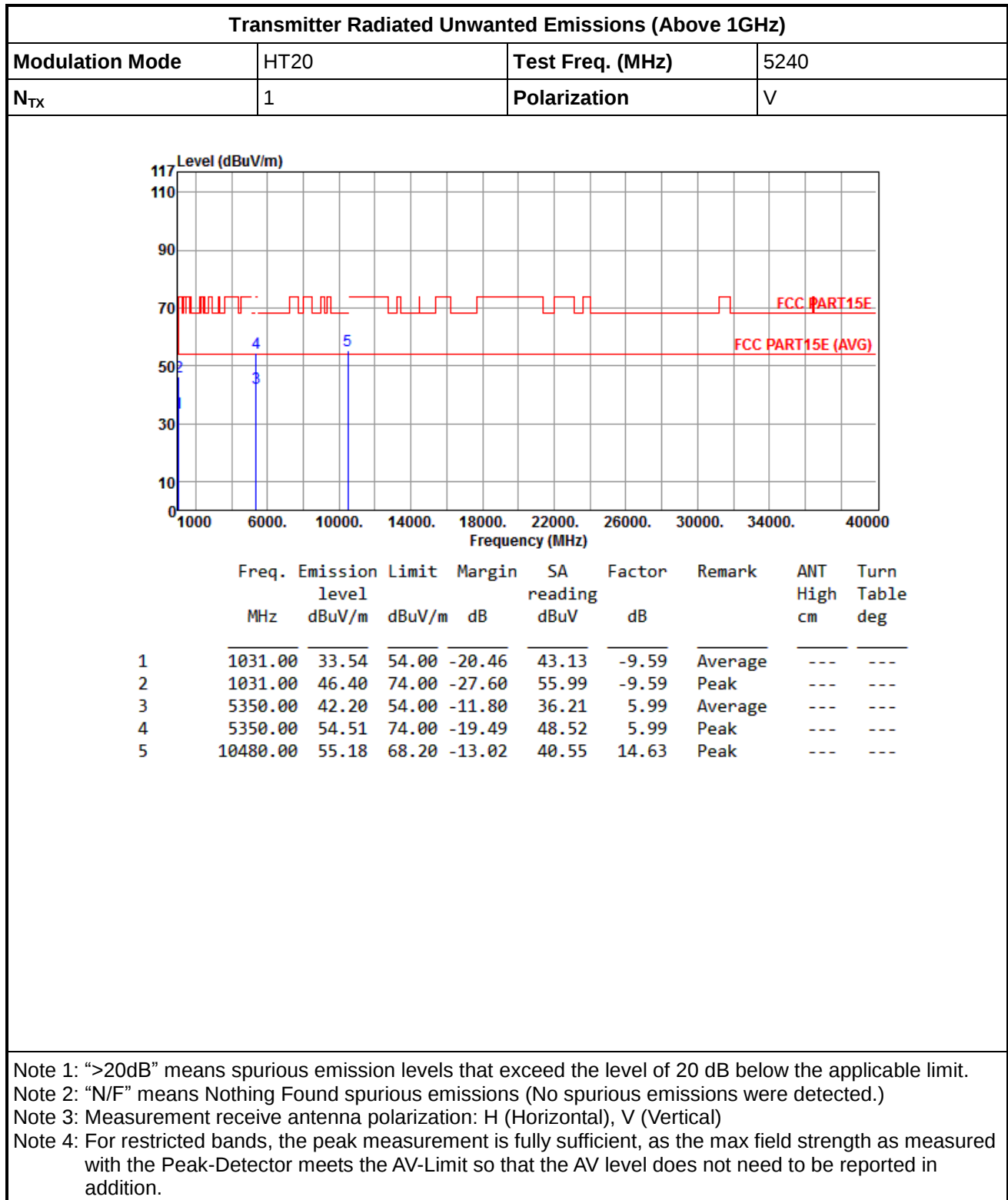
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.67	54.00	-20.33	43.26	-9.59	Average	---	---
2	1031.00	46.57	74.00	-27.43	56.16	-9.59	Peak	---	---
3	1500.00	33.91	54.00	-20.09	40.38	-6.47	Average	---	---
4	1500.00	46.48	74.00	-27.52	52.95	-6.47	Peak	---	---
5	10440.00	55.31	68.20	-12.89	40.74	14.57	Peak	---	---

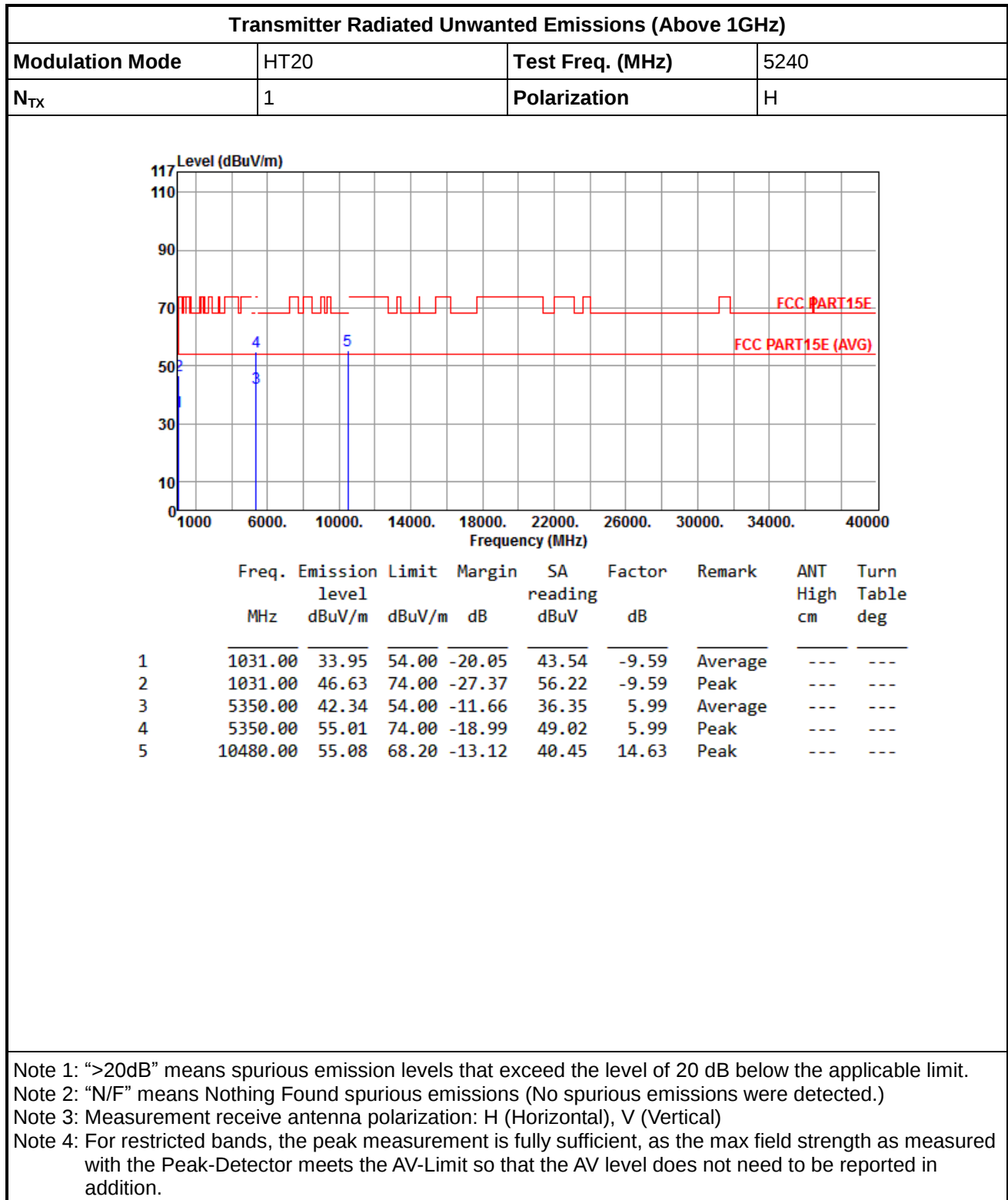
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

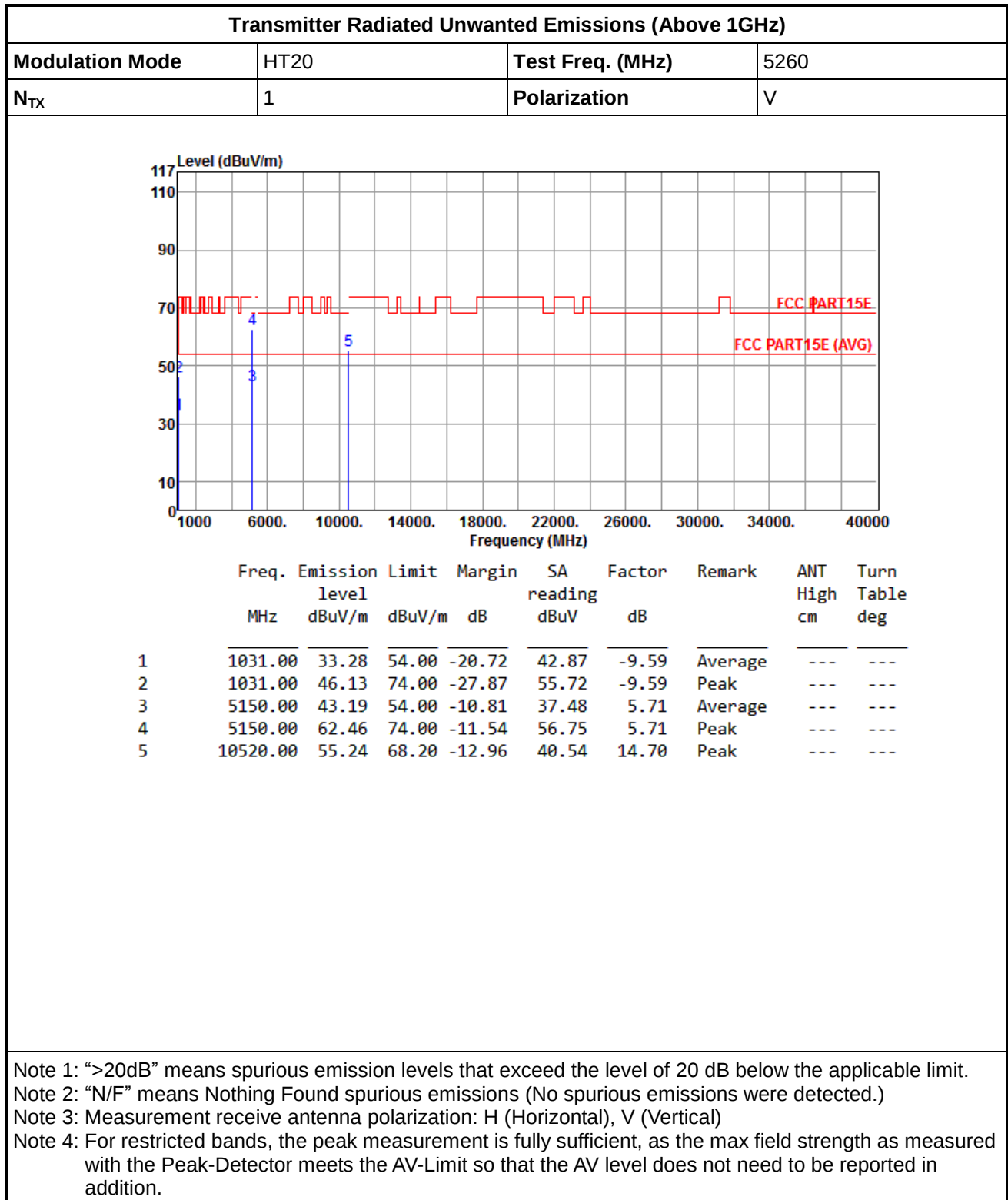
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

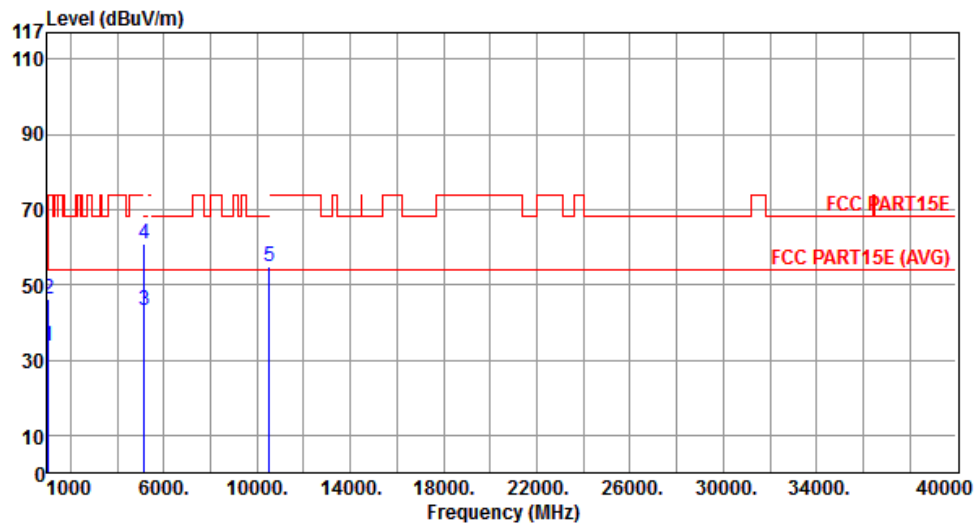






Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5260
N_{TX}	1	Polarization	H



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

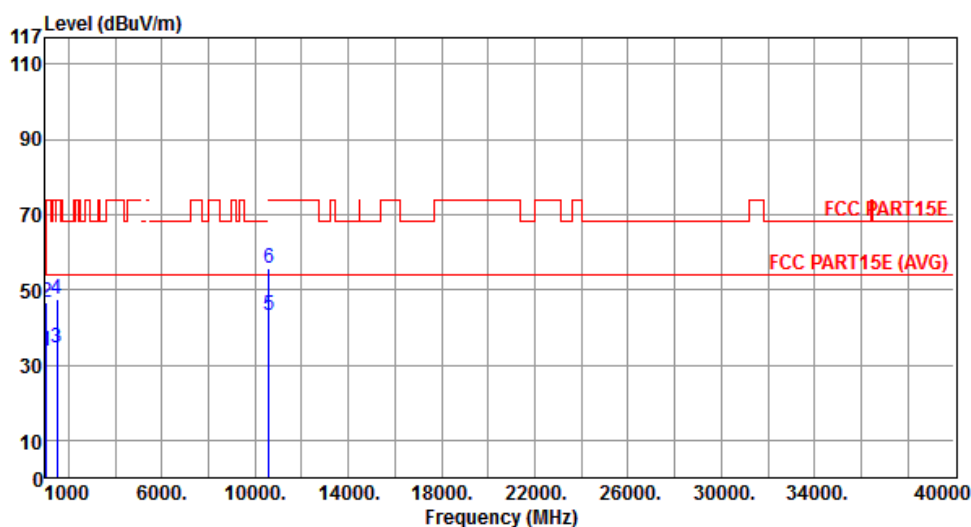
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5300
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

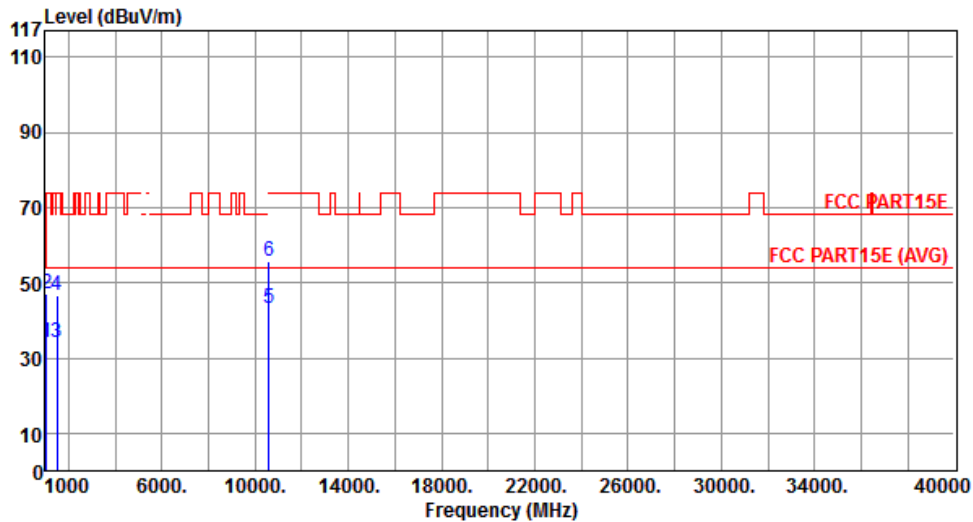
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5300
N _{TX}	1	Polarization	H



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

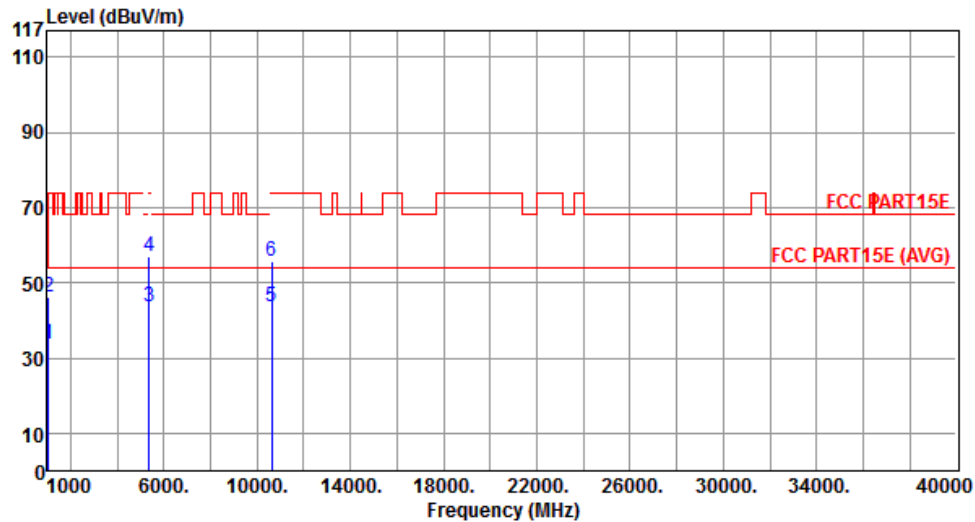
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5320
N_{TX}	1	Polarization	V



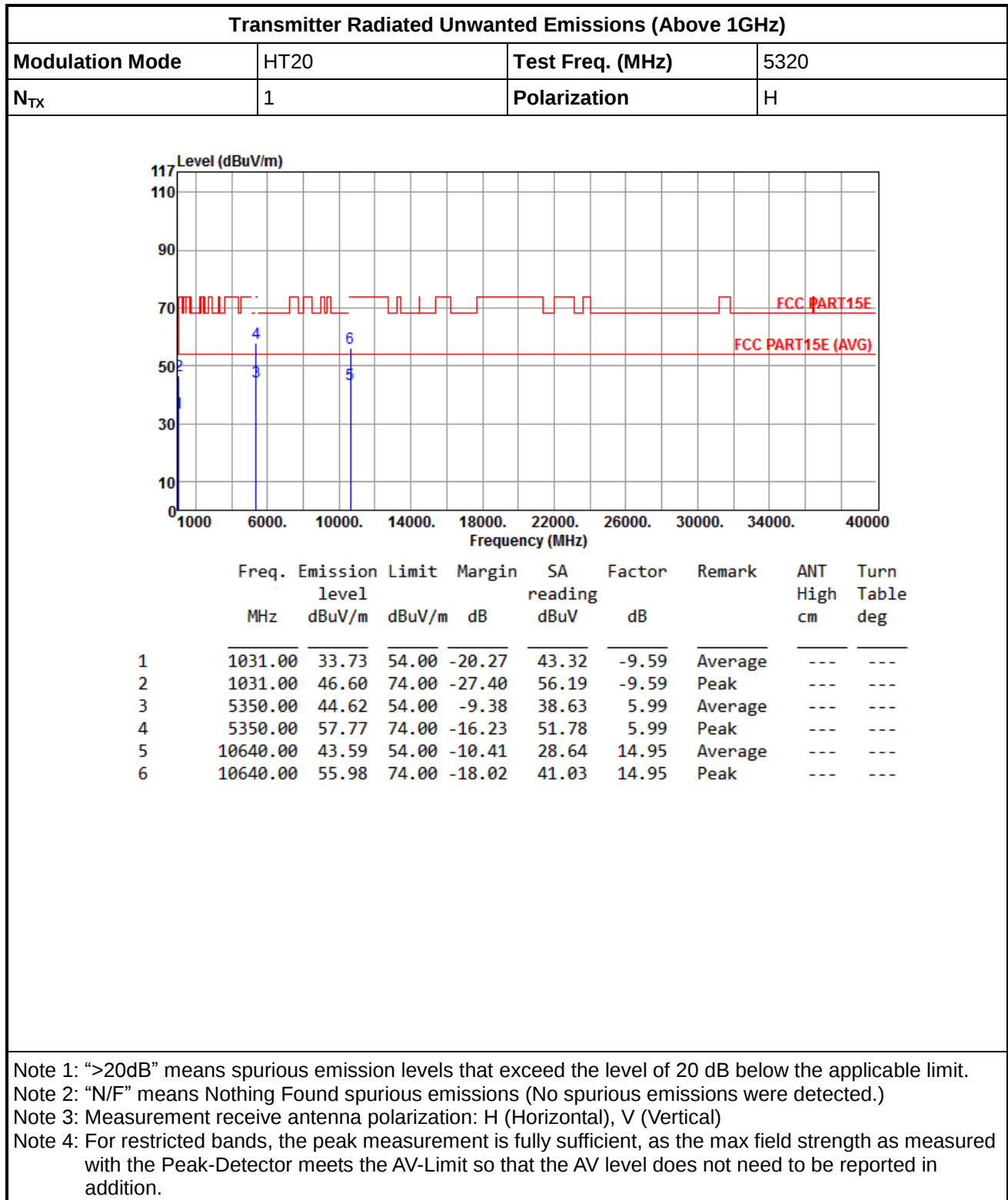
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.58	54.00	-20.42	43.17	-9.59	Average	---	---
2	1031.00	46.09	74.00	-27.91	55.68	-9.59	Peak	---	---
3	5350.00	43.82	54.00	-10.18	37.83	5.99	Average	---	---
4	5350.00	56.85	74.00	-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.)

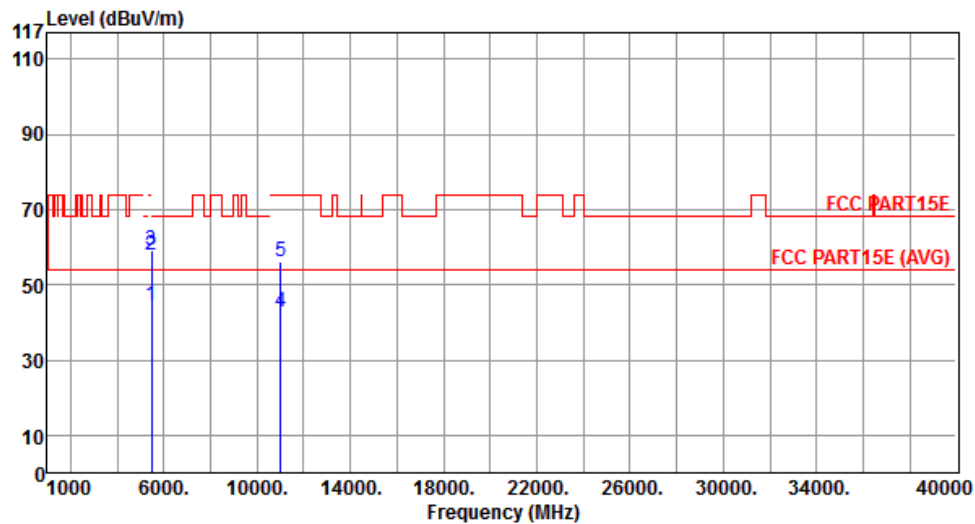
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

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.



Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5500
N _{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.57	54.00	-9.43	38.45	6.12	Average	---	---
2	5460.00	58.00	74.00	-16.00	51.88	6.12	Peak	---	---
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.

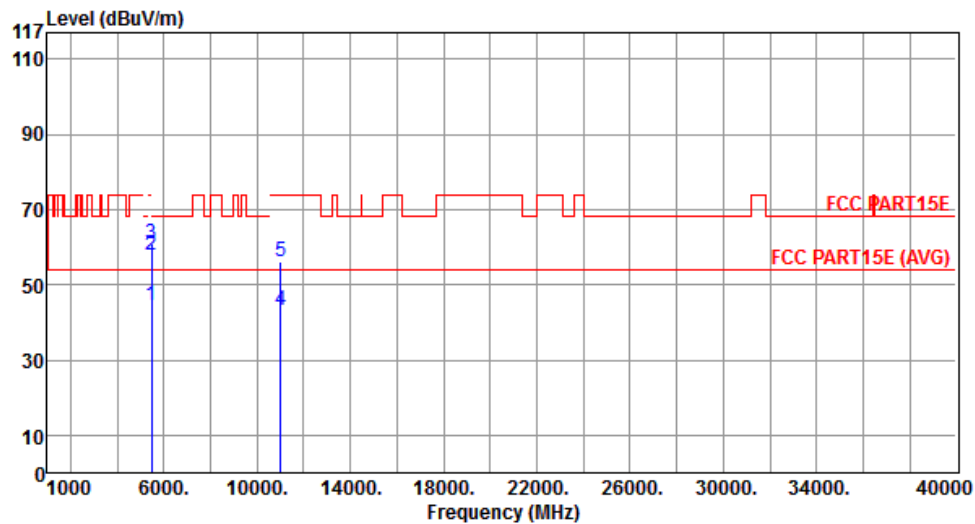
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5500
N_{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

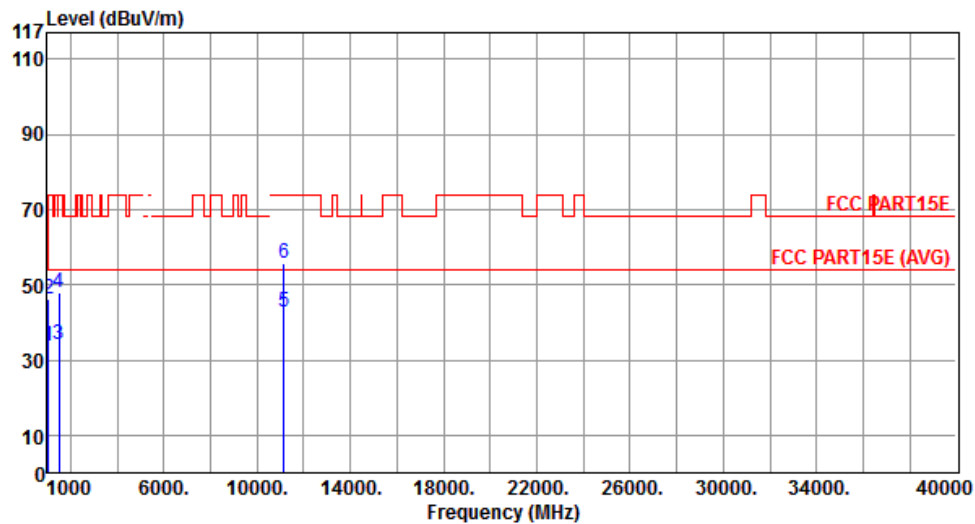
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5580
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

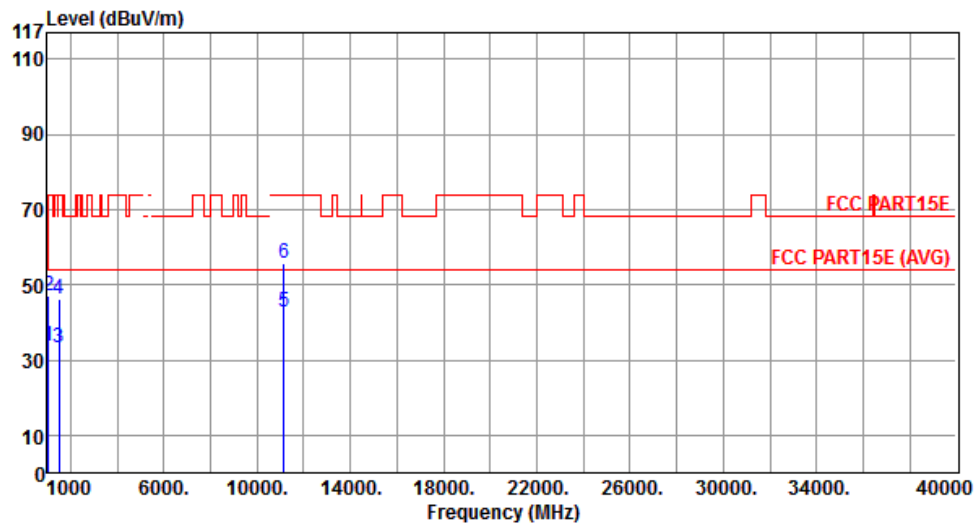
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5580
N_{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1031.00	33.73	54.00	-20.27	43.32	-9.59	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.

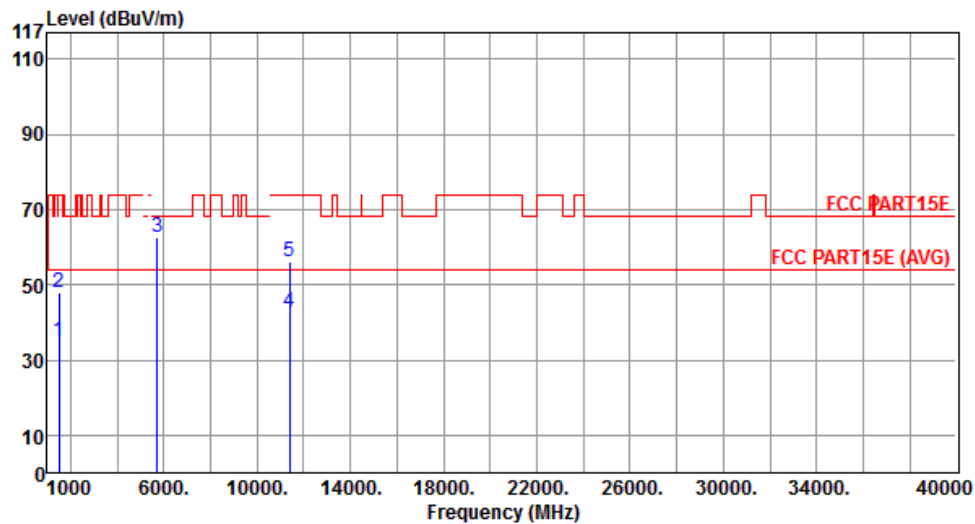
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5700
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

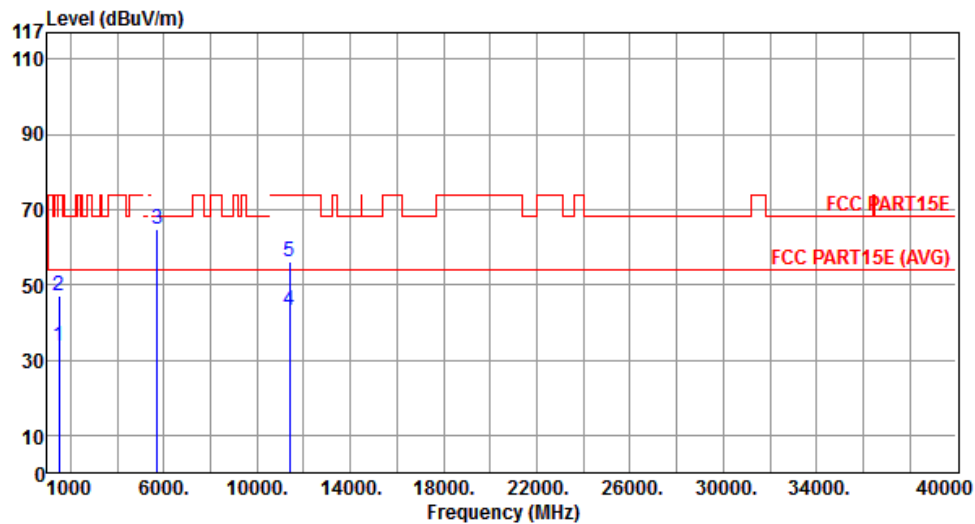
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5700
N_{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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	---	---

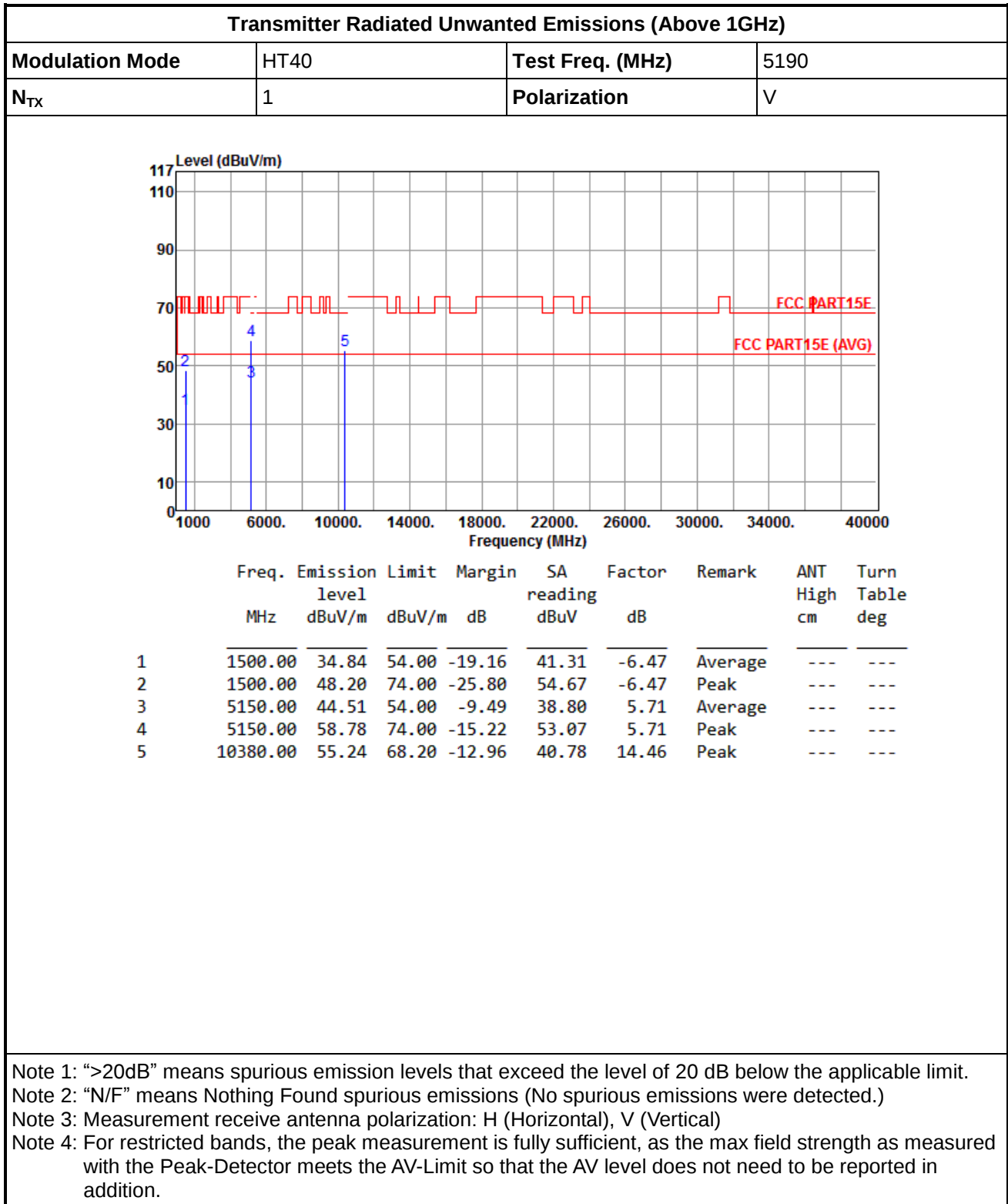
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

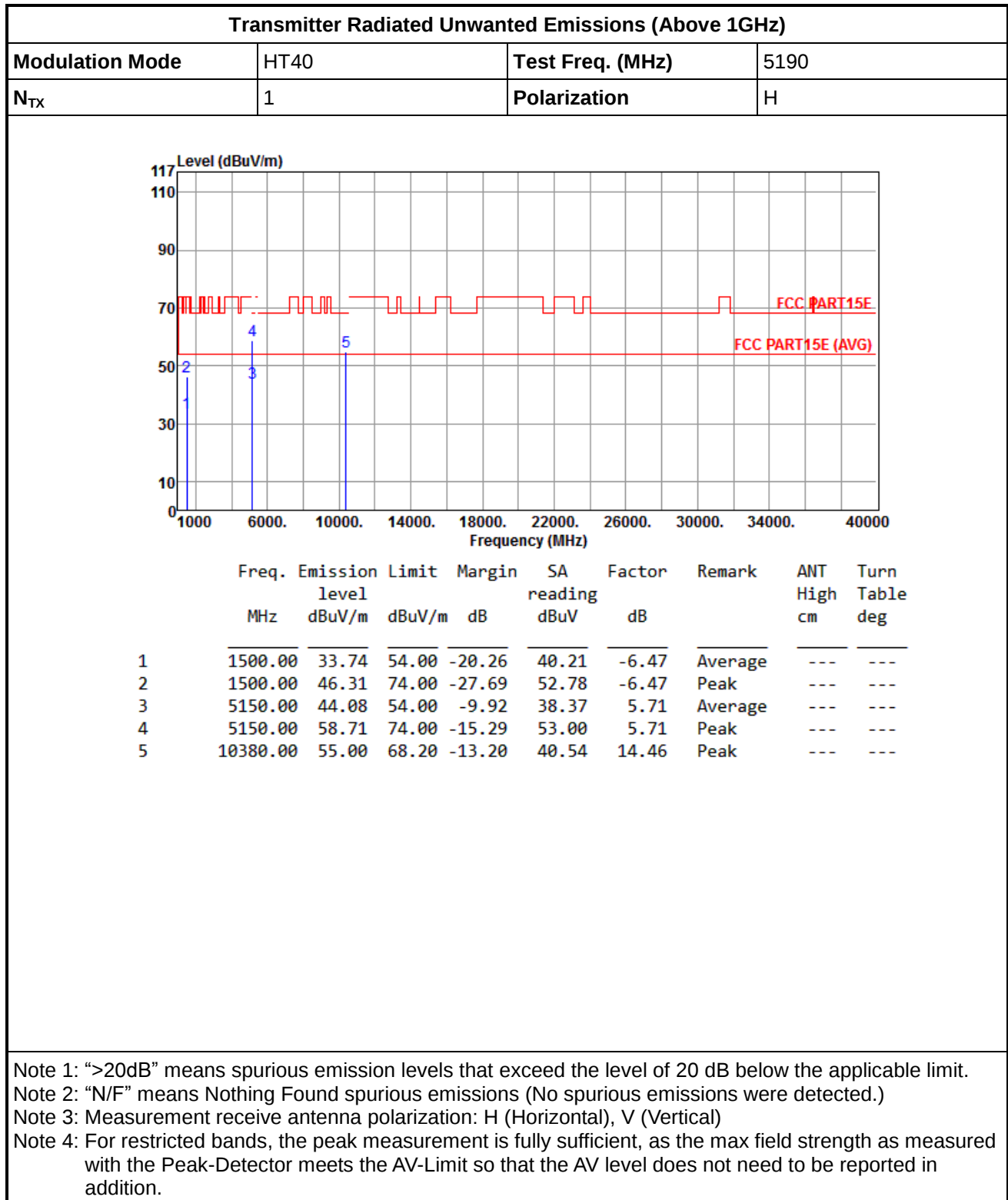
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

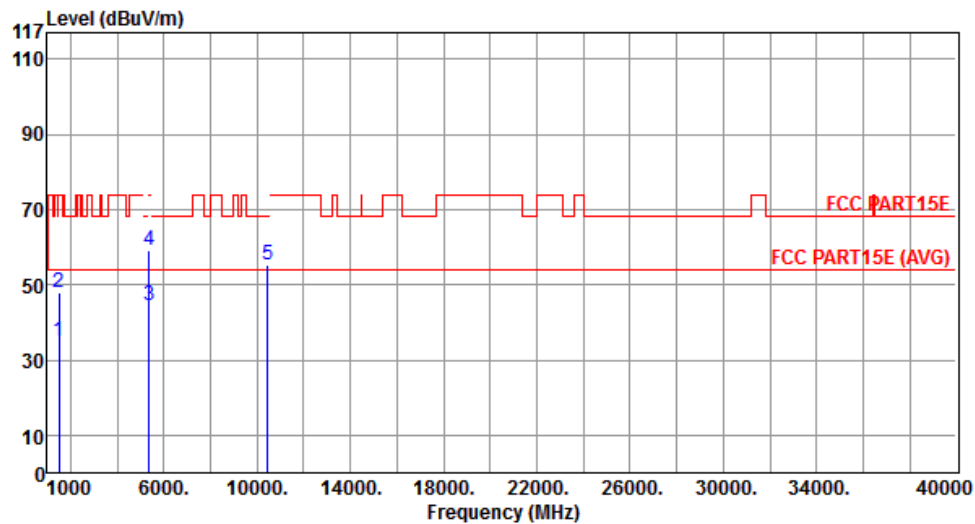
3.6.9 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT40





Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5230
N_{TX}	1	Polarization	V



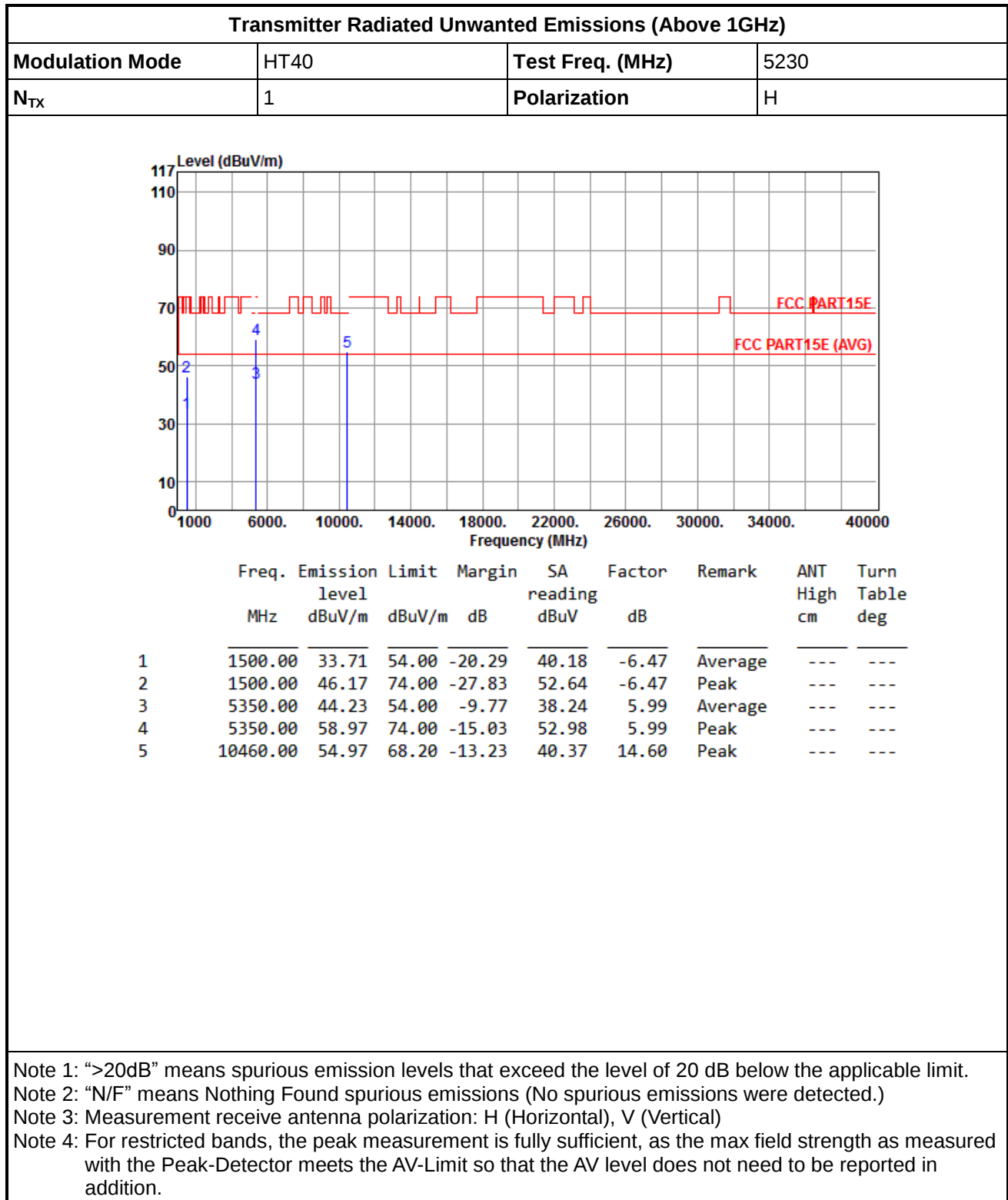
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1500.00	34.97	54.00	-19.03	41.44	-6.47	Average	---	---
2	1500.00	48.11	74.00	-25.89	54.58	-6.47	Peak	---	---
3	5350.00	44.40	54.00	-9.60	38.41	5.99	Average	---	---
4	5350.00	59.14	74.00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

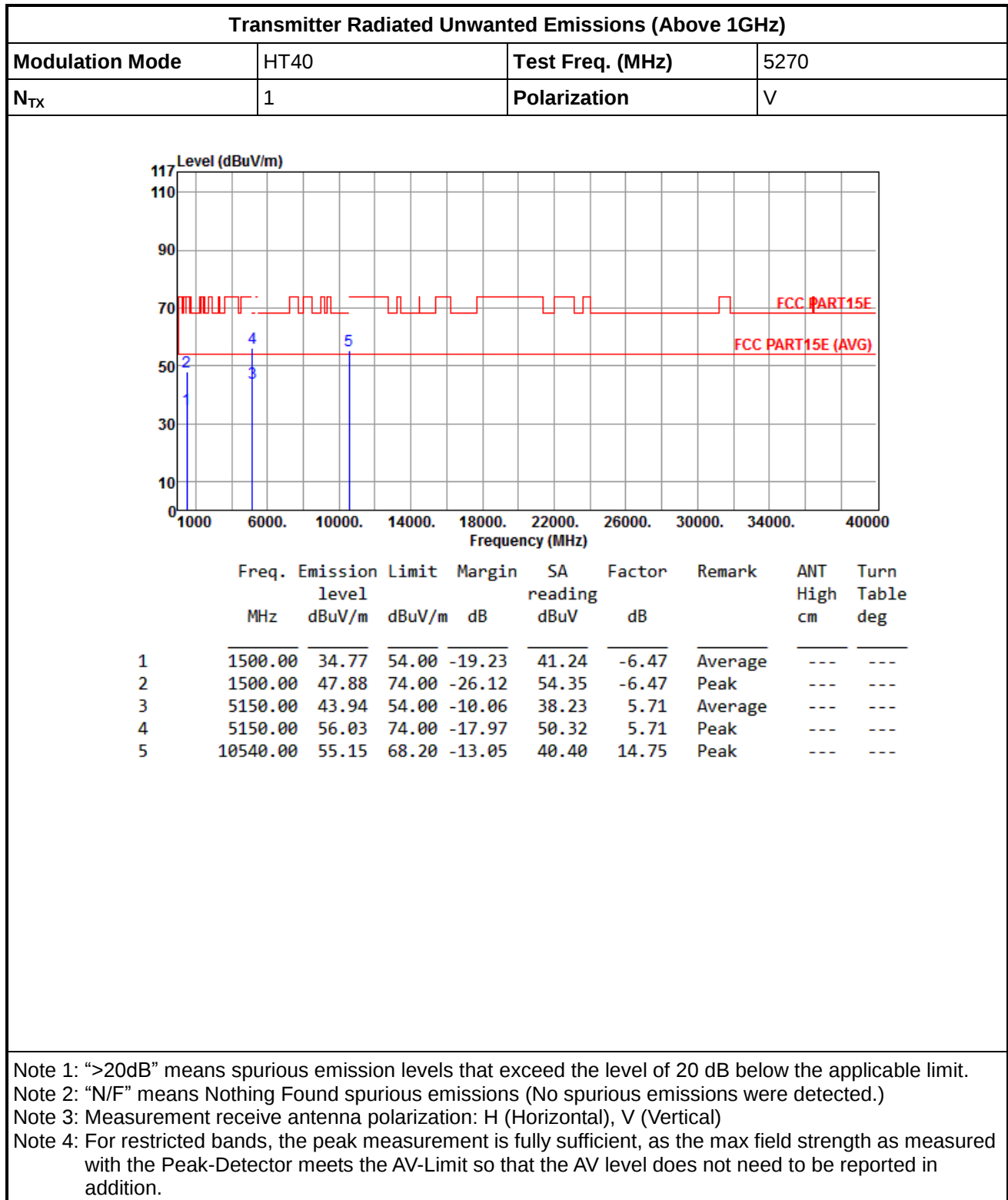
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

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

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

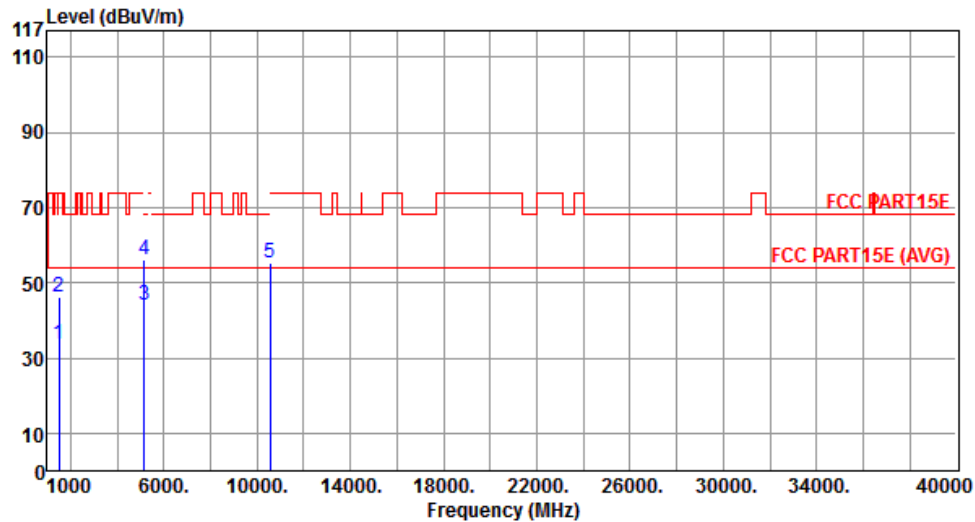
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.





Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5270
N _{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1500.00	33.74	54.00	-20.26	40.21	-6.47	Average	---	---
2	1500.00	46.16	74.00	-27.84	52.63	-6.47	Peak	---	---
3	5150.00	43.92	54.00	-10.08	38.21	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.

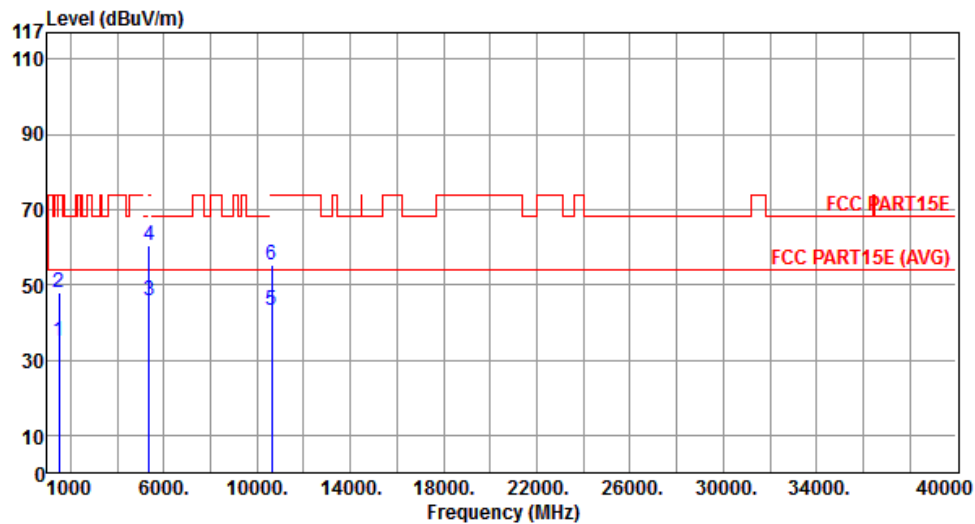
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5310
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

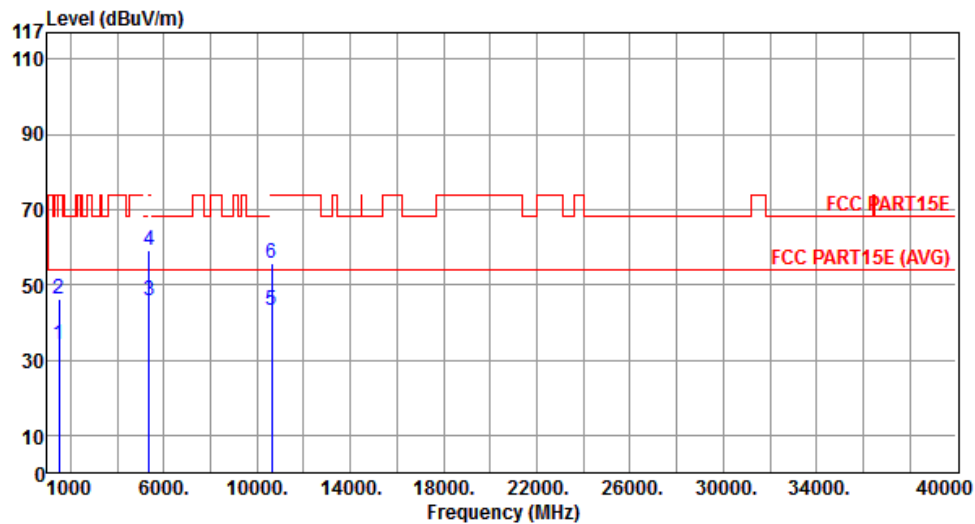
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5310
N_{TX}	1	Polarization	H



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

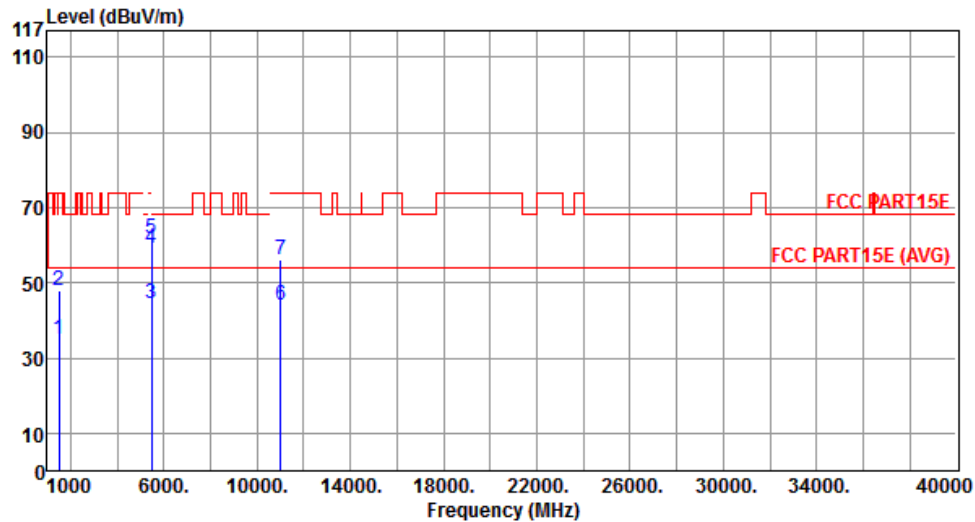
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5510
N _{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

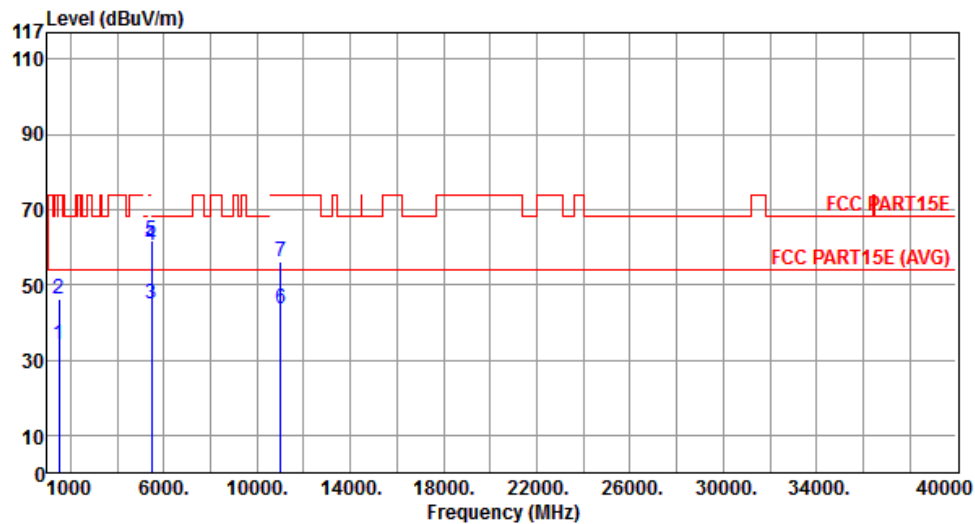
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5510
N _{TX}	1	Polarization	H



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

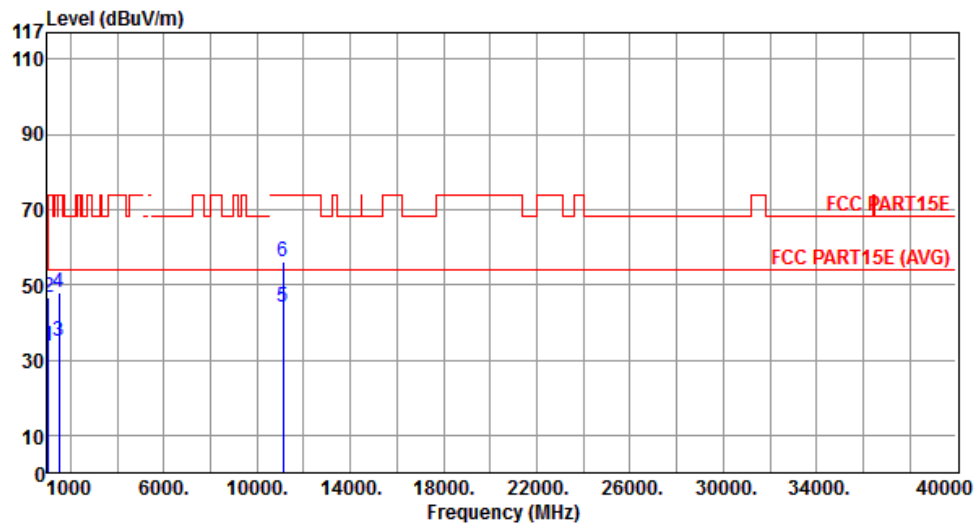
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5550
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

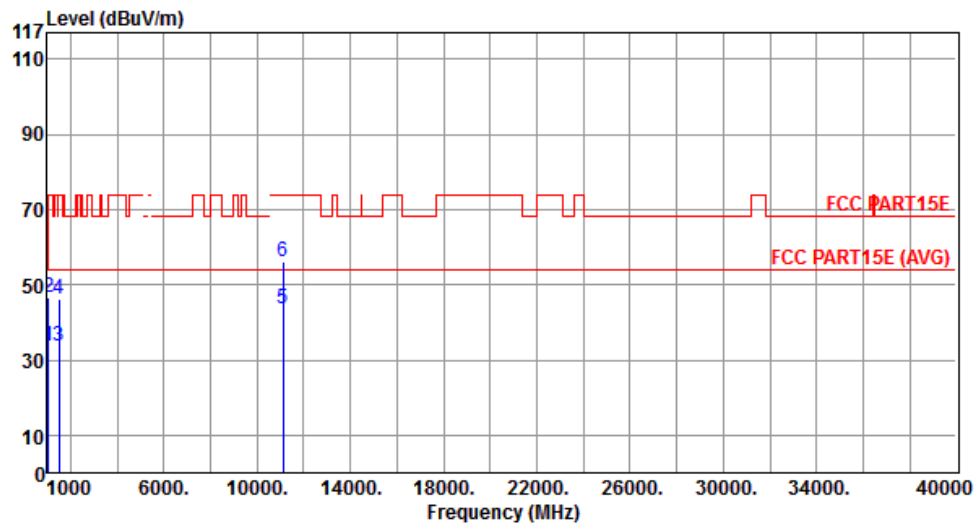
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5550
N_{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

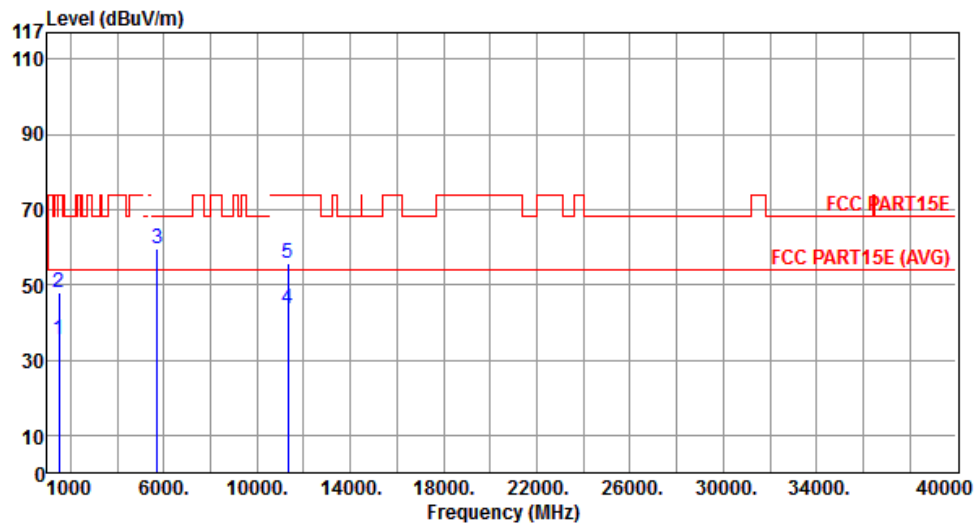
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5670
N_{TX}	1	Polarization	V



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

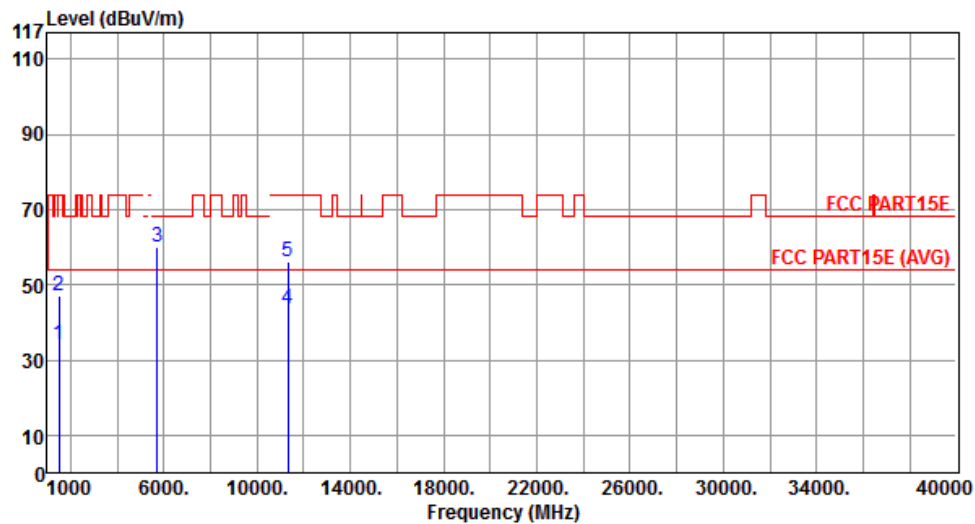
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

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.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5670
N _{TX}	1	Polarization	H



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	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.

3.7 Frequency Stability

3.7.1 Frequency Stability Limit

Frequency Stability Limit	
UNII 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	
☒	N/A
IEEE Std. 802.11n-2009	
☒	The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.

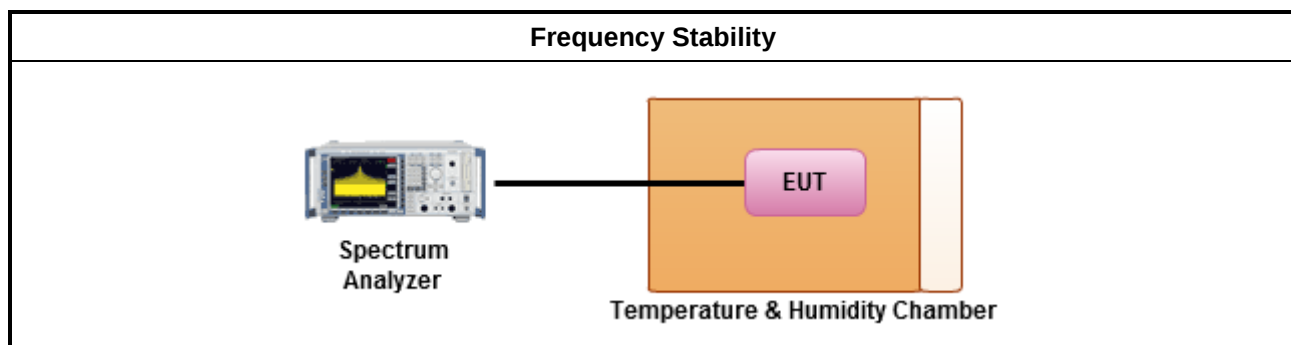
3.7.2 Measuring Instruments

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

3.7.3 Test Procedures

Test Method	
☒	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
☒	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



3.7.5 Test Result of Frequency Stability

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

4 Test Equipment and Calibration Data

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Oct. 15, 2013	Oct. 14, 2014
LISN	SCHWARZBECK	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 Interval of instruments listed above is one year.					

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	Burgen	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 Interval 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.					



Test Item	RF Conducted				
Test Site	TH01-HY				
Instrument	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
Note: Calibration Interval of instruments listed above is one year.					