TEST REPORT

No. I23N00642-RSE02

for

Spectralink Corporation

Wifi/BT Phone

Model Name: Versity 9753

with

Hardware Version: DVT

Software Version: vSL25

FCC ID: IYG97XX

Issued Date: 2023-07-26

Designation Number: CN1210

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I23N00642-RSE02	Rev.0	1st edition	2023-07-26

Note: the latest revision of the test report supersedes all previous versions.

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1. Summary of Test Report

1.1. Test Items

Description	Wifi/BT Phone
Model Name	Versity 9753
Applicant's name	Spectralink Corporation
Manufacturer's Name	Spectralink Corporation

1.2. Test Standards

FCC Part15-2021; ANSI C63.10-2013; KDB789033-V02r01; KDB 987594-D02; KDB 662911-D01.

1.3. Test Result

Pass

Please refer to "5.2. Test Results"

1.4. Testing Location

Address: EMC Laboratory, Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China

1.5. Project data

Testing Start Date:	2023-05-08
Testing End Date:	2023-05-25

1.6. Signature

Liu Xiangzhou	**Liang Yong**
(Prepared this test report)	**(Reviewed this test report)**

Cao Junfei

(Approved this test report)

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2. Client Information

2.1. Applicant Information

Company Name:	Spectralink Corporation
Address:	2560 55th Street Boulder CO 80301 USA
Contact Person	Andrew Jackson
E-Mail	andrew.jackson@spectralink.com
Telephone:	+1 (303) 441-7618
Fax:	/

2.2. Manufacturer Information

Company Name:	Spectralink Corporation
Address:	2560 55th Street Boulder CO 80301 USA
Contact Person	Andrew Jackson
E-Mail	andrew.jackson@spectralink.com
Telephone:	+1 (303) 441-7618
Fax:	/

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3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Wifi/BT Phone
Model Name	Versity 9753
RF Protocol	IEEE 802.11a, 802.11ax-HE20/40/80/160
WLAN Frequency Range	ISM Bands: 5925MHz~6425MHz; 6425MHz~6525MHz; 6525MHz~6875MHz; 6875MHz~7125MHz.
Type of modulation	OFDM/OFDMA
Antenna Type	Integrated antenna
Power Supply	3.85V DC by Battery
FCC ID	IYG97XX

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of Receipt
UT14aa	MHNE04BBHHG000S	DVT	vSL25	2023-05-05

*EUT ID: is used to identify the test sample in the lab internally.
UT14aa is used for conduction test, UT14aa is used for radiation test, and UT14aa is used for AC Power line Conducted Emission test.

3.3. Internal Identification of AE used during the test

AE No.	Description	AE ID*
AE1	Battery	/
AE2	Charger	Aa01a
AE3	USB Cable	Ca01a

AE1-1

Model	BLI0000100
Manufacturer	Ningbo Veken Bat tery Co. , Ltd.
Capacity	3020mAh
Nominal Voltage	3.85V

AE1-2

Model	351038P
Manufacturer	Chongqing VDL Electronics Co., Ltd.
Capacity	95mAh
Nominal Voltage	3.7V

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AE2

Model	IN-CA-310Q
Manufacturer	Shenzhen Inno Vision Industrial Co., Ltd.

AE3

Model	
Manufacturer	

*AE ID and AE Label: is used to identify the test sample in the lab internally.
*AE Label: To distinguish the type and number of AE
AE: ancillary equipment
AE2/AE3 Just for testing
lab internally.

3.4. General Description

The Equipment under Test (EUT) is a model of Wifi/BT Phone with integrated antenna and battery.
It consists of normal options: Lithium Battery.
Manual and specifications of the EUT were provided to fulfil the test.
Samples undergoing test were selected by the client.

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4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2021
ANSI C63.10	Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
KDB 789033	General U-NII Test Procedures New Rules v02r01	V02r01
KDB 987594	GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE 6 GHz (U-NII) DEVICES PART 15, SUBPART E	D02
KDB 662911	Emissions Testing of Transmitters with Multiple Outputs in the Same Band(e.g., MIMO, Smart Antenna, etc)	D01

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5. Test Results

5.1. Testing Environment

Normal Temperature: 15~35°C

Relative Humidity: 20~75%

5.2. Test Results

No.	Test cases	Sub-clause of Part15E	Verdict
1	Band edge compliance	15.407(b)	**P**
2	Transmitter Spurious Emission - Radiated	15.407, 15.205, 15.209	**P**
3	AC Power line Conducted Emission	15.107,15.207	**P**

See **ANNEX A** for details.

Note: According to the definition of the application description, the device will automatically discontinue transmission in case of either absence of information to transmit or operational failure.

5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacturer as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2

Disclaimer:

A. After confirmation with the customer, the sample information provided by the customer may affect the validity of the measurement results in this report, and the impact and consequences arising therefrom shall be borne by the customer.

B. The samples in this report are provided by the customer, and the test results are only applicable to the samples received.

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6. Measuring Apparatus Utilized

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Test Receiver	ESR7	101676	Rohde & Schwarz	2023-11-23	1 year
2	BiLog Antenna	3142E	0224831	ETS-Lindgren	2024-05-27	3 years
3	Horn Antenna	3117	00066577	ETS-Lindgren	2025-04-17	3 years
4	Horn Antenna	QSH-SL-1 8-26-S-20	17013	Q-par	2026-02-01	3 years
5	Horn Antenna	QSH-SL-1 8-40-K-SG	15979	Q-par	2026-01-31	3 years
6	Anechoic Chamber	FACT3-2.0	1285	ETS-Lindgren	2023-05-29	2 years
7	Spectrum Analyzer	FSV40	101192	Rohde & Schwarz	2024-01-11	1 year
8	Loop Antenna	HLA6120	35779	TESEQ	2025-05-10	3 years
9	Test Receiver	ESCI	100702	Rohde & Schwarz	2024-01-11	1 year
10	LISN	ENV216	102067	Rohde & Schwarz	2023-09-06	1 year

Test software

No.	Equipment	Manufacturer	Version
1	EMC32	Rohde & Schwarz	10.50.40

EUT is engineering software provided by the customer to control the transmitting signal.
The EUT was programmed to be in continuously transmitting mode.

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7. Laboratory Environment

Shielded room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ˚C, Max. = 35 ˚C
Relative humidity	Min. =20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4Ω

Anechoic chamber (FACT3-2.0) did not exceed following limits along the EMC testing:
9.10m×6.10m×5.60m (L×W×H)

Temperature	Min. = 15 ˚C, Max. = 35 ˚C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	< ±4 dB, 3 m distance, from 30 to 1000 MHz
Voltage Standing Wave Ratio （VSWR）	≤ 6 dB, from 1 to 18 GHz，3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

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8. Measurement Uncertainty

Test Name	Uncertainty (*k*=2)	
Band Edges Compliance/ Transmitter Spurious Emission - Radiated	9kHz≤f<30MHz	1.70dB
	30MHz≤f<1GHz	4.80dB
	1GHz≤f<18GHz	4.62dB
	18GHz≤f≤40GHz	2.36dB
AC Power line Conducted Emission	150kHz≤f≤30MHz	2.68dB

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ANNEX A: Detailed Test Results

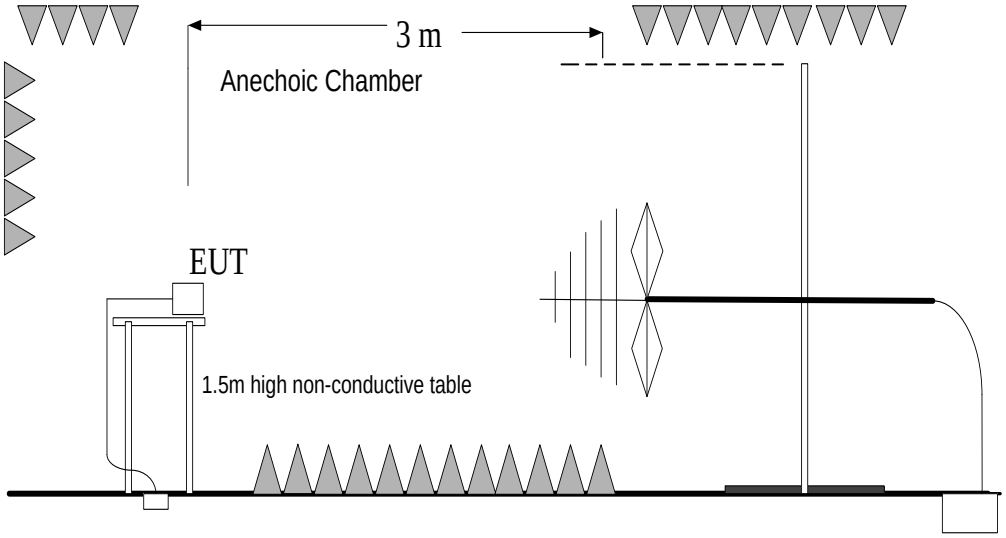
A.1. Measurement Method

Radiated Emission Measurements

Test setup:

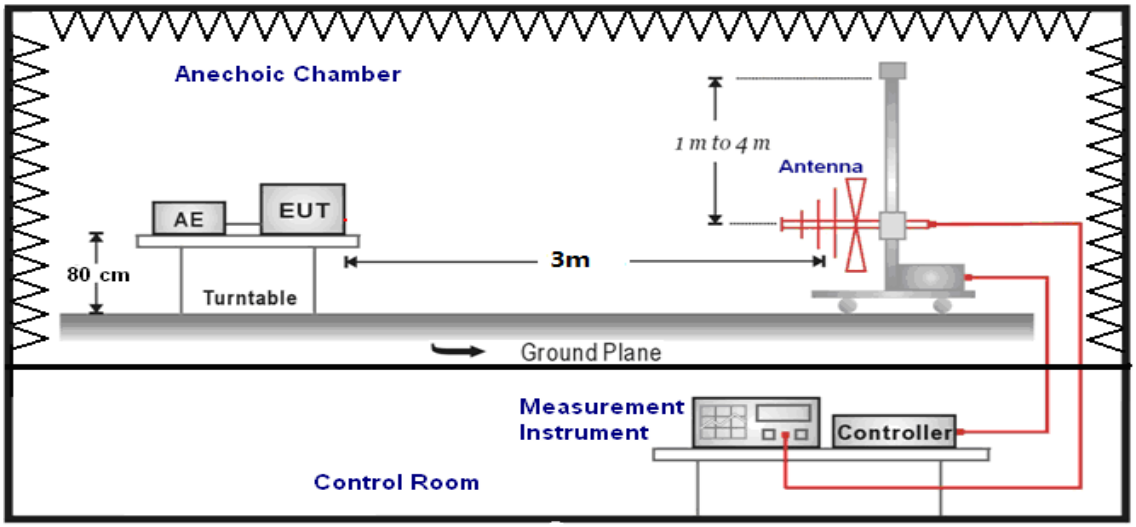
9kHz-30MHz:

The EUT are measured in a anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving loop antenna is 1.0 meter above the ground. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna polarization.



30MHz-1GHz:

The EUT are measured in a anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. The test setup refers to figure below.



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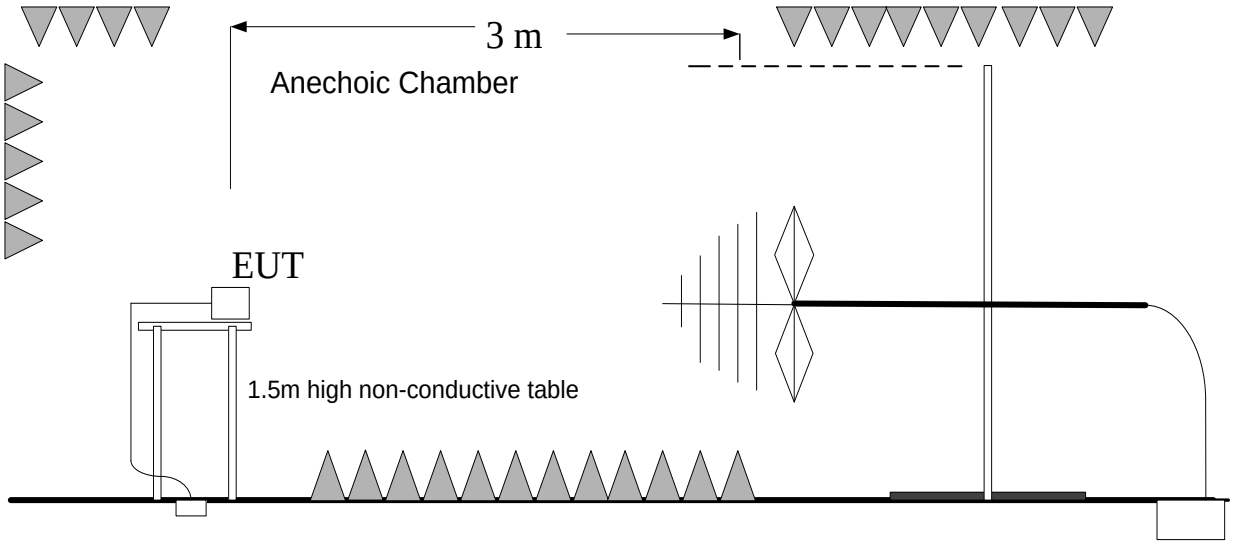
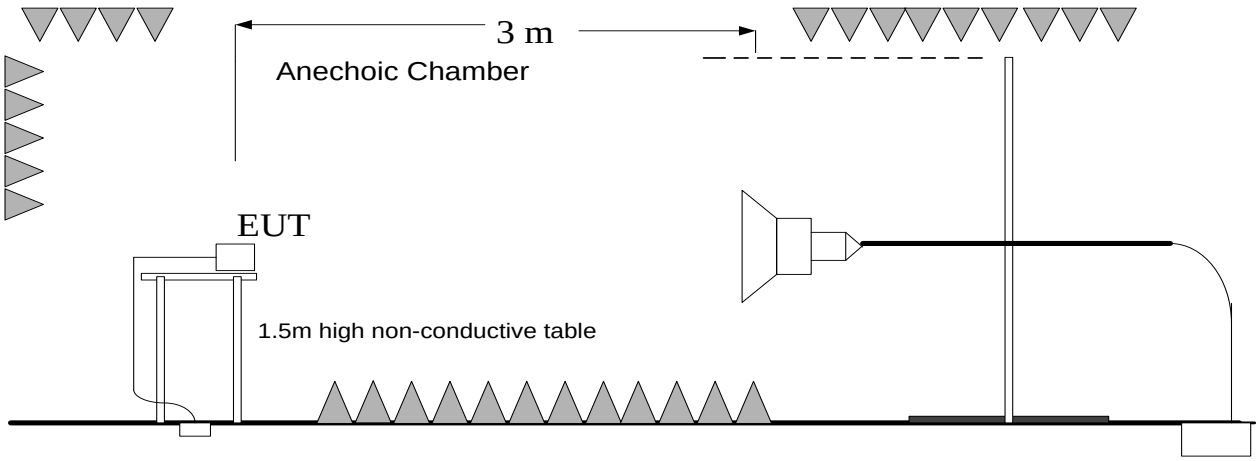
1GHz-3GHz:
The EUT are measured in a anechoic chamber. The EUT is placed on a non-conductive stand of 1.5m high, and at a measurement distance of 3m from the receiving antenna. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. The test setup refers to figure below.



3GHz-40GHz:
The EUT are measured in a anechoic chamber. The EUT is placed on a non-conductive stand of 1.5m high, and at a measurement distance of 3m from the receiving antenna. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. The test setup refers to figure below.



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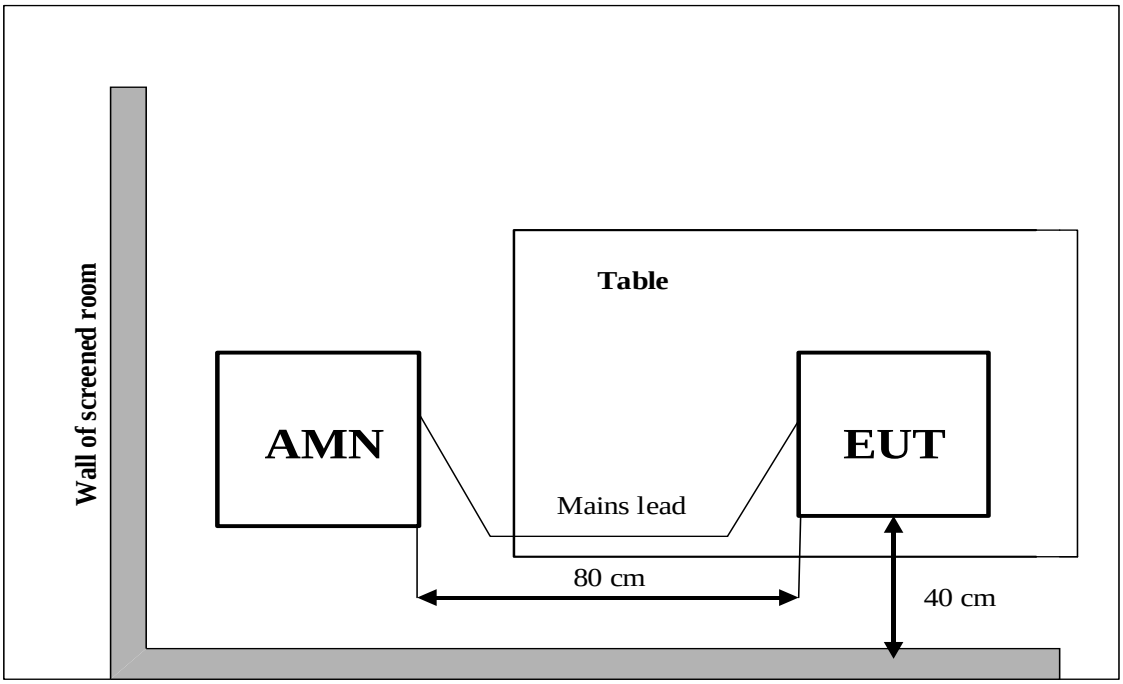
AC Power line Conducted Emission Measurement

For WLAN, the EUT is working under test mode. The EUT is commanded to operate at maximum transmitting power.



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A.2. Band Edges Compliance

Measurement Limit:

Standard	Limit (dBμV/m)	
FCC 47 CFR Part 15.407	outside of the 5.925-7.125 GHz band	-27dBm/MHz

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

Measurement Result:

Mode	Frequency (MHz)	Test Results	Conclusion
802.11a	5955MHz	Fig.1	**P**
	7115MHz	Fig.2	**P**
802.11ax-HE20	5955MHz	Fig.3	**P**
	7115MHz	Fig.4	**P**
802.11ax-HE40	5965MHz	Fig.5	**P**
	7085MHz	Fig.6	**P**
802.11ax-HE80	5985MHz	Fig.7	**P**
	7025MHz	Fig.8	**P**
802.11ax-HE160	6025MHz	Fig.9	**P**
	6985MHz	Fig.10	**P**

Note: The measurement results include the horizontal polarization and vertical polarization measurements. For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

See below for test graphs.
Conclusion: PASS

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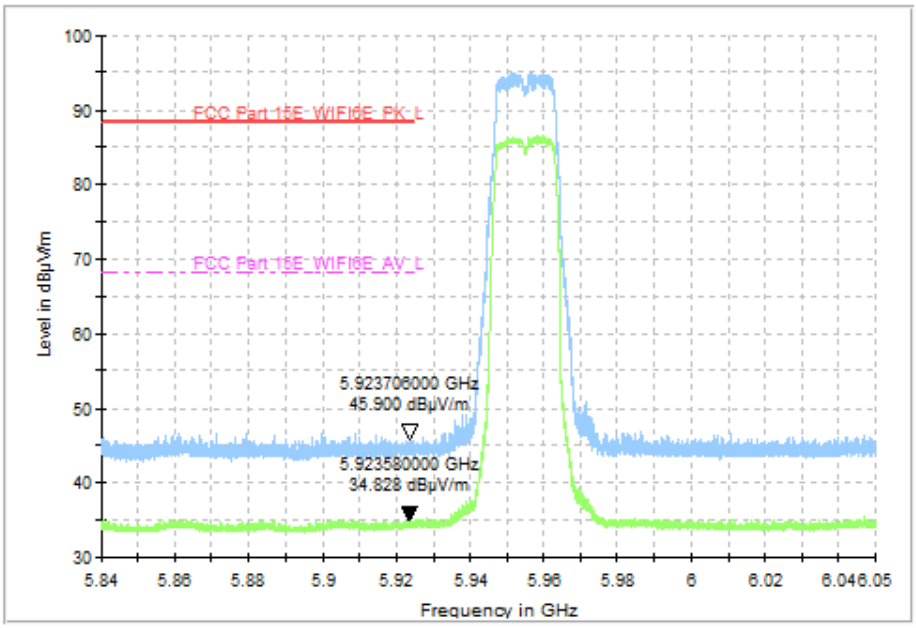

Fig. 1 Band Edges (802.11a, CH1 5955MHz)

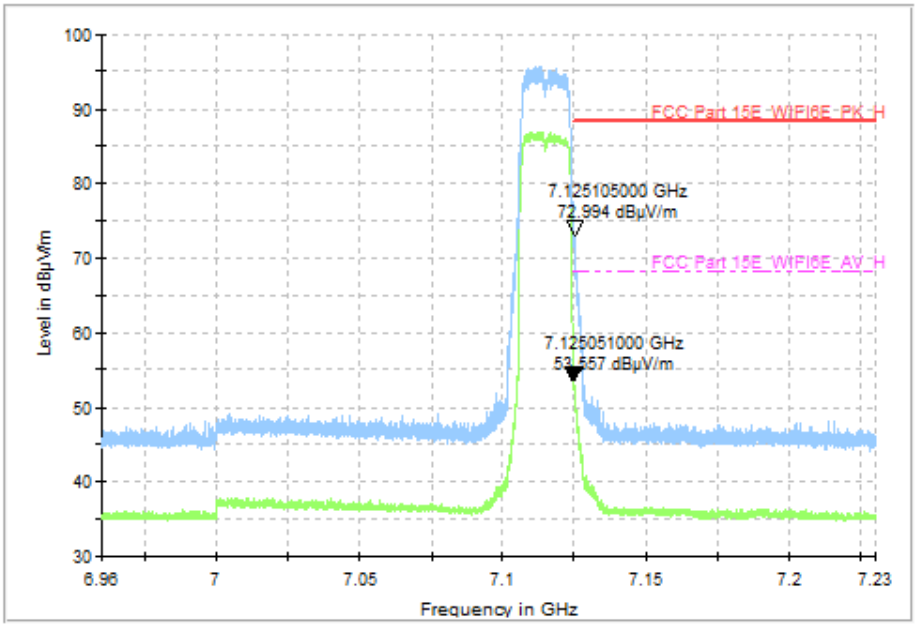

Fig. 2 Band Edges (802.11a, CH233 7115MHz)

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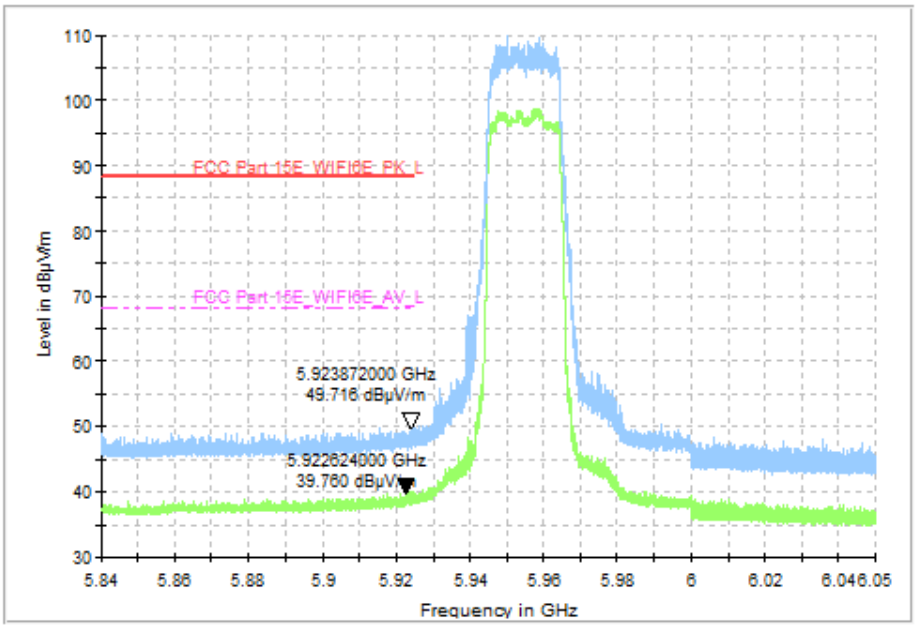

Fig. 3 Band Edges (802.11ax-HE20, CH1 5955MHz)

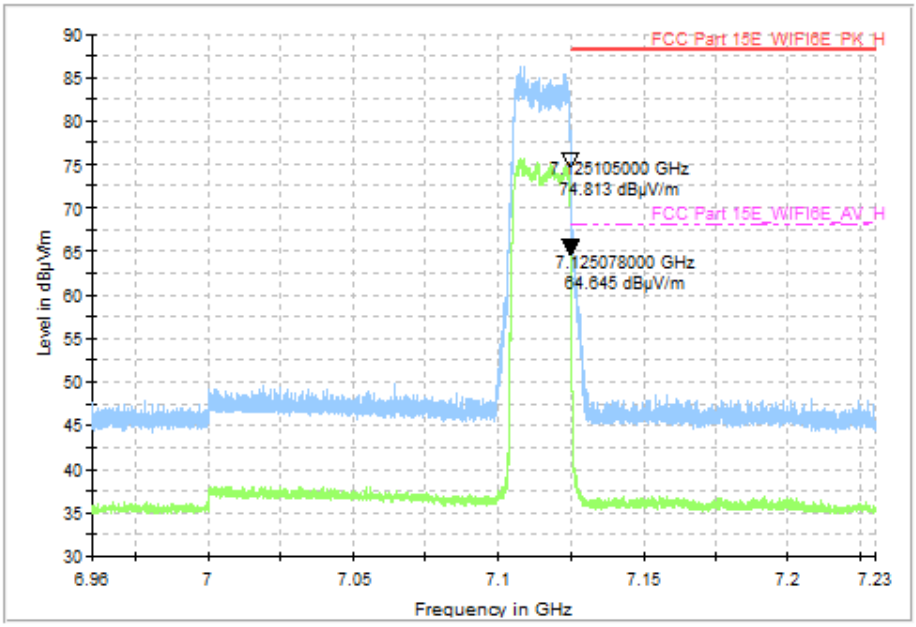

Fig. 4 Band Edges (802.11ax-HE20, CH233 7115MHz)

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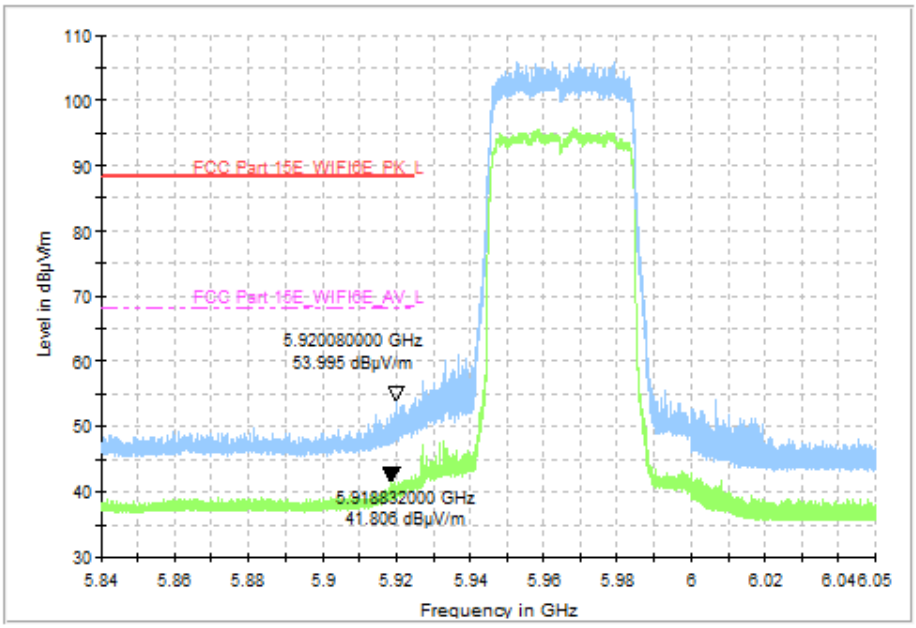

Fig. 5 Band Edges (802.11ax-HE40, CH3 5965MHz)

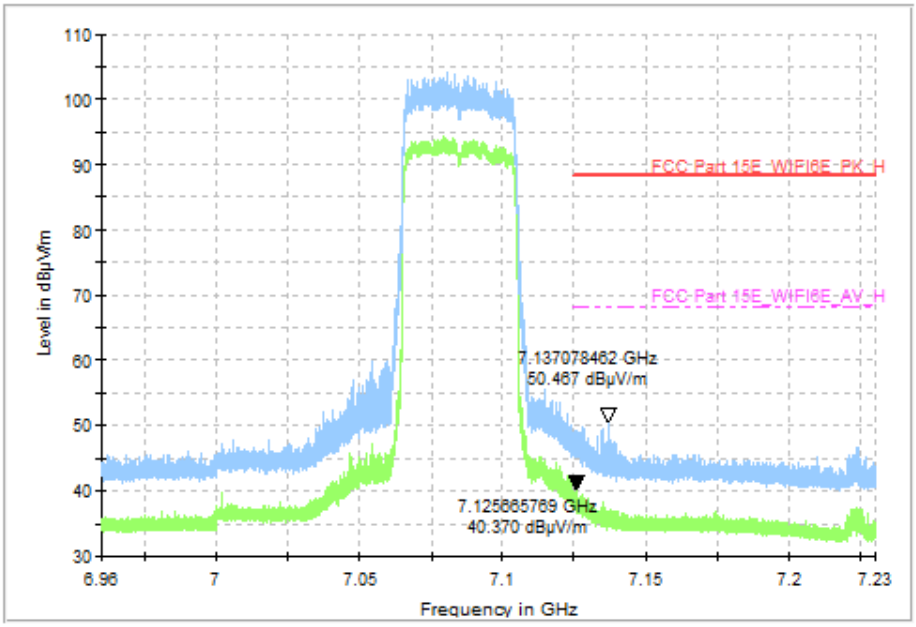

Fig. 6 Band Edges (802.11ax-HE40, CH227 7085MHz)

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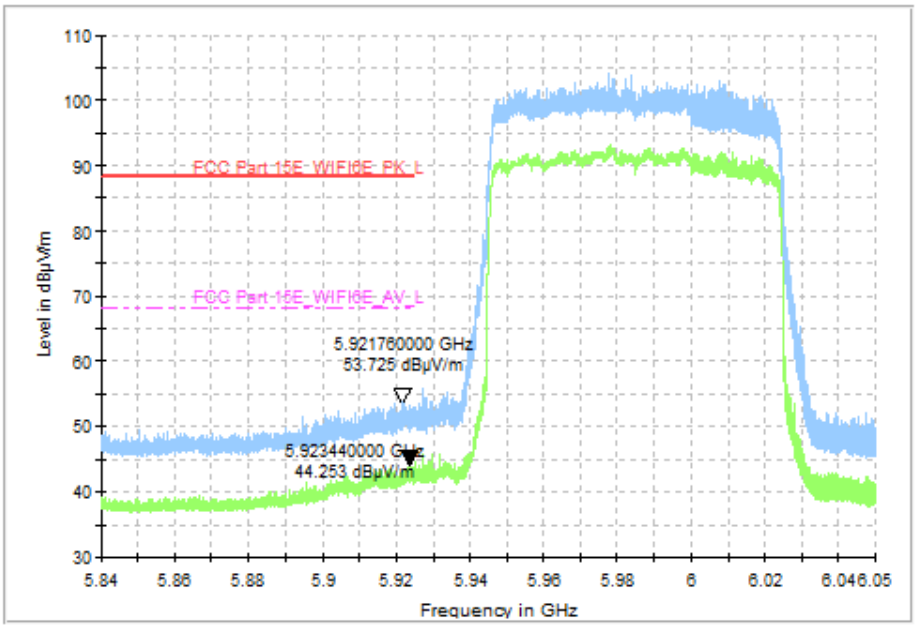

Fig. 7 Band Edges (802.11ax-HE80, CH7 5985MHz)

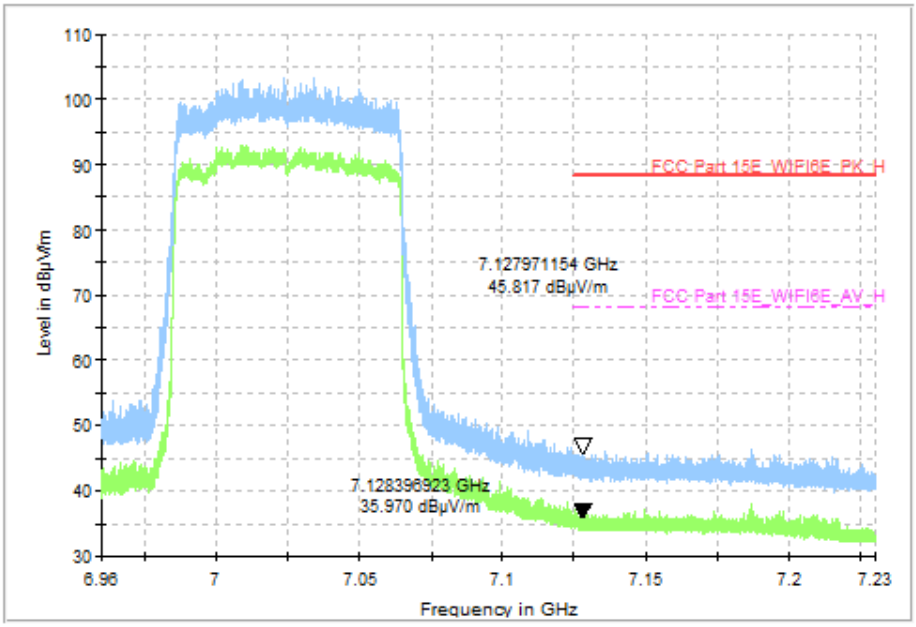

Fig. 8 Band Edges (802.11ax-HE80, CH215 7025MHz)

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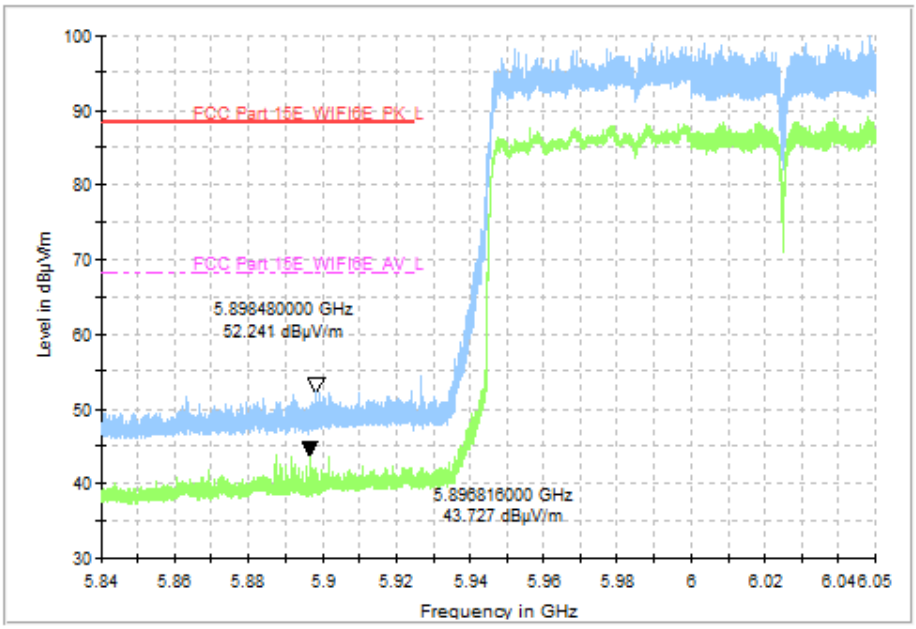

Fig. 9 Band Edges (802.11ax-HE160, CH15 6025MHz)

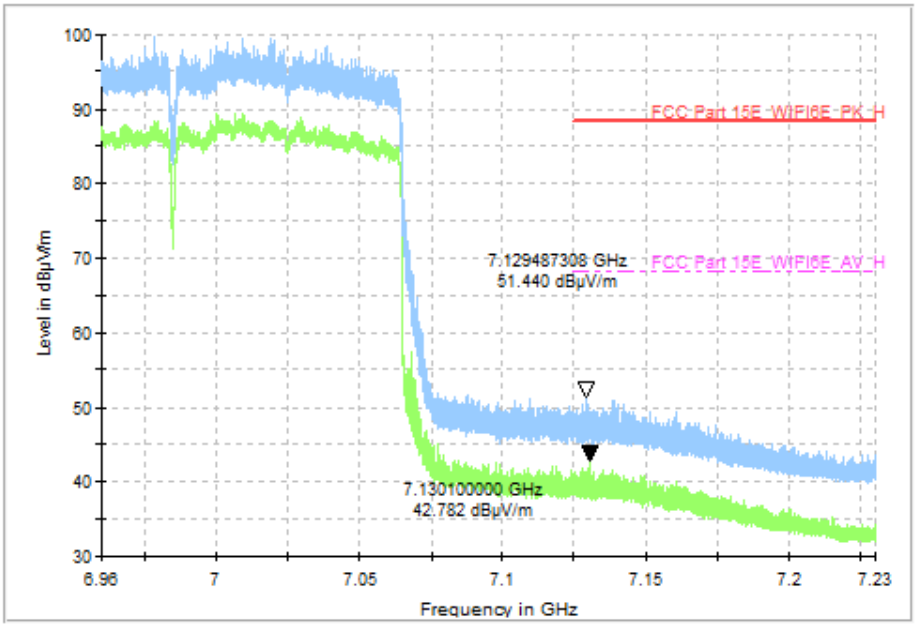

Fig. 10 Band Edges (802.11ax-HE160, CH207 6985MHz)

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A.3. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit (dBμV/m)	
FCC 47 CFR Part 15.407	outside of the 5.925-7.125 GHz band	-27dBm/MHz

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

The measurement is made according to KDB 789033 and 987594

Measurement Result:

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	Ch 1	1 GHz ~18 GHz	Fig.11	**P**
	Ch 45	1 GHz ~18 GHz	Fig.12	**P**
	Ch 93	1 GHz ~18 GHz	Fig.13	**P**
	Ch 97	1 GHz ~18 GHz	Fig.14	**P**
	Ch 105	1 GHz ~18 GHz	Fig.15	**P**
	Ch 113	1 GHz ~18 GHz	Fig.16	**P**
	Ch 117	1 GHz ~18 GHz	Fig.17	**P**
	Ch 153	1 GHz ~18 GHz	Fig.18	**P**
	Ch 185	1 GHz ~18 GHz	Fig.19	**P**
	Ch 209	1 GHz ~18 GHz	Fig.20	**P**
	Ch 233	1 GHz ~18 GHz	Fig.21	**P**
802.11ax -HE20	Ch 1	1 GHz ~18 GHz	Fig.22	**P**
	Ch 45	1 GHz ~18 GHz	Fig.23	**P**
	Ch 93	1 GHz ~18 GHz	Fig.24	**P**
	Ch 97	1 GHz ~18 GHz	Fig.25	**P**
	Ch 105	1 GHz ~18 GHz	Fig.26	**P**
	Ch 113	1 GHz ~18 GHz	Fig.27	**P**
	Ch 117	1 GHz ~18 GHz	Fig.28	**P**
	Ch 153	1 GHz ~18 GHz	Fig.29	**P**
	Ch 185	1 GHz ~18 GHz	Fig.30	**P**
	Ch 209	1 GHz ~18 GHz	Fig.31	**P**
	Ch 233	1 GHz ~18 GHz	Fig.32	**P**
802.11ax -HE40	Ch 3	1 GHz ~18 GHz	Fig.33	**P**
	Ch 43	1 GHz ~18 GHz	Fig.34	**P**
	Ch 91	1 GHz ~18 GHz	Fig.35	**P**
	Ch 99	1 GHz ~18 GHz	Fig.36	**P**
	Ch 107	1 GHz ~18 GHz	Fig.37	**P**
	Ch 115	1 GHz ~18 GHz	Fig.38	**P**
	Ch 155	1 GHz ~18 GHz	Fig.39	**P**

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	Ch 187	1 GHz ~18 GHz	Fig.40	**P**
	Ch 211	1 GHz ~18 GHz	Fig.41	**P**
	Ch 227	1 GHz ~18 GHz	Fig.42	**P**
802.11ax -HE80	Ch 7	1 GHz ~18 GHz	Fig.43	**P**
	Ch 55	1 GHz ~18 GHz	Fig.44	**P**
	Ch 103	1 GHz ~18 GHz	Fig.45	**P**
	Ch 119	1 GHz ~18 GHz	Fig.46	**P**
	Ch 151	1 GHz ~18 GHz	Fig.47	**P**
	Ch 183	1 GHz ~18 GHz	Fig.48	**P**
	Ch 215	1 GHz ~18 GHz	Fig.49	**P**
802.11ax -HE160	Ch 15	1 GHz ~18 GHz	Fig.50	**P**
	Ch 47	1 GHz ~18 GHz	Fig.51	**P**
	Ch 79	1 GHz ~18 GHz	Fig.52	**P**
	Ch 111	1 GHz ~18 GHz	Fig.53	**P**
	Ch 143	1 GHz ~18 GHz	Fig.54	**P**
	Ch 175	1 GHz ~18 GHz	Fig.55	**P**
	Ch 207	1 GHz ~18 GHz	Fig.56	**P**
All channels		30 MHz ~1 GHz	Fig.57	**P**
		18 GHz ~26.5 GHz	Fig.58	**P**
		26.5GHz~40GHz	Fig.59	**P**

Worst Case Result:

802.11ax-HE20 CH1

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
8791.846154	44.93	88.20	43.27	V	6.2
10397.538462	46.60	88.20	41.60	H	9.1
11910.000000	64.98	74.00	9.02	V	10.2
14248.153846	46.86	88.20	41.34	H	11.3
14848.615385	49.17	88.20	39.03	H	13.0
17242.615385	53.59	88.20	34.61	H	18.2

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
8791.846154	33.39	68.20	34.81	V	6.2
10397.538462	35.73	68.20	32.47	H	9.1
11910.000000	50.33	54.00	3.67	V	10.2
14248.153846	36.32	68.20	31.88	H	11.3
14848.615385	38.48	68.20	29.72	H	13.0
17242.615385	42.25	68.20	25.95	H	18.2

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802.11ax-HE40 CH3

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
6776.307692	43.20	88.20	45.00	H	5.5
8825.538462	44.70	88.20	43.50	V	6.4
10453.384615	46.69	88.20	41.51	V	9.0
11934.461539	62.55	74.00	11.45	V	10.2
14940.000000	49.13	88.20	39.07	H	12.9
16988.307692	53.24	88.20	34.96	H	18.3

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
6776.307692	32.44	68.20	35.76	H	5.5
8825.538462	33.29	68.20	34.91	V	6.4
10453.384615	36.01	68.20	32.19	V	9.0
11934.461539	50.92	54.00	3.08	V	10.2
14940.000000	38.54	68.20	29.66	H	12.9
16988.307692	42.10	68.20	26.10	H	18.3

802.11ax-HE80 CH7

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
6674.769231	43.76	88.20	44.44	V	5.9
8859.692308	44.10	88.20	44.10	V	6.5
10177.846154	45.23	88.20	42.97	V	8.2
11983.846154	58.15	74.00	15.85	V	10.3
14217.230769	46.01	88.20	42.19	V	11.2
17098.615385	53.02	88.20	35.18	H	18.5

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
6674.769231	33.04	68.20	35.16	V	5.9
8859.692308	33.24	68.20	34.96	V	6.5
10177.846154	34.41	68.20	33.79	V	8.2
11983.846154	47.84	54.00	6.16	V	10.3
14217.230769	36.23	68.20	31.97	V	11.2
17098.615385	42.44	68.20	25.76	H	18.5

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802.11ax-HE160 CH15

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
8856.000000	45.26	88.20	42.94	V	6.5
9879.500000	44.95	88.20	43.25	V	7.8
12895.500000	46.69	88.20	41.51	V	11.0
14188.500000	47.48	88.20	40.72	H	11.0
14858.000000	48.45	88.20	39.75	V	13.0
17042.000000	53.20	88.20	35.00	H	18.4

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
8856.000000	32.40	68.20	35.80	V	6.5
9879.500000	32.50	68.20	35.70	V	7.8
12895.500000	36.22	68.20	31.98	V	11.0
14188.500000	35.48	68.20	32.72	H	11.0
14858.000000	38.00	68.20	30.20	V	13.0
17042.000000	41.30	68.20	26.90	H	18.4

Note:

The measurement results include the horizontal polarization and vertical polarization measurements. For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

A "reference path loss" is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss. P_{Mea} is the field strength recorded from the instrument. The measurement results are obtained as described below:

Result = P_{Mea} + A_{Rpl} = P_{Mea} + Cable Loss + Antenna Factor

See below for test graphs.

Conclusion: PASS

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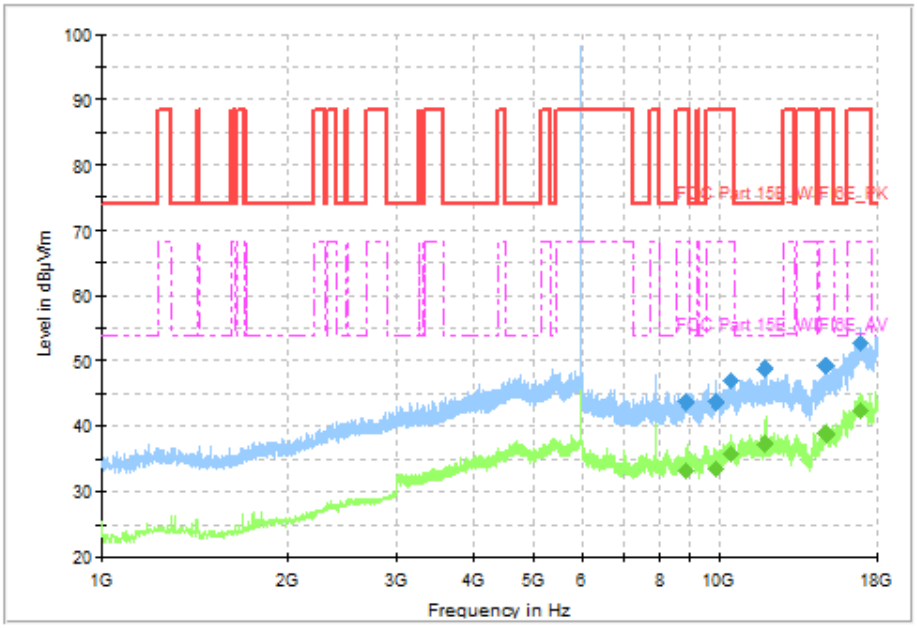

Fig. 11 Transmitter Spurious Emission (802.11a, CH1, 1GHz-18GHz)

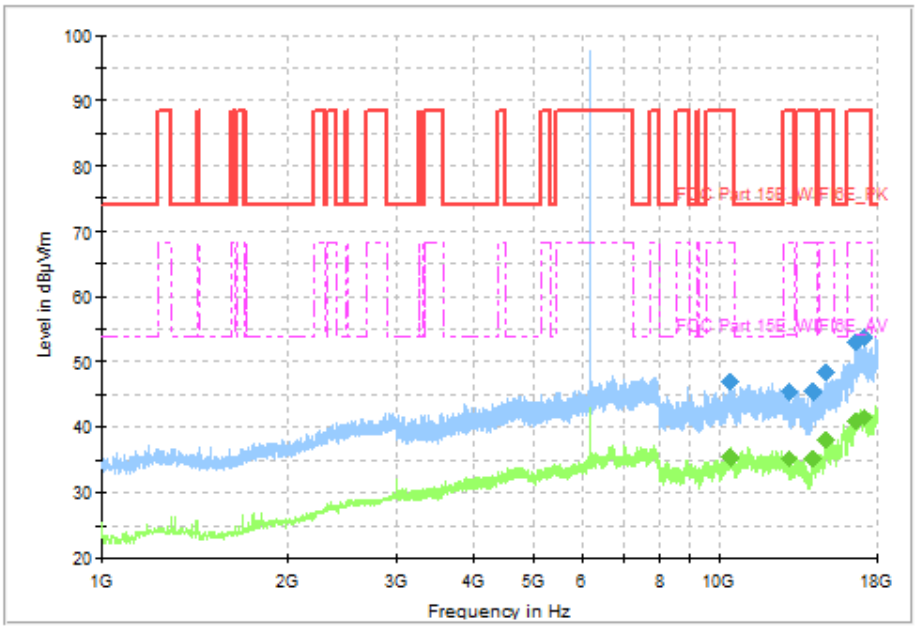

Fig. 12 Transmitter Spurious Emission (802.11a, CH45, 1GHz-18GHz)

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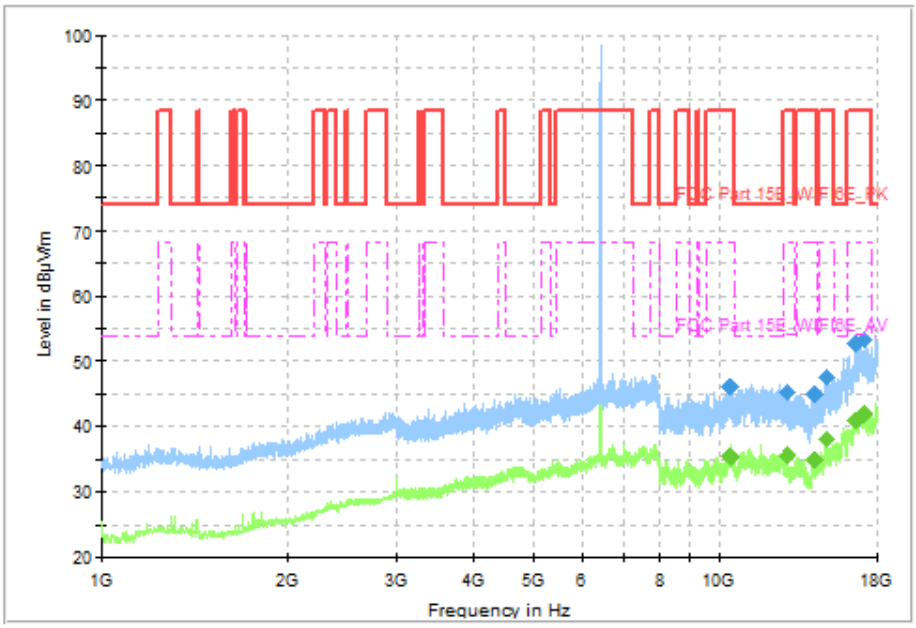

Fig. 13 Transmitter Spurious Emission (802.11a, CH93, 1GHz-18GHz)

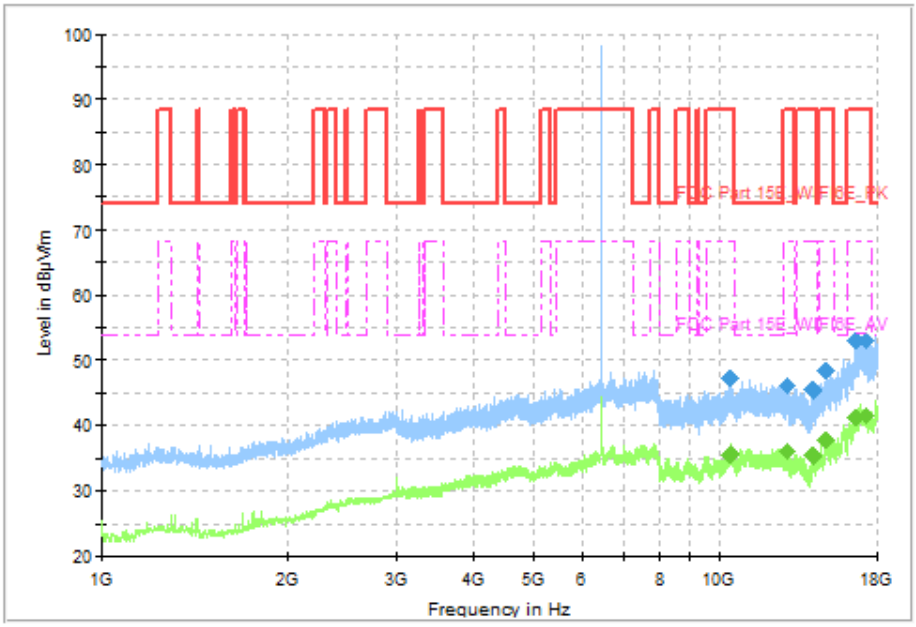

Fig. 14 Transmitter Spurious Emission (802.11a, CH97, 1GHz-18GHz)

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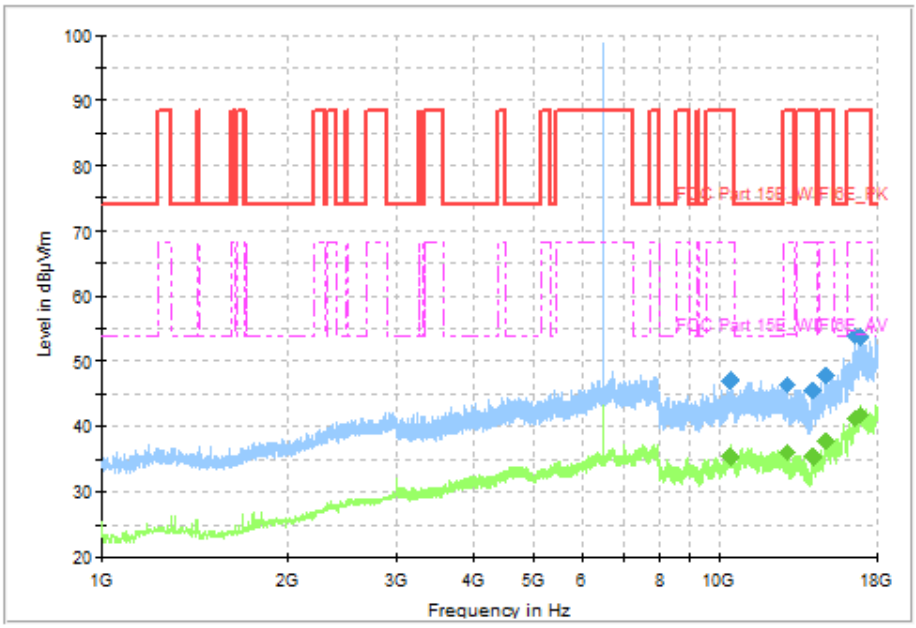

Fig. 15 Transmitter Spurious Emission (802.11a, CH105, 1GHz-18GHz)

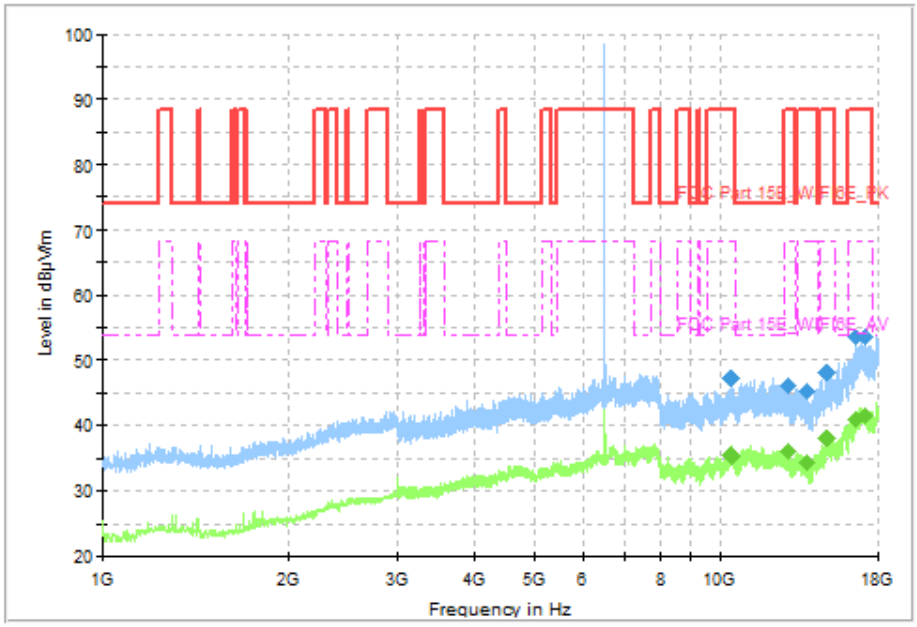

Fig. 16 Transmitter Spurious Emission (802.11a, CH113, 1GHz-18GHz)

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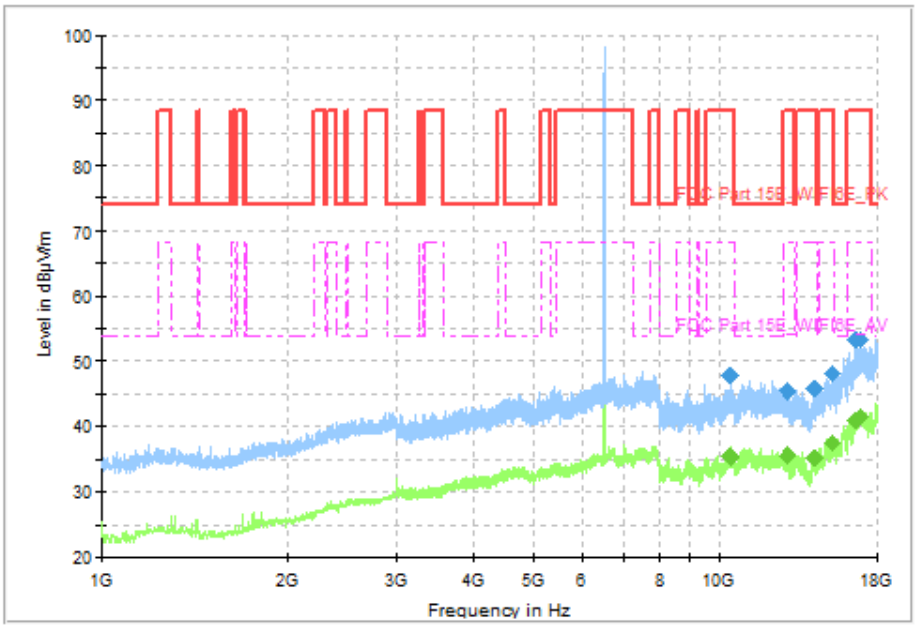

Fig. 17 Transmitter Spurious Emission (802.11a, CH117, 1GHz-18GHz)

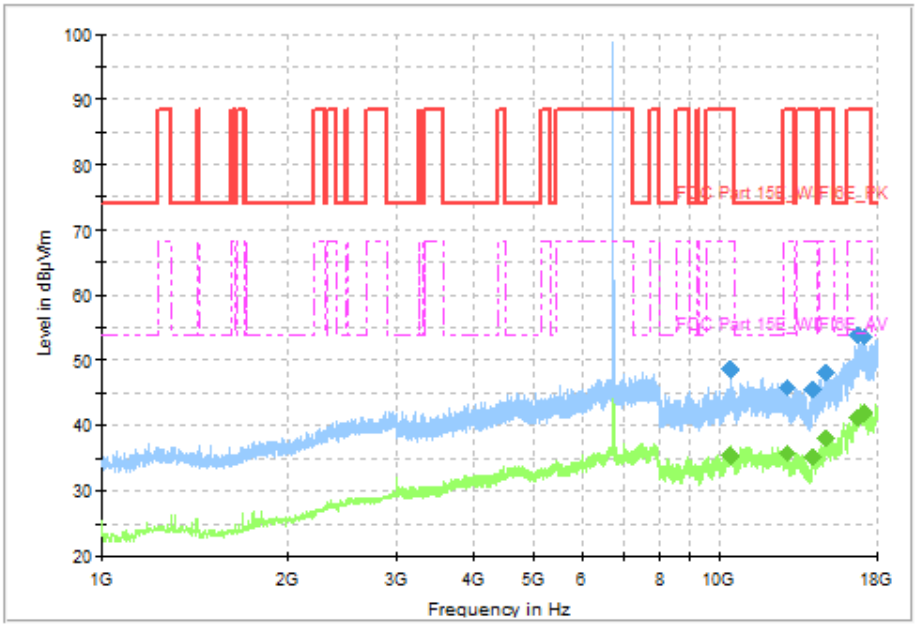

Fig. 18 Transmitter Spurious Emission (802.11a, CH153, 1GHz-18GHz)

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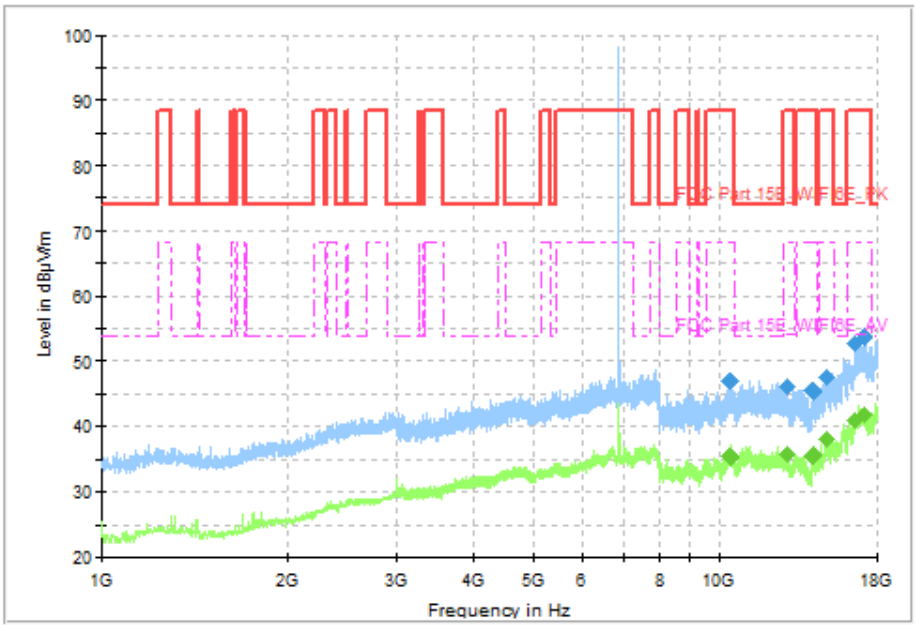

Fig. 19 Transmitter Spurious Emission (802.11a, CH185, 1GHz-18GHz)

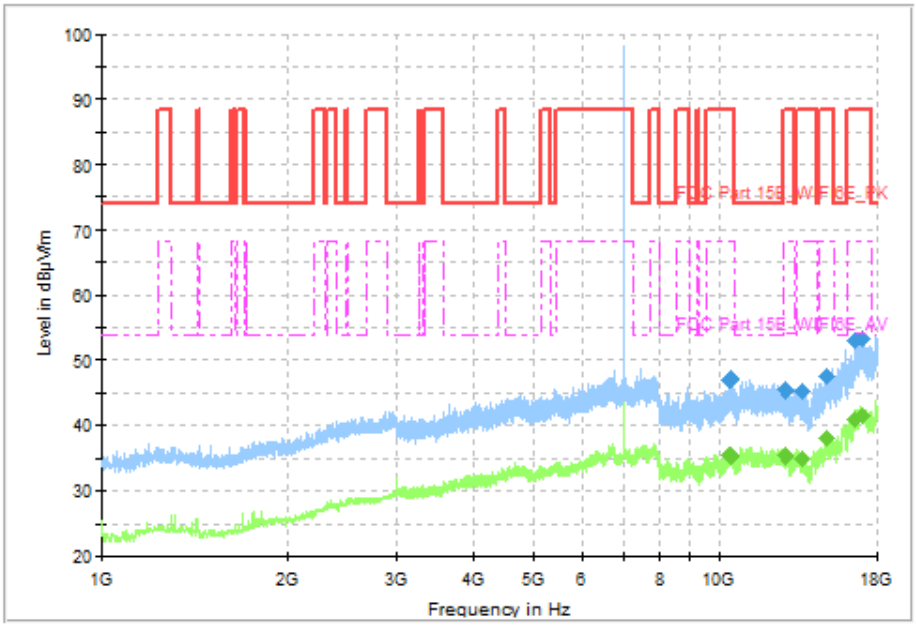

Fig. 20 Transmitter Spurious Emission (802.11a, CH209, 1GHz-18GHz)

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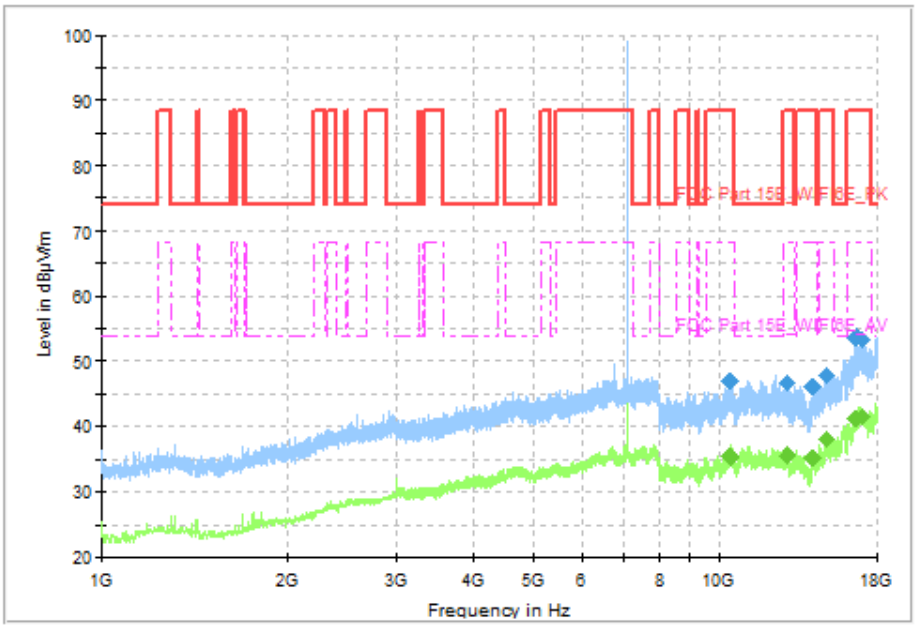

Fig. 21 Transmitter Spurious Emission (802.11a, CH233, 1GHz-18GHz)

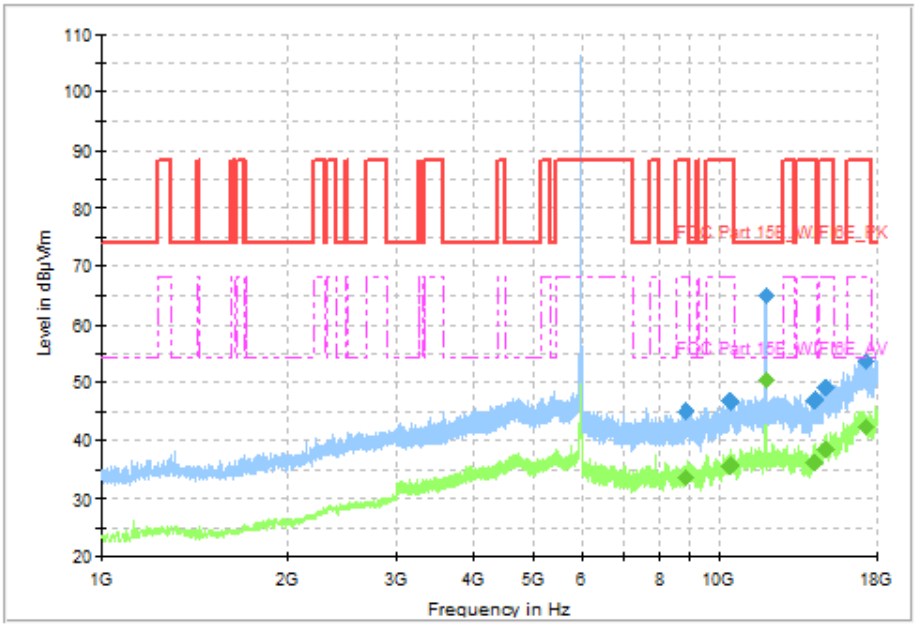

Fig. 22 Transmitter Spurious Emission (802.11ax-HE20, CH1, 1GHz-18GHz)

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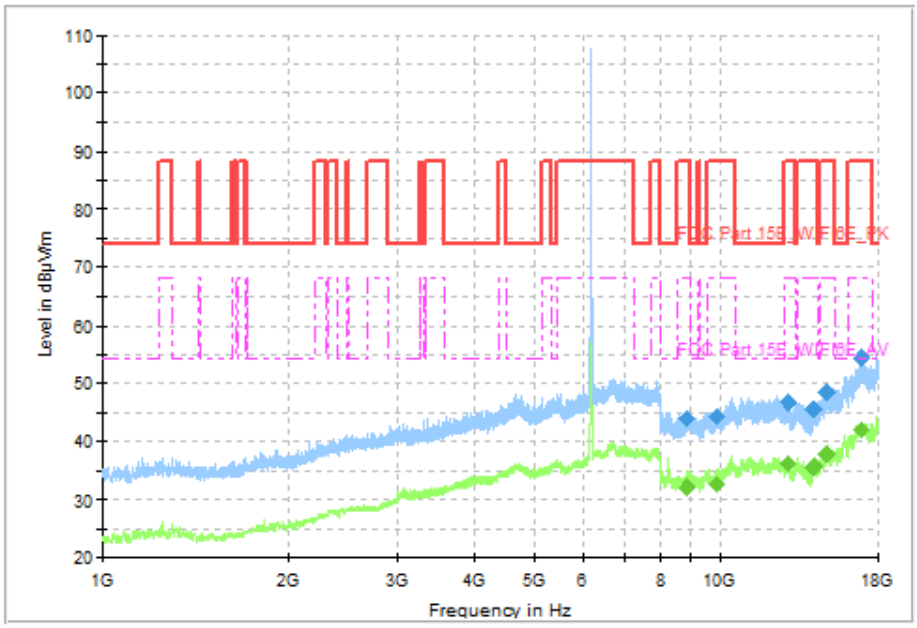

Fig. 23 Transmitter Spurious Emission (802.11ax-HE20, CH45, 1GHz-18GHz)

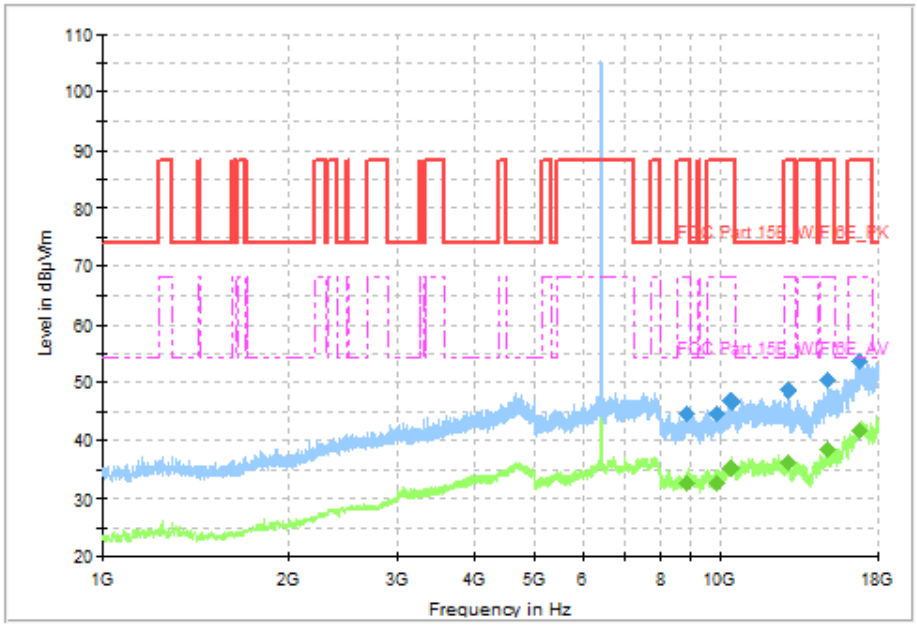

Fig. 24 Transmitter Spurious Emission (802.11ax-HE20, CH93, 1GHz-18GHz)

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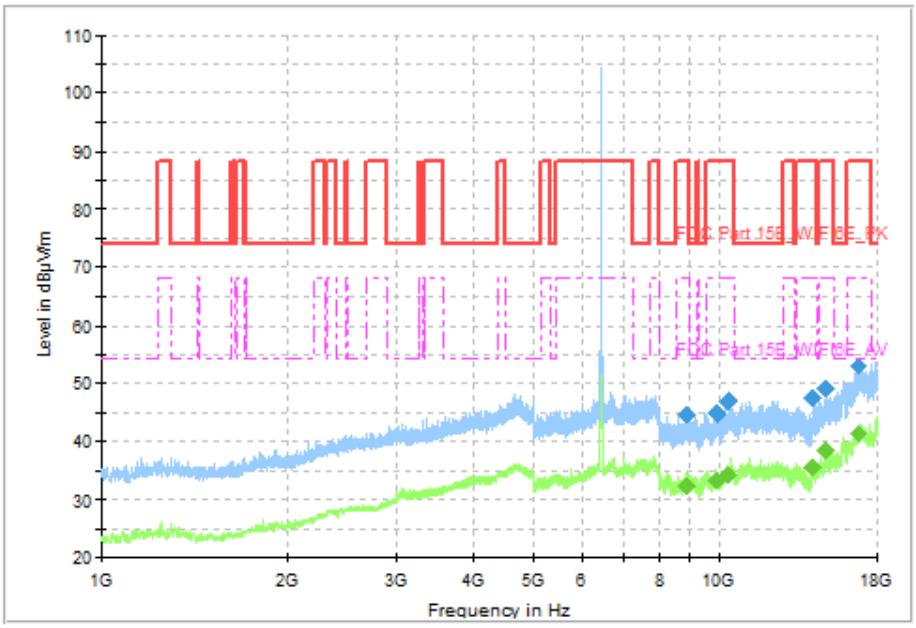

Fig. 25 Transmitter Spurious Emission (802.11ax-HE20, CH97, 1GHz-18GHz)

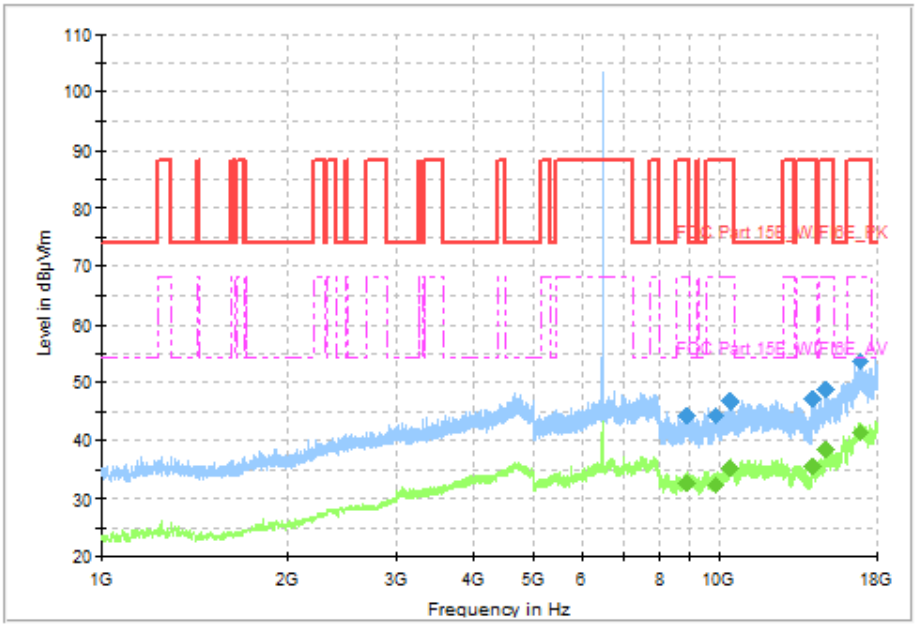

Fig. 26 Transmitter Spurious Emission (802.11ax-HE20, CH105, 1GHz-18GHz)

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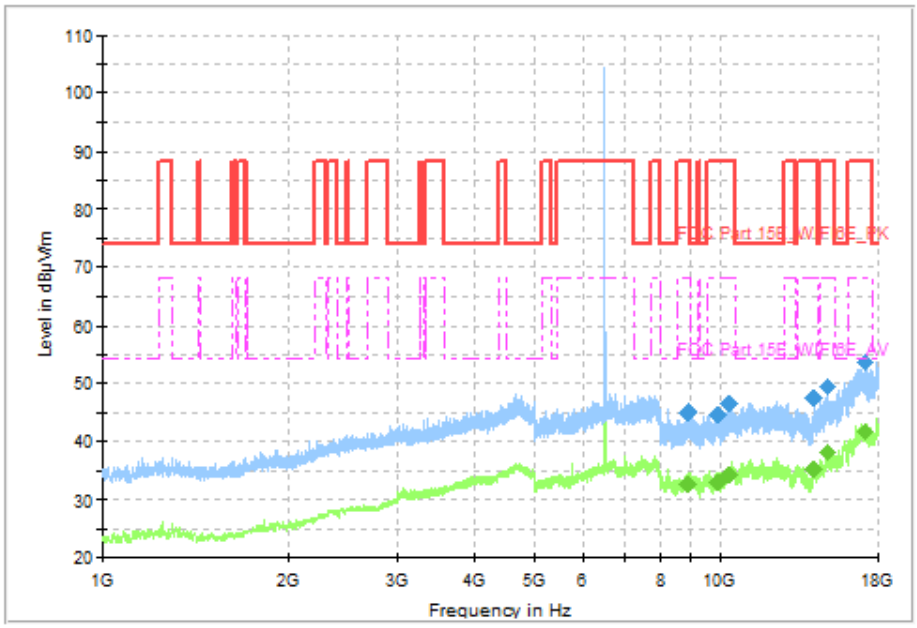

Fig. 27 Transmitter Spurious Emission (802.11ax-HE20, CH113, 1GHz-18GHz)

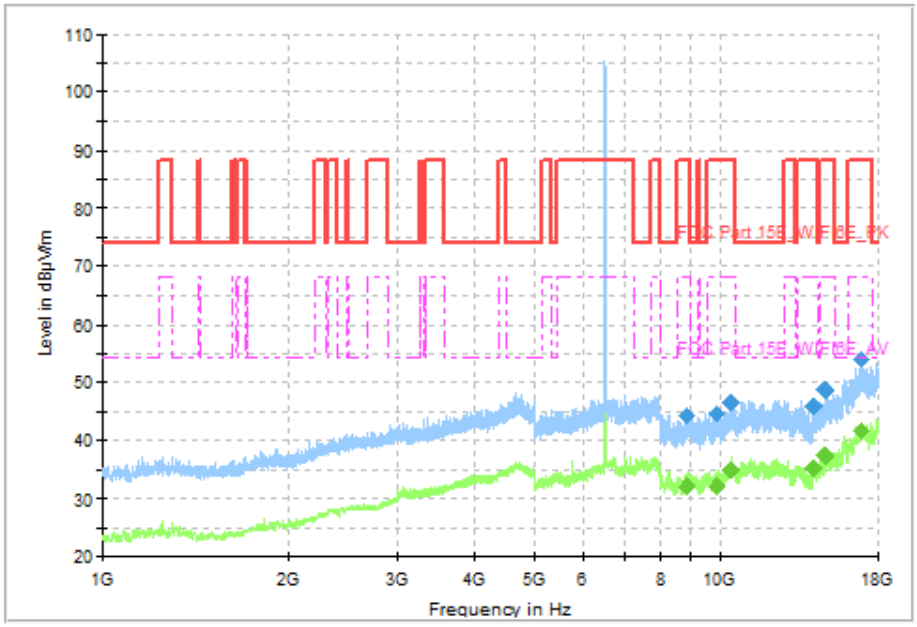

Fig. 28 Transmitter Spurious Emission (802.11ax-HE20, CH117, 1GHz-18GHz)

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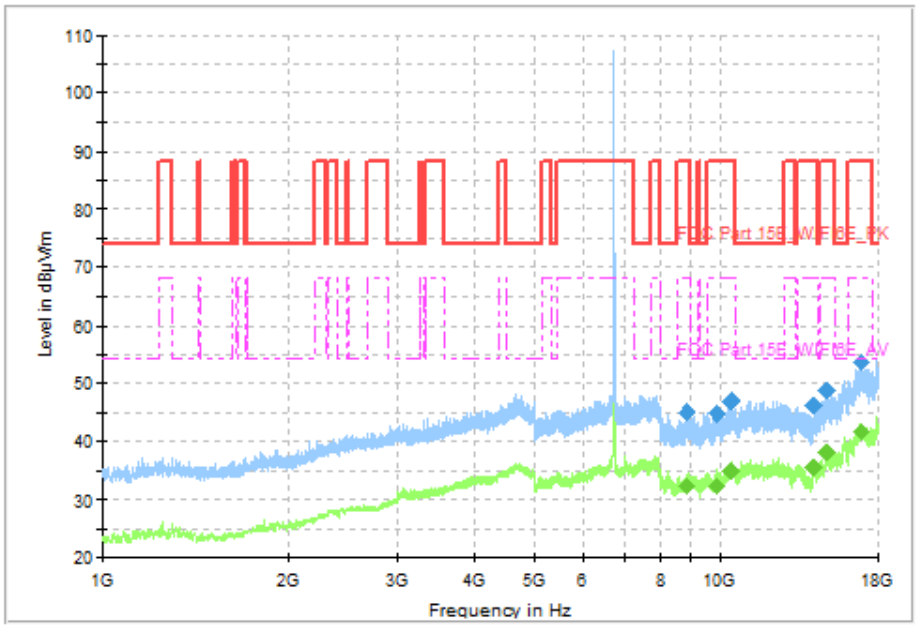

Fig. 29 Transmitter Spurious Emission (802.11ax-HE20, CH153, 1GHz-18GHz)

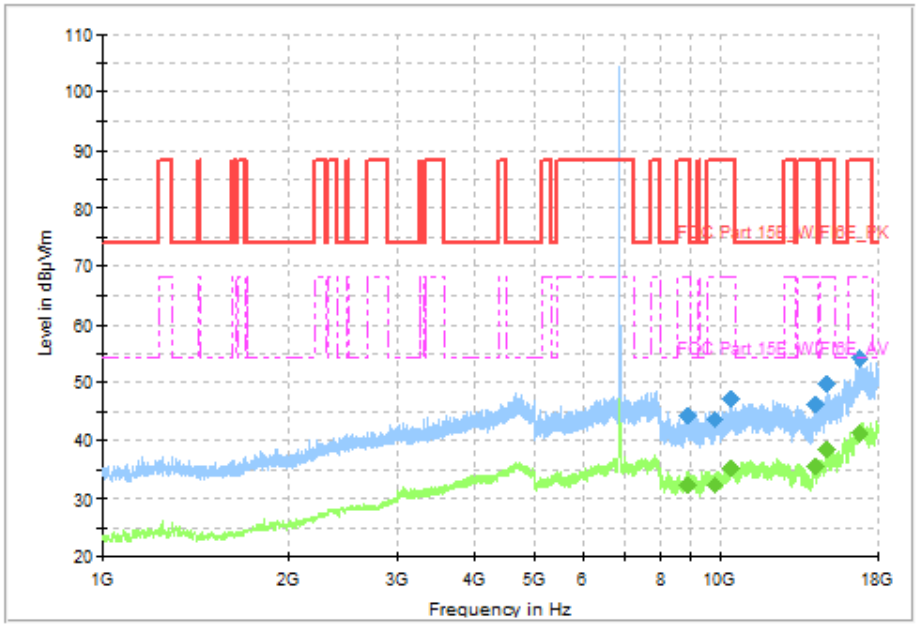

Fig. 30 Transmitter Spurious Emission (802.11ax-HE20, CH185, 1GHz-18GHz)

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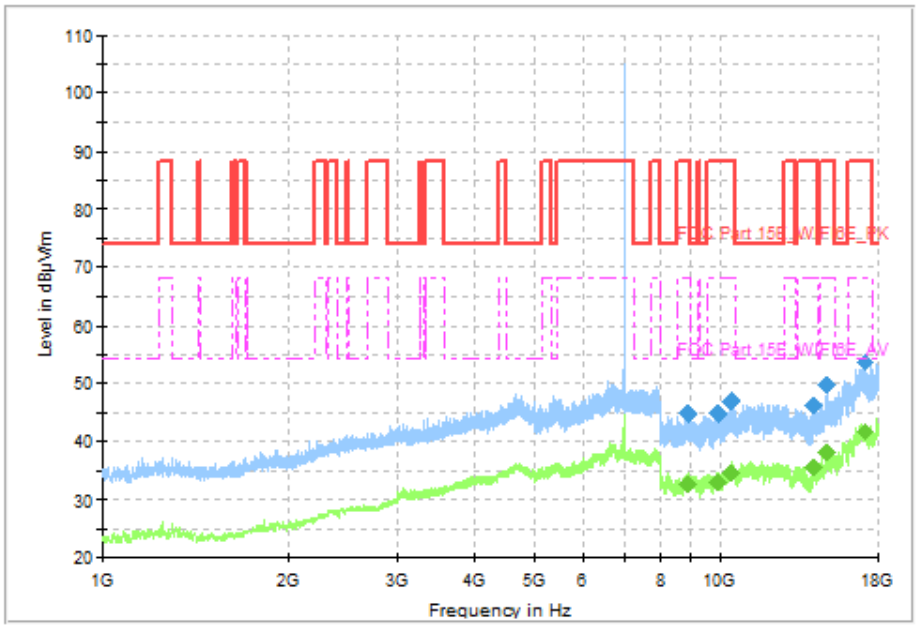

Fig. 31 Transmitter Spurious Emission (802.11ax-HE20, CH209, 1GHz-18GHz)

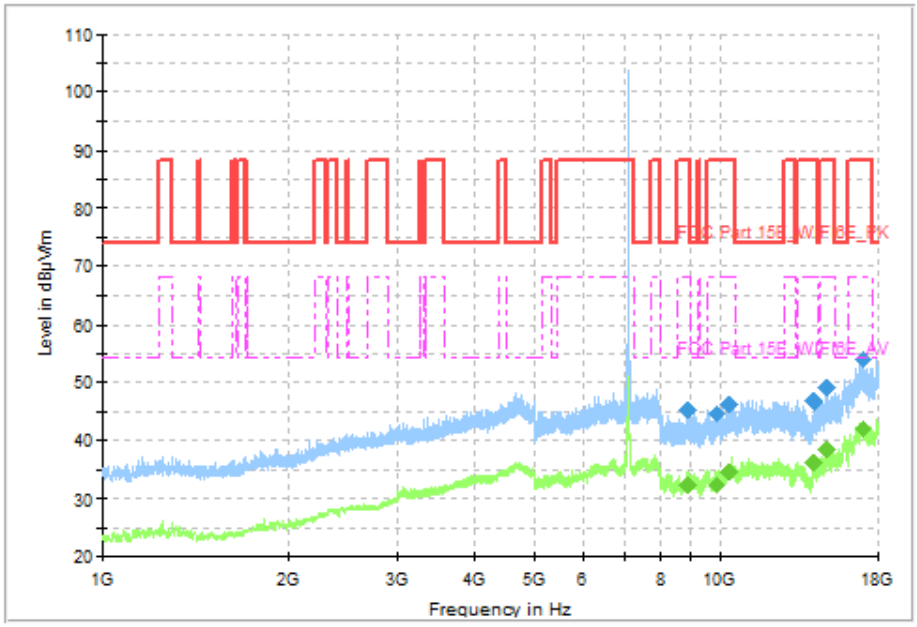

Fig. 32 Transmitter Spurious Emission (802.11ax-HE20, CH233, 1GHz-18GHz)

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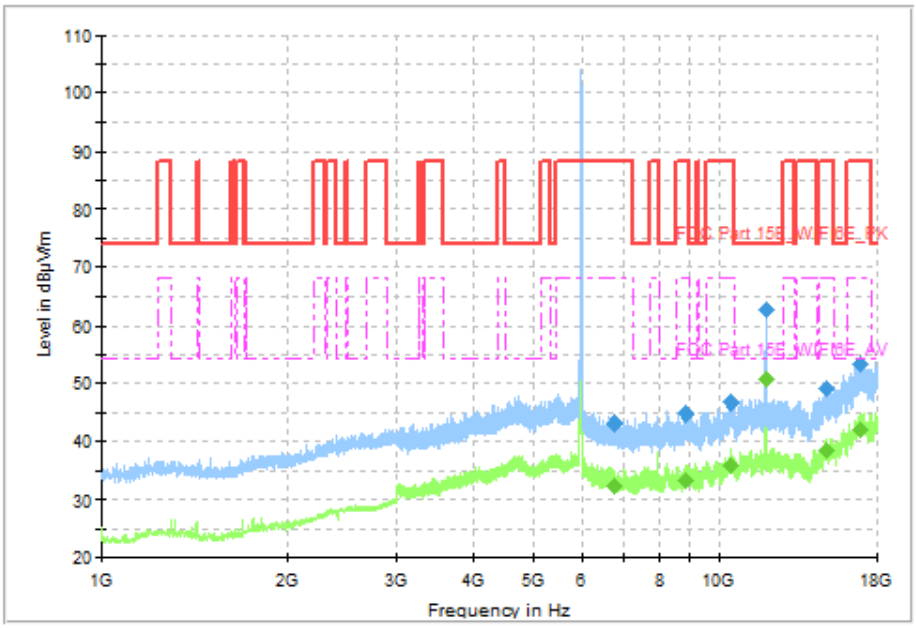

Fig. 33 Transmitter Spurious Emission (802.11ax-HE40, CH3, 1GHz-18GHz)

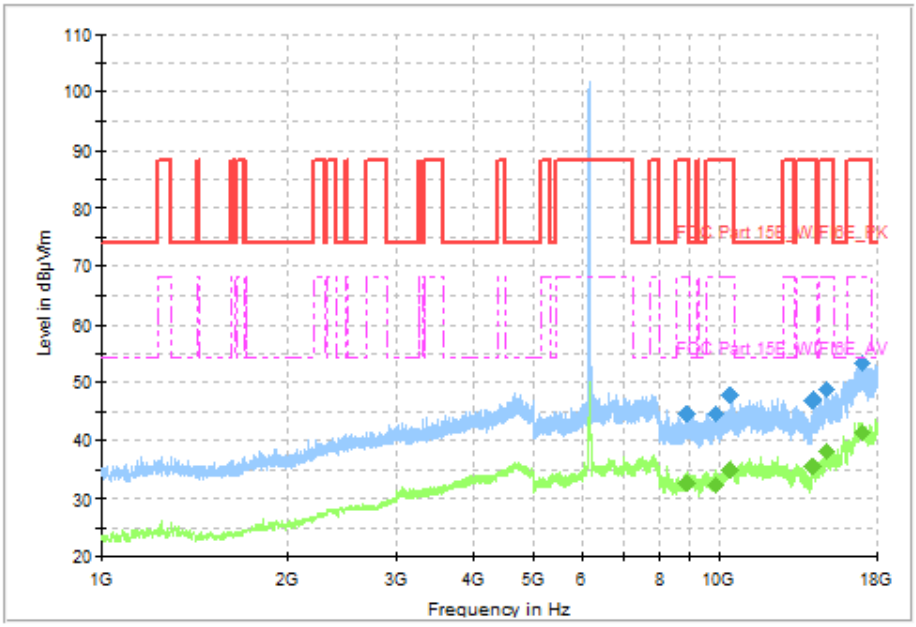

Fig. 34 Transmitter Spurious Emission (802.11ax-HE40, CH43, 1GHz-18GHz)

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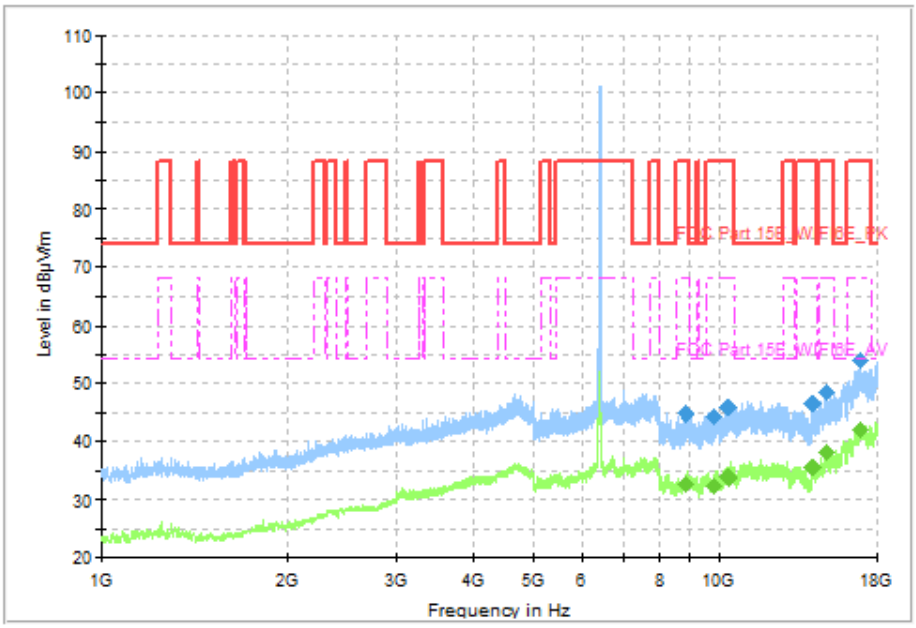

Fig. 35 Transmitter Spurious Emission (802.11ax-HE40, CH91, 1GHz-18GHz)

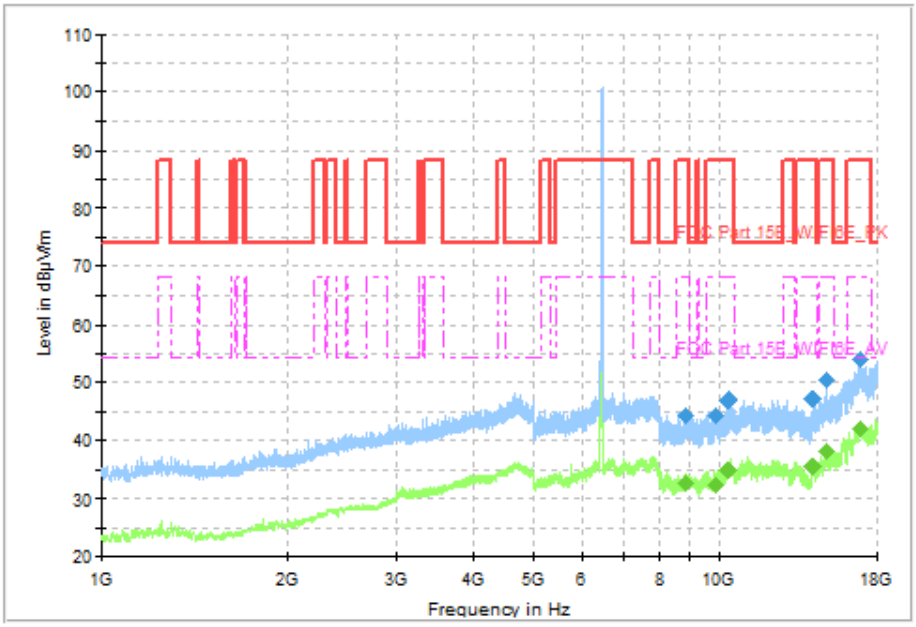

Fig. 36 Transmitter Spurious Emission (802.11ax-HE40, CH99, 1GHz-18GHz)

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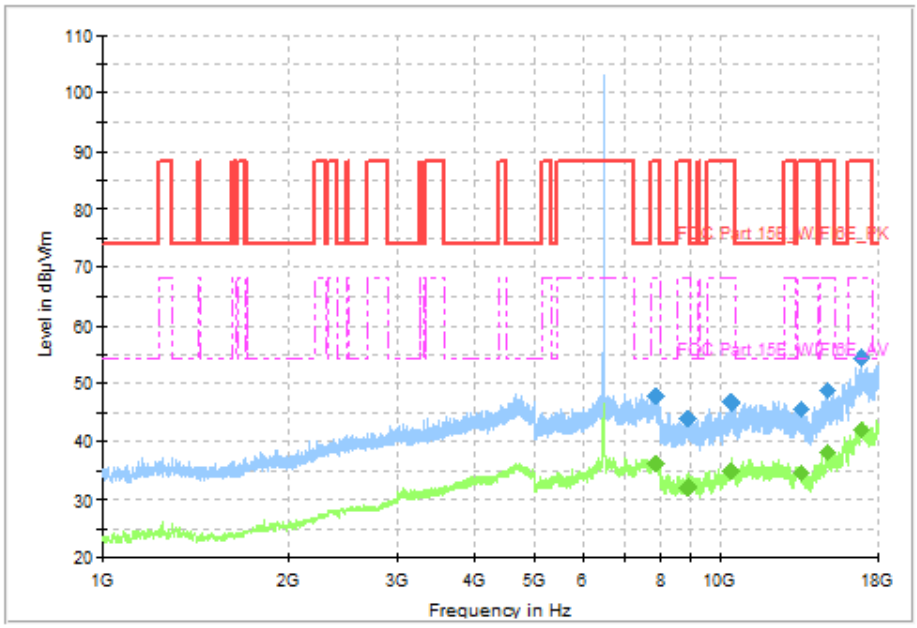

Fig. 37 Transmitter Spurious Emission (802.11ax-HE40, CH107, 1GHz-18GHz)

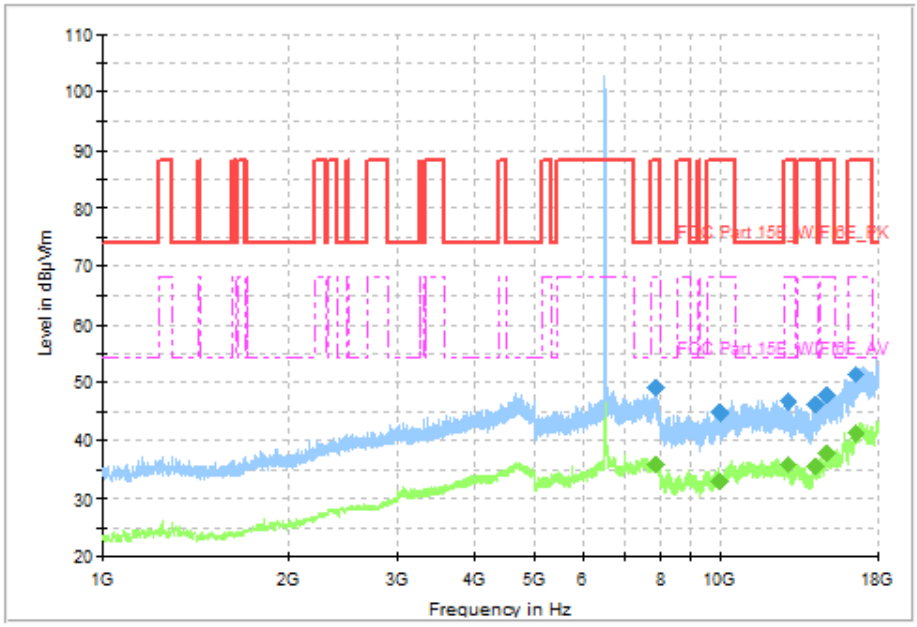

Fig. 38 Transmitter Spurious Emission (802.11ax-HE40, CH115, 1GHz-18GHz)

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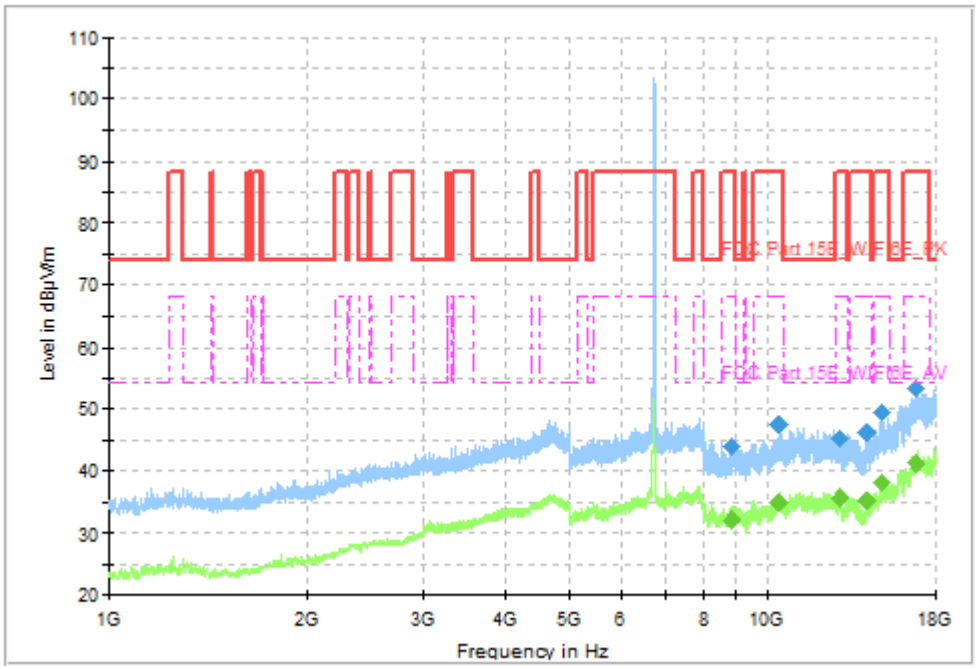

Fig. 39 Transmitter Spurious Emission (802.11ax-HE40, CH155, 1GHz-18GHz)

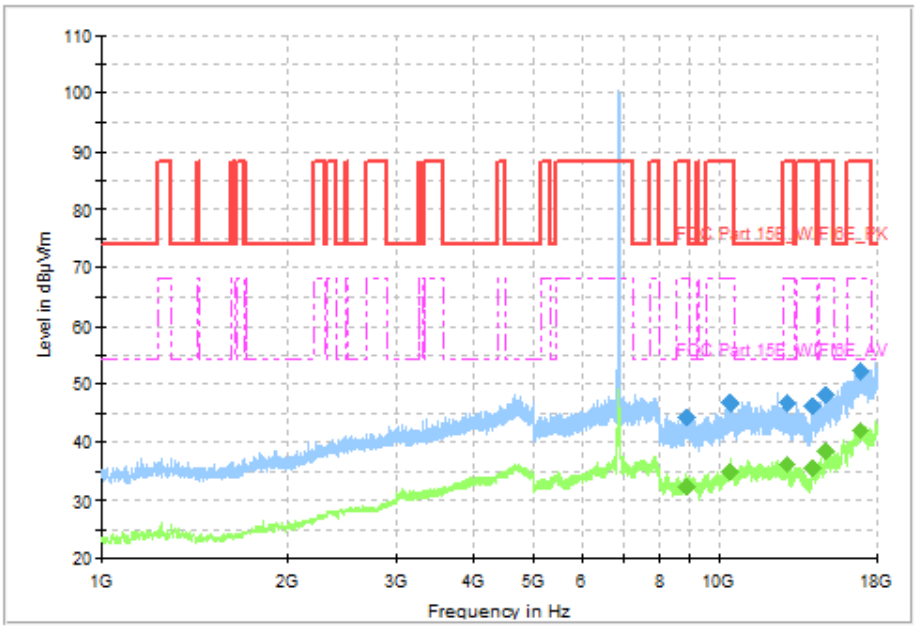

Fig. 40 Transmitter Spurious Emission (802.11ax-HE40, CH187, 1GHz-18GHz)

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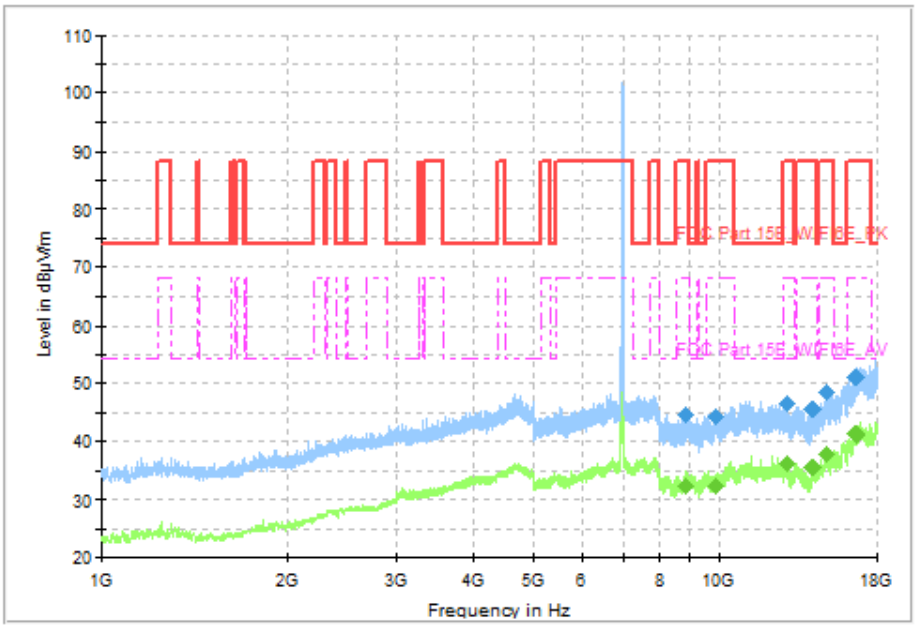

Fig. 41 Transmitter Spurious Emission (802.11ax-HE40, CH211, 1GHz-18GHz)

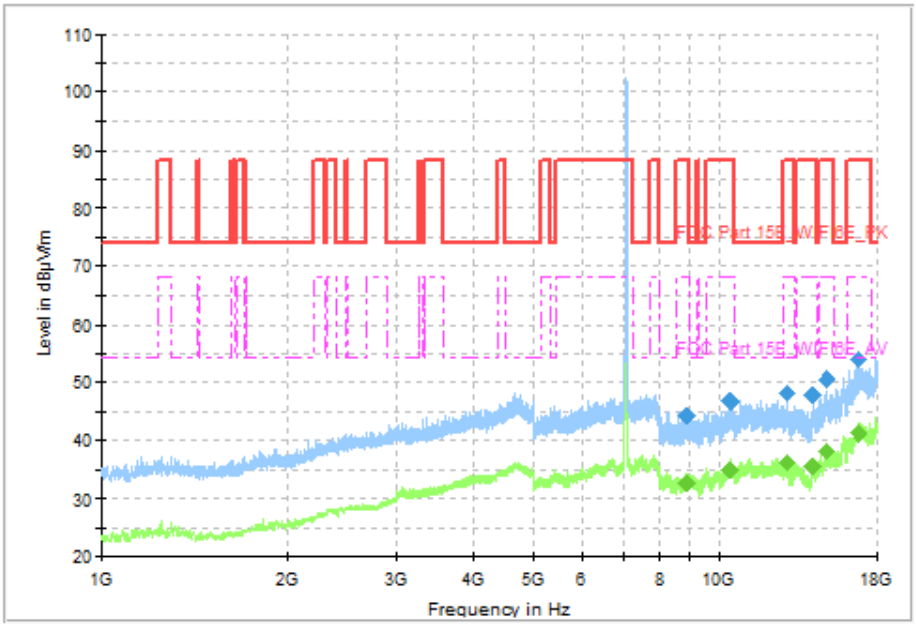

Fig. 42 Transmitter Spurious Emission (802.11ax-HE40, CH227, 1GHz-18GHz)

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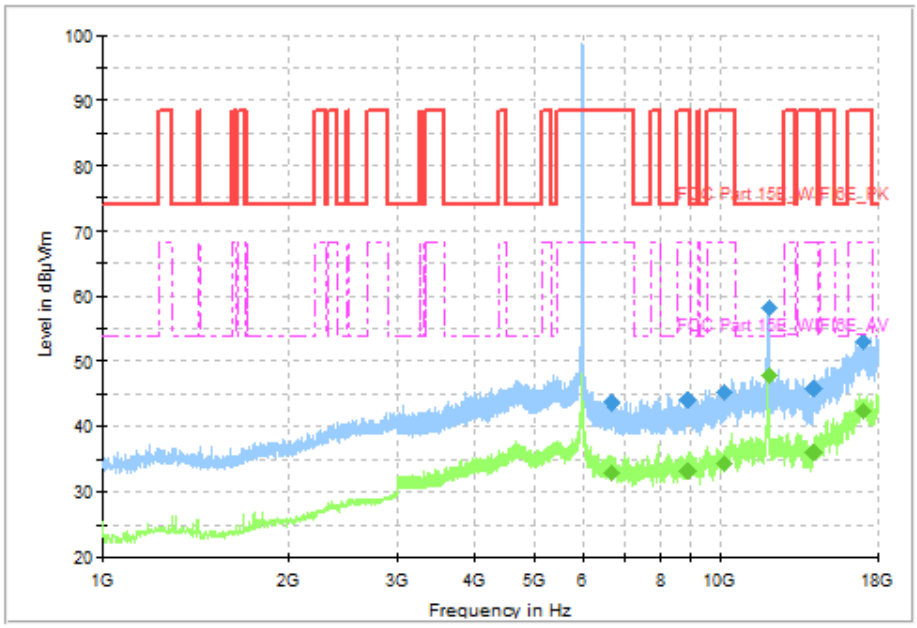

Fig. 43 Transmitter Spurious Emission (802.11ax-HE80, CH7, 1GHz-18GHz)

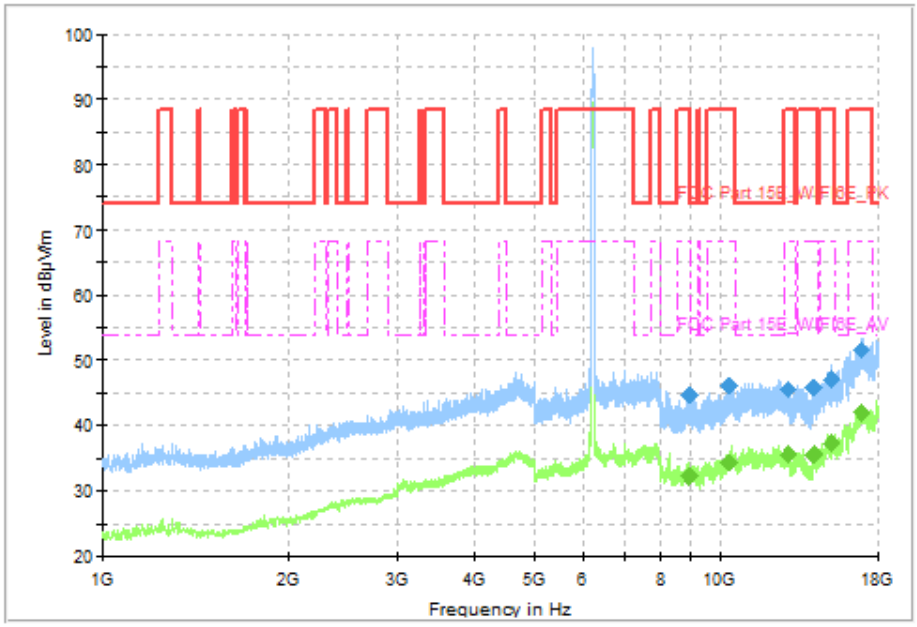

Fig. 44 Transmitter Spurious Emission (802.11ax-HE80, CH55, 1GHz-18GHz)

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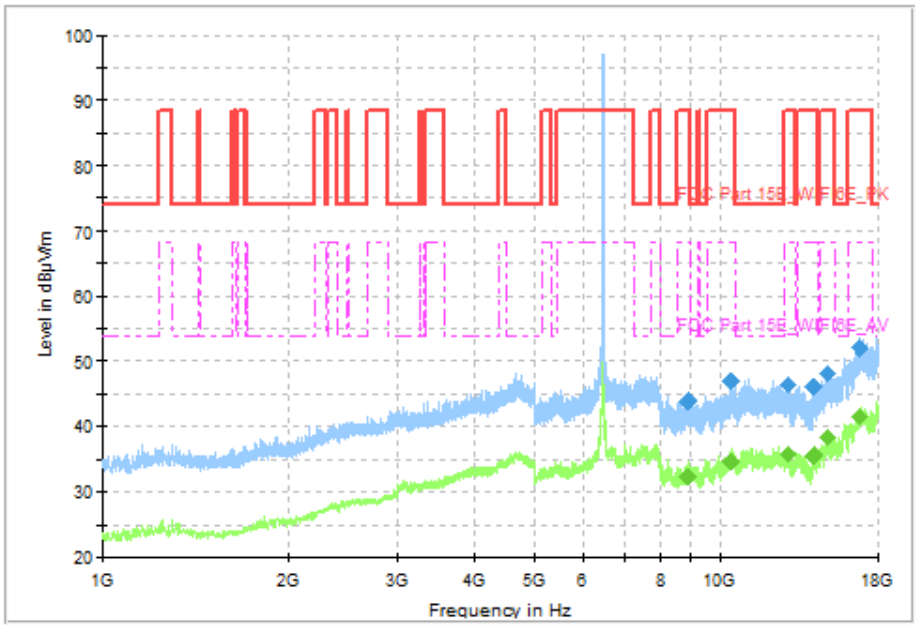

Fig. 45 Transmitter Spurious Emission (802.11ax-HE80, CH103, 1GHz-18GHz)

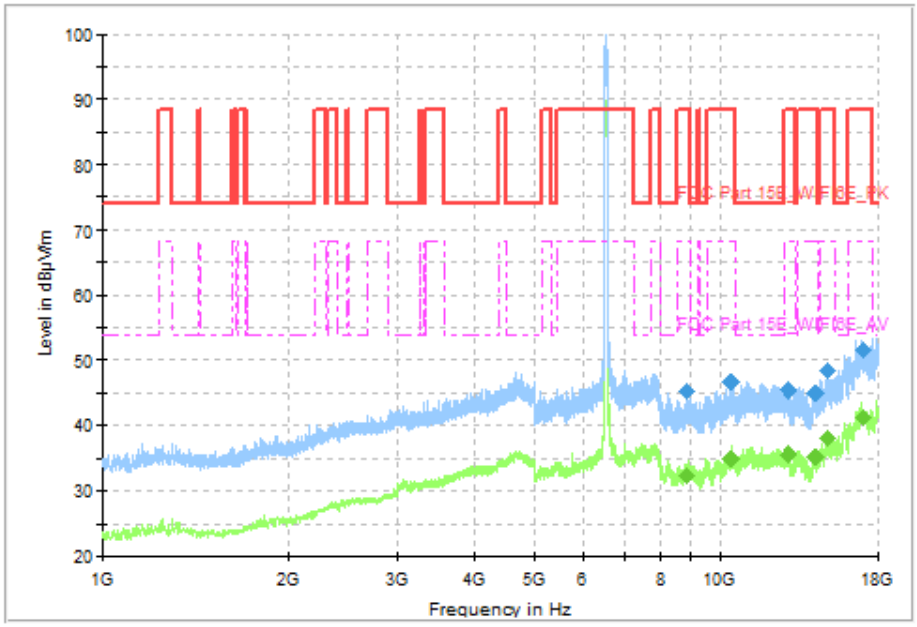

Fig. 46 Transmitter Spurious Emission (802.11ax-HE80, CH119, 1GHz-18GHz)

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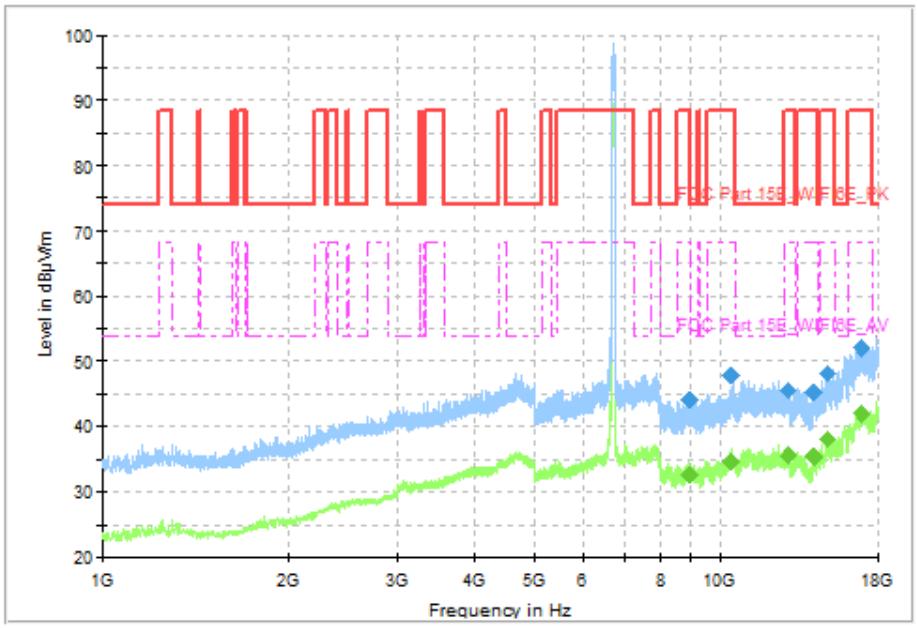

Fig. 47 Transmitter Spurious Emission (802.11ax-HE80, CH151, 1GHz-18GHz)

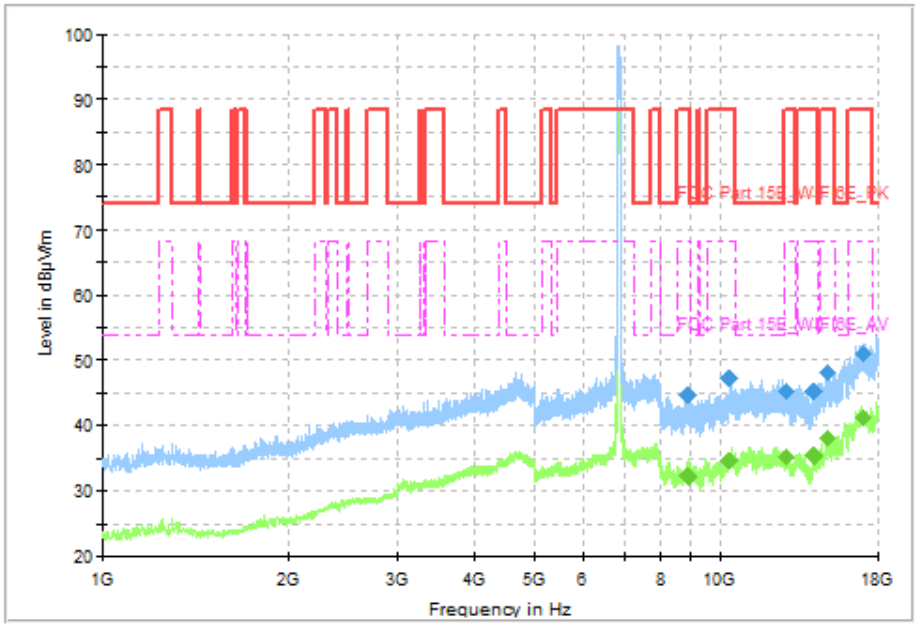

Fig. 48 Transmitter Spurious Emission (802.11ax-HE80, CH183, 1GHz-18GHz)

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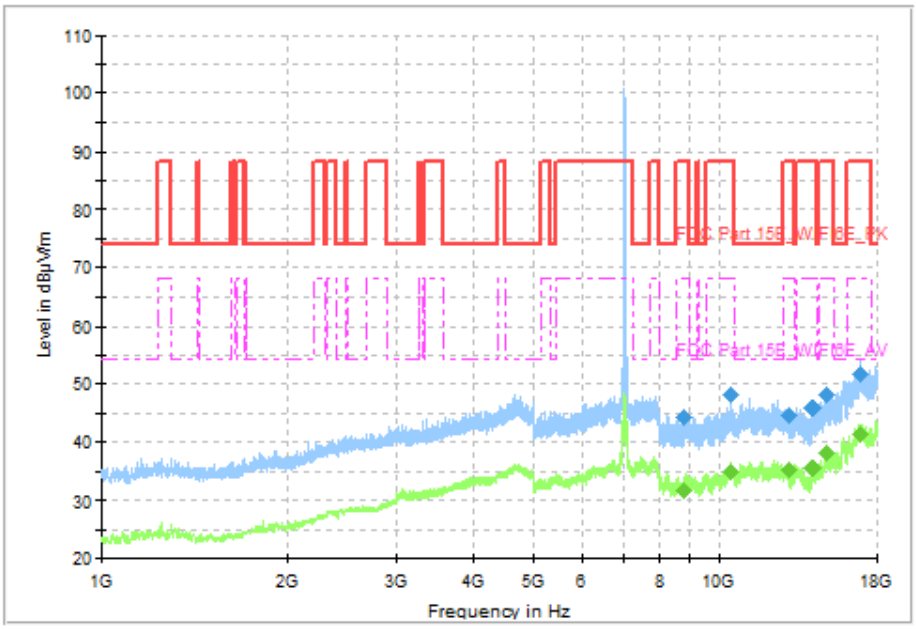

Fig. 49 Transmitter Spurious Emission (802.11ax-HE80, CH211, 1GHz-18GHz)

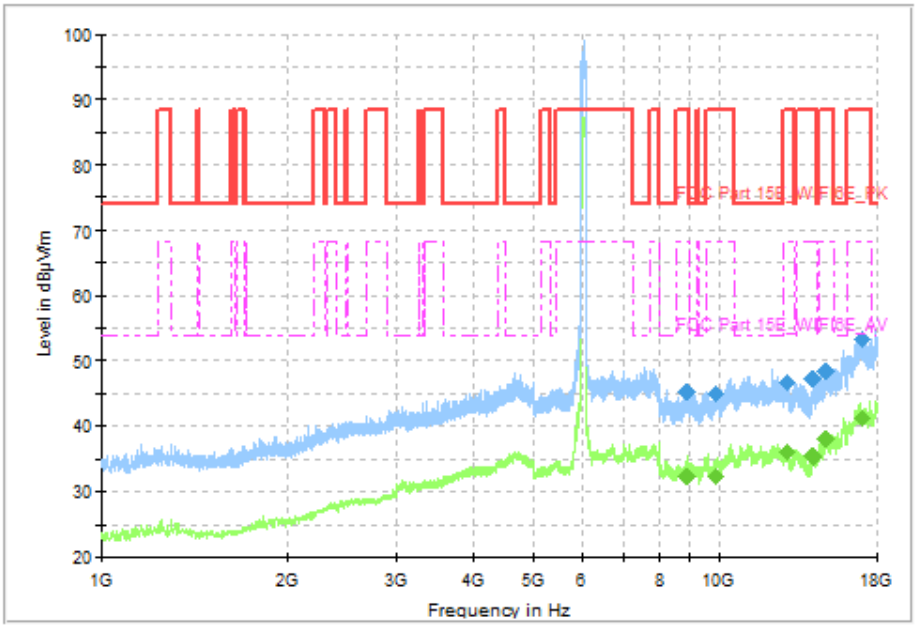

Fig. 50 Transmitter Spurious Emission (802.11ax-HE160, CH15, 1GHz-18GHz)

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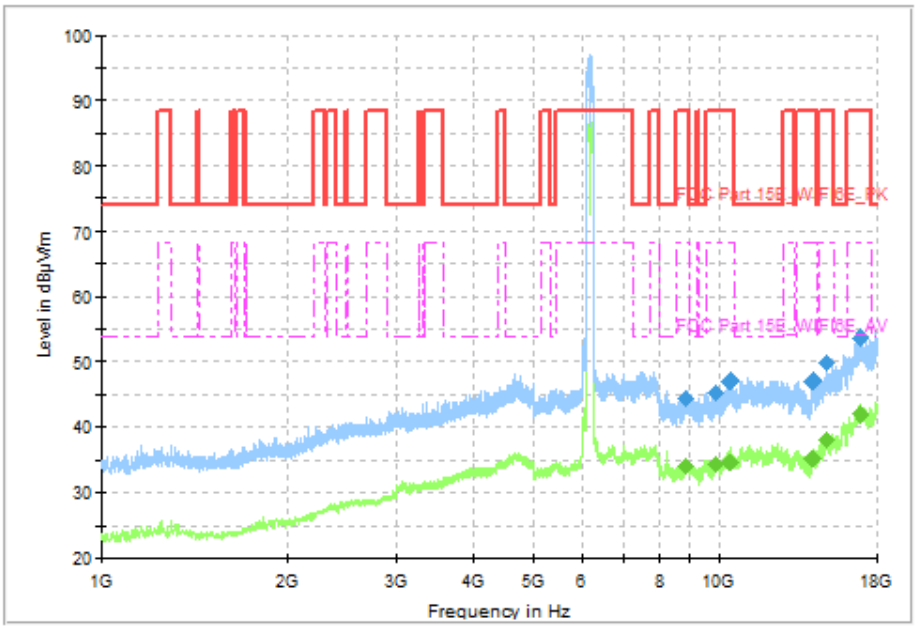

Fig. 51 Transmitter Spurious Emission (802.11ax-HE160, CH47, 1GHz-18GHz)

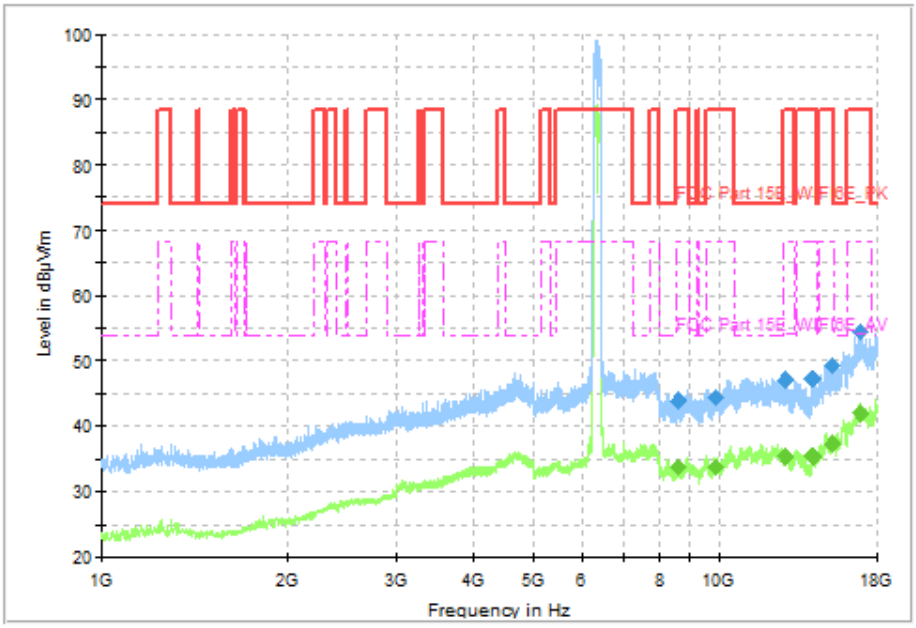

Fig. 52 Transmitter Spurious Emission (802.11ax-HE160, CH79, 1GHz-18GHz)

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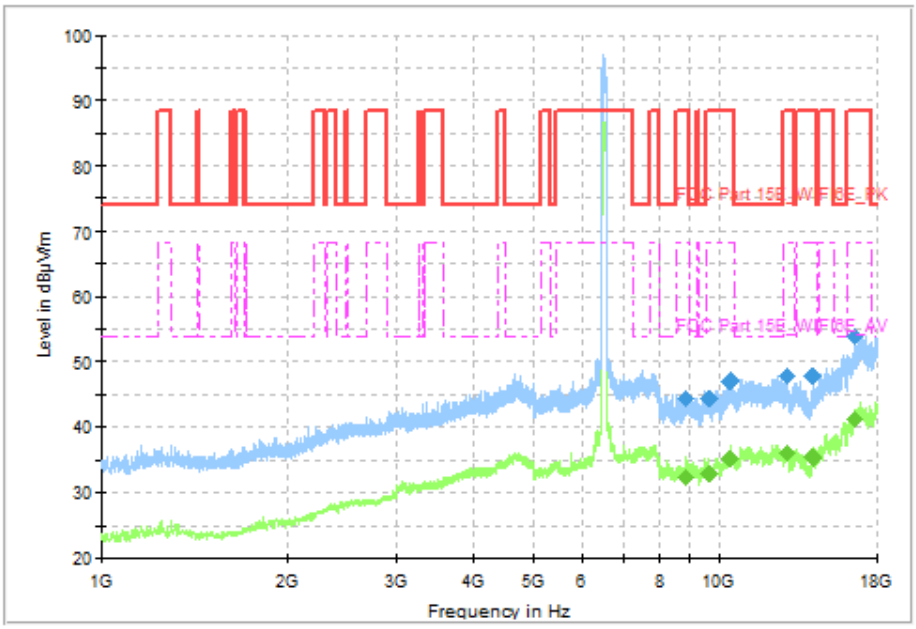

Fig. 53 Transmitter Spurious Emission (802.11ax-HE160, CH111, 1GHz-18GHz)

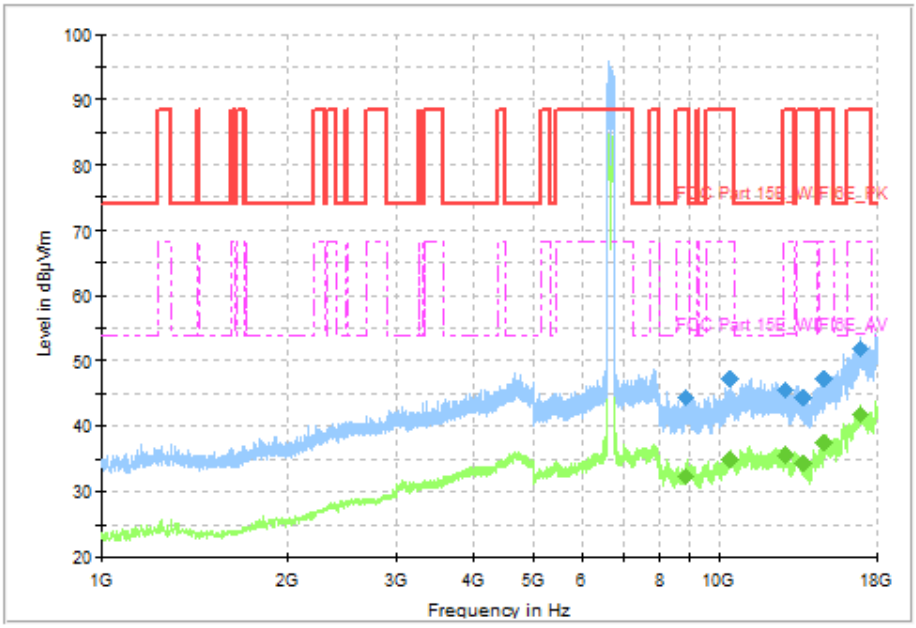

Fig. 54 Transmitter Spurious Emission (802.11ax-HE160, CH143, 1GHz-18GHz)

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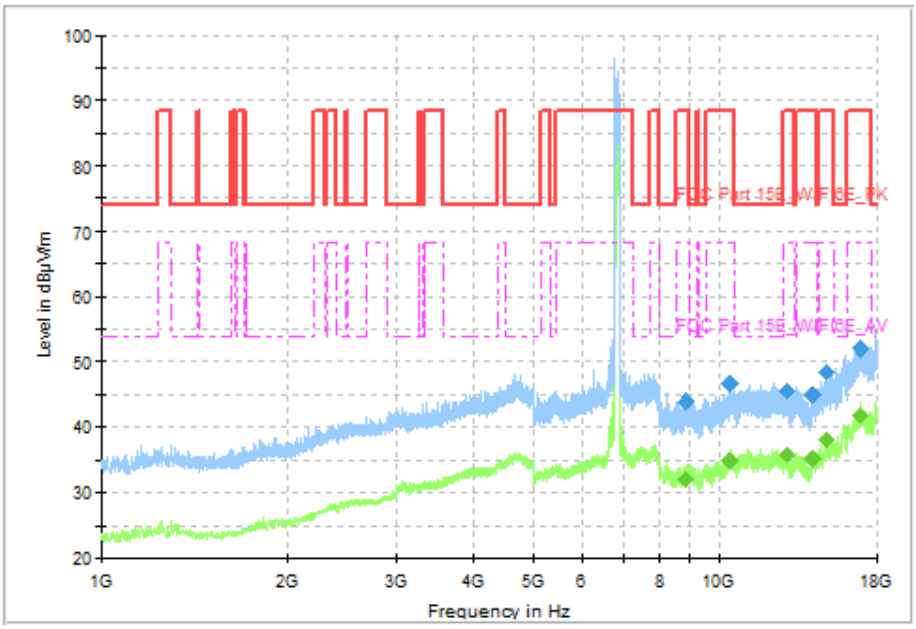

Fig. 55 Transmitter Spurious Emission (802.11ax-HE160, CH175, 1GHz-18GHz)

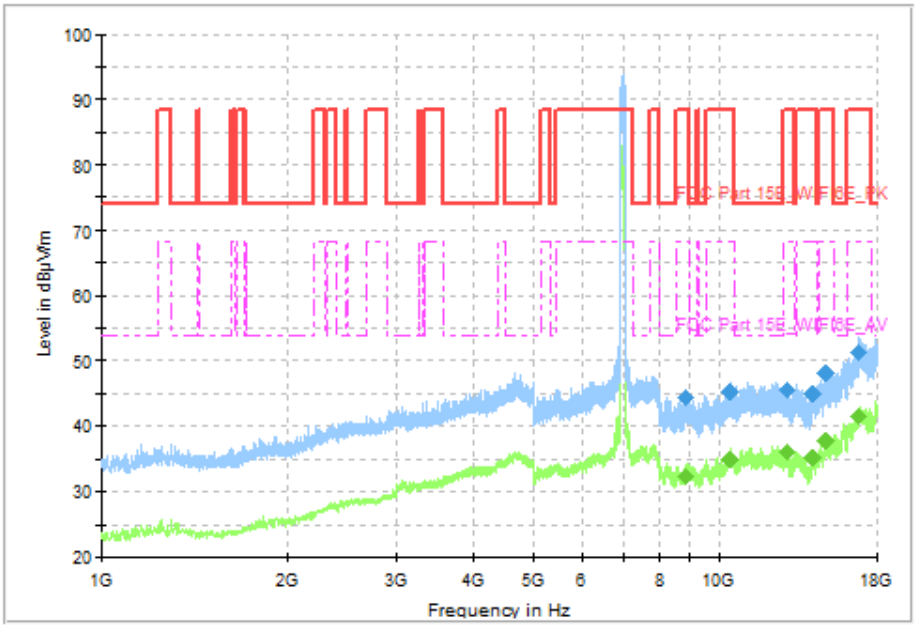

Fig. 56 Transmitter Spurious Emission (802.11ax-HE160, CH207, 1GHz-18GHz)

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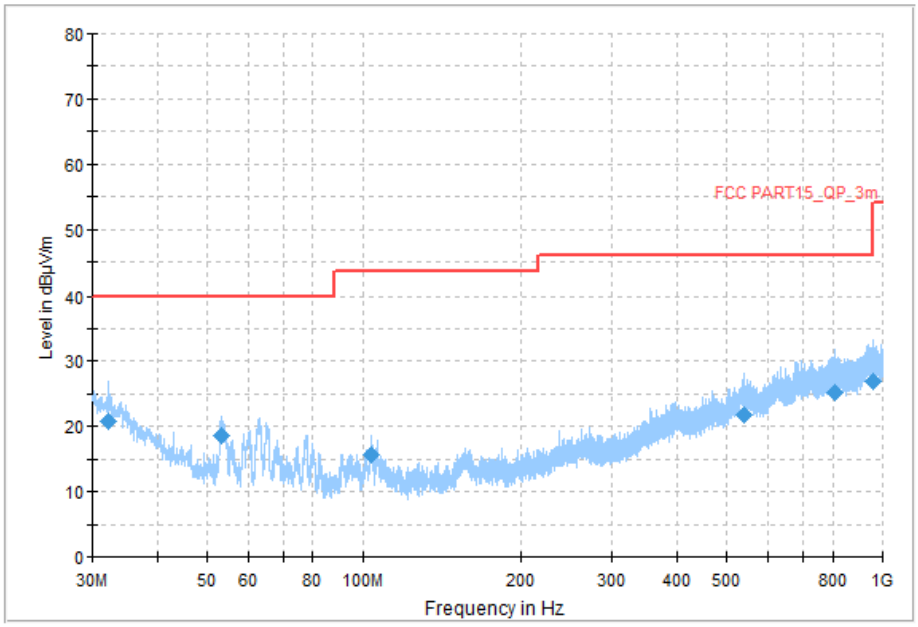

Fig. 57 Transmitter Spurious Emission (All channel, 30MHz~1GHz)

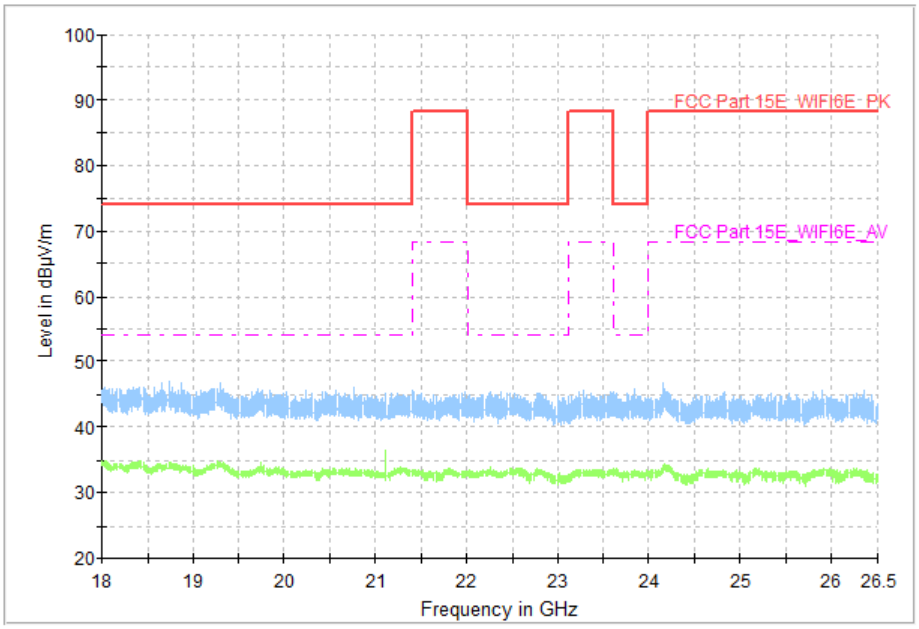

Fig. 58 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz)

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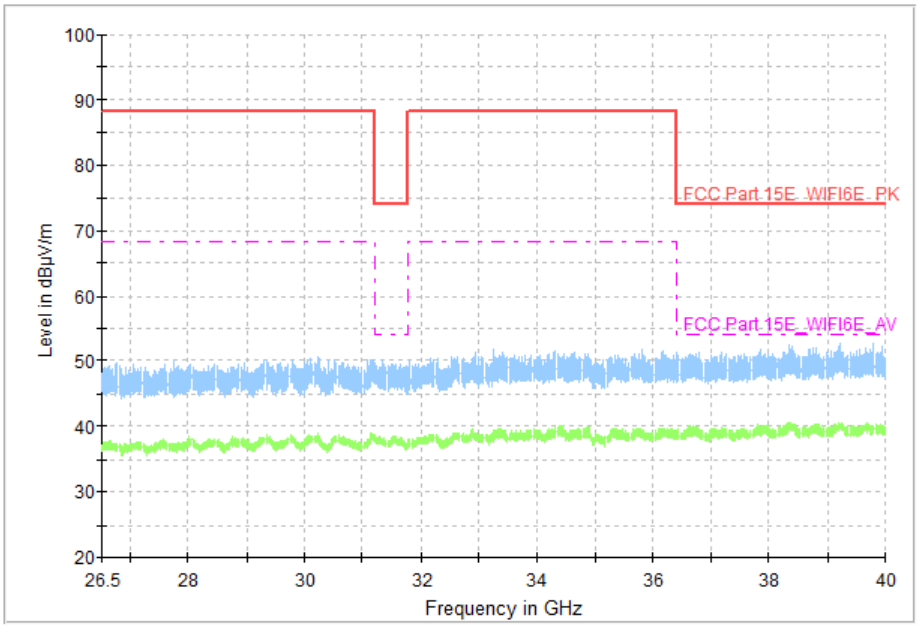

Fig. 59 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz)

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A.4. Radiated Spurious Emissions < 30MHz

Method of Measurement: See ANSI C63.10-clause 6.4.

Measurement Limit (15.209, 9kHz-30MHz):

Frequency (MHz)	Field strength (μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

The measurement is made according to KDB 789033.

Note: The measurement distance during the test is 3m. The limit used in plots recalculated based on the extrapolation factor of 40 dB/decade.

Measurement Result (Worst case):

Mode	Frequency Range	Test Results	Conclusion
All Channel	9 kHz ~30 MHz	Fig.60	**P**

See below for test graphs.

Conclusion: PASS

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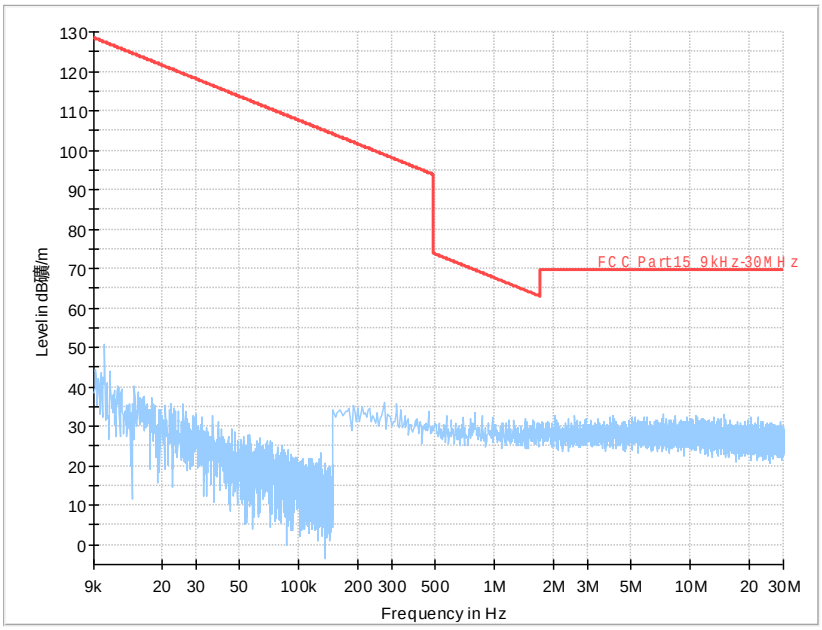

Fig. 60 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz)

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A.5. AC Power Line Conducted Emission

Method of Measurement: See ANSI C63.10-clause 6.2.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN 5GHz - A2, A3

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average-peak Limit (dBμV)	Result (dBμV)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.61	Fig.62	**P**
0.5 to 5	56	46			
5 to 30	60	50			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.					

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

Conclusion: PASS

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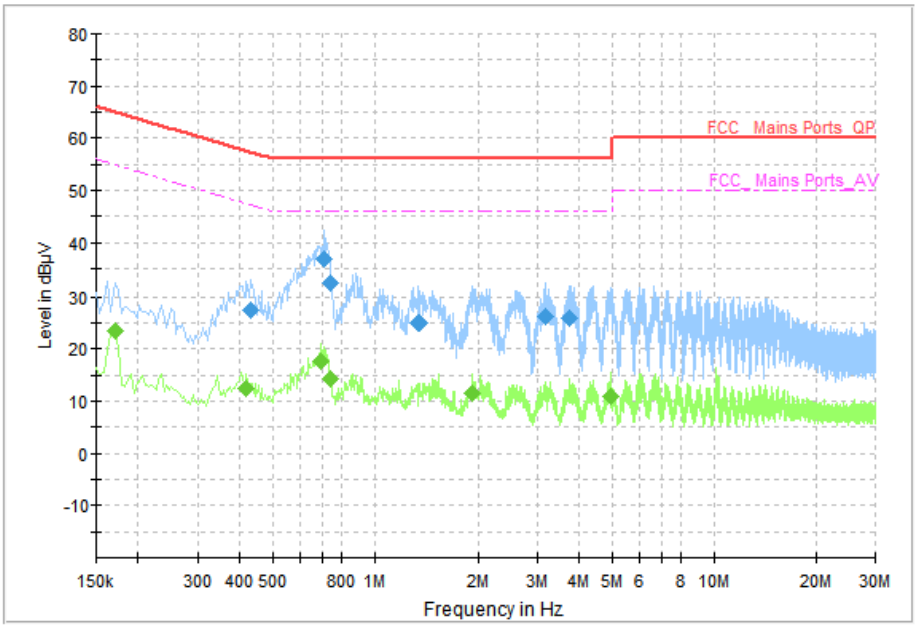

Fig. 61 AC Power line Conducted Emission (Traffic)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.430000	27.39	57.25	29.86	N	ON	10
0.710000	36.96	56.00	19.04	N	ON	10
0.738000	32.32	56.00	23.68	N	ON	10
1.350000	24.87	56.00	31.13	N	ON	10
3.154000	26.27	56.00	29.73	N	ON	10
3.730000	25.77	56.00	30.23	L1	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170000	23.51	54.96	31.45	N	ON	10
0.418000	12.33	47.49	35.16	N	ON	10
0.690000	17.63	46.00	28.37	L1	ON	10
0.738000	14.16	46.00	31.84	N	ON	10
1.930000	11.43	46.00	34.57	N	ON	10
4.950000	10.82	46.00	35.18	N	ON	10

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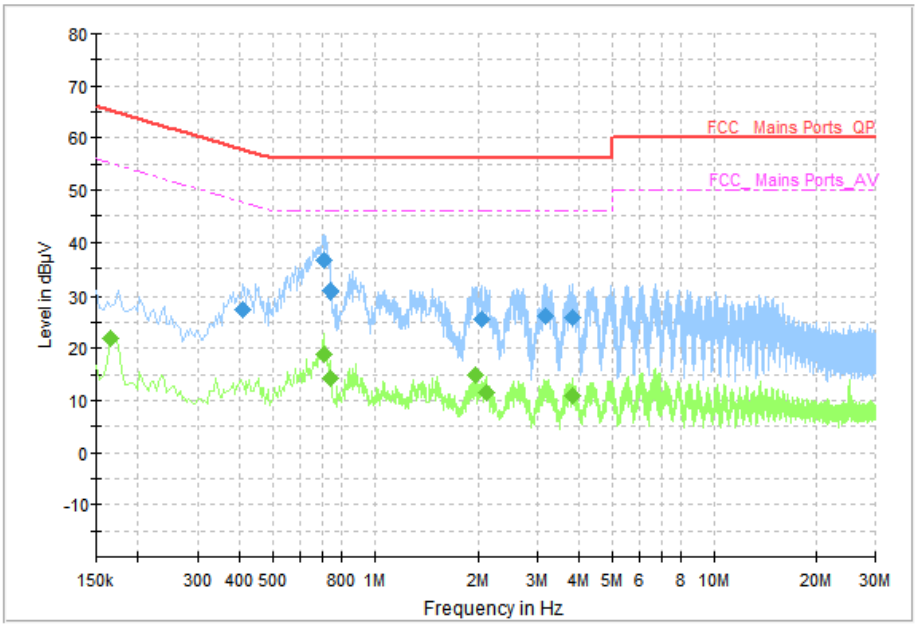

Fig. 62 AC Power line Conducted Emission (Idle)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.406000	27.34	57.73	30.39	N	ON	10
0.706000	36.66	56.00	19.34	L1	ON	10
0.738000	30.66	56.00	25.34	L1	ON	10
2.058000	25.44	56.00	30.56	N	ON	10
3.178000	26.18	56.00	29.82	N	ON	10
3.810000	25.80	56.00	30.20	N	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.166000	21.77	55.16	33.38	N	ON	10
0.706000	18.94	46.00	27.06	L1	ON	10
0.738000	14.22	46.00	31.78	L1	ON	10
1.962000	14.92	46.00	31.08	N	ON	10
2.122000	11.60	46.00	34.40	L1	ON	10
3.802000	10.79	46.00	35.21	L1	ON	10

*****END OF REPORT*****

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