FCC Test Report

FCC ID: 2A7DX-MP10DP00

Product: Mini PC

Trade Mark: Blackview

Model No.: MP60

Family Model: MP10,MP20,MP30,MP40,MP50, MP70,MP80,MP90,MP100,DP10,DP20, DP30,DP40,DP50,DP60,DP70,DP80, DP90,DP100

Report No.: STR230224003005E

Issue Date: Mar 20, 2023

Prepared for

DOKE COMMUNICATION (HK) LIMITED

RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA

Prepared by

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Website:http://www.ntek.org.cn

TEST RESULT CERTIFICATION

Applicant's name..... :	DOKE COMMUNICATION (HK) LIMITED
Address..... :	RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA
Manufacturer's Name..... :	Shenzhen DOKE Electronic Co.,Ltd
Address..... :	801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China

Product description

Product name..... :	Mini PC
Trade Mark..... :	Blackview
Model and/or type reference :	MP60
Family Model :	MP10,MP20,MP30,MP40,MP50,MP70,MP80,MP90,MP100, DP10,DP20,DP30,DP40,DP50,DP60,DP70,DP80,DP90,DP100
Standards..... :	FCC Part 15B ANSI C63.4:2014

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report.

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Test Sample Number……..:	T221019004R004
Date of Test ..... :	
Date (s) of performance of tests..... :	Oct 19, 2022 ~ Nov 24, 2022
Date of Issue ..... :	Mar 20, 2023
Test Result ..... :	**Pass**

Note: All test data of this report are based on the original test report STR221019006005E, dated by Nov 24, 2022

Testing Engineer : Mukzi Lee
(Mukzi Lee)

Authorized Signatory : Alex
(Alex Li)

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Revision History

Report No.	Version	Description	Issued Date
STR221019006005E	Rev.01	Initial issue of report	Nov 24, 2022
STR230224003005E	Rev.02	Add SSD and RAM Add test data of RE and CE	Mar 20, 2023

1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part15B ANSI C63.4: 2014	Conducted Emission	Class B	PASS	
	Radiated Emission	Class B	PASS	

NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report

(2) For client's request and manual description, the test will not be executed.

1.1 TEST FACILITY

Shenzhen NTEK Testing Technology Co., Ltd
Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

IC-Registration	The Certificate Registration Number is 9270A.
	CAB identifier:CN0074
FCC- Accredited	Test Firm Registration Number: 463705.
	Designation Number: CN1184

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKC01	ANSI	150 KHz ~ 30MHz	±2.80dB	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKA01	ANSI	30MHz~1000MHz	±2.64dB	
		1GHz~6GHz	±2.40dB	
		6GHz~26.5GHz	±2.52dB	

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mini PC
Trade Mark	Blackview
Model Name	MP60
Family Model	MP10,MP20,MP30,MP40,MP50,MP70,MP80,MP90,MP100,DP10,DP20, DP30,DP40,DP50,DP60,DP70,DP80,DP90,DP100
Model Difference	All the model are the same circuit and RF module,except the model names and color.
Product Description	<table><tr><td>Connecting I/O port:</td><td>Micro USB, Earphone</td></tr><tr><td>Operation Frequency:</td><td>5.8GHz</td></tr></table> Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.
Adapter	Model: AD0301-1202500UB Input: 100-240V~50/60Hz 0.8A Max Output: 12.0V⎓2.5A 30.0W
Battery	N/A
Power supply	DC 12V form adapter
HW Version	61821ce-01
SW Version	2024.0.8.108

2.1.1 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Burning Test(USB+HDMI+LAN)

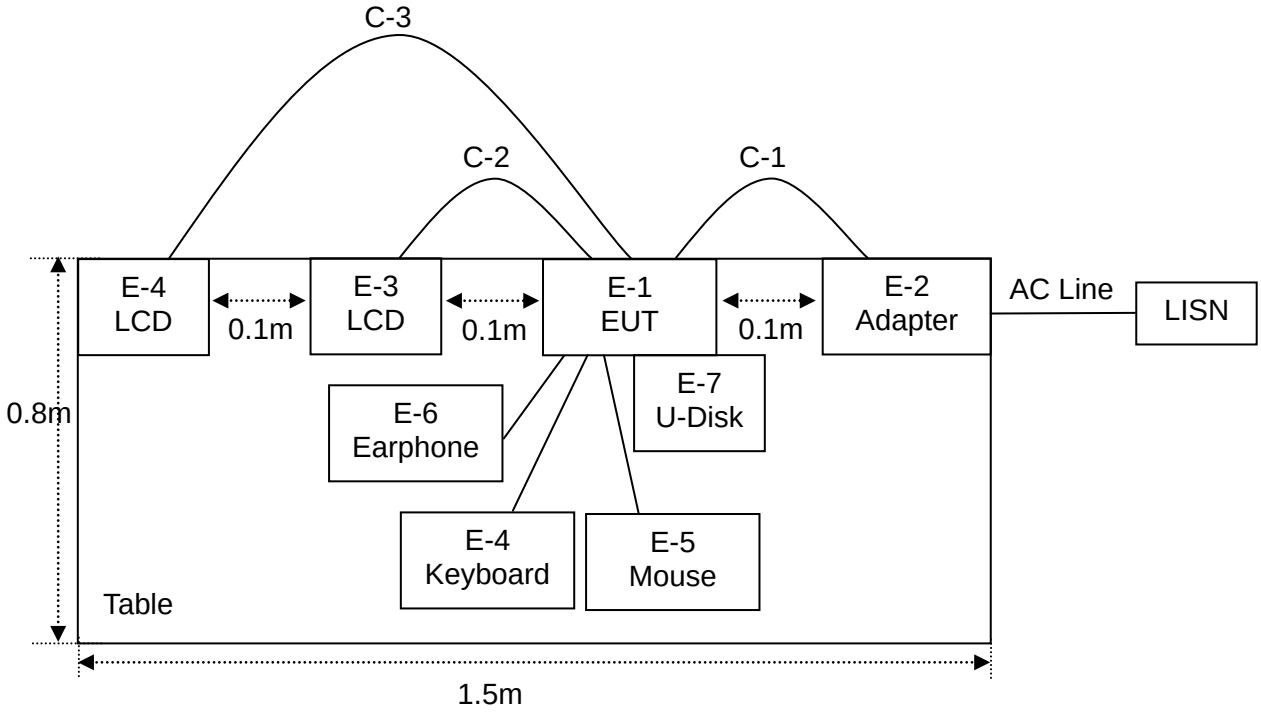
For Conducted Test	
Final Test Mode	Description
Mode 1	Burning Test(USB+HDMI+LAN)

For Radiated Test	
Final Test Mode	Description
Mode 1	Burning Test(USB+HDMI+LAN)

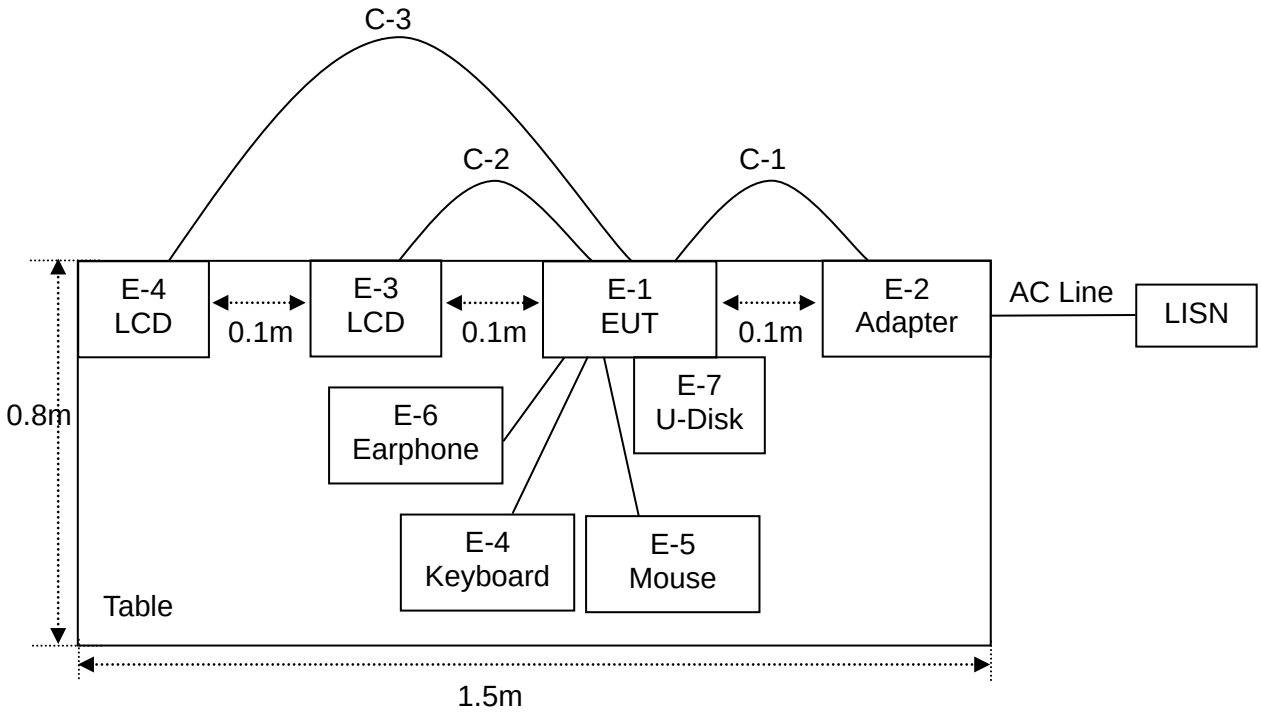
Note: 1.Final Test Mode: Through Pre-scan, find the model 1 is the worst case.
Only the worst case mode is recorded in the report.
2. Add SSD and RAM,See4#,5# for Data.

2.2 DESCRIPTION OF TEST SETUP

For AC Conducted Emission Mode



For Radiated Test Cases



2.2.1 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	Mini PC	Blackview	MP60	N/A	EUT
E-2	Adapter	ABP	AD0301-1202500UB	N/A	EUT
E-3	LCD	PHILIPS	241P6V	UHBA1724011720C24	Peripherals
E-4	LCD	SONY	KDL-24EX520	6450750	Peripherals
E-5	Keyboard	hp	Z4M39PA#AB2	9GCMCB180007747	Peripherals
E-6	Mouse	ThinkPad	N/A	N/A	Peripherals
E-7	Earphone	N/A	N/A	N/A	Peripherals
E-8	U-Disk	Kingston	N/A	N/A	Peripherals

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	120cm	
C-2	YES	YES	120cm	
C-3	YES	YES	120cm	

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.
(3) “YES” means “shielded” “with core”; “NO” means “unshielded” “without core”.

2.3 MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2022.04.01	2023.03.30	1 year
2	Test Receiver	R&S	ESPI	101318	2022.04.06	2023.04.05	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2022.03.30	2023.03.29	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2020.05.11	2023.05.10	3 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2022.04.06	2023.04.05	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2022.03.31	2023.03.30	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2021.11.07 2022.11.07	2022.11.06 2023.11.06	1 year
8	Amplifier	EMC	EMC051835SE	980246	2022.06.17	2023.06.16	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2022.04.06	2023.04.05	1 year
10	Power Meter	DARE	RPR3006W	15I00041SNO84	2022.06.16	2023.06.15	1 year
11	Power Sensor	R&S	URV4-Z4	0395.1619.05	2022.06.16	2023.06.15	1 year
12	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2022.06.17	2025.06.16	3 year
13	High Test Cable(1G-40GHz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
14	High Test Cable(1G-40GHz)	N/A	R-04	N/A	2022.06.17	2025.06.16	3 year
15	Test Receiver	R&S	ESCI	101160	2022.04.06	2023.04.05	1 year

AC Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2022.04.06	2023.04.05	1 year
2	LISN	R&S	ENV216	101313	2022.04.06	2023.04.05	1 year
3	LISN	SCHWARZBECK	NNLK 8129	8129245	2022.04.06	2023.04.05	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2020.05.11	2023.05.10	3 year
5	Test Cable (9KHz-30MHz)	N/A	C01	N/A	2020.05.11	2023.05.10	3 year
6	Test Cable (9KHz-30MHz)	N/A	C02	N/A	2020.05.11	2023.05.10	3 year
7	Test Cable (9KHz-30MHz)	N/A	C03	N/A	2020.05.11	2023.05.10	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable which is scheduled for calibration every 3 years.

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

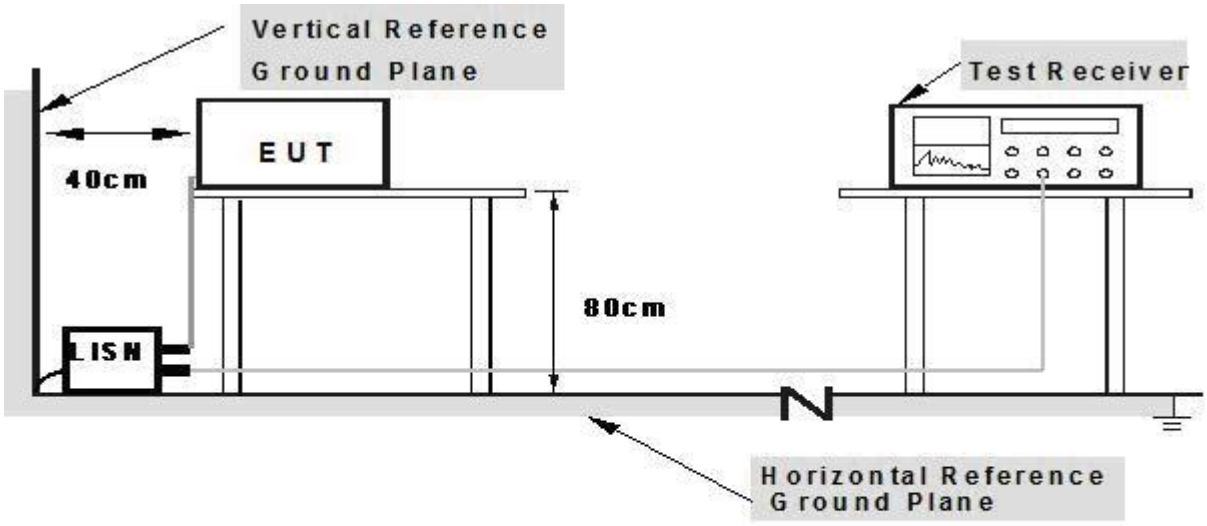
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

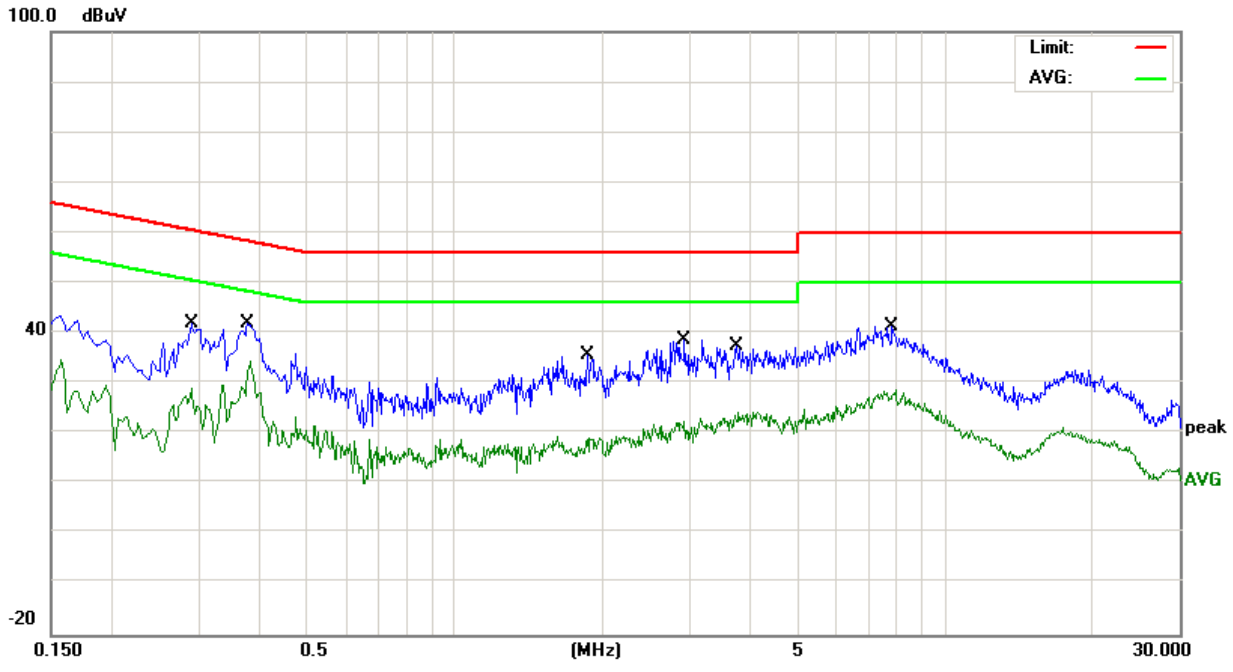
3.1.5 TEST RESULTS

EUT:	Mini PC	Model Name. :	MP60
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2022-11-9
Test Mode:	Mode 1 (1#)	Phase :	L
Test Voltage:	DC 12V from adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.2899	32.42	9.64	42.06	60.52	-18.46	QP
0.2899	19.53	9.64	29.17	50.52	-21.35	AVG
0.3780	32.26	9.65	41.91	58.32	-16.41	QP
0.3780	24.65	9.65	34.30	48.32	-14.02	AVG
1.8620	25.97	9.68	35.65	56.00	-20.35	QP
1.8620	9.47	9.68	19.15	46.00	-26.85	AVG
2.9340	28.94	9.73	38.67	56.00	-17.33	QP
2.9340	12.71	9.73	22.44	46.00	-23.56	AVG
3.7419	27.62	9.74	37.36	56.00	-18.64	QP
3.7419	14.55	9.74	24.29	46.00	-21.71	AVG
7.8098	31.60	9.86	41.46	60.00	-18.54	QP
7.8098	18.85	9.86	28.71	50.00	-21.29	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

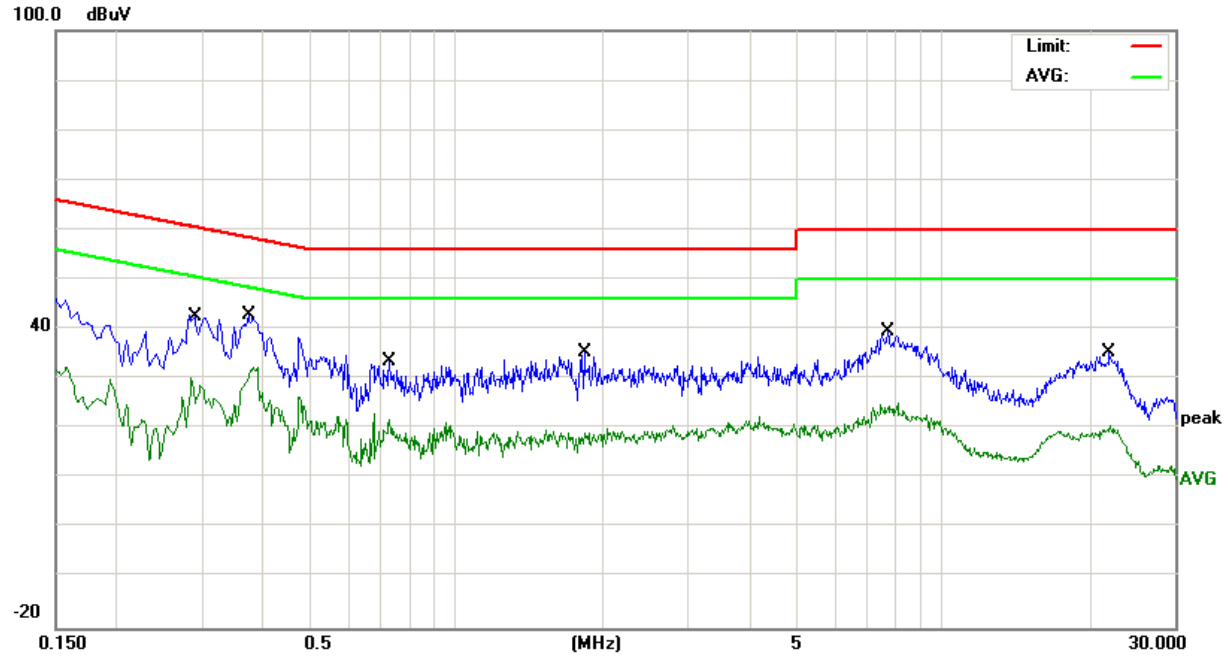


EUT:	Mini PC	Model Name. :	MP60
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2022-11-9
Test Mode:	Mode 1(1#)	Phase :	N
Test Voltage:	DC 12V from adapter AC 120V/60Hz		

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Remark
0.2899	33.04	9.64	42.68	60.52	-17.84	QP
0.2899	20.47	9.64	30.11	50.52	-20.41	AVG
0.3738	33.17	9.66	42.83	58.41	-15.58	QP
0.3738	22.64	9.66	32.30	48.41	-16.11	AVG
0.7299	23.82	9.67	33.49	56.00	-22.51	QP
0.7299	12.14	9.67	21.81	46.00	-24.19	AVG
1.8380	25.81	9.67	35.48	56.00	-20.52	QP
1.8380	10.34	9.67	20.01	46.00	-25.99	AVG
7.7138	29.68	9.84	39.52	60.00	-20.48	QP
7.7138	15.30	9.84	25.14	50.00	-24.86	AVG
22.0339	25.23	10.18	35.41	60.00	-24.59	QP
22.0339	10.43	10.18	20.61	50.00	-29.39	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

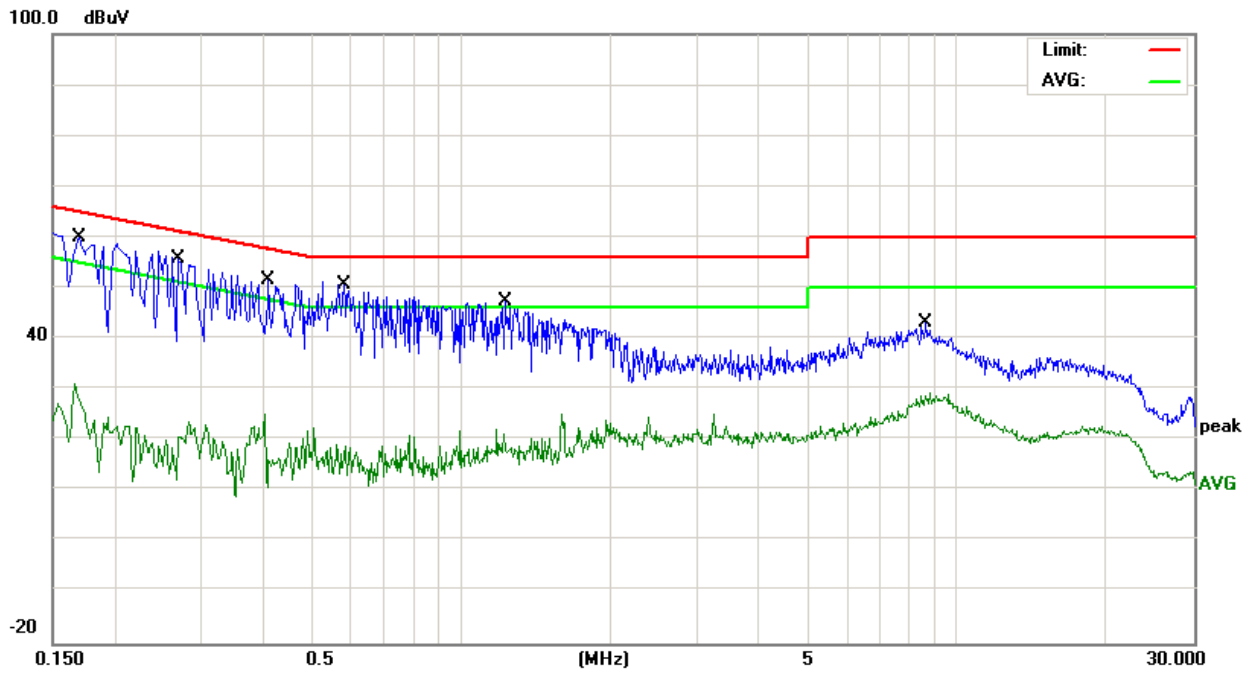


EUT:	Mini PC	Model Name. :	MP60
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2023-03-13
Test Mode:	Mode 1 (4#)	Phase :	L
Test Voltage:	DC 12V from adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1700	50.23	9.61	59.84	64.96	-5.12	QP
0.1700	21.43	9.61	31.04	54.96	-23.92	AVG
0.2700	46.08	9.63	55.71	61.12	-5.41	QP
0.2700	14.05	9.63	23.68	51.12	-27.44	AVG
0.4099	41.78	9.66	51.44	57.65	-6.21	QP
0.4099	15.47	9.66	25.13	47.65	-22.52	AVG
0.5819	40.94	9.67	50.61	56.00	-5.39	QP
0.5819	9.25	9.67	18.92	46.00	-27.08	AVG
1.2259	37.54	9.68	47.22	56.00	-8.78	QP
1.2259	12.38	9.68	22.06	46.00	-23.94	AVG
8.6418	33.24	9.89	43.13	60.00	-16.87	QP
8.6418	19.45	9.89	29.34	50.00	-20.66	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

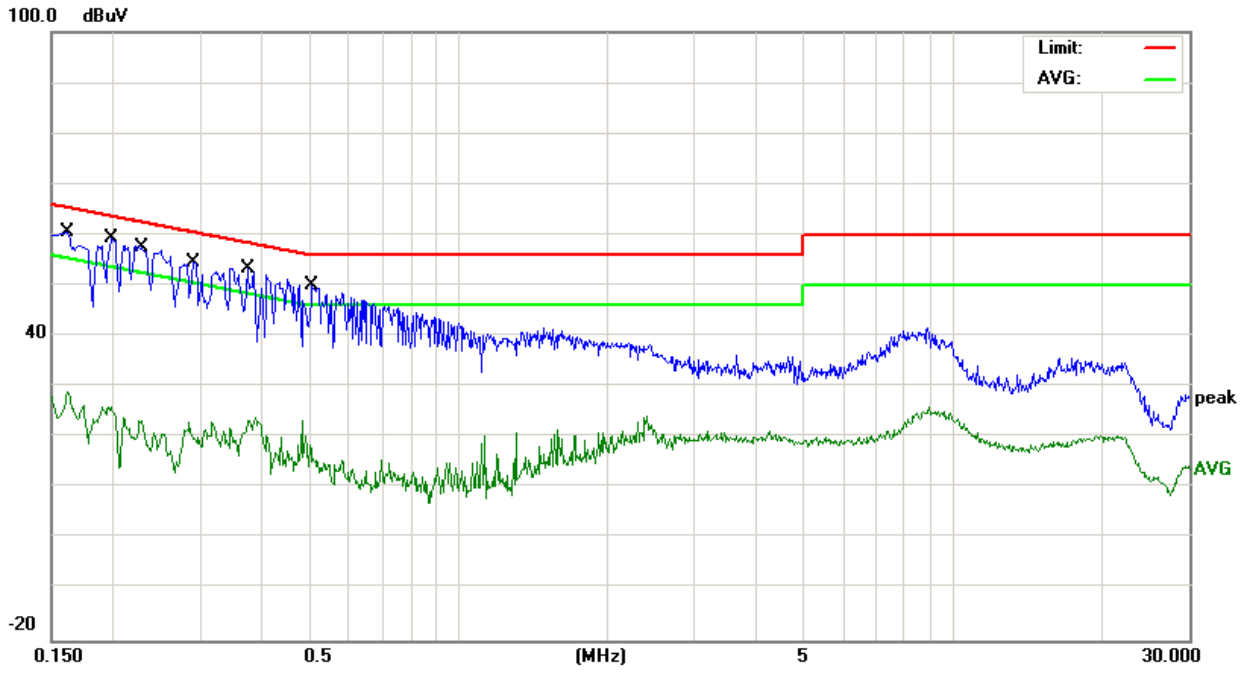


EUT:	Mini PC	Model Name. :	MP60
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2023-03-13
Test Mode:	Mode 1(4#)	Phase :	N
Test Voltage:	DC 12V from adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1620	50.92	9.65	60.57	65.36	-4.79	QP
0.1620	19.55	9.65	29.20	55.36	-26.16	AVG
0.1980	49.68	9.62	59.30	63.69	-4.39	QP
0.1980	16.57	9.62	26.19	53.69	-27.50	AVG
0.2303	47.29	9.62	56.91	62.44	-5.53	QP
0.2303	13.83	9.62	23.45	52.44	-28.99	AVG
0.2899	45.03	9.64	54.67	60.52	-5.85	QP
0.2899	13.28	9.64	22.92	50.52	-27.60	AVG
0.3738	43.78	9.66	53.44	58.41	-4.97	QP
0.3738	13.75	9.66	23.41	48.41	-25.00	AVG
0.5060	40.49	9.66	50.15	56.00	-5.85	QP
0.5060	13.58	9.66	23.24	46.00	-22.76	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

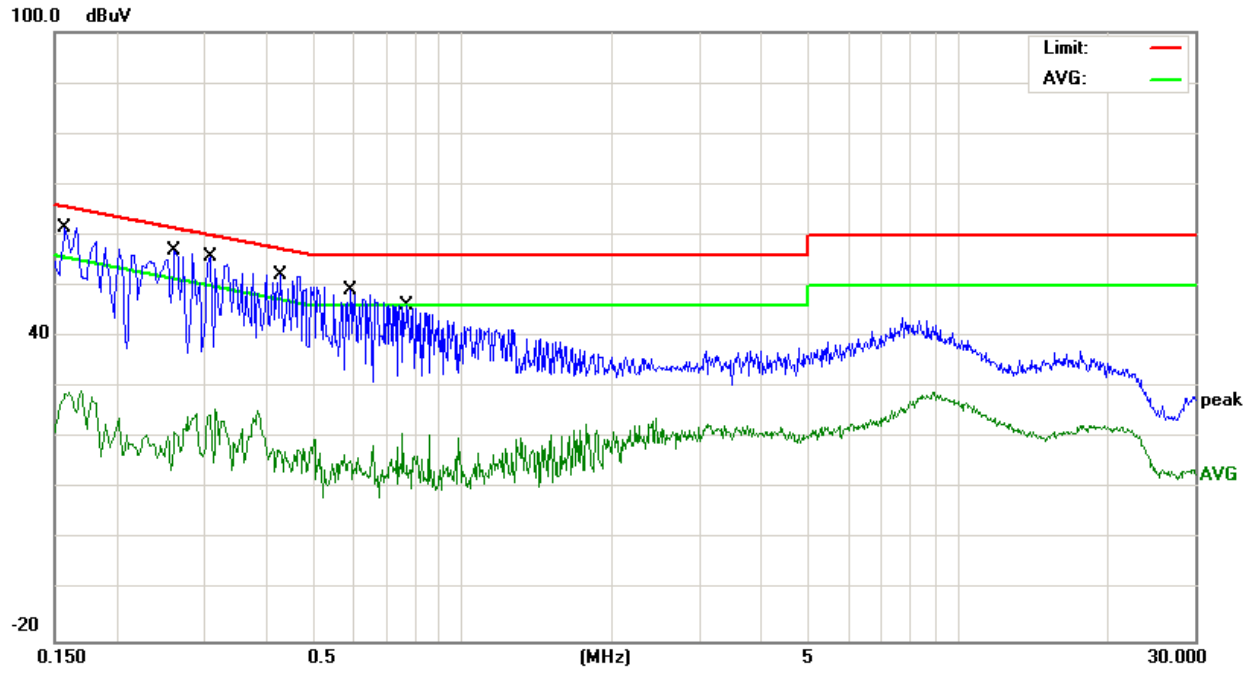


EUT:	Mini PC	Model Name. :	MP60
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2023-03-13
Test Mode:	Mode 1 (5#)	Phase :	L
Test Voltage:	DC 12V from adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1580	51.93	9.60	61.53	65.56	-4.03	QP
0.1580	19.49	9.60	29.09	55.56	-26.47	AVG
0.2620	47.30	9.63	56.93	61.36	-4.43	QP
0.2620	12.18	9.63	21.81	51.36	-29.55	AVG
0.3082	46.09	9.64	55.73	60.02	-4.29	QP
0.3082	15.98	9.64	25.62	50.02	-24.40	AVG
0.4299	42.35	9.66	52.01	57.25	-5.24	QP
0.4299	8.04	9.66	17.70	47.25	-29.55	AVG
0.5939	39.49	9.67	49.16	56.00	-6.84	QP
0.5939	7.19	9.67	16.86	46.00	-29.14	AVG
0.7740	36.60	9.68	46.28	56.00	-9.72	QP
0.7740	11.23	9.68	20.91	46.00	-25.09	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

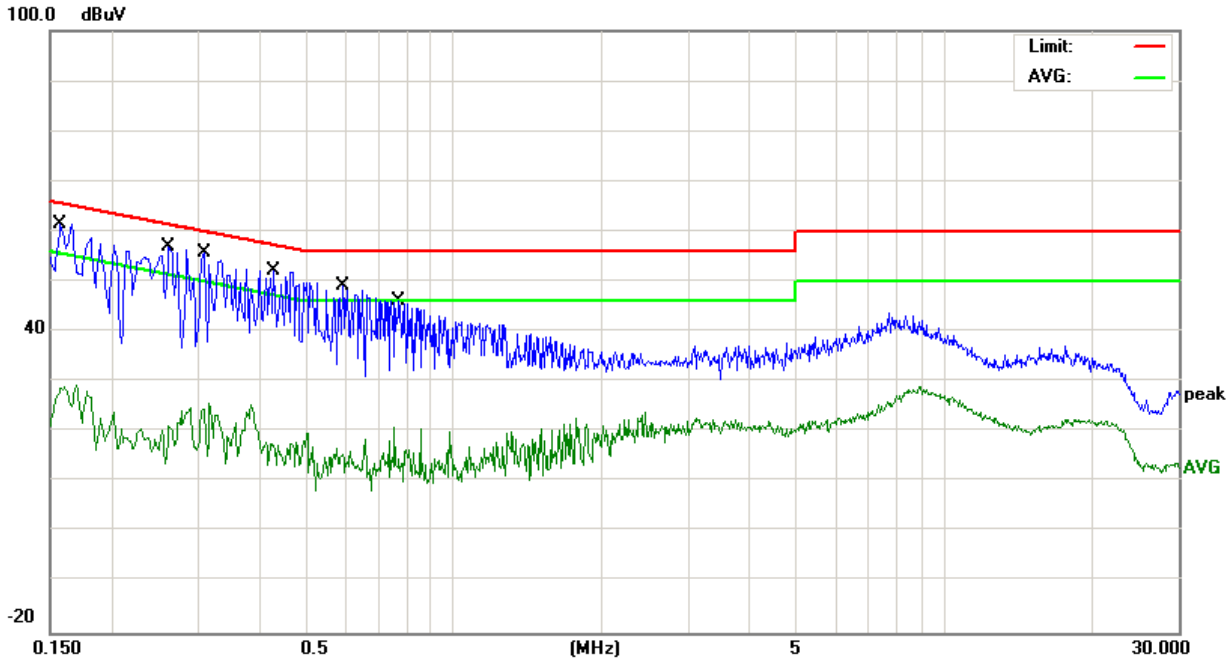


EUT:	Mini PC	Model Name. :	MP60
Temperature:	24.5 ℃	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2023-03-13
Test Mode:	Mode 1(5#)	Phase :	N
Test Voltage:	DC 12V from adapter AC 120V/60Hz		

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Remark
0.1580	51.93	9.60	61.53	65.56	-4.03	QP
0.1580	19.49	9.60	29.09	55.56	-26.47	AVG
0.2620	47.30	9.63	56.93	61.36	-4.43	QP
0.2620	12.18	9.63	21.81	51.36	-29.55	AVG
0.3082	46.09	9.64	55.73	60.02	-4.29	QP
0.3082	15.98	9.64	25.62	50.02	-24.40	AVG
0.4299	42.35	9.66	52.01	57.25	-5.24	QP
0.4299	8.04	9.66	17.70	47.25	-29.55	AVG
0.5939	39.49	9.67	49.16	56.00	-6.84	QP
0.5939	7.19	9.67	16.86	46.00	-29.14	AVG
0.7740	36.60	9.68	46.28	56.00	-9.72	QP
0.7740	11.23	9.68	20.91	46.00	-25.09	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 3m)
	dBuV/m	dBuV/m
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

Notes:

(1) The limit for radiated test was performed according to as following: FCC PART 15B /ICES-003.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

3.2.2 TEST PROCEDURE

Test Arrangement for Radiated Emissions up to 1 GHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency below 1GHz.

Test Arrangement for Radiated Emissions above 1 GHz.

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength.Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

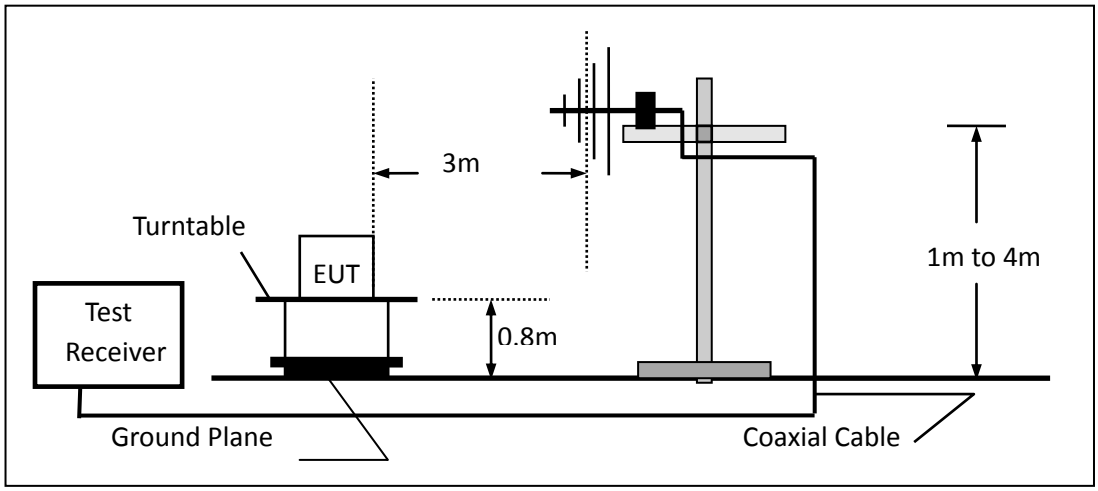
Note：For the hand-held device, the EUT should be measured for all 3 axes and only the worst case is recorded in the report

During the radiated emission test, according to ANSI C63.4-2014(4.2), the Spectrum Analyzer was set with the following configurations:

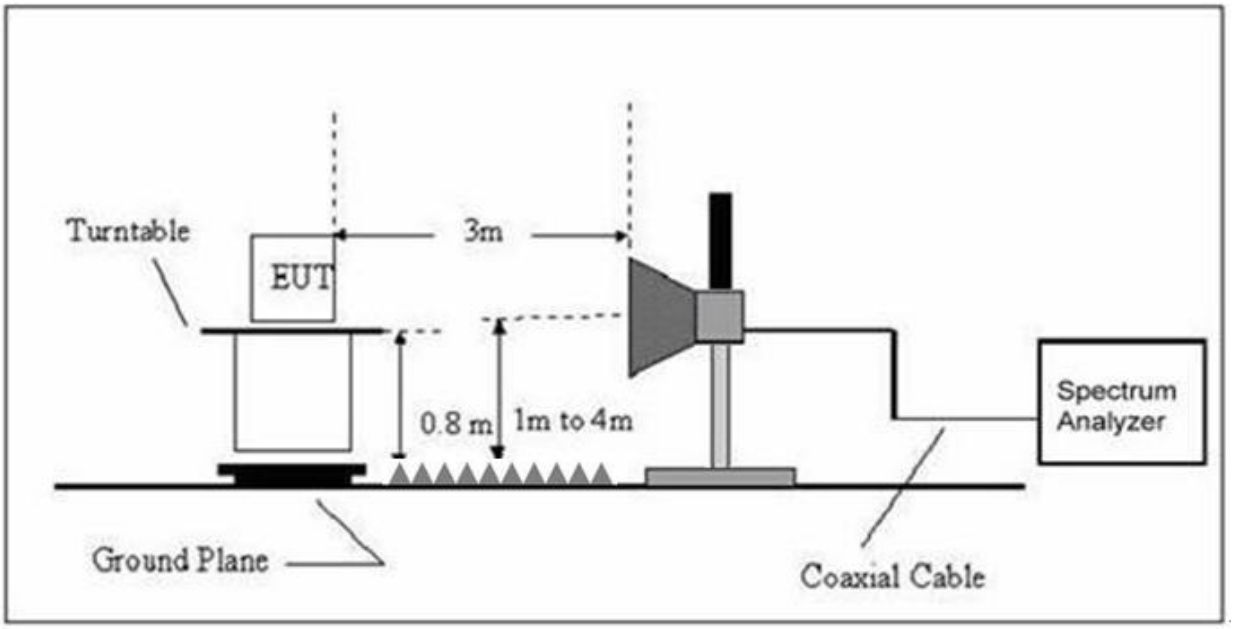
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	3 MHz
	Avg	1 MHz	10 Hz

3.2.3 TEST SETUP

For Radiated Emission 30~1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1GHz



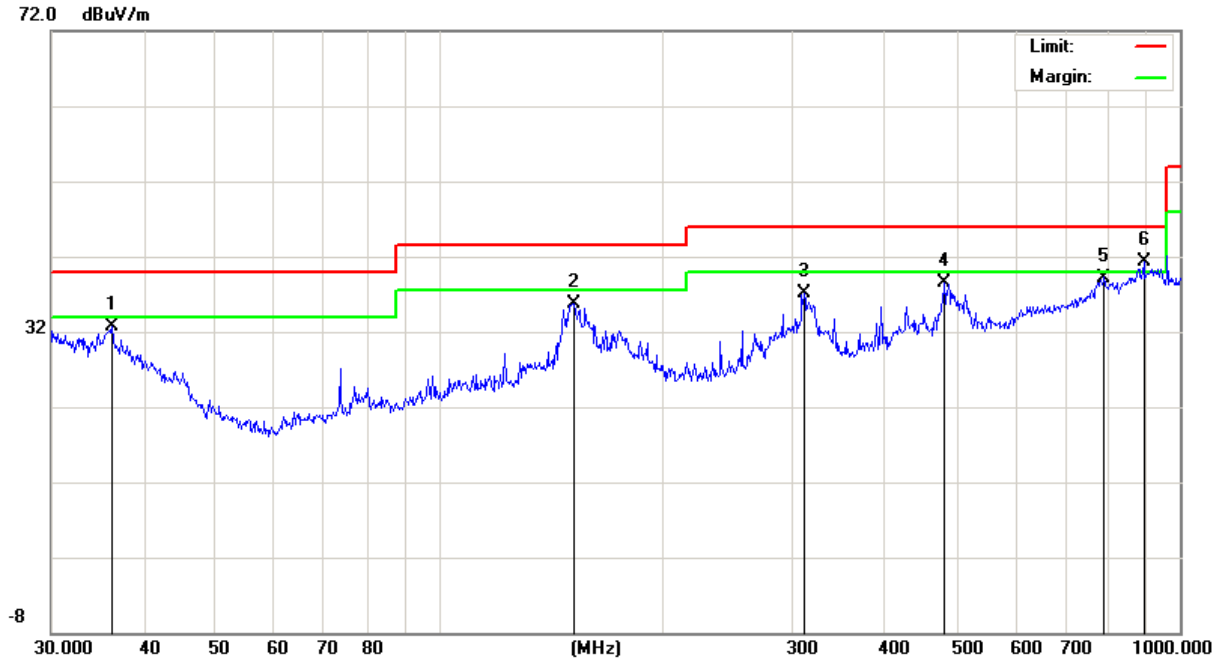
3.2.4 TEST RESULTS

TEST RESULTS (30~1000 MHz)

EUT:	Mini PC	Model Name:	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-19
Test Mode :	Mode 1(1#)	Polarization :	Horizontal
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
H	36.2541	9.87	22.75	32.62	40.00	-7.38	QP
H	152.1297	17.30	18.40	35.70	43.50	-7.80	QP
H	311.0867	17.04	20.14	37.18	46.00	-8.82	QP
H	480.5276	13.98	24.55	38.53	46.00	-7.47	QP
H	790.6186	9.92	29.28	39.20	46.00	-6.80	QP
H	893.8567	10.89	30.38	41.27	46.00	-4.73	QP

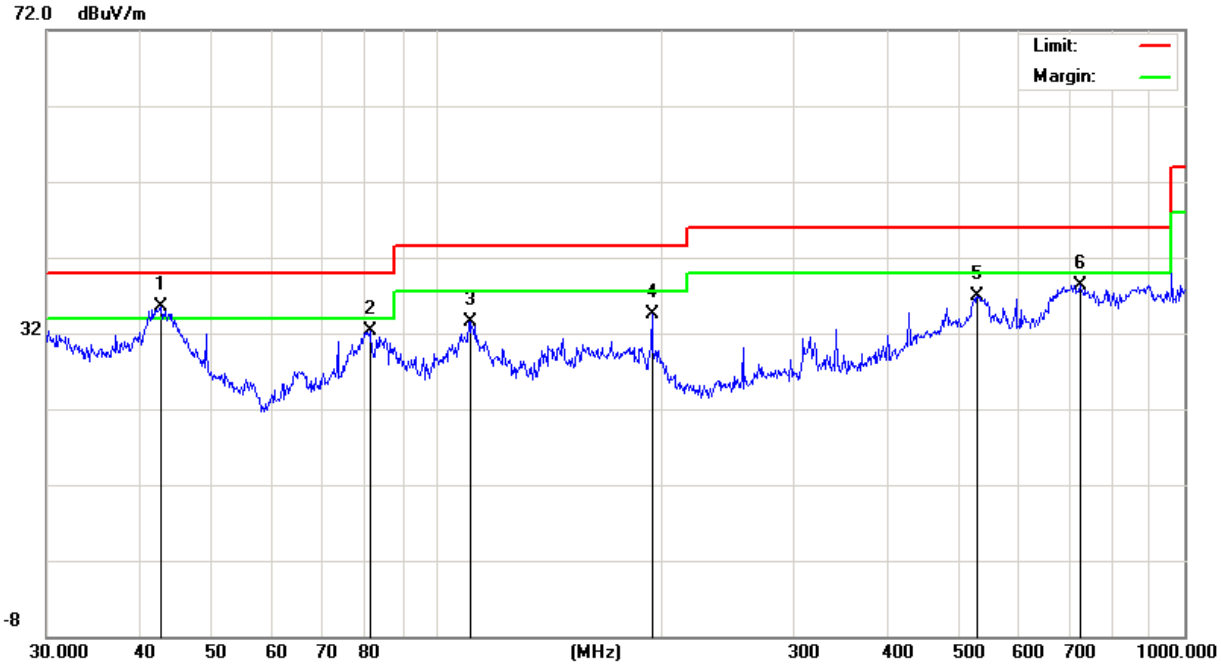
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-19
Test Mode :	Mode 1(1#)	Polarization :	Vertical
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
V	42.7496	16.78	18.78	35.56	40.00	-4.44	QP
V	81.2116	16.61	15.71	32.32	40.00	-7.68	QP
V	110.9569	15.08	18.50	33.58	43.50	-9.92	QP
V	193.7726	18.06	16.46	34.52	43.50	-8.98	QP
V	528.2458	11.72	25.10	36.82	46.00	-9.18	QP
V	724.2611	10.08	28.31	38.39	46.00	-7.61	QP

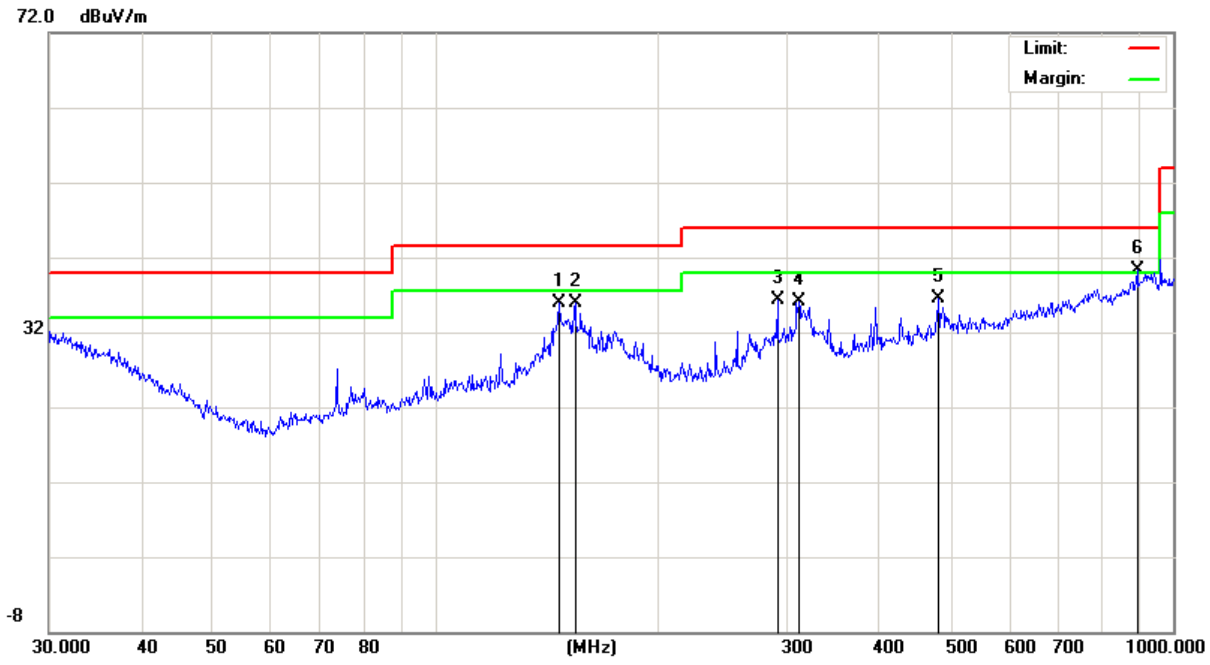
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name:	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-19
Test Mode :	Mode 1(2#)	Polarization :	Horizontal
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
H	147.4036	17.36	18.48	35.84	43.50	-7.66	QP
H	154.8204	17.46	18.46	35.92	43.50	-7.58	QP
H	291.0360	16.17	20.13	36.30	46.00	-9.70	QP
H	311.0867	16.04	20.14	36.18	46.00	-9.82	QP
H	480.5276	11.98	24.55	36.53	46.00	-9.47	QP
H	893.8567	9.89	30.38	40.27	46.00	-5.73	QP

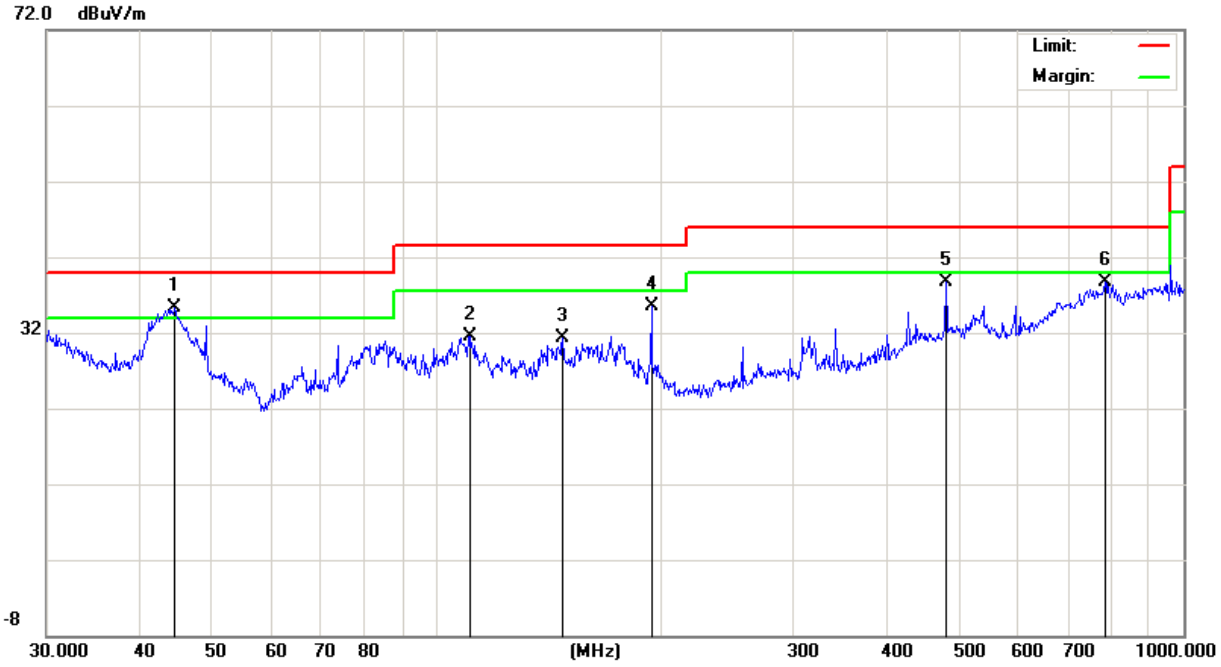
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-19
Test Mode :	Mode 1(2#)	Polarization :	Vertical
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
V	44.5867	17.26	17.99	35.25	40.00	-4.75	QP
V	110.9569	13.08	18.50	31.58	43.50	-11.92	QP
V	147.4036	12.86	18.48	31.34	43.50	-12.16	QP
V	193.7726	19.06	16.46	35.52	43.50	-7.98	QP
V	480.5276	14.16	24.55	38.71	46.00	-7.29	QP
V	785.0932	9.36	29.33	38.69	46.00	-7.31	QP

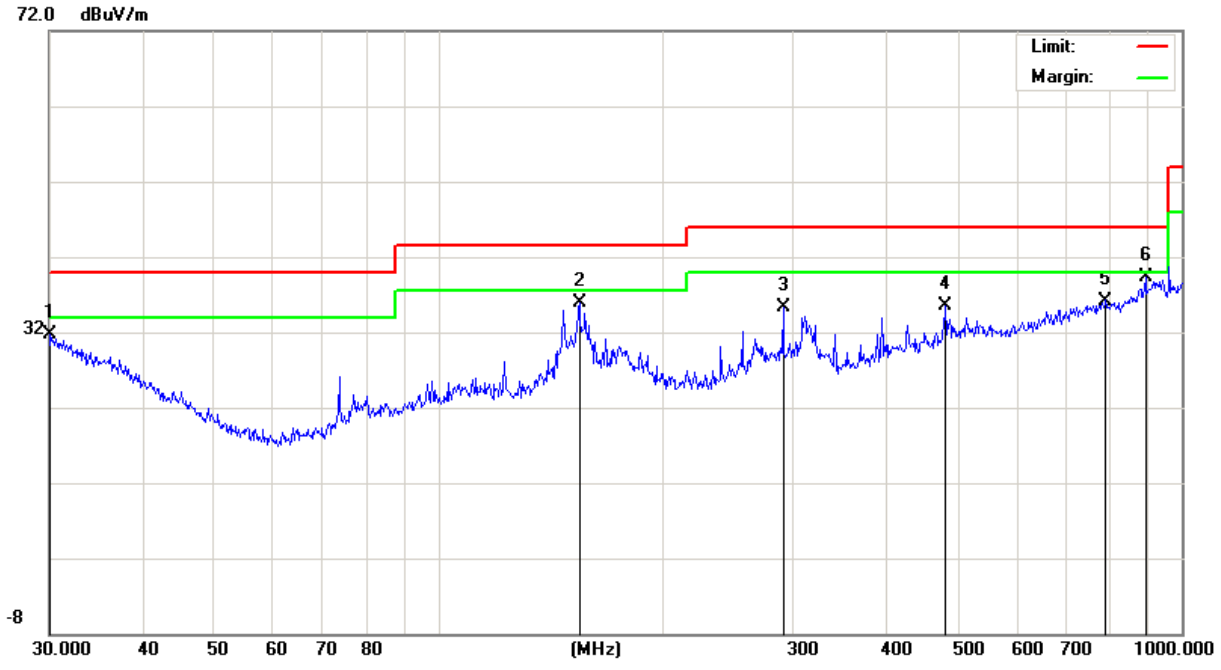
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name:	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-19
Test Mode :	Mode 1(3#)	Polarization :	Horizontal
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
H	30.0000	5.75	25.87	31.62	40.00	-8.38	QP
H	154.8204	17.46	18.46	35.92	43.50	-7.58	QP
H	291.0360	15.17	20.13	35.30	46.00	-10.70	QP
H	480.5276	10.98	24.55	35.53	46.00	-10.47	QP
H	790.6186	6.92	29.28	36.20	46.00	-9.80	QP
H	893.8567	8.89	30.38	39.27	46.00	-6.73	QP

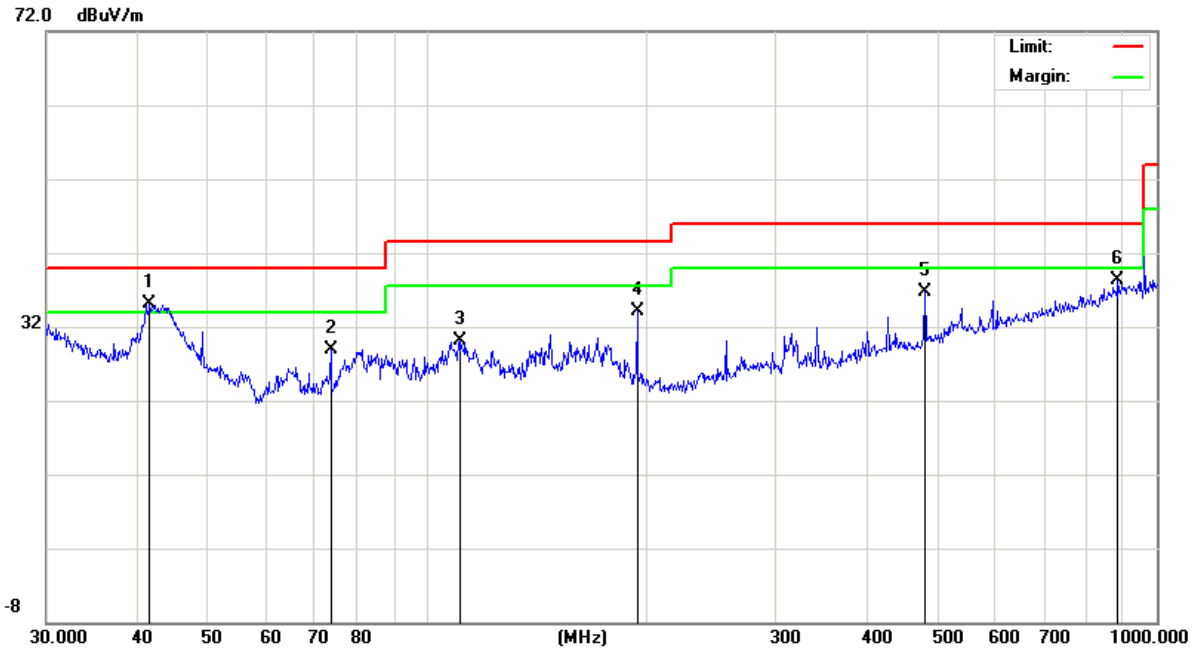
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-19
Test Mode :	Mode 1(3#)	Polarization :	Vertical
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
V	41.5670	15.45	19.58	35.03	40.00	-4.97	QP
V	73.6170	14.56	14.34	28.90	40.00	-11.10	QP
V	110.9571	11.58	18.50	30.08	43.50	-13.42	QP
V	193.7728	17.56	16.46	34.02	43.50	-9.48	QP
V	480.5276	12.16	24.55	36.71	46.00	-9.29	QP
V	884.5028	7.99	30.36	38.35	46.00	-7.65	QP

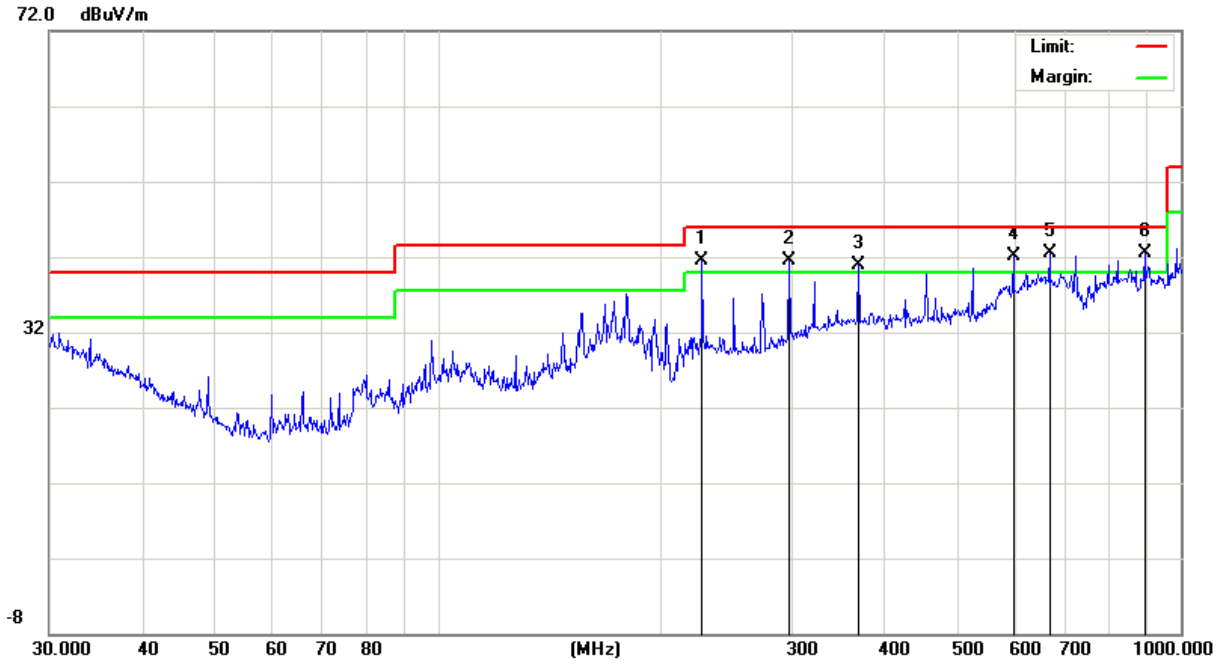
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name:	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-03-11
Test Mode :	Mode 1(4#)	Polarization :	Horizontal
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	226.8935	24.24	17.29	41.53	46.00	-4.47	QP
H	297.2241	21.55	20.03	41.58	46.00	-4.42	QP
H	368.1116	18.57	22.29	40.86	46.00	-5.14	QP
H	595.1327	15.81	26.20	42.01	46.00	-3.99	QP
H	665.8034	15.09	27.42	42.51	46.00	-3.49	QP
H	893.8567	12.20	30.38	42.58	46.00	-3.42	QP

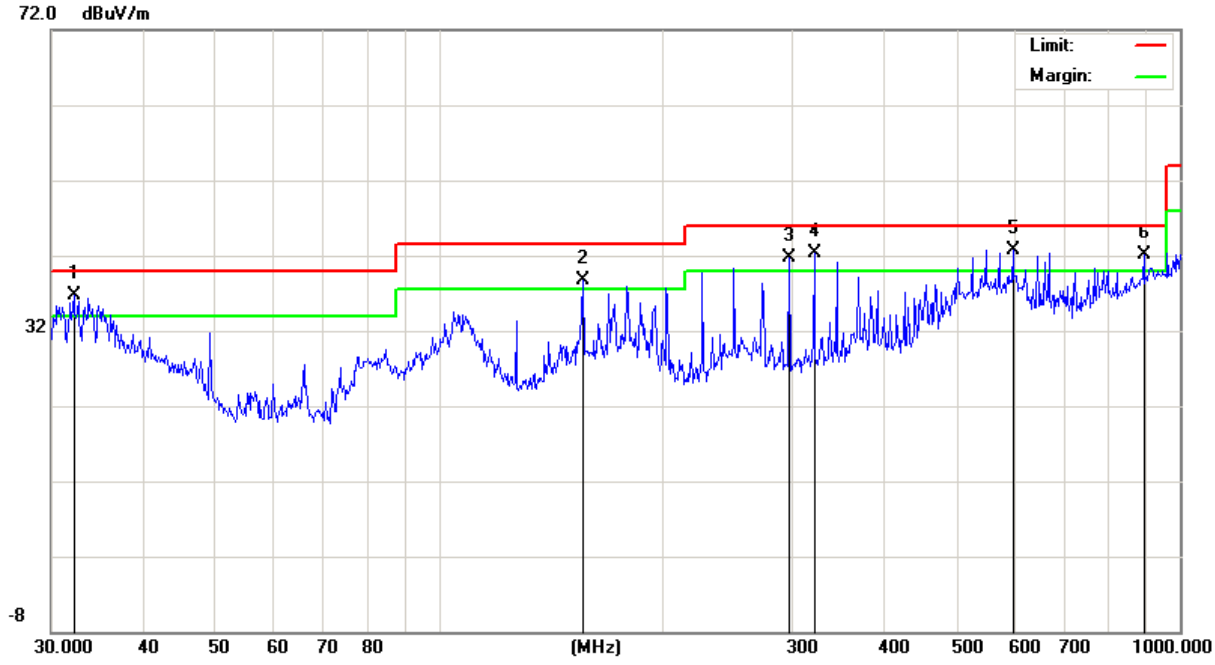
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-03-11
Test Mode :	Mode 1(4#)	Polarization :	Vertical
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
V	32.1794	11.98	24.64	36.62	40.00	-3.38	QP
V	156.4577	20.36	18.31	38.67	43.50	-4.83	QP
V	297.2241	21.61	20.03	41.64	46.00	-4.36	QP
V	321.0607	21.88	20.34	42.22	46.00	-3.78	QP
V	595.1327	16.58	26.20	42.78	46.00	-3.22	QP
V	893.8567	11.67	30.38	42.05	46.00	-3.95	QP

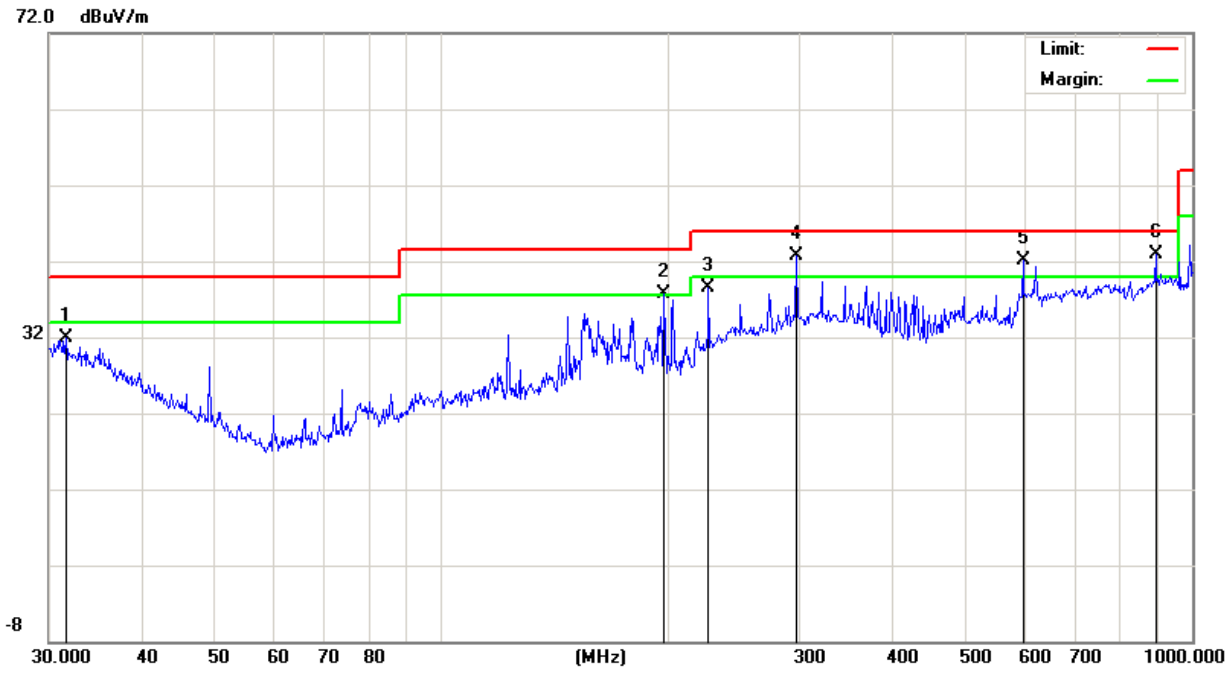
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name:	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-03-11
Test Mode :	Mode 1(5#)	Polarization :	Horizontal
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
H	31.6202	6.78	25.14	31.92	40.00	-8.08	QP
H	197.8925	21.59	16.11	37.70	43.50	-5.80	QP
H	226.8934	21.25	17.29	38.54	46.00	-7.46	QP
H	297.2241	22.60	20.03	42.63	46.00	-3.37	QP
H	595.1326	15.82	26.20	42.02	46.00	-3.98	QP
H	893.8567	12.45	30.38	42.83	46.00	-3.17	QP

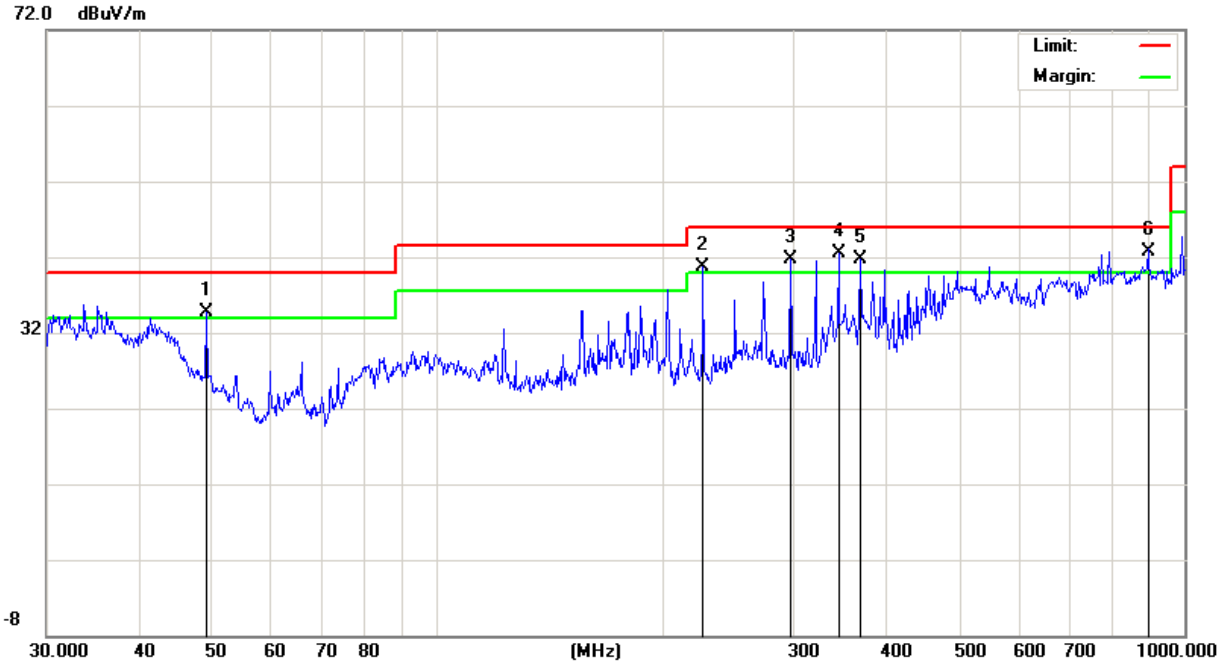
Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-03-11
Test Mode :	Mode 1(5#)	Polarization :	Vertical
Test Power :	DC 12V from adapter AC 120V/60Hz		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
V	49.0144	19.35	15.27	34.62	40.00	-5.38	QP
V	226.8934	23.43	17.29	40.72	46.00	-5.28	QP
V	297.2241	21.76	20.03	41.79	46.00	-4.21	QP
V	344.3854	21.14	21.34	42.48	46.00	-3.52	QP
V	368.1116	19.46	22.29	41.75	46.00	-4.25	QP
V	893.8567	12.42	30.38	42.80	46.00	-3.20	QP

Remark:
Factor = Antenna Factor + Cable Loss - Amplifier.



3.2.5 TEST RESULTS(1000~18000MHz)

EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-9
Test Mode :	Mode 1(1#)		
Test Power :	DC 12V from adapter AC 120V/60Hz		

All the modulation modes have been tested, and the worst result was report as below:

Polar	Frequency	Reading	Correct	Result	Limit	Over Limit	Remark
(H/V)	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
V	1212.5	53.58	6.76	60.34	74	-13.66	peak
V	1212.5	36.74	6.76	43.5	54	-10.5	AVG
V	4145	41.26	17.83	59.09	74	-14.91	peak
V	4145	24.37	17.83	42.2	54	-11.8	AVG
V	4740	39.92	19.04	58.96	74	-15.04	peak
V	4740	22.66	19.04	41.7	54	-12.3	AVG
V	7800	35.39	23.62	59.01	74	-14.99	peak
V	7800	20.08	23.62	43.7	54	-10.3	AVG
V	11582.5	33.86	25.99	59.85	74	-14.15	peak
V	11582.5	18.81	25.99	44.8	54	-9.2	AVG
V	13622.5	33.71	28.42	62.13	74	-11.87	peak
V	13622.5	18.08	28.42	46.5	54	-7.5	AVG
H	1212.5	50.85	6.76	57.61	74	-16.39	peak
H	1212.5	35.04	6.76	41.8	54	-12.2	AVG
H	4145	37.69	17.83	55.52	74	-18.48	peak
H	4145	22.67	17.83	40.5	54	-13.5	AVG
H	4740	38.09	19.04	57.13	74	-16.87	peak
H	4740	23.56	19.04	42.6	54	-11.4	AVG
H	8395	35.22	23.86	59.08	74	-14.92	peak
H	8395	21.34	23.86	45.2	54	-8.8	AVG
H	10520	34.1	25.5	59.6	74	-14.4	peak
H	10520	20	25.5	45.5	54	-8.5	AVG
H	14430	32.68	29.45	62.13	74	-11.87	peak
H	14430	17.85	29.45	47.3	54	-6.7	AVG

EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-9
Test Mode :	Mode 1(2#)		
Test Power :	DC 12V from adapter AC 120V/60Hz		

All the modulation modes have been tested, and the worst result was report as below:

Polar	Frequency	Reading	Correct	Result	Limit	Over Limit	Remark
(H/V)	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
V	1212.5	55.24	6.76	62	74	-12	peak
V	1212.5	36.44	6.76	43.2	54	-10.8	AVG
V	1510	52.04	6.86	58.9	74	-15.1	peak
V	1510	34.74	6.86	41.6	54	-12.4	AVG
V	4442.5	37.7	17.72	55.42	74	-18.58	peak
V	4442.5	22.78	17.72	40.5	54	-13.5	AVG
V	8820	35.59	23.64	59.23	74	-14.77	peak
V	8820	20.86	23.64	44.5	54	-9.5	AVG
V	10520	34.17	25.5	59.67	74	-14.33	peak
V	10520	19.7	25.5	45.2	54	-8.8	AVG
V	13580	33.29	28.54	61.83	74	-12.17	peak
V	13580	18.36	28.54	46.9	54	-7.1	AVG
H	1170	54.62	6.71	61.33	74	-12.67	peak
H	1170	37.59	6.71	44.3	54	-9.7	AVG
H	4145	41.65	17.83	59.48	74	-14.52	peak
H	4145	25.37	17.83	43.2	54	-10.8	AVG
H	8395	34.88	23.86	58.74	74	-15.26	peak
H	8395	18.94	23.86	42.8	54	-11.2	AVG
H	10605	33.7	26.14	59.84	74	-14.16	peak
H	10605	18.06	26.14	44.2	54	-9.8	AVG
H	13367.5	32.92	29.19	62.11	74	-11.89	peak
H	13367.5	16.61	29.19	45.8	54	-8.2	AVG
H	15662.5	34.24	27.48	61.72	74	-12.28	peak
H	15662.5	20.12	27.48	47.6	54	-6.4	AVG

EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2022-11-9
Test Mode :	Mode 1(3#)		
Test Power :	DC 12V from adapter AC 120V/60Hz		

All the modulation modes have been tested, and the worst result was report as below:

Polar	Frequency	Reading	Correct	Result	Limit	Over Limit	Remark
(H/V)	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
V	1212.5	51.1	6.76	57.86	74	-16.14	peak
V	1212.5	37.14	6.76	43.9	54	-10.1	AVG
V	1510	49.45	6.86	56.31	74	-17.69	peak
V	1510	36.74	6.86	43.6	54	-10.4	AVG
V	8607.5	35.93	23.32	59.25	74	-14.75	peak
V	8607.5	21.58	23.32	44.9	54	-9.1	AVG
V	10605	33.94	26.14	60.08	74	-13.92	peak
V	10605	19.26	26.14	45.4	54	-8.6	AVG
V	13665	33.15	28.66	61.81	74	-12.19	peak
V	13665	17.44	28.66	46.1	54	-7.9	AVG
V	16852.5	27.36	33.48	60.84	74	-13.16	peak
V	16852.5	11.82	33.48	45.3	54	-8.7	AVG
H	1085	49.35	5.97	55.32	74	-18.68	peak
H	1085	36.33	5.97	42.3	54	-11.7	AVG
H	1189.368	49.18	6.69	55.87	74	-18.13	peak
H	1189.368	35.21	6.69	41.9	54	-12.1	AVG
H	4145	43.53	17.83	61.36	74	-12.64	peak
H	4145	28.47	17.83	46.3	54	-7.7	AVG
H	4740	39.4	19.04	58.44	74	-15.56	peak
H	4740	26.76	19.04	45.8	54	-8.2	AVG
H	7800	35.15	23.62	58.77	74	-15.23	peak
H	7800	21.88	23.62	45.5	54	-8.5	AVG
H	14302.5	32.74	29.36	62.1	74	-11.9	peak
H	14302.5	18.54	29.36	47.9	54	-6.1	AVG

Remark:
Result = Reading + Correct, Over Limit= Result - Limit
Note: Only the worst results data points are reported in the report.
Other emissions are attenuated 20dB below the limit that does not recorded in the report.

EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-03-11
Test Mode :	Mode 1(4#)		
Test Power :	DC 12V from adapter AC 120V/60Hz		

All the modulation modes have been tested, and the worst result was report as below:

Polar	Frequency	Reading	Correct	Result	Limit	Over Limit	Remark
(H/V)	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
V	4825.000	37.31	19.83	57.14	74.00	-16.86	peak
V	4825.000	22.31	19.83	42.14	54.00	-11.86	AVG
V	7035.000	35.66	22.40	58.06	74.00	-15.94	peak
V	7035.000	19.40	22.40	41.80	54.00	-12.20	AVG
V	8820.000	34.99	23.64	58.63	74.00	-15.37	peak
V	8820.000	21.78	23.64	45.42	54.00	-8.58	AVG
V	10605.00	33.60	26.14	59.74	74.00	-14.26	peak
V	10605.00	17.76	26.14	43.90	54.00	-10.10	AVG
V	13367.50	32.96	29.19	62.15	74.00	-11.85	peak
V	13367.50	16.01	29.19	45.20	54.00	-8.80	AVG
V	15705.00	34.19	27.73	61.92	74.00	-12.08	peak
V	15705.00	17.17	27.73	44.90	54.00	-9.10	AVG
H	4315.000	37.86	17.82	55.68	74.00	-18.32	peak
H	4315.000	24.32	17.82	42.14	54.00	-11.86	AVG
H	6482.500	35.45	21.42	56.87	74.00	-17.13	peak
H	6482.500	21.78	21.42	43.20	54.00	-10.80	AVG
H	8225.000	34.86	23.72	58.58	74.00	-15.42	peak
H	8225.000	20.18	23.72	43.90	54.00	-10.10	AVG
H	10605.00	33.81	26.14	59.95	74.00	-14.05	peak
H	10605.00	18.54	26.14	44.68	54.00	-9.32	AVG
H	14005.00	33.75	28.97	62.72	74.00	-11.28	peak
H	14005.00	16.70	28.97	45.67	54.00	-8.33	AVG
H	16172.50	33.81	27.62	61.43	74.00	-12.57	peak
H	16172.50	16.68	27.62	44.30	54.00	-9.70	AVG

EUT:	Mini PC	Model Name :	MP60
Temperature:	24.5 ℃	Relative Humidity:	55%
Pressure:	1010 hPa	Test Date :	2023-03-11
Test Mode :	Mode 1(5#)		
Test Power :	DC 12V from adapter AC 120V/60Hz		

All the modulation modes have been tested, and the worst result was report as below:

Polar	Frequency	Reading	Correct	Result	Limit	Over Limit	Remark
(H/V)	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
V	4145.000	37.79	17.83	55.62	74.00	-18.38	peak
V	4145.000	24.53	17.83	42.36	54.00	-11.64	AVG
V	7162.500	35.59	22.54	58.13	74.00	-15.87	peak
V	7162.500	20.66	22.54	43.20	54.00	-10.80	AVG
V	8395.000	34.81	23.86	58.67	74.00	-15.33	peak
V	8395.000	21.50	23.86	45.36	54.00	-8.64	AVG
V	10647.50	34.30	25.62	59.92	74.00	-14.08	peak
V	10647.50	19.68	25.62	45.30	54.00	-8.70	AVG
V	14387.50	32.54	29.60	62.14	74.00	-11.86	peak
V	14387.50	18.65	29.60	48.25	54.00	-5.75	AVG
V	16895.00	27.08	33.78	60.86	74.00	-13.14	peak
V	16895.00	12.92	33.78	46.70	54.00	-7.30	AVG
H	4145.000	37.75	17.83	55.58	74.00	-18.42	peak
H	4145.000	24.86	17.83	42.69	54.00	-11.31	AVG
H	6440.000	35.92	21.25	57.17	74.00	-16.83	peak
H	6440.000	22.55	21.25	43.80	54.00	-10.20	AVG
H	8267.500	35.45	23.90	59.35	74.00	-14.65	peak
H	8267.500	21.46	23.90	45.36	54.00	-8.64	AVG
H	11582.50	35.73	25.99	61.72	74.00	-12.28	peak
H	11582.50	21.61	25.99	47.60	54.00	-6.40	AVG
H	14387.50	32.46	29.60	62.06	74.00	-11.94	peak
H	14387.50	19.09	29.60	48.69	54.00	-5.31	AVG
H	17022.50	27.55	33.66	61.21	74.00	-12.79	peak
H	17022.50	13.44	33.66	47.10	54.00	-6.90	AVG

Remark:
Result = Reading + Correct, Over Limit= Result - Limit
Note: Only the worst results data points are reported in the report.
Other emissions are attenuated 20dB below the limit that does not recorded in the report.

END OF REPORT