

EMC TEST REPORT

Applicant	Copeland Comfort Control LP
FCC ID	2A4JN-VX4001
Product	VX4
Brand	Verdant
Model	VX4-TR-W; VX4-TR-B; VX4-NTR-W; VX4-NTR-B; VX4-WU-W; VX4-WU-B; VX4-NWU-W; VX4-NWU-B; VX4-TVF-W; VX4-TVF-B; VX4-RSR-W; VX4-RSR-B; VX4-NTVF-W; VX4-NTVF-B; VX4-NRSR-W; VX4-NRSR-B
Report No.	R2312A1367-E1
Issue Date	December 11, 2024

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC Code CFR47 Part15B (2023)/ ANSI C63.4-2014**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of measurement results

Number	Test Case	Clause in FCC Rules	Conclusion
1	Radiated Emission	FCC Part15.109, ANSI C63.4-2014	PASS
2	Conducted Emission	FCC Part15.107, ANSI C63.4-2014	PASS
Date of Testing: December 22, 2023 ~ December 25, 2023 and March 20, 2024 ~ March 31, 2024 Date of Sample Received: December 18, 2023			
Note: All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3 Testing Location

Company:	Eurofins TA Technology (Shanghai) Co., Ltd.
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2 General Description of Equipment Under Test

2.1 Applicant and Manufacturer Information

Applicant	Copeland Comfort Control LP
Applicant address	8100 West Florissant Ave, St. Louis, United States of America
Manufacturer	Copeland Comfort Control LP
Manufacturer address	8100 West Florissant Ave, St. Louis, United States of America

2.2 General Information

EUT Description			
Device Type	Movable Device		
Model	VX4-TR-W; VX4-TR-B; VX4-NTR-W; VX4-NTR-B; VX4-WU-W; VX4-WU-B; VX4-NWU-W; VX4-NWU-B; VX4-TVF-W; VX4-TVF-B; VX4-RSR-W; VX4-RSR-B; VX4-NTVF-W; VX4-NTVF-B; VX4-NRSR-W; VX4-NRSR-B		
Lab internal SN	VX4-TR-B	R2312A1367/S01	
	VX4-NTR-B	R2312A1367/S02	
	VX4-WU-B	R2312A1367/S03	
	VX4-NWU-B	R2312A1367/S04	
	VX4-TVF-B	R2312A1367/S05	
HW Version	0059-5510 REV.003		
SW Version	fcc_test_01		
Power Rating	AC 24V		
Connecting I/O Port(s)	Please refer to the User's Manual.		
Antenna Type	PCB Antenna		
Frequency	Band	Tx (MHz)	Rx (MHz)
	Model 900MHz	902.46 ~ 927.54	902.46 ~ 927.54
Note: The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.			

Items	Model name & Shell color -White	Model name & Shell color -Black	Heat/Cool Relays (6pcs)	RS485 with Dry Contact Relay	UART (Protocol) with Dry Contact Relay	PIR Sensor	Notes	Test description
1	VX4-TR-W	VX4-TR-B	6	--	--	√	The only differences between models are color, icon and selling channels. Powered by 12VDC and 24VAC	VX4-TR-B for test all test items.
2	VX4-NTR-W	VX4-NTR-B	6	--	--	--	The only differences between models are color, icon and selling channels. Powered by 12VDC and 24VAC	VX4-NTR-B for test Radiated Emission.
3	VX4-WU-W	VX4-WU-B	0	--	--	√	The only differences between models are color, icon and selling channels. Powered by 12VDC, 24VAC or/and battery 3VDC (Two batteries are in series, 1.5VDC for each)	VX4-WU-B for test Radiated Emission.
4	VX4-NWU-W	VX4-NWU-B	0	--	--	--	The only differences between models are color, icon and selling channels. Powered by 12VDC, 24VAC or/and battery 3VDC (Two batteries are in series, 1.5VDC for each)	VX4-NWU-B for test Radiated Emission.
5	VX4-NRSR-W	VX4-NRSR-B	1	√	--	--	The only differences between models are color, icon and selling channels. Powered by 12VDC	/
6	VX4-RSR-W	VX4-RSR-B	1	√	--	√	The only differences between models are color, icon and selling channels. Powered by 12VDC	/
7	VX4-TVF-W	VX4-TVF-B	1	--	√	√	The only differences between models are color, icon and selling channels. Powered by 12VDC	VX4-TVF-B for test Radiated Emission.
8	VX4-NTVF-W	VX4-NTVF-B	1	--	√	--	The only differences between models are color, icon and selling channels. Powered by 12VDC	/
Note : All these model's PCB Layout, compnents, operating principle, and antenna are the same.								

2.3 Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards

FCC Code CFR47 Part15B (2023)

ANSI C63.4-2014

2.4 Test Mode

Test Mode	
Mode 1	External Power Supply + EUT+ RFID BT Traffic
Mode 2	External Power Supply + EUT+ Standby

Test Type	Test Mode	Worst Mode
Radiated Emission	Mode 1, 2	Mode 1
Conducted Emission	Mode 1, 2	Mode 2
During the test, the preliminary test was performed in all modes, the test data of the worst-case condition was recorded in this report.		

3 Test Case Results

3.1 Radiated Emission

Ambient Condition

Temperature	Relative humidity
15°C ~ 35°C	30% ~ 60%

Methods of Measurement

The EUT is placed on a non-metallic table 0.8m above the horizontal metal reference ground plane. The distance between EUT and receive antenna should be 3 meters. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2014. Sweep the whole frequency band through the range from 30MHz to the 5th harmonic of the carrier. During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turn table shall be rotated from 0 to 360 degrees for detecting the maximum of radiated signal level.

The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing. During the test, the EUT is worked at maximum output power.

Set the spectrum analyzer in the following:

Below 1GHz:

RBW=100 kHz / VBW=300 kHz / Sweep=AUTO

Above 1GHz:

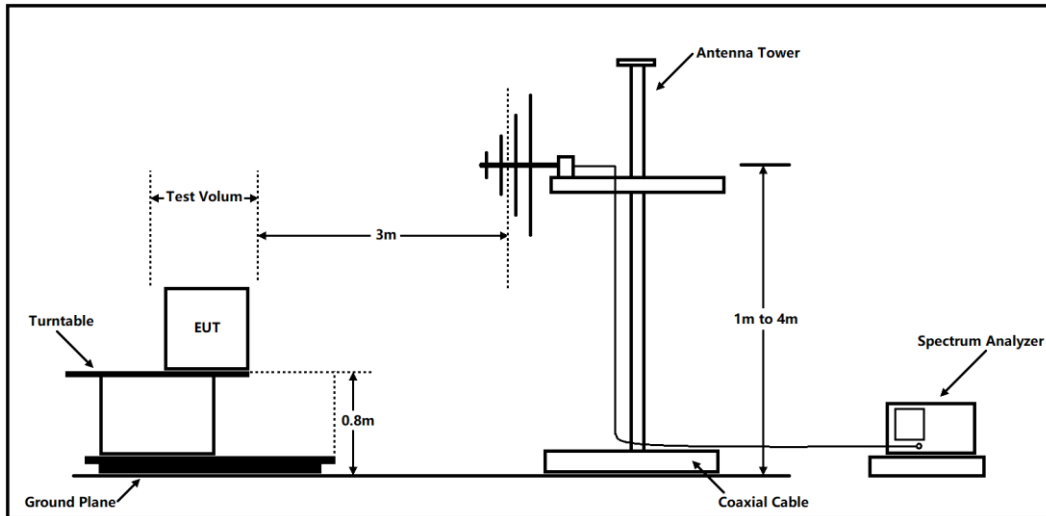
(a) PEAK Detector: RBW=1MHz / VBW=3MHz/ Sweep=AUTO

(b) AVERAGE Detector: RBW=1MHz / VBW=3MHz / Sweep=AUTO

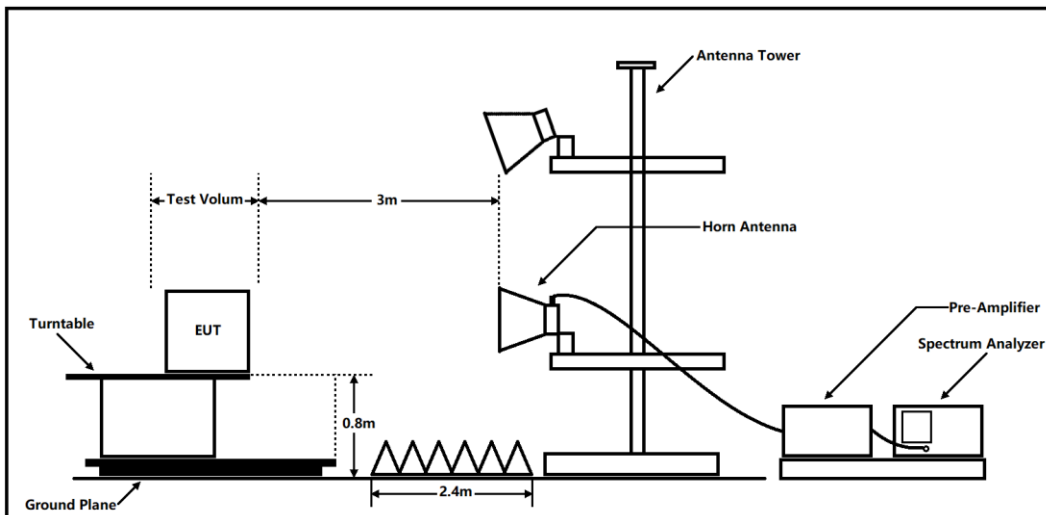
The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

Test Setup

Below 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m

Antenna Tower meets ANSI C63.4 requirements for measurements above 1 GHz by keeping the antenna aimed at the EUT during the antenna's ascent/ descent along the antenna mast.

Limits

Class B

Frequency (MHz)	Field Strength (dB μ V/m)	Detector
30 -88	40.0	Quasi-peak
88-216	43.5	Quasi-peak
216 – 960	46.0	Quasi-peak
960-1000	54.0	Quasi-peak
1000-5 th harmonic of the highest frequency or 40GHz, which is lower	54 74	Average Peak

Frequency range of radiated measurements

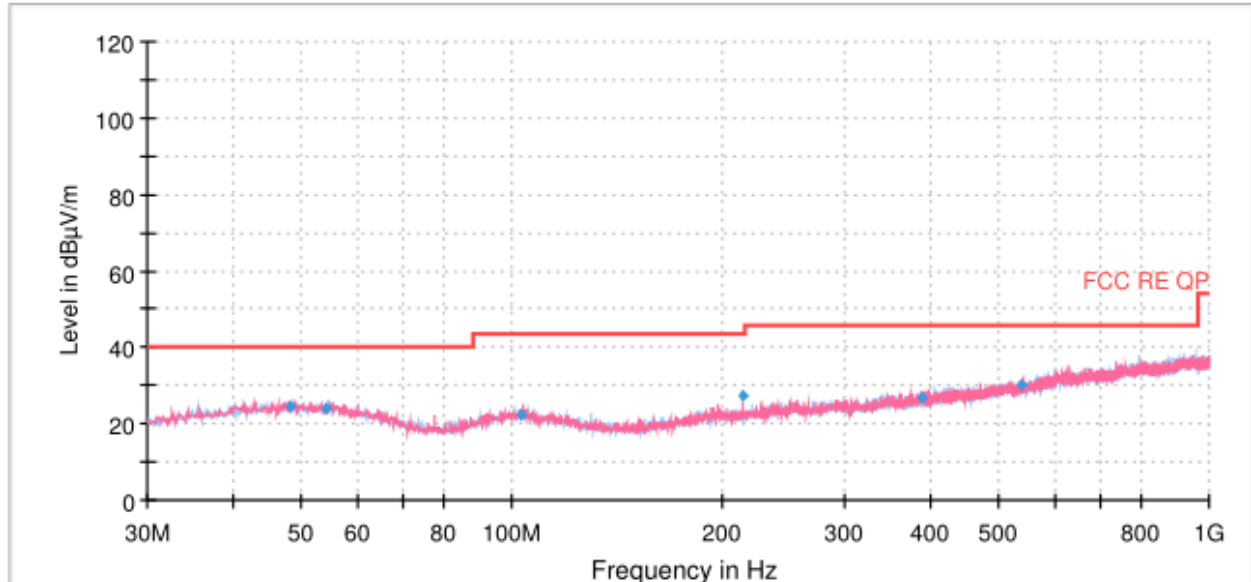
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower.

Test Results

Sweep the whole frequency band through the range from 30MHz to the 5th harmonic of the carrier. The following graphs display the maximum values of horizontal and vertical by software.

For above 1GHz, Blue trace uses the peak detection, Green trace uses the average detection.

VX4-TR-B

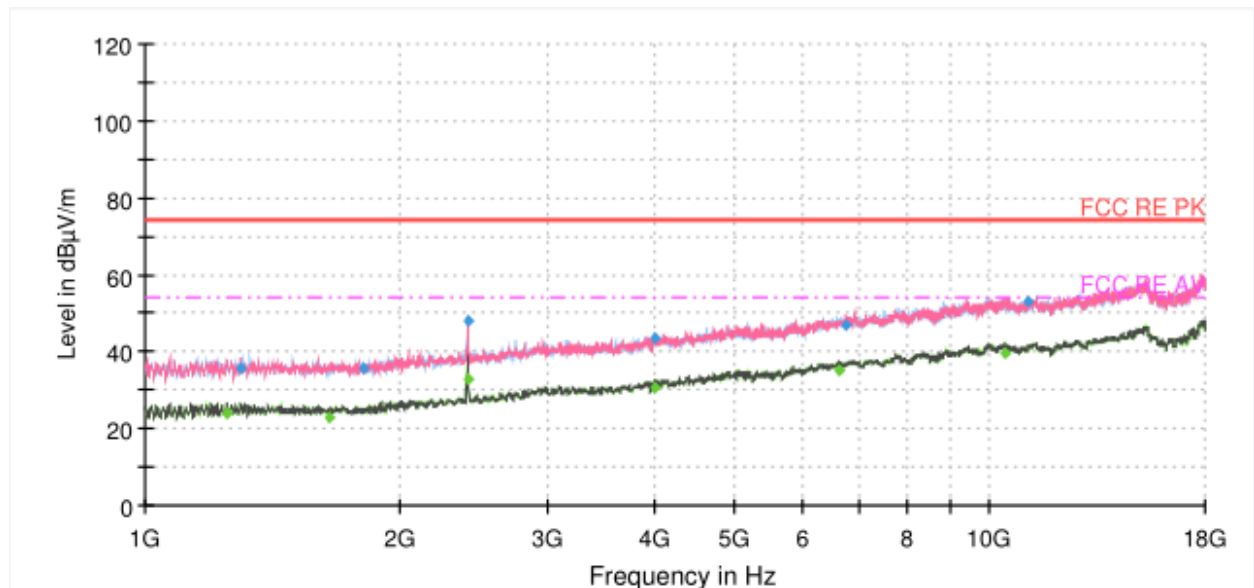


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
48.02	24.34	40.00	15.66	214.0	H	352.00	20
54.01	23.99	40.00	16.01	116.0	H	100.00	20
103.36	22.17	43.50	21.33	184.0	V	21.00	19
214.50	27.08	43.50	16.42	210.0	V	151.00	18
387.45	26.78	46.00	19.22	114.0	V	153.00	23
536.30	30.10	46.00	15.90	109.0	V	354.00	26

Remark: 1. Correction Factor = Antenna factor + Insertion loss(cable loss)

2. Margin = Limit – Quasi-Peak



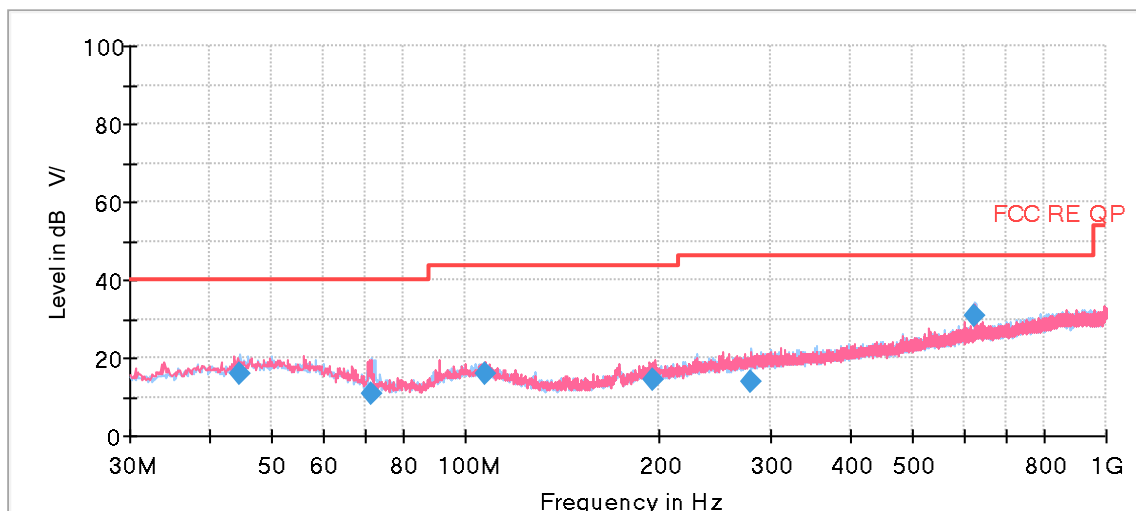
Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1250.75	---	24.22	54.00	29.78	1000.00	190.0	H	327.00	-19
1297.50	35.75	---	74.00	38.25	1000.00	100.0	V	144.00	-19
1650.25	---	22.89	54.00	31.11	1000.00	210.0	H	6.00	-19
1816.00	35.61	---	74.00	38.39	1000.00	109.0	H	145.00	-19
2413.13	---	32.78	54.00	21.22	1000.00	198.0	H	48.00	-16
2413.13	48.10	---	74.00	25.90	1000.00	192.0	H	48.00	-16
4019.63	---	30.53	54.00	23.47	1000.00	110.0	V	224.00	-11
4021.75	43.57	---	74.00	30.43	1000.00	193.0	V	39.00	-11
6650.38	---	35.06	54.00	18.94	1000.00	192.0	V	22.00	-3
6748.13	46.84	---	74.00	27.16	1000.00	198.0	V	35.00	-3
10420.13	---	39.71	54.00	14.29	1000.00	103.0	V	297.00	1
11087.38	52.83	---	74.00	21.17	1000.00	192.0	V	23.00	1

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

2. Margin = Limit –MAX Peak/ Average

VX4-NTR-B

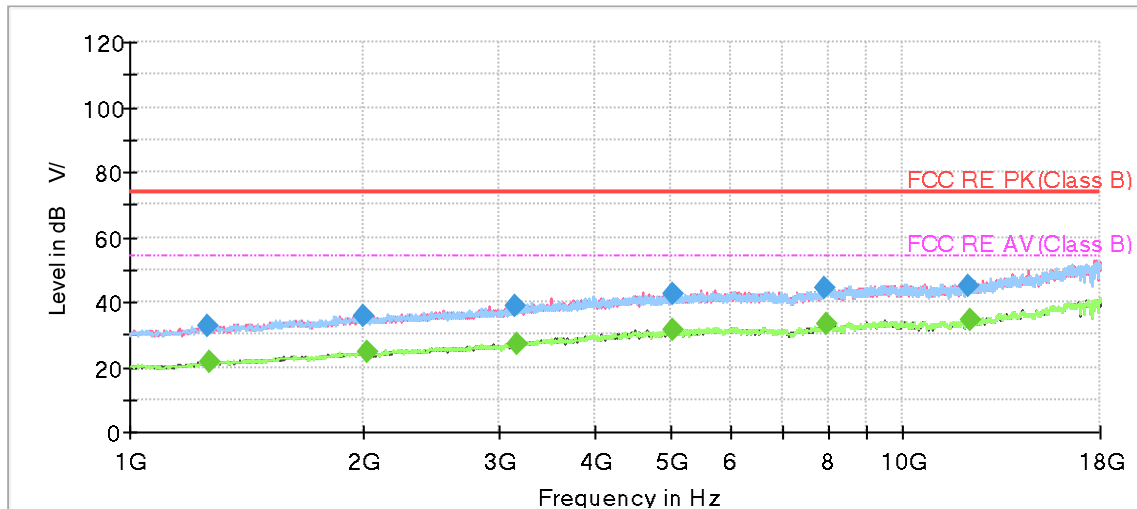


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
44.350000	15.99	40.00	24.01	125.0	H	161.0	20.8
71.227500	10.73	40.00	29.27	100.0	H	128.0	16.1
107.720000	16.01	43.50	27.49	100.0	V	55.0	18.9
196.967500	14.18	43.50	29.32	209.0	V	80.0	18.8
280.017500	13.67	46.00	32.33	100.0	H	289.0	20.5
625.095000	30.95	46.00	15.05	100.0	H	129.0	27.6

Remark: 1. Correction Factor = Antenna factor + Insertion loss(cable loss)

2. Margin = Limit – Quasi-Peak



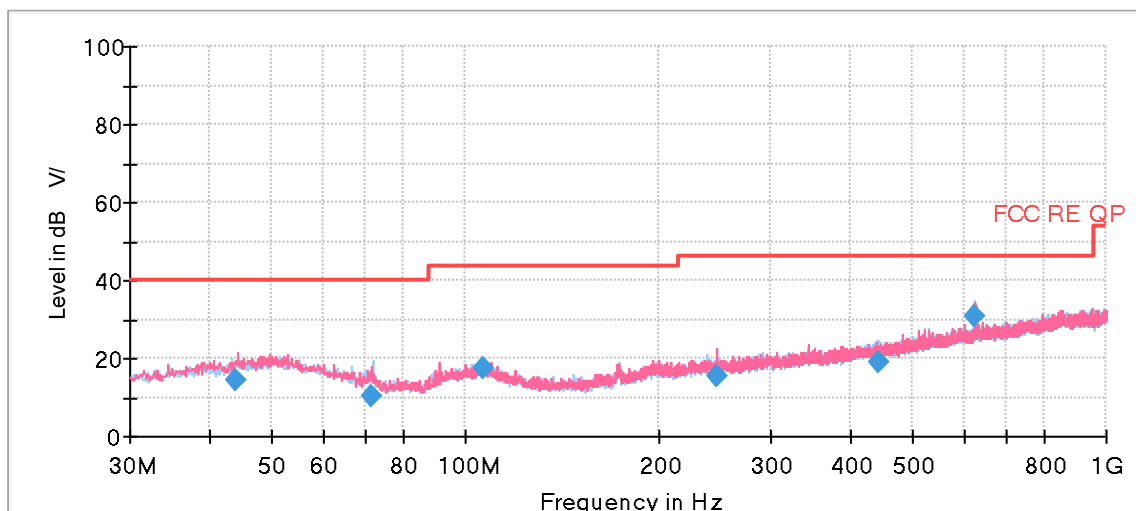
Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1264.573750	32.61	---	74.00	41.39	500.0	100.0	V	213.0	-18.2
1271.438750	---	21.69	54.00	32.31	500.0	100.0	V	134.0	-18.2
2008.307500	35.71	---	74.00	38.29	500.0	100.0	H	0.0	-14.4
2027.421250	---	24.40	54.00	29.60	500.0	100.0	V	87.0	-14.3
3149.296250	38.56	---	74.00	35.44	500.0	200.0	V	358.0	-10.1
3170.950000	---	27.33	54.00	26.67	500.0	100.0	V	68.0	-10.1
5053.666250	42.37	---	74.00	31.63	500.0	100.0	H	285.0	-4.9
5053.897500	---	31.26	54.00	22.74	500.0	100.0	V	332.0	-4.9
7902.935000	44.29	---	74.00	29.71	500.0	200.0	H	184.0	-1.8
7965.953750	---	33.10	54.00	20.90	500.0	100.0	V	248.0	-1.7
12137.105000	44.69	---	74.00	29.31	500.0	200.0	H	22.0	0.6
12211.310000	---	34.24	54.00	19.76	500.0	100.0	H	142.0	0.7

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

2. Margin = Limit –MAX Peak/ Average

VX4-WU-B

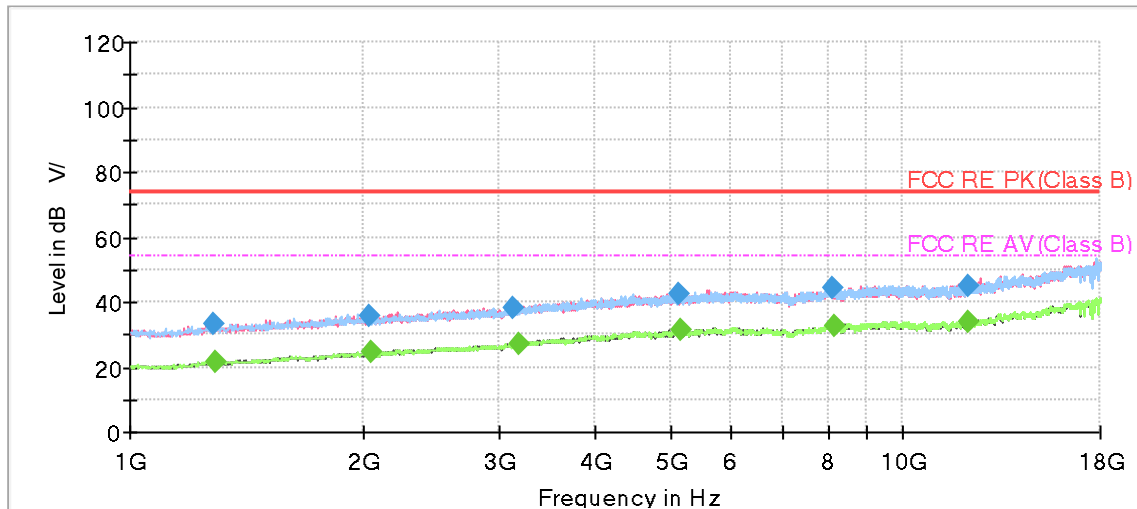


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
43.866250	14.16	40.00	25.84	175.0	V	24.0	20.6
71.550000	10.40	40.00	29.60	100.0	H	310.0	16.0
106.746250	17.22	43.50	26.28	225.0	V	85.0	18.9
247.356250	15.34	46.00	30.66	175.0	V	305.0	19.9
442.256250	19.03	46.00	26.97	225.0	H	138.0	23.8
625.095000	30.92	46.00	15.08	125.0	H	149.0	27.6

Remark: 1. Correction Factor = Antenna factor + Insertion loss(cable loss)

2. Margin = Limit – Quasi-Peak



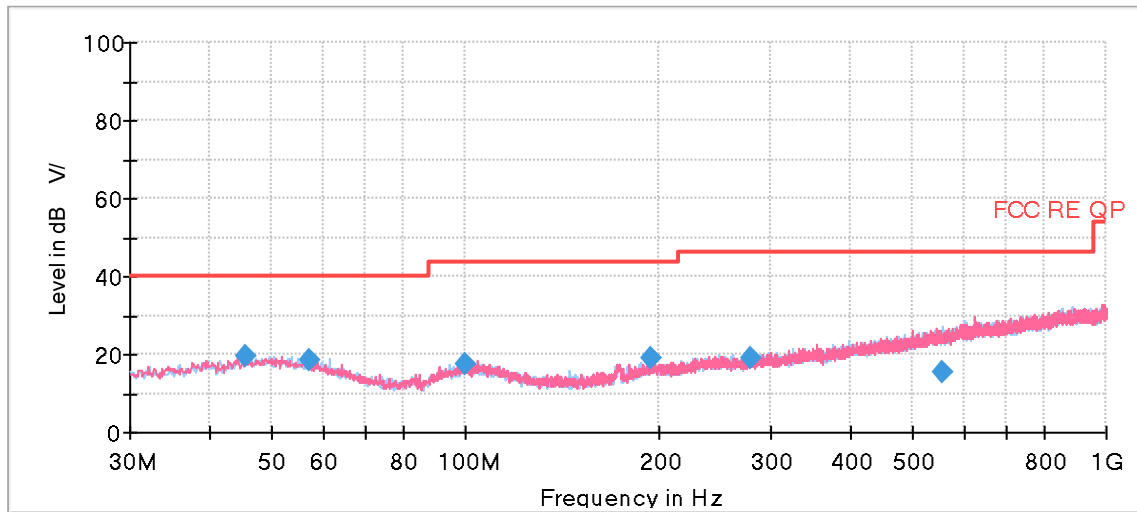
Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1281.118750	33.09	---	74.00	40.91	500.0	200.0	H	110.0	-18.1
1294.311250	---	21.72	54.00	32.28	500.0	100.0	V	59.0	-18.1
2043.222500	35.81	---	74.00	38.19	500.0	100.0	V	86.0	-14.3
2049.862500	---	24.77	54.00	29.23	500.0	100.0	H	288.0	-14.3
3134.131250	38.21	---	74.00	35.79	500.0	100.0	V	18.0	-10.1
3184.871250	---	27.32	54.00	26.68	500.0	100.0	V	0.0	-10.0
5127.272500	42.29	---	74.00	31.71	500.0	100.0	V	45.0	-4.8
5150.853750	---	31.35	54.00	22.65	500.0	100.0	V	45.0	-4.8
8122.095000	44.49	---	74.00	29.51	500.0	200.0	V	315.0	-1.6
8162.332500	---	32.39	54.00	21.61	500.0	100.0	H	297.0	-1.6
12154.170000	---	33.97	54.00	20.03	500.0	100.0	V	132.0	0.6
12161.053750	45.03	---	74.00	28.97	500.0	200.0	V	348.0	0.6

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

2. Margin = Limit –MAX Peak/ Average

VX4-NWU-B

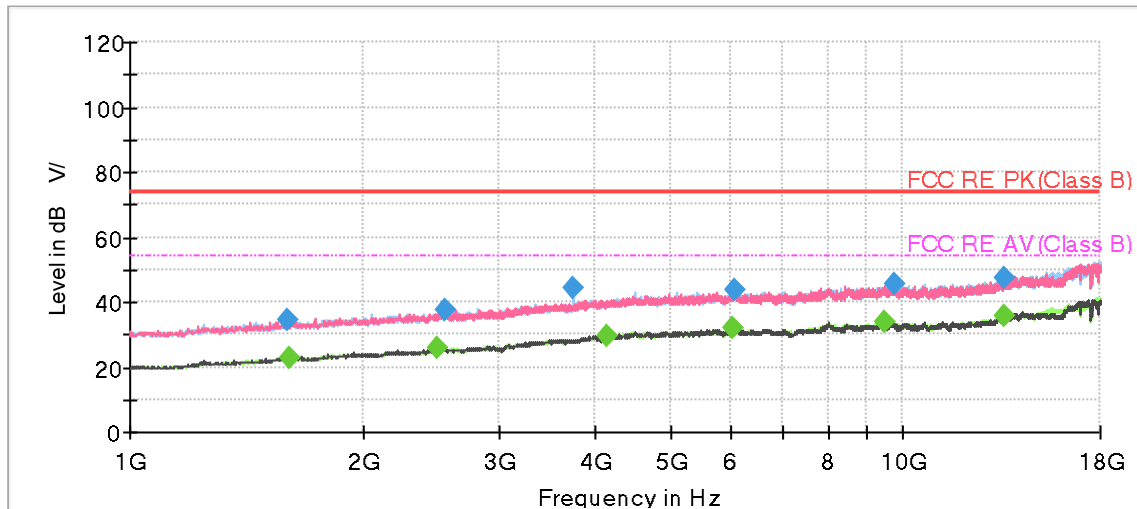


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
45.405000	19.63	40.00	20.37	125.0	H	36.0	20.9
57.045000	18.37	40.00	21.63	125.0	V	155.0	20.2
99.967500	17.30	43.50	26.20	100.0	H	320.0	19.0
195.021250	19.15	43.50	24.35	100.0	H	233.0	18.8
278.358750	18.91	46.00	27.09	109.0	H	60.0	20.4
555.012500	15.16	46.00	30.84	109.0	H	354.0	25.9

Remark: 1. Correction Factor = Antenna factor + Insertion loss(cable loss)

2. Margin = Limit – Quasi-Peak



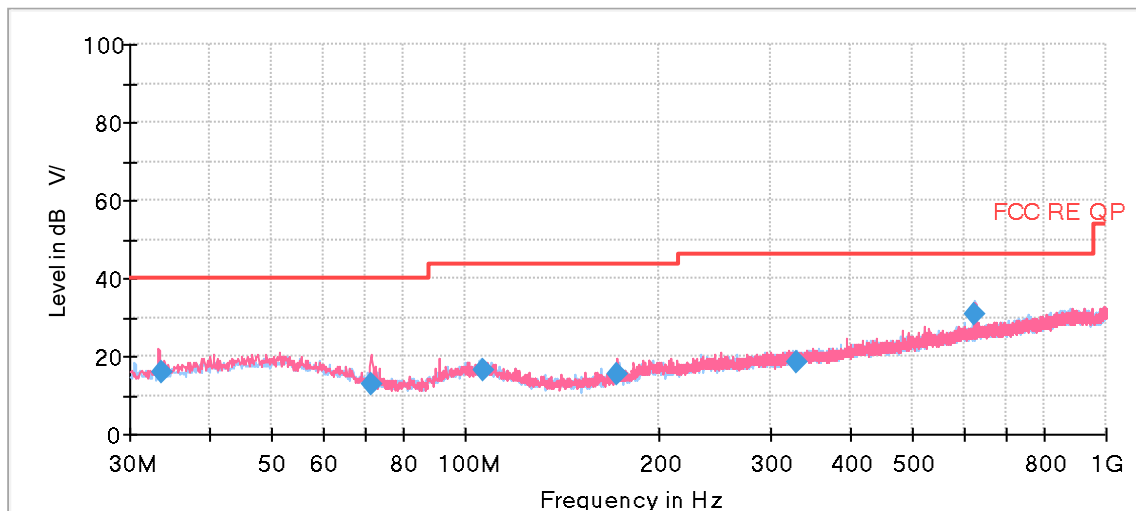
Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1597.125000	34.26	---	74.00	39.74	500.0	100.0	V	45.0	-16.3
1605.625000	---	22.94	54.00	31.06	500.0	100.0	H	50.0	-16.3
2496.000000	---	25.94	54.00	28.06	500.0	200.0	H	261.0	-12.4
2561.875000	37.44	---	74.00	36.56	500.0	200.0	H	241.0	-12.2
3745.500000	44.37	---	74.00	29.63	500.0	100.0	H	136.0	-8.0
4149.250000	---	29.78	54.00	24.22	500.0	100.0	V	0.0	-7.1
6042.625000	---	32.10	54.00	21.90	500.0	100.0	V	72.0	-3.7
6061.750000	43.62	---	74.00	30.38	500.0	100.0	H	342.0	-3.6
9474.500000	---	33.87	54.00	20.13	500.0	100.0	H	163.0	-0.2
9748.625000	45.29	---	74.00	28.71	500.0	200.0	H	275.0	-0.6
13539.625000	47.25	---	74.00	26.75	500.0	100.0	H	182.0	3.6
13546.000000	---	35.46	54.00	18.54	500.0	200.0	H	0.0	3.6

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

2. Margin = Limit –MAX Peak/ Average

VX4-TVF-B

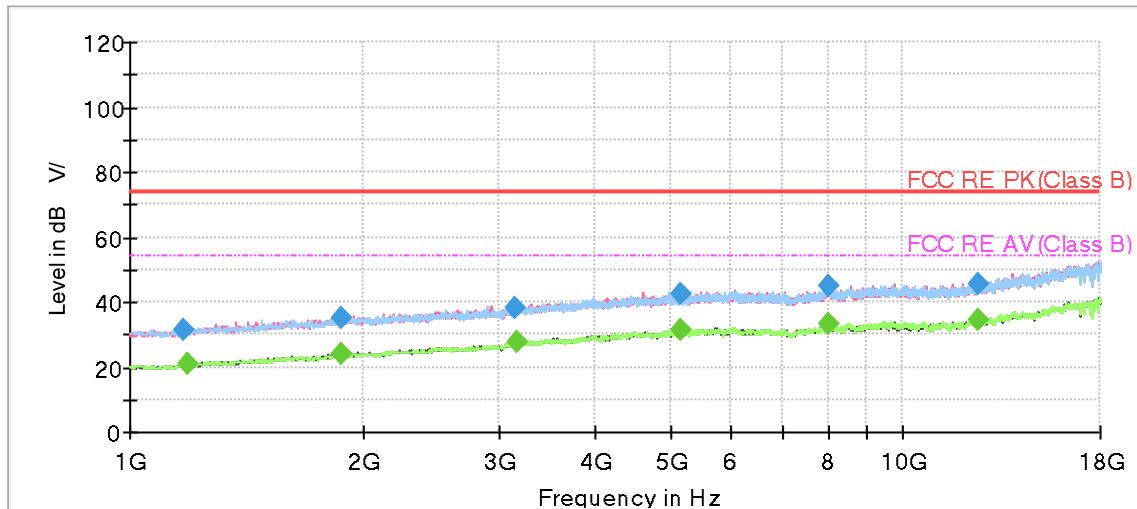


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
33.593750	15.90	40.00	24.10	100.0	V	36.0	17.8
71.305000	12.78	40.00	27.22	100.0	V	172.0	16.1
106.745000	16.55	43.50	26.95	185.0	H	80.0	18.9
173.153750	15.40	43.50	28.10	100.0	V	56.0	19.2
328.117500	18.54	46.00	27.46	100.0	H	98.0	21.7
625.095000	30.92	46.00	15.08	100.0	H	300.0	27.6

Remark: 1. Correction Factor = Antenna factor + Insertion loss(cable loss)

2. Margin = Limit – Quasi-Peak



Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1171.635000	31.27	---	74.00	42.73	500.0	100.0	H	73.0	-18.8
1187.391250	---	20.91	54.00	33.09	500.0	200.0	V	338.0	-18.7
1876.230000	---	24.09	54.00	29.91	500.0	100.0	H	175.0	-15.0
1883.351250	35.31	---	74.00	38.69	500.0	200.0	V	344.0	-15.0
3151.856250	38.03	---	74.00	35.97	500.0	200.0	H	52.0	-10.1
3177.457500	---	27.45	54.00	26.55	500.0	100.0	V	141.0	-10.1
5154.243750	---	31.22	54.00	22.78	500.0	100.0	V	128.0	-4.8
5164.006250	42.18	---	74.00	31.82	500.0	200.0	V	304.0	-4.7
7998.845000	44.62	---	74.00	29.38	500.0	200.0	H	84.0	-1.5
8016.116250	---	33.12	54.00	20.88	500.0	200.0	H	331.0	-1.5
12527.815000	---	34.17	54.00	19.83	500.0	200.0	H	38.0	1.2
12547.513750	45.82	---	74.00	28.18	500.0	200.0	H	0.0	1.2

Remark: 1. Correction Factor = Antenna factor + Insertion loss (cable loss + amplifier gain)

2. Margin = Limit –MAX Peak/ Average

3.2 Conducted Emission

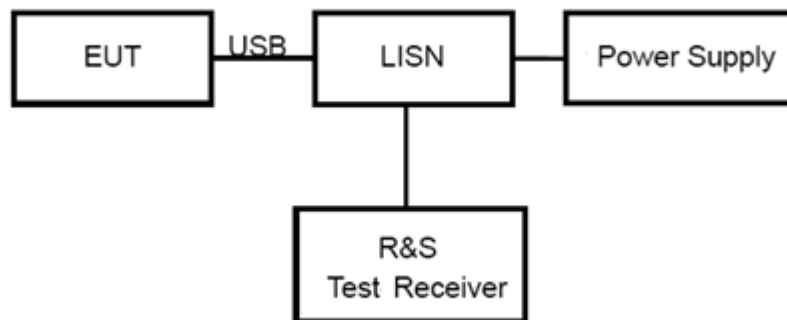
Ambient Condition

Temperature	Relative humidity
15°C ~ 35°C	30% ~ 60%

Methods of Measurement

The EUT is placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2014. Connect the AC power line of the EUT to the L.I.S.N. Use EMI receiver to detect the average and Quasi-peak value. RBW is set to 9 kHz, VBW is set to 30kHz. The measurement result should include both L line and N line.

Test Setup



Note: Power Supply is AC Power source and it is used to change the voltage 120V/60Hz.

Limits

Frequency (MHz)	Class A (dBμV)		Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 to 56 *	56 to 46*
0.5 - 5	73	60	56	46
5 - 30	73	60	60	50

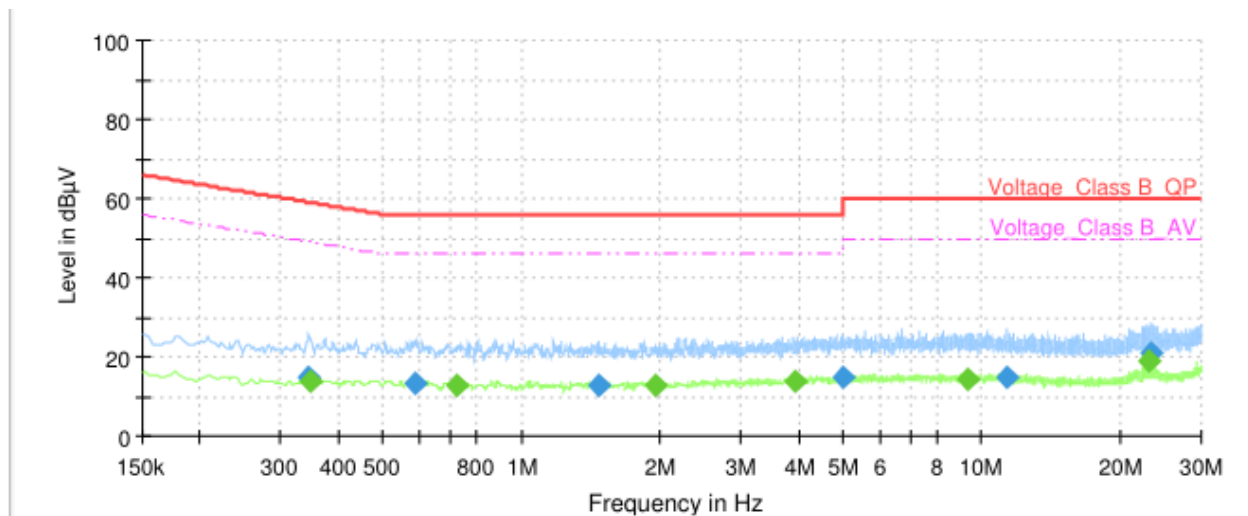
*: Decreases with the logarithm of the frequency.

Note: The EUT should meet CLASS B limit.

Test Results

Following plots, Blue trace uses the peak detection; Green trace uses the average detection.

VX4-TR-B

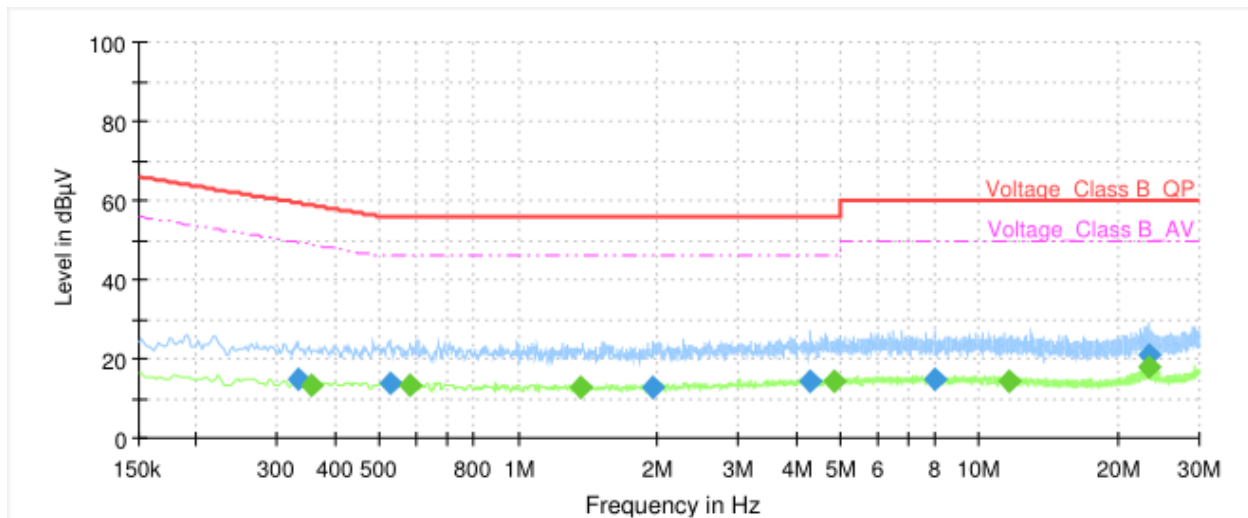


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.35	14.78	---	59.06	44.28	1000.0	9.000	L1	ON	21.0
0.35	---	13.61	49.01	35.40	1000.0	9.000	L1	ON	21.0
0.59	13.58	---	56.00	42.42	1000.0	9.000	L1	ON	20.8
0.72	---	13.00	46.00	33.00	1000.0	9.000	L1	ON	20.6
1.47	13.07	---	56.00	42.93	1000.0	9.000	L1	ON	19.9
1.96	---	12.68	46.00	33.32	1000.0	9.000	L1	ON	19.7
3.95	---	13.88	46.00	32.12	1000.0	9.000	L1	ON	19.5
4.98	14.65	---	56.00	41.35	1000.0	9.000	L1	ON	19.5
9.31	---	14.58	50.00	35.42	1000.0	9.000	L1	ON	19.5
11.35	14.87	---	60.00	45.13	1000.0	9.000	L1	ON	19.5
23.00	---	18.76	50.00	31.24	1000.0	9.000	L1	ON	19.7
23.30	21.11	---	60.00	38.89	1000.0	9.000	L1	ON	19.7

Remark: Correct factor=cable loss + LISN factor

L line

Conducted Emission from 150 KHz to 30 MHz



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.33	14.88	---	59.40	44.52	1000.0	9.000	N	ON	21.0
0.35	---	13.58	48.85	35.27	1000.0	9.000	N	ON	21.0
0.53	13.78	---	56.00	42.22	1000.0	9.000	N	ON	20.8
0.58	---	13.19	46.00	32.81	1000.0	9.000	N	ON	20.8
1.36	---	12.71	46.00	33.29	1000.0	9.000	N	ON	20.0
1.96	13.06	---	56.00	42.94	1000.0	9.000	N	ON	19.7
4.30	14.50	---	56.00	41.50	1000.0	9.000	N	ON	19.5
4.83	---	14.19	46.00	31.81	1000.0	9.000	N	ON	19.5
8.02	14.73	---	60.00	45.27	1000.0	9.000	N	ON	19.5
11.62	---	14.41	50.00	35.59	1000.0	9.000	N	ON	19.6
23.28	21.03	---	60.00	38.97	1000.0	9.000	N	ON	19.8
23.29	---	17.98	50.00	32.02	1000.0	9.000	N	ON	19.8

Remark: Correct factor=cable loss + LISN factor

N line

Conducted Emission from 150 KHz to 30 MHz

4 Uncertainty Measurement

Case	Uncertainty	Factor k
Radiated Emission 30MHz – 200MHz	4.17 dB	1.96
Radiated Emission 200MHz – 1GHz	4.84 dB	1.96
Radiated Emission 1GHz – 18GHz	4.35 dB	1.96
Conducted Emission	2.57 dB	2

5 Main Test Instruments

Name of Equipment	Manufacturer	Type/Model	Serial Number	Calibration Date	Expiration Time
Radiated Emission					
EMI Test Receiver	R&S	ESCI3	100948	2023-05-12	2024-05-11
Signal Analyzer	R&S	FSV40	101298	2023-05-12	2024-05-11
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	01111	2022-10-25	2025-10-24
Horn Antenna	SCHWARZBECK	BBHA 9120D	430	2021-07-26	2024-07-25
Amplifier	MWPA.CN	MWLA-010200 G40	YQ2103039B01	2023-05-12	2024-05-11
Software	R&S	EMC32	9.26.01	/	/
Conducted Emission					
Artificial main network	R&S	ENV216	102191	2022-12-10	2024-12-09
EMI Test Receiver	R&S	ESR	101667	2023-05-12	2024-05-11
Software	R&S	EMC32	10.35.10	/	/

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.

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