Certificate Number: 5055.02

TEST REPORT

Report No.:	SRTC2020-9003(F)-0093
Product Name:	WIFI Router
Model Name:	MF263, MF266B
Applicant:	ZTE CORPORATION
Manufacturer:	ZTE CORPORATION
Specification:	FCC Part15B (Certification) (2020 edition)
FCC ID:	SRQ-MF263

The State Radio_monitoring_center Testing Center (SRTC)

15th Building, No.30 Shixing Street, Shijingshan District,

Beijing, China

Tel: 86-10-57996183 Fax: 86-10-57996388

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1. General information

1.1 Notes of the test report

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The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
Address:	15th Building, No.30 Shixing Street, Shijingshan District
Testing location：	No.80, Zhaojiachang, BeizangCun, Daxing District, Beijing, China.
City:	Beijing
Country or Region:	China
Contacted person:	Liu Jia
Tel:	+86 10 57996183
Fax:	+86 10 57996388
Email:	liujiaf@srtc.org.cn

1.3 Applicant’s details

Company:	ZTE CORPORATION
Address:	ZTE Plaza, #55 Keji Road South, Hi-Tech, Industrial Park, Nanshan District,Guangdong,China
City:	Shenzhen
Country or Region:	China
Contacted person:	Gong Yu
Tel:	86-21-68895397
Email:	gongyu@zte.com.cn

1.4 Manufacturer’s details

Company:	ZTE CORPORATION
Address:	ZTE Plaza, #55 Keji Road South, Hi-Tech, Industrial Park, Nanshan District,Guangdong,China
City:	Shenzhen
Country or Region:	China
Contacted person:	Gong Yu
Tel:	86-21-68895397
Email:	gongyu@zte.com.cn

1.5 Application details

Date of reception of test sample: 4th Mar. 2021
Date of test: 4th Mar. 2021 to 23th Apr. 2021

1.6 Reference specification

FCC Part 15B, 2020 (Certification)

1.7 Information of EUT

1.7.1 General information

Name of EUT	WIFI Router
Model Name	MF263, MF266B
FCC ID	SRQ-MF263
Frequency Range	WiFi: 2.4~2.4835GHz/ 5.15-5.25GHz /5.725-5.85GHz
Equipment Class	Class B
Power Supply	Charger
Rated Power Supply Voltage	12V
Extreme Temperature	Lowest: -20°C Highest: +55°C
Extreme Voltage	Minimum: 10.8V Maximum: 13.2V
HW Version	MF266BHW1.0
SW Version	BD_CLAPEIDUMF266BV1.0.0B01

1.7.2EUT details

	Product Name	Model Name
EUT1	WIFI Router	MF263, MF266B

1.7.3 Auxiliary equipment details

AE (Auxiliary Equipment) 1#: Laptop

Manufacturer	Lenovo
Model Number	E40-70
S/N	MP06WE9U
Input Voltage	100V-240V AC

AE (Auxiliary Equipment) 2#: Charger

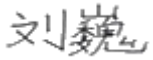
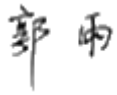
Manufacturer	SHENZHEN BAIJUNDA ELECTRONIC CO LTD
Model Number	STC-A1215C55A-Z
S/N	/
Input Voltage	100V-240VAC 0.5A
Output Voltage	12VDC 1.5A

Note1: AE1# Laptop was selected by testing laboratory and was only cooperated with this test, not for sale.

2.Test information

2.1 Summary of the test results

No.	Test case	FCC reference	Verdict
1	Conducted emissions	15.107	Pass
2	Radiated emissions	15.109	Pass

Approved By:Mr. Liu Wei Director of the test department 	Checked By:Mr. Guo Yu Vice director of the test department 
Tested by: Mr. Liu Jian Test engineer 	Issued date: 2021.4.23

2.2 Test result

2.2.1Conducted Emissions-FCC Part15.107

Ambient condition:

Temperature	Relative humidity	Pressure
24.5°C	41.8%	101.2kPa

Test Setup:

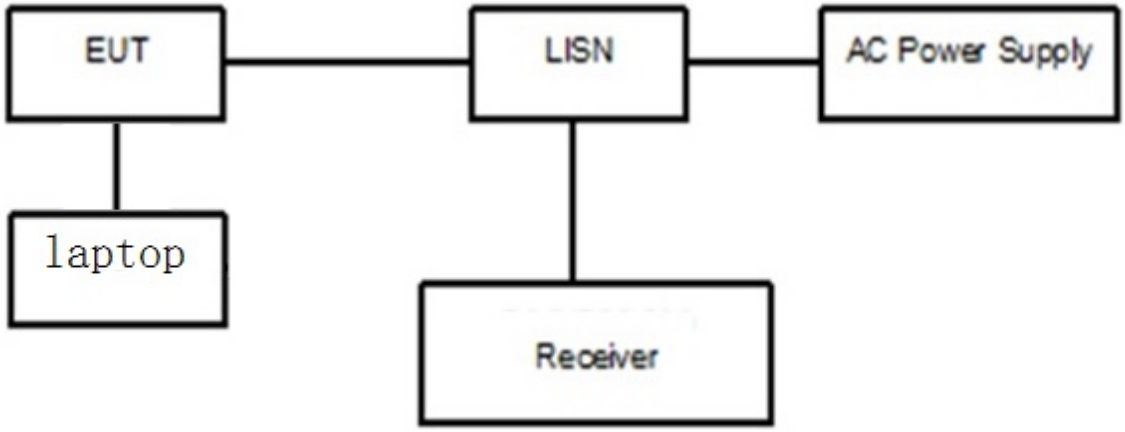


Figure 1

Test Procedure:

The EUT is placed on a non-metallic table 0.8m above the horizontal metal reference ground plane. The EUT was connected with a laptop via the ethernet cable and transferred the data between the laptop and the EUT.
The AC main power supply of the EUT is connected to LISN and LISN is connected to the reference ground. The test set-up and the test methods are performed according to ANSI C63.4:2014.
Then start the test software EMC32. Sweep the whole frequency band through the range from 150 KHz to 30 MHz with RBW 9kHz, VBW 30kHz.The measurement should be done for both L line and N line. During pre-test, the receiver uses both peak detector and average detector. And the final test, the receiver uses both average detector and Quasi-peak detector.
The data of cable loss has been calibrated in full testing frequency range before the testing.

A “reference path loss” Corr.(dB) is established and the L_{cable} + ATT + VDF is the attenuation of ”reference path loss”, and including the cable loss, the attenuation of the attenuator, the voltage division factor of AMN.
The measurement results are obtained as described below:
$P_{result} = P_{mea} + Corr.(dB)$

Sample calculation: (30.42dBμV) = (0.72dBμV) + (29.7dB), the corresponding frequency is 0.184114MHz.

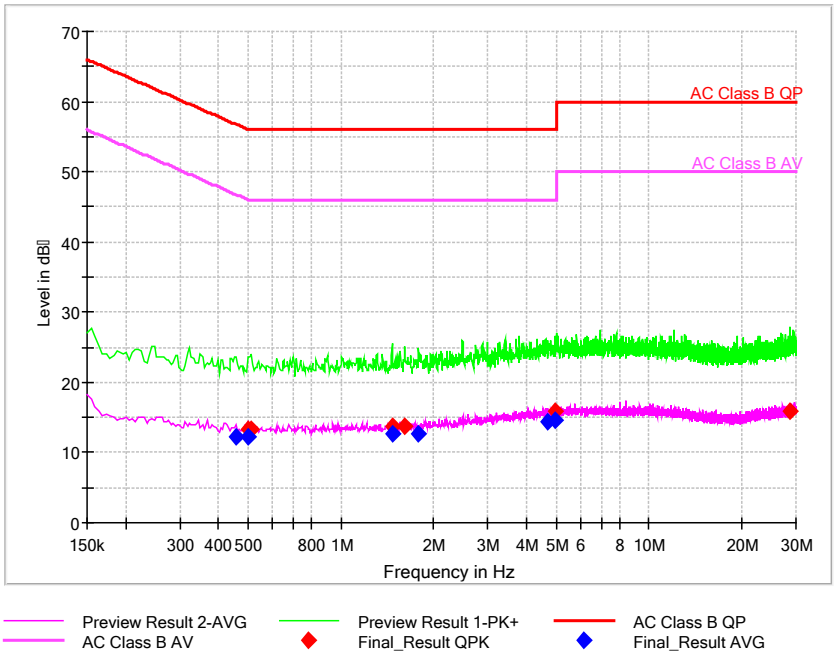
Limit:

Frequency of Emission(MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15～0.5	66 to 56*	56 to 46*
0.5～5	56	46
5～30	60	50

Note: * Decreases with the logarithm of the frequency

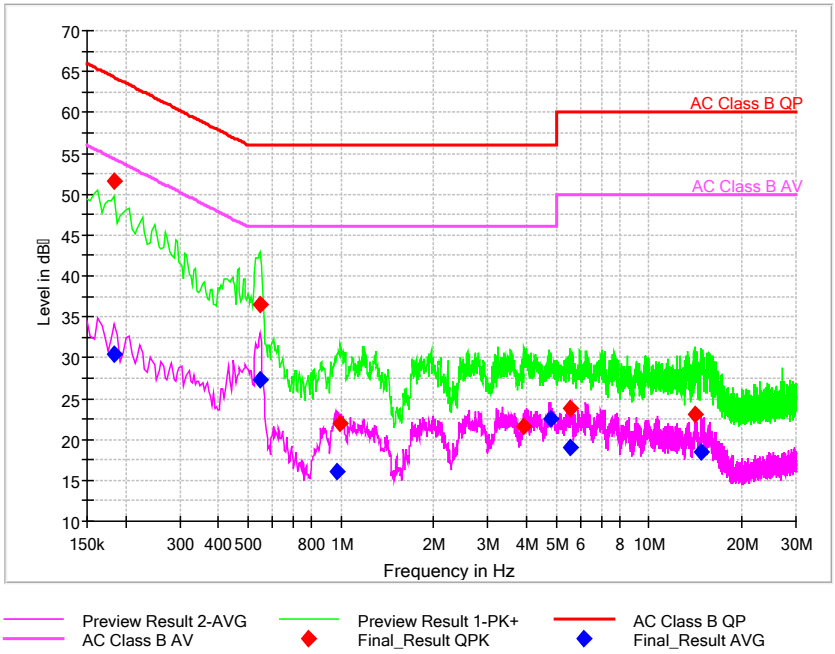
Test result:

Noise Level of the Measuring Instrument



Pic1.Conducted emission L and N Line

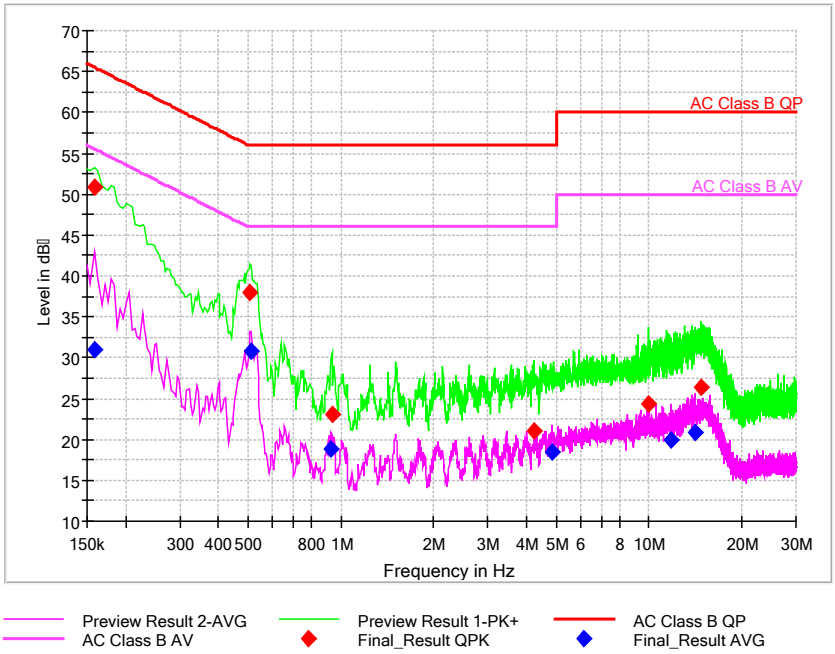
EUT + Charger: AC240V



Pic2. Conducted emission L&N Line

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	Pmea QuasiPeak (dBµV)	Pmea Average (dBµV)
0.184114	---	30.42	54.30	23.88	L1	29.7	---	0.72
0.184114	51.67	---	64.30	12.63	L1	29.7	21.97	---
0.546579	---	27.38	46.00	18.62	N	29.7	---	-2.32
0.546579	36.48	---	56.00	19.52	L1	29.7	6.78	---
0.973007	---	16.12	46.00	29.88	N	29.8	---	-13.68
0.994329	21.97	---	56.00	34.03	L1	29.8	-7.83	---
3.936686	21.62	---	56.00	34.38	N	29.8	-8.18	---
4.810864	---	22.49	46.00	23.51	L1	29.8	---	-7.31
5.540057	23.88	---	60.00	36.12	L1	29.8	-5.92	---
5.544321	---	19.09	50.00	30.91	L1	29.8	---	-10.71
14.132593	23.14	---	60.00	36.86	L1	30.0	-6.86	---
14.810614	---	18.50	50.00	31.50	L1	30.0	---	-11.5

EUT + Charger: AC120V



Pic3. Conducted emission L&N Line

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	Pmea QuasiPeak (dBµV)	Pmea Average (dBµV)
0.158529	---	31.02	55.54	24.52	L1	29.7	---	1.32
0.158529	50.79	---	65.54	14.75	L1	29.7	21.09	---
0.508200	38.04	---	56.00	17.96	L1	29.7	8.34	---
0.512464	---	30.87	46.00	15.13	N	29.7	---	1.17
0.930364	---	18.80	46.00	27.20	N	29.8	---	-11
0.934629	23.04	---	56.00	32.96	L1	29.8	-6.76	---
4.247979	21.01	---	56.00	34.99	L1	29.8	-8.79	---
4.832186	---	18.41	46.00	27.59	N	29.8	---	-11.39
10.000500	24.35	---	60.00	35.65	L1	29.9	-5.55	---
11.846936	---	20.00	50.00	30.00	L1	29.9	---	-9.9
14.124064	---	20.87	50.00	29.13	L1	30.0	---	-9.13
14.772236	26.41	---	60.00	33.59	L1	30.0	-3.59	---

2.2.2RadiatedEmissions-FCC Part15.109

Ambient condition:

Temperature	Relative humidity	Pressure
24.4°C	41.0%	101.2kPa

Test Setup:

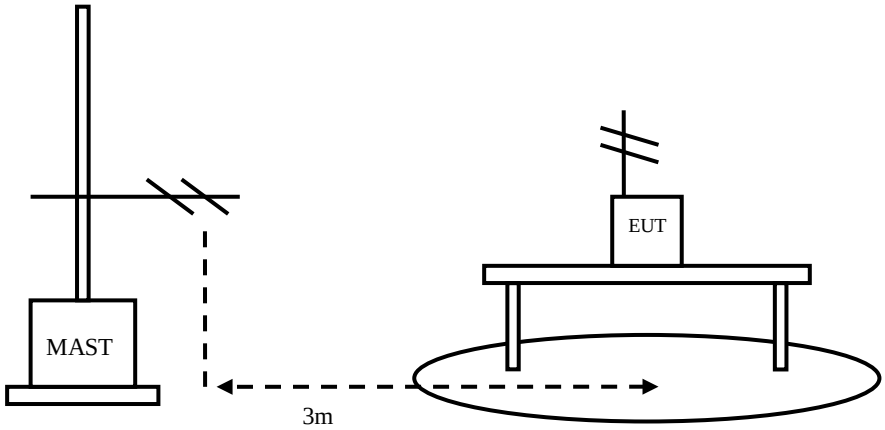


Figure 2

Test Procedure:

The EUT should be placed on a non-metallic table80cm above the ground plane. The receive antennas shall be moved from 1 to 4 meters. The distance between EUT and receive antenna should be 3 meters.
The EUT should work in idle mode. The EUT was connected with a laptop via the ethernet cable and transferred the data between the laptop and the EUT. The test set-up and the test methods are performed according to ANSI C63.4:2014
Then start the test software EMC32. Sweep the whole frequency band through the range from 30MHz to 1GHz, using receive log period antenna VULB 9163.
During the test, the height of receive antenna shall be moved from 1 to4 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 spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The EUT is laid in two modes as follow: 1. put the EUT in horizontal direction; 2. put the EUT in vertical direction.
The data of cable loss and antenna factor have been calibrated in full testing frequency range before the testing.

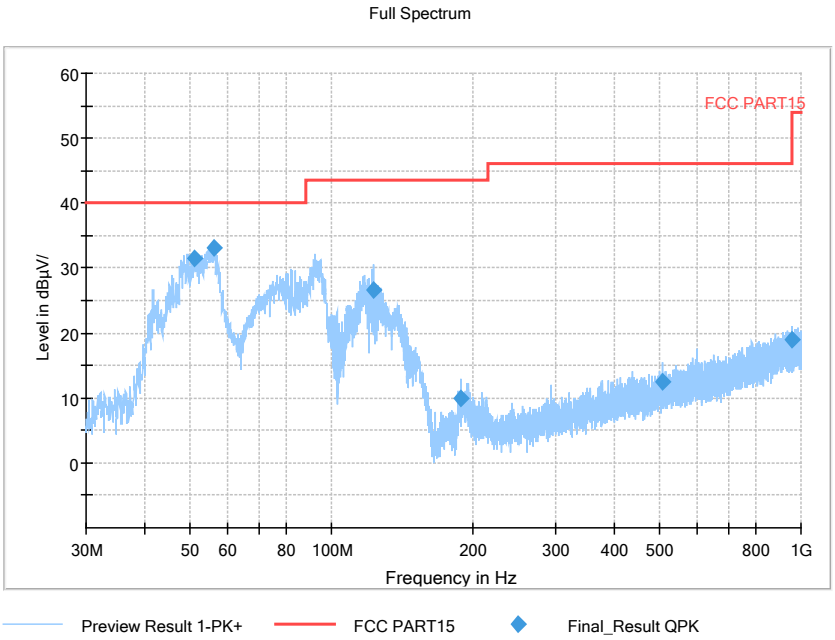
All test results are performed with max hold at the horizontal and vertical polarity.
RBW=120kHz, VBW=300kHz, when the test frequency: 30MHz<f<1GHz
RBW=1MHz, VBW=3MHz, when the test frequency: f>1GHz
A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.
The measurement results are obtained as described below:
Result= P_{mea} + A_{Rpl}

Limit:

Frequency of Emission(MHz)	Limits	
	Detector	Unit (dBμV/m)
30～88	Quasi-peak	40
88～216	Quasi-peak	43.5
216～960	Quasi-peak	46
960～1000	Quasi-peak	54
1000～5th harmonic of the highest frequency or 40GHz, whichever is lower	Average Peak	54 74

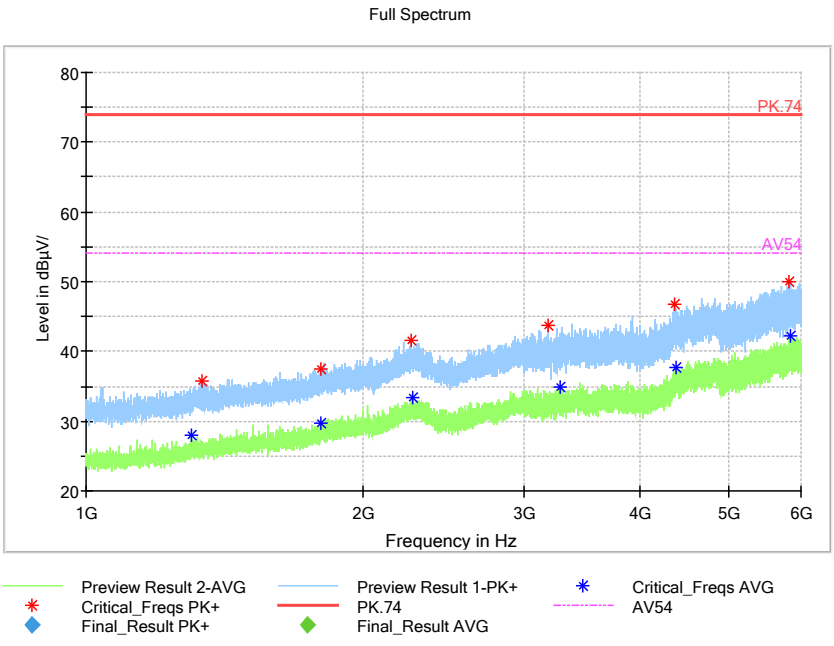
Test result:
Sample calculation: (31.47dBμV/m) = (48.77dBμV) + (-17.3dB/m), the corresponding frequency is 51.0975MHz.

Frequency(MHz)	Result(dBμV/m)	Limit (dBμV/m)	ARpl (dB/m)	Pmea (dBμV)	Polarity
51.0975	31.47	40.00	-17.3	48.77	V
56.19	33.22	40.00	-17.7	50.92	V
122.926	26.58	43.50	-21.7	48.28	V
188.11	9.95	43.50	-19.7	29.65	V
506.9005	12.5	46.00	-10.5	23	V
955.4285	18.93	46.00	-2.9	21.83	V



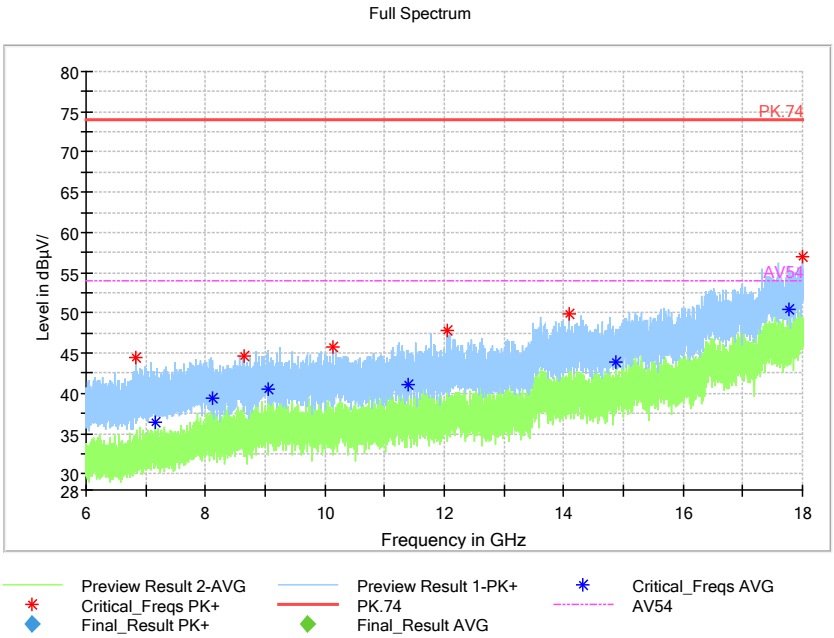
Pic4. Radiated emission(30MHz – 1GHz)

Note: The test data in the graph includes two polarizations: horizontal and vertical



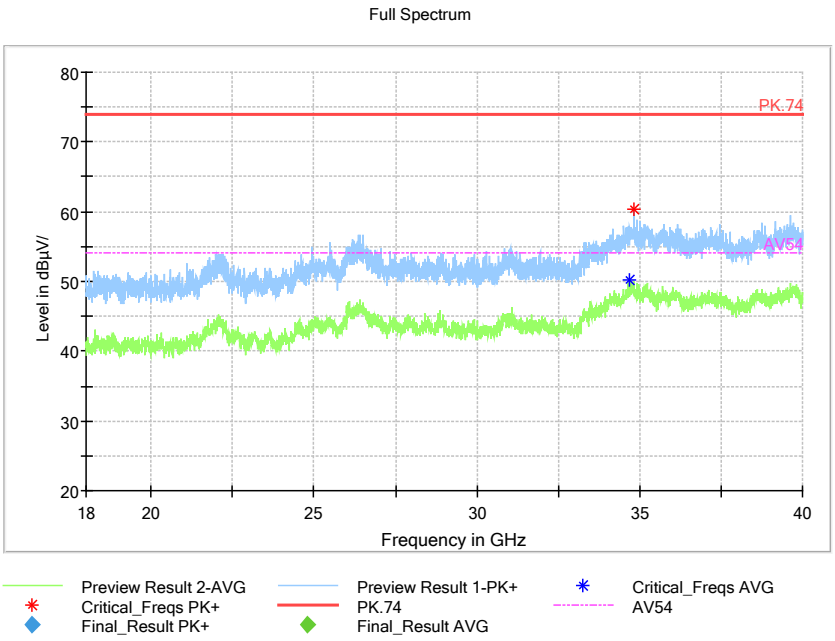
Pic5. Radiated emission (1GHz –6GHz)

Note: The test data in the graph includes two polarizations: horizontal and vertical.



Pic6. Radiated emission (6GHz –18GHz)

Note: The test data in the graph includes two polarizations: horizontal and vertical.



Pic7. Radiated emission (18GHz – 40GHz)

Note: The test data in the graph includes two polarizations: horizontal and vertical.

2.3. List of test equipments

No.	Name/Model	Manufacturer	S/N	Calibration Due Date	Calibration Date
1	23.18m×16.88m×9.60mSemi-AnechoicChamber	FRANKONIA	-----	5th Sep. 2021	6th Sep. 2016
2	ESW EMI test receiver	R&S	101574	20th Aug. 2021	20th Aug. 2020
3	ESR3EMI test receiver	R&S	102361	21th Apr. 2022	21th Apr. 2021
4	9.080m×5.255m×3.525m Shielding room	FRANKONIA	-----	5th Sep. 2021	6th Sep. 2016
5	VULB 9163 Ultra log test antenna	schwarzbeck	867	25th Mar. 2022	25th Mar. 2021
6	HF 907 Double-Ridged Waveguide Horn Antenna	R&S	100512	25th Mar. 2022	25th Mar. 2021
7	SAS-574 Horn Antenna	schwarzbeck	535	20th Aug. 2021	20th Aug. 2020
8	ENV216 AMN	R&S	3560.6550.12	20th Aug. 2021	20th Aug. 2020
9	EMC32EMI test software	R&S	-----	-----	-----

----------The End----------