

TEST REPORT

Test report no.: 1-1335-25-01-04_TR1-R01



Deutsche
Akkreditierungsstelle
D-PL-12047-01-00

Testing laboratory

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Accredited Testing Laboratory:

The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2018-03) by the Deutsche Akkreditierungsstelle GmbH (DAkkS).

The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number:

D-PL-12047-01-00.

ISED Testing Laboratory Recognized Listing Number: DE0001

FCC designation number: DE0002

Applicant

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Manufacturer

Parrot Drones SAS

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75010 Paris / FRANCE

Test standard/s

FCC 47 CFR Part 15

FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices

RSS-247 Issue 4

RSS-247 – Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands

For further applied test standards please refer to section 3 of this test report.

Test Item

Kind of test item: ANAFI UKR
Model name: ANAFI UKR GOV
FCC ID: 2AG6IANAFI3GOV
ISED certification number: 21053-ANAFI3GOV
Frequency: 2400 MHz to 2483.5 MHz
Technology tested: WLAN
Antenna: Two integrated antennas
Power supply: 11.55 V DC by battery
Temperature range: -36°C to +50°C

This test report is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

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2 General information

2.1 Notes and disclaimer

The test results of this test report relate exclusively to the test item specified in this test report. cetecom advanced GmbH does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item.

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2.2 Application details

Date of receipt of order:	2026-01-14
Date of receipt of test item:	2026-04-06
Start of test:*	2026-04-15
End of test:*	2026-06-16
Person(s) present during the test:	-/-

*Date of each measurement, if not shown in the plot, can be requested. Dates are stored in the measurement software.

2.3 Test laboratories sub-contracted

None

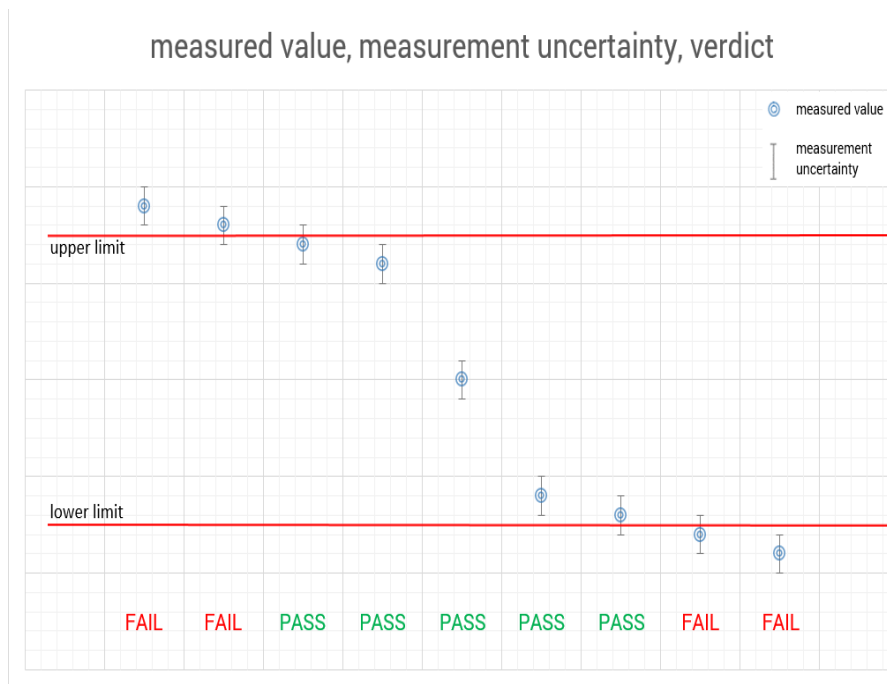
3 Test standard/s, references and accreditations

Test standard	Date	Description
FCC 47 CFR Part 15	-/-	FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices
RSS-247:Issue 4 (2025-07)	2025-07-24	RSS-247 – Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands
Guidance	Version	Description
KDB 558074 D01	v05r02	GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES
ANSI C63.4a-2017	-/-	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI C63.10-2020	-/-	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
ANSI/USEMCSC C63.10a-2024 Amendment 1	2024-08-08	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices Amendment 1
ANSI/USEMCSC C63.10a-2024 Amendment 1 Errata	2024-11-18	Errata to American National Standard for Procedures for Compliance Testing of Unlicensed Wireless Devices Amendment 1
KDB 662911 D01	v02r01	Correction Sheet
KDB 174176 D01	V01r02	Emissions Testing of Transmitters with Multiple Outputs in the Same Band
		AC POWER LINE CONDUCTED EMISSIONS
		FREQUENTLY ASKED QUESTIONS

4 Reporting statements of conformity – decision rule

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 3.

The measurement uncertainty is mentioned in this test report, see chapter 9, but is not taken into account - neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong."



5 Test environment

Temperature	:	T_{nom} T_{max} T_{min}	21 °C during room temperature tests No testing under extreme temperature conditions required No testing under extreme temperature conditions required
Relative humidity content	:		40 %
Barometric pressure	:		Not relevant for this kind of testing
Power supply	:	V_{nom} V_{max} V_{min}	11.55 V DC by battery No tests under extreme environmental conditions required. No tests under extreme environmental conditions required.

6 Test item

6.1 General description

Kind of test item	:	ANAFI UKR
Model name	:	ANAFI UKR GOV
HMN	:	N/A
PMN	:	ANAFI UKR
HVIN	:	ANAFI UKR GOV
FVIN	:	N/A
S/N serial number	:	Radiated unit: PI040465P25G000172 Conducted unit: PI040465P25H000180
Hardware status	:	HW20
Software status	:	8.4.0
Firmware status	:	8.4.0
Frequency band	:	2400 MHz to 2483.5 MHz
Type of radio transmission	:	DSSS, OFDM
Use of frequency spectrum	:	
Type of modulation	:	CCK, (D)BPSK, (D)QPSK, 16 – QAM, 64 – QAM, 256 – QAM, 1024 – QAM
Number of channels	:	11
Antenna	:	Two integrated antennas
Power supply	:	11.55 V DC by battery
Temperature range	:	-36°C to +50°C

6.2 Additional information

The content of the following annexes is defined in the QA. It may be that not all of the listed annexes are necessary for this report, thus some values in between may be missing.

Test setup and EUT photos are included in test report:

1-1335-25-01-01_TR1-A101-R01
 1-1335-25-01-01_TR1-A102-R01
 1-1335-25-01-01_TR1-A104-R01

7 Description of the test setup

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, RF generating and signaling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

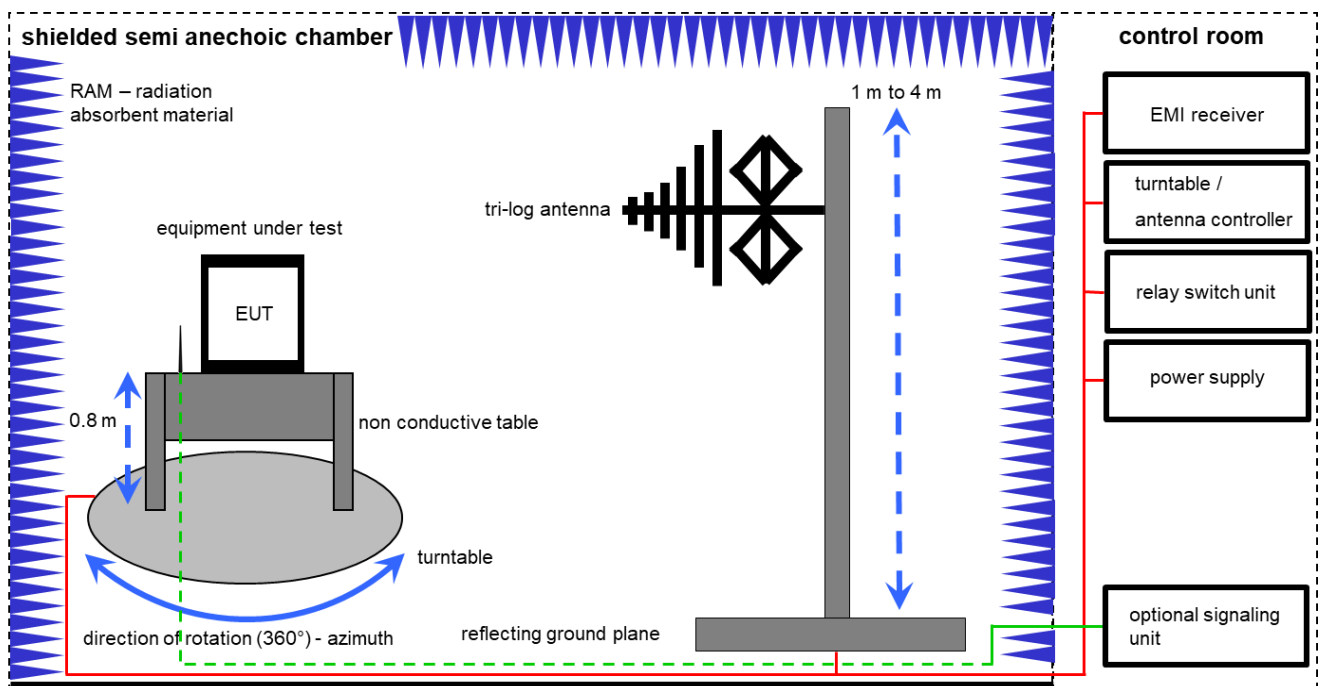
Each block diagram listed can contain several test setup configurations. All devices belonging to a test setup are identified with the same letter syntax. For example: Column Setup and all devices with an A.

Agenda: Kind of Calibration

k/cal	calibration / calibrated	EK	limited calibration
Ne/cnn	not required (k, ev, izw, zw not required)	zw	cyclical maintenance (external cyclical maintenance)
Ev/chk	periodic self verification	izw	internal cyclical maintenance
Ve	long-term stability recognized	g	blocked for accredited testing
vlk!	Attention: extended calibration interval		
NK!	Attention: not calibrated	*)	next calibration ordered / currently in progress
cpu	check prior usage		

7.1 Shielded semi anechoic chamber

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 30 MHz to 1 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas are conform to specifications ANSI C63. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test setups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received. The wanted and unwanted emissions are received by spectrum analyzers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.



Measurement distance: tri-log antenna 10 meter; EMC32 software version: 10.59.00

$FS = UR + CL + AF$

(FS-field strength; UR-voltage at the receiver; CL-loss of the cable; AF-antenna factor)

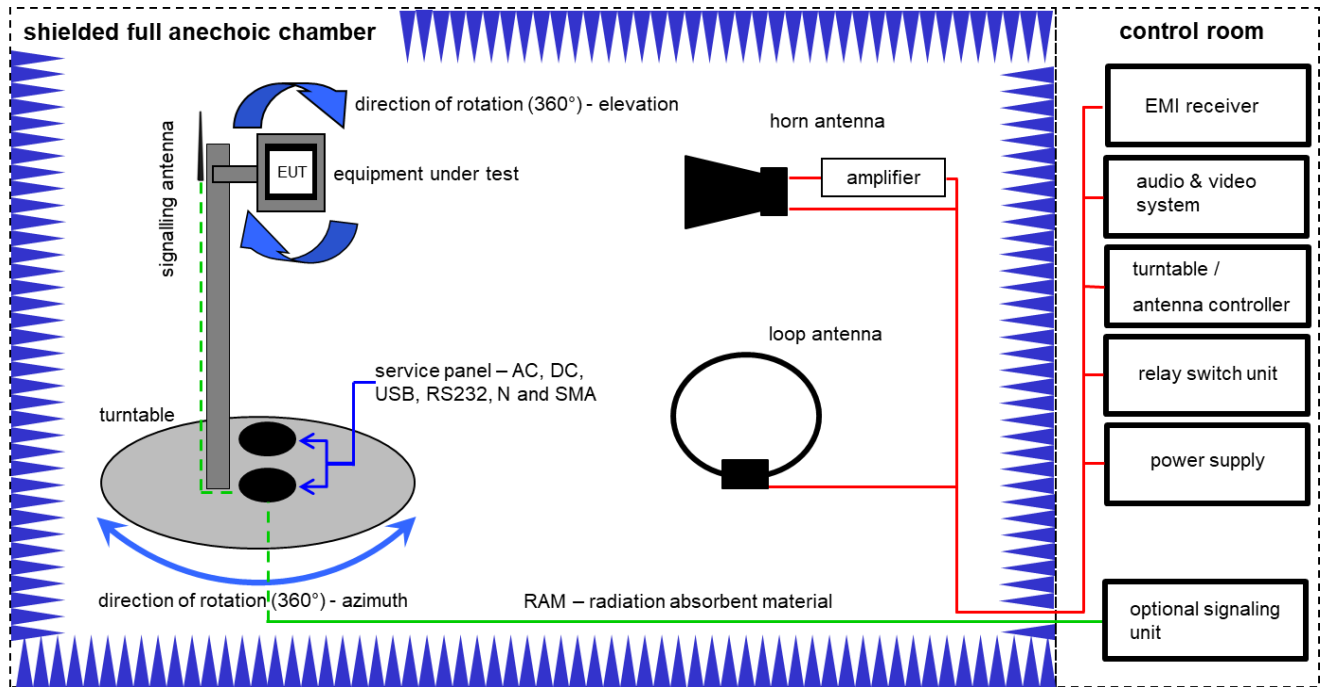
Example calculation:

$FS [dB\mu V/m] = 12.35 [dB\mu V/m] + 1.90 [dB] + 16.80 [dB/m] = 31.05 [dB\mu V/m] (35.69 \mu V/m)$

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Switch-Unit	Switch-Unit 3488A	Hewlett Packard	2719A14505	50160	cpu	-/-	-/-
2	A	Positioning Controller	Positioning Controller 2090	ETS-Lindgren GmbH Taufkirchen	64672	50280	cnn	-/-	-/-
3	A	TRILOG Broadband Antenna	TRILOG Broadband Antenna VULB9163	Schwarzbeck MESS-ELEKTRONIK OHG Schönaun	1029	50403	cal	07.11.2025	30.11.2027
4	A	EMI Test Receiver	EMI Test Receiver ESR3 9kHz-3.6GHz	Rohde & Schwarz Messgerätebau GmbH Memmingen	102587	50417	cal	08.12.2025	31.12.2026

7.2 Shielded fully anechoic chamber



Measurement distance: horn antenna 3 meter; loop antenna 3 meter

FS = UR + CA + AF

(FS-field strength; UR-voltage at the receiver; CA-loss of the signal path; AF-antenna factor)

Example calculation:

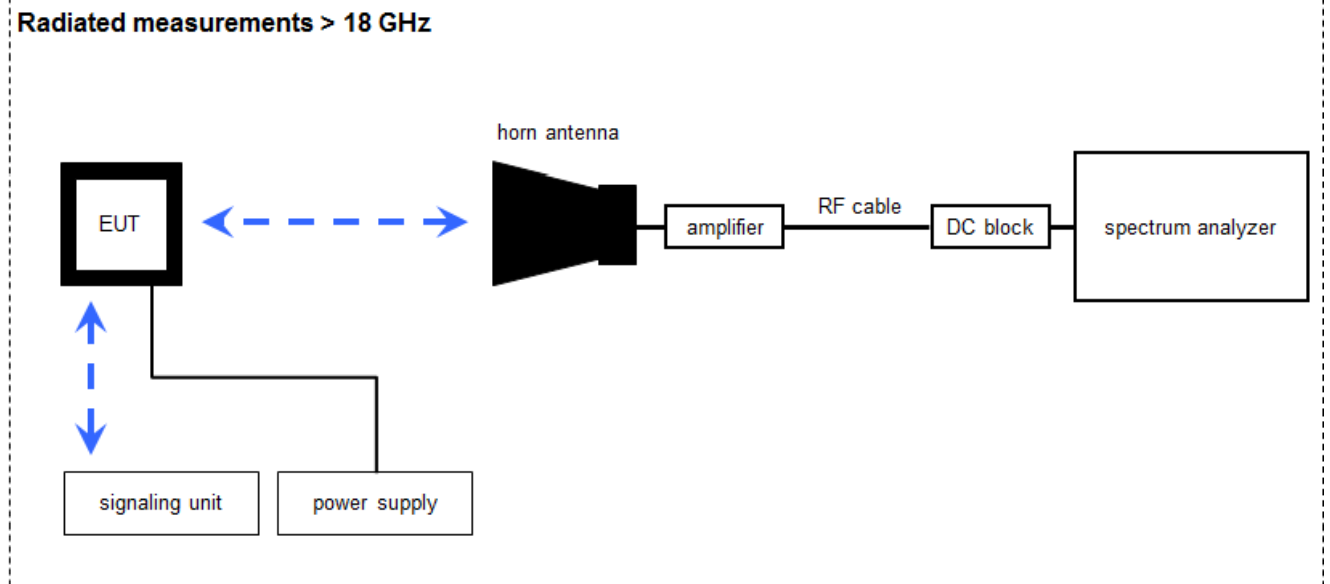
FS [dB μ V/m] = 40.0 [dB μ V/m] + (-35.8) [dB] + 32.9 [dB/m] = 37.1 [dB μ V/m] (71.61 μ V/m)

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A, C	Double-Ridged Waveguide Horn Antenna	Double-Ridged Waveguide Horn Antenna 3115	EMCO Elektronik GmbH Gilching	9107-3696	40342	cal	15.04.2025	30.04.2027
2	A, B, C	Anechoic chamber	Anechoic chamber FAC 3/5m	MEC Import: MWB TDK	87400/02	40349	cpu	-/-	-/-
3	A, B, C	Switch / Control Unit	Switch / Control Unit 3488A	Hewlett Packard	*	40350	cnn	-/-	-/-
4	C	Band Reject filter	Band Reject filter WRCG2400/2483-2375/2505-50/10SS	Wainwright Instruments GmbH Andechs	11	40356	cpu	-/-	-/-
5	C	Highpass Filter	Highpass Filter WHK1.1/15G-10SS	Wainwright Instruments GmbH Andechs	3	40361	cpu	-/-	-/-
6	C	Highpass Filter	Highpass Filter WHKX7.0/18G-8SS	Wainwright Instruments GmbH Andechs	19	40365	cnn	-/-	-/-
7	C	High Pass Filter	High Pass Filter VHF-3500+	Mini-Circuits Brooklyn	-/-	40369	cnn	-/-	-/-
8	A, C	Broadband Amplifier 0.5-18 GHz	Broadband Amplifier 0.5-18 GHz CBLU5184540	MEC Import: CERNEX	22049	40373	cpu	-/-	-/-
9	A, B, C	4U RF Switch Platform	4U RF Switch Platform L4491A	Agilent Technologies Deutschland GmbH Böblingen	MY50000037	40375	cnn	-/-	-/-
10	A, B, C	NEXIO EMV-Software	NEXIO EMV-Software BAT EMC V2022.0.32.0	MEC Import: Nexio	-/-	40383	cnn	-/-	-/-

11	C	RF-Amplifier	RF-Amplifier AMF-6F06001800-30-10P-R	MEC Import: NARDA-MITEQ Inc	2011572	40400	cpu	-/-	-/-
12	B	Active Loop Antenna	Active Loop Antenna 6502	EMCO Elektronik GmbH Gilching	2210	50044	cal	07.07.2025	31.07.2027
13	A, B, C	EMI Test Receiver	EMI Test Receiver ESU26	Rohde & Schwarz Messgerätebau GmbH Memmingen	100037	50254	cal	11.12.2025	31.12.2026
14	C	Low Noise Amplifier	Low Noise Amplifier LNA-40-00100800-15-10P	Miteq Inc.	2336093	50483	cnn	-/-	-/-

7.3 Radiated measurements > 18 GHz



Measurement distance: horn antenna 50 cm

FS = UR + CA + AF

(FS-field strength; UR-voltage at the receiver; CA-loss signal path & distance correction; AF-antenna factor)

Example calculation:

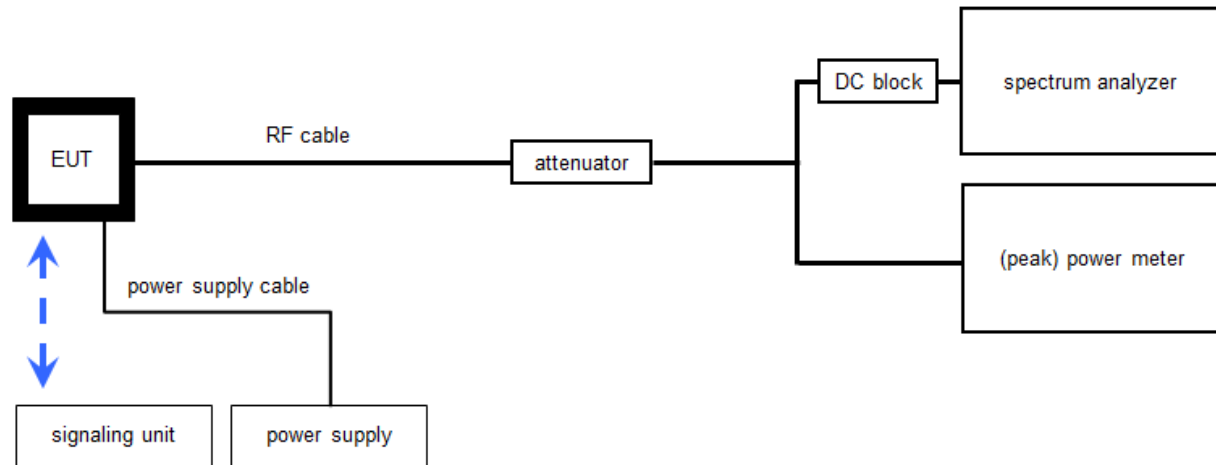
FS [dBμV/m] = 40.0 [dBμV/m] + (-60.1) [dB] + 36.74 [dB/m] = 16.64 [dBμV/m] (6.79 μV/m)

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Microwave System Amplifier, 0.5-26.5 GHz	Microwave System Amplifier, 0.5-26.5 GHz 83017A	Hewlett Packard	00419	40014	cpu	-/-	-/-
2	A	Std. Gain Horn Antenna 18.0-26.5 GHz	Std. Gain Horn Antenna 18.0-26.5 GHz 638	Narda Microwave	8205	40085	cal	16.01.2026	31.01.2028
3	A	Signal analyzer	Signal analyzer FSV40	Rohde & Schwarz Messgerätebau GmbH Memmingen	101042	40292	cal	08.01.2026	31.01.2027
4	A	RF-Cable	RF-Cable ST18/SMAM/SMAM /72	Huber & Suhner GmbH Unterhaching	Batch no. 699714	40389	cpu	-/-	-/-
5	A	DC-Blocker 0.1-40 GHz	DC-Blocker 0.1-40 GHz 8141A	MEC Import: Inmet	-/-	40390	cpu	-/-	-/-

7.4 Conducted measurements with peak power meter & spectrum analyzer

Conducted measurements normal conditions



WLAN tester version: 1.1.13

OP = AV + CA
(OP-output power; AV-analyzer value; CA-loss signal path)

Example calculation:

OP [dBm] = 6.0 [dBm] + 11.7 [dB] = 17.7 [dBm] (58.88 mW)

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Signal analyzer	Signal analyzer FSV40	Rohde & Schwarz Messgerätebau GmbH Memmingen	101042	40292	cal	08.01.2026	31.01.2027
2	A, B	RF-Cable	RF-Cable ST18/SMAM/SMAM /72	Huber & Suhner GmbH Unterhaching	Batch no. 699714	40389	cpu	-/-	-/-
3	A, B	DC-Blocker 0.1-40 GHz	DC-Blocker 0.1-40 GHz 8141A	MEC Import: Inmet	-/-	40390	cpu	-/-	-/-
4	B	USB Wideband Power Sensor (50MHz - 18GHz)	USB Wideband Power Sensor (50MHz - 18GHz) U2021XA	Keysight Technologies Deutschland GmbH Böblingen	MY591900010	40317	cal	08.12.2025	31.12.2026
5	A, B	Switch Matrix	Switch Matrix USM	cetecom advanced GmbH Saarbrücken	C001	40340	cnn	-/-	-/-
6	A, B	RF-Cable	RF-Cable ST18/SMAM/SMAM /48	Huber & Suhner GmbH Unterhaching	Batch no. 600918	40387	cpu	-/-	-/-
7	A, B	RF-Cable	RF-Cable ST18/SMAM/SMAM /48	Huber & Suhner GmbH Unterhaching	Batch no. 127377	40388	cpu	-/-	-/-
8	A, B	Coax Attenuator 10 dB 2W 0-40 GHz	Coax Attenuator 10 dB 2W 0-40 GHz MCL BW-K10-2W44+	Mini-Circuits Brooklyn	-/-	40391	cpu	-/-	-/-

8 Sequence of testing

8.1 Sequence of testing radiated spurious 9 kHz to 30 MHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, it is placed on a table with 0.8 m height.
- If the EUT is a floor standing device, it is placed directly on the turn table.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 3 m (see ANSI C 63.4) – see test details.
- EUT is set into operation.

Premeasurement*

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 1 m.
- At each turntable position the analyzer sweeps with positive-peak detector to find the maximum of all emissions.

Final measurement

- Identified emissions during the pre-measurement are maximized by the software by rotating the turntable from 0° to 360°.
- Loop antenna is rotated about its vertical axis for maximum response at each azimuth about the EUT. (For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT)
- The final measurement is done in the position (turntable and elevation) causing the highest emissions with quasi-peak (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. A plot with the graph of the premeasurement and the limit is stored.

*)Note: The sequence will be repeated three times with different EUT orientations.

8.2 Sequence of testing radiated spurious 30 MHz to 1 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 10 m or 3 m (see ANSI C 63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1 m to 3 m.
- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement

- The final measurement is performed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximize the peaks by changing turntable position $\pm 45^\circ$ and antenna height between 1 and 4 m.
- The final measurement is done with quasi-peak detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit are recorded. A plot with the graph of the premeasurement with marked maximum final results and the limit is stored.

8.3 Sequence of testing radiated spurious 1 GHz to 18 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, a 2-axis positioner with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed directly on the turn table.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 3 m (see ANSI C 63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height is 1.5 m.
- At each turntable position and antenna polarization the analyzer sweeps with positive peak detector to find the maximum of all emissions.

Final measurement

- The final measurement is performed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximizes the peaks by rotating the turntable from 0° to 360°. This measurement is repeated for different EUT-table positions (0° to 150° in 30°-steps) and for both antenna polarizations.
- The final measurement is done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and RMS detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit are recorded. A plot with the graph of the premeasurement with marked maximum final results and the limit is stored.

8.4 Sequence of testing radiated spurious above 18 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet.
- The measurement distance is as appropriate (e.g. 0.5 m).
- The EUT is set into operation.

Premeasurement

- The test antenna is handheld and moved carefully over the EUT to cover the EUT's whole sphere and different polarizations of the antenna.

Final measurement

- The final measurement is performed at the position and antenna orientation causing the highest emissions with Peak and RMS detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit are recorded. A plot with the graph of the premeasurement and the limit is stored.

9 Measurement uncertainty

Measurement uncertainty		
Test case	Uncertainty	
Antenna gain	± 3 dB	
Power spectral density	± 1.56 dB	
DTS bandwidth	± 100 kHz (depends on the used RBW)	
Occupied bandwidth	± 100 kHz (depends on the used RBW)	
Maximum output power conducted	± 1.56 dB	
Detailed spurious emissions @ the band edge - conducted	± 1.56 dB	
Band edge compliance radiated	± 3 dB	
Spurious emissions conducted	> 3.6 GHz	± 1.56 dB
	> 7 GHz	± 1.56 dB
	> 18 GHz	± 2.31 dB
	≥ 40 GHz	± 2.97 dB
Spurious emissions radiated below 30 MHz	± 3 dB	
Spurious emissions radiated 30 MHz to 1 GHz	± 4.1 dB	
Spurious emissions radiated 1 GHz to 12.75 GHz	± 3.7 dB	
Spurious emissions radiated above 12.75 GHz	± 4.5 dB	
Spurious emissions conducted below 30 MHz (AC conducted)	± 2.6 dB	

10 Summary of measurement results

☒	No deviations from the technical specifications were ascertained
☐	There were deviations from the technical specifications ascertained
☐	This test report is only a partial test report. The content and verdict of the performed test cases are listed below.

TC Identifier	Description	Verdict	Date	Remark
RF-Testing	CFR Part 15 RSS - 247, Issue 4	See table!	2026-06-19	-/-

Test specification clause	Test case	Guideline	Temperature & voltage conditions	C	NC	NA	NP	Remark
§15.247(b)(4) RSS - 247 / 6.4 (f)(ii)	Antenna gain	-/-	Nominal	-/-				-/-
§15.35	Duty cycle	-/-	Nominal	-/-				-/-
§15.247(e) RSS - 247 / 6.2 (b)	Power spectral density	KDB 558074 DTS clause: 8.4	Nominal	☒	☐	☐	☐	-/-
§15.247(a)(2) RSS - 247 / 6.2 (a)	DTS bandwidth	KDB 558074 DTS clause: 8.2	Nominal	☒	☐	☐	☐	-/-
RSS Gen clause 4.6.1	Occupied bandwidth	-/-	Nominal	☒	☐	☐	☐	-/-
§15.247(b)(3) RSS - 247 / 6.4 (d)	Maximum output power	KDB 558074 DTS clause: 8.3.1.3	Nominal	☒	☐	☐	☐	-/-
§15.247(d) RSS - 247 / 6.5	Detailed spurious emissions @ the band edge – cond.	-/-	Nominal	☒	☐	☐	☐	-/-
§15.205 RSS - 247 / 6.5 RSS - Gen	Band edge compliance cond. or rad.	KDB 558074 DTS clause: 8.7.3	Nominal	☒	☐	☐	☐	-/-
§15.247(d) RSS - 247 / 5.5	TX spurious emissions cond.	KDB 558074 DTS clause: 8.5	Nominal	☒	☐	☐	☐	-/-
§15.209(a) RSS-Gen	TX spurious emissions rad. below 30 MHz	-/-	Nominal	☒	☐	☐	☐	-/-
§15.247(d) RSS - 247 / 6.5 RSS-Gen	TX spurious emissions rad. 30 MHz to 1 GHz	-/-	Nominal	☒	☐	☐	☐	-/-
§15.247(d) RSS - 247 / 6.5 RSS-Gen	TX spurious emissions rad. above 1 GHz	-/-	Nominal	☒	☐	☐	☐	-/-
§15.107(a) §15.207	Conducted emissions < 30 MHz	-/-	Nominal	☐	☐	☒	☐	The device is battery powered only.

Notes:

C	Compliant	NC	Not compliant	NA	Not applicable	NP	Not performed
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11 Additional information and comments

Reference documents: Power Settings Wifi.xlsx
ANAFI-3D_ Antennas radiation patterns 29-04-2026.pdf

Co-applicable documents: 1-1335-25-01-04_TR1-A201-R01

Special test descriptions: Power settings:

Test mode:	Data rate:	Power setting:
b-mode (MIMO)	1	20
DSSS (MIMO)	Half rate	20
DSSS (MIMO)	Quarter rate	20
g-mode (MIMO)	6	20
n HT20-mode (MIMO)	MCS0	20
ac VHT20-mode (MIMO)	MCS0	20
ax HE20-mode (MIMO)	MCS0	20
OFDM (MIMO)	Half rate	20
OFDM (MIMO)	Quarter rate	20

Configuration descriptions: The results of nHT20-mode are also representative for acVHT20-mode.

EUT selection:

☐ Only one device available

☐ Devices selected by the customer

☒ Devices selected by the laboratory (Randomly)

Provided channels:

Channels with 20 MHz channel bandwidth:

channel number & center frequency													
channel	1	2	3	4	5	6	7	8	9	10	11	12	13
f _c / MHz	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472

Note: The channels used for the tests are marked in bold in the list.

12 Additional EUT parameter

- Test mode:
- ☐ No test mode available
lperf was used to ping another device with the largest support packet size
 - ☒ Test mode available
Special software is used.
EUT is transmitting pseudo random data by itself
- Modulation types:
- ☒ Wide Band Modulation (None Hopping – e.g. DSSS, OFDM)
 - ☐ Frequency Hopping Spread Spectrum (FHSS)
- Antennas and transmit operating modes:
- ☐ Operating mode 1 (single antenna)
 - Equipment with 1 antenna,
 - Equipment with 2 diversity antennas operating in switched diversity mode by which at any moment in time only 1 antenna is used,
 - Smart antenna system with 2 or more transmit/receive chains, but operating in a mode where only 1 transmit/receive chain is used)
 - ☒ Operating mode 2 (multiple antennas, no beamforming)
 - Equipment operating in this mode contains a smart antenna system using two or more transmit/receive chains simultaneously but without beamforming.
 - ☐ Operating mode 3 (multiple antennas, with beamforming)
 - Equipment operating in this mode contains a smart antenna system using two or more transmit/receive chains simultaneously with beamforming.
In addition to the antenna assembly gain (G), the beamforming gain (Y) may have to be taken into account when performing the measurements.

13 Measurement results

13.1 Antenna gain

Antenna gain as declared by the manufacturer:

2400 MHz to 2483.5 MHz	Antenna gain Combined MIMO gain		
	Lowest channel	Middle channel	Highest channel
Gain / dBi (declared)	3.28		

13.2 Maximum output power verification (conducted)

Worst case data rates and operating modes as declared by the manufacturer (see section 10.).

13.3 Maximum output power

Description:

Measurement of the maximum conducted peak output power. The measurements are performed using the data rate identified in the previous chapter.

Measurement:

Measurement parameter	
According to ANSI C63.10-2013 Chapter 11.9.2.2.2	
External result file(s)	See chapter 11
Test setup	See chapter 7.5 setup B
Measurement uncertainty	See chapter 9
Detector	RMS
Resolution bandwidth	500 kHz
Video bandwidth	2 MHz
Trace mode	Max hold

Limits:

FCC	ISED
Conducted 1.0 W / 30 dBm with an antenna gain of max. 6 dBi	

Results:

antenna port 1	maximum output power / dBm		
	lowest channel	middle channel	highest channel
Output power conducted DSSS / b – mode	21.2	20.5	20.4
Output power conducted DSSS / 10 MHz HR	19.3	18.7	18.5
Output power conducted DSSS / 5 MHz QR	20.1	19.6	19.4
Output power conducted OFDM / g – mode	20.9	20.4	20.2
Output power conducted OFDM / n HT20 – mode	20.3	19.8	19.5
Output power conducted OFDM / ax HE20 – mode	21.4	20.8	20.3
Output power conducted OFDM / 10 MHz HR	17.5	17.0	16.8
Output power conducted OFDM / 5 MHz QR	18.6	18.1	18.0

antenna port 2	maximum output power / dBm		
	lowest channel	middle channel	highest channel
Output power conducted DSSS / b – mode	19.2	17.5	17.5
Output power conducted DSSS / 10 MHz HR	19.2	17.7	17.8
Output power conducted DSSS / 5 MHz QR	20.2	18.7	18.9
Output power conducted OFDM / g – mode	20.8	19.3	19.3
Output power conducted OFDM / n HT20 – mode	20.1	18.7	18.7
Output power conducted OFDM / ax HE20 – mode	20.7	19.3	19.1
Output power conducted OFDM / 10 MHz HR	17.6	16.0	16.1
Output power conducted OFDM / 5 MHz QR	18.6	17.2	16.6

antenna port 1 + 2 calculated	maximum output power / dBm		
	lowest channel	middle channel	highest channel
Output power conducted DSSS / b – mode	23.3	22.3	22.2
Output power conducted DSSS / 10 MHz HR	22.3	21.2	21.2
Output power conducted DSSS / 5 MHz QR	23.2	22.2	22.2
Output power conducted OFDM / g – mode	23.9	22.9	22.8
Output power conducted OFDM / n HT20 – mode	23.2	22.3	22.1
Output power conducted OFDM / ax HE20 – mode	24.1	23.1	22.8
Output power conducted OFDM / 10 MHz HR	20.6	19.5	19.5
Output power conducted OFDM / 5 MHz QR	21.6	20.7	20.4

13.4 Duty cycle

Description:

Measurement of the timing behavior.

Measurement:

Measurement parameter	
Detector	Peak
Sweep time	Depends on the signal see plot
Resolution bandwidth	10 MHz
Video bandwidth	10 MHz
Trace mode	Max hold
External result file(s)	See chapter 11
Test setup	See chapter 7.4 setup A
Measurement uncertainty	See chapter 9

Limits:

FCC	ISED
No limitation	

Results:

T _{nom}	V _{nom}	lowest channel	middle channel	highest channel
DSSS / b – mode		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB
DSSS / 10 MHz HR		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB
DSSS / 5 MHz QR		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB
OFDM / g – mode		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB
OFDM / n HT20 – mode		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB
OFDM / ax HE20 – mode		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB
OFDM / 10 MHz HR		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB
OFDM / 5 MHz QR		DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB	DC > 98 % / 0.0 dB

13.5 Average power spectral density

Description:

Measurement of the peak power spectral density of a digital modulated system. The PSD shows the strength of the variations as a function of the frequency.

Measurement:

Measurement parameter	
According to ANSI C63.10-2013 Chapter 11.10.5	
Detector	RMS
Sweep time	Auto
Resolution bandwidth	100 kHz
Video bandwidth	300 kHz
Span	30 MHz
Trace mode	Max. hold (allow trace to fully stabilize)
External result file(s)	See chapter 11
Test setup	See chapter 7.5 setup A
Measurement uncertainty	See chapter 9

Limits:

FCC	ISED
8 dBm / 3 kHz (conducted)	

Results:

antenna port 1	Average power spectral density / dBm @ 3 kHz		
	Lowest channel	Middle channel	Highest channel
DSSS / b – mode	-10.6	-11.0	-11.0
DSSS / 10 MHz HR	-9.0	-9.6	-9.4
DSSS / 5 MHz QR	-5.7	-6.3	-5.9
OFDM / g – mode	-11.8	-12.8	-14.2
OFDM / n HT20 – mode	-12.9	-13.4	-15.1
OFDM / ax HE20 – mode	-12.8	-13.2	-15.6
OFDM / 10 MHz HR	-10.8	-12.0	-11.6
OFDM / 5 MHz QR	-8.2	-9.4	-8.3

Results:

antenna port 2	Average power spectral density / dBm @ 3 kHz		
	Lowest channel	Middle channel	Highest channel
DSSS / b – mode	-11.6	-13.1	-12.8
DSSS / 10 MHz HR	-9.3	-10.4	-10.8
DSSS / 5 MHz QR	-5.5	-7.0	-6.7
OFDM / g – mode	-13.2	-14.7	-14.5
OFDM / n HT20 – mode	-14.4	-15.5	-15.6
OFDM / ax HE20 – mode	-14.8	-15.8	-16.6
OFDM / 10 MHz HR	-10.9	-13.3	-12.7
OFDM / 5 MHz QR	-8.0	-10.1	-9.9

Results: antenna port 1 + 2

calculated	Average power spectral density / dBm @ 3 kHz		
	Lowest channel	Middle channel	Highest channel
DSSS / b – mode	-8.1	-8.9	-8.8
DSSS / 10 MHz HR	-6.1	-7.0	-7.0
DSSS / 5 MHz QR	-2.6	-3.6	-3.3
OFDM / g – mode	-9.4	-10.6	-11.3
OFDM / n HT20 – mode	-10.6	-11.3	-12.3
OFDM / ax HE20 – mode	-10.7	-11.3	-13.1
OFDM / 10 MHz HR	-7.8	-9.6	-9.1
OFDM / 5 MHz QR	-5.1	-6.7	-6.0

13.6 6 dB DTS bandwidth

Description:

Measurement of the 6 dB bandwidth of the modulated signal.

Measurement:

Measurement parameter	
According to DTS clause: 8.2	
Detector	Peak
Sweep time	Auto
Resolution bandwidth	100 kHz
Video bandwidth	500 kHz
Span	30 MHz / 50 MHz
Trace mode	Single count with 200 counts
External result file(s)	See chapter 11
Test setup	See chapter 7.4 setup A
Measurement uncertainty	See chapter 9

Limits:

FCC	ISED
Systems using digital modulation techniques may operate in the 2400–2483.5 MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz.	

Results:

antenna port 1	6 dB DTS bandwidth / kHz		
	lowest channel	middle channel	highest channel
DSSS / b – mode	8532	7520	7084
DSSS / 10 MHz HR	3808	3812	3808
DSSS / 5 MHz QR	2036	2036	2036
OFDM / g – mode	15716	15932	16308
OFDM / n HT20 – mode	16368	16424	16380
OFDM / ax HE20 – mode	18636	18796	18940
OFDM / 10 MHz HR	8136	8168	8168
OFDM / 5 MHz QR	4116	4136	4128

antenna port 2	6 dB DTS bandwidth / kHz		
	lowest channel	middle channel	highest channel
DSSS / b – mode	7072	8080	7568
DSSS / 10 MHz HR	3804	4040	3808
DSSS / 5 MHz QR	2028	2044	2036
OFDM / g – mode	15708	16352	15720
OFDM / n HT20 – mode	16304	17588	16332
OFDM / ax HE20 – mode	17296	19024	18420
OFDM / 10 MHz HR	8180	8208	8172
OFDM / 5 MHz QR	4128	4108	4116

13.7 Occupied bandwidth – 99% emission bandwidth

Description:

Measurement of the 99% bandwidth of the modulated signal acc. RSS-GEN.

Measurement:

Measurement parameter	
Detector	Peak
Sweep time	Auto
Resolution bandwidth	300 kHz
Video bandwidth	1 MHz
Span	30 MHz / 50 MHz
Measurement procedure	Measurement of the 99% bandwidth using the integration function of the analyzer
Trace mode	Single count with 200 counts
External result file(s)	See chapter 11
Test setup	See chapter 7.4 setup A
Measurement uncertainty	See chapter 9

Usage:

-/-	ISED
OBW is necessary for Emission Designator	

Results:

antenna port 1	99% emission bandwidth / kHz		
	lowest channel	middle channel	highest channel
DSSS / b – mode	13047	13211	12587
DSSS / 10 MHz HR	6539	6559	6475
DSSS / 5 MHz QR	3400	3400	3404
OFDM / g – mode	16974	17114	16790
OFDM / n HT20 – mode	16902	16986	16698
OFDM / ax HE20 – mode	19270	19354	19106
OFDM / 10 MHz HR	8783	8827	8735
OFDM / 5 MHz QR	4664	4660	4660

antenna port 2	99% emission bandwidth / kHz		
	lowest channel	middle channel	highest channel
DSSS / b – mode	12495	13299	12527
DSSS / 10 MHz HR	6467	6595	6451
DSSS / 5 MHz QR	3400	3408	3392
OFDM / g – mode	16626	16934	16682
OFDM / n HT20 – mode	17842	18226	17866
OFDM / ax HE20 – mode	19062	19358	19098
OFDM / 10 MHz HR	8667	8743	8659
OFDM / 5 MHz QR	4616	4644	4632

13.8 Occupied bandwidth – 20 dB bandwidth

Description:

Measurement of the 20 dB bandwidth of the modulated carrier.

Measurement:

Measurement parameter	
Detector	Peak
Sweep time	Auto
Resolution bandwidth	100 kHz
Video bandwidth	500 kHz
Span	30 MHz / 50 MHz
Trace mode	Single count with min. 200 counts
External result file(s)	See chapter 11
Test setup	See chapter 7.4 setup A
Measurement uncertainty	See chapter 9

Usage:

-/-	ISED
The complete bandwidth has to be within the frequency range of the band.	

Results:

antenna port 1	20 dB bandwidth / MHz		
	lowest channel	middle channel	highest channel
DSSS / b – mode	14920	14988	14416
DSSS / 10 MHz HR	7680	7700	7620
DSSS / 5 MHz QR	3912	3912	3920
OFDM / g – mode	18932	19260	18780
OFDM / n HT20 – mode	18928	18928	18508
OFDM / ax HE20 – mode	20784	20940	20752
OFDM / 10 MHz HR	10200	10140	10028
OFDM / 5 MHz QR	5464	5408	5456

antenna port 2	20 dB bandwidth / MHz		
	lowest channel	middle channel	highest channel
DSSS / b – mode	14628	15388	14688
DSSS / 10 MHz HR	7600	7712	7596
DSSS / 5 MHz QR	3908	3924	3912
OFDM / g – mode	18124	18956	18432
OFDM / n HT20 – mode	19672	20580	19780
OFDM / ax HE20 – mode	20608	21052	20596
OFDM / 10 MHz HR	9784	9944	9788
OFDM / 5 MHz QR	5280	5276	5324

13.9 Band edge compliance radiated

Description:

Measurement of the radiated band edge compliance. The EUT is turned in the position that results in the maximum level at the band edge. Then a sweep over the corresponding restricted band is performed. The EUT is set to the lowest channel for the lower restricted band and to the highest channel for the upper restricted band. Measurement distance is 3 meter.

Measurement:

	Measurement parameter for peak measurements	Measurement parameter for average measurements
		According to DTS clause: 8.7.3
Detector	Peak	RMS
Sweep time	Auto	Auto
Resolution bandwidth	1 MHz	100 kHz
Video bandwidth	3 MHz	300 kHz
Span	See plot	2 MHz
Trace mode	Max. hold	RMS Average over 101 sweeps
Analyzer function	-/-	Band power function (Compute the power by integrating the spectrum over 1 MHz)
Test setup	See chapter 7.2 setup B	
Measurement uncertainty	See chapter 9	

Limits:

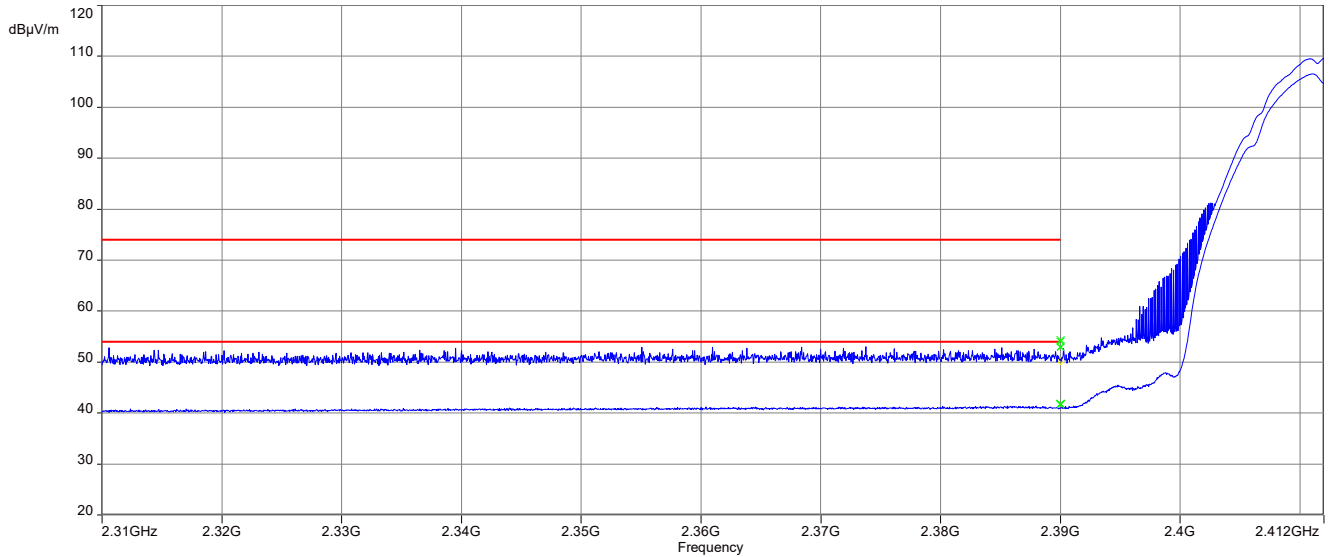
FCC	ISED
74 dB μ V/m @ 3 m (Peak) 54 dB μ V/m @ 3 m (AVG)	

Results:

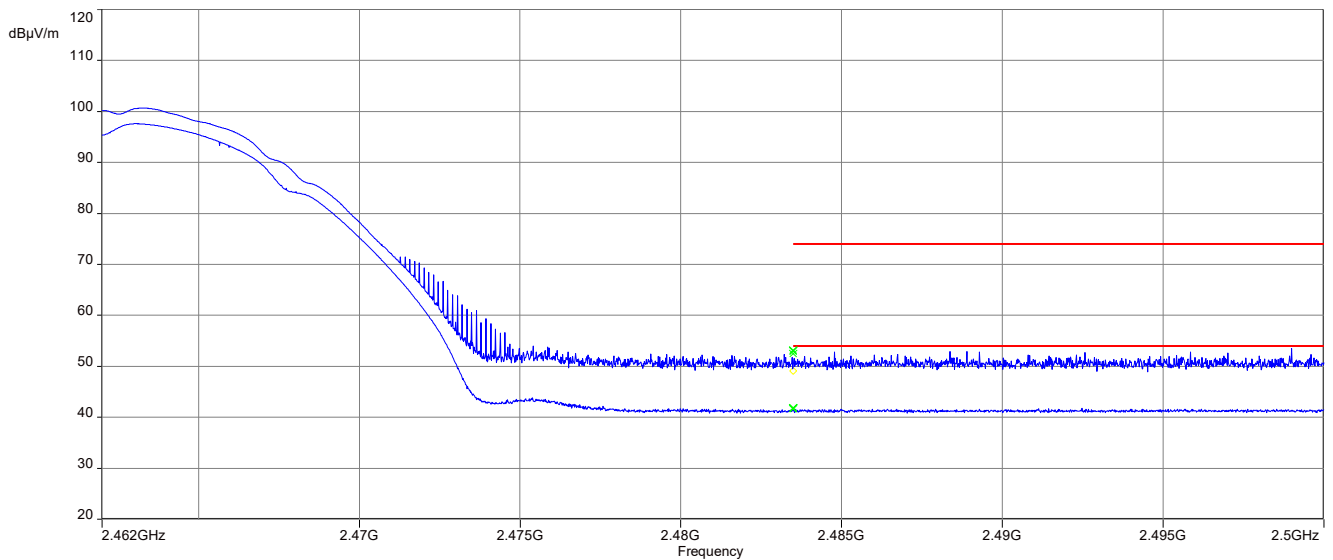
band edge compliance radiated / (dB μ V / m) @ 3 m	
	DSSS / b – mode (FR)
Lower band edge	54.4 (Peak) 41.8 (AVG)
Upper band edge	53.3 (Peak) 41.7 (AVG)
	OFDM / g – mode (FR)
Lower band edge	60.7 (Peak) 49.2 (AVG)
Upper band edge	61.1 (Peak) 49.3 (AVG)
	OFDM / n HT20 – mode
Lower band edge	60.8 (Peak) 49.3 (AVG)
Upper band edge	60.7 (Peak) 49.2 (AVG)
	OFDM / ax HE20 – mode
Lower band edge	60.7 (Peak) 48.8 (AVG)
Upper band edge	60.8 (Peak) 49.2 (AVG)

Plots: DSSS (FR) - peak / average

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

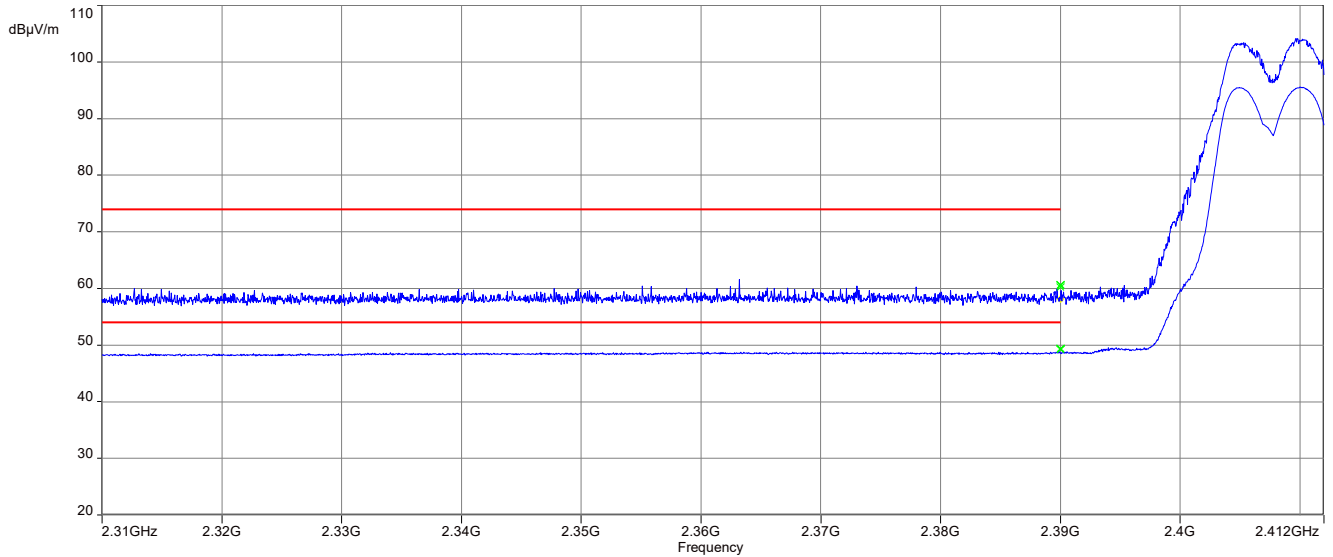


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

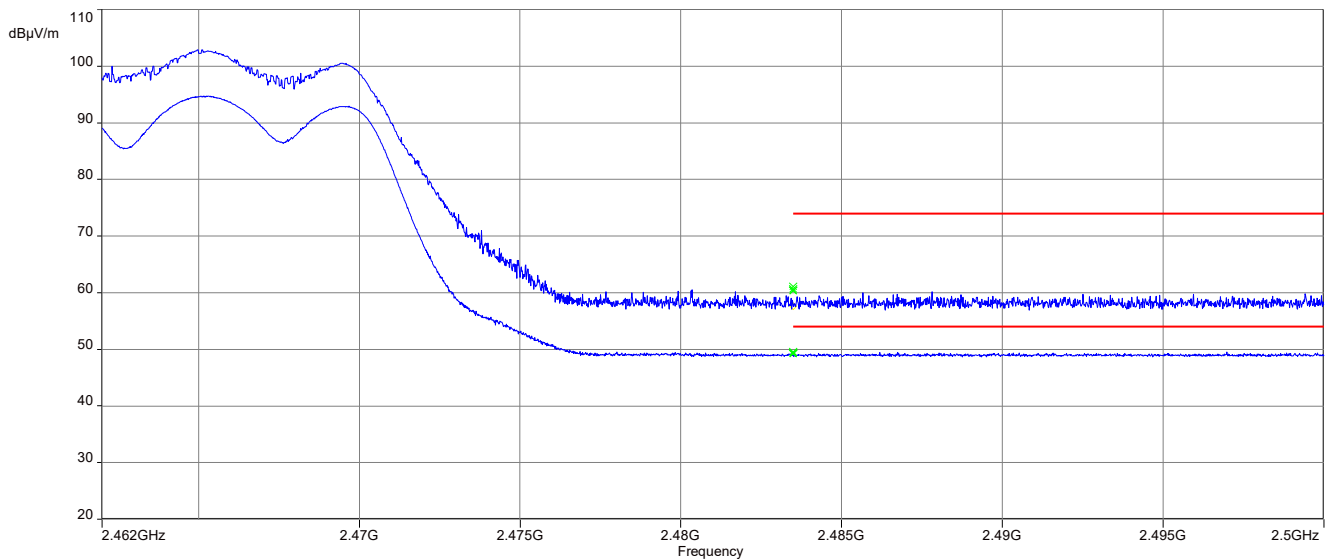


Plots: OFDM (FR) / g – mode - peak / average

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

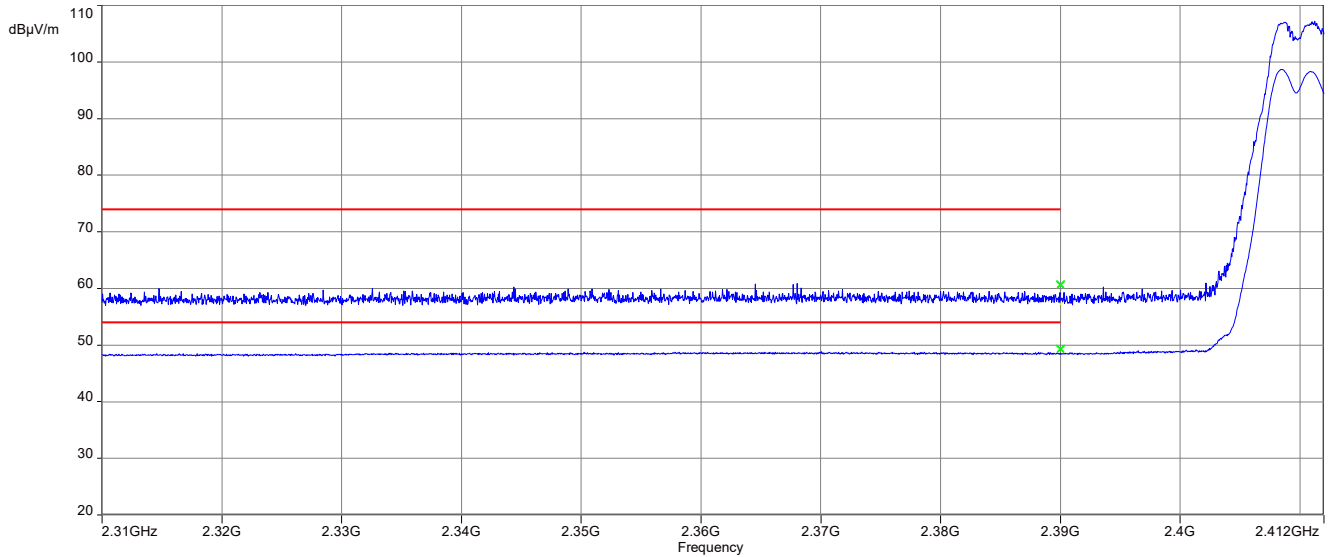


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

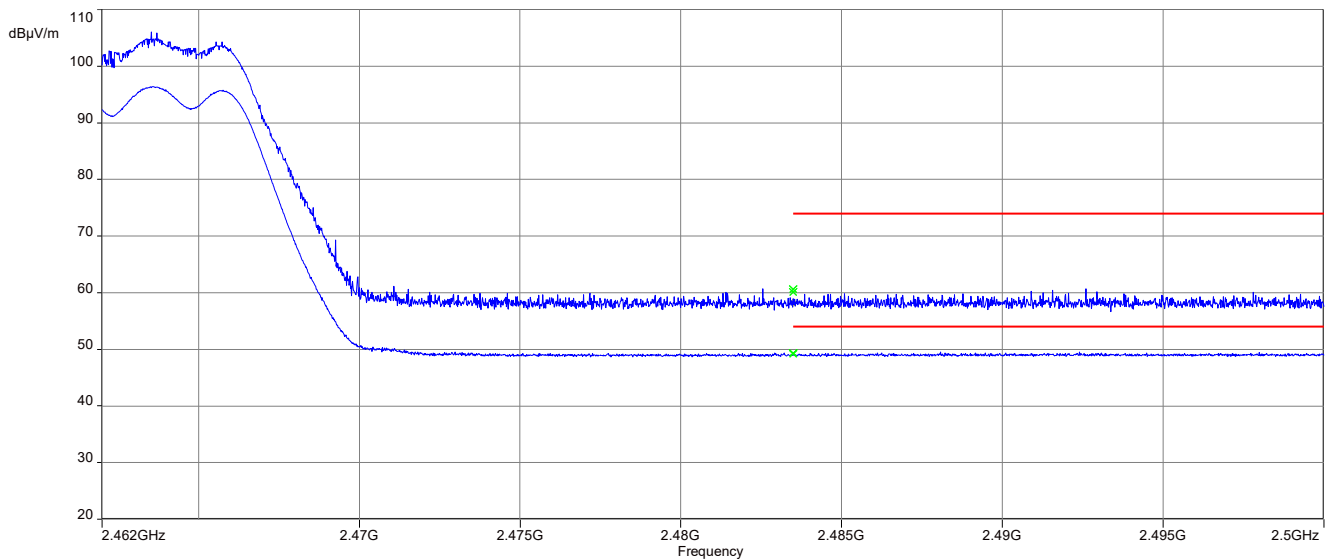


Plots: OFDM / n HT20 – mode - peak / average

Plot 1: TX mode, lower band edge, vertical & horizontal polarization

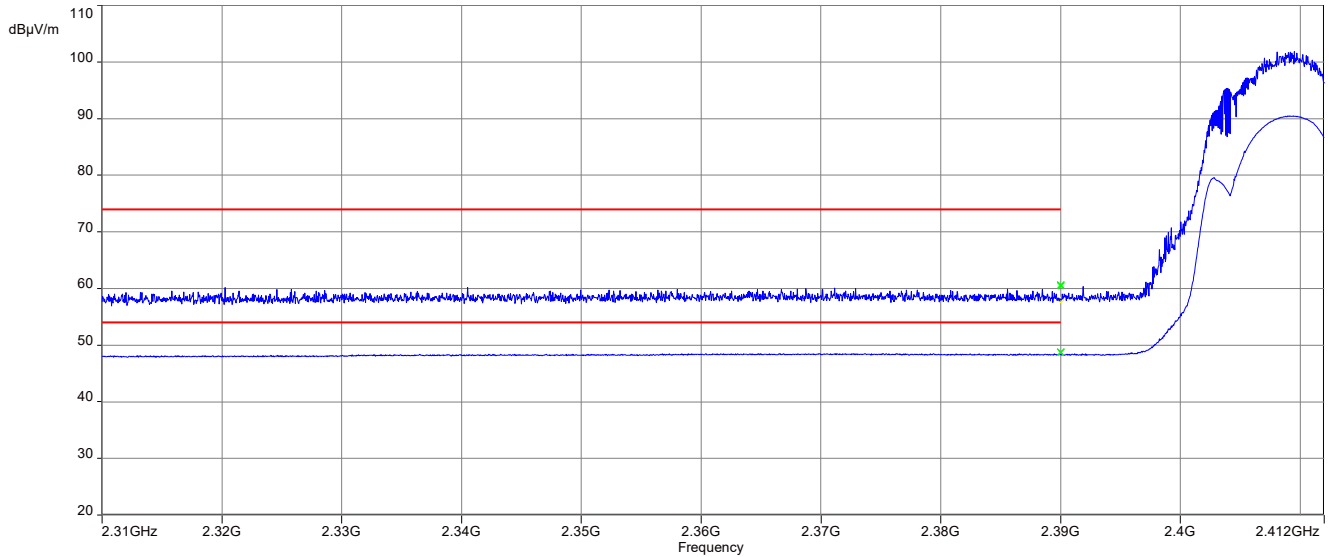


Plot 2: TX mode, upper band edge, vertical & horizontal polarization

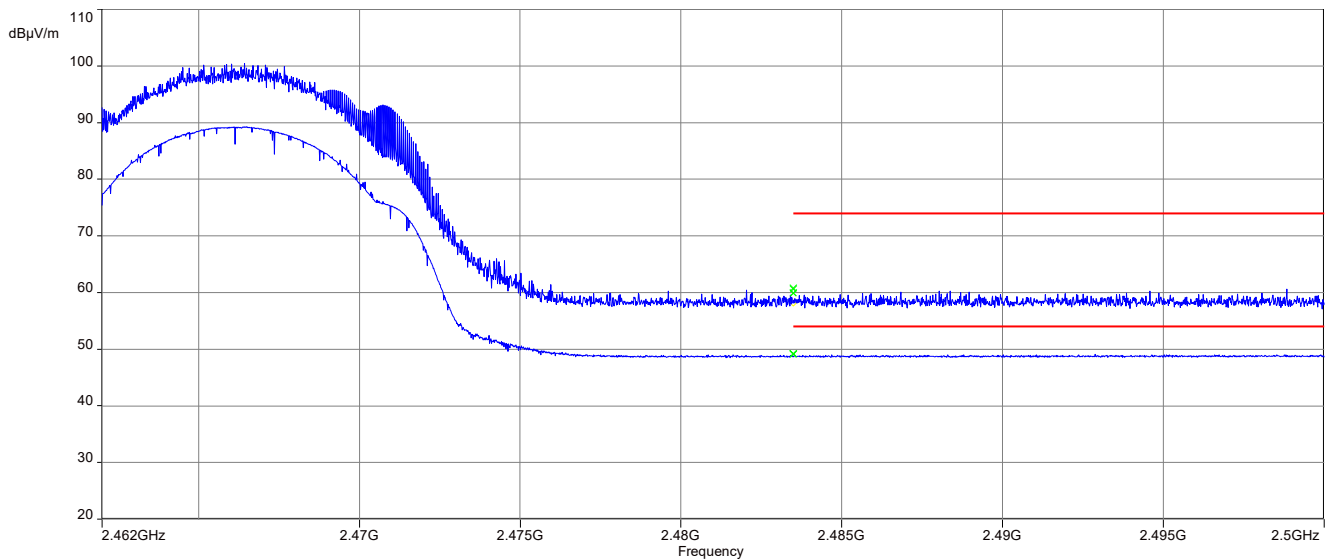


Plots: OFDM / ax HE20 – mode - peak / average

Plot 1: TX mode, lower band edge, vertical & horizontal polarization



Plot 2: TX mode, upper band edge, vertical & horizontal polarization



13.10 Spurious emissions conducted

Description:

Measurement of the conducted spurious emissions in transmit mode. The measurement is performed at the lowest; the middle and the highest channel.

Measurement:

Measurement parameter	
Detector	Peak
Sweep time	Auto
Resolution bandwidth	100 kHz
Video bandwidth	500 kHz
Span	9 kHz to 25 GHz
Trace mode	Max Hold
External result file(s)	See chapter 11
Test setup	See chapter 7.4 setup A
Measurement uncertainty	See chapter 9

Limits:

FCC	ISED
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required	

Results: Compliant (see external results files)

13.11 Spurious emissions radiated below 30 MHz

Description:

Measurement of the radiated spurious emissions in transmit mode below 30 MHz. The limits are recalculated to a measurement distance of 3 m with 40 dB/decade according CFR Part 2.

Measurement:

Measurement parameter	
Detector	Peak / Quasi Peak
Sweep time	Auto
Resolution bandwidth	F < 150 kHz: 200 Hz F > 150 kHz: 9 kHz
Video bandwidth	F < 150 kHz: 1 kHz F > 150 kHz: 100 kHz
Span	9 kHz to 30 MHz
Trace mode	Max Hold
Measured modulation	☒ DSSS b – mode ☒ OFDM g – mode ☐ OFDM n HT20 – mode ☐ OFDM n HT40 – mode
Test setup	See chapter 7.2 setup A
Measurement uncertainty	See chapter 9

Limits:

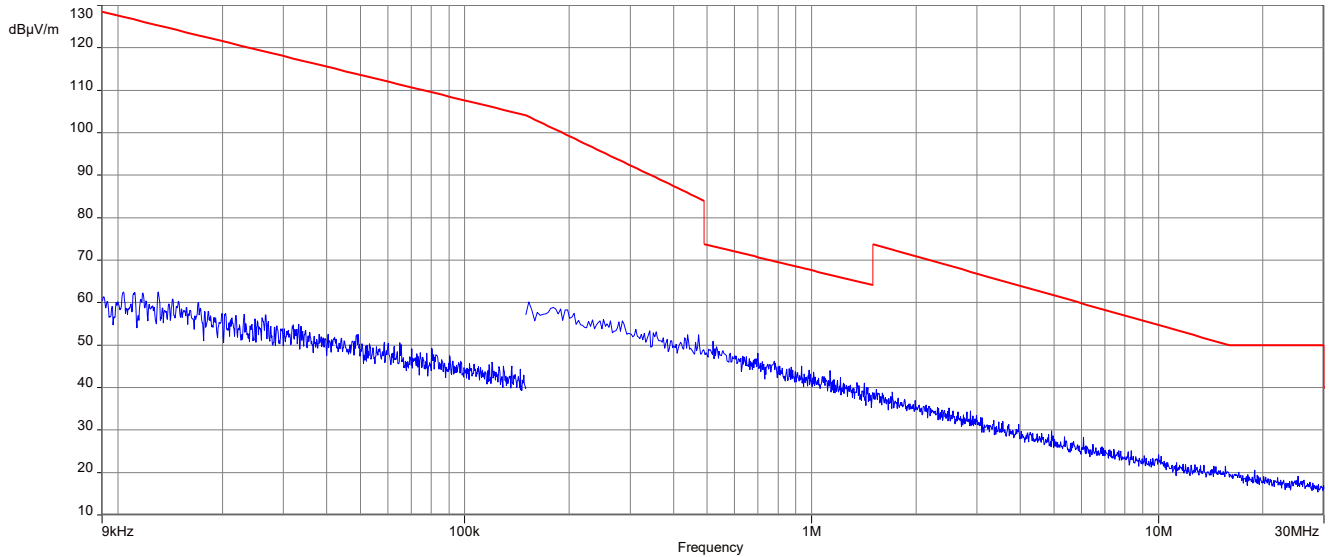
FCC		ISED
Frequency / MHz	Field Strength / (μV / m)	Measurement distance / m
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Results:

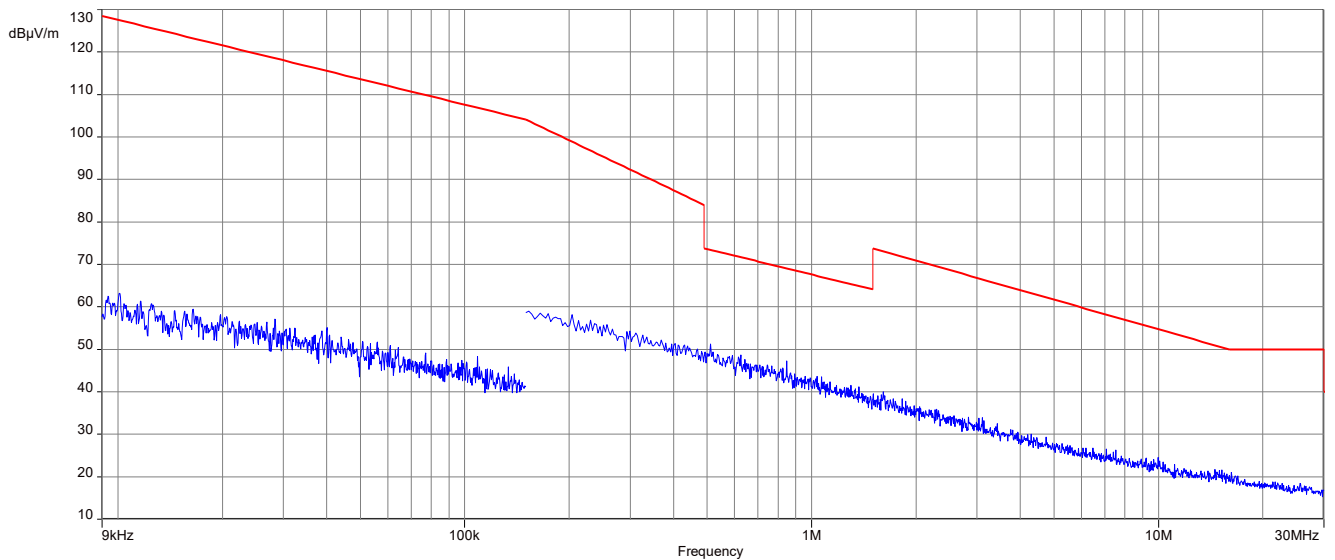
TX spurious emissions radiated < 30 MHz / (dBμV / m) @ 3 m		
Frequency / MHz	Detector	Level / (dBμV / m)
All detected peaks are more than 20 dB below the limit.		

Plots: DSSS b-mode (FR)

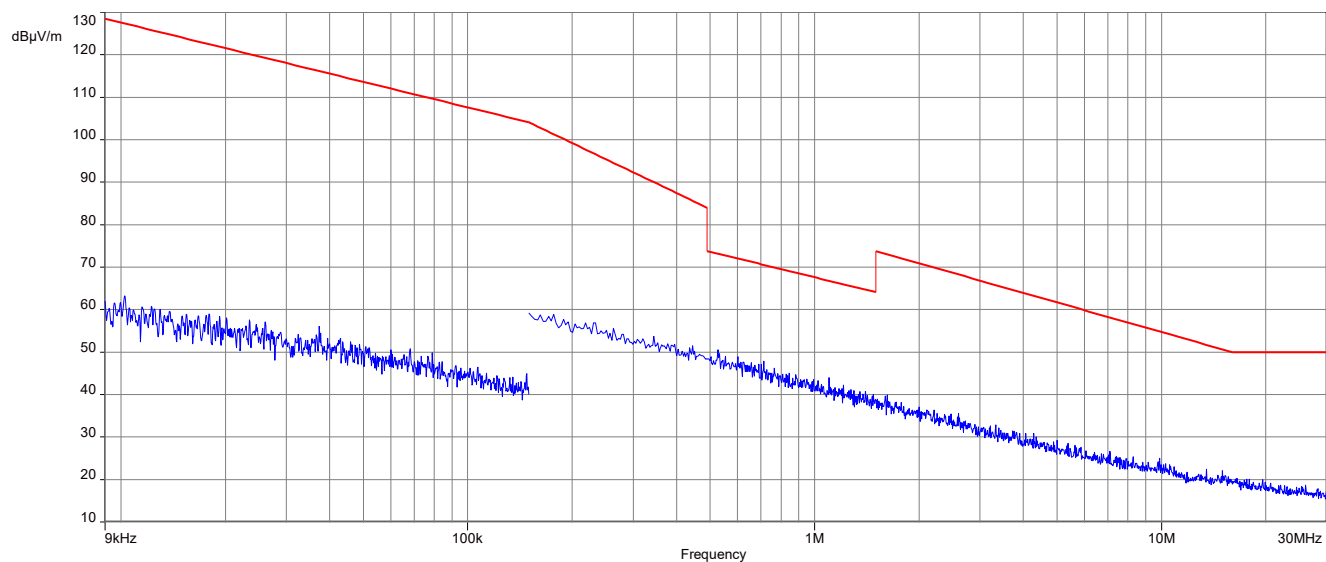
Plot 1: 9 kHz to 30 MHz, lowest channel



Plot 2: 9 kHz to 30 MHz, middle channel

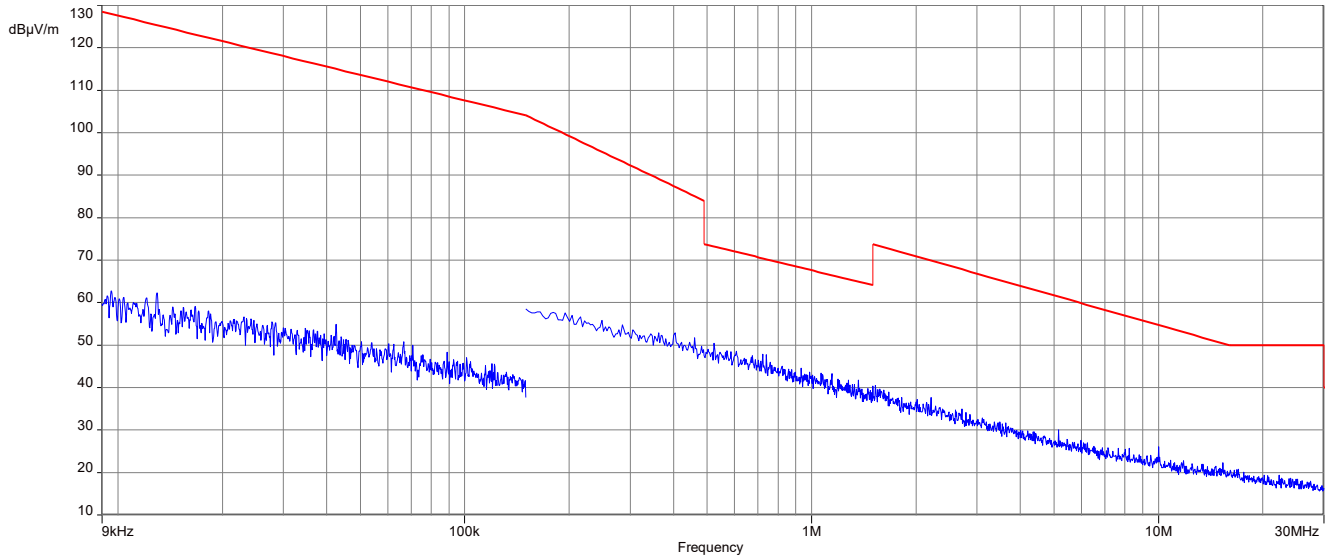


Plot 3: 9 kHz to 30 MHz, highest channel

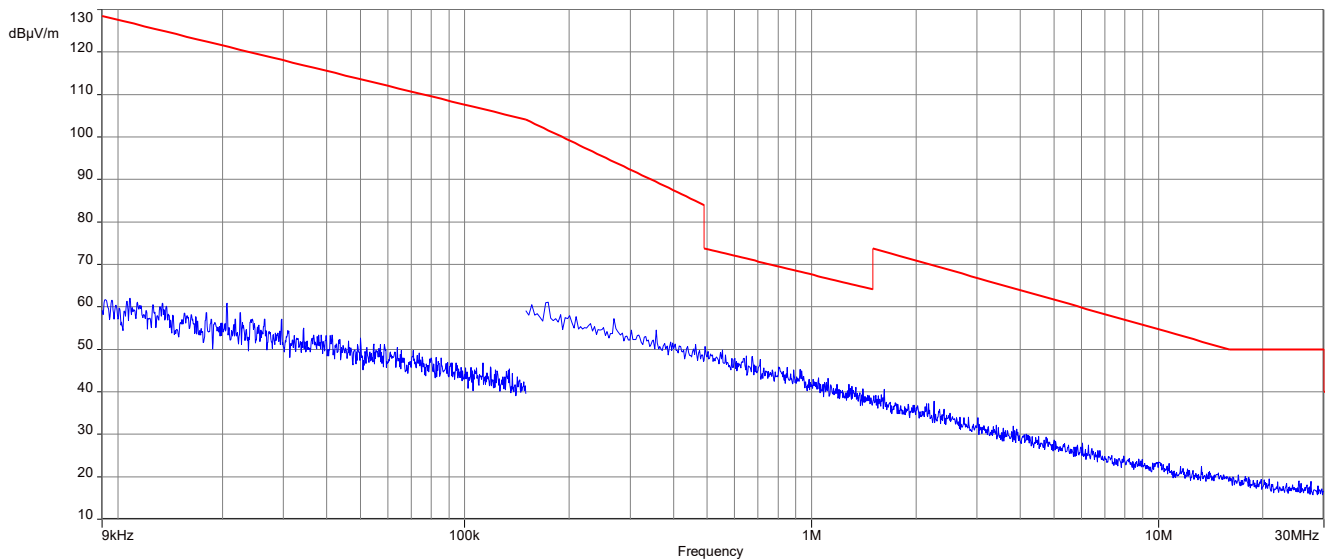


Plots: DSSS b-mode (HR)

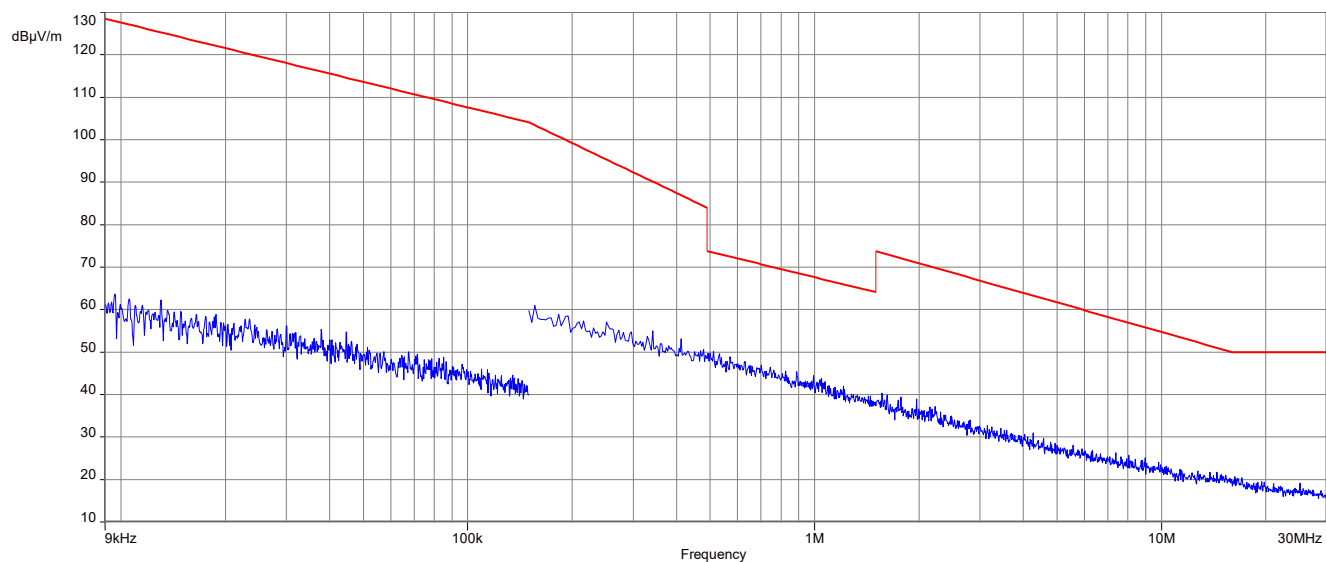
Plot 1: 9 kHz to 30 MHz, lowest channel



Plot 2: 9 kHz to 30 MHz, middle channel

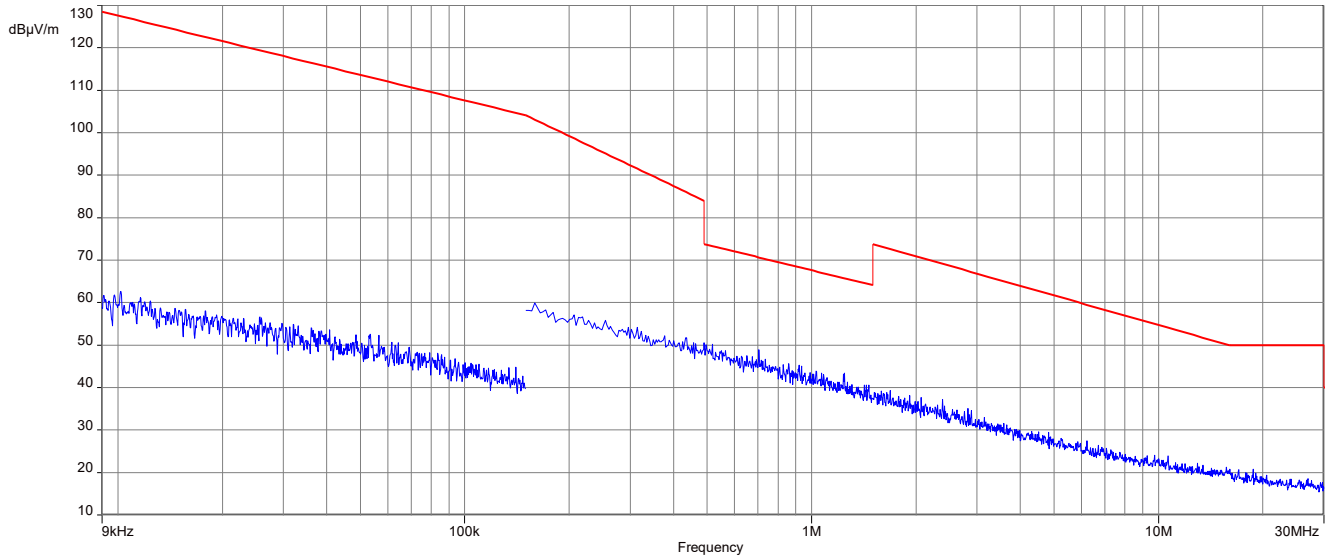


Plot 3: 9 kHz to 30 MHz, highest channel

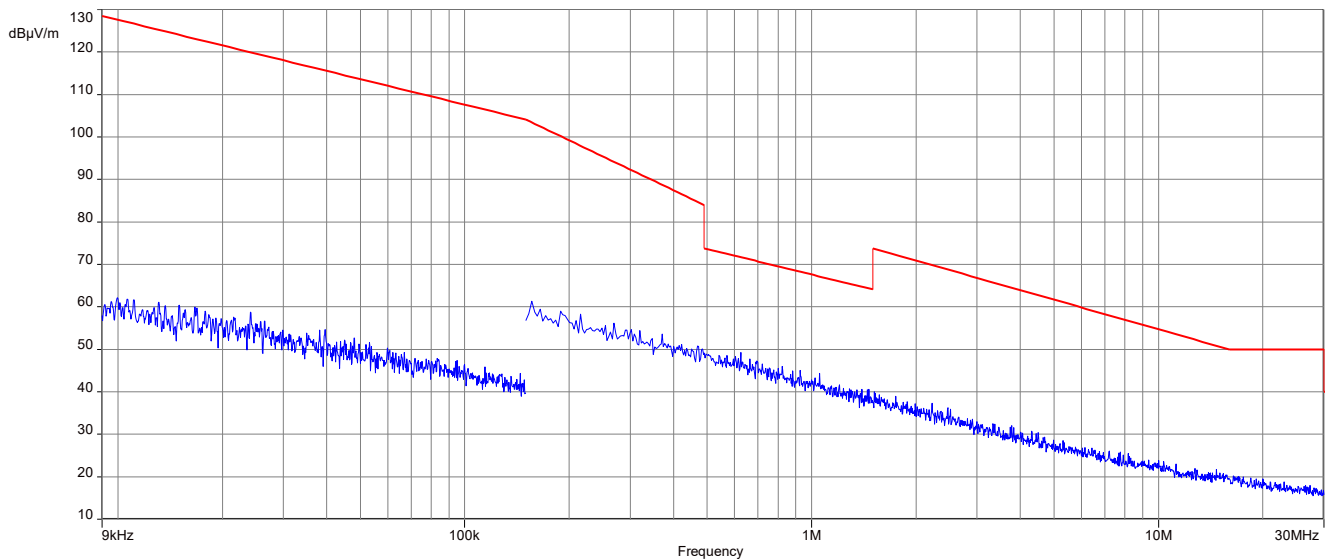


Plots: DSSS b-mode (QR)

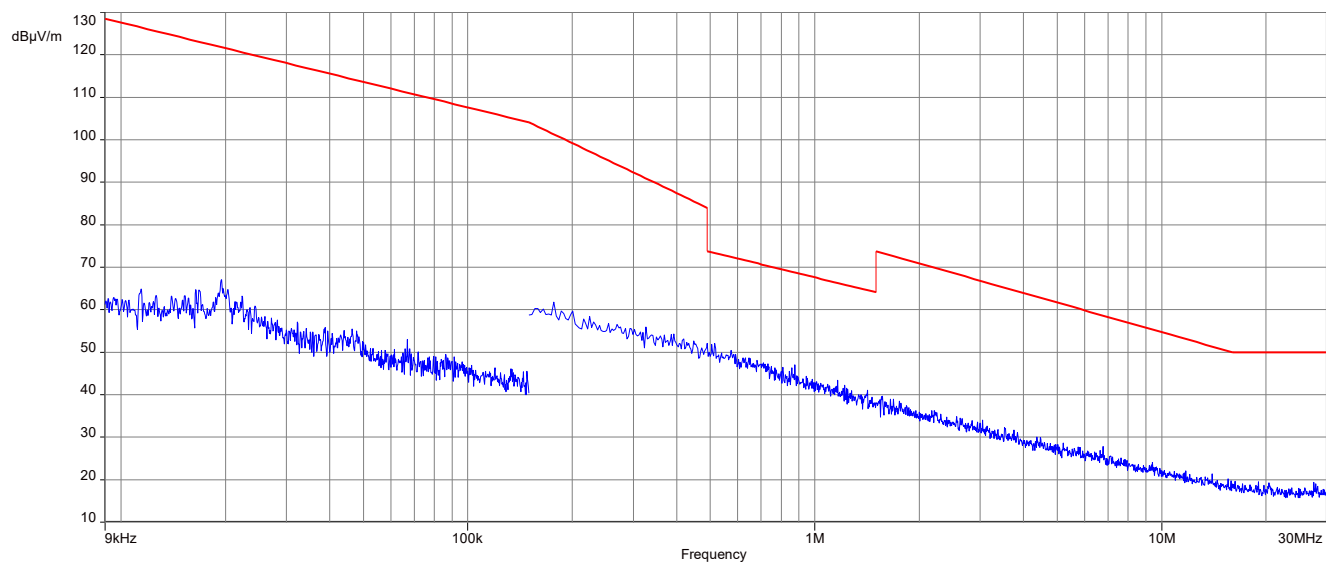
Plot 1: 9 kHz to 30 MHz, lowest channel



Plot 2: 9 kHz to 30 MHz, middle channel

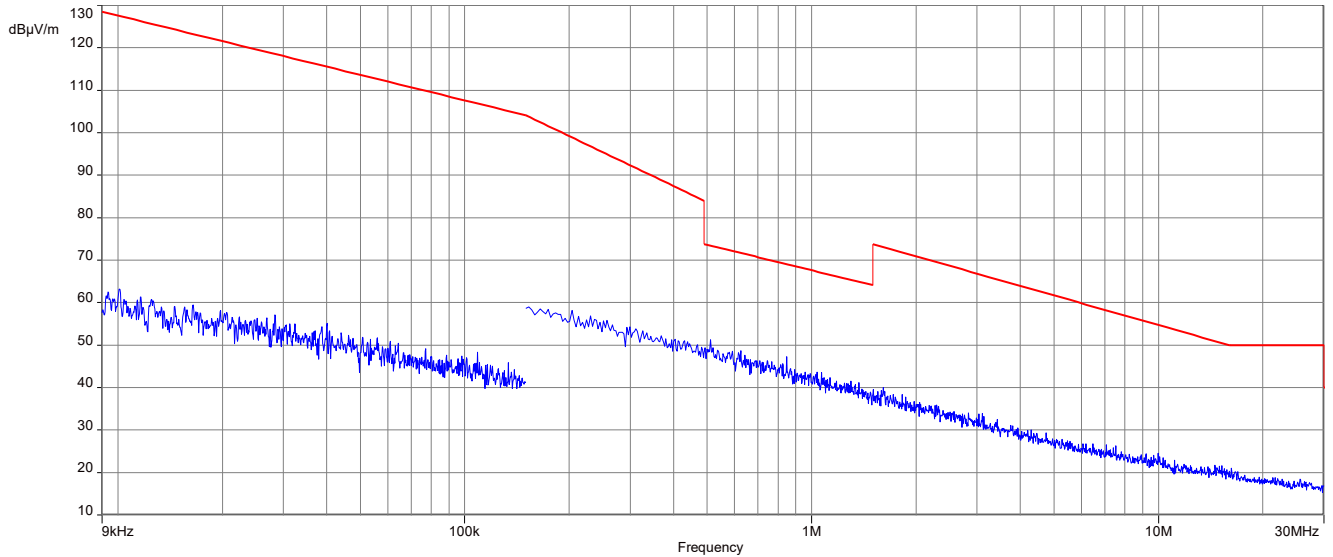


Plot 3: 9 kHz to 30 MHz, highest channel

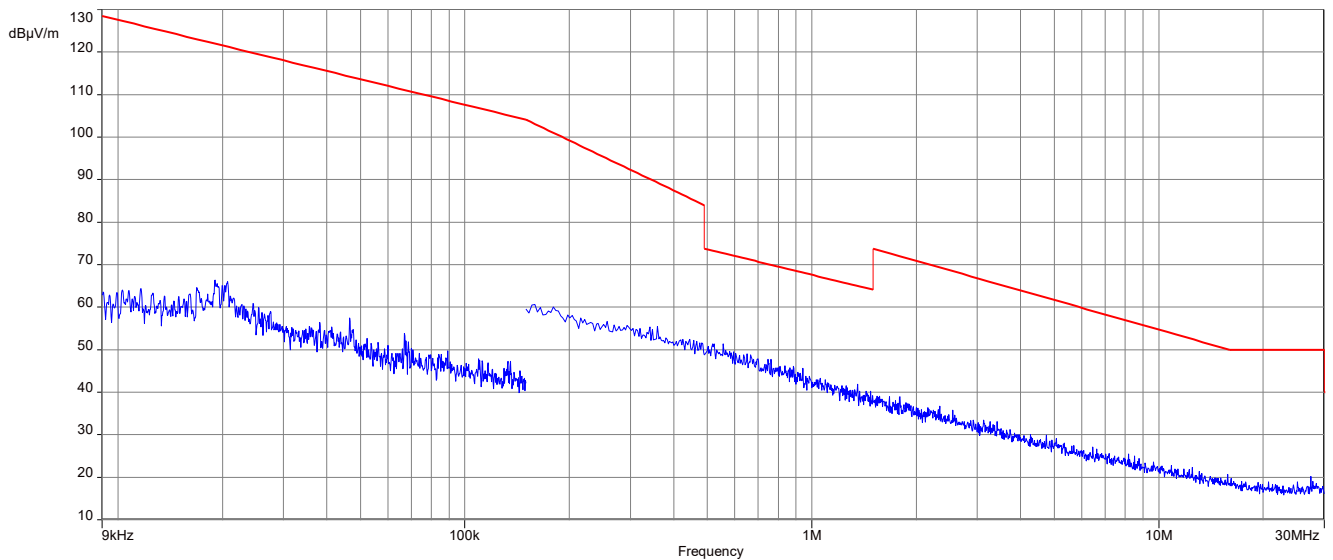


Plots: OFDM g-mode (FR)

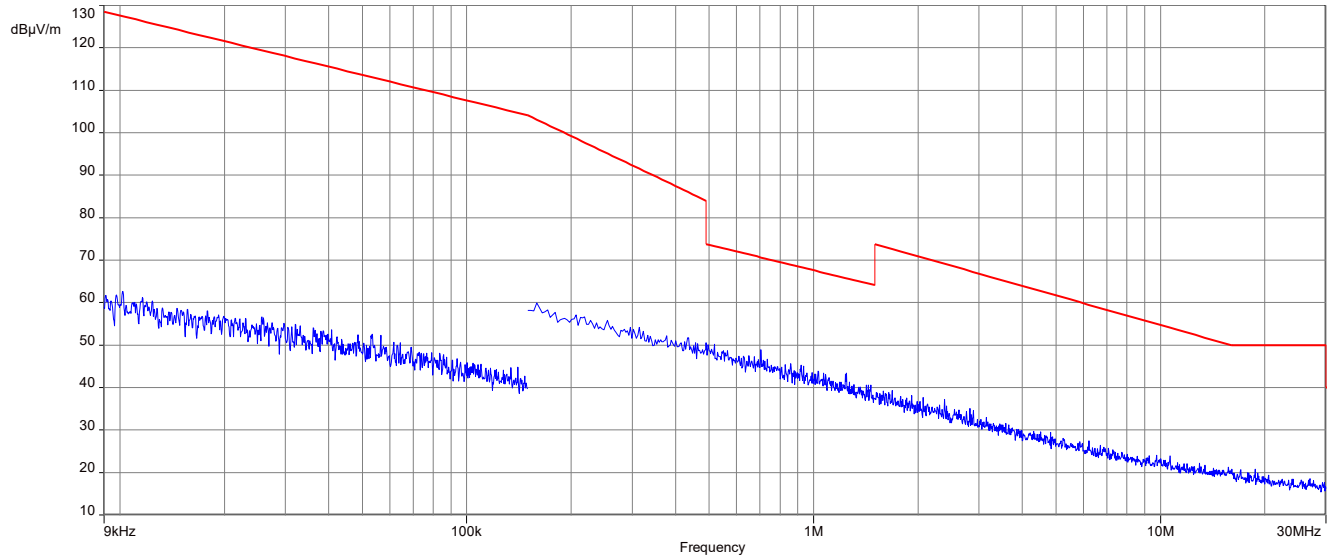
Plot 1: 9 kHz to 30 MHz, lowest channel



Plot 2: 9 kHz to 30 MHz, middle channel

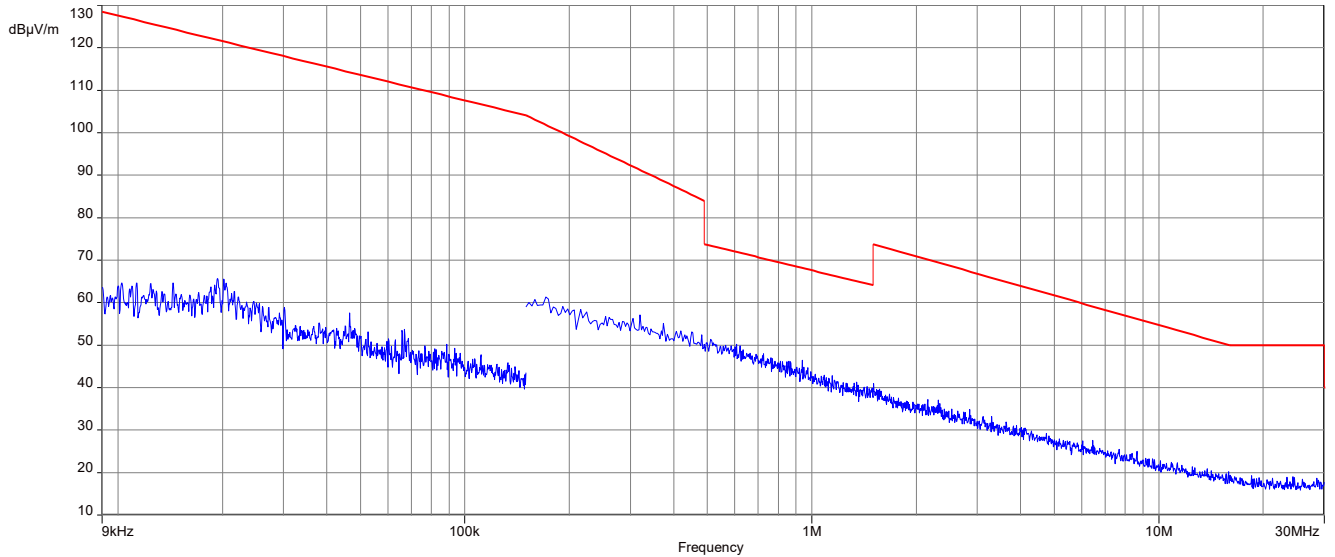


Plot 3: 9 kHz to 30 MHz, highest channel

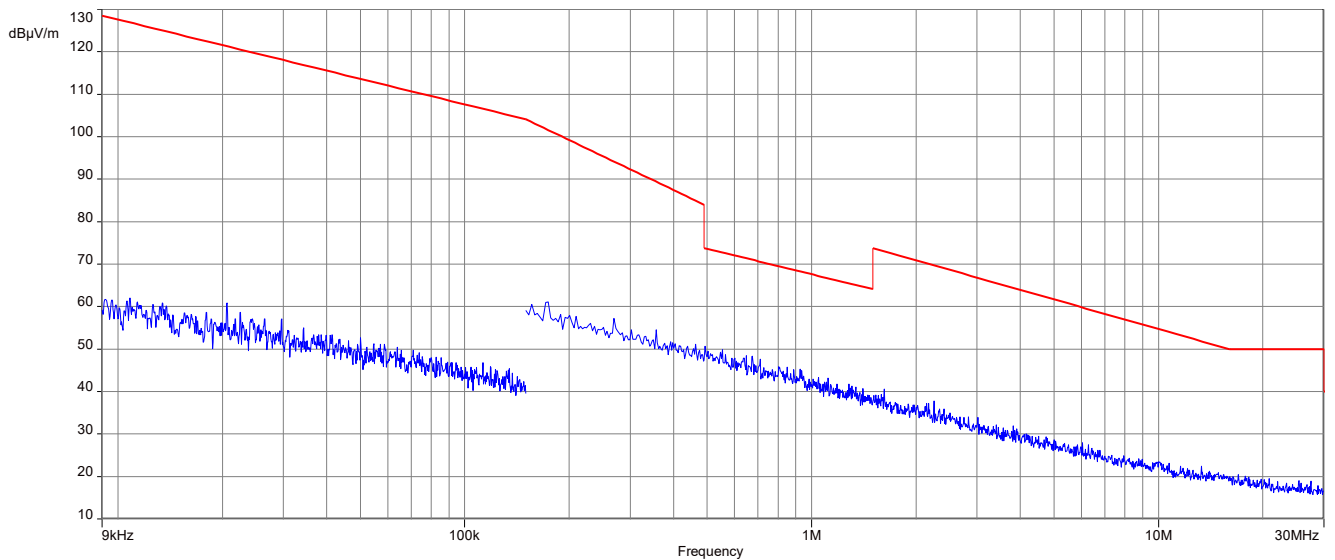


Plots: OFDM mode (HR)

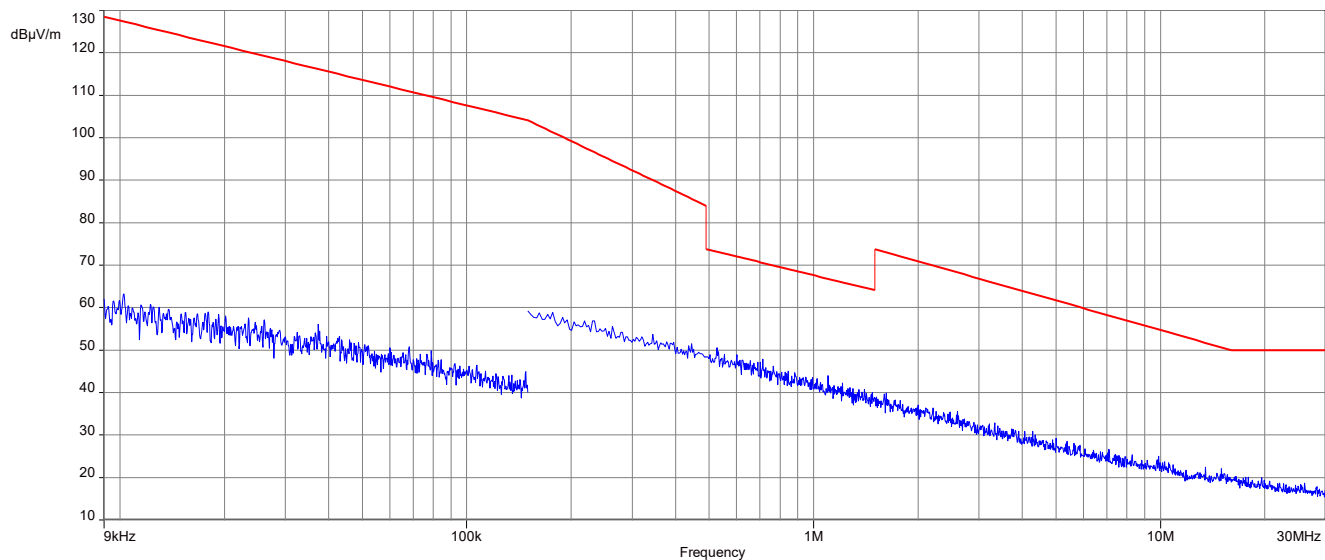
Plot 1: 9 kHz to 30 MHz, lowest channel



Plot 2: 9 kHz to 30 MHz, middle channel

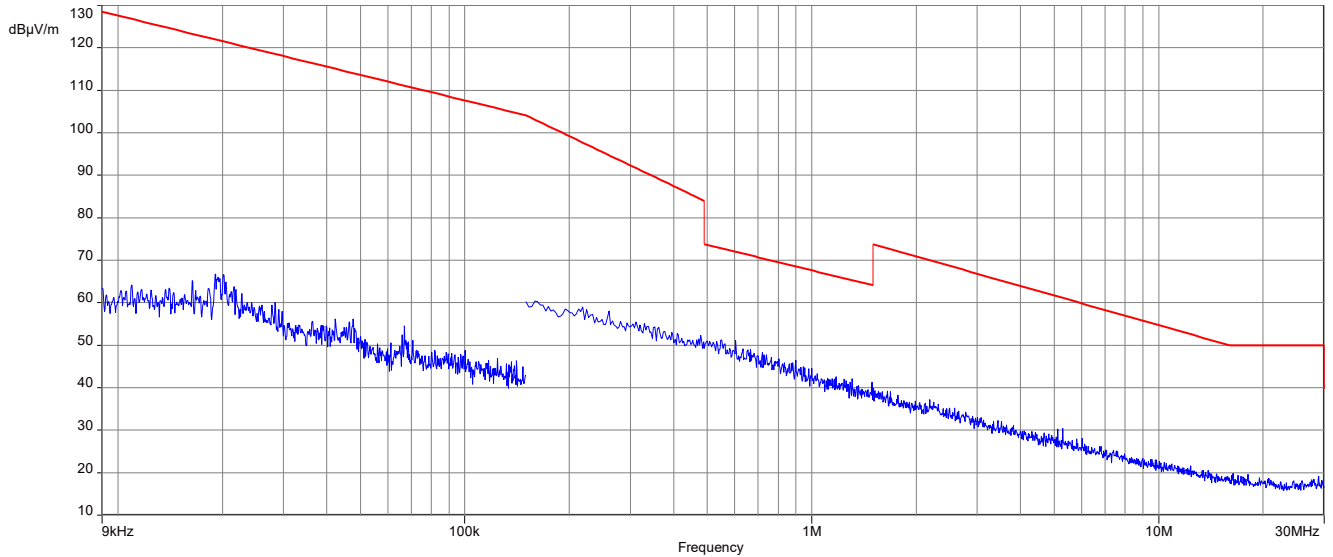


Plot 3: 9 kHz to 30 MHz, highest channel

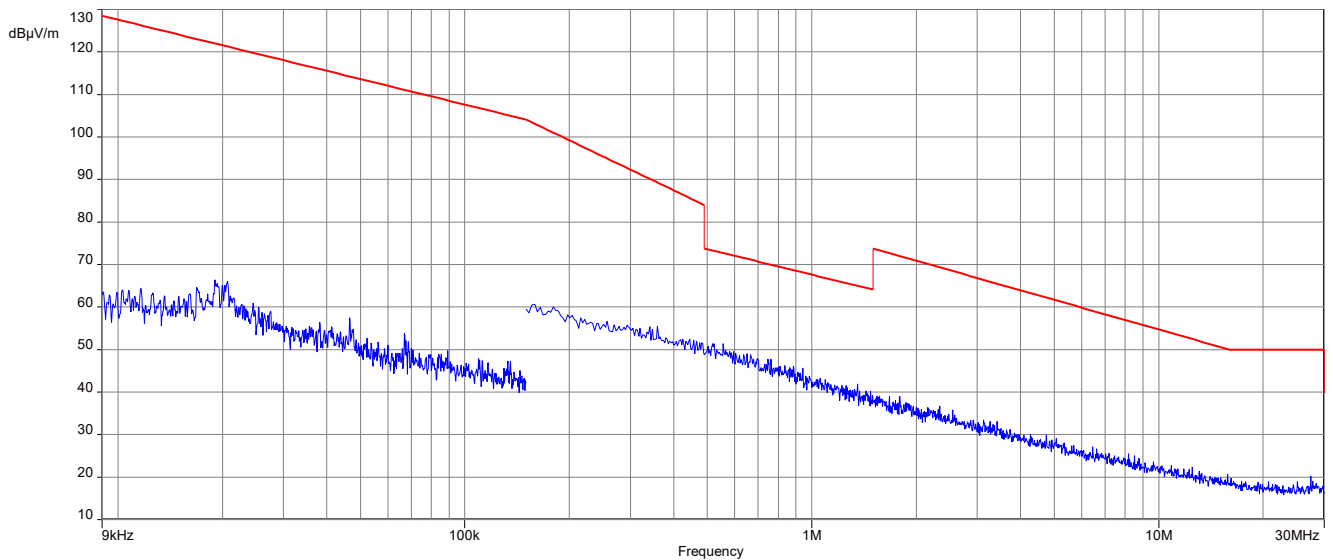


Plots: OFDM mode (QR)

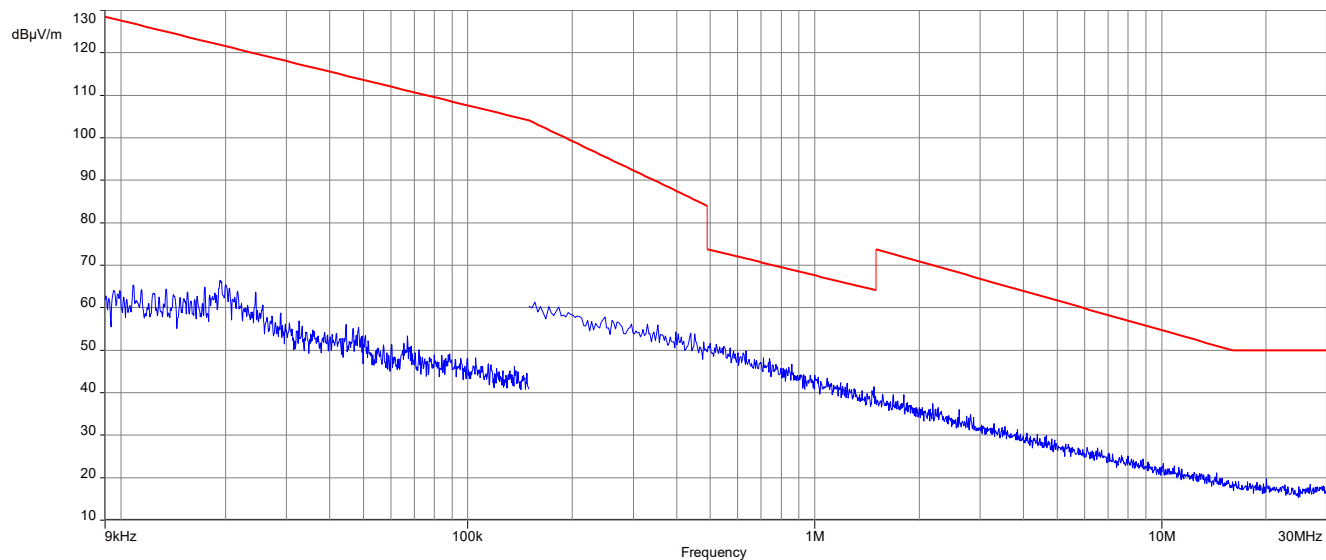
Plot 1: 9 kHz to 30 MHz, lowest channel



Plot 2: 9 kHz to 30 MHz, middle channel

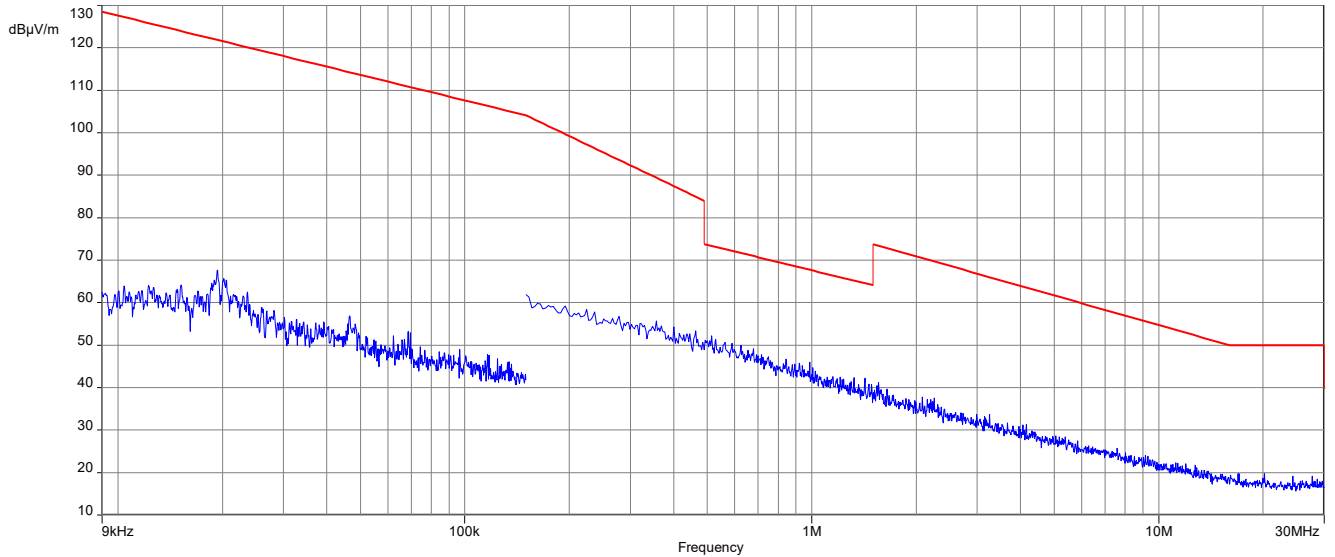


Plot 3: 9 kHz to 30 MHz, highest channel

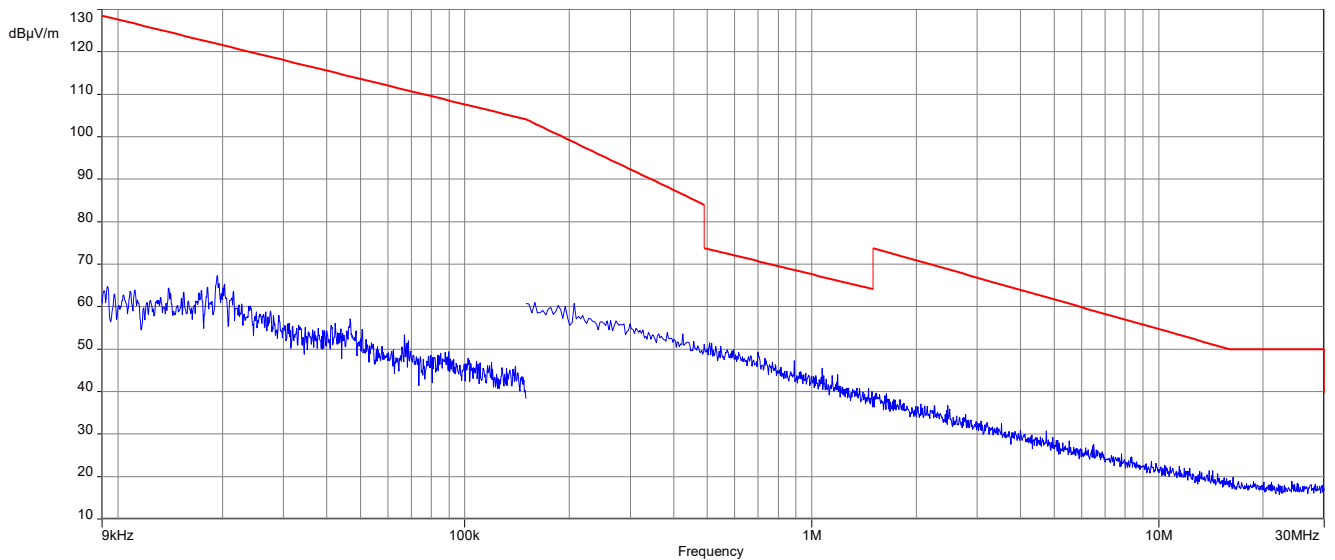


Plots: OFDM ax HE20-mode

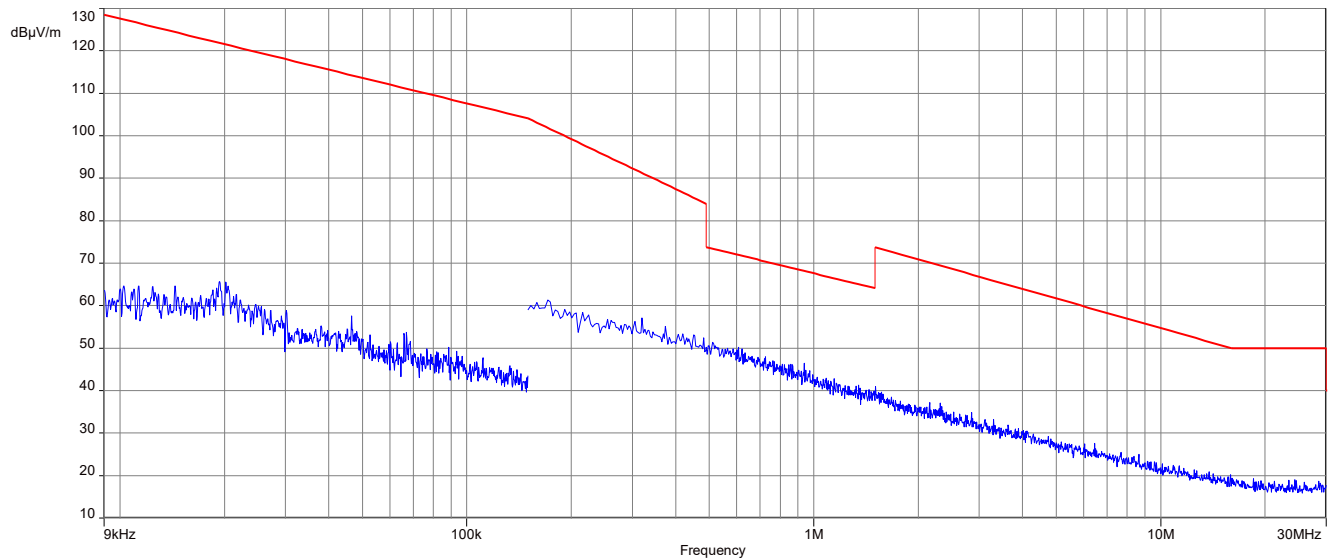
Plot 1: 9 kHz to 30 MHz, lowest channel



Plot 2: 9 kHz to 30 MHz, middle channel



Plot 3: 9 kHz to 30 MHz, highest channel



13.12 Spurious emissions radiated 30 MHz to 1 GHz

Description:

Measurement of the radiated spurious emissions and cabinet radiations below 1 GHz.

Measurement:

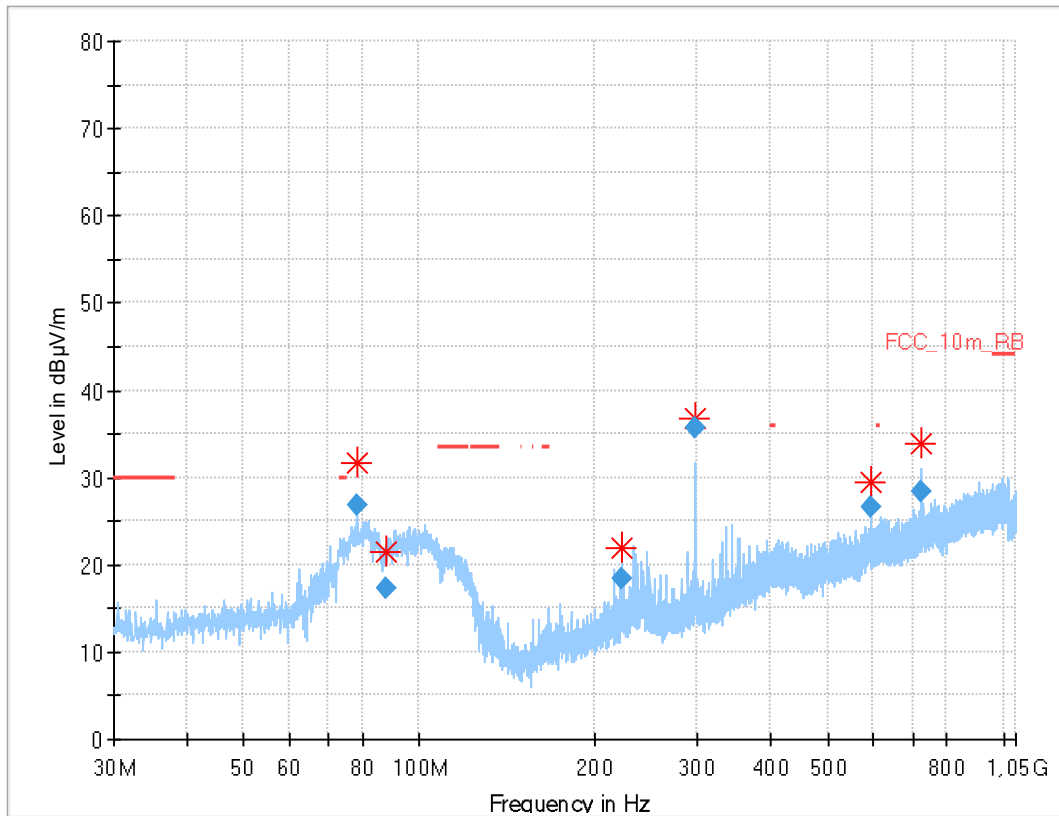
Measurement parameter	
Detector	Peak / Quasi Peak
Sweep time	Auto
Resolution bandwidth	120 kHz
Video bandwidth	3 x RBW
Span	30 MHz to 1 GHz
Trace mode	Max Hold
Measured modulation	☒ DSSS b – mode (FR; HR, QR) ☒ OFDM g – mode (FR; HR, QR) ☒ OFDM n HT20 – mode ☒ OFDM ax HE20 – mode
Test setup	See chapter 7.1 setup A
Measurement uncertainty	See chapter 9

Limits:

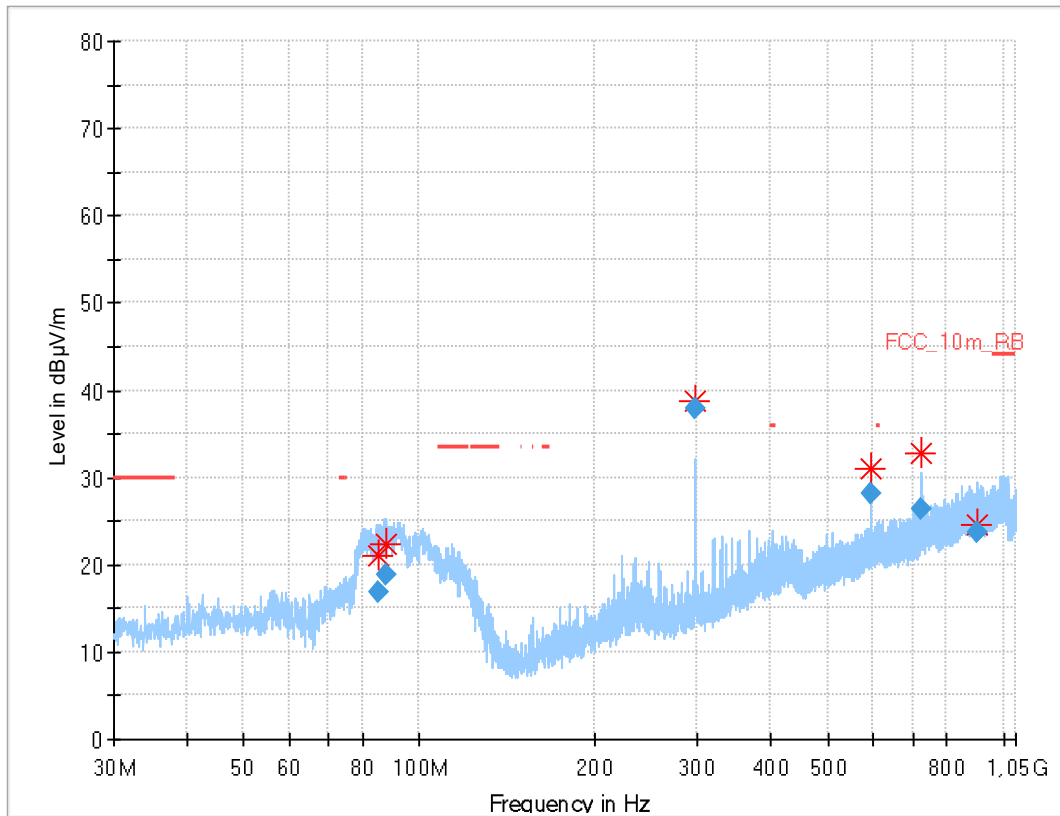
FCC		ISED
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).		
Frequency / MHz	Field Strength / (dBµV / m)	Measurement distance / m
30 – 88	30.0	10
88 – 216	33.5	10
216 – 960	36.0	10

Plots:

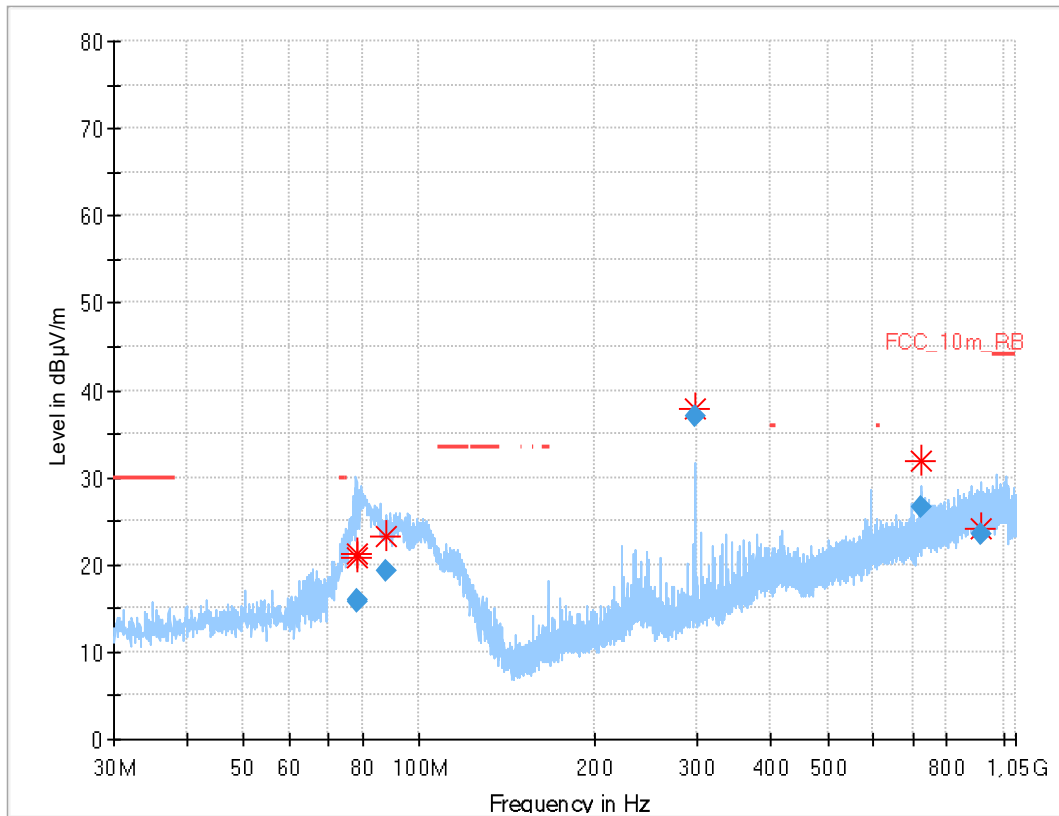
Plot 1: 30 MHz to 1 GHz, b-mode (FR) vertical & horizontal polarization, valid for all channels

**Final results:**

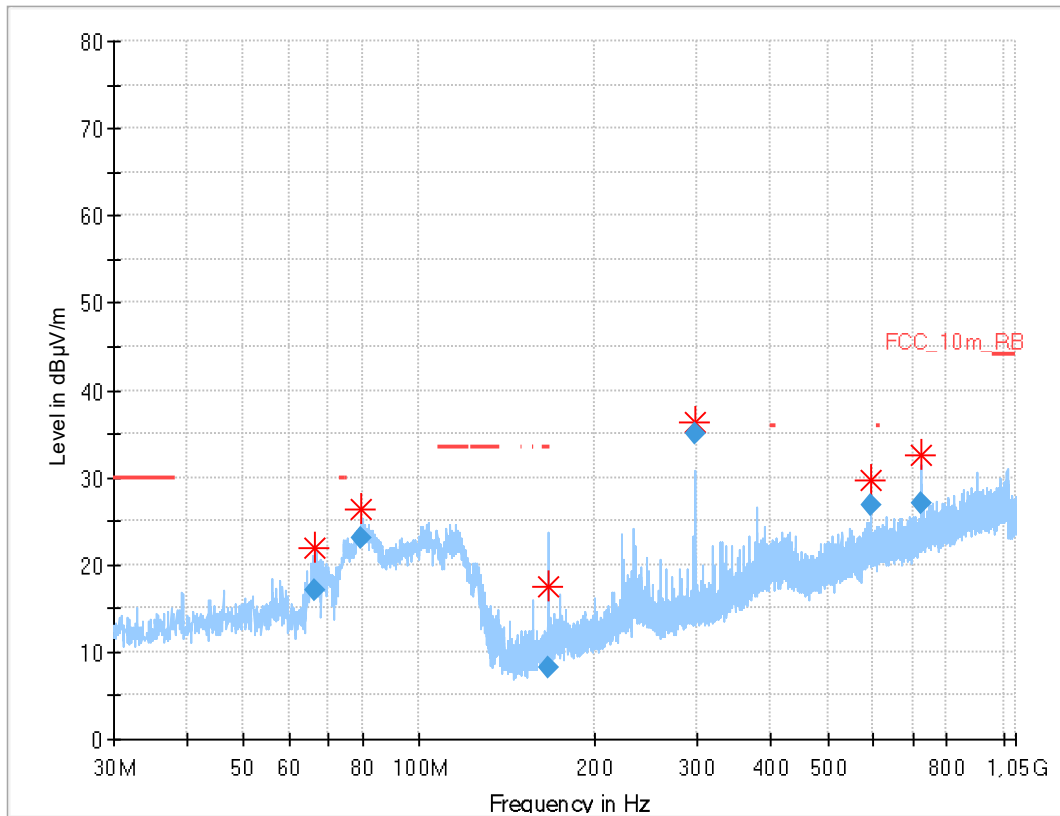
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
78.108960	26.81	---	---	1000.0	120.000	170.0	V	-22.0	7.6
88.021560	17.37	---	---	1000.0	120.000	170.0	V	263.0	10.2
221.992320	18.34	---	---	1000.0	120.000	98.0	V	-21.0	12.5
297.007920	35.65	---	---	1000.0	120.000	170.0	H	67.0	14.8
594.035760	26.67	---	---	1000.0	120.000	170.0	H	163.0	21.2
724.900560	28.40	---	---	1000.0	120.000	131.0	H	-17.0	22.4

Plot 2: 30 MHz to 1 GHz, b-mode (HR) vertical & horizontal polarization, valid for all channels**Final results:**

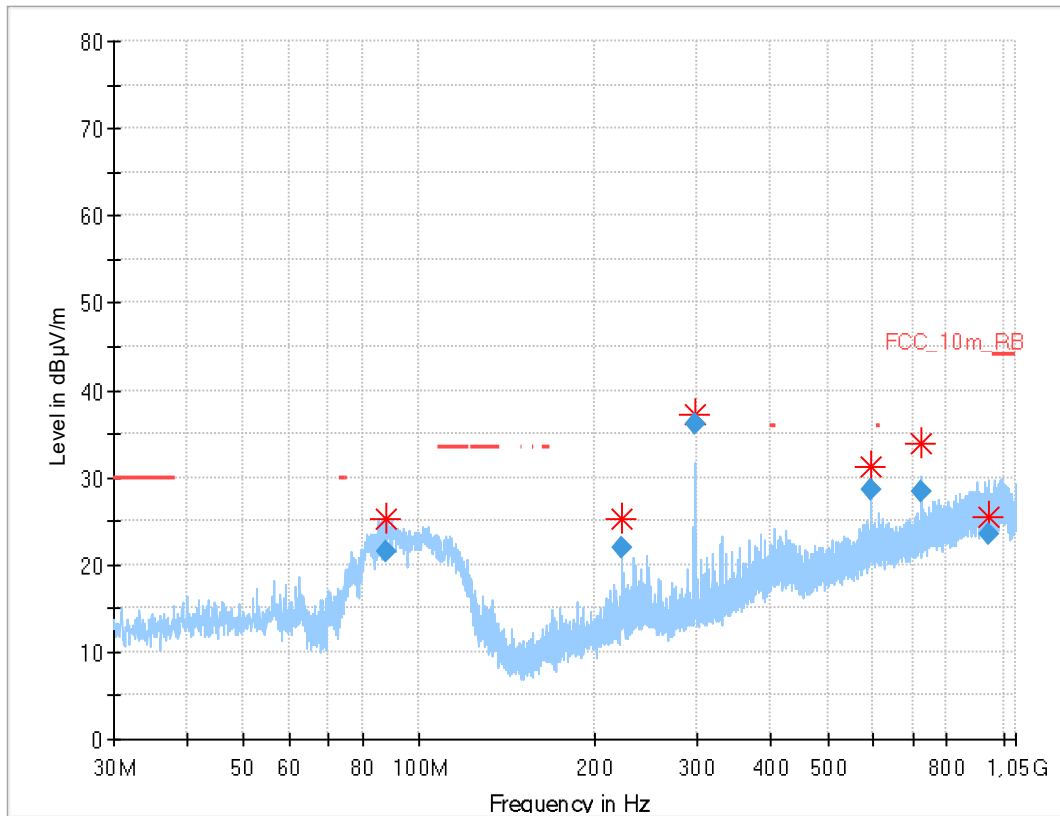
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
85.377600	16.93	---	---	1000.0	120.000	170.0	V	292.0	9.3
87.973080	18.86	---	---	1000.0	120.000	119.0	V	284.0	10.2
297.009240	37.82	---	---	1000.0	120.000	170.0	H	67.0	14.8
594.010080	28.19	---	---	1000.0	120.000	170.0	H	102.0	21.2
724.822320	26.38	---	---	1000.0	120.000	132.0	H	-19.0	22.4
902.732520	23.61	---	---	1000.0	120.000	159.0	V	-9.0	24.8

Plot 3: 30 MHz to 1 GHz, b-mode (QR) vertical & horizontal polarization, valid for all channels**Final results:**

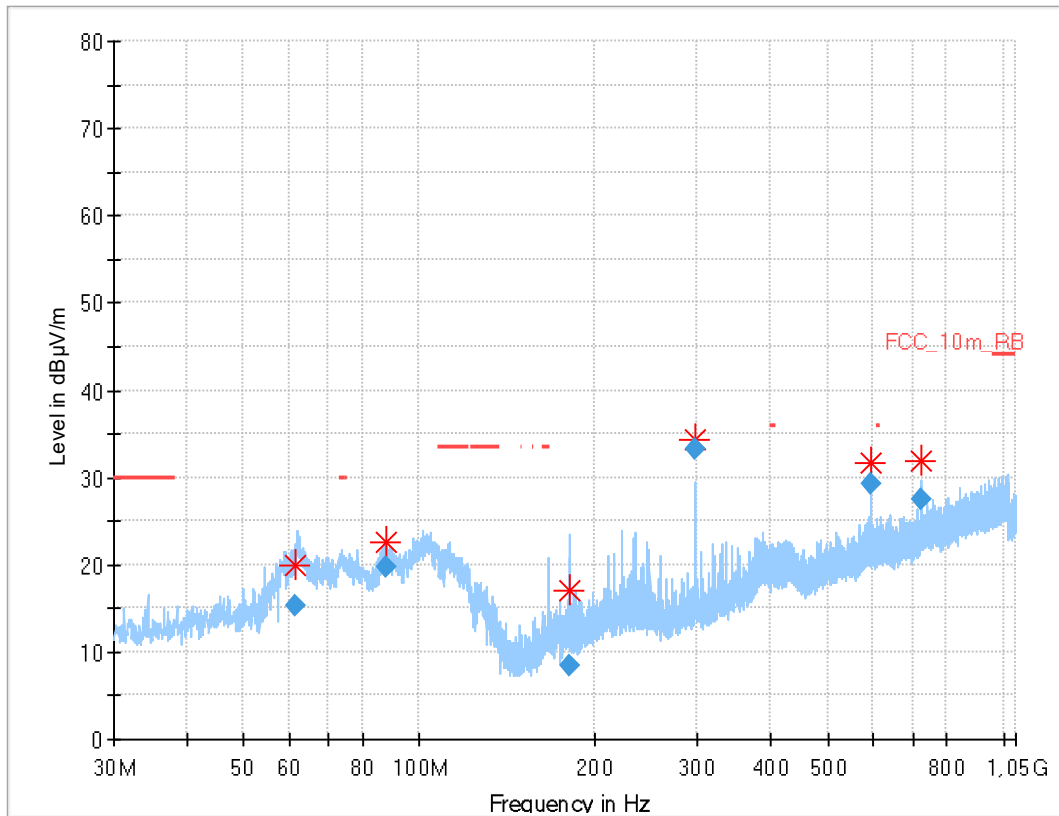
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
78.033600	15.73	---	---	1000.0	120.000	170.0	V	179.0	7.6
78.098880	16.01	---	---	1000.0	120.000	170.0	V	176.0	7.6
87.992640	19.36	---	---	1000.0	120.000	170.0	V	102.0	10.2
296.999520	36.93	---	---	1000.0	120.000	170.0	H	68.0	14.8
725.009400	26.66	---	---	1000.0	120.000	101.0	H	-22.0	22.4
915.849840	23.42	---	---	1000.0	120.000	153.0	H	202.0	24.8

Plot 4: 30 MHz to 1 GHz, g-mode (FR) vertical & horizontal polarization, valid for all channels**Final results:**

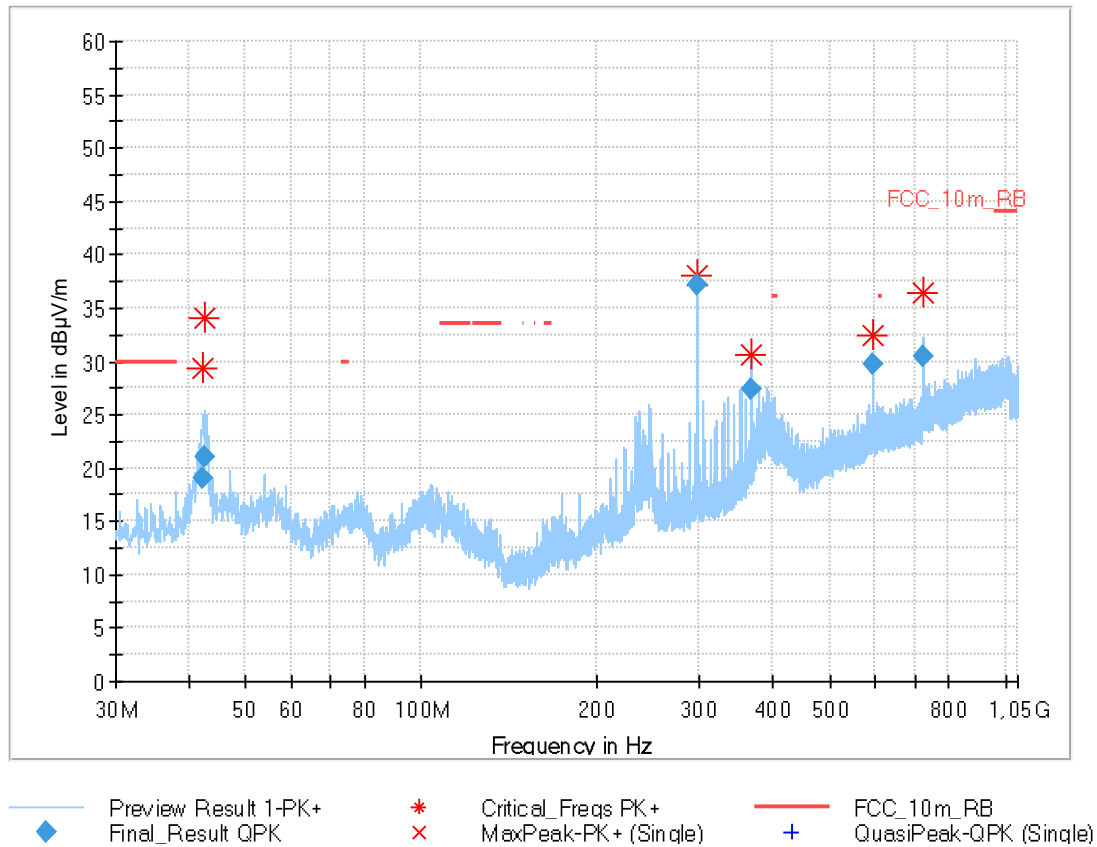
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
65.980560	17.16	---	---	1000.0	120.000	170.0	V	22.0	11.2
79.546680	22.97	---	---	1000.0	120.000	161.0	V	202.0	7.6
165.981960	8.21	33.50	25.29	1000.0	120.000	108.0	V	67.0	10.1
297.004800	35.11	---	---	1000.0	120.000	170.0	H	22.0	14.8
594.012480	26.85	---	---	1000.0	120.000	170.0	H	167.0	21.2
724.989360	27.06	---	---	1000.0	120.000	101.0	H	-21.0	22.4

Plot 5: 30 MHz to 1 GHz, g-mode (HR) vertical & horizontal polarization, valid for all channels**Final results:**

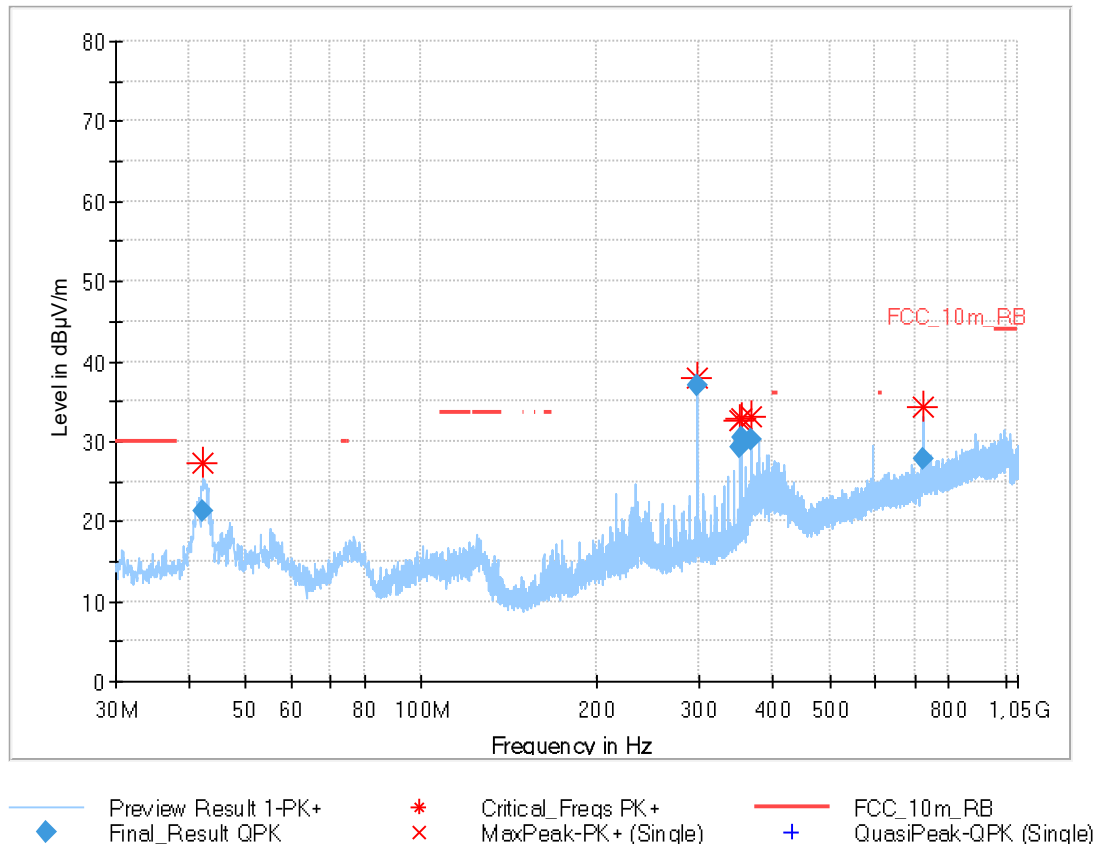
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
88.012680	21.54	---	---	1000.0	120.000	109.0	V	112.0	10.2
221.988600	21.93	---	---	1000.0	120.000	98.0	V	22.0	12.5
297.010320	36.12	---	---	1000.0	120.000	170.0	H	67.0	14.8
594.023880	28.57	---	---	1000.0	120.000	170.0	H	104.0	21.2
724.829640	28.36	---	---	1000.0	120.000	98.0	H	-10.0	22.4
940.896600	23.60	---	---	1000.0	120.000	119.0	H	86.0	24.8

Plot 6: 30 MHz to 1 GHz, g-mode (QR) vertical & horizontal polarization, valid for all channels**Final results:**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
61.193160	15.35	---	---	1000.0	120.000	170.0	V	22.0	12.8
87.560880	19.79	---	---	1000.0	120.000	131.0	V	-21.0	10.1
181.114200	8.52	---	---	1000.0	120.000	170.0	V	68.0	10.6
297.002280	33.17	---	---	1000.0	120.000	170.0	H	68.0	14.8
594.028920	29.27	---	---	1000.0	120.000	170.0	H	94.0	21.2
724.944120	27.38	---	---	1000.0	120.000	138.0	H	202.0	22.4

Plot 7: 30 MHz to 1 GHz, n HT20-mode vertical & horizontal polarization, valid for all channels**Final results:**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
42.376	19.08	---	---	1000	120.0	368.0	V	180	14
42.657	21.08	---	---	1000	120.0	351.0	V	-36	14
296.997	37.08	---	---	1000	120.0	308.0	H	39	15
366.006	27.30	---	---	1000	120.0	102.0	V	178	16
594.018	29.79	---	---	1000	120.0	158.0	H	92	21
724.865	30.48	---	---	1000	120.0	242.0	V	87	22

Plot 8: 30 MHz to 1 GHz, ax HE20-mode vertical & horizontal polarization, valid for all channels**Final results:**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
42.349	21.21	---	---	1000	120.0	200.0	V	188	14
297.002	37.04	---	---	1000	120.0	244.0	H	61	15
351.996	29.35	---	---	1000	120.0	126.0	V	163	16
354.002	30.44	---	---	1000	120.0	103.0	V	177	16
366.020	30.25	---	---	1000	120.0	101.0	V	175	16
725.042	27.78	---	---	1000	120.0	103.0	H	-11	22

13.13 Spurious emissions radiated above 1 GHz

Description:

Measurement of the radiated spurious emissions above 1 GHz in transmit mode and receiver / idle mode.

Measurement:

Measurement parameter	
Detector	Peak / RMS
Sweep time	Auto
Resolution bandwidth	1 MHz
Video bandwidth	3 x RBW
Span	1 GHz to 26 GHz
Trace mode	Max Hold
Measured modulation	☒ DSSS b – mode (FR; HR, QR) ☒ OFDM g – mode (FR; HR, QR) ☒ OFDM n HT20 – mode ☒ OFDM ac VHT20 – mode ☒ OFDM ax HE20 – mode
Test setup	See chapter 7.2 setup B & 7.3 setup A
Measurement uncertainty	See chapter 9

Limits:

FCC		ISED
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).		
Frequency / MHz	Field Strength / (dB μ V / m)	Measurement distance / m
Above 960	54.0 (AVG)	3
	74.0 (peak)	

Results: DSSS b-mode (FR)

TX spurious emissions radiated / dB μ V/m @ 3 m								
lowest channel			middle channel			highest channel		
f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m
4824	Peak	54.9	4874	Peak	53.4	4924	Peak	52.4
	AVG	50.6		AVG	47.6		AVG	45.0
All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.		

Results: DSSS b-mode (HR)

TX spurious emissions radiated / dB μ V/m @ 3 m								
lowest channel			middle channel			highest channel		
f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m
4824	Peak	56.4	4874	Peak	55.1	4924	Peak	53.3
	AVG	52.2		AVG	49.1		AVG	46.4
All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.		

Results: DSSS b-mode (QR)

TX spurious emissions radiated / dB μ V/m @ 3 m								
lowest channel			middle channel			highest channel		
f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m
4824	Peak	56.2	4874	Peak	53.4	4924	Peak	55.1
	AVG	50.8		AVG	47.0		AVG	49.2
All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.		

Results: OFDM g-mode (FR)

TX spurious emissions radiated / dB μ V/m @ 3 m								
lowest channel			middle channel			highest channel		
f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m
-/-	Peak	-/-	-/-	Peak	-/-	-/-	Peak	-/-
	AVG	-/-		AVG	-/-		AVG	-/-
All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.		

Results: OFDM mode (HR)

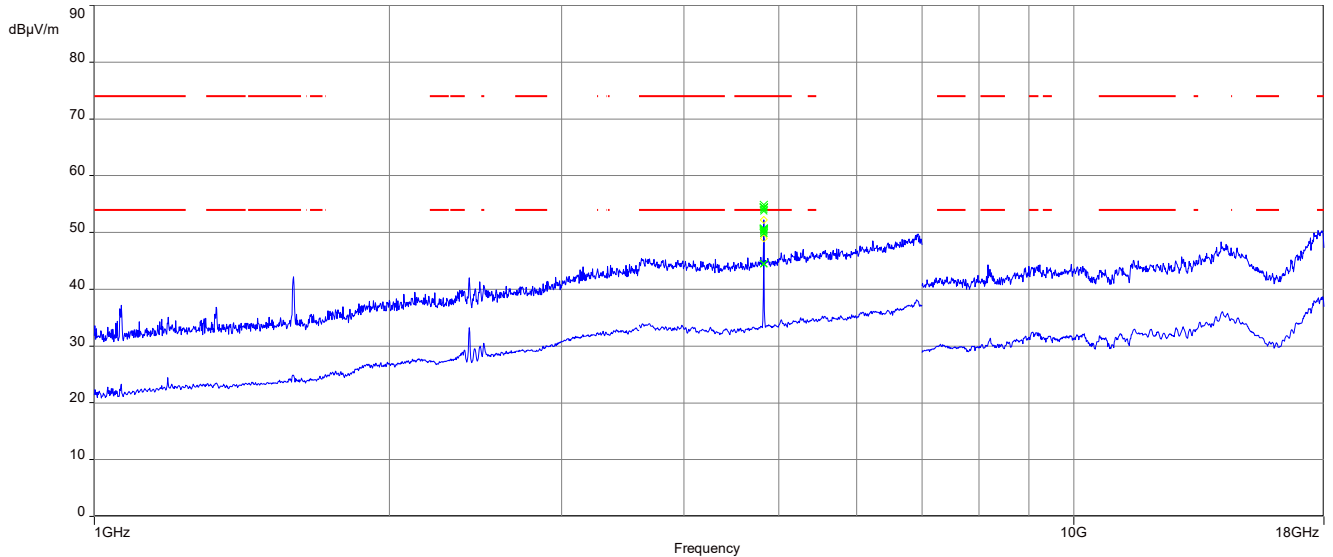
TX spurious emissions radiated / dB μ V/m @ 3 m								
lowest channel			middle channel			highest channel		
f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m
-/-	Peak	-/-	-/-	Peak	-/-	4924	Peak	52.9
	AVG	-/-		AVG	-/-		AVG	40.8
All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.		

Results: OFDM mode (QR)

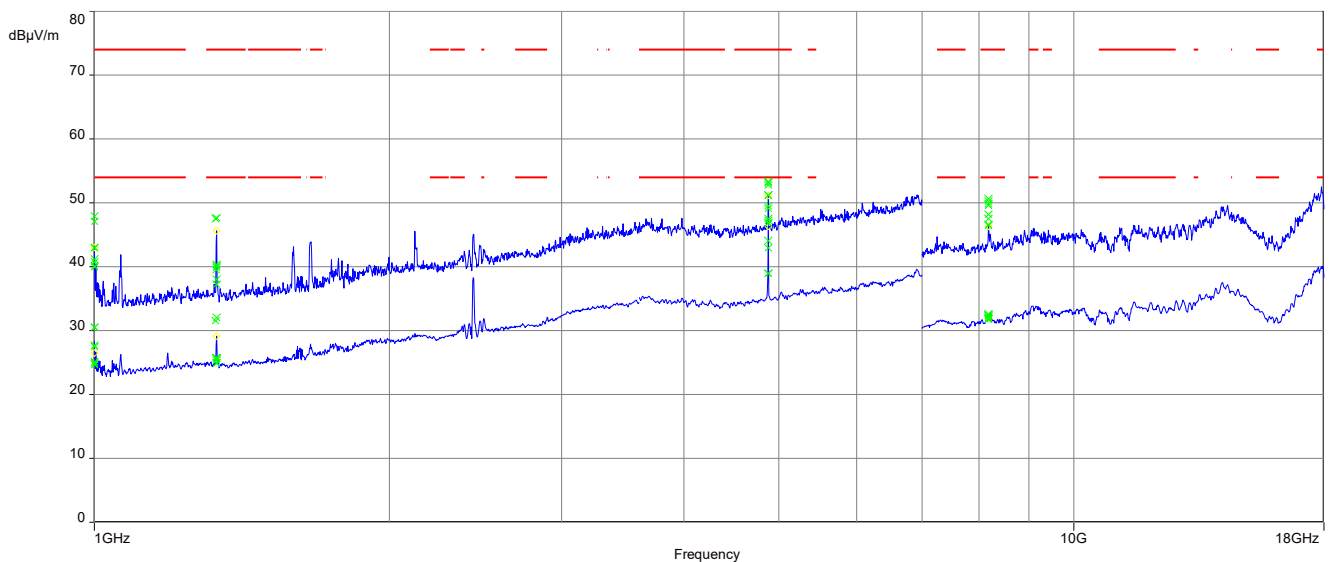
TX spurious emissions radiated / dB μ V/m @ 3 m								
lowest channel			middle channel			highest channel		
f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m
-/-	Peak	-/-	-/-	Peak	-/-	-/-	Peak	-/-
	AVG	-/-		AVG	-/-		AVG	-/-
All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.		

Results: OFDM ax HE20 mode (FR)

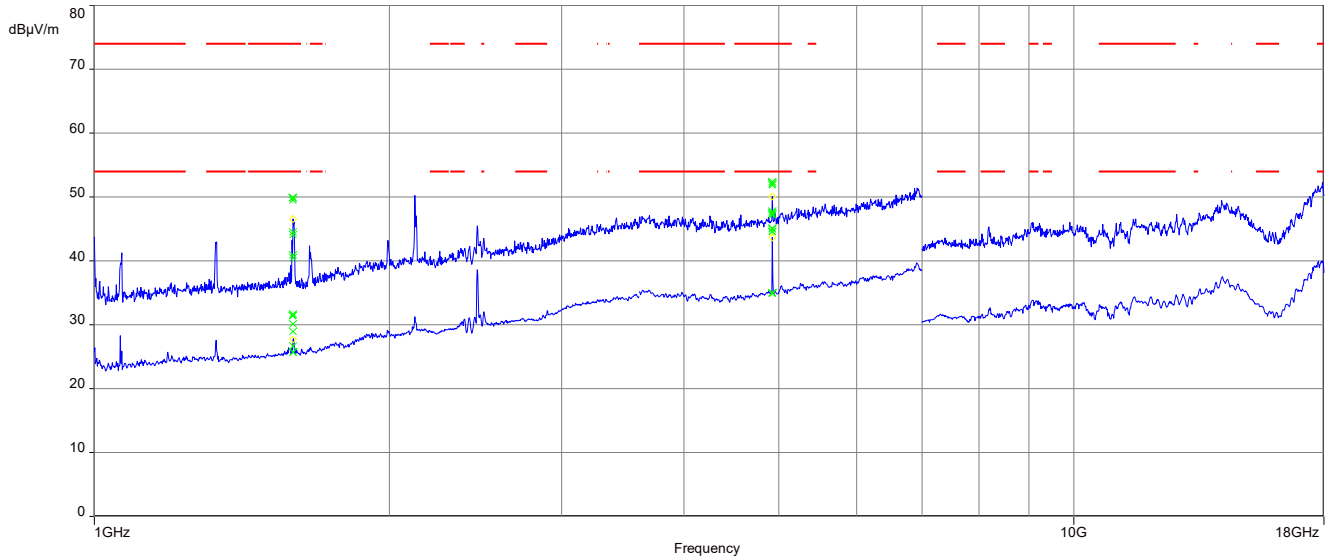
TX spurious emissions radiated / dB μ V/m @ 3 m								
lowest channel			middle channel			highest channel		
f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m	f / MHz	Detector	Level / dB μ V/m
-/-	Peak	-/-	-/-	Peak	-/-	-/-	Peak	-/-
	AVG	-/-		AVG	-/-		AVG	-/-
All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.			All other detected peak emissions are below the average limit.		

Plots: DSSS b-mode (FR)**Plot 1:** Lowest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

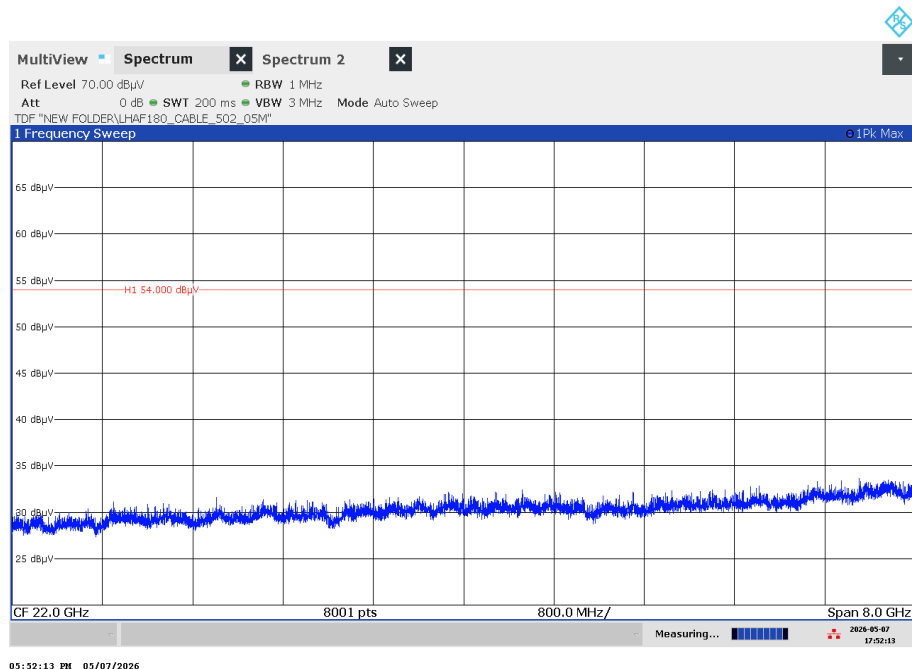
The carrier signal is notched with a 2.4 GHz band rejection filter.

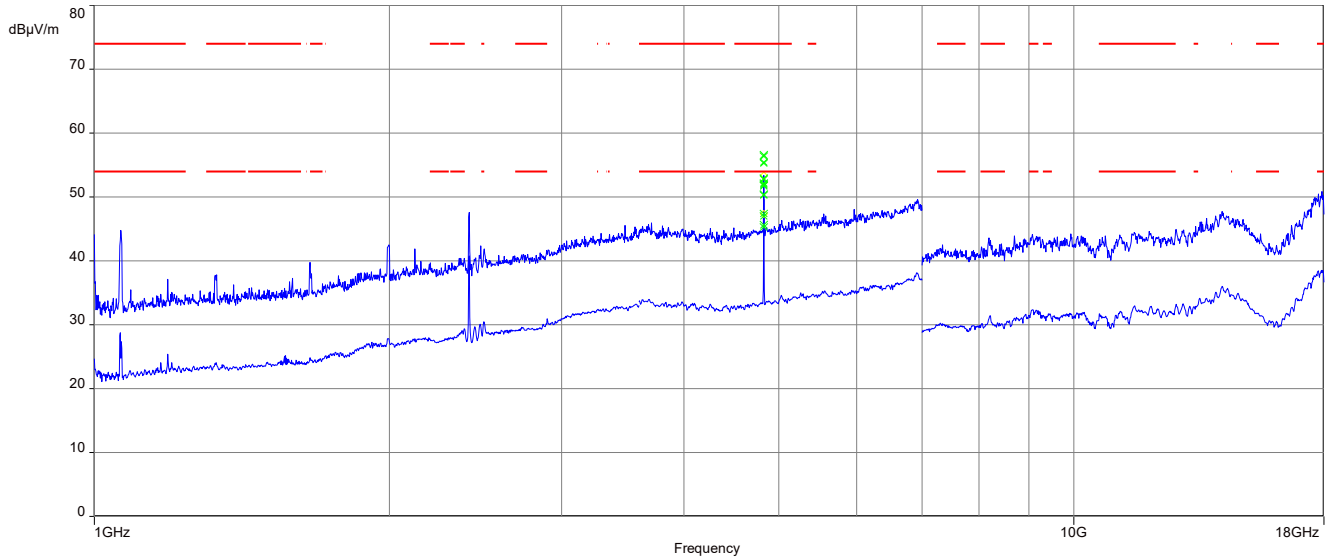
Plot 2: Middle channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

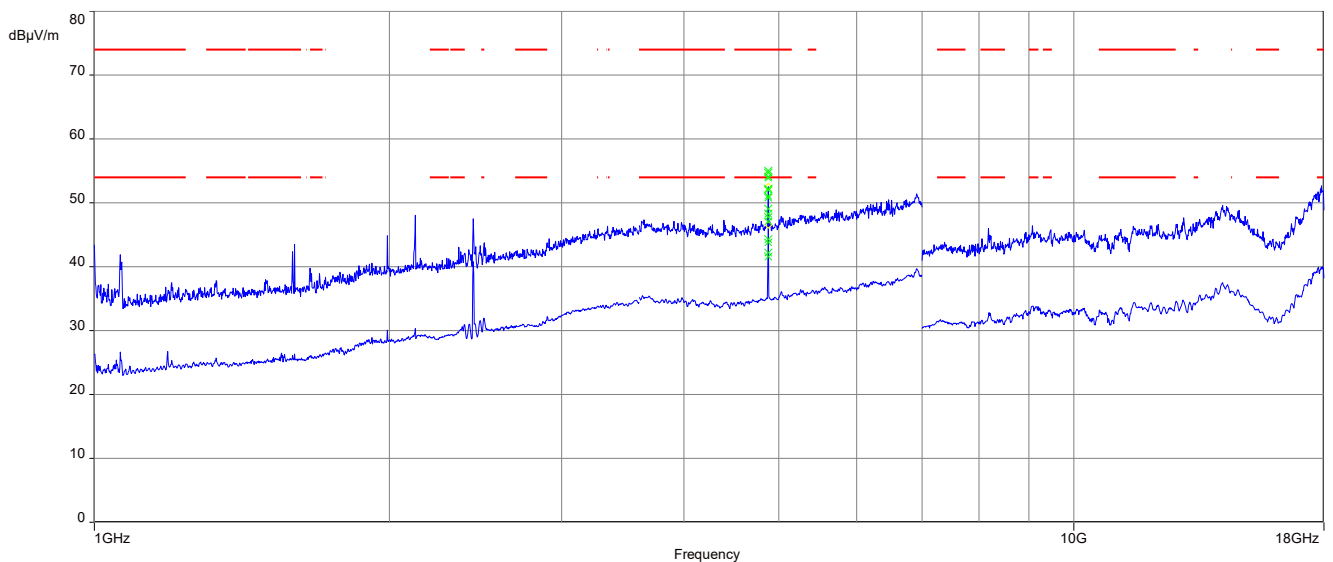
Plot 3: Highest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

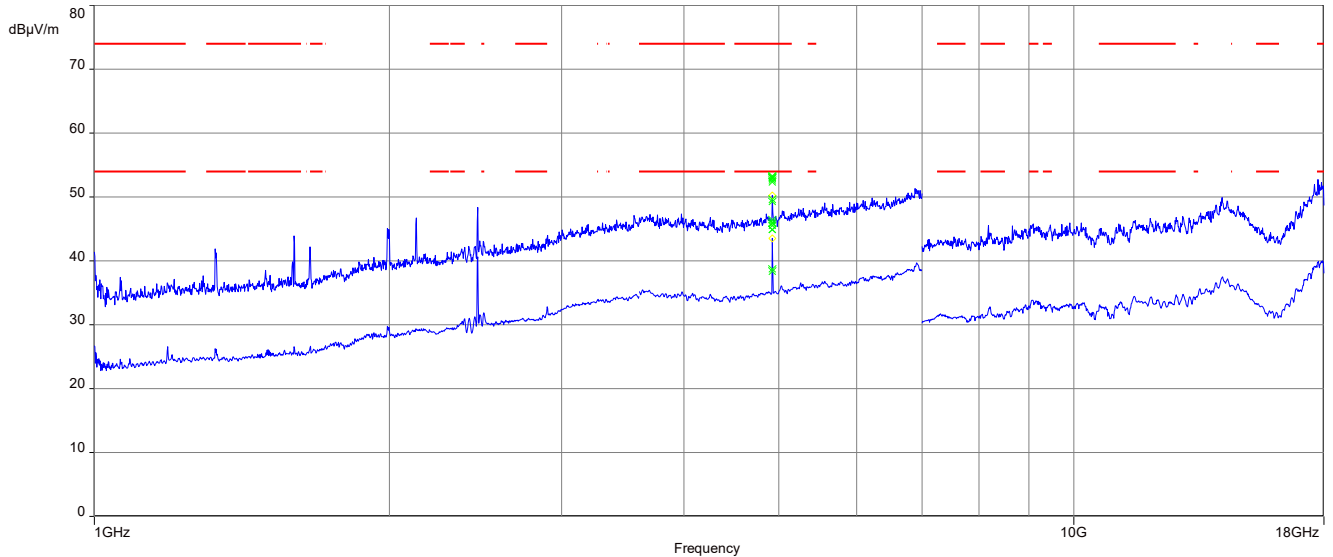
Plot 4: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization

Plots: DSSS b-mode mode (HR)**Plot 1:** Lowest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

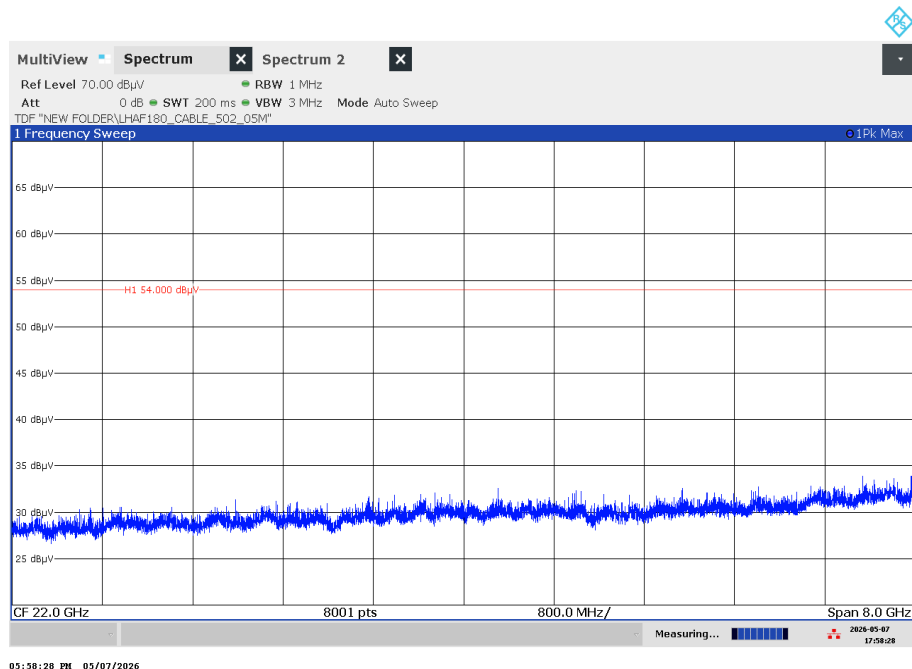
The carrier signal is notched with a 2.4 GHz band rejection filter.

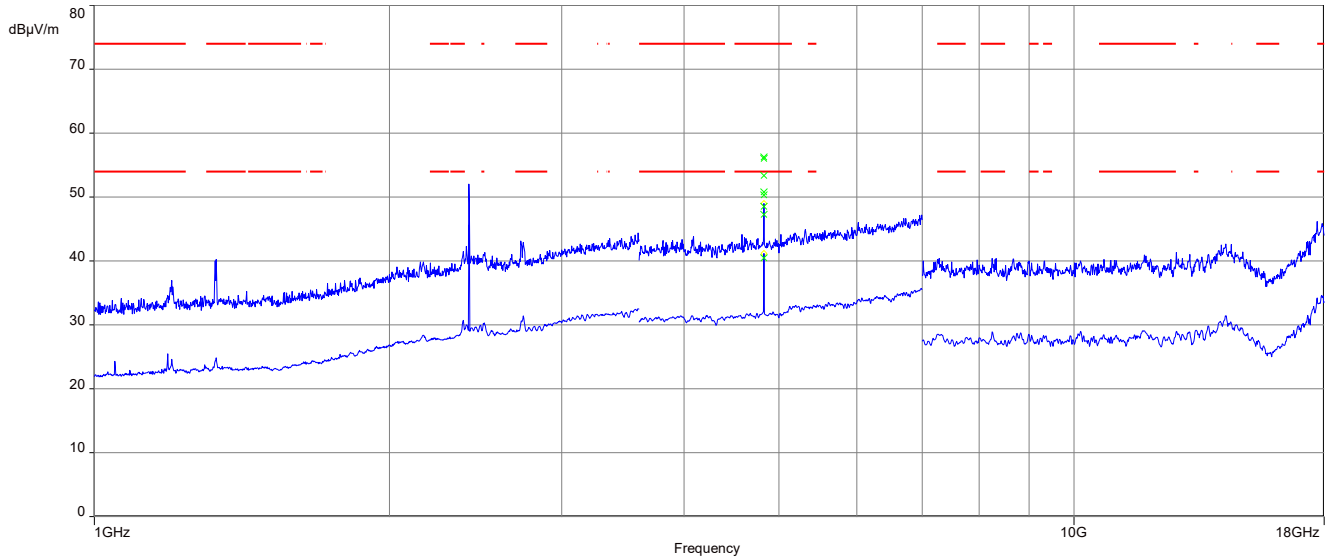
Plot 2: Middle channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

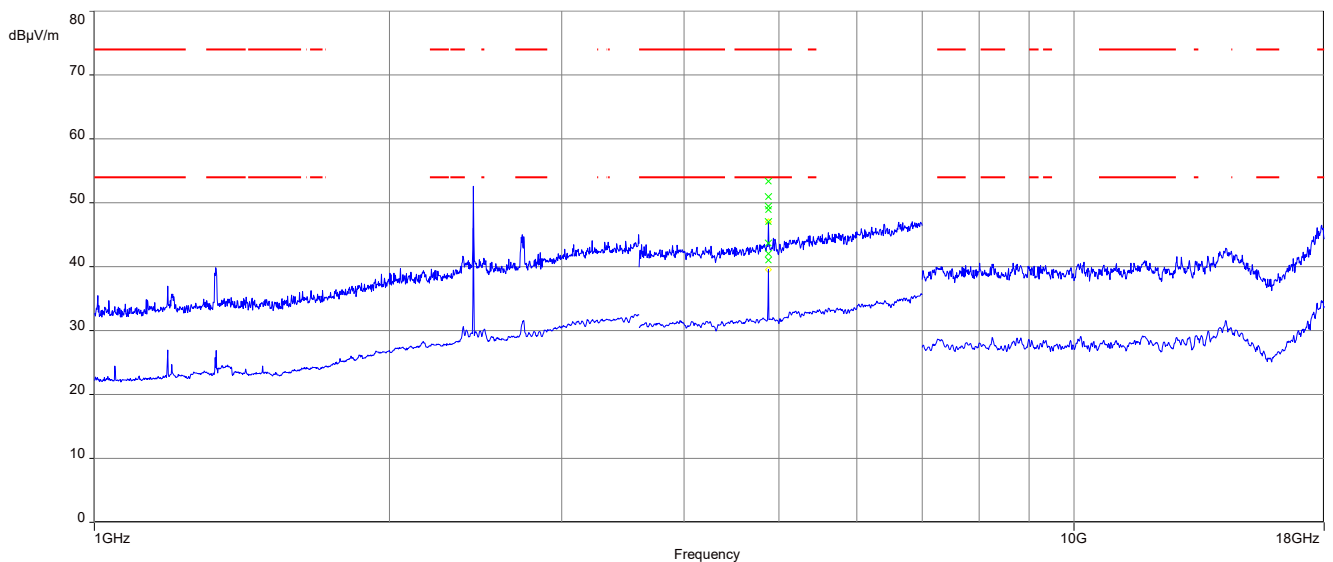
Plot 3: Highest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

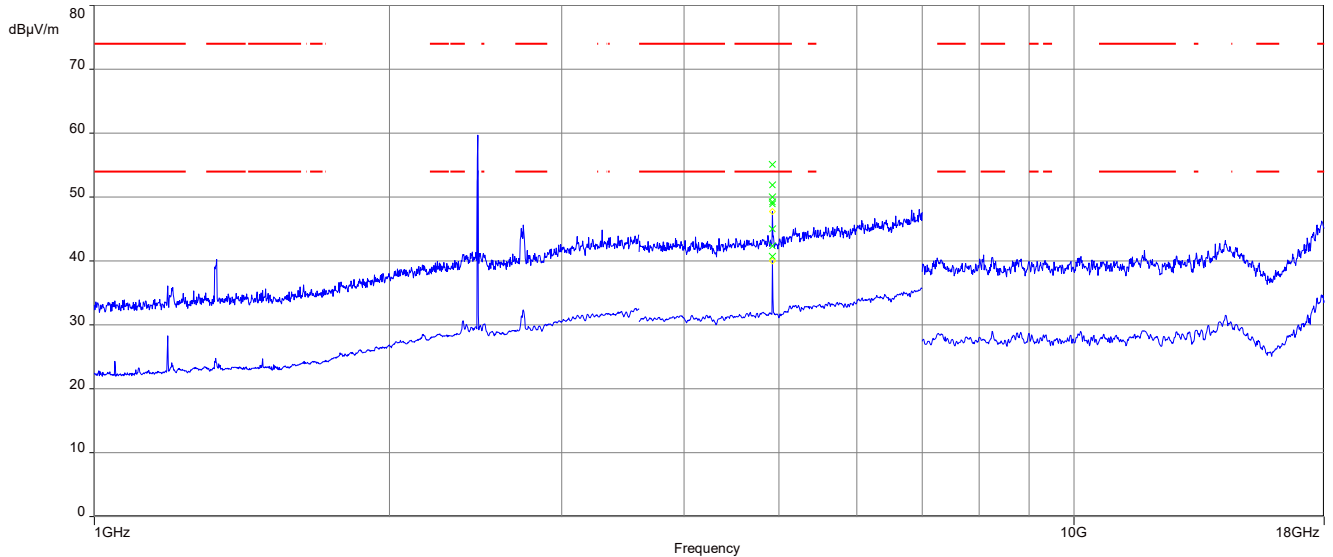
Plot 4: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization

Plots: DSSS b-mode mode (QR)**Plot 1:** Lowest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

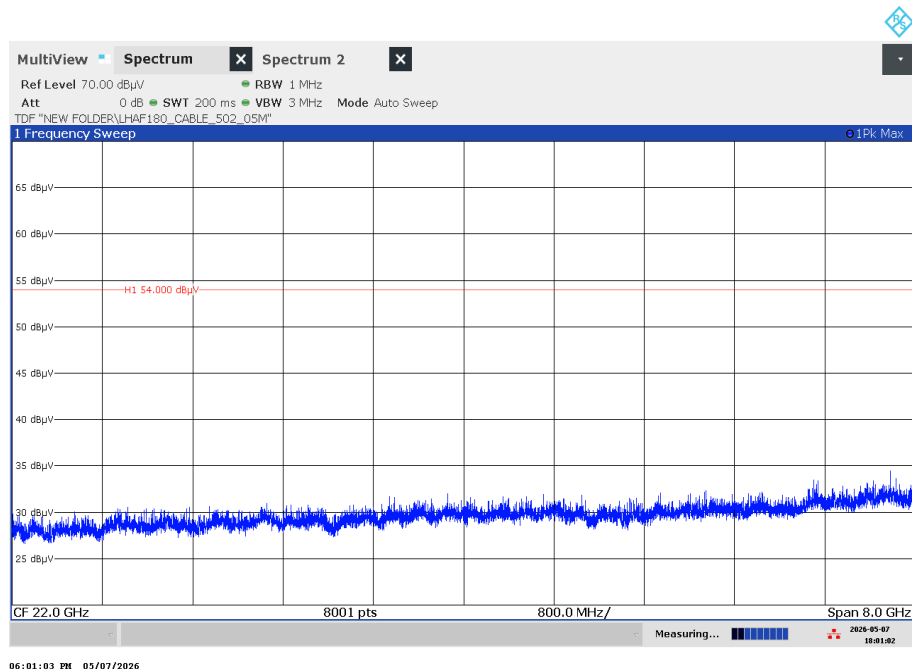
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 2: Middle channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

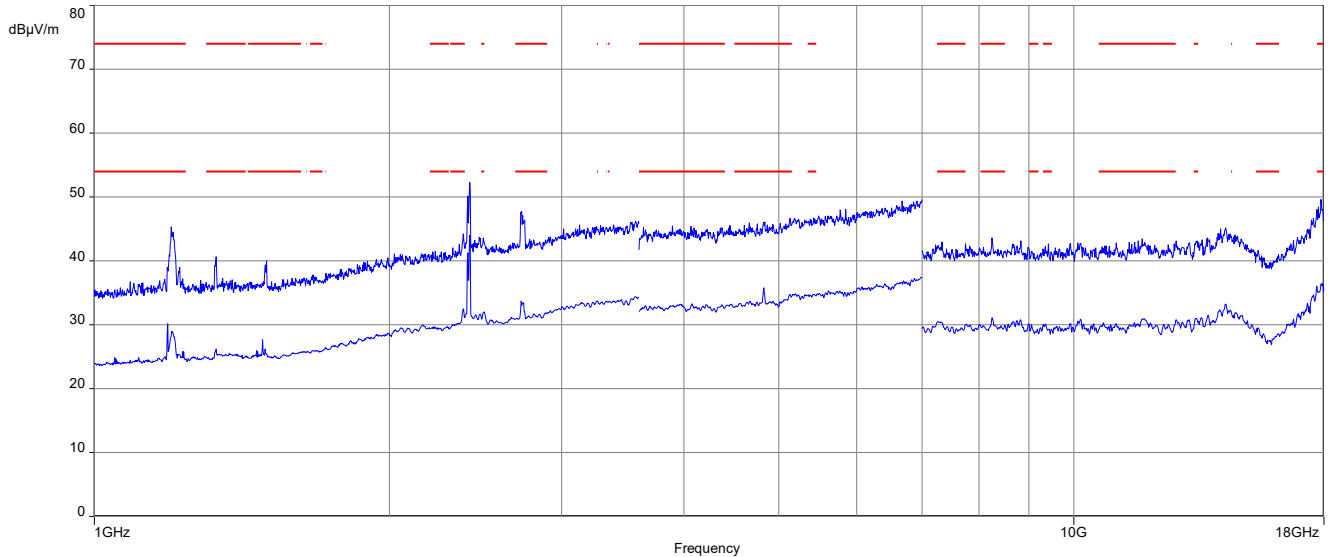
Plot 3: Highest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 4: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization

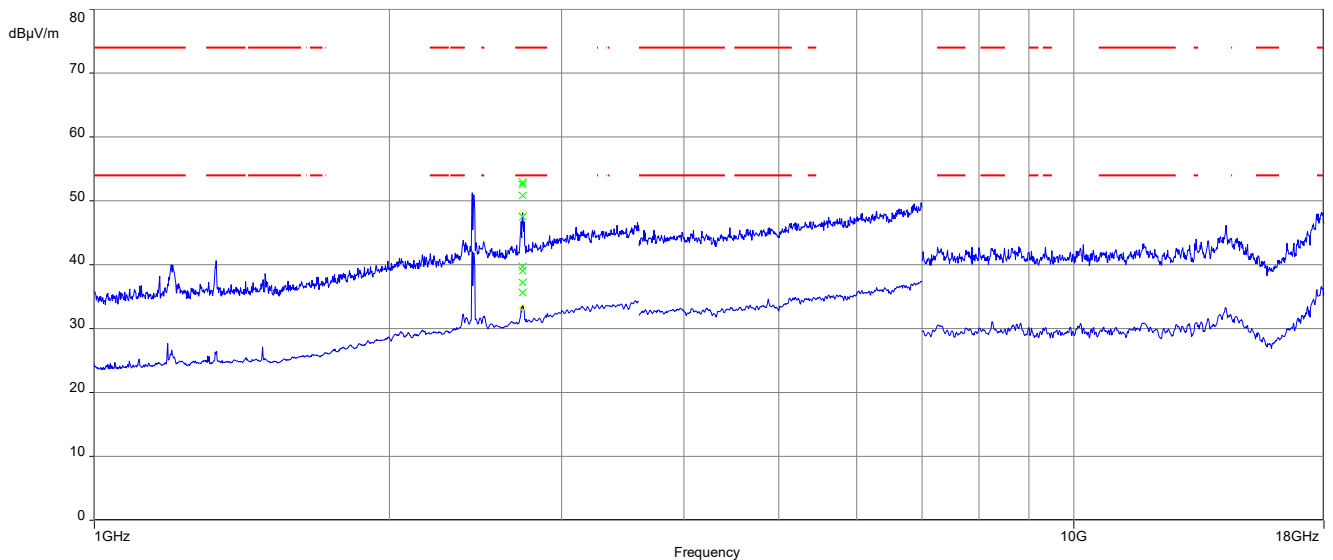
Plots: OFDM g-mode (FR)

Plot 1: Lowest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

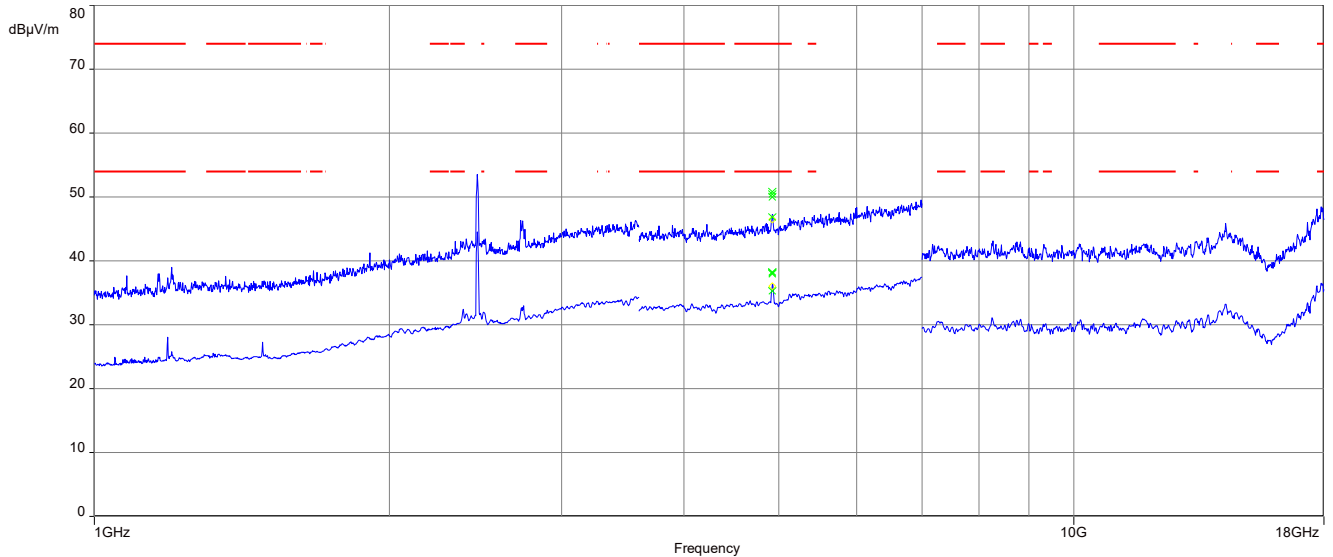


The carrier signal is notched with a 2.4 GHz band rejection filter.

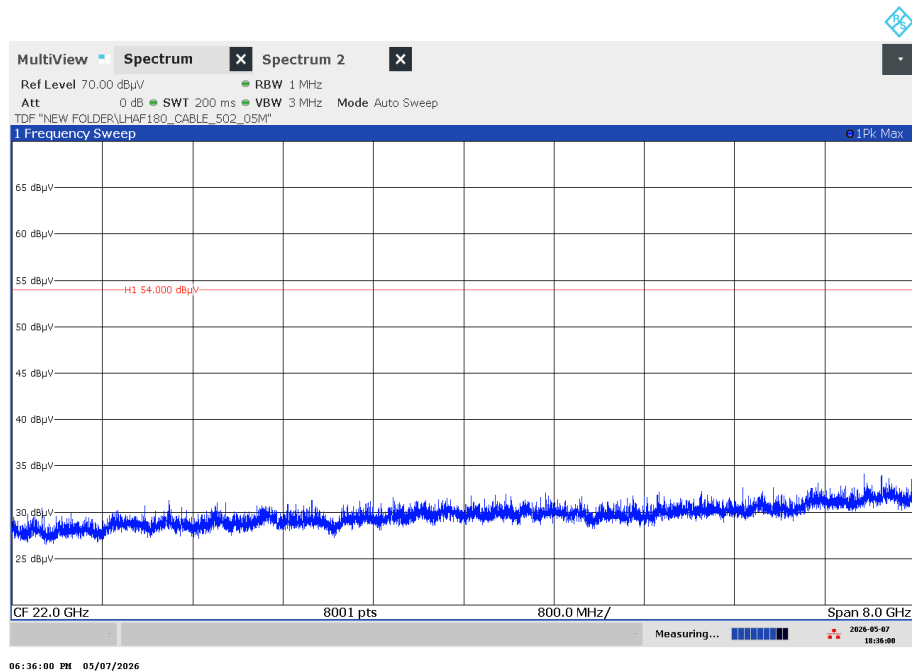
Plot 2: Middle channel, 1 GHz to 18 GHz, vertical & horizontal polarization



The carrier signal is notched with a 2.4 GHz band rejection filter.

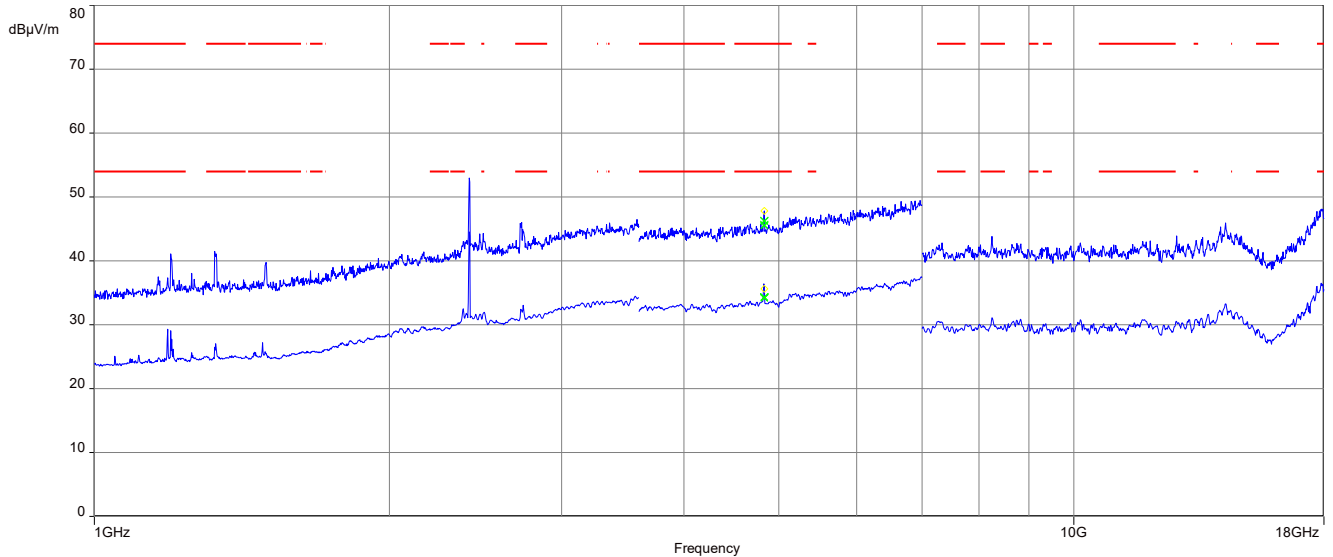
Plot 3: Highest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 4: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization

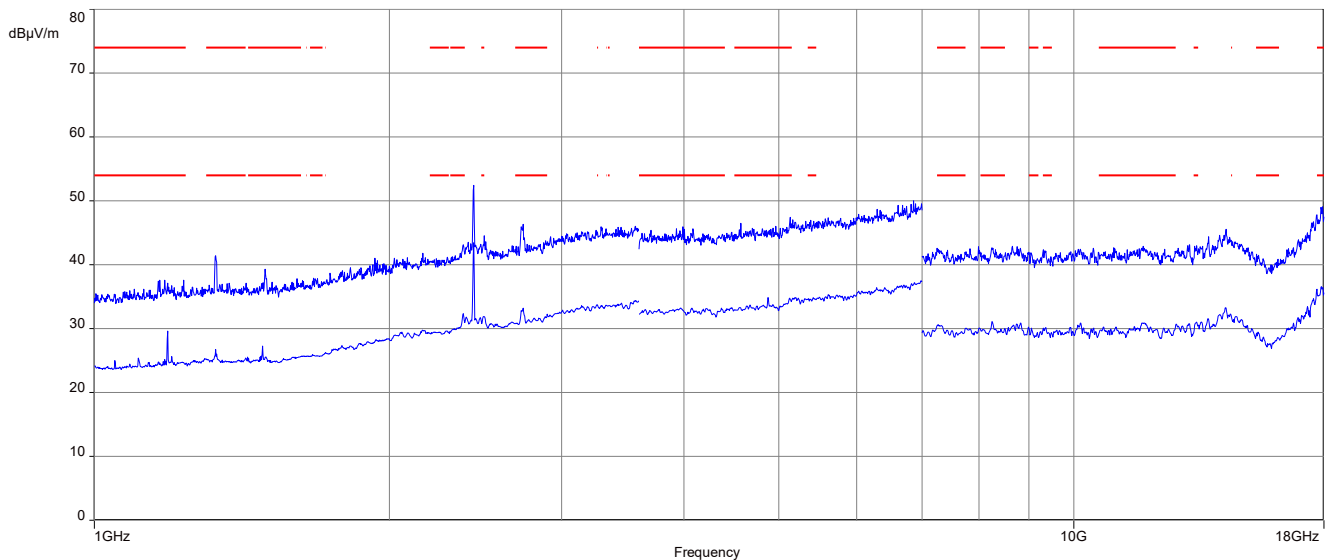
Plots: OFDM mode (HR)

Plot 1: Lowest channel, 1 GHz to 18 GHz, vertical & horizontal polarization



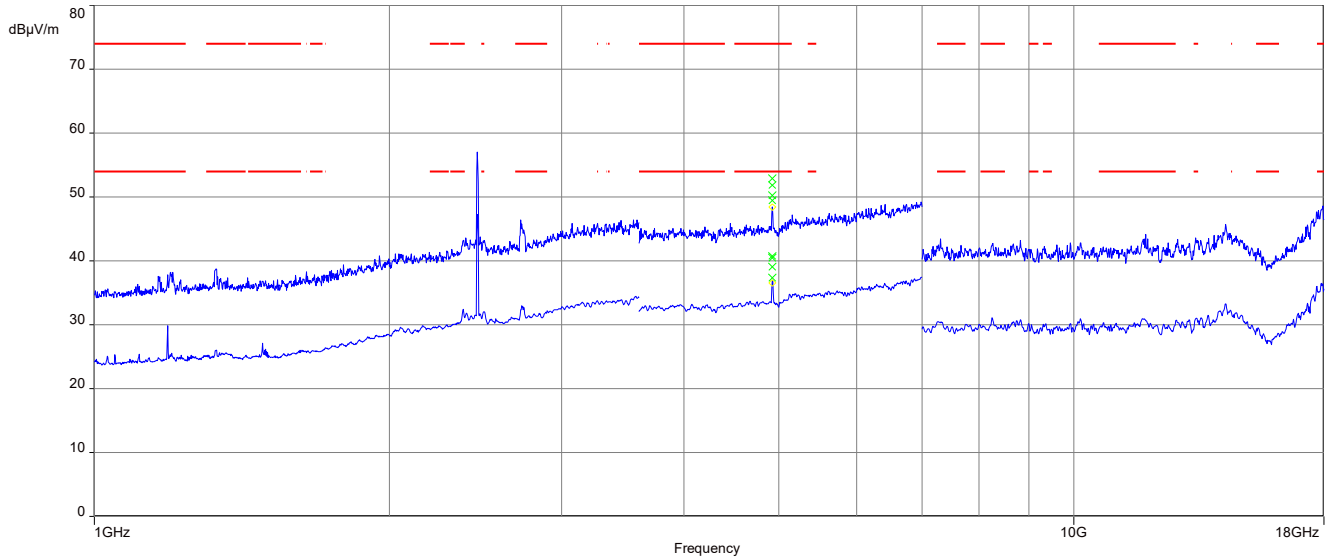
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 2: Middle channel, 1 GHz to 18 GHz, vertical & horizontal polarization



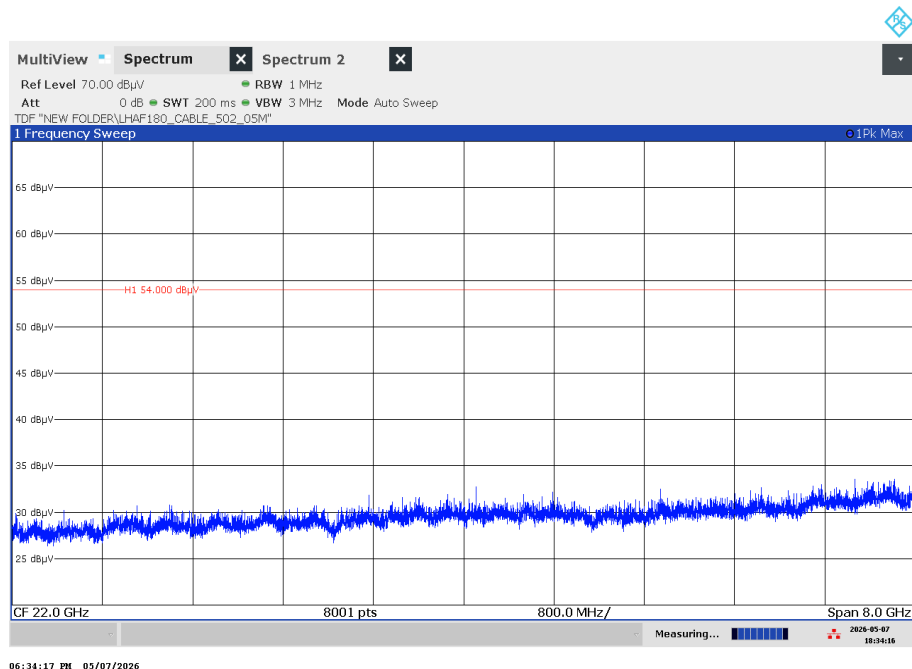
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Highest channel, 1 GHz to 18 GHz, vertical & horizontal polarization



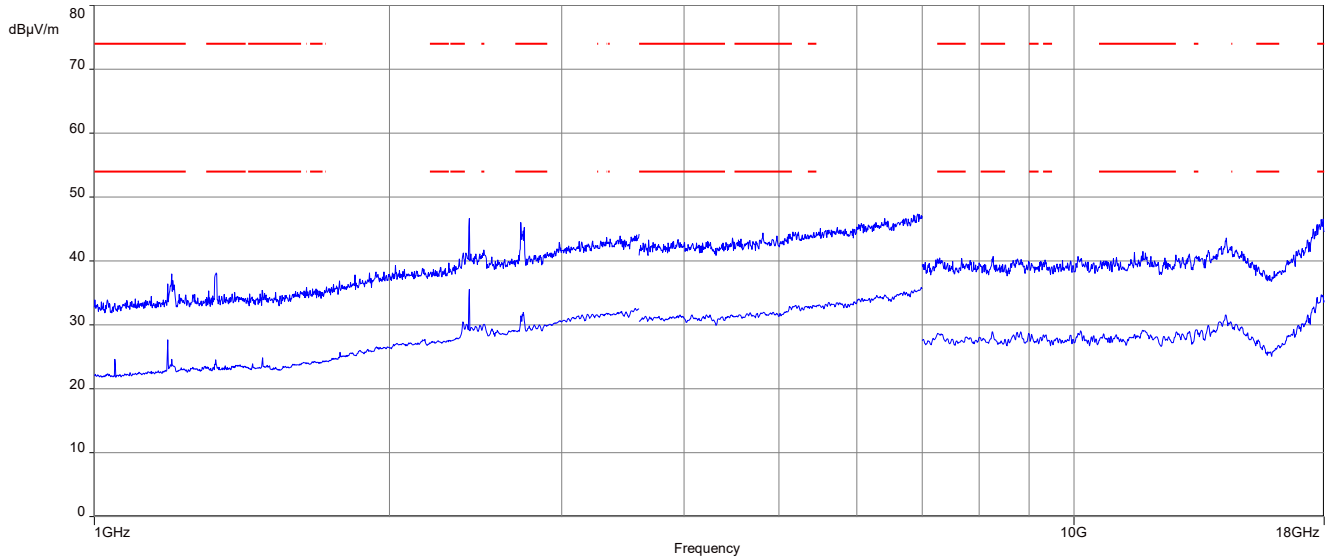
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 4: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization



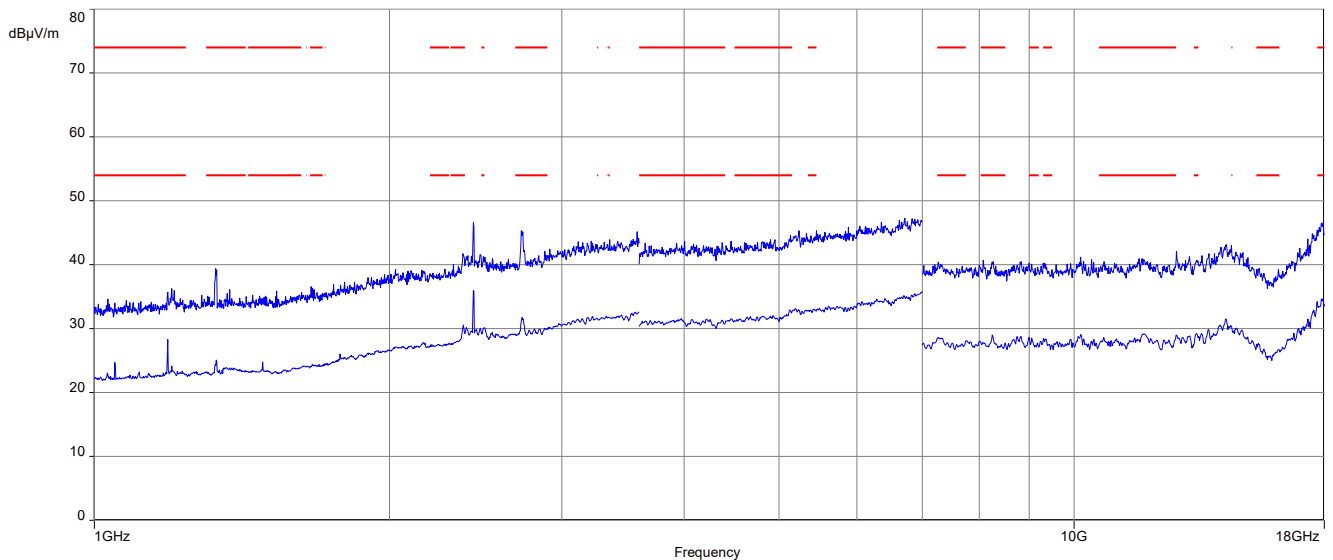
Plots: OFDM mode (QR)

Plot 1: Lowest channel, 1 GHz to 18 GHz, vertical & horizontal polarization



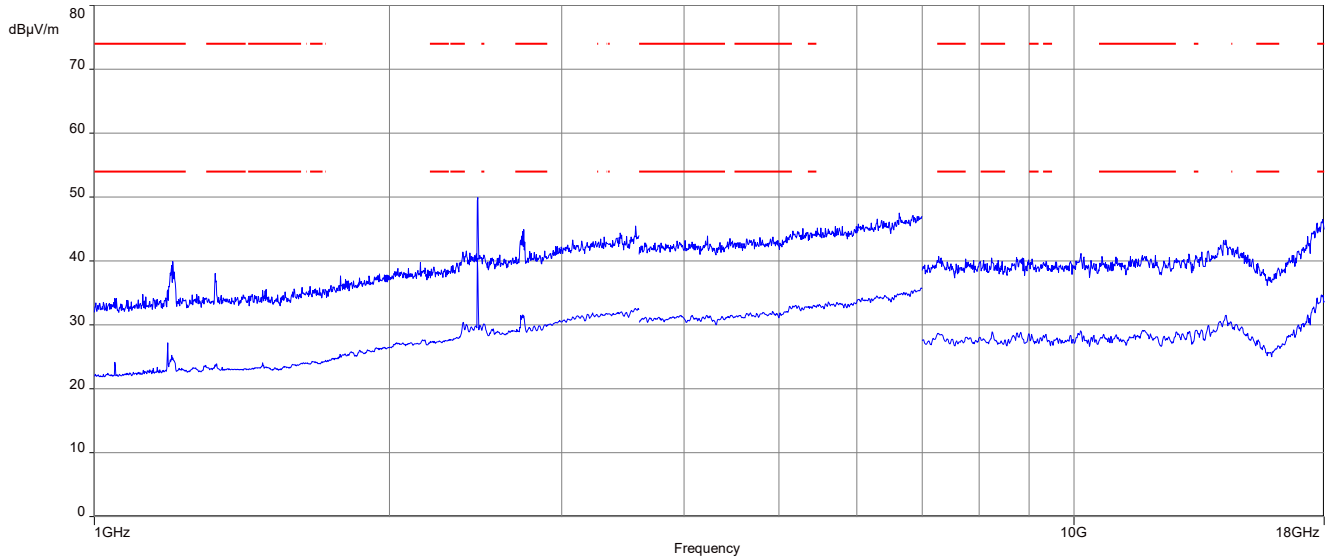
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 2: Middle channel, 1 GHz to 18 GHz, vertical & horizontal polarization



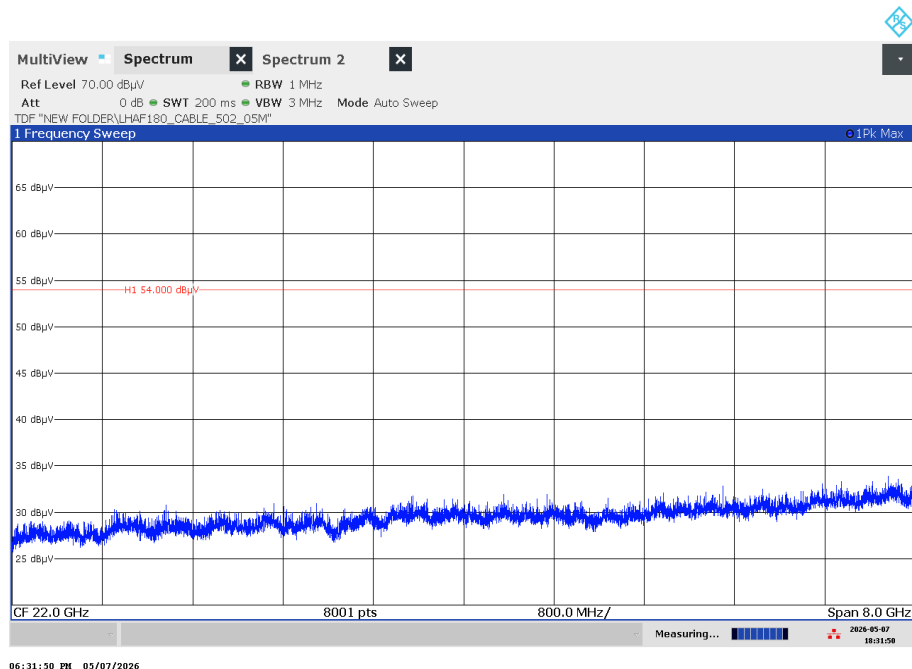
The carrier signal is notched with a 2.4 GHz band rejection filter.

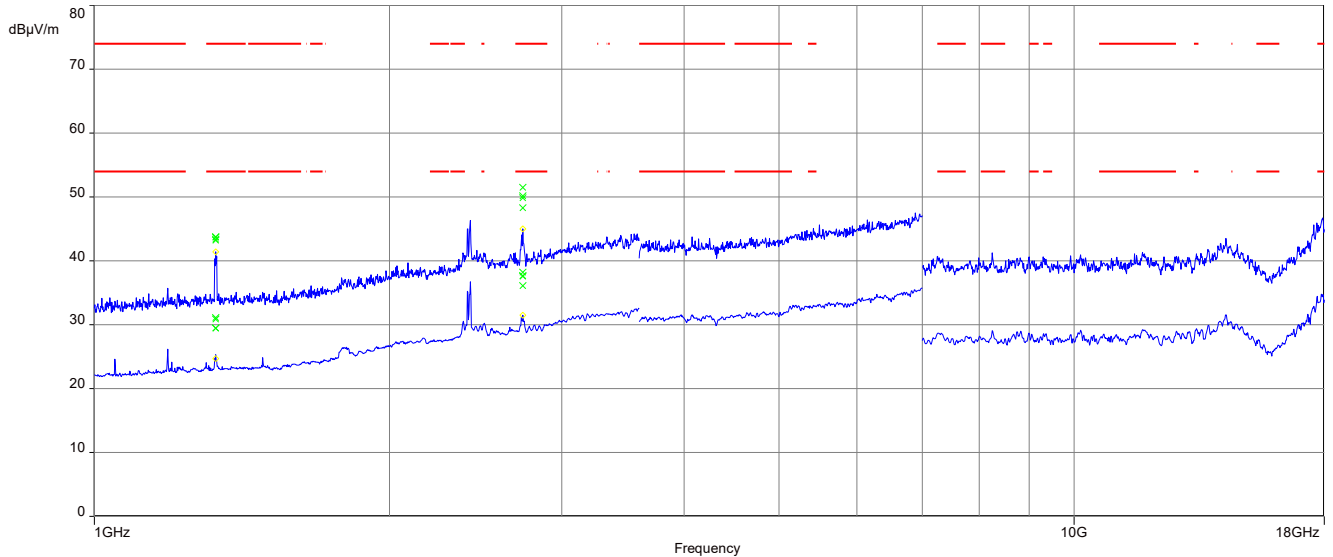
Plot 3: Highest channel, 1 GHz to 18 GHz, vertical & horizontal polarization



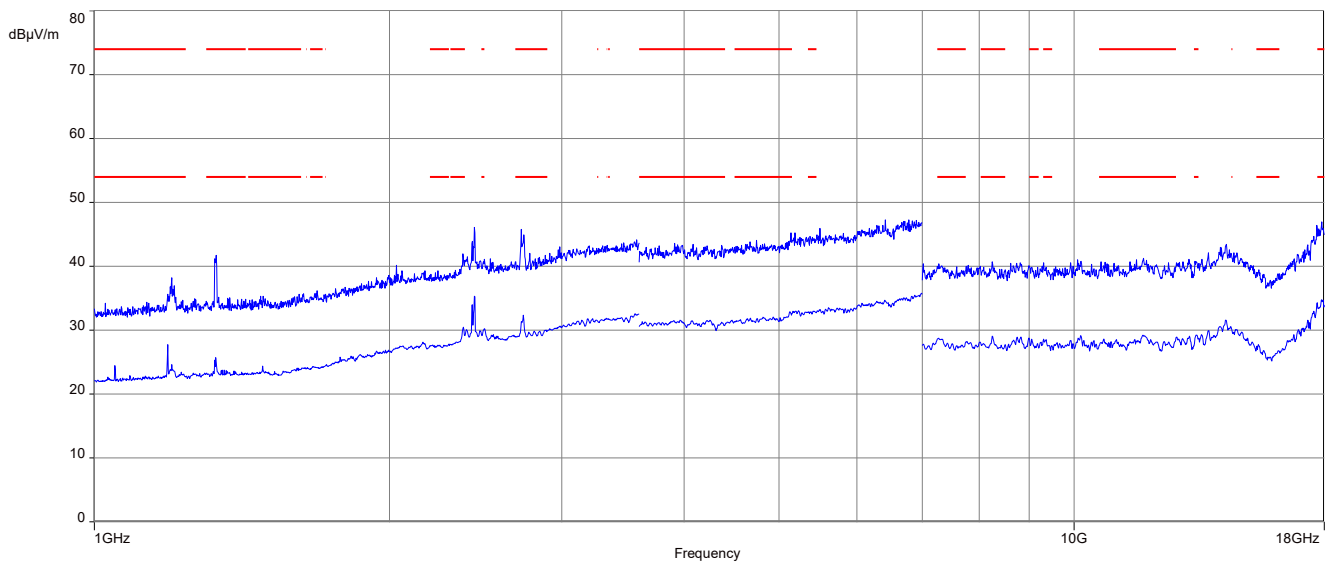
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 4: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization

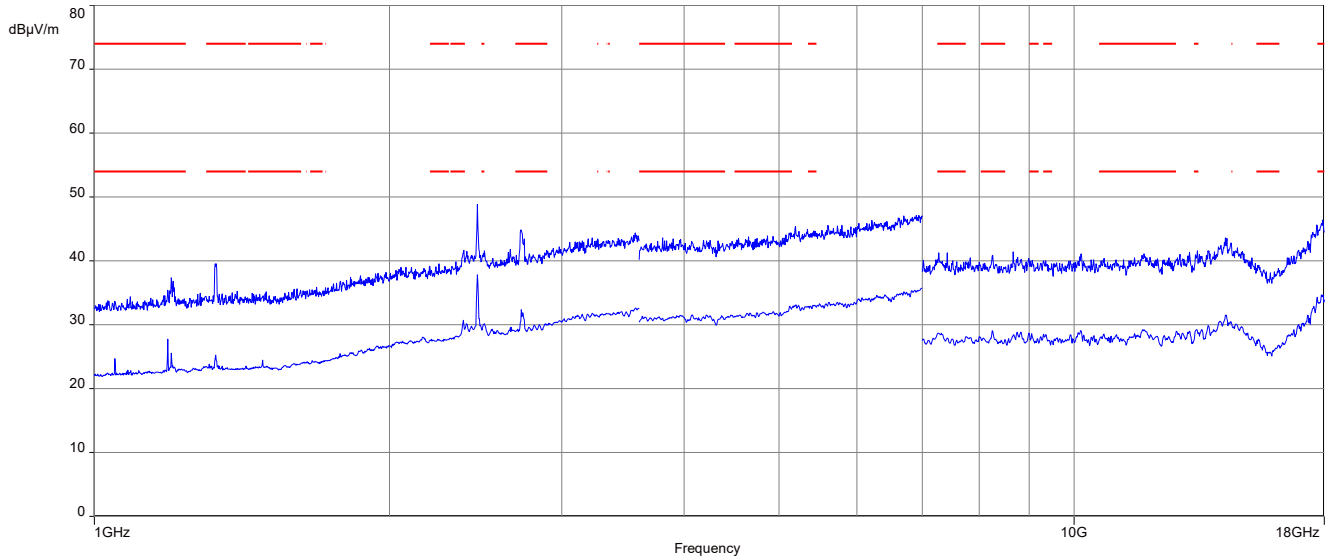


Plots: OFDM ax HE20 mode**Plot 1:** Lowest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

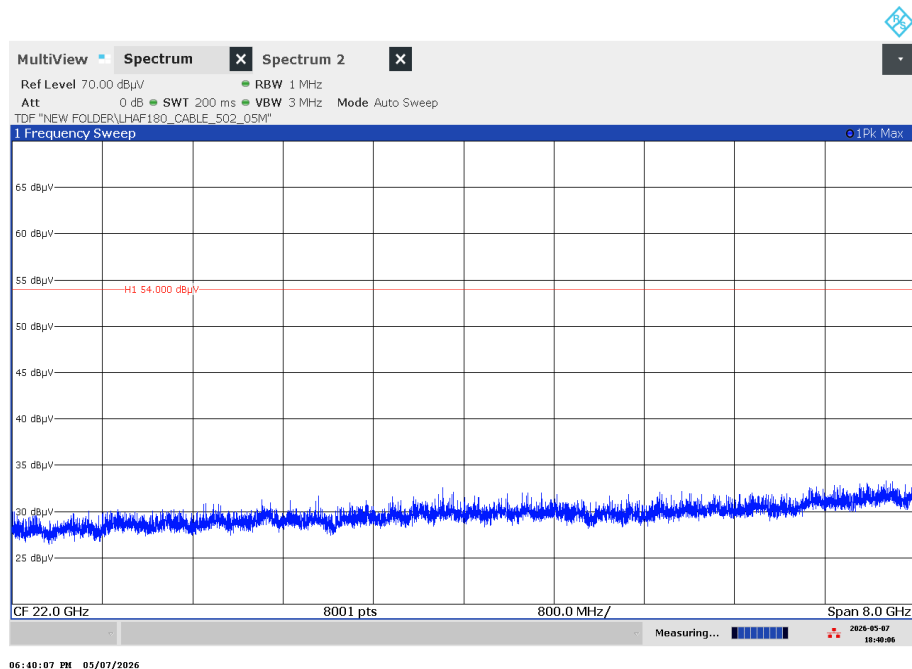
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 2: Middle channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: Highest channel, 1 GHz to 18 GHz, vertical & horizontal polarization

The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 4: Highest channel, 18 GHz to 26 GHz, vertical & horizontal polarization

14 Observations

No observations except those reported with the single test cases have been made.

15 Glossary

AVG	Average
C	Compliant
C/N₀	Carrier to noise-density ratio, expressed in dB-Hz
CAC	Channel availability check
CW	Clean wave
DC	Duty cycle
DFS	Dynamic frequency selection
DSSS	Dynamic sequence spread spectrum
DUT	Device under test
EUT	Equipment under test
FCC	Federal Communications Commission
FCC ID	Combination of Grantee Code and Equipment Product Code
FHSS	Frequency hopping spread spectrum
FVIN	Firmware version identification number
HMN	Host marketing name
HVIN	Hardware version identification number
HW	Hardware
ISED	Innovation, Science and Economic Development Canada
Inv. No.	Inventory number
MC	Modulated carrier
NA	Not applicable
NC	Not compliant
NOP	Non occupancy period
NP	Not performed
OBW	Occupied bandwidth
OC	Operating channel
OCW	Operating channel bandwidth
OFDM	Orthogonal frequency division multiplexing
OOB	Out of band
OP	Occupancy period
PER	Packet error rate
PMN	Product marketing name
PP	Positive peak
QP	Quasi peak
RLAN	Radio local area network
S/N or SN	Serial number
SW	Software
UUT	Unit under test
WLAN	Wireless local area network

16 Document history

Version	Applied changes	Date of release
R01	Initial release	2026-06-19

END OF TEST REPORT