



EMC TEST REPORT

Applicant Nokia ShangHai Bell Co., Ltd.
FCC ID 2ADZRG1425GA
Product Nokia ONT
Model G-1425G-A
Report No. R2106A0526-E1V2
Issue Date November 24, 2021

TA Technology (Shanghai) Co., Ltd. Tested the above equipment in accordance with the requirements in **FCC Code CFR47 Part15B (2020)/ 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.

Wei Liu

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	July 30, 2021
Rev.1	Add two Adapters (Adapter 5&6).	September 6, 2021
Rev.2	Update information in Page 4 and Page 6.	November 24, 2021
Note: This revised report (Report No. R2106A0526-E1V2) supersedes and replaces the previously issued report (Report No. R2106A0526-E1V1). Please discard or destroy the previously issued report and dispose of it accordingly.		



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: June 23, 2021 ~ July 27, 2021 and August 23, 2021			
Date of Sample Received: June 23, 2021			
Note: All indications of Pass/Fail in this report are opinions expressed by 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 **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)

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)

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

1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City: Shanghai
Post code: 201201
Country: P. R. China
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Website: <http://www.ta-shanghai.com>
E-mail: fanguangchang@ta-shanghai.com

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	Nokia ShangHai Bell Co., Ltd.
Applicant address	No.388 Ningqiao Road, Pudong Jinqiao, Shanghai, 201206 CHINA
Manufacturer	Nokia ShangHai Bell Co., Ltd.
Manufacturer address	No.388 Ningqiao Road, Pudong Jinqiao, Shanghai, 201206 CHINA

2.2 General information

EUT Description			
Device Type	Movable Device		
Model	G-1425G-A		
Lab internal SN	R2106A0526/S01		
HW Version	PEM2		
SW Version	NULL		
Antenna Type	External Antenna		
Frequency	Band	Tx (MHz)	Rx (MHz)
	WIFI 2.4G	2400 ~ 2483.5	2400 ~ 2483.5
	WIFI 5G(U-NII-1)	5150 ~ 5250	5150 ~ 5250
	WIFI 5G(U-NII-2A)	5250 ~ 5350	5250 ~ 5350
	WIFI 5G(U-NII-2C)	5470 ~ 5725	5470 ~ 5725
	WIFI 5G(U-NII-3)	5725 ~ 5850	5725 ~ 5850
Auxiliary test equipment			
PC	PC Manufacturer: Microsoft Corporation Model: L20170076		
Telephone	Manufacturer: TCL Model: HCD868(131)TSD		
EUT Accessory			
Adapter 1	Manufacturer: FUHUA ELECTRONIC CO., LTD. Model: UES18LU-120150SPA		
Adapter 2	Manufacturer: FUHUA ELECTRONIC CO., LTD. Model: UES24WU-120200SPA		
Adapter 3	Manufacturer: MOSO POWER SUPPLY TECHNOLOGY CO.,LTD Model: MSA-C1500CS12.0-18J-US		



Adapter 4	Manufacturer: SHENZHEN RUIDE ELECTRONIC INDUSTRIAL CO.,LTD Model: RD1201500-C55-153MG
Adapter 5	Manufacturer: SHENZHEN RUIDE ELECTRONIC INDUSTRIAL CO.,LTD Model: RD1201500-C55-81AG
Adapter 6	Manufacturer: FUHUA ELECTRONIC CO., LTD. Model: UES18LS-120150SPA
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.	



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 (2020)

ANSI C63.4 (2014)



2.4 Test Mode

Test Mode	
Mode 1	Adapter + EUT + LAN/WAN Port + Telephone + Receiver

3 Test Case Results

3.1 Radiated Emission

Ambient condition

Temperature	Relative humidity	Pressure
15°C~35°C	30%~60%	101.5kPa

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:

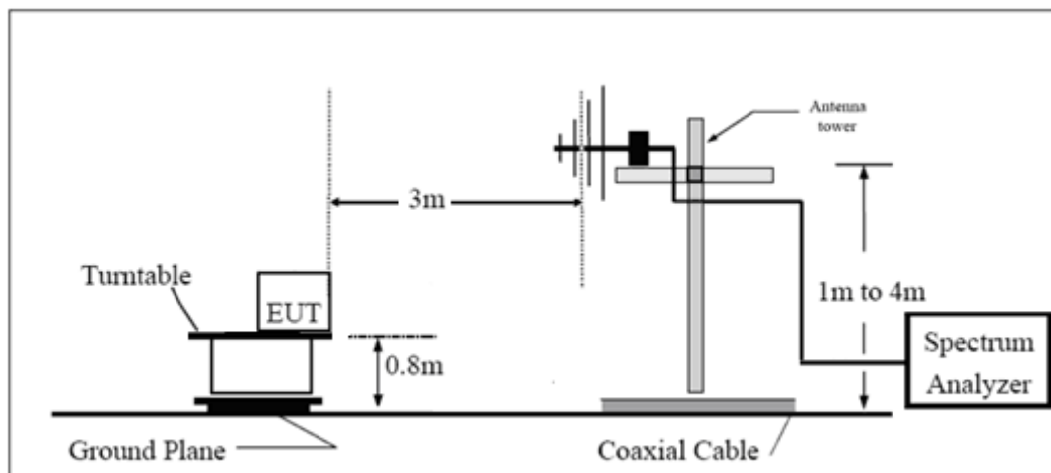
(a) PEAK Detector: RBW=1MHz / VBW=3MHz/ Sweep=AUTO

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

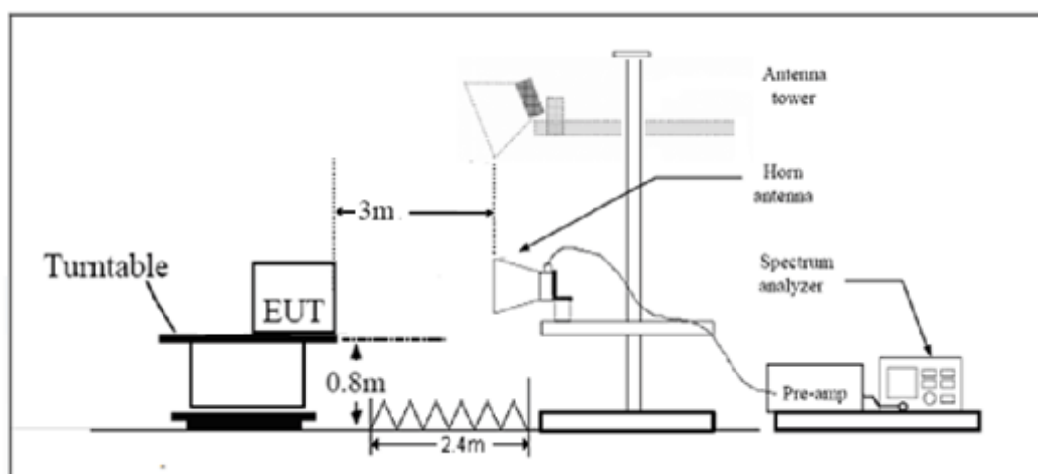
The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

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

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
30MHz~200MHz	4.17 dB
200MHz~1000MHz	4.84 dB
1GHz~18GHz	4.35 dB
18GHz~26.5GHz	5.90 dB
26.5GHz~40GHz	5.92 dB

Test Results

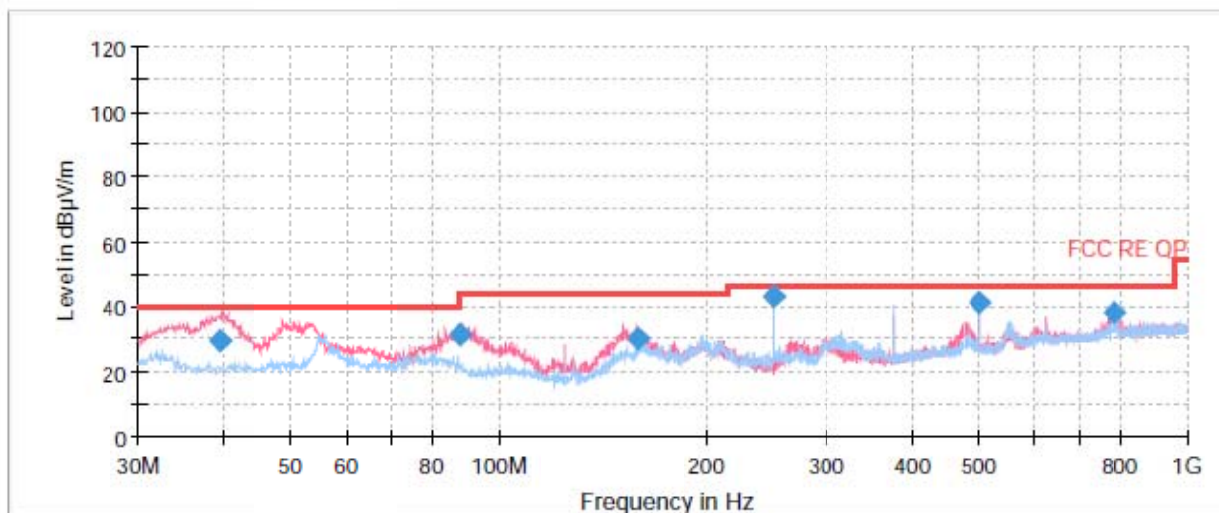
Sweep the whole frequency band through the range from 30MHz to the 5th harmonic of the carrier, the Emissions in the frequency band 18GHz –40GHz is more than 20dB below the limit are not reported.

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.

A font (Level in dB μ V/)in the test plot =(level in dB μ V/m)

Adapter 1

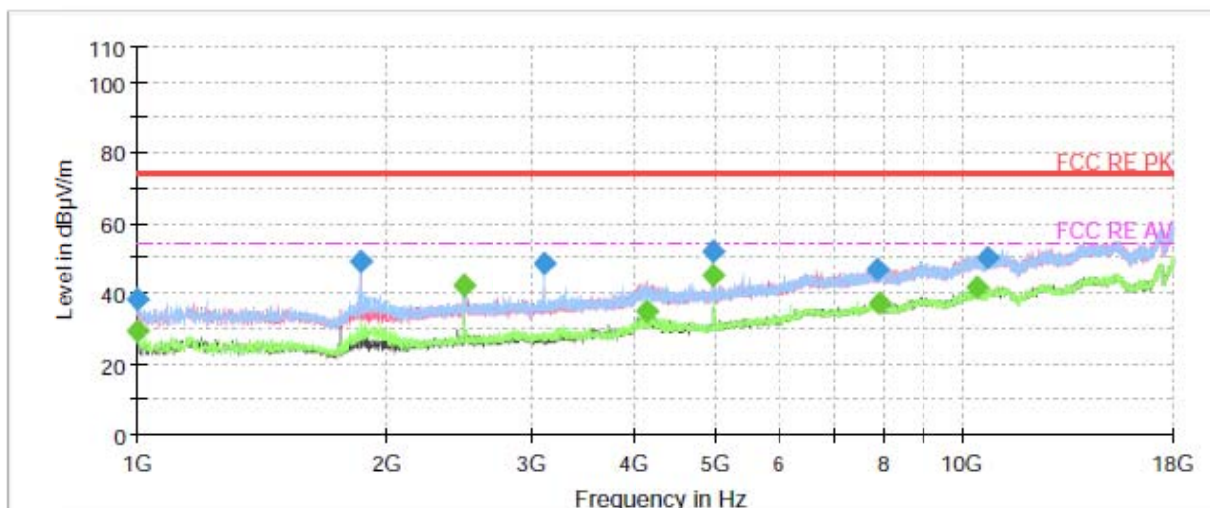


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
39.261250	29.24	115.0	V	27.0	13.5	10.76	40.00
88.110000	31.30	125.0	V	104.0	10.5	12.20	43.50
159.011250	29.99	100.0	V	238.0	9.5	13.51	43.50
249.987500	42.97	180.0	V	158.0	13.8	3.03	46.00
500.006250	41.35	190.0	H	97.0	19.6	4.65	46.00
784.567500	38.40	105.0	V	184.0	23.4	7.60	46.00

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

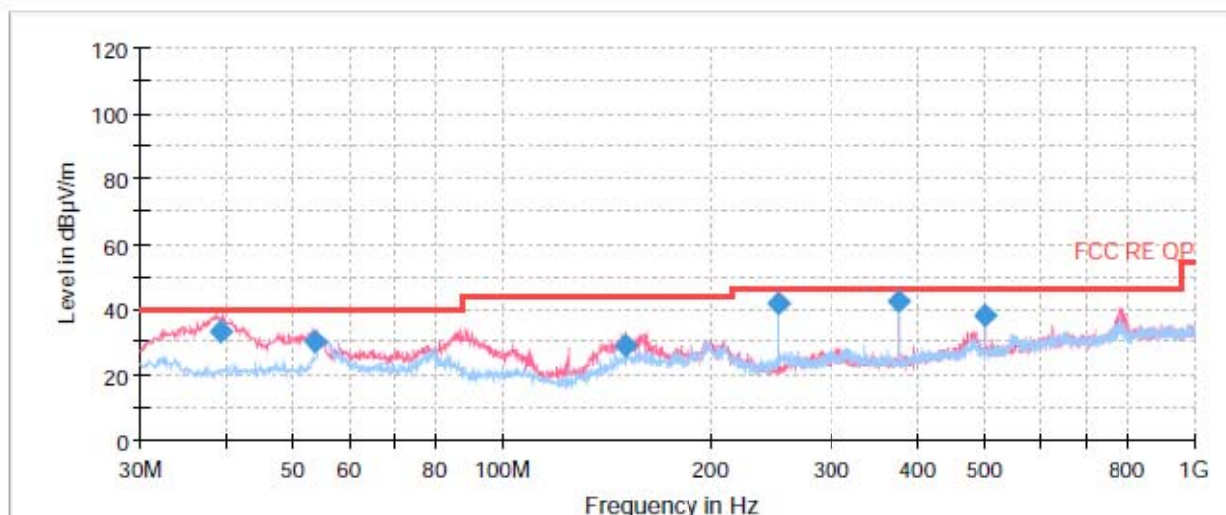
2. Margin = Limit – Quasi-Peak



Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1002.218160	38.13	---	74.00	35.87	100.0	H	244.0	-21.0
1002.725969	---	29.37	54.00	24.63	100.0	H	229.0	-21.0
1865.941666	49.21	---	74.00	24.79	100.0	H	216.0	-18.4
2488.359667	---	42.52	54.00	11.48	100.0	H	202.0	-16.3
3110.832000	48.67	---	74.00	25.33	100.0	H	188.0	-15.5
4142.118667	---	34.88	54.00	19.12	200.0	V	192.0	-12.7
4976.615333	---	45.36	54.00	8.64	100.0	H	202.0	-10.4
4977.775333	51.82	---	74.00	22.18	100.0	H	131.0	-10.4
7858.450333	46.59	---	74.00	27.41	100.0	V	248.0	-3.2
7925.052333	---	37.21	54.00	16.79	300.0	H	11.0	-2.8
10395.438000	---	41.76	54.00	12.24	100.0	H	272.0	-1.1
10744.321333	50.27	---	74.00	23.73	100.0	H	357.0	-0.6

Adapter 2

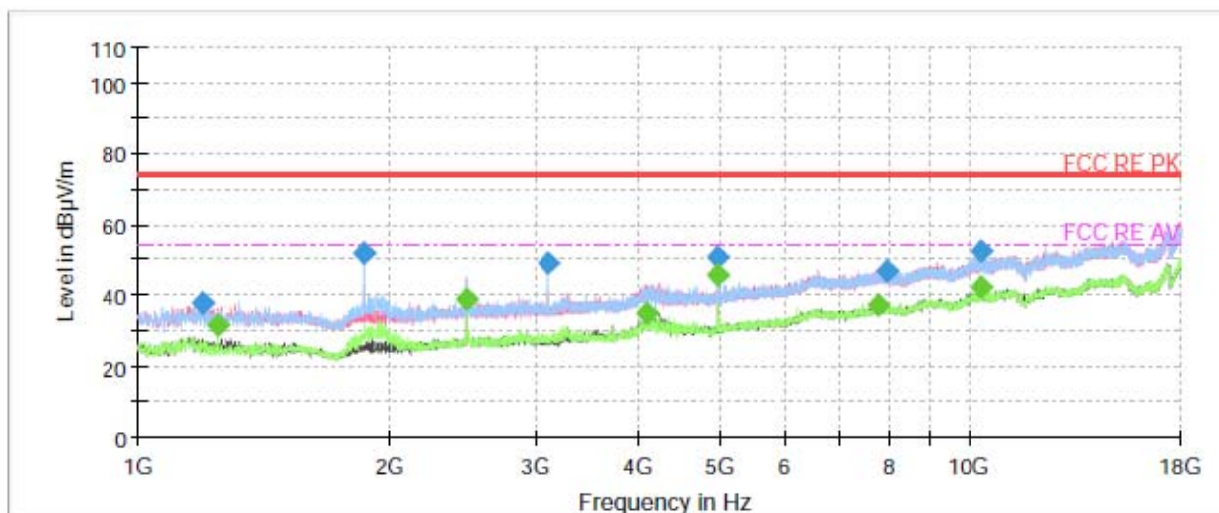


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
39.087500	33.49	105.0	V	83.0	13.4	6.51	40.00
53.647500	30.04	100.0	V	224.0	13.4	9.96	40.00
150.522500	28.83	100.0	V	266.0	9.0	14.67	43.50
249.987500	41.63	175.0	V	185.0	13.8	4.37	46.00
374.996250	42.18	100.0	H	303.0	16.8	3.82	46.00
500.006250	38.19	180.0	H	276.0	19.6	7.81	46.00

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

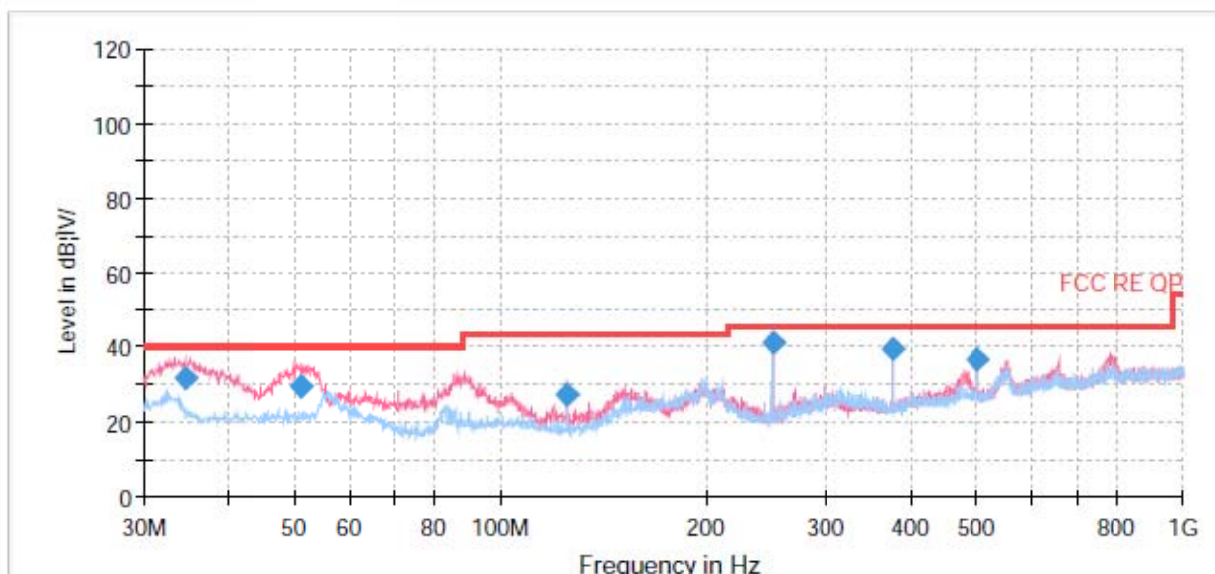
2. Margin = Limit – Quasi-Peak



Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1198.013333	37.90	---	74.00	36.10	100.0	H	154.0	-20.3
1244.127667	---	31.53	54.00	22.47	200.0	V	200.0	-20.0
1866.102334	52.06	---	74.00	21.94	100.0	H	183.0	-18.4
2488.228334	---	39.00	54.00	15.00	100.0	H	154.0	-16.3
3109.760667	48.90	---	74.00	25.10	100.0	H	183.0	-15.5
4083.269667	---	35.15	54.00	18.85	200.0	V	200.0	-13.1
4976.641000	---	45.76	54.00	8.24	100.0	H	198.0	-10.4
4985.262000	50.82	---	74.00	23.18	100.0	H	139.0	-10.3
7783.411334	---	37.46	54.00	16.54	200.0	V	74.0	-3.5
7960.562666	46.87	---	74.00	27.13	300.0	H	192.0	-2.6
10361.454667	---	42.43	54.00	11.57	200.0	H	356.0	-1.0
10377.357333	52.29	---	74.00	21.71	300.0	H	1.0	-1.0

Adapter 3

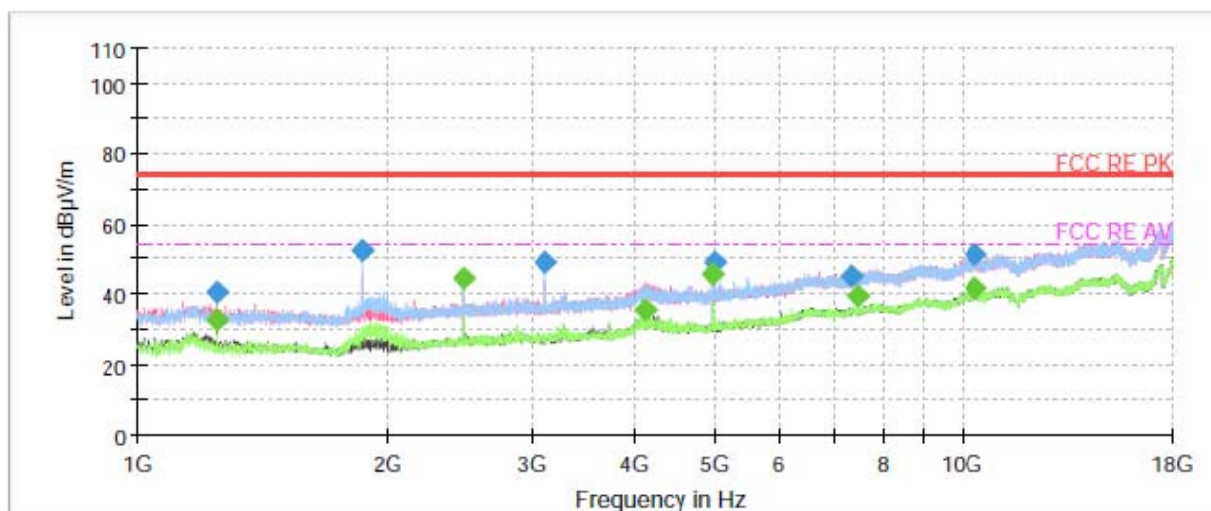


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
34.486250	32.02	180.0	V	0.0	12.7	7.98	40.00
51.045000	29.62	100.0	V	138.0	13.9	10.38	40.00
124.978750	27.60	125.0	V	114.0	10.1	15.90	43.50
249.987500	41.29	180.0	V	186.0	13.8	4.71	46.00
374.996250	39.64	100.0	H	152.0	16.8	6.36	46.00
500.005000	36.66	100.0	V	82.0	19.6	9.34	46.00

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

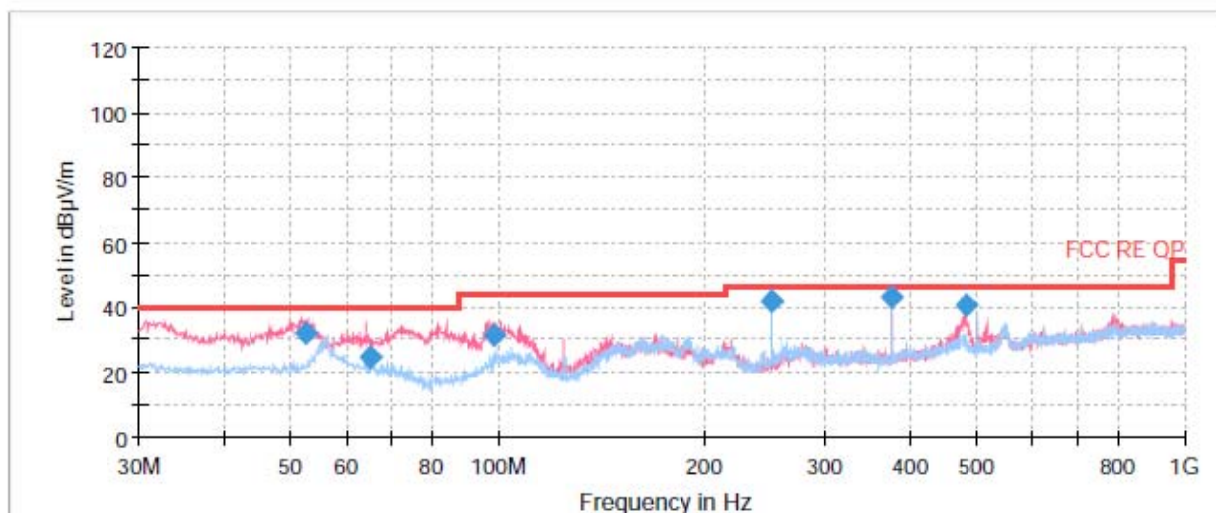
2. Margin = Limit – Quasi-Peak



Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1243.573000	40.66	---	74.00	33.34	100.0	V	201.0	-20.0
1244.272000	---	32.80	54.00	21.20	100.0	V	201.0	-20.0
1866.005667	52.37	---	74.00	21.63	100.0	H	184.0	-18.4
2488.358667	---	44.35	54.00	9.65	100.0	V	173.0	-16.3
3110.746333	48.89	---	74.00	25.11	100.0	H	184.0	-15.5
4127.054000	---	35.48	54.00	18.52	100.0	V	144.0	-12.8
4976.737667	---	45.56	54.00	8.44	100.0	H	200.0	-10.4
4998.667666	49.34	---	74.00	24.66	100.0	H	142.0	-10.3
7347.817000	45.08	---	74.00	28.92	300.0	V	356.0	-4.3
7464.803333	---	39.44	54.00	14.56	100.0	H	170.0	-4.2
10341.807333	51.31	---	74.00	22.69	100.0	V	244.0	-0.9
10348.206667	---	41.82	54.00	12.18	100.0	V	330.0	-0.9

Adapter 4

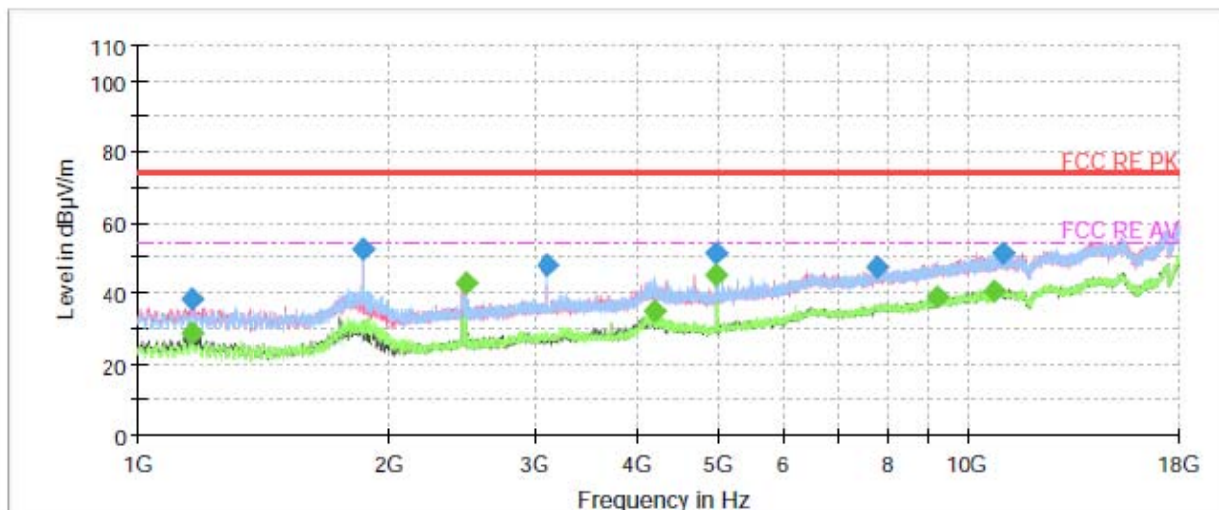


Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
52.622500	31.86	100.0	V	46.0	13.5	8.14	40.00
65.031250	24.74	192.0	V	66.0	11.9	15.26	40.00
98.467500	31.53	100.0	V	148.0	12.8	11.97	43.50
249.987500	41.54	100.0	V	316.0	13.8	4.46	46.00
374.996250	42.86	193.0	H	178.0	16.8	3.14	46.00
479.998750	40.39	100.0	V	11.0	19.1	5.61	46.00

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

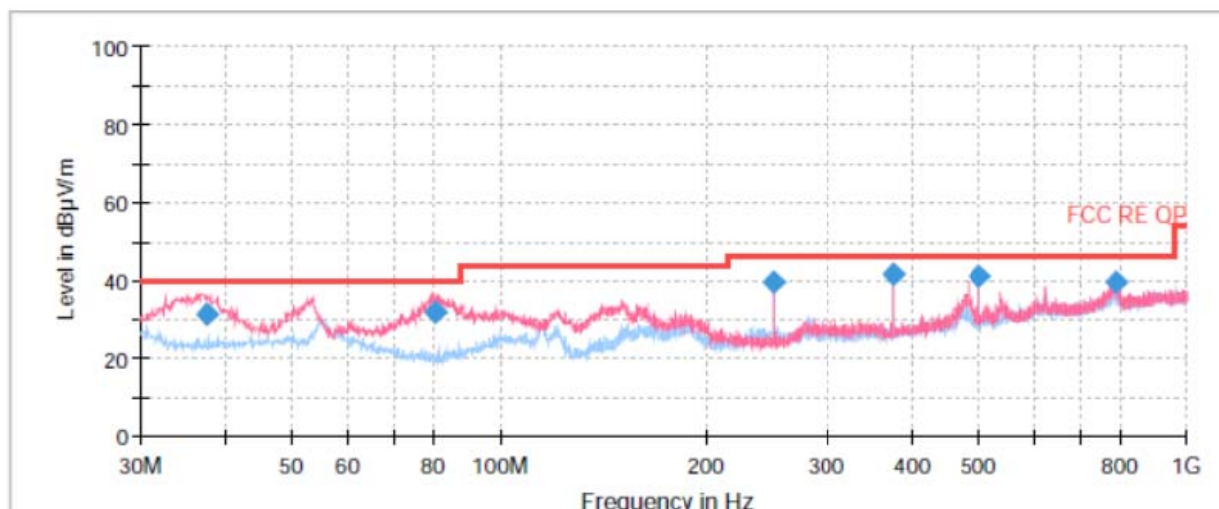
2. Margin = Limit – Quasi-Peak



Radiated Emission from 1GHz to 18GHz

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1157.285334	---	28.80	54.00	25.20	100.0	V	258.0	-20.4
1158.917334	38.33	---	74.00	35.67	100.0	V	258.0	-20.4
1866.398000	52.66	---	74.00	21.34	200.0	V	173.0	-18.4
2488.361334	---	43.00	54.00	11.00	100.0	V	158.0	-16.3
3110.197333	48.17	---	74.00	25.83	100.0	H	185.0	-15.5
4188.847334	---	35.06	54.00	18.94	100.0	H	140.0	-12.7
4976.599667	---	45.12	54.00	8.88	100.0	H	199.0	-10.4
4976.846667	51.43	---	74.00	22.57	100.0	H	140.0	-10.4
7781.912667	47.15	---	74.00	26.85	100.0	V	313.0	-3.5
9194.890667	---	38.77	54.00	15.23	300.0	H	349.0	-2.8
10815.428333	---	40.82	54.00	13.18	200.0	V	0.0	-0.5
11079.419000	51.60	---	74.00	22.40	200.0	H	218.0	0.4

Adapter 5



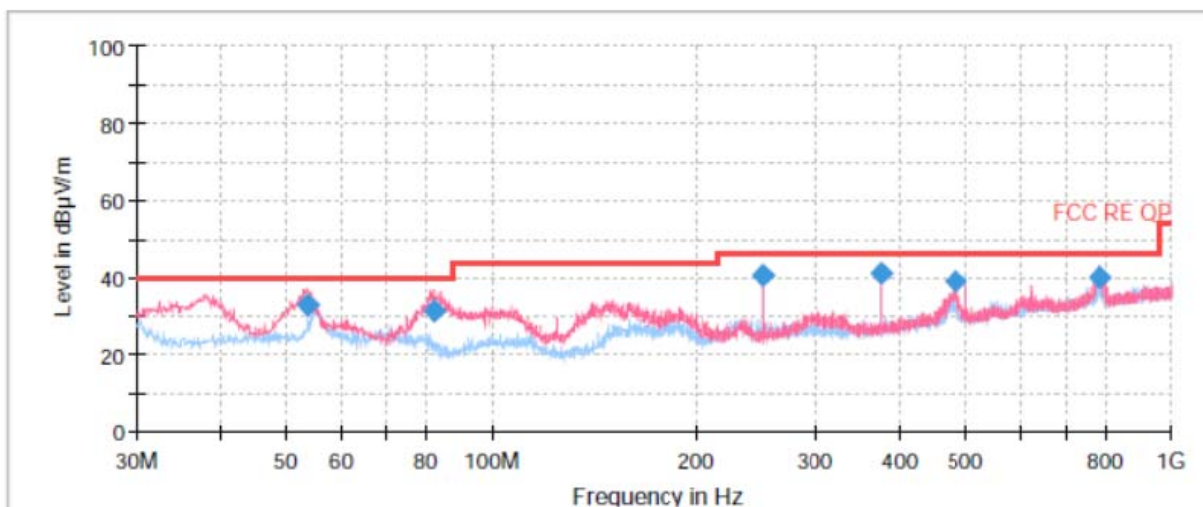
Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
37.351250	31.47	125.0	V	327.0	19.2	8.53	40.00
80.918750	31.56	125.0	V	180.0	14.2	8.44	40.00
249.987500	39.50	125.0	V	0.0	19.8	6.50	46.00
374.996250	41.39	109.0	V	237.0	22.8	4.61	46.00
500.006250	41.22	175.0	H	73.0	25.6	4.78	46.00
791.698750	39.41	111.0	V	190.0	29.4	6.59	46.00

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

2. Margin = Limit – Quasi-Peak

Adapter 6



Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
53.516250	32.99	100.0	V	194.0	19.4	7.01	40.00
82.182500	31.53	121.0	V	111.0	14.5	8.47	40.00
249.987500	40.35	100.0	V	169.0	19.8	5.65	46.00
374.996250	40.84	125.0	V	222.0	22.8	5.16	46.00
480.080000	38.81	309.0	V	0.0	29.8	7.19	46.00
786.357500	40.07	186.0	H	344.0	31.1	5.93	46.00

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

2. Margin = Limit – Quasi-Peak

3.2 Conducted Emission

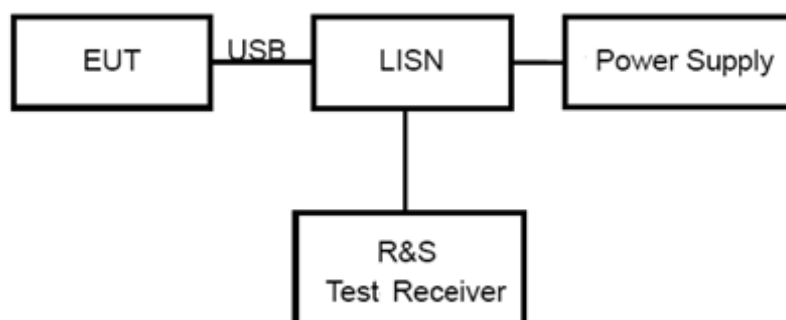
Ambient condition

Temperature	Relative humidity	Pressure
15°C~35°C	30%~60%	101.5kPa

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)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46 *
0.5 - 5	56	46
5 - 30	60	50
*: Decreases with the logarithm of the frequency.		

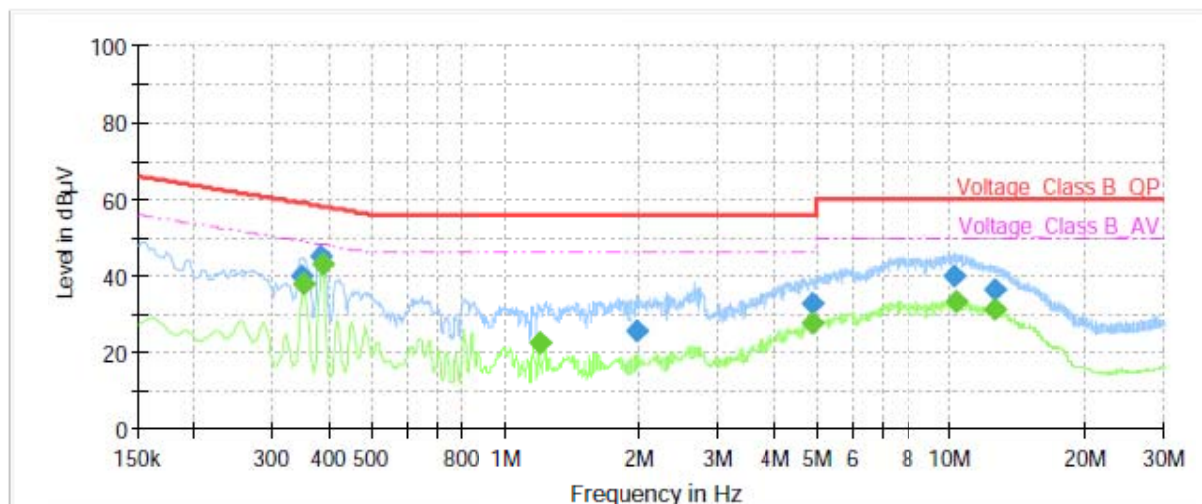
Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$. $U = 2.57$ dB.

Test Results

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

Adapter 1

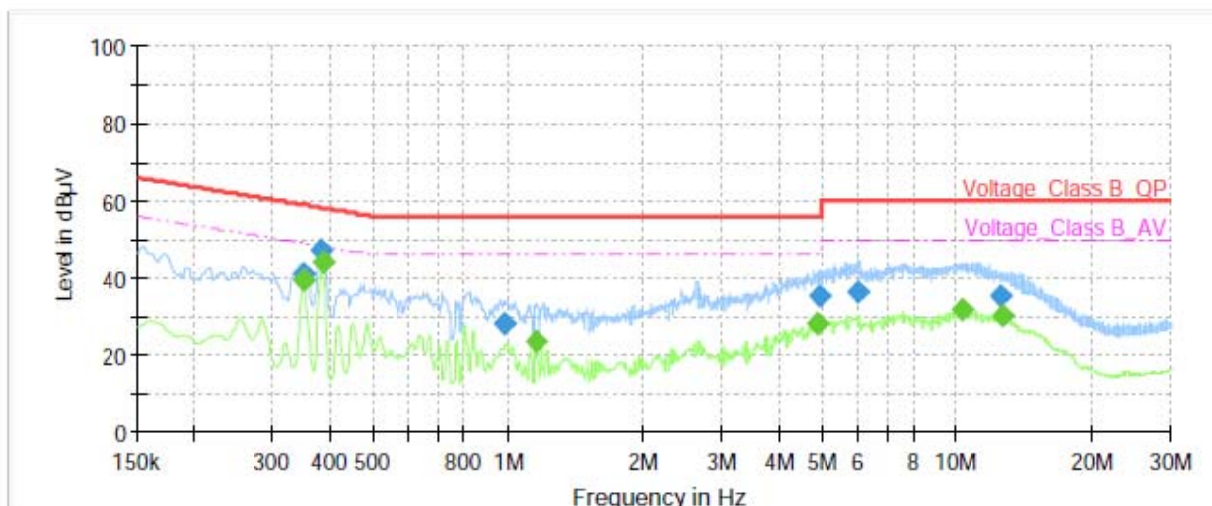


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.35	39.92	---	59.01	19.09	70.0	9.000	L1	ON	21
0.35	---	37.98	48.90	10.92	70.0	9.000	L1	ON	21
0.38	44.98	---	58.19	13.21	70.0	9.000	L1	ON	20
0.39	---	42.87	48.14	5.27	70.0	9.000	L1	ON	20
1.19	---	22.66	46.00	23.34	70.0	9.000	L1	ON	20
1.98	25.55	---	56.00	30.45	70.0	9.000	L1	ON	20
4.90	32.58	---	56.00	23.42	70.0	9.000	L1	ON	19
4.91	---	27.54	46.00	18.46	70.0	9.000	L1	ON	19
10.22	39.89	---	60.00	20.11	70.0	9.000	L1	ON	20
10.27	---	33.27	50.00	16.73	70.0	9.000	L1	ON	20
12.51	36.57	---	60.00	23.43	70.0	9.000	L1	ON	20
12.56	---	31.13	50.00	18.87	70.0	9.000	L1	ON	20

Remark: Correct factor=cable loss + LISN factor

L line

Conducted Emission from 150 KHz to 30 MHz



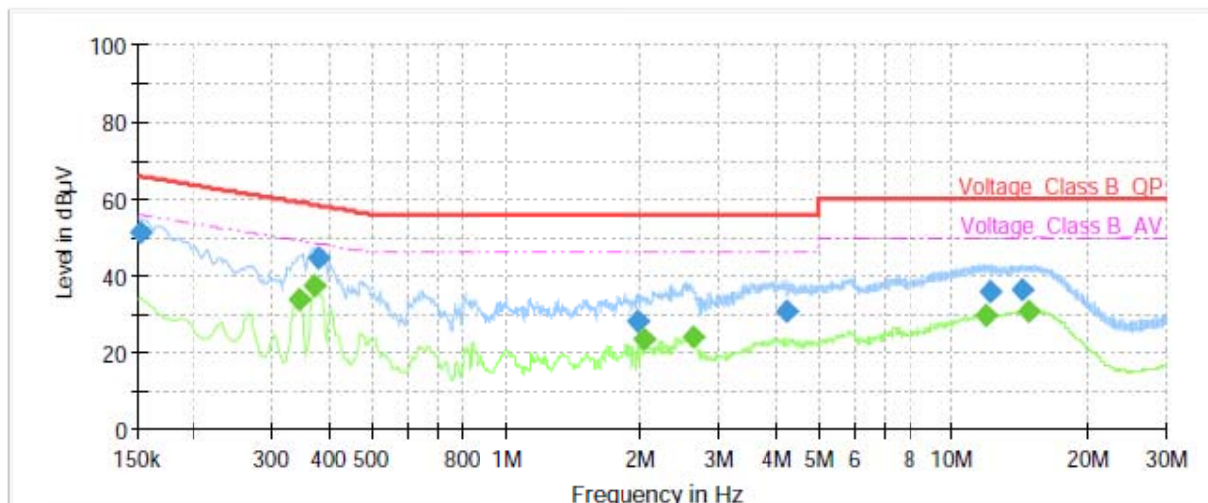
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.35	---	39.27	48.90	9.63	70.0	9.000	N	ON	21
0.35	41.15	---	58.90	17.75	70.0	9.000	N	ON	21
0.38	47.27	---	58.19	10.92	70.0	9.000	N	ON	21
0.39	---	44.12	48.14	4.02	70.0	9.000	N	ON	21
0.98	28.02	---	56.00	27.98	70.0	9.000	N	ON	20
1.15	---	23.79	46.00	22.21	70.0	9.000	N	ON	20
4.90	---	28.24	46.00	17.76	70.0	9.000	N	ON	19
4.95	35.19	---	56.00	20.81	70.0	9.000	N	ON	19
5.99	36.30	---	60.00	23.70	70.0	9.000	N	ON	20
10.26	---	31.79	50.00	18.21	70.0	9.000	N	ON	20
12.55	35.46	---	60.00	24.54	70.0	9.000	N	ON	20
12.59	---	30.22	50.00	19.78	70.0	9.000	N	ON	20

Remark: Correct factor=cable loss + LISN factor

N line

Conducted Emission from 150 KHz to 30 MHz

Adapter 2

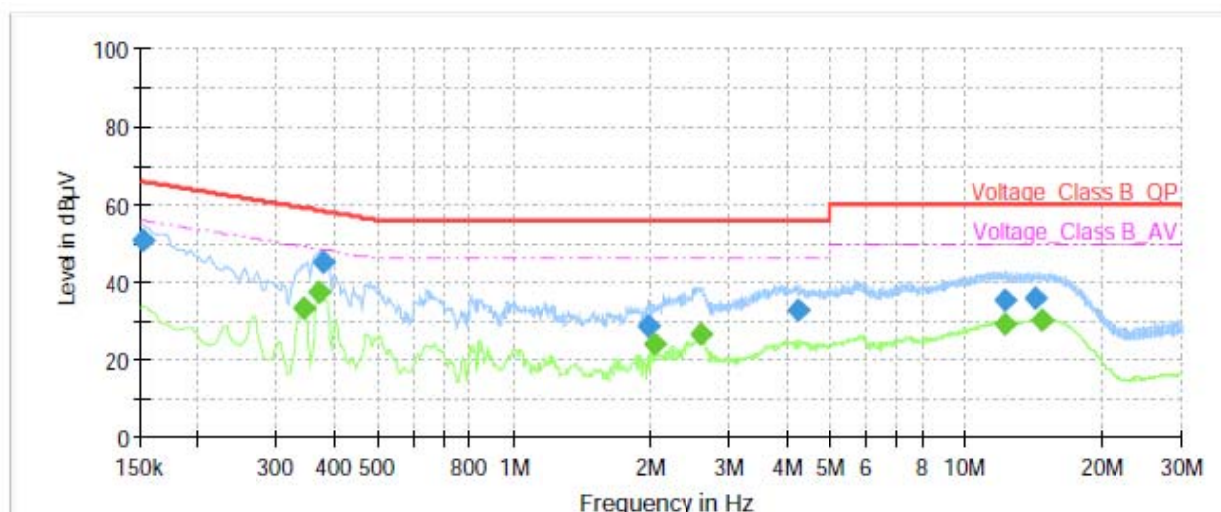


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	51.11	---	65.88	14.77	70.0	9.000	L1	ON	21
0.34	---	33.82	49.12	15.30	70.0	9.000	L1	ON	21
0.37	---	37.31	48.49	11.18	70.0	9.000	L1	ON	21
0.38	44.43	---	58.29	13.86	70.0	9.000	L1	ON	21
1.98	28.45	---	56.00	27.55	70.0	9.000	L1	ON	20
2.04	---	23.62	46.00	22.38	70.0	9.000	L1	ON	20
2.61	---	24.06	46.00	21.94	70.0	9.000	L1	ON	19
4.25	30.95	---	56.00	25.05	70.0	9.000	L1	ON	19
11.87	---	29.56	50.00	20.44	70.0	9.000	L1	ON	20
12.08	36.12	---	60.00	23.88	70.0	9.000	L1	ON	20
14.32	36.19	---	60.00	23.81	70.0	9.000	L1	ON	20
14.82	---	30.94	50.00	19.06	70.0	9.000	L1	ON	20

Remark: Correct factor=cable loss + LISN factor

L line

Conducted Emission from 150 KHz to 30 MHz



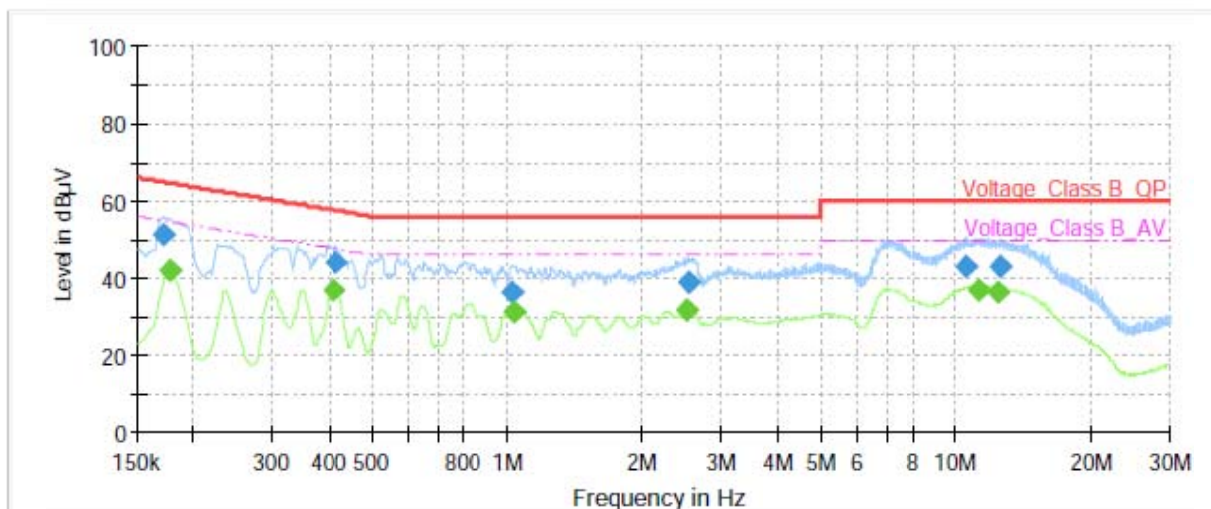
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	51.02	---	65.88	14.86	70.0	9.000	N	ON	21
0.34	---	33.13	49.12	15.99	70.0	9.000	N	ON	21
0.37	---	37.37	48.49	11.12	70.0	9.000	N	ON	21
0.38	44.98	---	58.29	13.31	70.0	9.000	N	ON	21
1.97	28.50	---	56.00	27.50	70.0	9.000	N	ON	20
2.04	---	24.02	46.00	21.98	70.0	9.000	N	ON	20
2.61	---	26.75	46.00	19.25	70.0	9.000	N	ON	19
4.24	32.73	---	56.00	23.27	70.0	9.000	N	ON	19
12.19	35.18	---	60.00	24.82	70.0	9.000	N	ON	20
12.19	---	29.21	50.00	20.79	70.0	9.000	N	ON	20
14.28	35.68	---	60.00	24.32	70.0	9.000	N	ON	20
14.82	---	30.28	50.00	19.72	70.0	9.000	N	ON	20

Remark: Correct factor=cable loss + LISN factor

N line

Conducted Emission from 150 KHz to 30 MHz

Adapter 3

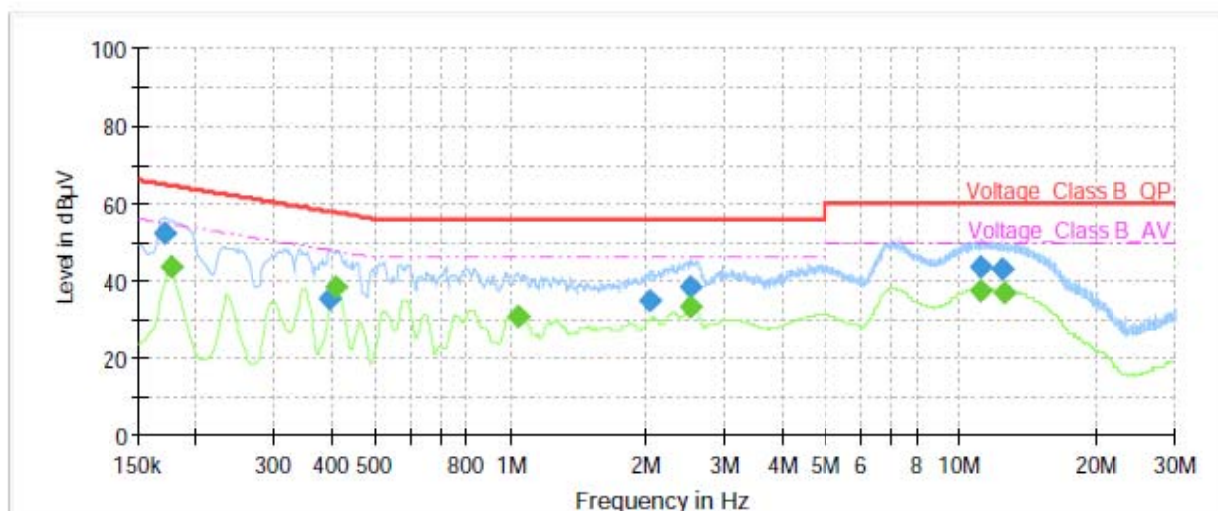


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.17	51.24	---	64.95	13.71	70.0	9.000	L1	ON	21
0.18	---	42.10	54.63	12.53	70.0	9.000	L1	ON	21
0.41	---	36.97	47.63	10.66	70.0	9.000	L1	ON	20
0.42	43.93	---	57.54	13.61	70.0	9.000	L1	ON	20
1.02	36.44	---	56.00	19.56	70.0	9.000	L1	ON	20
1.04	---	31.06	46.00	14.94	70.0	9.000	L1	ON	20
2.52	---	31.81	46.00	14.19	70.0	9.000	L1	ON	19
2.54	38.99	---	56.00	17.01	70.0	9.000	L1	ON	19
10.49	42.90	---	60.00	17.10	70.0	9.000	L1	ON	20
11.22	---	36.72	50.00	13.28	70.0	9.000	L1	ON	20
12.41	---	36.44	50.00	13.56	70.0	9.000	L1	ON	20
12.57	42.91	---	60.00	17.09	70.0	9.000	L1	ON	20

Remark: Correct factor=cable loss + LISN factor

L line

Conducted Emission from 150 KHz to 30 MHz



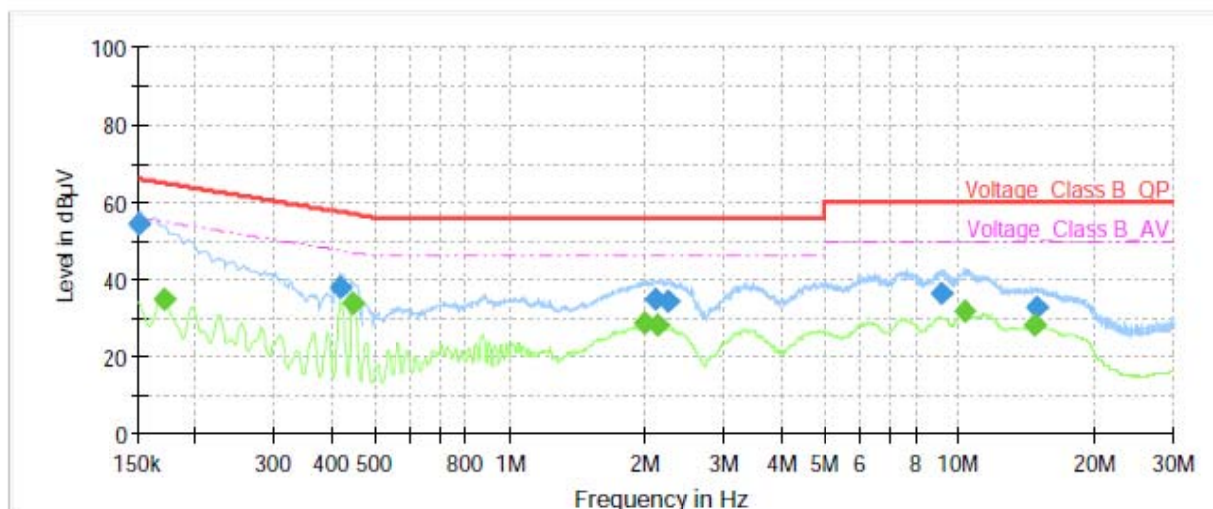
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.17	52.35	---	64.95	12.60	70.0	9.000	N	ON	21
0.18	---	43.41	54.63	11.22	70.0	9.000	N	ON	21
0.40	35.40	---	57.91	22.51	70.0	9.000	N	ON	20
0.41	---	38.23	47.63	9.40	70.0	9.000	N	ON	20
1.04	---	31.01	46.00	14.99	70.0	9.000	N	ON	20
2.04	35.06	---	56.00	20.94	70.0	9.000	N	ON	20
2.51	38.25	---	56.00	17.75	70.0	9.000	N	ON	19
2.52	---	33.49	46.00	12.51	70.0	9.000	N	ON	19
11.16	---	37.54	50.00	12.46	70.0	9.000	N	ON	20
11.16	43.55	---	60.00	16.45	70.0	9.000	N	ON	20
12.45	42.85	---	60.00	17.15	70.0	9.000	N	ON	20
12.53	---	37.01	50.00	12.99	70.0	9.000	N	ON	20

Remark: Correct factor=cable loss + LISN factor

N line

Conducted Emission from 150 KHz to 30 MHz

Adapter 4

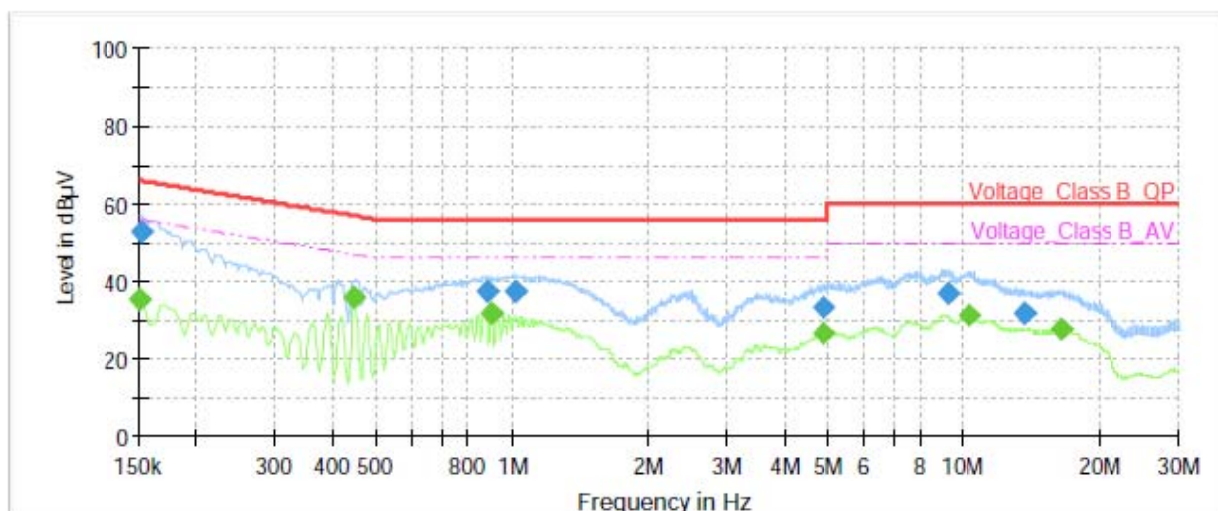


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	54.34	---	66.00	11.66	70.0	9.000	L1	ON	21
0.17	---	34.73	54.95	20.22	70.0	9.000	L1	ON	21
0.42	37.84	---	57.45	19.61	70.0	9.000	L1	ON	20
0.45	---	34.02	46.89	12.87	70.0	9.000	L1	ON	20
1.99	---	28.51	46.00	17.49	70.0	9.000	L1	ON	20
2.12	35.10	---	56.00	20.90	70.0	9.000	L1	ON	20
2.13	---	28.10	46.00	17.90	70.0	9.000	L1	ON	20
2.26	34.16	---	56.00	21.84	70.0	9.000	L1	ON	19
9.14	36.18	---	60.00	23.82	70.0	9.000	L1	ON	20
10.33	---	31.72	50.00	18.28	70.0	9.000	L1	ON	20
14.69	---	28.17	50.00	21.83	70.0	9.000	L1	ON	20
14.95	32.75	---	60.00	27.25	70.0	9.000	L1	ON	20

Remark: Correct factor=cable loss + LISN factor

L line

Conducted Emission from 150 KHz to 30 MHz



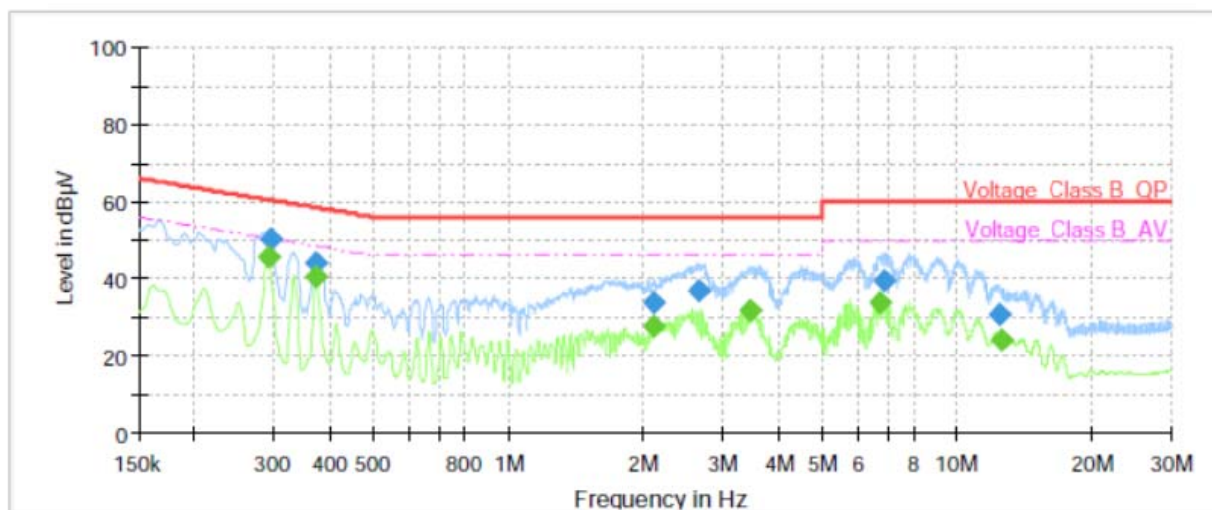
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	---	35.43	56.00	20.57	70.0	9.000	N	ON	21
0.15	52.88	---	65.88	13.00	70.0	9.000	N	ON	21
0.45	---	35.70	46.89	11.19	70.0	9.000	N	ON	20
0.88	37.64	---	56.00	18.36	70.0	9.000	N	ON	20
0.90	---	31.56	46.00	14.44	70.0	9.000	N	ON	20
1.01	37.20	---	56.00	18.80	70.0	9.000	N	ON	20
4.90	---	26.77	46.00	19.23	70.0	9.000	N	ON	19
4.91	33.41	---	56.00	22.59	70.0	9.000	N	ON	19
9.22	36.68	---	60.00	23.32	70.0	9.000	N	ON	20
10.29	---	31.46	50.00	18.54	70.0	9.000	N	ON	20
13.65	32.05	---	60.00	27.95	70.0	9.000	N	ON	20
16.39	---	27.85	50.00	22.15	70.0	9.000	N	ON	20

Remark: Correct factor=cable loss + LISN factor

N line

Conducted Emission from 150 KHz to 30 MHz

Adapter 5

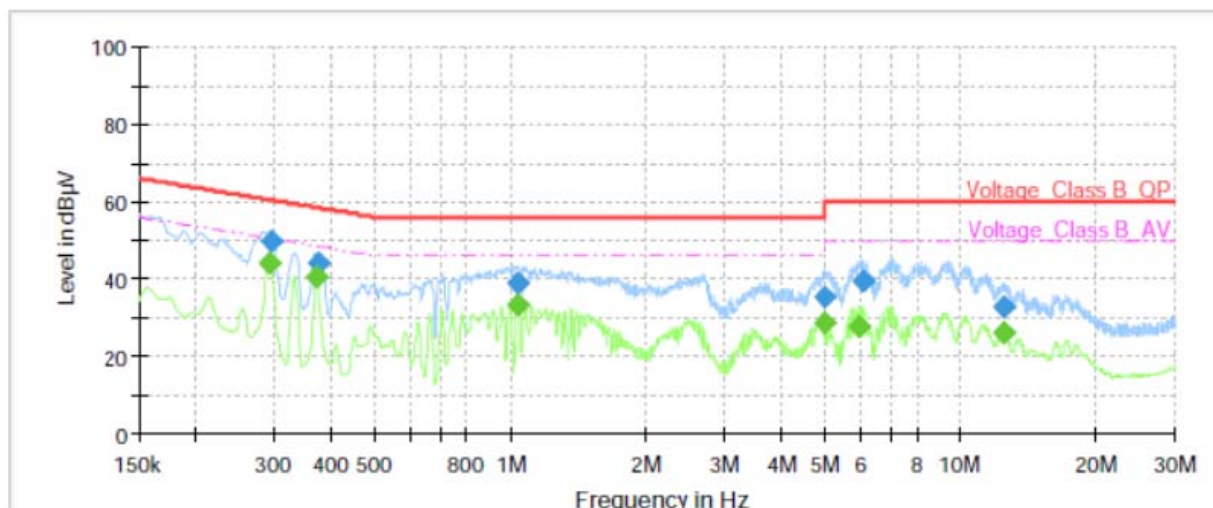


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.29	---	45.46	50.47	5.01	70.0	9.000	L1	ON	21
0.29	50.33	---	60.41	10.08	70.0	9.000	L1	ON	21
0.37	---	40.51	48.44	7.93	70.0	9.000	L1	ON	21
0.37	43.98	---	58.44	14.46	70.0	9.000	L1	ON	21
2.12	---	27.70	46.00	18.30	70.0	9.000	L1	ON	20
2.12	34.06	---	56.00	21.94	70.0	9.000	L1	ON	20
2.65	36.71	---	56.00	19.29	70.0	9.000	L1	ON	19
3.47	---	32.01	46.00	13.99	70.0	9.000	L1	ON	19
6.73	---	33.65	50.00	16.35	70.0	9.000	L1	ON	20
6.88	39.29	---	60.00	20.71	70.0	9.000	L1	ON	20
12.44	30.72	---	60.00	29.28	70.0	9.000	L1	ON	20
12.50	---	23.97	50.00	26.03	70.0	9.000	L1	ON	20

Remark: Correct factor=cable loss + LISN factor

L line

Conducted Emission from 150 KHz to 30 MHz



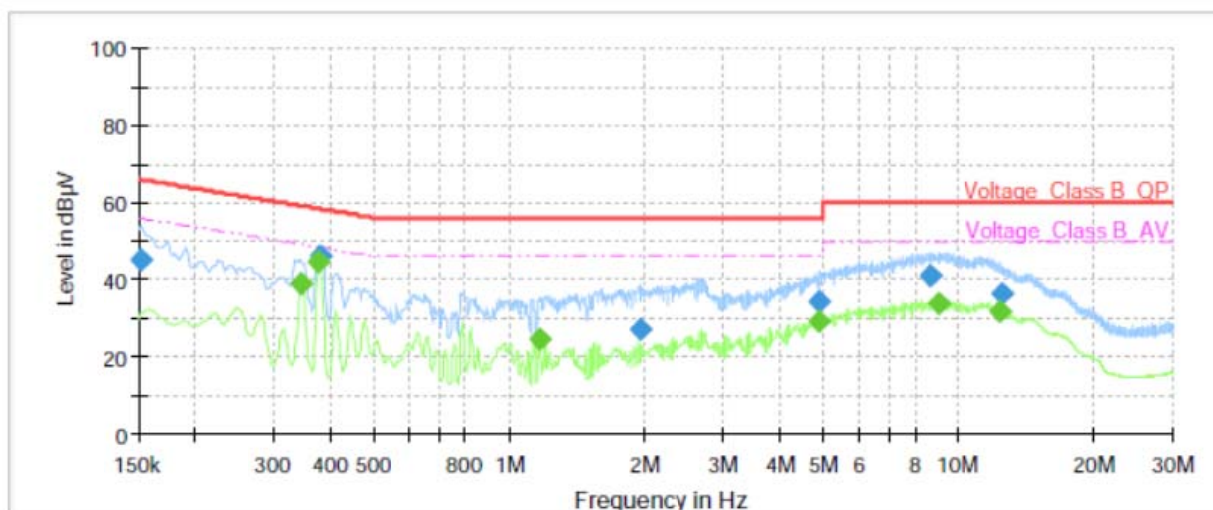
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.29	---	43.91	50.47	6.56	70.0	9.000	N	ON	21
0.29	49.73	---	60.41	10.68	70.0	9.000	N	ON	21
0.37	---	40.55	48.44	7.89	70.0	9.000	N	ON	21
0.38	44.30	---	58.39	14.09	70.0	9.000	N	ON	21
1.04	38.98	---	56.00	17.02	70.0	9.000	N	ON	20
1.04	---	33.35	46.00	12.65	70.0	9.000	N	ON	20
4.99	---	28.90	46.00	17.10	70.0	9.000	N	ON	19
5.00	35.24	---	56.00	20.76	70.0	9.000	N	ON	19
5.95	---	27.50	50.00	22.50	70.0	9.000	N	ON	20
6.09	39.24	---	60.00	20.76	70.0	9.000	N	ON	20
12.50	---	26.15	50.00	23.85	70.0	9.000	N	ON	20
12.52	33.02	---	60.00	26.98	70.0	9.000	N	ON	20

Remark: Correct factor=cable loss + LISN factor

N line

Conducted Emission from 150 KHz to 30 MHz

Adapter 6

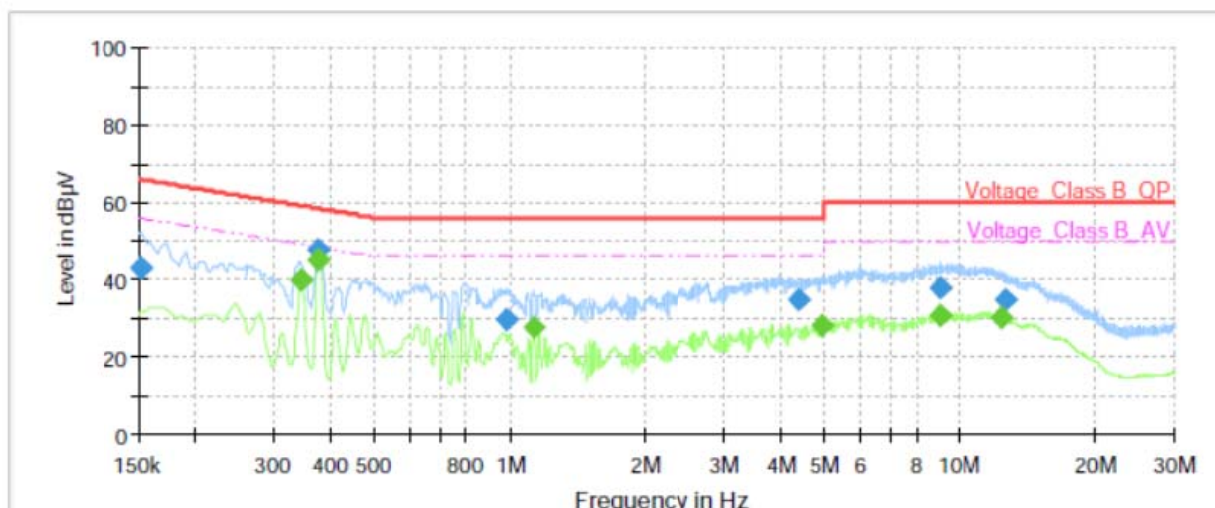


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	45.22	---	65.88	20.66	70.0	9.000	L1	ON	21
0.35	---	39.13	49.06	9.93	70.0	9.000	L1	ON	21
0.38	---	44.43	48.34	3.91	70.0	9.000	L1	ON	21
0.38	46.03	---	58.29	12.26	70.0	9.000	L1	ON	21
1.17	---	24.52	46.00	21.48	70.0	9.000	L1	ON	20
1.95	27.17	---	56.00	28.83	70.0	9.000	L1	ON	20
4.91	---	29.47	46.00	16.53	70.0	9.000	L1	ON	19
4.92	34.59	---	56.00	21.41	70.0	9.000	L1	ON	19
8.61	41.19	---	60.00	18.81	70.0	9.000	L1	ON	20
8.99	---	33.75	50.00	16.25	70.0	9.000	L1	ON	20
12.43	---	31.68	50.00	18.32	70.0	9.000	L1	ON	20
12.47	36.62	---	60.00	23.38	70.0	9.000	L1	ON	20

Remark: Correct factor=cable loss + LISN factor

L line

Conducted Emission from 150 KHz to 30 MHz

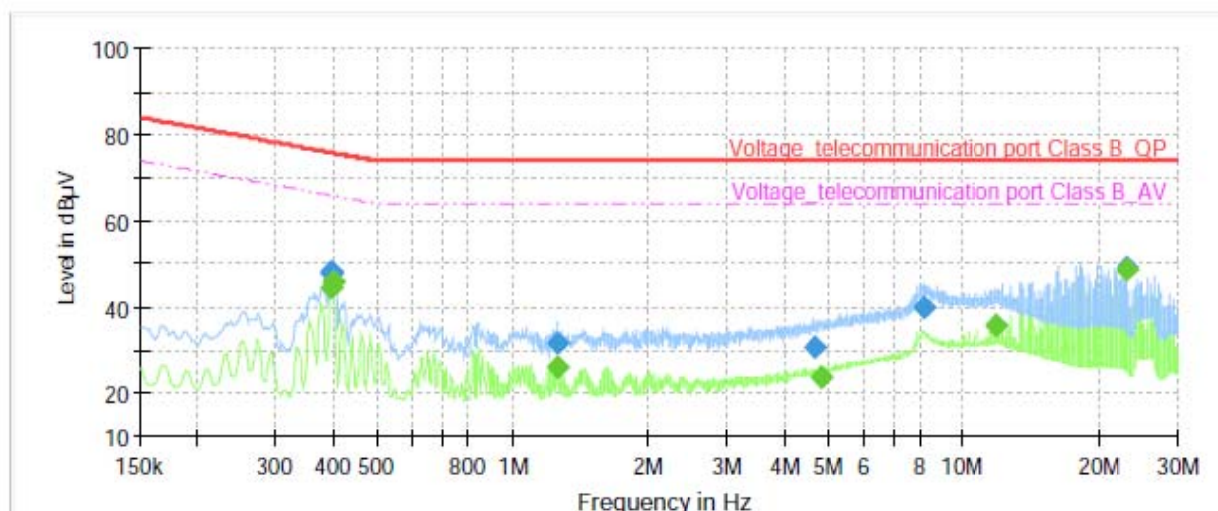


Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	43.27	---	65.88	22.61	70.0	9.000	N	ON	21
0.34	---	39.93	49.12	9.19	70.0	9.000	N	ON	21
0.38	---	45.26	48.34	3.08	70.0	9.000	N	ON	21
0.38	47.55	---	58.34	10.79	70.0	9.000	N	ON	21
0.99	30.00	---	56.00	26.00	70.0	9.000	N	ON	20
1.13	---	27.72	46.00	18.28	70.0	9.000	N	ON	20
4.38	34.83	---	56.00	21.17	70.0	9.000	N	ON	19
4.93	---	28.37	46.00	17.63	70.0	9.000	N	ON	19
9.01	---	30.87	50.00	19.13	70.0	9.000	N	ON	20
9.02	38.10	---	60.00	21.90	70.0	9.000	N	ON	20
12.43	---	30.34	50.00	19.66	70.0	9.000	N	ON	20
12.64	35.00	---	60.00	25.00	70.0	9.000	N	ON	20

Remark: Correct factor=cable loss + LISN factor

N line

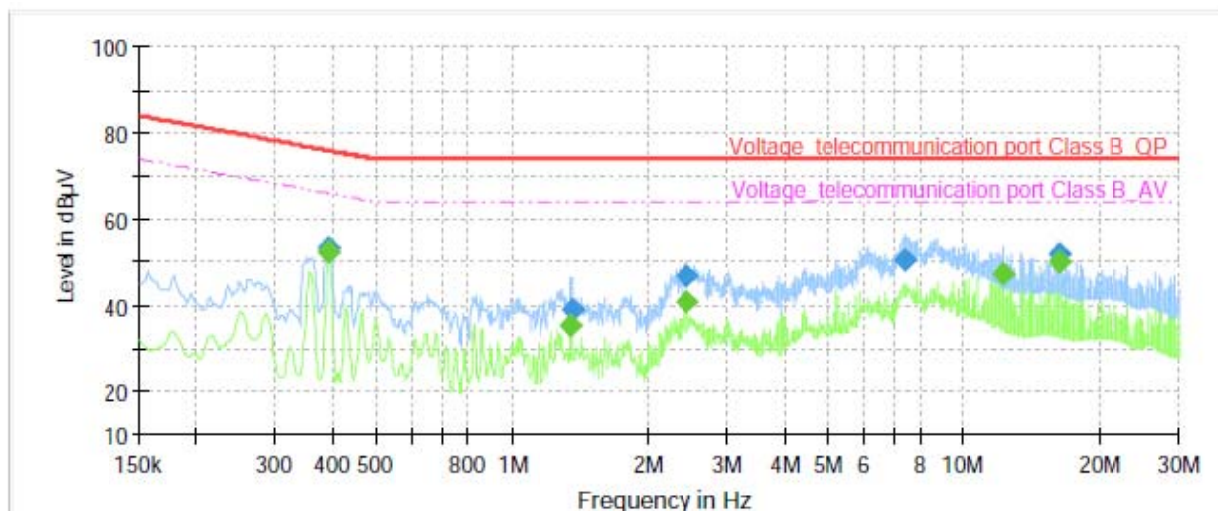
Conducted Emission from 150 KHz to 30 MHz



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.40	47.74	---	75.95	28.21	1000.0	9.000	Single Line	21
0.40	---	44.46	65.91	21.45	1000.0	9.000	Single Line	21
0.40	48.19	---	75.91	27.72	1000.0	9.000	Single Line	21
0.40	---	45.77	65.81	20.04	1000.0	9.000	Single Line	21
1.26	---	26.26	64.00	37.74	1000.0	9.000	Single Line	20
1.26	31.89	---	74.00	42.11	1000.0	9.000	Single Line	20
4.66	30.66	---	74.00	43.34	1000.0	9.000	Single Line	20
4.83	---	23.93	64.00	40.07	1000.0	9.000	Single Line	20
8.16	39.78	---	74.00	34.22	1000.0	9.000	Single Line	20
11.89	---	35.75	64.00	28.25	1000.0	9.000	Single Line	20
23.13	---	48.81	64.00	15.19	1000.0	9.000	Single Line	20
23.13	49.37	---	74.00	24.63	1000.0	9.000	Single Line	20

Remark: Correct factor=cable loss + LISN factor

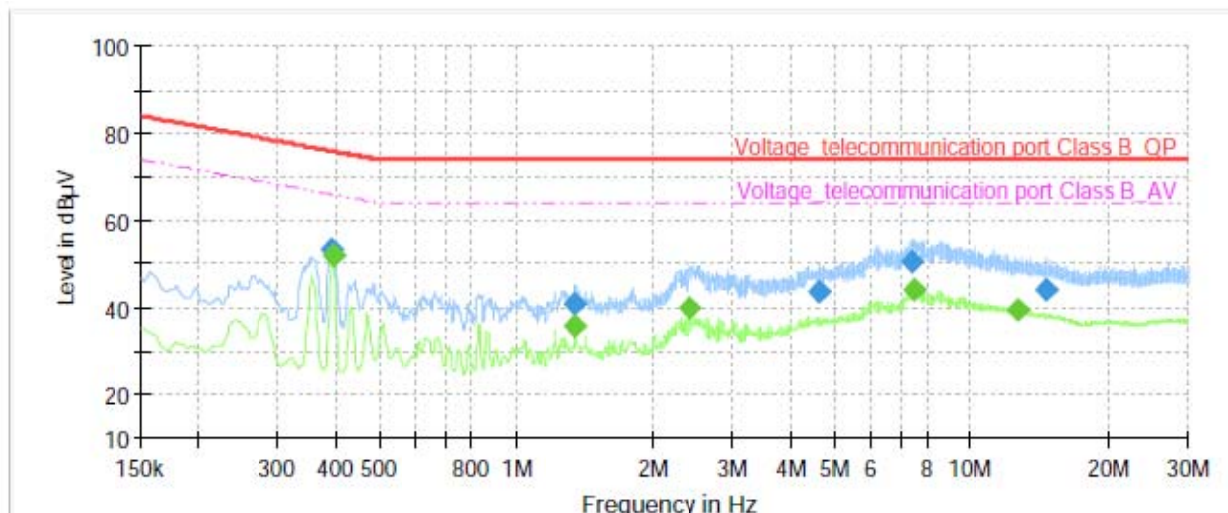
TEL



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.39	53.51	---	76.05	22.54	1000.0	9.000	Single Line	21
0.39	---	52.48	66.00	13.52	1000.0	9.000	Single Line	21
1.35	---	35.45	64.00	28.55	1000.0	9.000	Single Line	20
1.36	39.14	---	74.00	34.86	1000.0	9.000	Single Line	20
2.44	46.96	---	74.00	27.04	1000.0	9.000	Single Line	20
2.44	---	40.88	64.00	23.12	1000.0	9.000	Single Line	20
7.38	50.80	---	74.00	23.20	1000.0	9.000	Single Line	20
12.20	---	47.44	64.00	16.56	1000.0	9.000	Single Line	20
16.23	---	49.94	64.00	14.06	1000.0	9.000	Single Line	20
16.23	51.93	---	74.00	22.07	1000.0	9.000	Single Line	20

Remark: Correct factor=cable loss + LISN factor

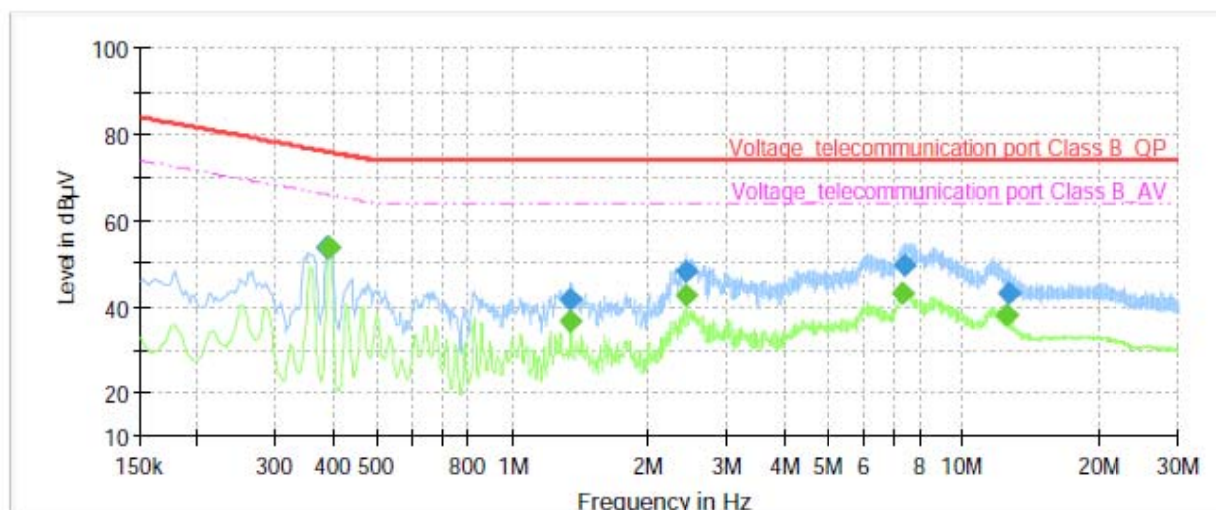
LAN1-100M



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.39	53.51	---	76.05	22.54	1000.0	9.000	Single Line	21
0.40	---	52.01	65.95	13.94	1000.0	9.000	Single Line	21
1.35	---	35.77	64.00	28.23	1000.0	9.000	Single Line	20
1.35	40.80	---	74.00	33.20	1000.0	9.000	Single Line	20
2.41	---	40.01	64.00	23.99	1000.0	9.000	Single Line	20
4.65	43.46	---	74.00	30.54	1000.0	9.000	Single Line	20
7.43	50.41	---	74.00	23.59	1000.0	9.000	Single Line	20
7.49	---	44.22	64.00	19.78	1000.0	9.000	Single Line	20
12.60	---	39.44	64.00	24.56	1000.0	9.000	Single Line	20
14.58	43.96	---	74.00	30.04	1000.0	9.000	Single Line	20

Remark: Correct factor=cable loss + LISN factor

LAN2-1000M



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.39	54.04	---	76.10	22.06	1000.0	9.000	Single Line	21
0.39	---	53.95	66.00	12.05	1000.0	9.000	Single Line	21
1.35	---	36.72	64.00	27.28	1000.0	9.000	Single Line	20
1.35	41.87	---	74.00	32.13	1000.0	9.000	Single Line	20
2.44	48.29	---	74.00	25.71	1000.0	9.000	Single Line	20
2.44	---	42.71	64.00	21.29	1000.0	9.000	Single Line	20
7.33	---	43.42	64.00	20.58	1000.0	9.000	Single Line	20
7.44	49.66	---	74.00	24.34	1000.0	9.000	Single Line	20
12.50	---	38.18	64.00	25.82	1000.0	9.000	Single Line	20
12.71	43.23	---	74.00	30.77	1000.0	9.000	Single Line	20

Remark: Correct factor=cable loss + LISN factor

LAN5-10M

4 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Time
Spectrum Analyzer	R&S	FSV40	15195-01-00	2021-05-15	2022-05-14
EMI Test Receiver	R&S	ESCI	100948	2021-05-15	2022-05-14
Trilog Antenna	SCHWARZBECK	VULB 9163	391	2019-12-16	2022-12-15
Horn Antenna	R&S	HF907	102723	2018-08-11	2021-08-10
				2020-08-11	2023-08-10
Horn Antenna	ETS-Lindgren	3160-09	00102644	2018-06-20	2023-06-19
EMI Test Receiver	R&S	ESR	101667	2021-05-16	2022-05-15
LISN	R&S	ENV216	101171	2018-12-15	2021-12-14
Bore Sight Antenna mast	ETS	2171B	00058752	/	/
Test software	EMC32	R&S	9.26.0	/	/

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



ANNEX A: Test Setup Photos

The Test Setup Photos are submitted separately.