

EMC

TEST REPORT

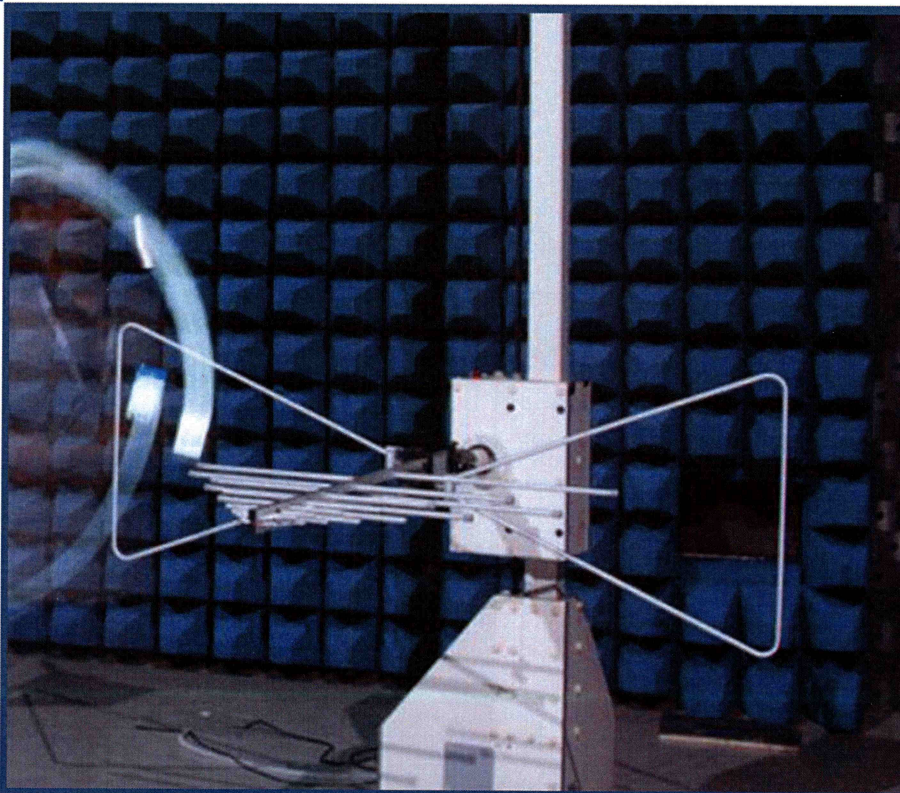
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
Notebook Computer

ISSUED TO
Honor Device Co., Ltd.

Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli
West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong
518040, People's Republic of China



Tested by: Huang Guoqiang
Huang Guoqiang

Date: Nov. 30, 2021

Approved by: [Signature]
Liao Jianming
(Technical Director)

Date: Nov. 30, 2021

Report No.: BL-SZ21A0054-401

EUT Name: Notebook Computer

Model Name: HYM-W76, HYM-W56
(refer section 2.3)

Brand Name: HONOR

Test Standard: 47 CFR Part 15 Subpart B

FCC ID: 2AYGCHYM-WX6

Test Conclusion: Pass

Test Date: Oct. 09, 2021 ~ Nov. 30, 2021

Date of Issue: Nov. 30, 2021

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Nov. 10, 2021</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Nov. 30, 2021</u>	<u>Added test mode in Page 11 and update test</u> <u>Add equipment list and update description on page 9</u>

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1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Laboratory Condition

Ambient Temperature	20°C to 25°C
Ambient Relative Humidity	30% to 60%
Ambient Pressure	100 kPa to 102 kPa

1.4 Announce

- (1) The test report refer to the BALUN report mode v6.9.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (7) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Honor Device Co., Ltd.
Address	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China

2.2 Manufacturer Information

Manufacturer	Honor Device Co., Ltd.
Address	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China

2.3 General Description for Equipment under Test (EUT)

EUT Name	Notebook Computer
Model Name Under Test	HYM-W76, HYM-W56
Series Model Name	HYM-WXXXXXXXXX (The "X" in model name can be 0 to 9, A to Z, a to z, "-" or blank)
Description of Model name differentiation	Only differences are model names for trading purpose.
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Differences Description

Key component List	
CPU	AMD R7 5800H / AMD R5 5600H
Memory	16G
SSD	1024G / 512G

1. ALL models are identical each other, except model name and CPU and SSD and Memory and GPU.

2. The equipment have two structures(with GPU and without GPU), with different adapter(3.25A/65W and 6.75A/135W), refer to below table for details:

	with GPU version	without GPU version
GPU	Discrete graphics card	Integrated graphics card
Adapter	6.75A/135W	3.25A/65W

3. Tested all mode on model HYM-W76 (AMD R7 5800H +16G+1024G), other configuration tested the worst case of each item on HYM-W76.

2.5 Ancillary Equipment

Ancillary Equipment 1	Rechargeable Li-ion Polymer Battery 1	
	Brand Name	HONOR
	Model No.	HB6181V1ECW-41
	Serial No.	3617AIL703
	Capacity	3665 mAh
	Rated Voltage	15.28 V
	Limit Charge Voltage	17.6 V
	Manufacturer	HONOR(Factory: Sunwoda)
Ancillary Equipment 2	Rechargeable Li-ion Polymer Battery 2	
	Brand Name	HONOR
	Model No.	HB6181V1ECW-41
	Serial No.	9VGWGD621
	Capacity	3665 mAh
	Rated Voltage	15.28 V
	Limit Charge Voltage	17.6 V
	Manufacturer	HONOR (Factory: DynaPack)
Ancillary Equipment 3	Adapter1	
	Brand Name	HONOR
	Model No.	HN-200325UP0 (US Plug)
	Serial No.	N/A
	Rated Input	100-240 V~, 1.8 A, 50/60 Hz
	Rated Output	5 V= 2 A / 9 V= 2 A / 12 V= 2 A 15 V= 3 A / 20 V= 3.25 A
	Manufacturer	Honor Device Co., Ltd.
Ancillary Equipment 4	Adapter2	
	Brand Name	HONOR
	Model No.	HN-200675UP0 (US Plug)
	Serial No.	N/A
	Rated Input	100-240 V~, 2.5 A, 50/60 Hz
	Rated Output	5 V= 3 A / 9 V= 3 A / 12 V= 5 A 15 V= 5 A / 20 V= 4.7 A / 20 V= 6.75 A MAX
	Manufacturer	Honor Device Co., Ltd.
Ancillary Equipment 5	USB Cable	
	Length (Approx.)	1.8 m
Note: Letter in () means plug type.		

2.6 Technical Information

Network and Wireless connectivity	WIFI, Bluetooth
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3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	FCC 47 CFR Part 15 Subpart B (10-1-19 Edition)	Unintentional Radiators
2	ANSI C63.4-2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low- Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

3.2 Verdict

No.	Description	FCC Rule	Test Verdict	Result
1	Radiated Emission	15.109	Pass	Annex A .1
2	Conducted Emission, AC Ports	15.107	Pass	Annex A .2

3.3 Test Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Conducted emissions (9 kHz-30 MHz)	2.96 dB
Radiated emissions (30 MHz-1 GHz)	3.67 dB
Radiated emissions (1 GHz-18 GHz)	3.57 dB
Radiated emissions (18 GHz-40 GHz)	5.16 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

Environment Parameter	Selected Values During Tests			
	Temperature	Voltage	Relative Humidity	Ambient Pressure
Normal Temperature, Normal Voltage (NTNV)	20°C to 25°C	AC 120 V/60 Hz or AC 230 V/50 Hz or DC 15.28 V from Battery	30% to 60%	100 kPa to 102 kPa

4.2 Test Equipment List

Radiated Emission Test For Frequency Below 1 GHz (10 m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2021.06.01	2022.05.31	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-0883	2020.05.11	2022.05.10	☒
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60 *7.35m	N/A	2021.08.15	2024.08.14	☒
Test Software	BALUN	BL410_E	V19.918	--	--	☒

Radiated Emission Test For Frequency Below 1 GHz (3 m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE & SCHWARZ	FSV40	101544	2021.01.14	2022.01.13	☐
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2021.08.20	2024.08.19	☐
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2020.03.16	2023.03.15	☐
Test Software	BALUN	BL410_E	V19.918	--	--	☐

Radiated Emission Test For Frequency Above 1 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE & SCHWARZ	FSV40	101544	2021.04.01	2022.03.31	☐
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1917	2021.08.20	2024.08.19	☐
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2020.03.16	2023.03.15	☐
Test Software	BALUN	BL410_E	V19.918	--	--	☐

Radiated Emission Test For Frequency 1 GHz-18 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE & SCHWARZ	FSV40	101544	2021.01.14	2022.01.13	☒
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1917	2019.07.02	2022.07.01	☒
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2020.03.16	2023.03.15	☒
Test Software	BALUN	BL410_E	V19.918	--	--	☒

Radiated Emission Test For Frequency Above 18 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE & SCHWARZ	FSV40	101544	2021.04.01	2022.03.31	☒
Test Antenna-Horn	A-INFOMW	LB-180400KF	J211060273	2021.07.02	2024.07.01	☒
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2020.03.16	2023.03.15	☒
Test Software	BALUN	BL410_E	V19.918	--	--	☒

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2021.06.01	2022.05.31	☒
LISN	SCHWARZBECK	NSLK 8127	8127-687	2021.06.08	2022.06.07	☒
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.4m*3.1m*2.8m	N/A	2019.08.16	2022.08.15	☒
Test Software	BALUN	BL410_E	V19.918	--	--	☒

4.3 Test Enclosure list

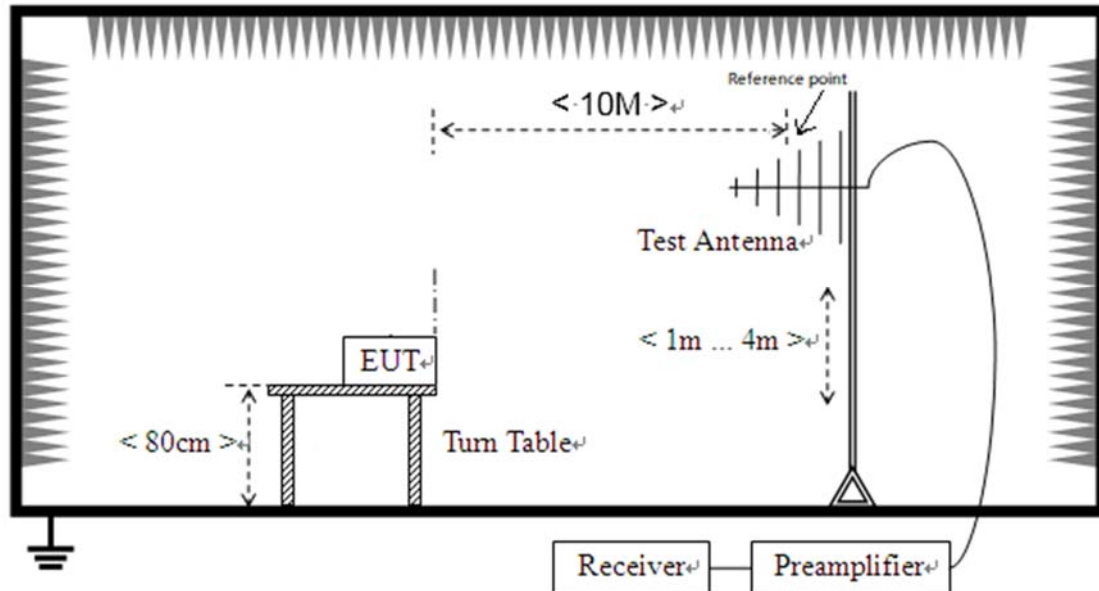
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Mobile Disk	WD Element	WDBUZG0010BB K	WXA1A48LD 5JT	N/A	N/A	☒
Mobile Disk	WD Element	WDBC3C0010BS L-0B	N/A	N/A	N/A	☒
Mobile Disk	LACIE	LRD0SV2	N/A	N/A	N/A	☒
HDMI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☒
mouse	lenovo	MOEUUOA	N/A	N/A	N/A	☒
VGA Cable	N/A	N/A	N/A	1.0 m	Shielded with core	☒
Earphone	N/A	N/A	N/A	1.1 m	N/A	☒
Display Screen	Dell	U241HB	N/A	N/A	N/A	☒
Display Screen	ASUS	MX27U	H9LMRS0334 74	N/A	N/A	☒
Display Screen	AOC	LV243XIP	N/A	N/A	N/A	☒
Docking station	HUAWEI	AD11	N/A	N/A	N/A	☒
printer	ZEBRA	N/A	N/A	N/A	N/A	☒
keyboard	N/A	N/A	N/A	N/A	N/A	☒

4.4 Test Configurations

Test Mode	
Mode 1:	Type-c 1-charging + Type-c 2-Mobile Disk + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + Burintest
Mode 2:	Type-c 1-Mobile Disk + Type-c 2-charging + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + HMDI + Audio + Burintest
Mode 3:	Type-c 1-charging + Type-c 2-Dock(Mobile Disk&HDMI) + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + Audio + Burintest.
Mode 4:	Type-c 1-Dock(Mobile Disk &VGA) + Earphone + Type-c 2-charging + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + Audio + Burintest.
Mode 5:	Type-c 1-charging + Type-c 2-Dock(printer) + USB 1-mouse + USB 2-keyboard +Earphone+ Camera + HDMI+ Audio + Burintest

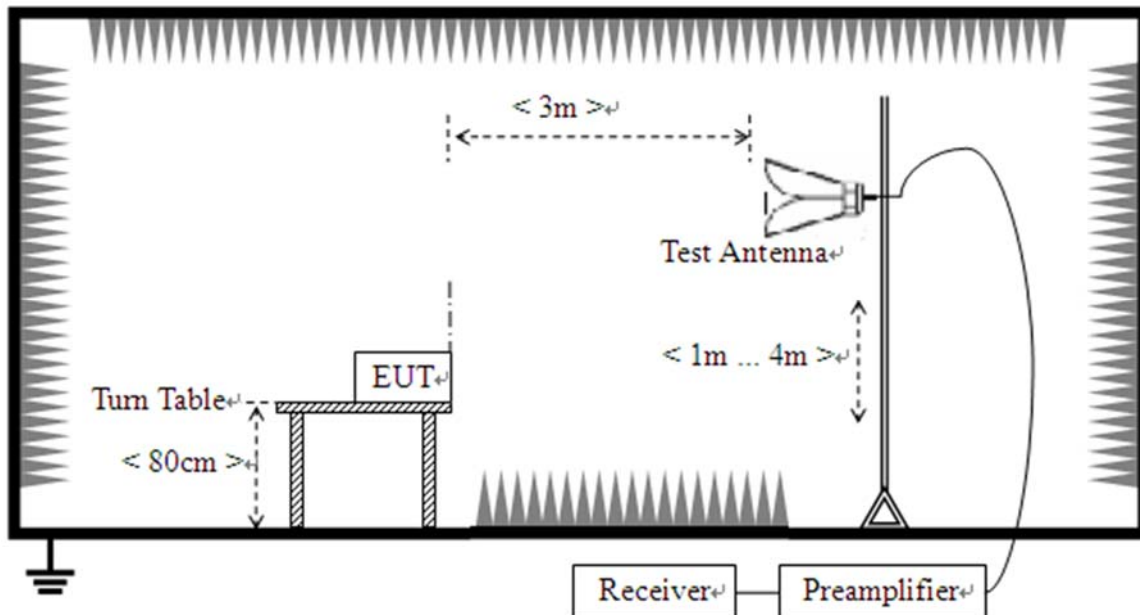
4.5 Test Setups

Test Setup 1



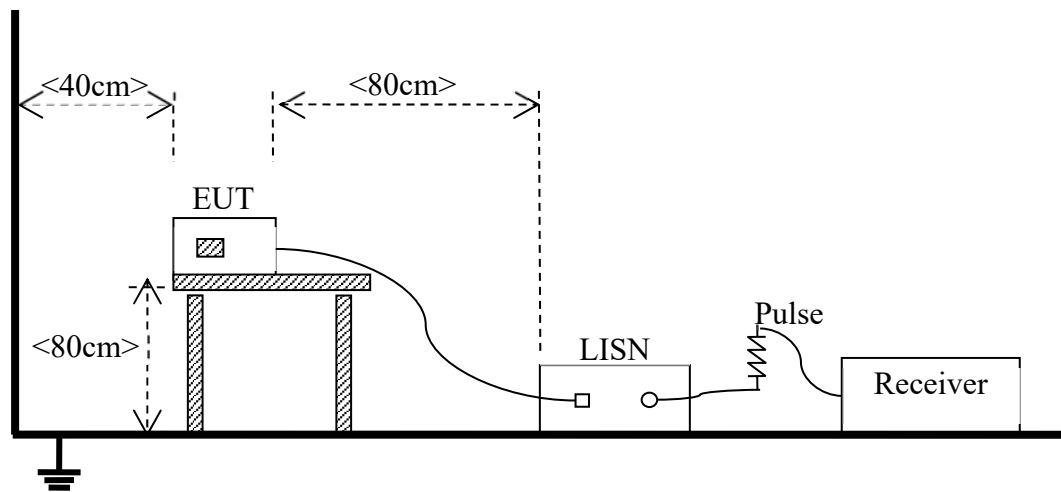
(For Radiated Emission Test (30 MHz-1 GHz))

Test Setup 2



(For Radiated Emission Test (above 1 GHz))

Test Setup 3



(For Conducted Emission, AC Ports Test)

4.6 Test Conditions

Test Case	Test Conditions	
Radiated Emission	Test Env.	NTNV
	Test Setup	Test Setup 1&2
	Test Configuration	Mode 1 ~ Mode 5 ^{Note}
Conducted Emission	Test Env.	NTNV
	Test Setup	Test Setup 3
	Test Configuration	Mode 1 ~ Mode 5 ^{Note}

Note:

- 1) If there is one kind of accessories with different models, each one should be applied throughout the compliance test respectively, however, only the worst case will be recorded in this report.
- 2) If EUT has more than one typical operation, only the worst test mode will be recorded in this report.

Worst Case:

1) Radiated Emission

Mode 3 : Type-c 1-charging+Type-c 2-Dock(Mobile Disk&HDMI)+USB 1-Mobile Disk+USB 2-Mobile Disk+Camera+Audio+ Burintest. (30MHz-1GHz).

Mode 5: Type-c 1-charging + Type-c 2-Dock(printer) + USB 1-mouse + USB 2-keyboard +Earphone+ Camera + HDMI+ Audio + Burintest(1GHz-18GHz).

Mode 5: Type-c 1-charging + Type-c 2-Dock(printer) + USB 1-mouse + USB 2-keyboard +Earphone+ Camera + HDMI+ Audio + Burintest (18GHz-40GHz).

2) Conducted Emission

Mode 3 : Type-c 1-charging+Type-c 2-Dock(Mobile Disk&HDMI)+USB 1-Mobile Disk+USB 2-Mobile Disk+Camera+Audio+ Burintest.

5 TEST ITEMS

5.1 Emission Tests

5.1.1 Radiated Emission

5.1.1.1 Limit

Frequency range (MHz)	Class B (at 3 m)		Class B (at 10 m)	Class A (at 10 m)	
	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)
30 - 88	100	40	30	90	39
88 - 216	150	43.5	33.5	150	43.5
216 - 960	200	46	36	210	46.4
Above 960	500	54	44	300	49.5

NOTE:

- 1) Field Strength (dB $\mu\text{V/m}$) = $20 \times \log [\text{Field Strength } (\mu\text{V/m})]$.
- 2) In the emission tables above, the tighter limit applies at the band edges.

5.1.1.2 Test Setup

Refer to 4.5 section (test setup 1 to test setup 2) for radiated emission test, the photo of test setup please refer to ANNEX B.

5.1.1.3 Test Procedure

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

5.1.1.4 Test Result

Please refer to ANNEX A.1.

NOTE:

1. Results (dB $\mu\text{V/m}$) = Reading (dB μV) + Factor (dB/m)

The reading level is calculated by software which is not shown in the sheet

2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB)

3. Over limit = Results – Limit.

5.1.2 Conducted Emission

5.1.2.1 Test Limit

Frequency range (MHz)	Class A	
	Quasi-peak (dBμV)	Average (dBμV)
0.15 - 0.50	79	66
0.50 - 30	73	60

Frequency range (MHz)	Class B	
	Quasi-peak (dBμV)	Average (dBμV)
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- 1) The lower limit shall apply at the band edges.
- 2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50 MHz.

5.1.2.2 Test Setup

Refer to 4.5 section test (test setup 3) for conducted emission, the photo of test setup please refer to ANNEX B.

5.1.2.3 Test Procedure

The EUT is connected to the power mains through a LISN which provides 50 Ω/50 μH of coupling impedance for the measuring instrument. The test frequency range is from 150 kHz to 30 MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.1.2.4 Test Result

Please refer to ANNEX A.2.

NOTE:

1. Results (dBuV/m) = Reading (dBuV) + Factor (dB/m)

The reading level is calculated by software which is not shown in the sheet

2. Factor = Insertion loss + Cable loss

3. Over limit = Results – Limit.

ANNEX A TEST RESULTS

A.1 Radiated Emission

Note 1: The symbol of "--" in the table which means not application.

Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

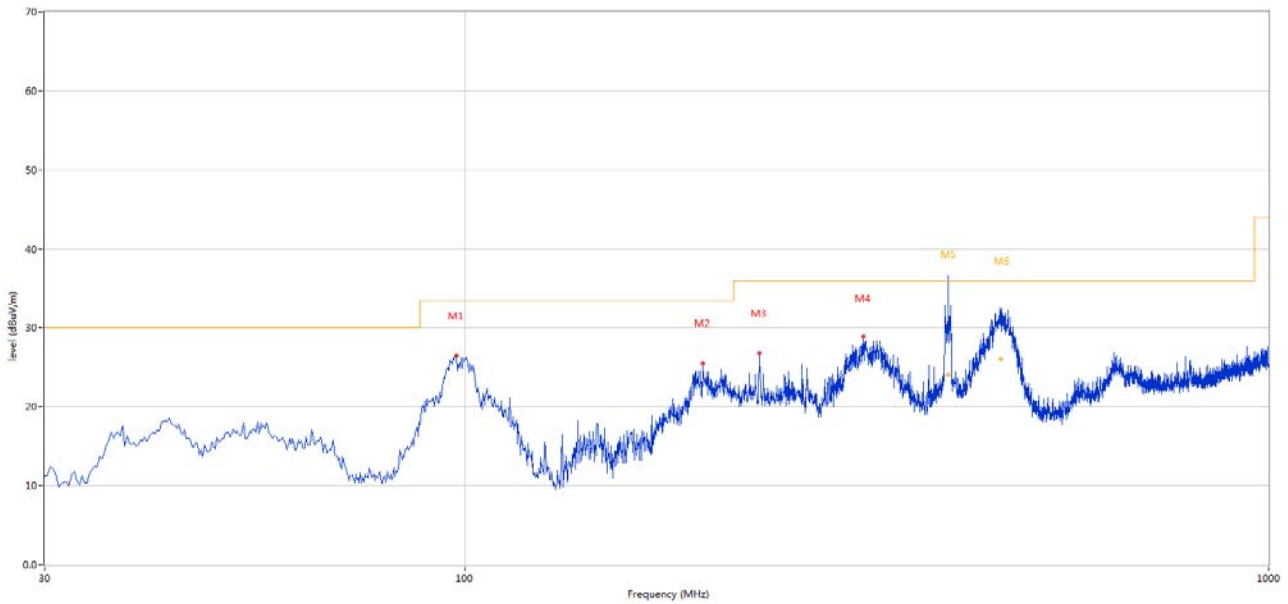
Note 3: The Radiated Emission from 18G-40G is noise only, do not show on the report.

65W

Test Data and Plots

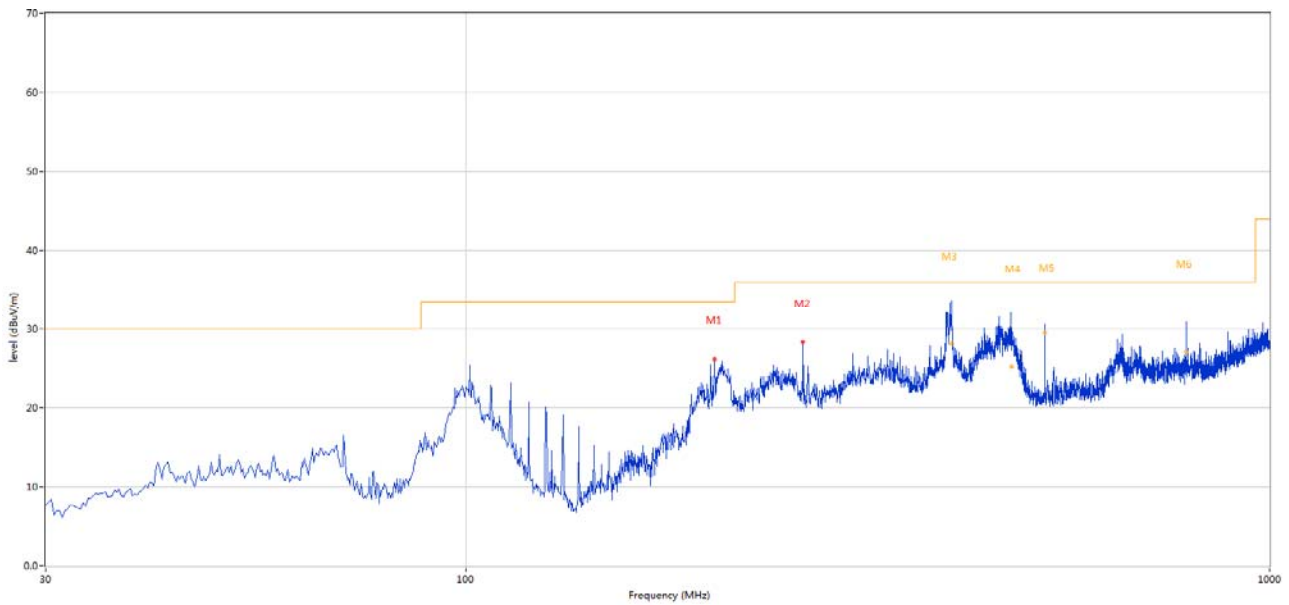
Test Mode 3: Type-c 1-charging + Type-c 2-Dock(Mobile Disk&HDMI) + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + Audio + Burintest

A.1.1 Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	97.641	26.45	-28.59	33.5	-7.05	Peak	285.00	100	Vertical	Pass
2	197.768	25.51	-27.92	33.5	-7.99	Peak	189.00	100	Vertical	Pass
3	232.437	26.75	-27.20	36.0	-9.25	Peak	0.00	200	Vertical	Pass
4	313.169	28.81	-25.11	36.0	-7.19	Peak	244.00	100	Vertical	Pass
5	399.110	36.62	-22.77	36.0	0.62	Peak	360.00	382	Vertical	N/A
5*	399.110	23.96	-22.77	36.0	-12.04	QP	360.00	382	Vertical	Pass
6	464.432	32.77	-21.43	36.0	-3.23	Peak	0.00	329	Vertical	N/A
6*	464.432	26.02	-21.43	36.0	-9.98	QP	0.00	329	Vertical	Pass

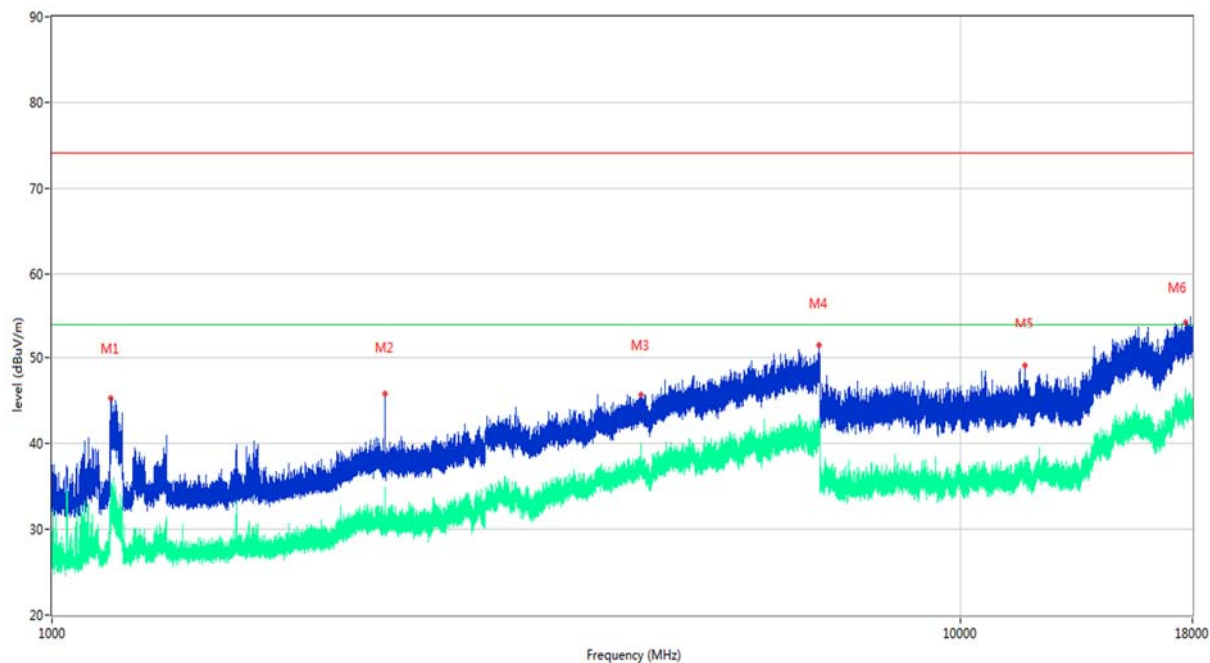
A.1.2 Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	204.071	26.08	-27.85	33.5	-7.42	Peak	23.00	400	Horizontal	Pass
2	262.742	28.36	-26.21	36.0	-7.64	Peak	24.00	300	Horizontal	Pass
3	401.870	35.48	-22.70	36.0	-0.52	Peak	13.00	210	Horizontal	N/A
3*	401.870	28.14	-22.70	36.0	-7.86	QP	13.00	210	Horizontal	Pass
4	477.218	31.87	-21.12	36.0	-4.13	Peak	235.00	108	Horizontal	N/A
4*	477.218	25.17	-21.12	36.0	-10.83	QP	235.00	108	Horizontal	Pass
5	525.492	32.55	-19.96	36.0	-3.45	Peak	220.00	177	Horizontal	N/A
5*	525.492	29.52	-19.96	36.0	-6.48	QP	220.00	177	Horizontal	Pass
6	788.238	30.28	-14.90	36.0	-5.72	Peak	305.00	165	Horizontal	N/A
6*	788.238	27.08	-14.90	36.0	-8.92	QP	305.00	165	Horizontal	Pass

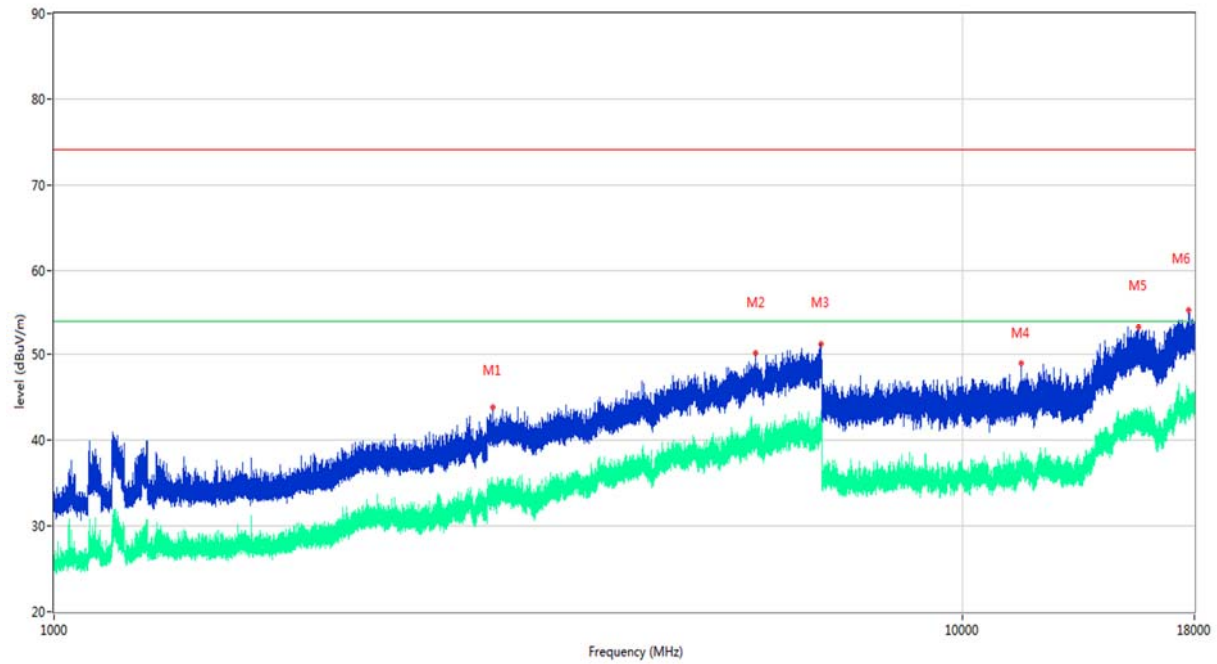
Test Mode 5: Type-c 1-charging + Type-c 2-Dock(printer) + USB 1-mouse + USB 2-keyboard +Earphone+ Camera + HDMI+ Audio + Burintest

A.1.3 Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1159.700	45.32	-14.90	74.0	-28.68	Peak	340.00	100	Vertical	Pass
1**	1159.700	33.79	-14.90	54.0	-20.21	AV	340.00	100	Vertical	Pass
2	2323.900	45.83	-10.49	74.0	-28.17	Peak	3.00	100	Vertical	Pass
2**	2323.900	30.85	-10.49	54.0	-23.15	AV	3.00	100	Vertical	Pass
3	4451.200	45.73	-2.42	74.0	-28.27	Peak	357.00	100	Vertical	Pass
3**	4451.200	37.82	-2.42	54.0	-16.18	AV	357.00	100	Vertical	Pass
4	6988.400	51.47	4.55	74.0	-22.53	Peak	23.00	100	Vertical	Pass
4**	6988.400	40.90	4.55	54.0	-13.10	AV	23.00	100	Vertical	Pass
5	11780.550	49.15	18.71	74.0	-24.85	Peak	247.00	100	Vertical	Pass
5**	11780.550	35.93	18.71	54.0	-18.07	AV	247.00	100	Vertical	Pass
6	17687.099	54.35	24.45	74.0	-19.65	Peak	85.00	100	Vertical	Pass
6**	17687.099	44.91	24.45	54.0	-9.09	AV	85.00	100	Vertical	Pass

A.1.4 Test Antenna Horizontal, 1 GHz – 18 GHz



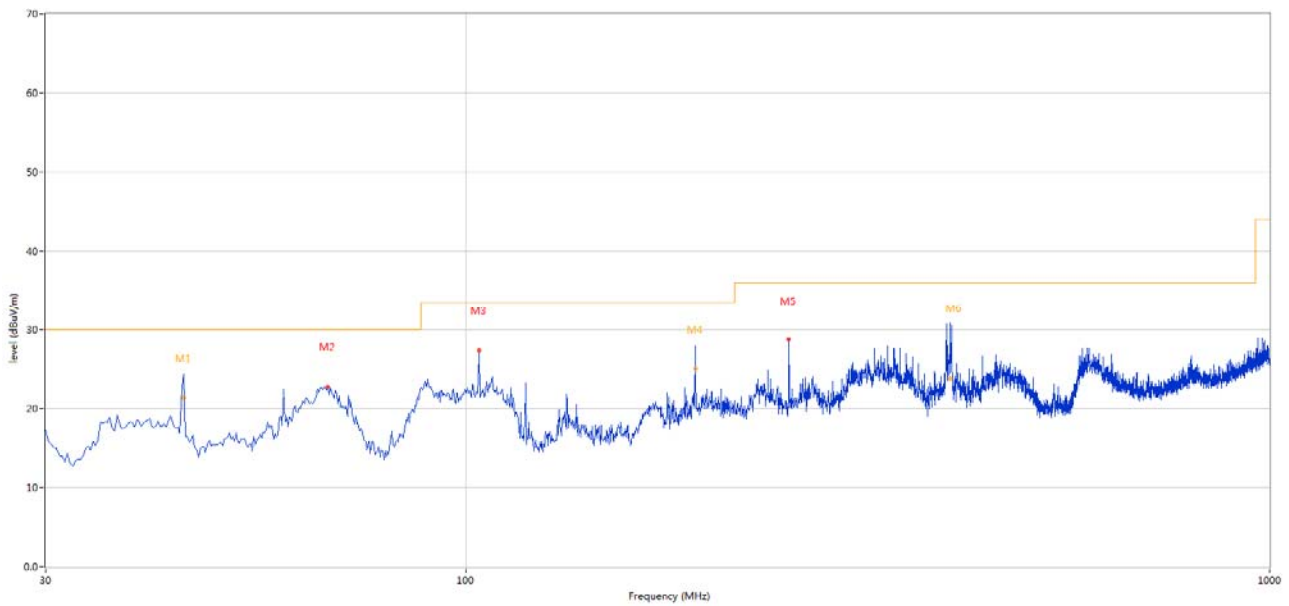
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	3043.800	43.91	-6.91	74.0	-30.09	Peak	174.00	100	Horizontal	Pass
1**	3043.800	33.80	-6.91	54.0	-20.20	AV	174.00	100	Horizontal	Pass
2	5922.600	50.23	2.00	74.0	-23.77	Peak	191.00	100	Horizontal	Pass
2**	5922.600	39.46	2.00	54.0	-14.54	AV	191.00	100	Horizontal	Pass
3	6979.400	51.31	4.93	74.0	-22.69	Peak	228.00	100	Horizontal	Pass
3**	6979.400	40.78	4.93	54.0	-13.22	AV	228.00	100	Horizontal	Pass
4	11599.428	48.95	20.10	74.0	-25.05	Peak	25.00	100	Horizontal	Pass
4**	11599.428	38.44	20.10	54.0	-15.56	AV	25.00	100	Horizontal	Pass
5	15688.236	53.20	23.55	74.0	-20.80	Peak	306.00	100	Horizontal	Pass
5**	15688.236	41.80	23.55	54.0	-12.20	AV	306.00	100	Horizontal	Pass
6	17733.553	55.31	23.96	74.0	-18.69	Peak	203.00	100	Horizontal	Pass
6**	17733.553	43.67	23.96	54.0	-10.33	AV	203.00	100	Horizontal	Pass

135W

Test Data and Plots

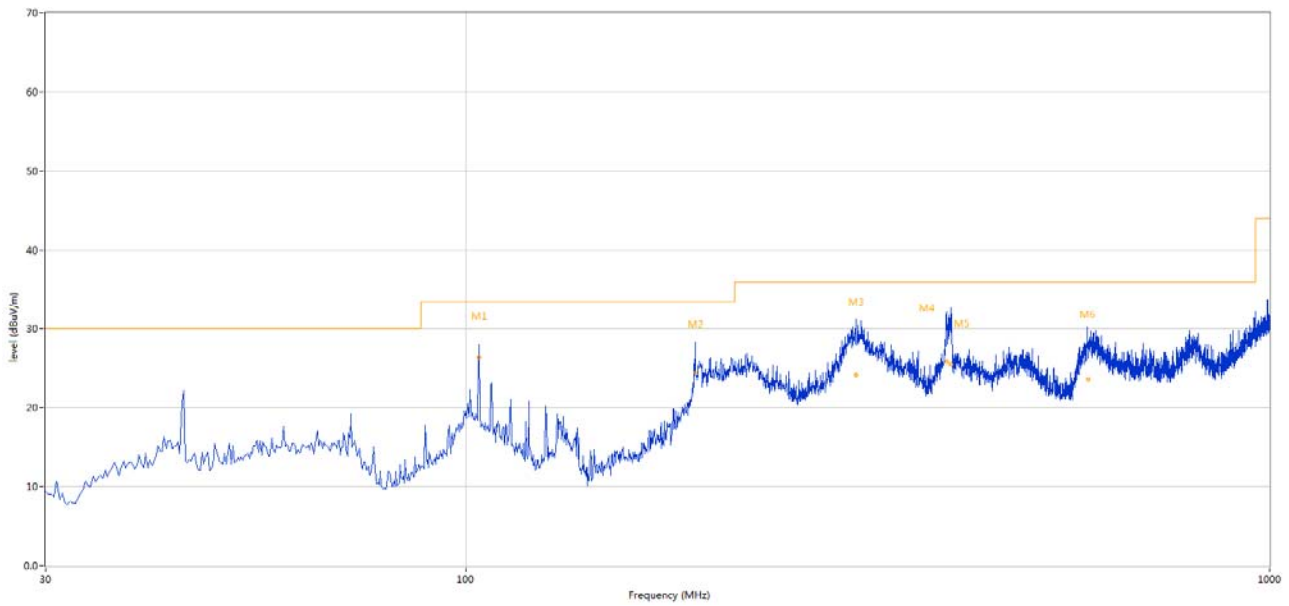
Test Mode 3: Type-c 1-charging + Type-c 2-Dock(Mobile Disk&HDMI) + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + Audio + Burintest

A.1.5 Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	44.548	24.12	-26.47	30.0	-5.88	Peak	140.00	115	Vertical	N/A
1*	44.548	21.42	-26.47	30.0	-8.58	QP	140.00	115	Vertical	Pass
2	67.336	22.71	-29.35	30.0	-7.29	Peak	89.00	400	Vertical	Pass
3	103.944	27.42	-27.96	33.5	-6.08	Peak	70.00	100	Vertical	Pass
4	193.047	27.75	-28.56	33.5	-5.75	Peak	360.00	120	Vertical	N/A
4*	193.047	25.06	-28.56	33.5	-8.44	QP	360.00	120	Vertical	Pass
5	252.317	28.73	-26.32	36.0	-7.27	Peak	176.00	100	Vertical	Pass
6	400.119	31.78	-22.74	36.0	-4.22	Peak	174.00	400	Vertical	N/A
6*	400.119	23.80	-22.74	36.0	-12.20	QP	174.00	400	Vertical	Pass

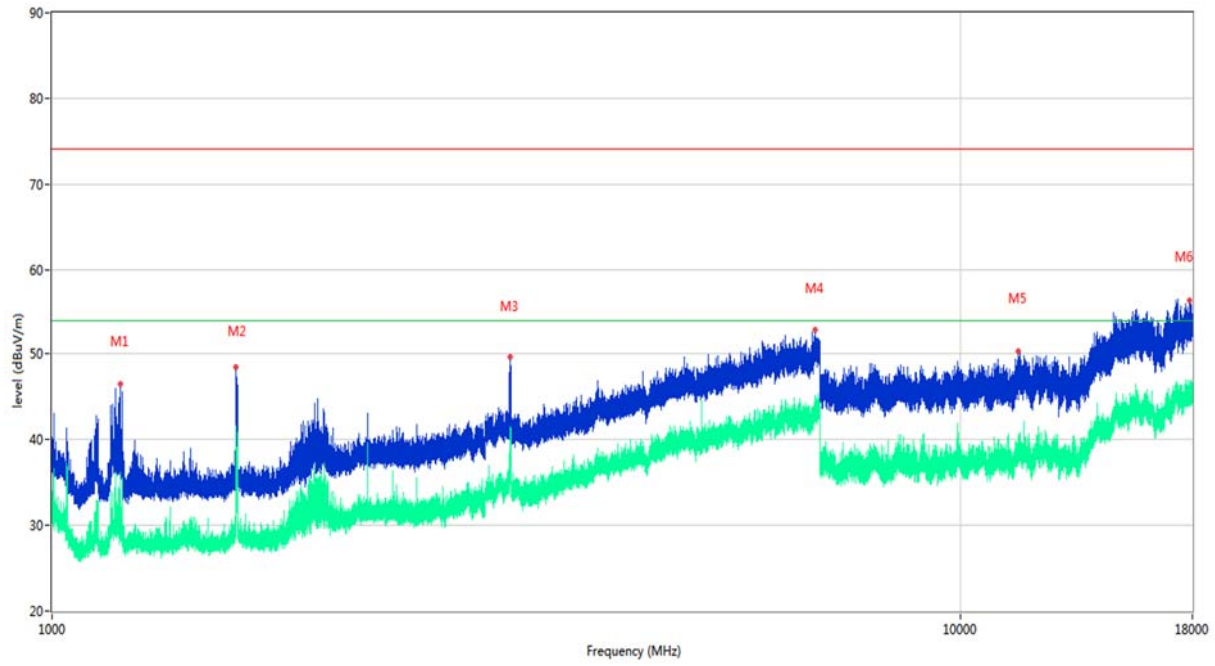
A.1.6 Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	103.947	28.52	-27.96	33.5	-4.98	Peak	302.00	321	Horizontal	N/A
1*	103.947	26.32	-27.96	33.5	-7.18	QP	302.00	321	Horizontal	Pass
2	193.047	28.86	-28.56	33.5	-4.64	Peak	360.00	368	Horizontal	N/A
2*	193.047	24.41	-28.56	33.5	-9.09	QP	360.00	368	Horizontal	Pass
3	305.750	29.70	-25.25	36.0	-6.30	Peak	161.00	339	Horizontal	N/A
3*	305.750	24.15	-25.25	36.0	-11.85	QP	161.00	339	Horizontal	Pass
4	396.535	33.48	-22.76	36.0	-2.52	Peak	120.00	217	Horizontal	N/A
4*	396.535	25.80	-22.76	36.0	-10.20	QP	120.00	217	Horizontal	Pass
5	400.847	34.46	-22.70	36.0	-1.54	Peak	114.00	210	Horizontal	N/A
5*	400.847	25.43	-22.70	36.0	-10.57	QP	114.00	210	Horizontal	Pass
6	594.178	29.22	-18.22	36.0	-6.78	Peak	169.00	155	Horizontal	N/A
6*	594.178	23.54	-18.22	36.0	-12.46	QP	169.00	155	Horizontal	Pass

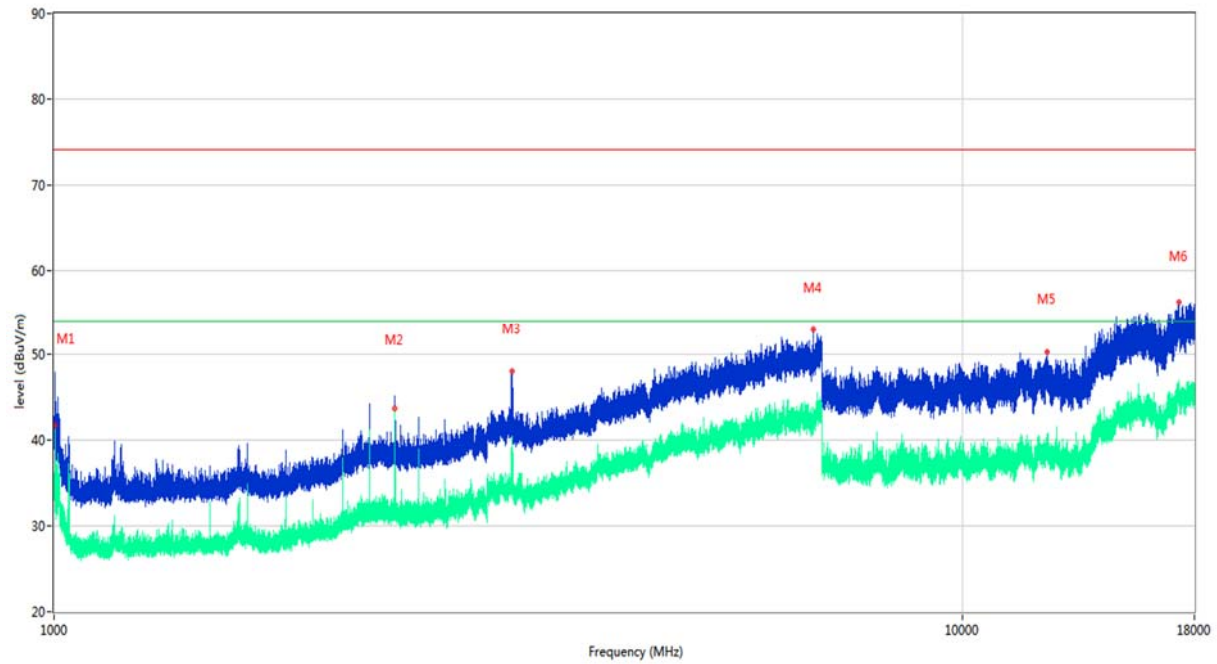
Test Mode 5: Type-c 1-charging + Type-c 2-Dock(printer) + USB 1-mouse + USB 2-keyboard +Earphone+ Camera + HDMI+ Audio + Burintest

A.1.7 Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1185.700	46.55	-15.07	74.0	-27.45	Peak	344.00	100	Vertical	Pass
1**	1185.700	36.25	-15.07	54.0	-17.75	AV	344.00	100	Vertical	Pass
2	1596.000	48.49	-15.11	74.0	-25.51	Peak	189.00	100	Vertical	Pass
2**	1596.000	35.31	-15.11	54.0	-18.69	AV	189.00	100	Vertical	Pass
3	3195.000	49.62	-6.54	74.0	-24.38	Peak	176.00	100	Vertical	Pass
3**	3195.000	39.62	-6.54	54.0	-14.38	AV	176.00	100	Vertical	Pass
4	6926.200	52.83	4.73	74.0	-21.17	Peak	0.00	100	Vertical	Pass
4**	6926.200	43.81	4.73	54.0	-10.19	AV	0.00	100	Vertical	Pass
5	11533.487	50.34	19.80	74.0	-23.66	Peak	192.00	100	Vertical	Pass
5**	11533.487	37.48	19.80	54.0	-16.52	AV	192.00	100	Vertical	Pass
6	17843.238	56.40	24.28	74.0	-17.60	Peak	150.00	100	Vertical	Pass
6**	17843.238	45.99	24.28	54.0	-8.01	AV	150.00	100	Vertical	Pass

A.1.8 Test Antenna Horizontal, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1005.200	47.92	-14.29	74.0	-26.08	Peak	334.00	100	Horizontal	Pass
1**	1005.200	41.67	-14.29	54.0	-12.33	AV	334.00	100	Horizontal	Pass
2	2375.700	44.95	-10.46	74.0	-29.05	Peak	15.00	100	Horizontal	Pass
2**	2375.700	43.75	-10.46	54.0	-10.25	AV	15.00	100	Horizontal	Pass
3	3193.400	48.05	-6.68	74.0	-25.95	Peak	132.00	100	Horizontal	Pass
3**	3193.400	34.66	-6.68	54.0	-19.34	AV	132.00	100	Horizontal	Pass
4	6823.800	53.00	3.63	74.0	-21.00	Peak	163.00	100	Horizontal	Pass
4**	6823.800	41.56	3.63	54.0	-12.44	AV	163.00	100	Horizontal	Pass
5	12303.849	50.27	19.15	74.0	-23.73	Peak	130.00	100	Horizontal	Pass
5**	12303.849	38.70	19.15	54.0	-15.30	AV	130.00	100	Horizontal	Pass
6	17200.337	56.23	24.59	74.0	-17.77	Peak	358.00	100	Horizontal	Pass
6**	17200.337	45.16	24.59	54.0	-8.84	AV	358.00	100	Horizontal	Pass

A.2 Conducted Emission

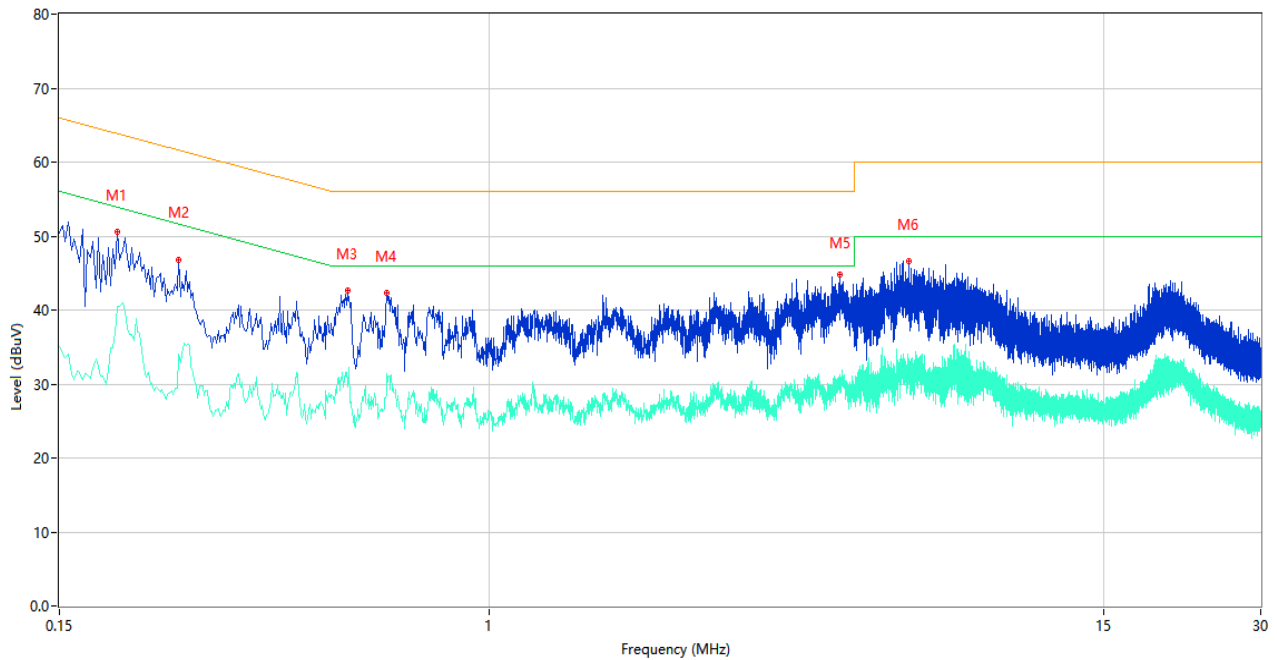
Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

65W

Test Data and Plots

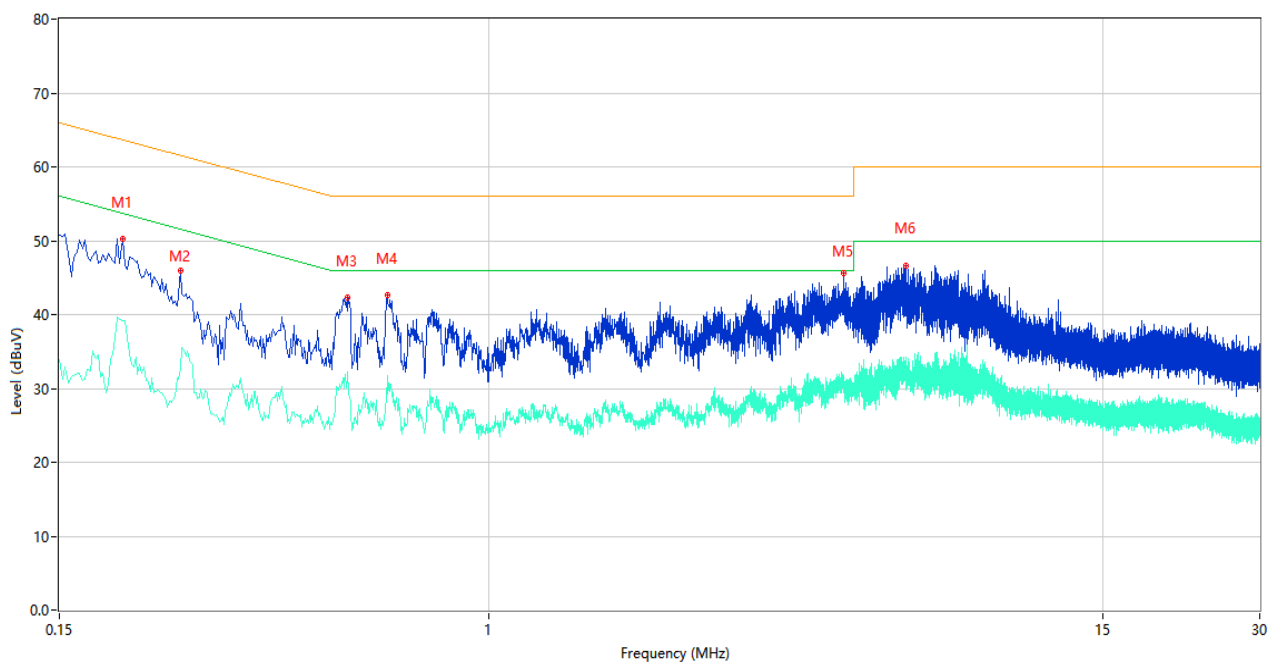
Test Mode 3: Type-c 1-charging + Type-c 2-Dock(Mobile Disk&HDMI) + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + Audio + Burintest

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.194	50.56	10.38	63.86	-13.30	Peak	L	Pass
1**	0.194	40.54	10.38	53.86	-13.32	AV	L	Pass
2	0.254	46.77	10.34	61.63	-14.86	Peak	L	Pass
2**	0.254	34.04	10.34	51.63	-17.59	AV	L	Pass
3	0.534	42.58	10.29	56.00	-13.42	Peak	L	Pass
3**	0.534	30.00	10.29	46.00	-16.00	AV	L	Pass
4	0.634	42.32	10.27	56.00	-13.68	Peak	L	Pass
4**	0.634	28.42	10.27	46.00	-17.58	AV	L	Pass
5	4.682	44.77	10.31	56.00	-11.23	Peak	L	Pass
5**	4.682	30.86	10.31	46.00	-15.14	AV	L	Pass
6	6.358	46.61	10.33	60.00	-13.39	Peak	L	Pass
6**	6.358	33.14	10.33	50.00	-16.86	AV	L	Pass

A.2.2 N Phase



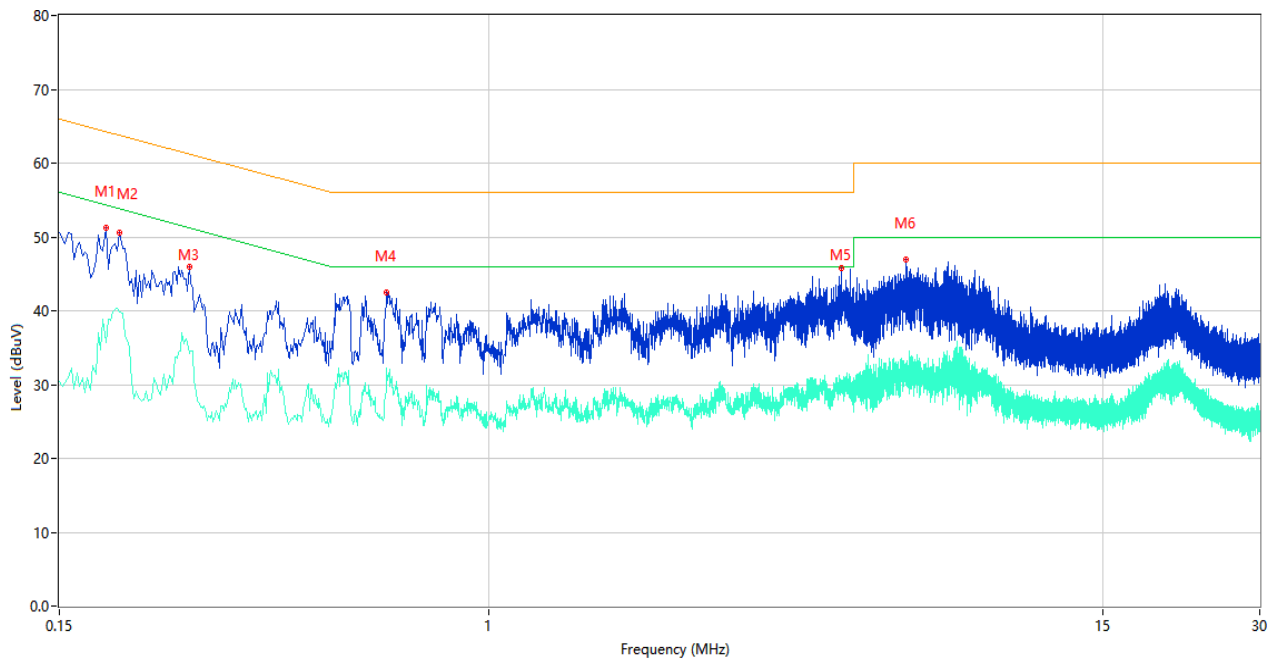
No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.198	50.28	10.38	63.69	-13.41	Peak	N	Pass
1**	0.198	39.13	10.38	53.69	-14.56	AV	N	Pass
2	0.256	45.97	10.34	61.56	-15.59	Peak	N	Pass
2**	0.256	32.59	10.34	51.56	-18.97	AV	N	Pass
3	0.534	42.26	10.29	56.00	-13.74	Peak	N	Pass
3**	0.534	31.15	10.29	46.00	-14.85	AV	N	Pass
4	0.638	42.65	10.27	56.00	-13.35	Peak	N	Pass
4**	0.638	29.31	10.27	46.00	-16.69	AV	N	Pass
5	4.790	45.58	10.31	56.00	-10.42	Peak	N	Pass
5**	4.790	31.18	10.31	46.00	-14.82	AV	N	Pass
6	6.302	46.64	10.33	60.00	-13.36	Peak	N	Pass
6**	6.302	32.97	10.33	50.00	-17.03	AV	N	Pass

135W

Test Data and Plots

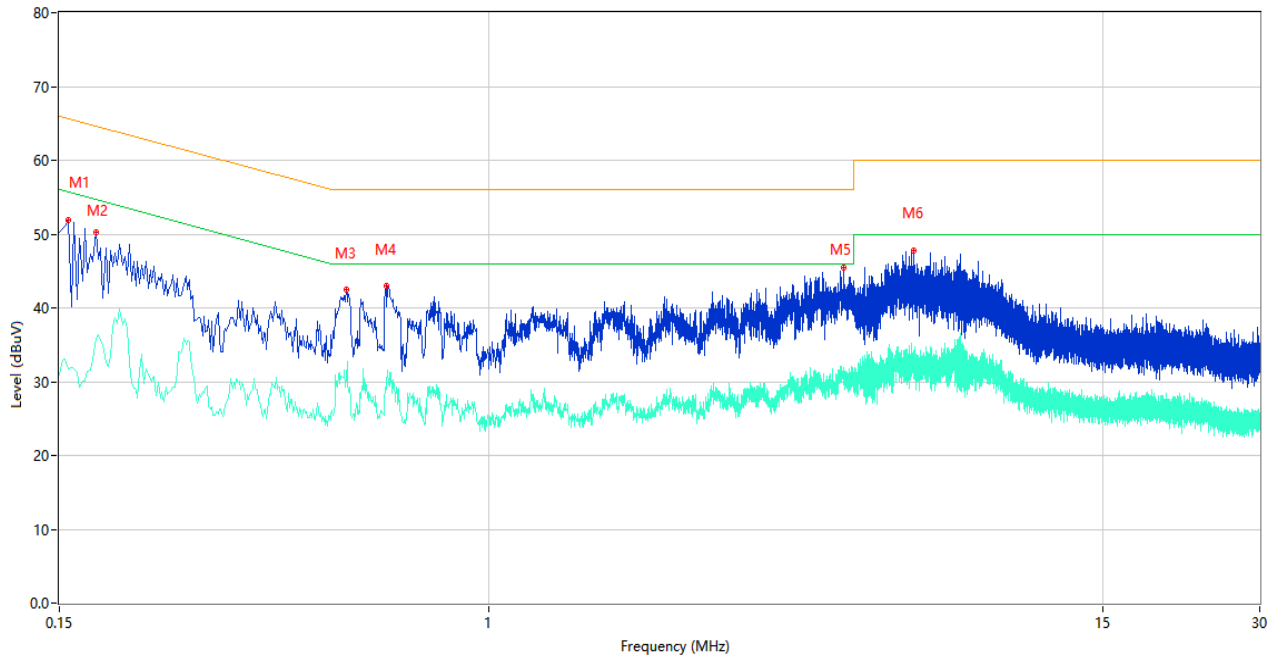
Test Mode 3: Type-c 1-charging + Type-c 2-Dock(Mobile Disk&HDMI) + USB 1-Mobile Disk + USB 2-Mobile Disk + Camera + Audio + Burintest

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.184	51.18	10.39	64.30	-13.12	Peak	L	Pass
1**	0.184	35.78	10.39	54.30	-18.52	AV	L	Pass
2	0.196	50.56	10.38	63.78	-13.22	Peak	L	Pass
2**	0.196	39.83	10.38	53.78	-13.95	AV	L	Pass
3	0.266	45.90	10.34	61.24	-15.34	Peak	L	Pass
3**	0.266	34.28	10.34	51.24	-16.96	AV	L	Pass
4	0.636	42.45	10.27	56.00	-13.55	Peak	L	Pass
4**	0.636	32.17	10.27	46.00	-13.83	AV	L	Pass
5	4.738	45.79	10.30	56.00	-10.21	Peak	L	Pass
5**	4.738	30.09	10.30	46.00	-15.91	AV	L	Pass
6	6.282	46.93	10.34	60.00	-13.07	Peak	L	Pass
6**	6.282	32.75	10.34	50.00	-17.25	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.156	51.86	10.41	65.67	-13.81	Peak	N	Pass
1**	0.156	31.79	10.41	55.67	-23.88	AV	N	Pass
2	0.176	50.28	10.39	64.67	-14.39	Peak	N	Pass
2**	0.176	35.94	10.39	54.67	-18.73	AV	N	Pass
3	0.532	42.45	10.29	56.00	-13.55	Peak	N	Pass
3**	0.532	30.54	10.29	46.00	-15.46	AV	N	Pass
4	0.634	42.98	10.27	56.00	-13.02	Peak	N	Pass
4**	0.634	28.87	10.27	46.00	-17.13	AV	N	Pass
5	4.784	45.41	10.31	56.00	-10.59	Peak	N	Pass
5**	4.784	30.96	10.31	46.00	-15.04	AV	N	Pass
6	6.514	47.77	10.33	60.00	-12.23	Peak	N	Pass
6**	6.514	34.14	10.33	50.00	-15.86	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ21A0054-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ21A0054-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ21A0054-AI.PDF”.

--END OF REPORT--