中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Shanghai Sunmi Technology Co.,Ltd.**

Address: Room 505, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China

FCC ID: **2AH25TF701**

Product Name: **WIRELESS DATA TERMINAL**

Model Number: **TF701**

Standard(s): **47 CFR Part 15, Subpart C(15.247)**
ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02

The above equipment has been tested and found compliance with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR21120036-00A**

Date Of Issue: **2022-03-18**

Reviewed By: **Sun Zhong**

Sun Zhong

Title: Manager

Test Laboratory: **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, Dongguan,
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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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CONTENTS

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	WIRELESS DATA TERMINAL
EUT Model:	TF701
Operation Frequency:	2402-2480MHz
Maximum Peak Output Power (Conducted):	10.53 dBm
Modulation Type:	GFSK, π/4-DQPSK, 8DPSK
Rated Input Voltage:	DC 3.85V from battery DC 5.0/9.0/12.0/3.6~6.0/6.0~9.0/9.0~12.0V from adapter
Serial Number:	CR21120036-RF-S1
EUT Received Date:	2021.12.23
EUT Received Status:	Good

Operation Frequency Detail:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	40	2442
1	2403	41	2443
…	…	…	…
…	…	…	…
..	…	78	2480
39	2441	/	/

Per section 15.31(m), the lowest frequency, middle frequency, and highest frequency were performed the test as below:

Test Channel	Frequency (MHz)
Lowest	2402
Middle	2441
Highest	2480

Antenna Information Detail▲:

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Antenna Gain /Frequency Range	§15.203 Requirement
Shanghai Sunmi Technology Co.,Ltd.	FPC	50	-1.3 dBi/2.4~2.5GHz	**Compliance**

The Method of §15.203 Compliance:

☒Antenna must be permanently attached to the unit.

☐Antenna must use a unique type of connector to attach to the EUT.

☐Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
USB Cable	Unknown	Unknown	Un-shield, 1 m
Adapter 1#	SHENZHEN TIANYIN ELECTRONICS Co.,Ltd	TPA-23A050200UU01	Input: 100-240V~50/60Hz 0.3A Output: 5V/2A
Adapter 2#	Jiangsu Chenyang Eletron Co.,Ltd	UC13US	Input: 100-240V~50/60Hz 0.35A Output: 5V/2A
Adapter 3#	SHENZHEN TIANYIN ELECTRONICS Co.,Ltd	TPA-10120150UU	Input: 100-240V~50/60Hz 0.6A Output: 3.6~6.0V/3A 6.0~9.0V/2A 9.0~12.0V/1.5A
Adapter 4#	Jiangsu Chenyang Eletron Co.,Ltd	CK18W02U	Input: 100-240V~50/60Hz 0.5A Output: 5V/3A 9V/2A 12V/1.5A

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
Equipment Modifications:	No
EUT Exercise Software:	QRCT3

The software " QRCT3 "was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:

Test Modes	Power Level Setting		
	Lowest Channel	Middle Channel	Highest Channel
GFSK	9	9	9
π/4-DQPSK	9	9	9
8DPSK	9	9	9

1.2.2 Support Equipment List and Details

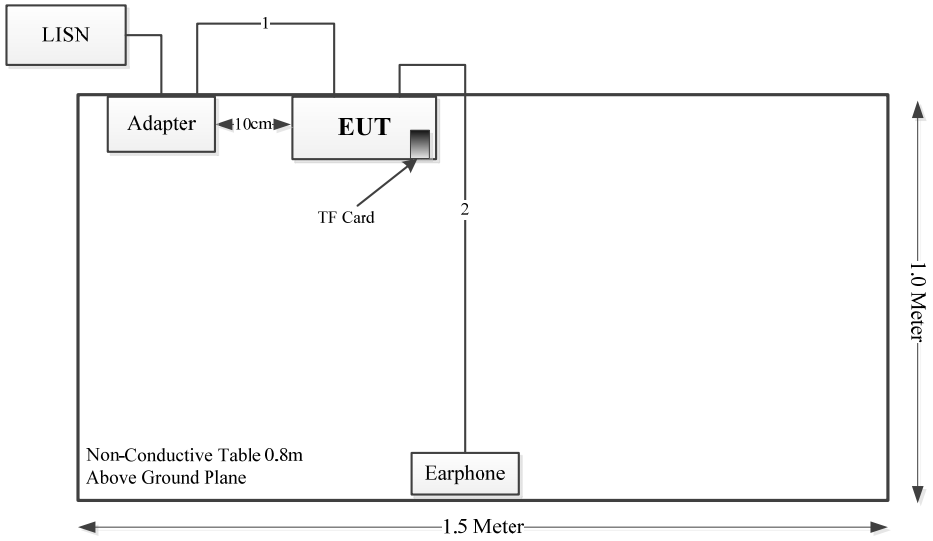
Manufacturer	Description	Model	Serial Number
Unknown	Earphone	Unknown	Earphone03
SanDisk	TF Card	16 GB	1183DRECV11N

1.2.3 Support Cable List and Details

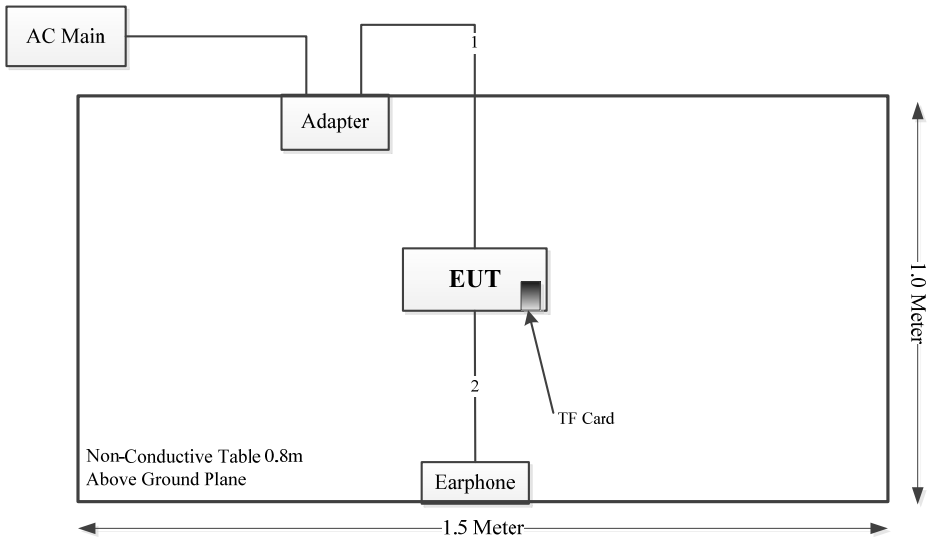
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Earphone Cable	No	No	2	EUT	Earphone

1.2.4 Block Diagram of Test Setup

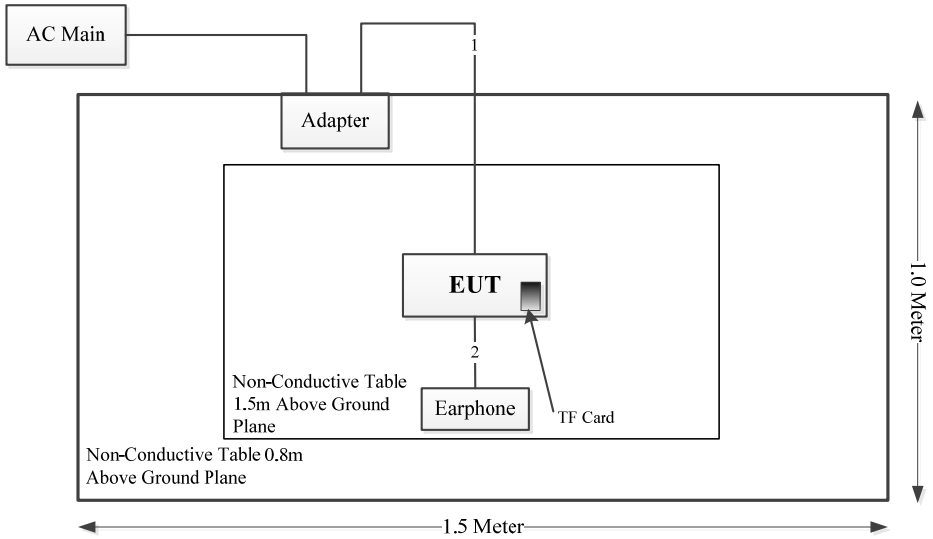
AC line conducted emissions:



Spurious emissions below 1GHz:



Spurious emissions above 1GHz:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.207(a)	AC line conducted emissions	Compliance
FCC §15.205, §15.209, §15.247(d)	Spurious emissions	Compliance*
FCC §15.247(a)(1)	20 dB bandwidth	Compliance*
FCC §15.247(a)(1)	Channel separation	Compliance*
FCC §15.247(a)(1)(iii)	Number of hopping Frequency	Compliance*
FCC §15.247(a)(1)(iii)	Time of occupancy (dwell time)	Compliance *
FCC §15.247(b)(1)	Peak output power measurement	Compliance*
FCC §15.247(d)	Band edges	Compliance*
FCC §15.203	Antenna requirement	Compliance
FCC§15.247 (i) & §1.1310 & §2.1093	RF Exposure	Compliance

Note:
Compliance*:
The device was changed based on the certified device, FCC ID: 2AH25TF701, the changes as below:

1 Additional code scanner (Model: N4603 and NG002).

Per check with the RF output power and Radiation emissions above 1GHz, the RF parameters are same with the certified device. The data not affect please refer to the original FCC ID report: RKSA200706001-00A, issued by Bay Area Compliance Laboratories Corp. (Kunshan).

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

	Conducted limit (dBμV)	
Frequency of emission (MHz)	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.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

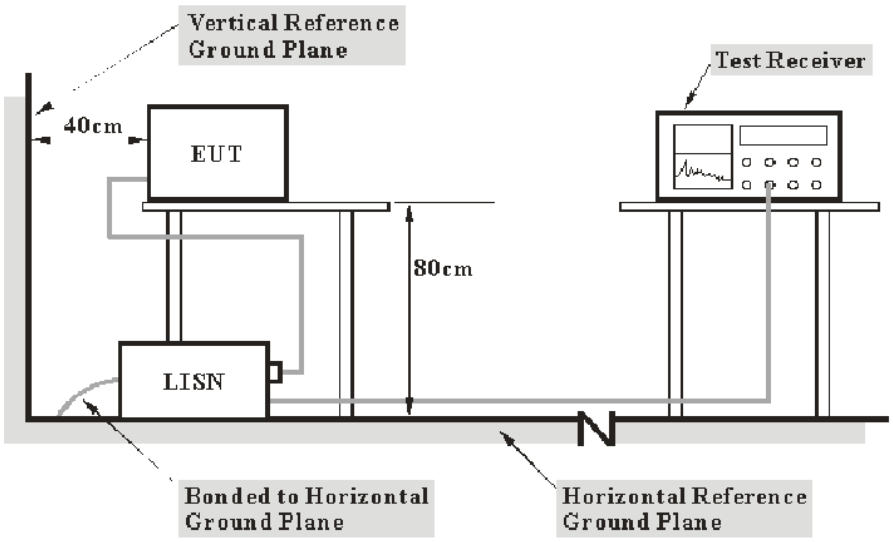
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μV within the frequency band 535-1705 kHz, as measured using a 50 μH/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtainig their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

3.1.2 EUT Setup



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

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase ("hot") line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor = attenuation caused by cable loss + voltage division factor of AMN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.2 Radiation Spurious Emissions

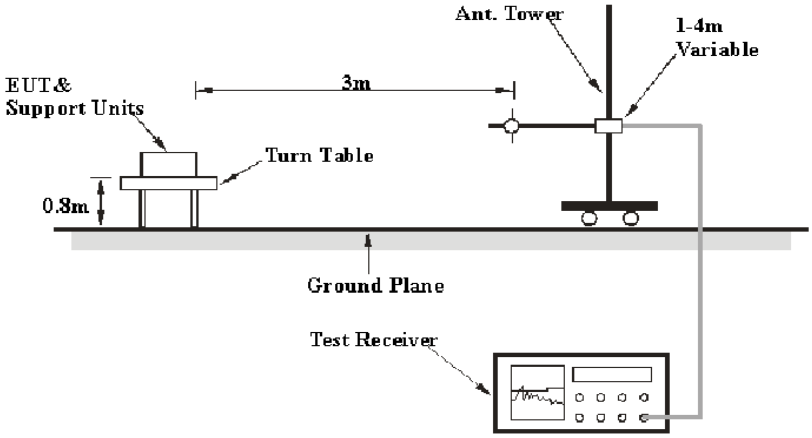
3.2.1 Applicable Standard

FCC §15.247 (d);

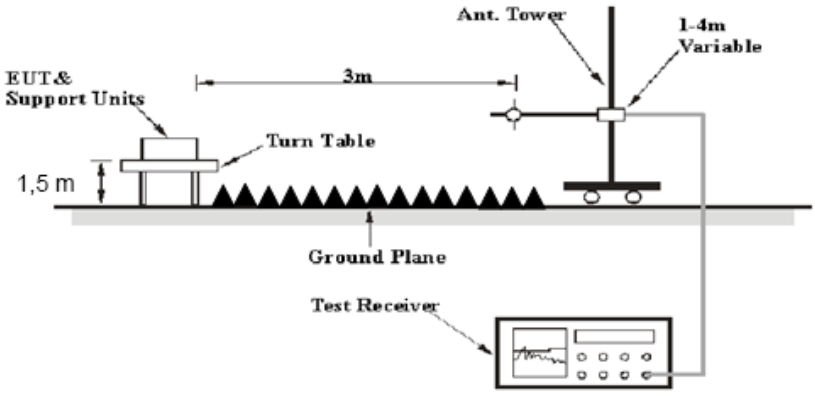
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

3.2.2 EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

For portable device, test should be performed at X.Y.Z Axis:

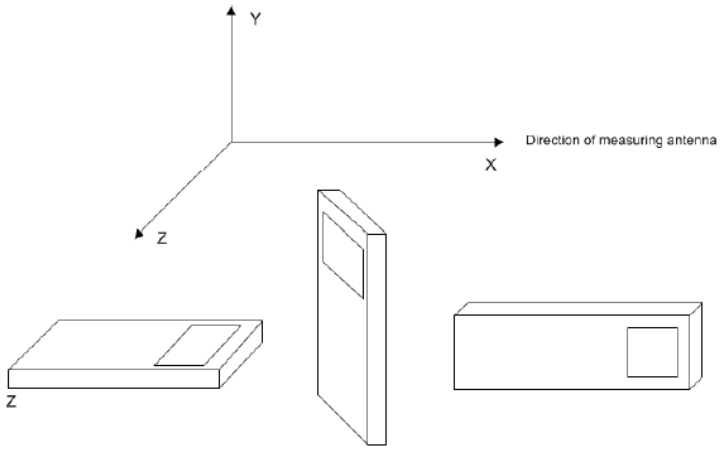


Figure 8—EUT configuration positions (see 6.3.1)

3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	AV

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor = Antenna Factor + Cable Loss- Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

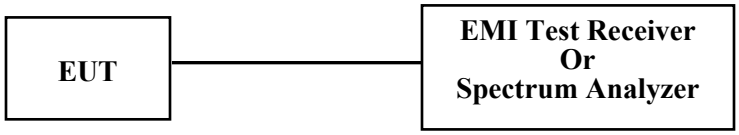
3.3 20 dB Bandwidth

3.3.1 Applicable Standard

FCC §15.247 (a)(1)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

3.3.2 EUT Setup



3.3.3 Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

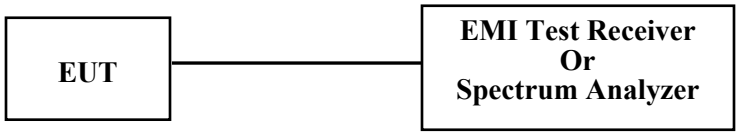
3.4 Channel Separation

3.4.1 Applicable Standard

FCC §15.247 (a)(1)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

3.4.2 EUT Setup



3.4.3Test Procedure

According to ANSI C63.10-2013 Section 7.8.2

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

a) Span: Wide enough to capture the peaks of two adjacent channels.
b) RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.
c) Video (or average) bandwidth (VBW) ≥ RBW.
d) Sweep: Auto.
e) Detector function: Peak.
f) Trace: Max hold.
g) Allow the trace to stabilize.

Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Compliance of an EUT with the appropriate regulatory limit shall be determined. A plot of the data shall be included in the test report.

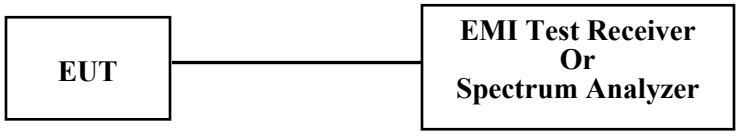
3.5 Number Of Hopping Frequency

3.5.1 Applicable Standard

FCC §15.247 (a)(1)(iii)

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

3.5.2 EUT Setup



3.5.3Test Procedure

According to ANSI C63.10-2013 Section 7.8.3

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

a) Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
b) RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
c) VBW ≥ RBW.
d) Sweep: Auto.
e) Detector function: Peak.
f) Trace: Max hold.
g) Allow the trace to stabilize

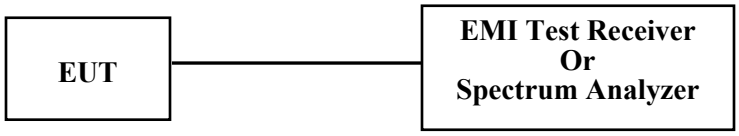
It might prove necessary to break the span up into subranges to show clearly all of the hopping frequencies. Compliance of an EUT with the appropriate regulatory limit shall be determined for the number of hopping channels. A plot of the data shall be included in the test report.

3.6 Time Of Occupancy(Dwell Time)

3.6.1 Applicable Standard

Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

3.6.2 EUT Setup



3.6.3Test Procedure

The EUT was worked in channel hopping; the time of single pulses was tested.

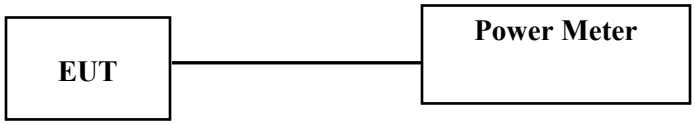
3.7 Peak Output Power

3.7.1 Applicable Standard

FCC §15.247 (b)(1)

For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts

3.7.2 EUT Setup



3.7.3Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
2. Add a correction factor to the display.

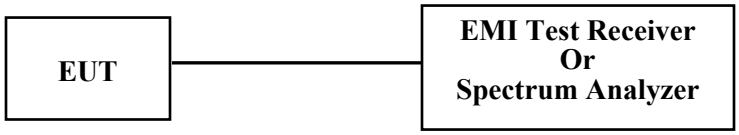
3.8 100 kHz Bandwidth of Frequency Band Edge

3.8.1 Applicable Standard

FCC §15.247 (d);

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

3.8.2 EUT Setup



3.8.3 Test Procedure

a) Set the center frequency and span to encompass frequency range to be measured.
b) Set the RBW = 100 kHz.
c) Set the VBW ≥ [3 × RBW].
d) Detector = peak.
e) Sweep time = auto couple.
f) Trace mode = max hold.

g) Allow trace to fully stabilize.
h) Use the peak marker function to determine the maximum amplitude level.
Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

3.9 Antenna Requirement

3.9.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.9.2 Judgment

Please refer to the Antenna Information detail in Section 1.

4. TEST DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	CR21120036-RF-S1	Test Date:	2022-03-16
Test Site:	CE	Test Mode:	Transmitting(BDR mode low channel was the worst)
Tester:	Nick Tang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24.3	Relative Humidity: (%)	73	ATM Pressure: (kPa)	100.6

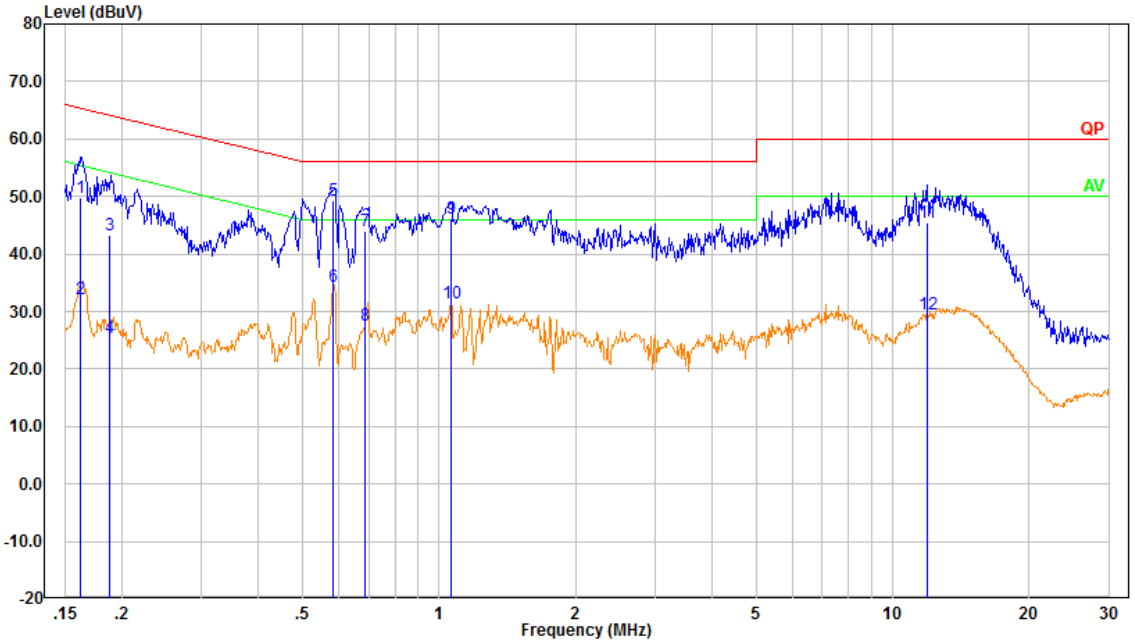
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2021-04-25	2022-04-24
R&S	EMI Test Receiver	ESR3	102726	2021-07-22	2022-07-21
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2021-08-08	2022-08-07
Audix	Test Software	E3	190306 (V9)	N/A	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

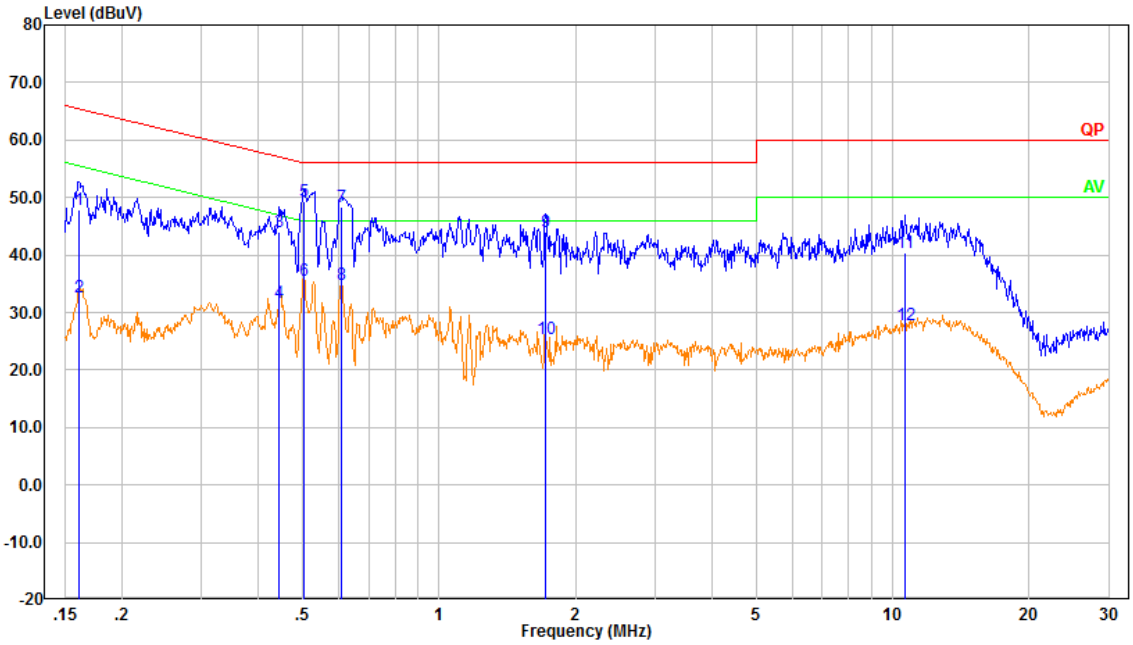
Adapter 1# with code scanner 1#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.162	40.31	9.61	49.92	65.36	15.44	QP
2	0.162	22.48	9.61	32.09	55.36	23.27	Average
3	0.188	33.59	9.61	43.20	64.15	20.95	QP
4	0.188	15.78	9.61	25.39	54.15	28.76	Average
5	0.585	39.68	9.62	49.30	56.00	6.70	QP
6	0.585	24.77	9.62	34.39	46.00	11.61	Average
7	0.686	34.43	9.62	44.05	56.00	11.95	QP
8	0.686	17.92	9.62	27.54	46.00	18.46	Average
9	1.062	36.47	9.62	46.09	56.00	9.91	QP
10	1.062	21.85	9.62	31.47	46.00	14.53	Average
11	11.905	35.85	9.67	45.52	60.00	14.48	QP
12	11.905	19.77	9.67	29.44	50.00	20.56	Average

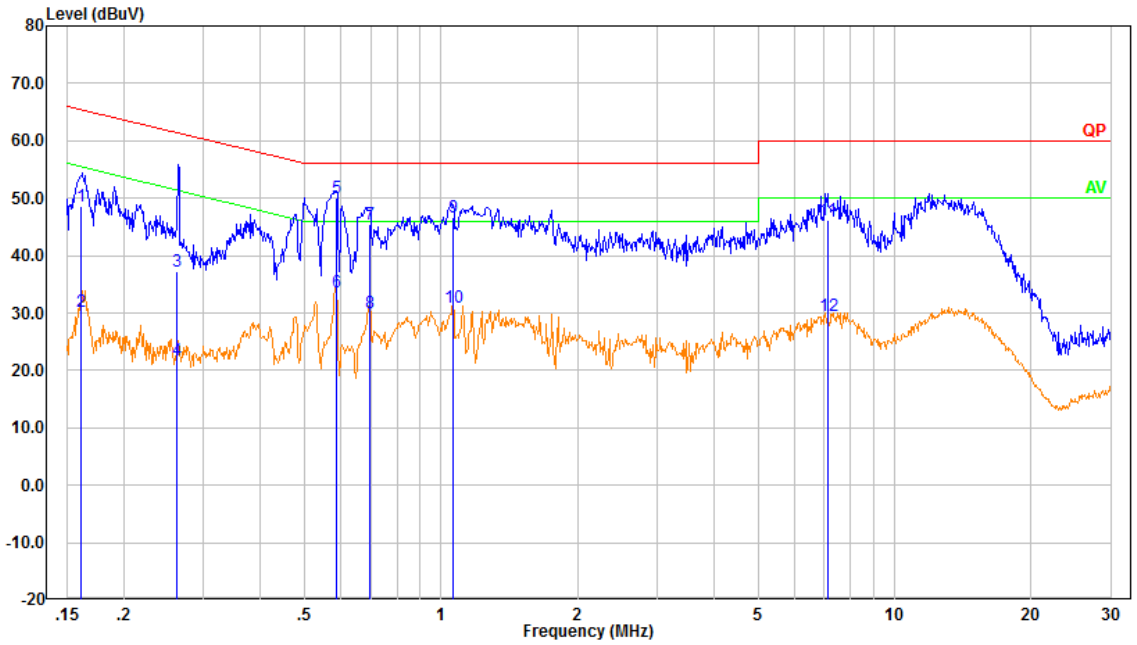
Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.161	38.21	9.61	47.82	65.43	17.61	QP
2	0.161	23.07	9.61	32.68	55.43	22.75	Average
3	0.443	34.30	9.61	43.91	57.00	13.09	QP
4	0.443	22.13	9.61	31.74	47.00	15.26	Average
5	0.505	39.80	9.61	49.41	56.00	6.59	QP
6	0.505	25.95	9.61	35.56	46.00	10.44	Average
7	0.612	38.84	9.62	48.46	56.00	7.54	QP
8	0.612	25.28	9.62	34.90	46.00	11.10	Average
9	1.721	34.38	9.63	44.01	56.00	11.99	QP
10	1.721	15.80	9.63	25.43	46.00	20.57	Average
11	10.652	30.66	9.67	40.33	60.00	19.67	QP
12	10.652	18.18	9.67	27.85	50.00	22.15	Average

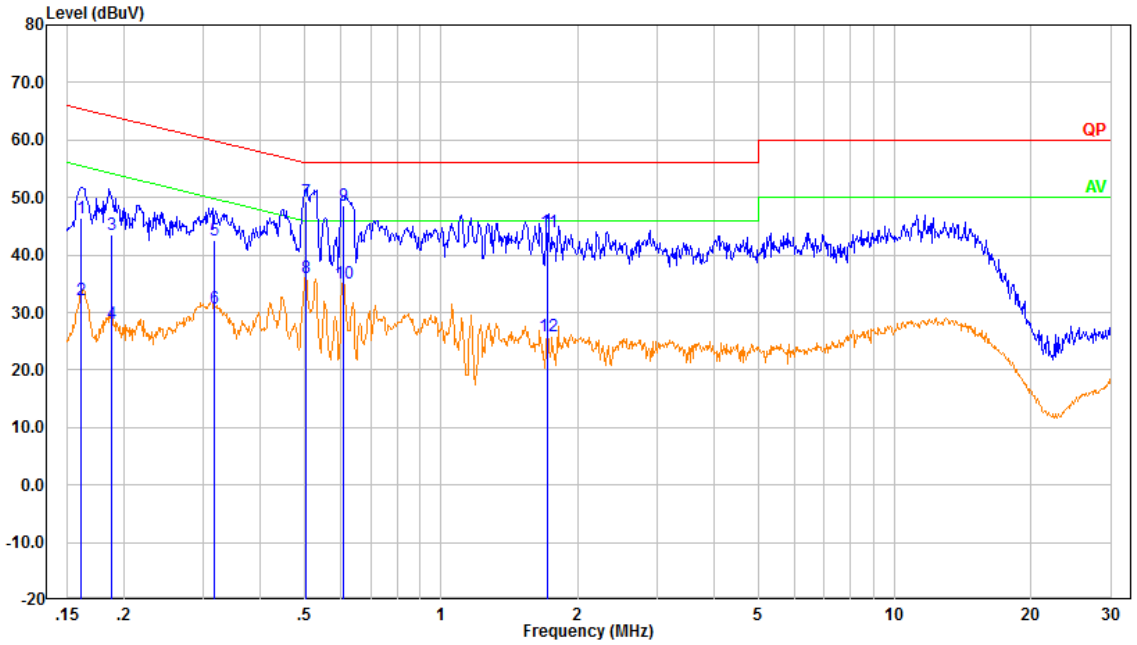
Adapter 1# with code scanner 2#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.161	38.97	9.61	48.58	65.42	16.84	QP
2	0.161	20.59	9.61	30.20	55.42	25.22	Average
3	0.261	27.57	9.61	37.18	61.39	24.21	QP
4	0.261	12.12	9.61	21.73	51.39	29.66	Average
5	0.588	40.38	9.62	50.00	56.00	6.00	QP
6	0.588	23.91	9.62	33.53	46.00	12.47	Average
7	0.699	35.80	9.62	45.42	56.00	10.58	QP
8	0.699	20.34	9.62	29.96	46.00	16.04	Average
9	1.065	37.03	9.62	46.65	56.00	9.35	QP
10	1.065	21.26	9.62	30.88	46.00	15.12	Average
11	7.108	36.61	9.66	46.27	60.00	13.73	QP
12	7.108	19.80	9.66	29.46	50.00	20.54	Average

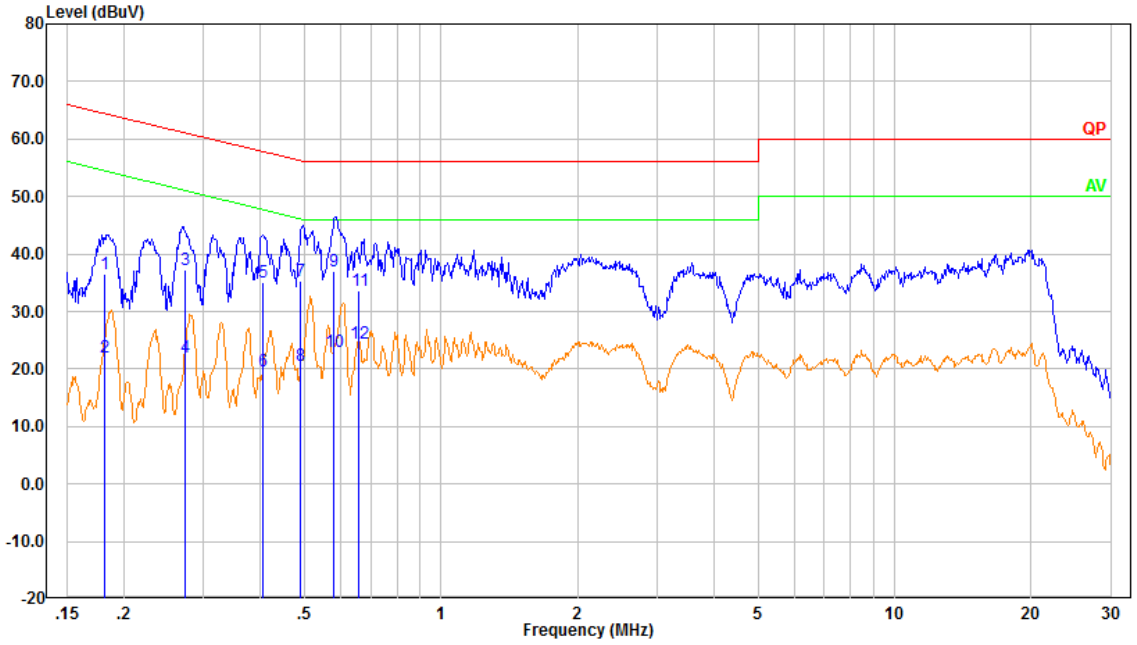
Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.161	36.85	9.61	46.46	65.42	18.96	QP
2	0.161	22.45	9.61	32.06	55.42	23.36	Average
3	0.187	33.90	9.61	43.51	64.15	20.64	QP
4	0.187	18.50	9.61	28.11	54.15	26.04	Average
5	0.317	32.91	9.61	42.52	59.79	17.27	QP
6	0.317	21.12	9.61	30.73	49.79	19.06	Average
7	0.502	39.68	9.61	49.29	56.00	6.71	QP
8	0.502	26.51	9.61	36.12	46.00	9.88	Average
9	0.611	38.96	9.62	48.58	56.00	7.42	QP
10	0.611	25.40	9.62	35.02	46.00	10.98	Average
11	1.722	34.32	9.63	43.95	56.00	12.05	QP
12	1.722	16.16	9.63	25.78	46.00	20.22	Average

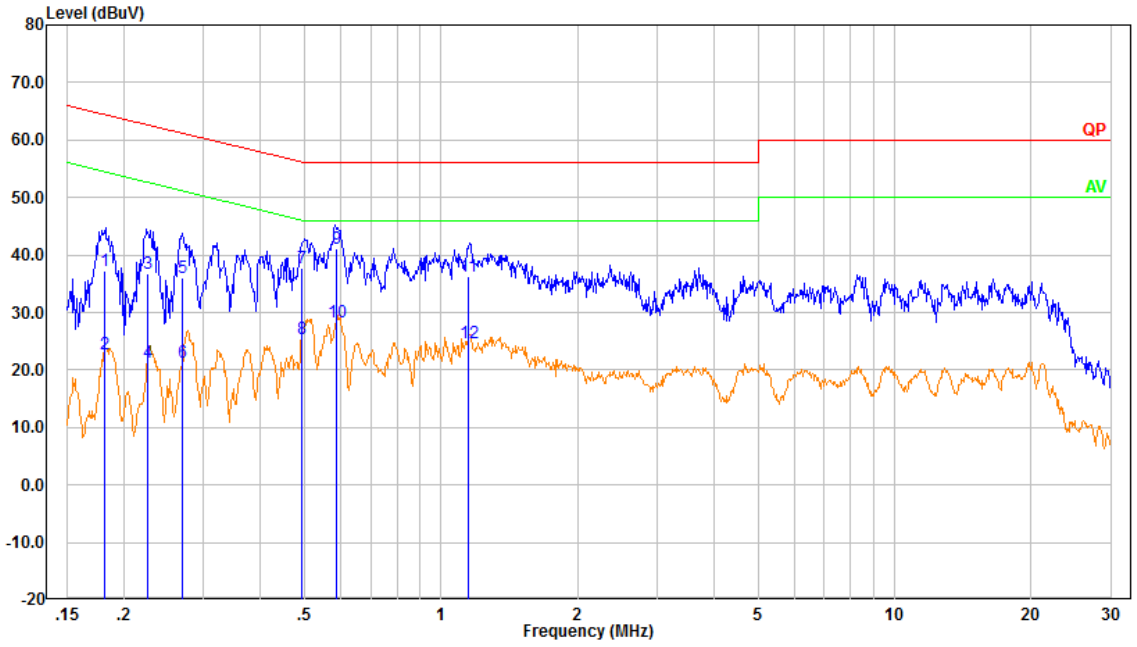
Adapter 2# with code scanner 1#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.182	26.87	9.61	36.48	64.40	27.92	QP
2	0.182	12.48	9.61	22.09	54.40	32.31	Average
3	0.273	27.59	9.61	37.20	61.03	23.83	QP
4	0.273	12.51	9.61	22.12	51.03	28.91	Average
5	0.406	25.39	9.61	35.00	57.73	22.73	QP
6	0.406	9.89	9.61	19.50	47.73	28.23	Average
7	0.492	25.73	9.61	35.34	56.14	20.80	QP
8	0.492	11.02	9.61	20.63	46.14	25.51	Average
9	0.582	27.28	9.62	36.90	56.00	19.10	QP
10	0.582	13.35	9.62	22.97	46.00	23.03	Average
11	0.660	24.11	9.62	33.73	56.00	22.27	QP
12	0.660	14.93	9.62	24.55	46.00	21.45	Average

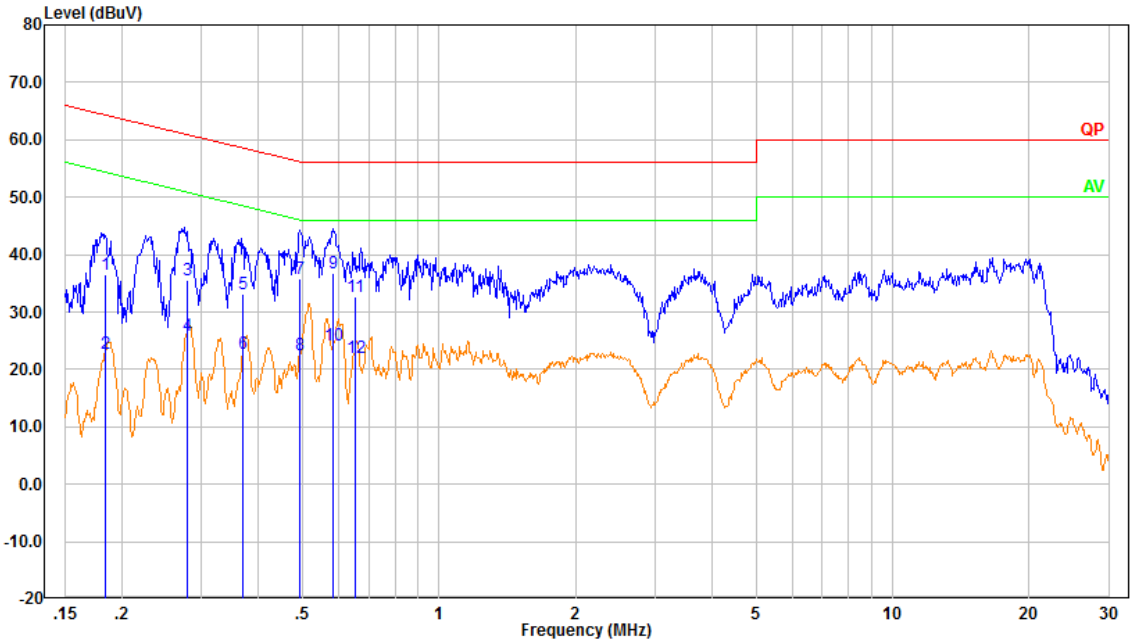
Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.181	27.54	9.61	37.15	64.42	27.27	QP
2	0.181	13.05	9.61	22.66	54.42	31.76	Average
3	0.226	27.16	9.61	36.77	62.59	25.82	QP
4	0.226	11.77	9.61	21.38	52.59	31.21	Average
5	0.270	26.37	9.61	35.98	61.12	25.14	QP
6	0.270	11.65	9.61	21.26	51.12	29.86	Average
7	0.493	28.03	9.61	37.64	56.11	18.47	QP
8	0.493	15.69	9.61	25.30	46.11	20.81	Average
9	0.588	31.42	9.62	41.04	56.00	14.96	QP
10	0.588	18.73	9.62	28.35	46.00	17.65	Average
11	1.147	26.74	9.62	36.36	56.00	19.64	QP
12	1.147	14.97	9.62	24.59	46.00	21.41	Average

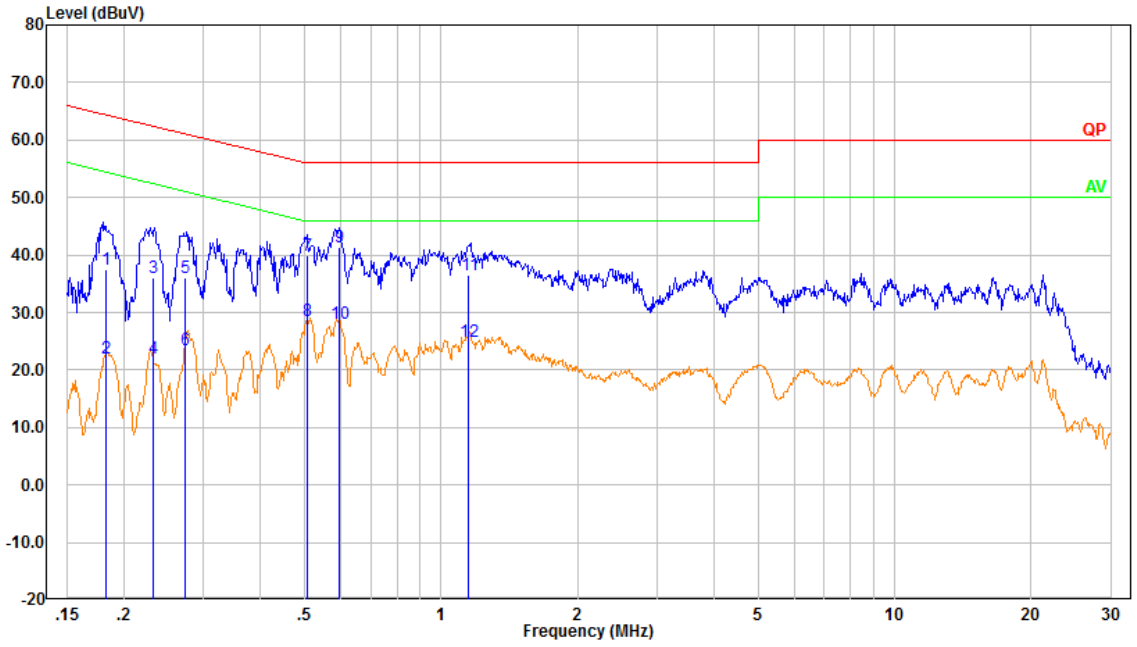
Adapter 2# with code scanner 2#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.184	26.90	9.61	36.51	64.29	27.78	QP
2	0.184	13.06	9.61	22.67	54.29	31.62	Average
3	0.278	26.02	9.61	35.63	60.88	25.25	QP
4	0.278	16.33	9.61	25.94	50.88	24.94	Average
5	0.370	23.57	9.61	33.18	58.50	25.32	QP
6	0.370	13.22	9.61	22.83	48.50	25.67	Average
7	0.495	26.23	9.61	35.84	56.09	20.25	QP
8	0.495	13.01	9.61	22.62	46.09	23.47	Average
9	0.583	27.20	9.62	36.82	56.00	19.18	QP
10	0.583	14.65	9.62	24.27	46.00	21.73	Average
11	0.653	23.08	9.62	32.70	56.00	23.30	QP
12	0.653	12.44	9.62	22.06	46.00	23.94	Average

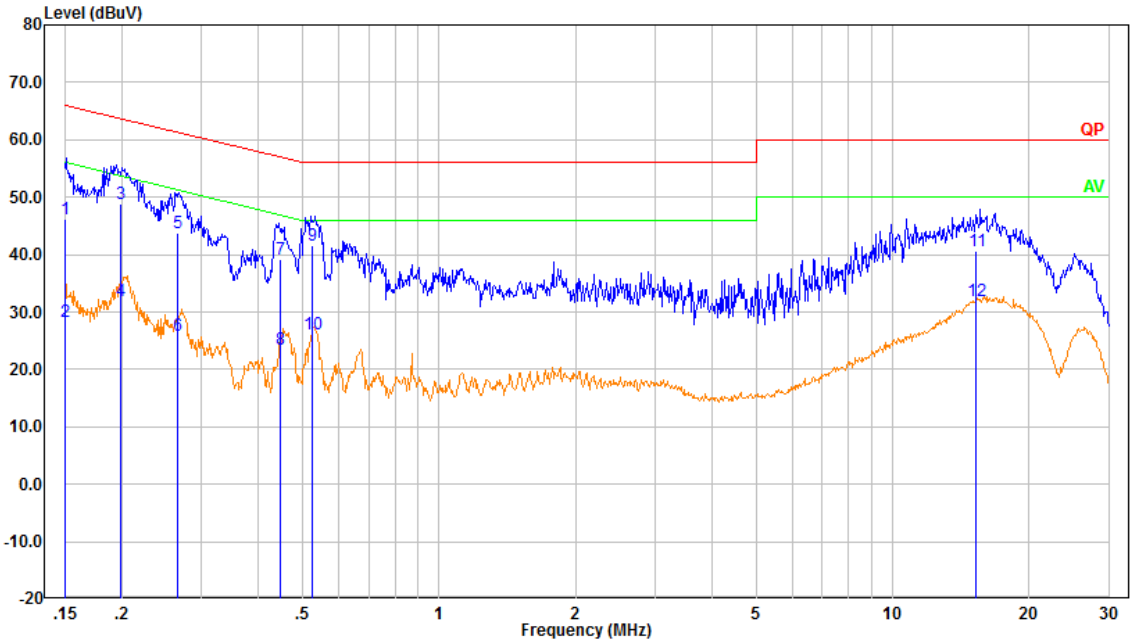
Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.183	27.84	9.61	37.45	64.35	26.90	QP
2	0.183	12.30	9.61	21.91	54.35	32.44	Average
3	0.231	26.44	9.61	36.05	62.40	26.35	QP
4	0.231	12.40	9.61	22.01	52.40	30.39	Average
5	0.272	26.51	9.61	36.12	61.04	24.92	QP
6	0.272	13.91	9.61	23.52	51.04	27.52	Average
7	0.507	30.30	9.61	39.91	56.00	16.09	QP
8	0.507	18.86	9.61	28.47	46.00	17.53	Average
9	0.598	31.74	9.62	41.36	56.00	14.64	QP
10	0.598	18.41	9.62	28.03	46.00	17.97	Average
11	1.151	27.00	9.62	36.62	56.00	19.38	QP
12	1.151	15.41	9.62	25.03	46.00	20.97	Average

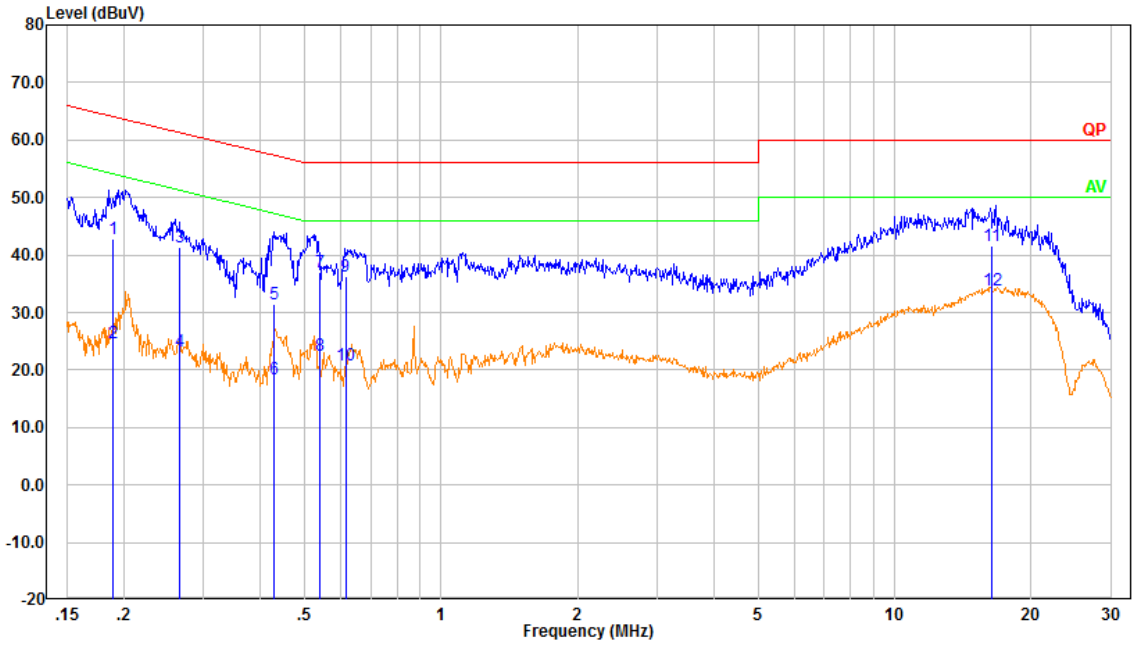
Adapter 3# with code scanner 1#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.150	36.47	9.61	46.08	65.97	19.89	QP
2	0.150	18.63	9.61	28.24	55.97	27.73	Average
3	0.199	39.18	9.61	48.79	63.64	14.85	QP
4	0.199	22.24	9.61	31.85	53.64	21.79	Average
5	0.266	34.21	9.61	43.82	61.25	17.43	QP
6	0.266	16.36	9.61	25.97	51.25	25.28	Average
7	0.447	29.60	9.61	39.21	56.94	17.73	QP
8	0.447	13.76	9.61	23.37	46.94	23.57	Average
9	0.524	31.92	9.61	41.53	56.00	14.47	QP
10	0.524	16.58	9.61	26.20	46.00	19.80	Average
11	15.289	31.04	9.70	40.74	60.00	19.26	QP
12	15.289	22.14	9.70	31.83	50.00	18.17	Average

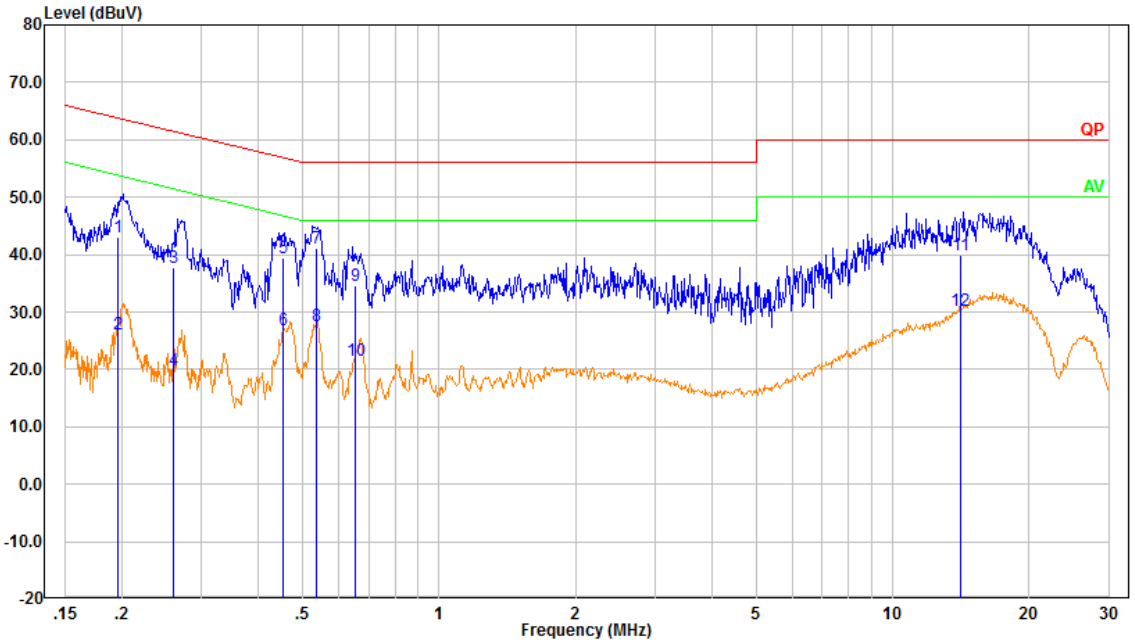
Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.189	33.14	9.61	42.75	64.09	21.34	QP
2	0.189	15.00	9.61	24.61	54.09	29.48	Average
3	0.266	31.78	9.61	41.39	61.24	19.85	QP
4	0.266	13.66	9.61	23.27	51.24	27.97	Average
5	0.429	21.93	9.61	31.54	57.26	25.72	QP
6	0.429	8.76	9.61	18.37	47.26	28.89	Average
7	0.540	27.27	9.61	36.89	56.00	19.11	QP
8	0.540	12.84	9.61	22.45	46.00	23.55	Average
9	0.616	26.71	9.62	36.33	56.00	19.67	QP
10	0.616	11.21	9.62	20.83	46.00	25.17	Average
11	16.358	31.92	9.69	41.61	60.00	18.39	QP
12	16.358	24.15	9.69	33.84	50.00	16.16	Average

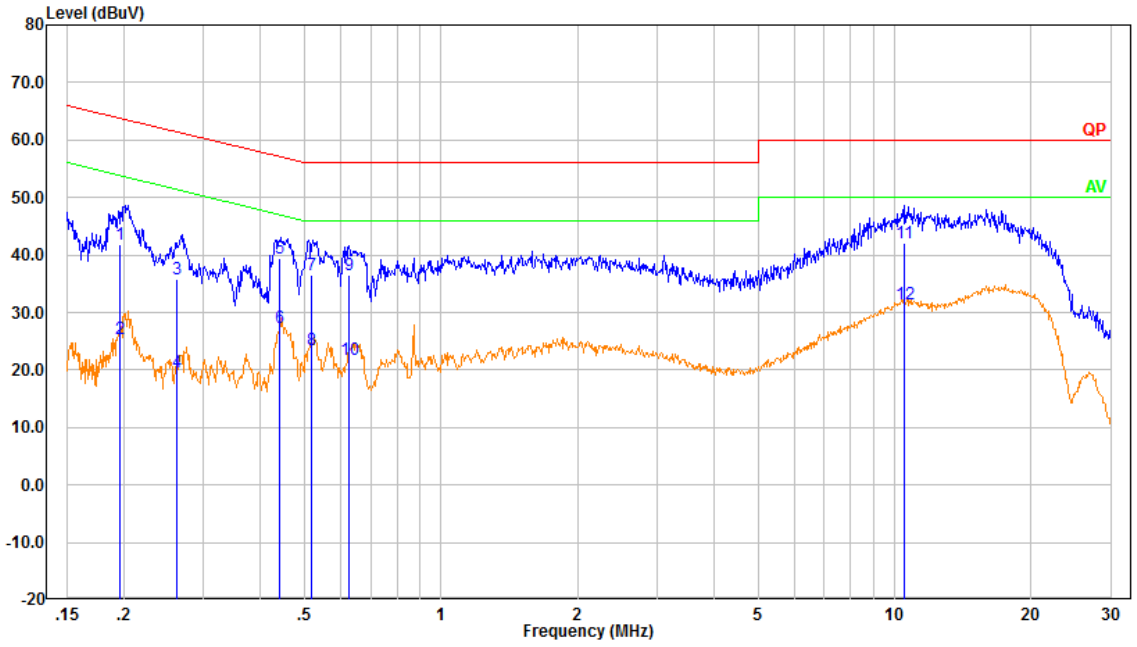
Adapter 3# with code scanner 2#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.196	33.53	9.61	43.14	63.79	20.65	QP
2	0.196	16.50	9.61	26.11	53.79	27.68	Average
3	0.260	28.21	9.61	37.82	61.43	23.61	QP
4	0.260	10.31	9.61	19.92	51.43	31.51	Average
5	0.454	29.69	9.61	39.30	56.81	17.51	QP
6	0.454	17.34	9.61	26.95	46.81	19.86	Average
7	0.535	31.61	9.61	41.23	56.00	14.77	QP
8	0.535	17.99	9.61	27.60	46.00	18.40	Average
9	0.653	24.97	9.62	34.59	56.00	21.41	QP
10	0.653	11.97	9.62	21.59	46.00	24.41	Average
11	14.072	30.26	9.68	39.94	60.00	20.06	QP
12	14.072	20.64	9.68	30.32	50.00	19.68	Average

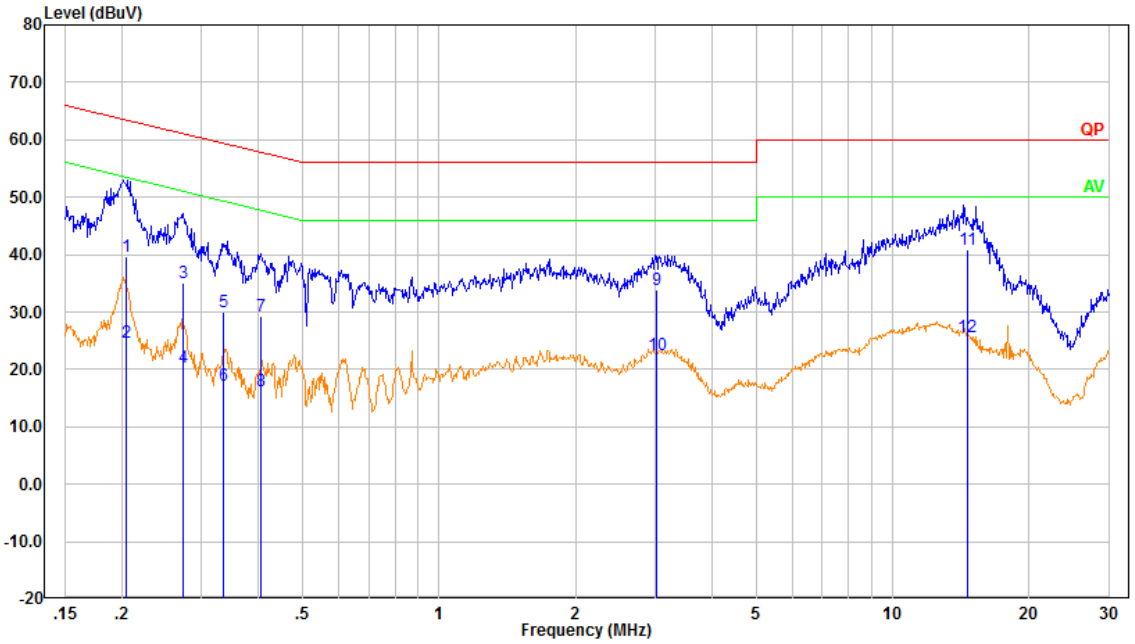
Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.196	32.19	9.61	41.80	63.76	21.96	QP
2	0.196	15.72	9.61	25.33	53.76	28.43	Average
3	0.262	26.22	9.61	35.83	61.38	25.55	QP
4	0.262	9.91	9.61	19.52	51.38	31.86	Average
5	0.442	29.82	9.61	39.43	57.03	17.60	QP
6	0.442	17.62	9.61	27.23	47.03	19.80	Average
7	0.518	26.93	9.61	36.54	56.00	19.46	QP
8	0.518	13.92	9.61	23.53	46.00	22.47	Average
9	0.626	26.95	9.62	36.57	56.00	19.43	QP
10	0.626	12.09	9.62	21.71	46.00	24.29	Average
11	10.507	32.35	9.67	42.02	60.00	17.98	QP
12	10.507	21.88	9.67	31.55	50.00	18.45	Average

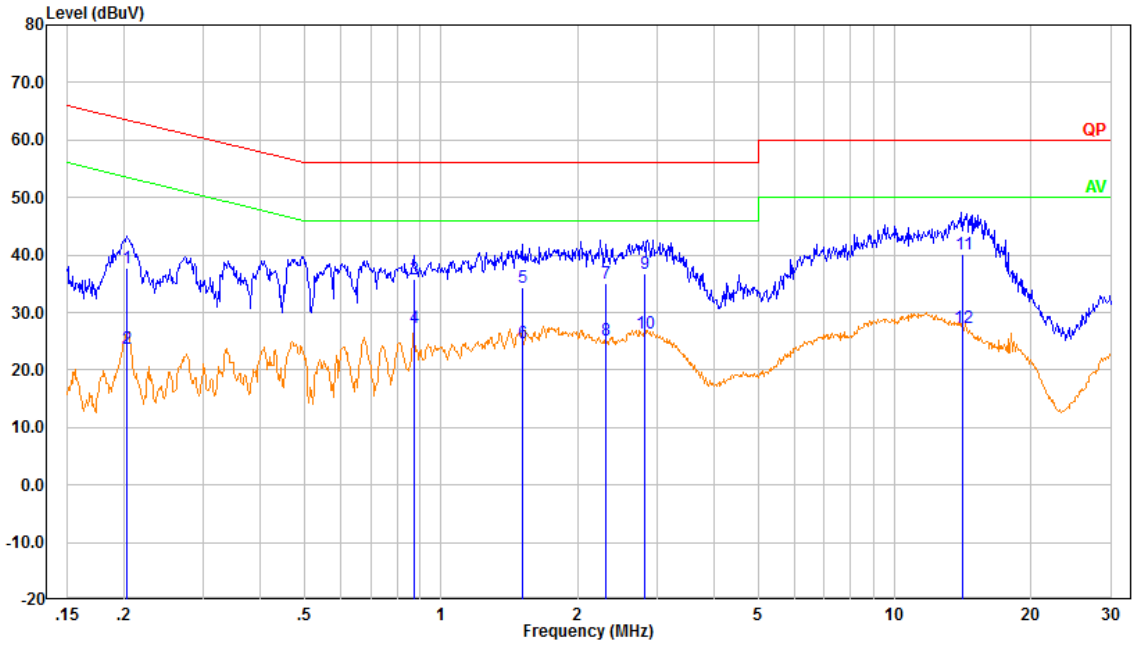
Adapter 4# with code scanner 1#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.204	29.99	9.61	39.60	63.43	23.83	QP
2	0.204	15.11	9.61	24.72	53.43	28.71	Average
3	0.274	25.37	9.61	34.98	61.00	26.02	QP
4	0.274	10.74	9.61	20.35	51.00	30.65	Average
5	0.335	20.44	9.61	30.05	59.33	29.28	QP
6	0.335	7.61	9.61	17.22	49.33	32.11	Average
7	0.404	19.71	9.61	29.32	57.77	28.45	QP
8	0.404	6.67	9.61	16.28	47.77	31.49	Average
9	3.010	24.13	9.65	33.78	56.00	22.22	QP
10	3.010	12.98	9.65	22.63	46.00	23.37	Average
11	14.577	31.21	9.69	40.90	60.00	19.10	QP
12	14.577	15.95	9.69	25.64	50.00	24.36	Average

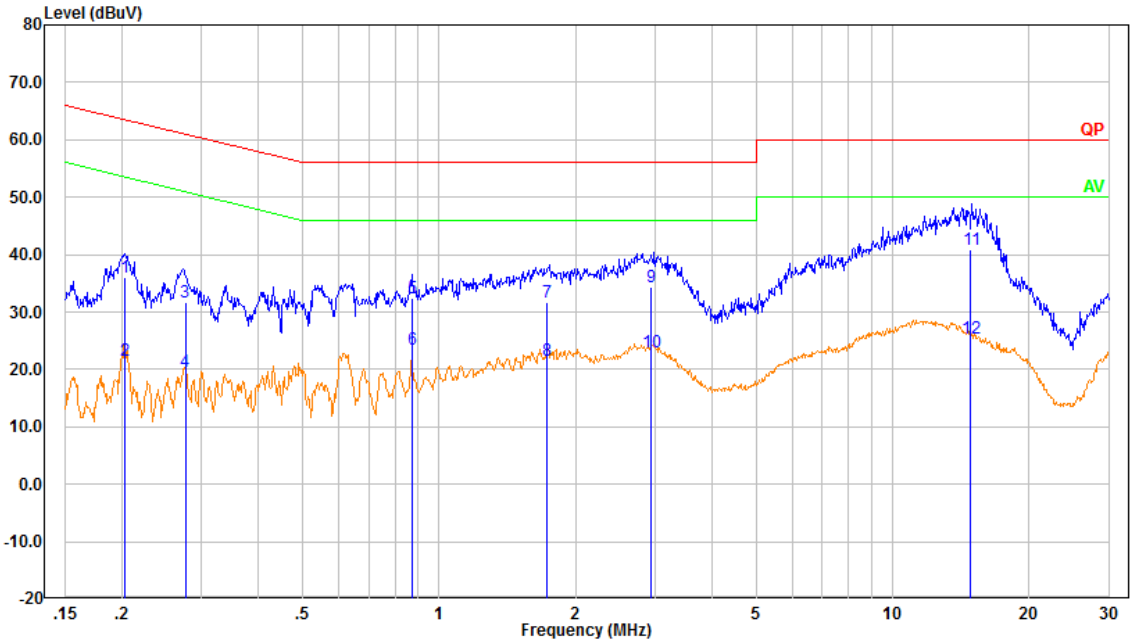
Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.202	28.23	9.61	37.84	63.51	25.67	QP
2	0.202	14.06	9.61	23.67	53.51	29.84	Average
3	0.873	26.06	9.62	35.68	56.00	20.32	QP
4	0.873	17.75	9.62	27.37	46.00	18.63	Average
5	1.515	24.77	9.63	34.39	56.00	21.61	QP
6	1.515	14.96	9.63	24.59	46.00	21.41	Average
7	2.304	25.52	9.64	35.16	56.00	20.84	QP
8	2.304	15.52	9.64	25.15	46.00	20.85	Average
9	2.809	27.08	9.65	36.73	56.00	19.27	QP
10	2.809	16.68	9.65	26.33	46.00	19.67	Average
11	14.164	30.57	9.68	40.25	60.00	19.75	QP
12	14.164	17.70	9.68	27.38	50.00	22.62	Average

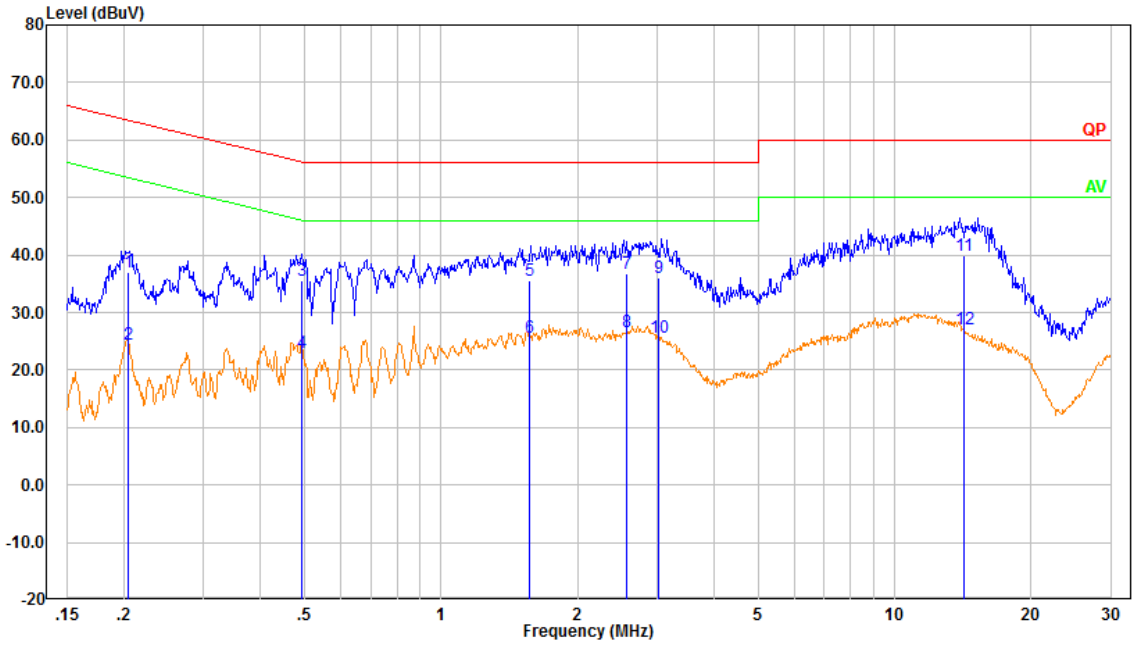
Adapter 4# with code scanner 2#:

Line



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.203	26.38	9.61	35.99	63.50	27.51	QP
2	0.203	11.90	9.61	21.51	53.50	31.99	Average
3	0.276	22.02	9.61	31.63	60.94	29.31	QP
4	0.276	9.94	9.61	19.55	50.94	31.39	Average
5	0.873	22.79	9.62	32.41	56.00	23.59	QP
6	0.873	13.80	9.62	23.42	46.00	22.58	Average
7	1.726	22.05	9.63	31.68	56.00	24.32	QP
8	1.726	11.85	9.63	21.48	46.00	24.52	Average
9	2.939	24.60	9.65	34.25	56.00	21.75	QP
10	2.939	13.46	9.65	23.10	46.00	22.90	Average
11	14.850	31.28	9.69	40.97	60.00	19.03	QP
12	14.850	15.69	9.69	25.37	50.00	24.63	Average

Neutral



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.204	27.38	9.61	36.99	63.43	26.44	QP
2	0.204	14.83	9.61	24.44	53.43	28.99	Average
3	0.494	25.84	9.61	35.45	56.10	20.65	QP
4	0.494	13.45	9.61	23.06	46.10	23.04	Average
5	1.567	25.90	9.63	35.53	56.00	20.47	QP
6	1.567	16.00	9.63	25.63	46.00	20.37	Average
7	2.566	27.08	9.64	36.72	56.00	19.28	QP
8	2.566	16.86	9.64	26.50	46.00	19.50	Average
9	3.020	26.47	9.65	36.12	56.00	19.88	QP
10	3.020	16.06	9.65	25.71	46.00	20.29	Average
11	14.199	30.25	9.68	39.94	60.00	20.06	QP
12	14.199	17.34	9.68	27.03	50.00	22.97	Average

4.2 Radiation Spurious Emissions

Serial Number:	CR21120036-RF-S1	Test Date:	2022-02-09~2022-03-16
Test Site:	966-1/966-2	Test Mode:	Transmitting
Tester:	Carl Liang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	16.3~18.9	Relative Humidity: (%)	64~69	ATM Pressure: (kPa)	100.9~102.3

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020-10-19	2023-10-18
R&S	EMI Test Receiver	ESR3	102724	2021-07-22	2022-07-21
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2021-07-18	2022-07-17
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2021-07-18	2022-07-17
Sonoma	Amplifier	310N	186165	2021-07-18	2022-07-17
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020-10-13	2023-10-12
R&S	Spectrum Analyzer	FSV40	101591	2021-07-22	2022-07-21
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2021-08-08	2022-08-07
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2021-08-08	2022-08-07
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2021-11-10	2022-11-09
Audix	Test Software	E3	201021 (V9)	N/A	N/A
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2021-02-05	2024-02-04
AH	Preamplifier	PAM-1840VH	190	2021-11-19	2022-11-18
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2021-08-08	2022-08-07
E-Microwave	Band Rejection Filter	2400-2483.5MHz	OE01902424	2021-08-08	2022-08-07

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

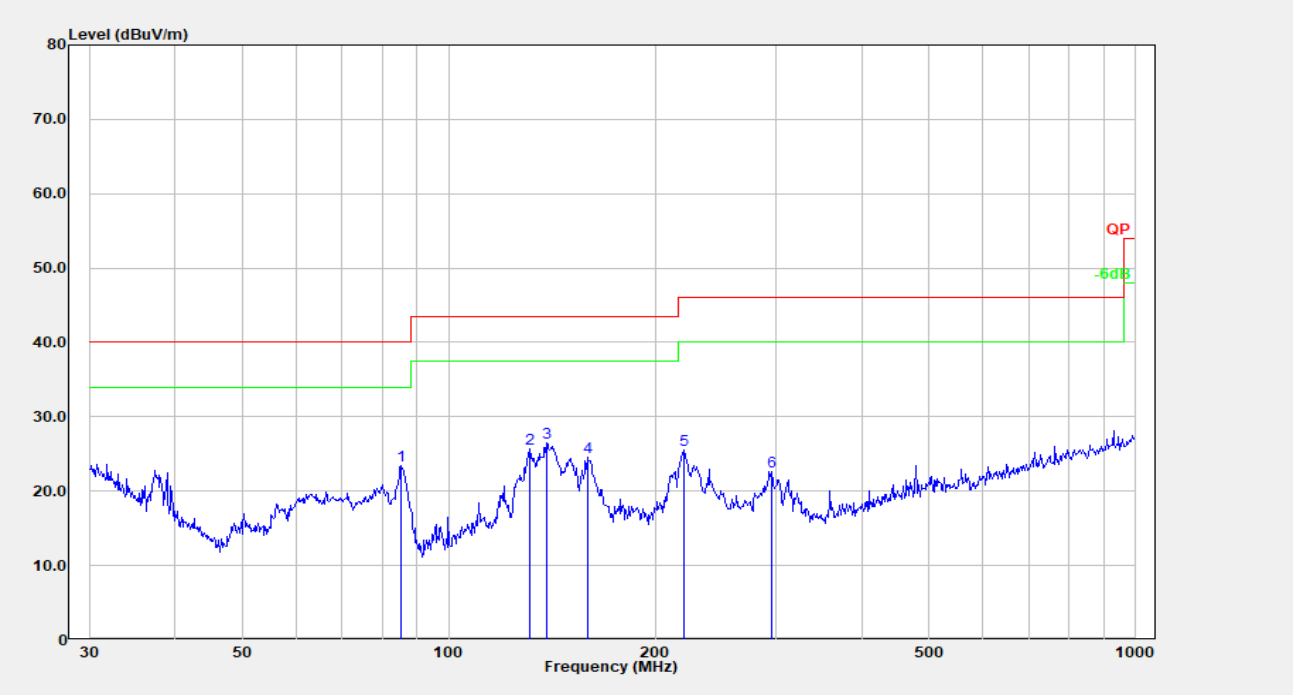
Please refer to the below table and plots.

Note: The device can be mounted in multiple orientations, test was performed with X, Y, Z Axis, the worst orientation was photographed and it`s data was recorded.

1) 30MHz-1GHz(Low channel was the worst)

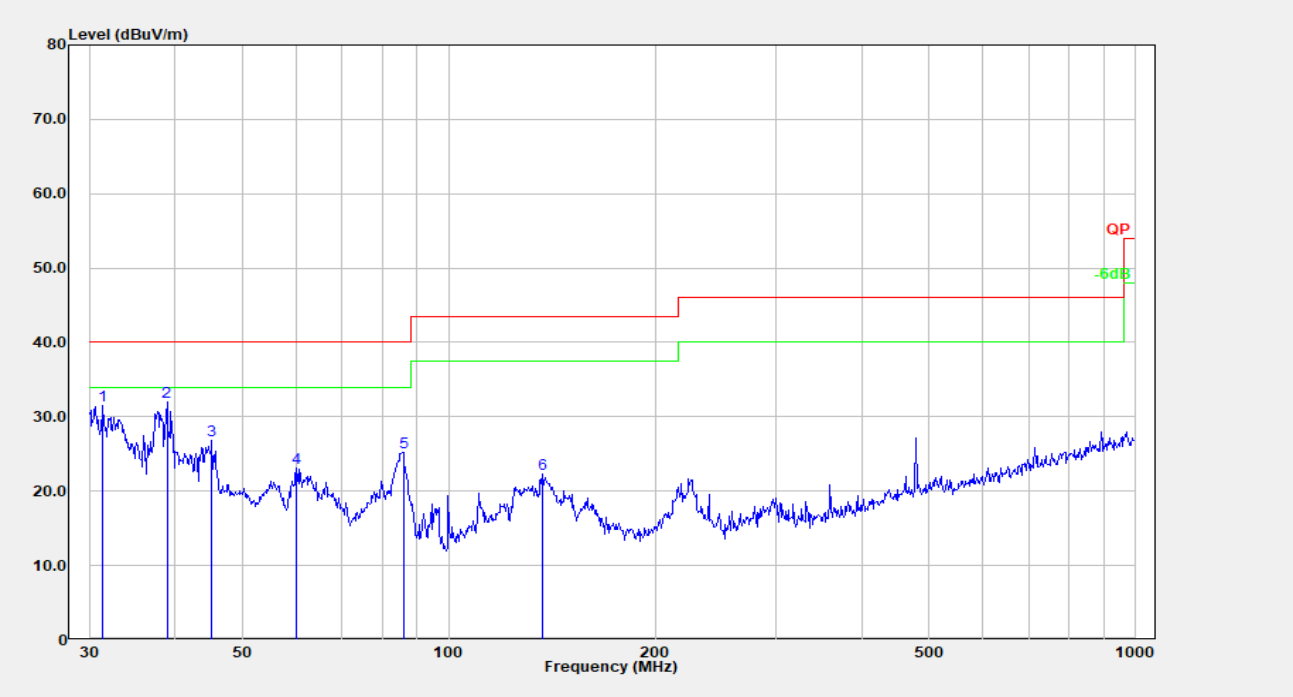
Adapter 1# with code scanner 1#:

Horizontal:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	85.298	40.84	-17.42	23.42	40.00	16.58	Peak
2	131.297	37.35	-11.61	25.75	43.50	17.75	Peak
3	138.874	38.52	-12.07	26.46	43.50	17.04	Peak
4	159.225	36.81	-12.29	24.52	43.50	18.98	Peak
5	219.845	38.52	-12.96	25.57	46.00	20.43	Peak
6	295.147	33.61	-10.94	22.68	46.00	23.32	Peak

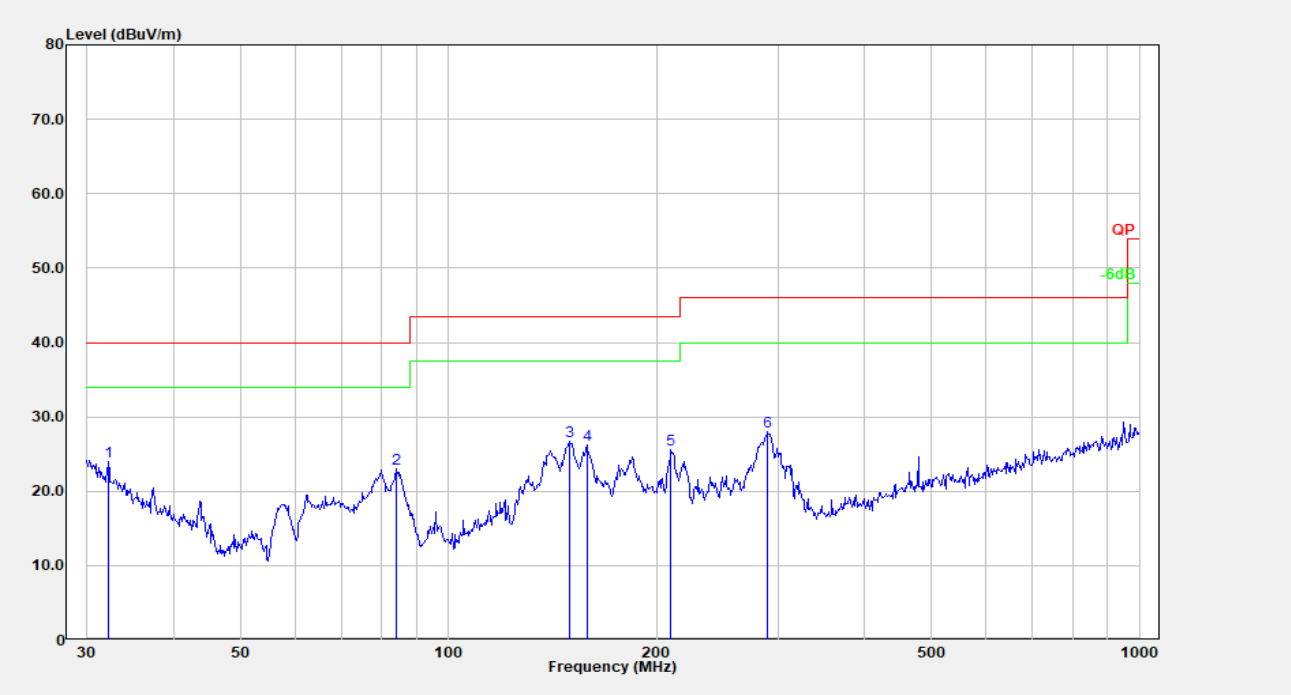
Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.399	36.45	-4.86	31.59	40.00	8.41	Peak
2	38.888	42.64	-10.63	32.01	40.00	7.99	Peak
3	45.217	41.44	-14.58	26.86	40.00	13.14	Peak
4	60.069	40.80	-17.64	23.16	40.00	16.84	Peak
5	85.898	42.63	-17.39	25.24	40.00	14.76	Peak
6	136.939	34.26	-11.95	22.31	43.50	21.19	Peak

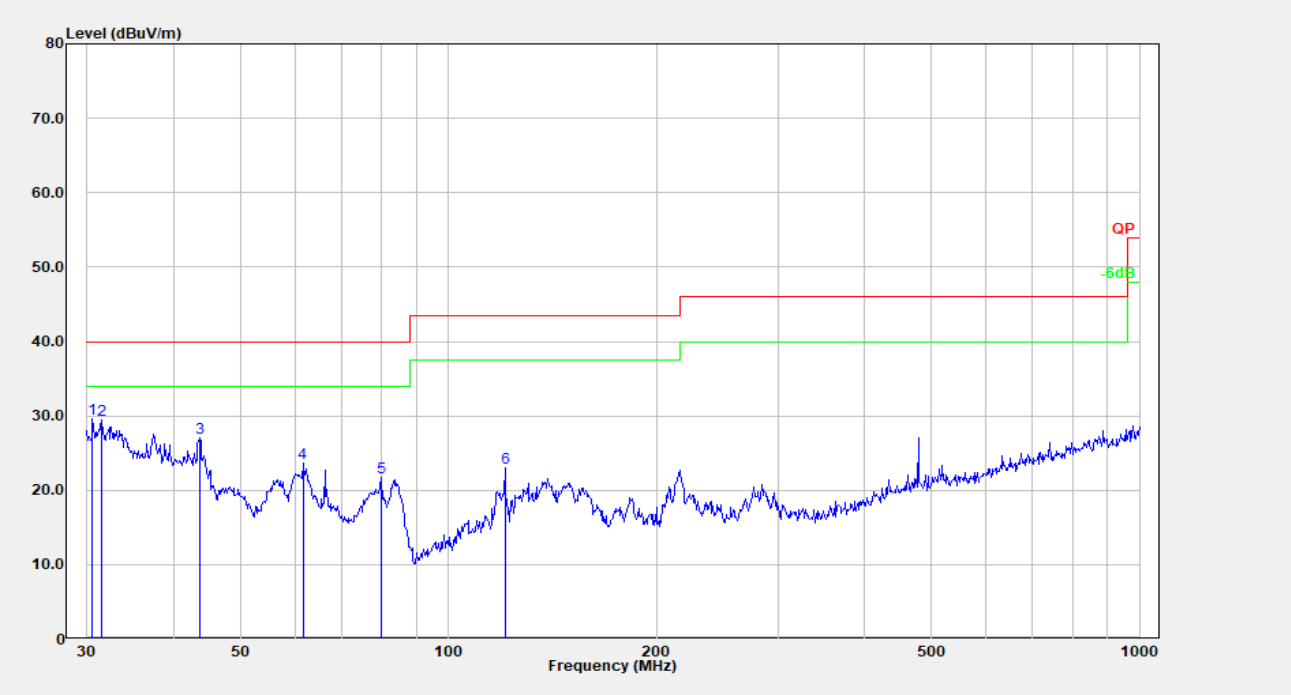
Adapter 1# with code scanner 2#:

Horizontal:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	32.179	29.45	-5.46	23.98	40.00	16.02	Peak
2	84.110	40.45	-17.48	22.97	40.00	17.03	Peak
3	149.486	38.96	-12.26	26.70	43.50	16.80	Peak
4	158.668	38.62	-12.30	26.31	43.50	17.19	Peak
5	210.048	38.24	-12.60	25.64	43.50	17.86	Peak
6	290.017	39.28	-11.21	28.07	46.00	17.93	Peak

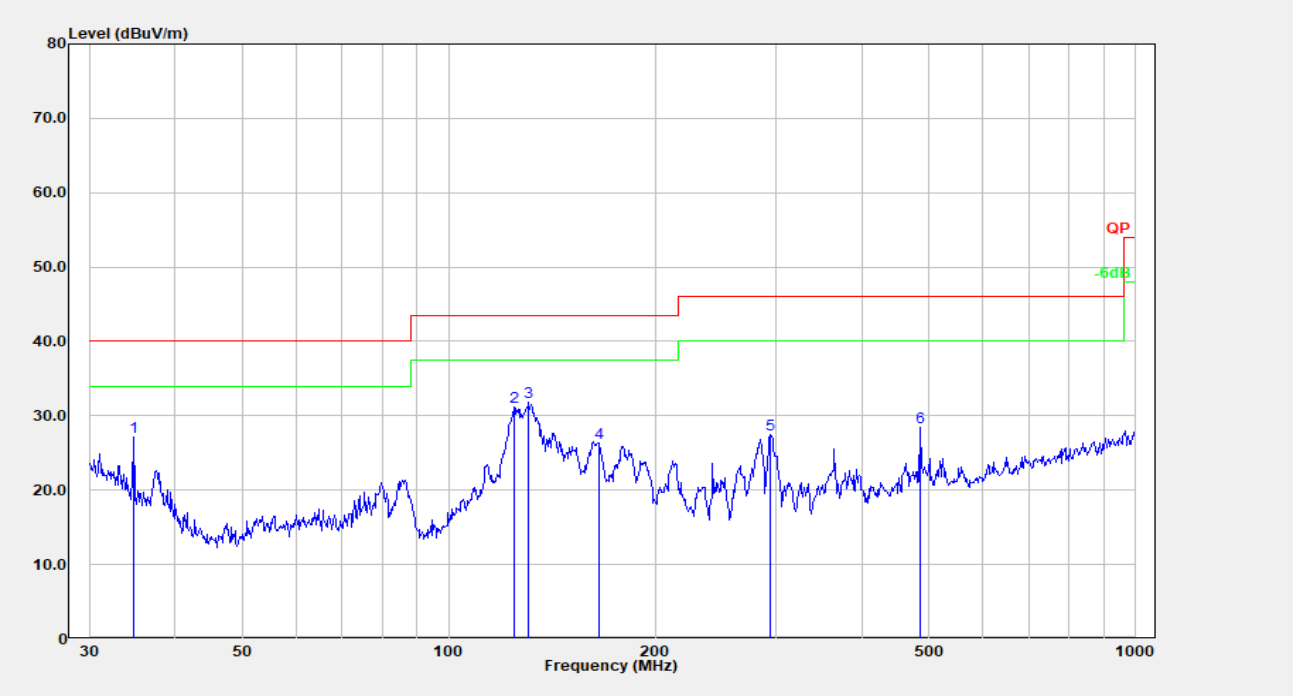
Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.531	33.81	-4.20	29.61	40.00	10.39	Peak
2	31.510	34.46	-4.95	29.51	40.00	10.49	Peak
3	43.659	40.76	-13.70	27.06	40.00	12.94	Peak
4	61.562	41.16	-17.53	23.63	40.00	16.37	Peak
5	79.800	39.48	-17.69	21.79	40.00	18.21	Peak
6	120.699	34.73	-11.73	23.00	43.50	20.50	Peak

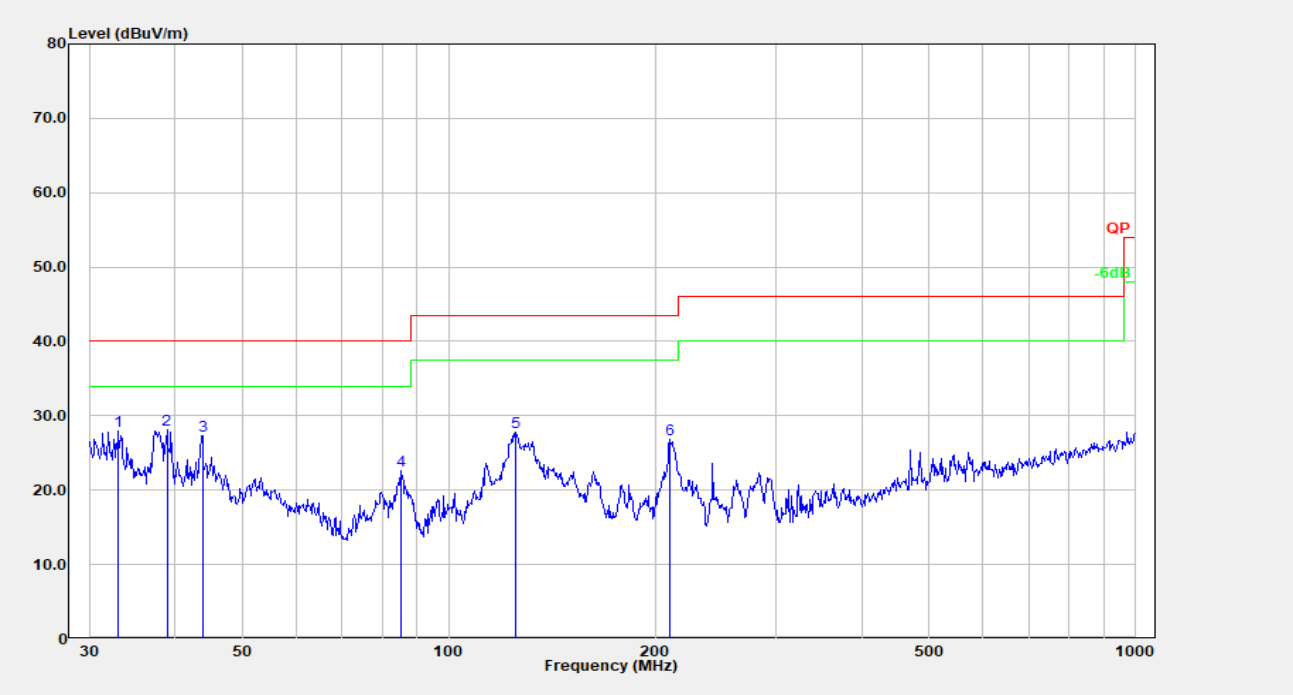
Adapter 2# with code scanner 1#:

Horizontal:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	34.760	34.61	-7.48	27.14	40.00	12.86	Peak
2	124.569	42.73	-11.58	31.15	43.50	12.35	Peak
3	130.837	43.39	-11.58	31.81	43.50	11.69	Peak
4	165.487	39.13	-12.78	26.34	43.50	17.16	Peak
5	294.114	38.49	-10.99	27.50	46.00	18.50	Peak
6	485.609	35.07	-6.55	28.52	46.00	17.48	Peak

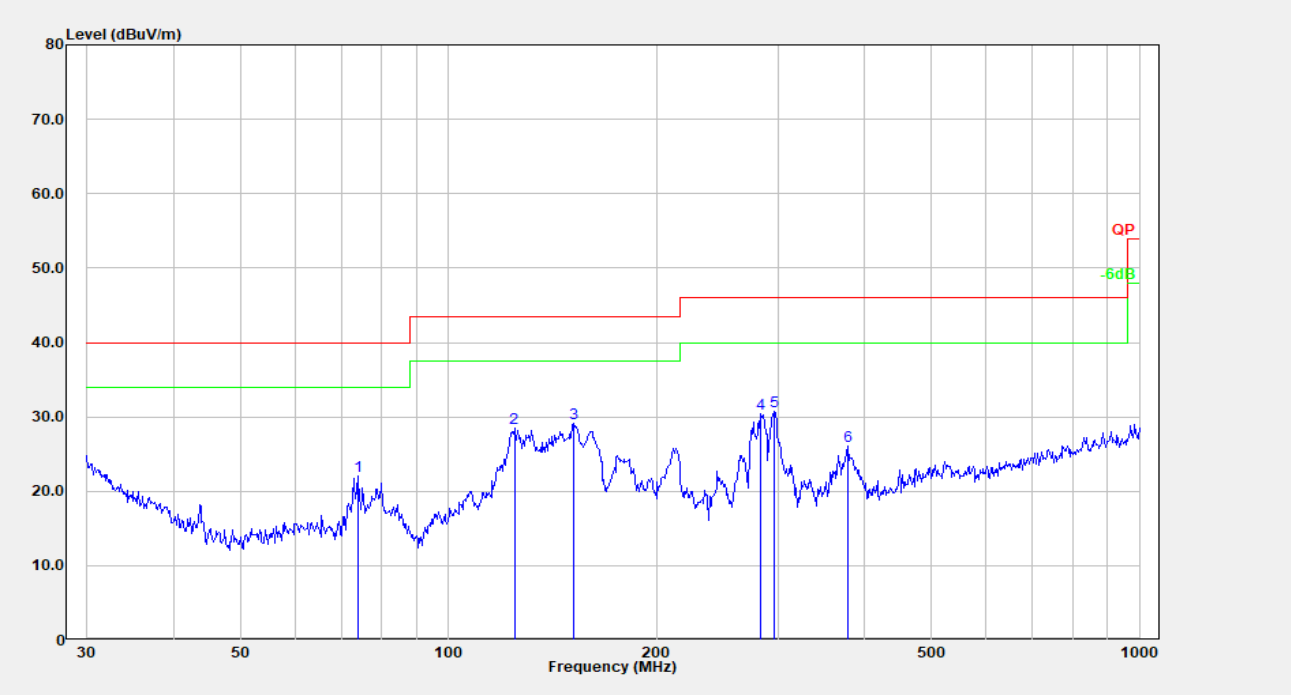
Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	33.095	34.11	-6.19	27.92	40.00	12.08	Peak
2	38.888	38.73	-10.63	28.10	40.00	11.90	Peak
3	43.812	41.17	-13.80	27.37	40.00	12.63	Peak
4	85.298	40.12	-17.42	22.70	40.00	17.30	Peak
5	125.007	39.35	-11.54	27.81	43.50	15.69	Peak
6	210.048	39.41	-12.60	26.81	43.50	16.69	Peak

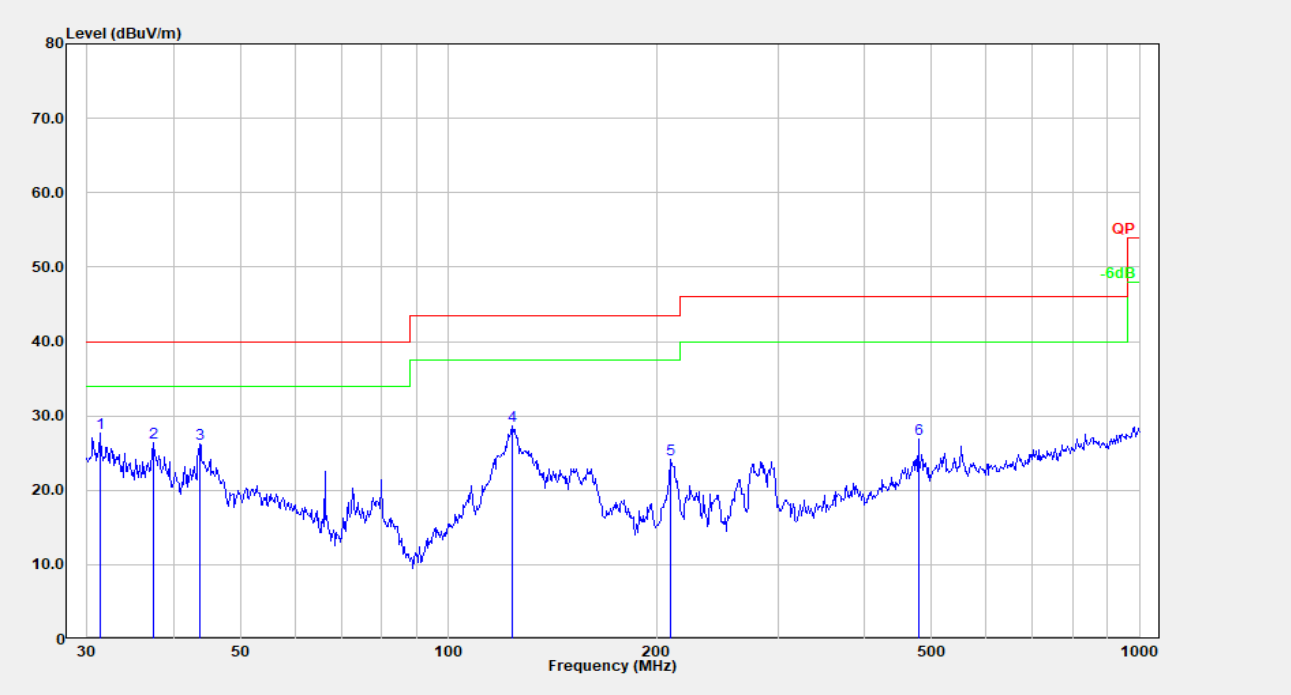
Adapter 2# with code scanner 2#:

Horizontal:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	73.876	39.15	-17.13	22.02	40.00	17.98	Peak
2	124.569	40.07	-11.58	28.49	43.50	15.01	Peak
3	152.130	41.49	-12.28	29.21	43.50	14.29	Peak
4	282.985	42.06	-11.66	30.39	46.00	15.61	Peak
5	296.184	41.68	-10.91	30.77	46.00	15.23	Peak
6	378.584	35.48	-9.38	26.10	46.00	19.90	Peak

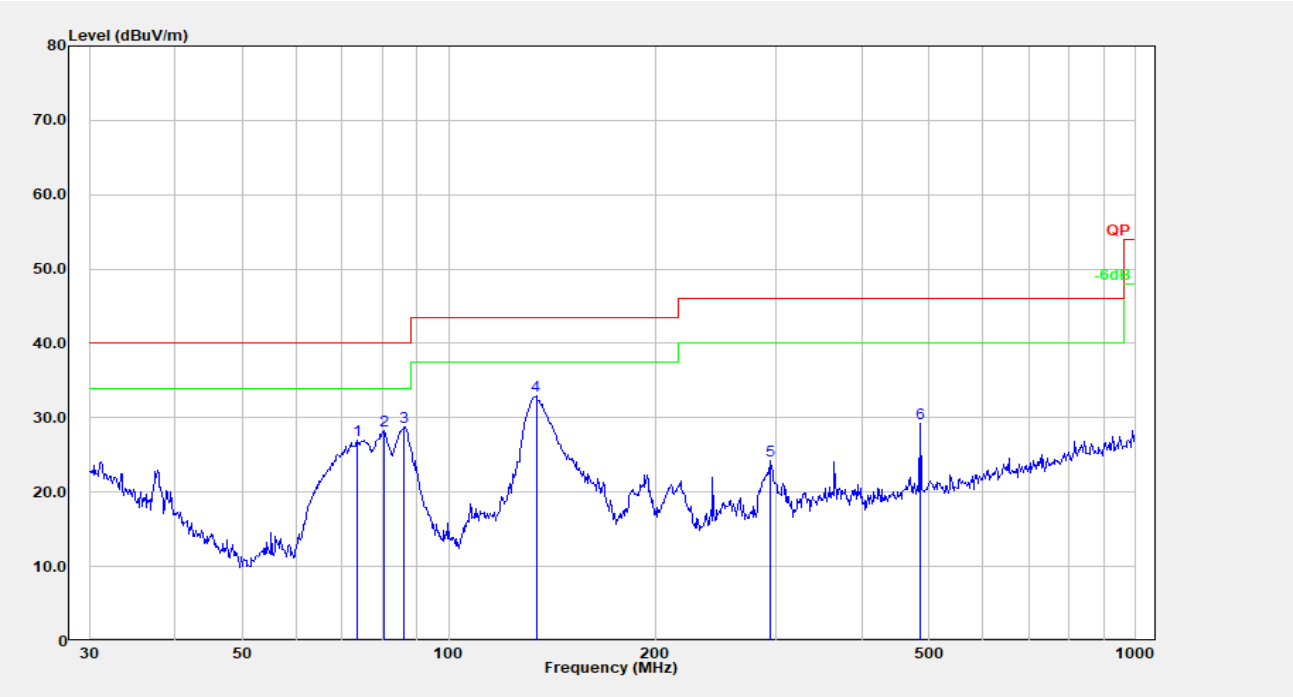
Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.289	32.48	-4.78	27.70	40.00	12.30	Peak
2	37.416	35.92	-9.49	26.43	40.00	13.57	Peak
3	43.659	39.89	-13.70	26.18	40.00	13.82	Peak
4	123.699	40.22	-11.63	28.59	43.50	14.91	Peak
5	210.048	36.77	-12.60	24.16	43.50	19.34	Peak
6	478.846	33.40	-6.49	26.91	46.00	19.09	Peak

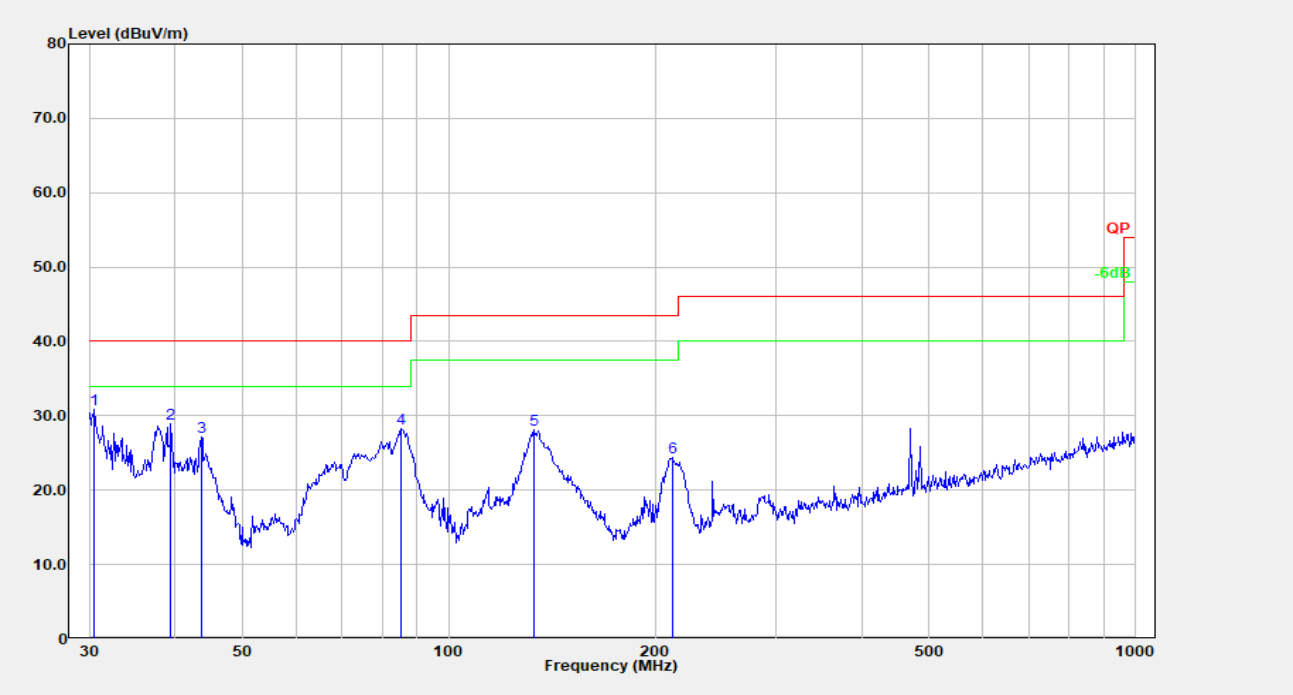
Adapter 3# with code scanner 1#::

Horizontal:



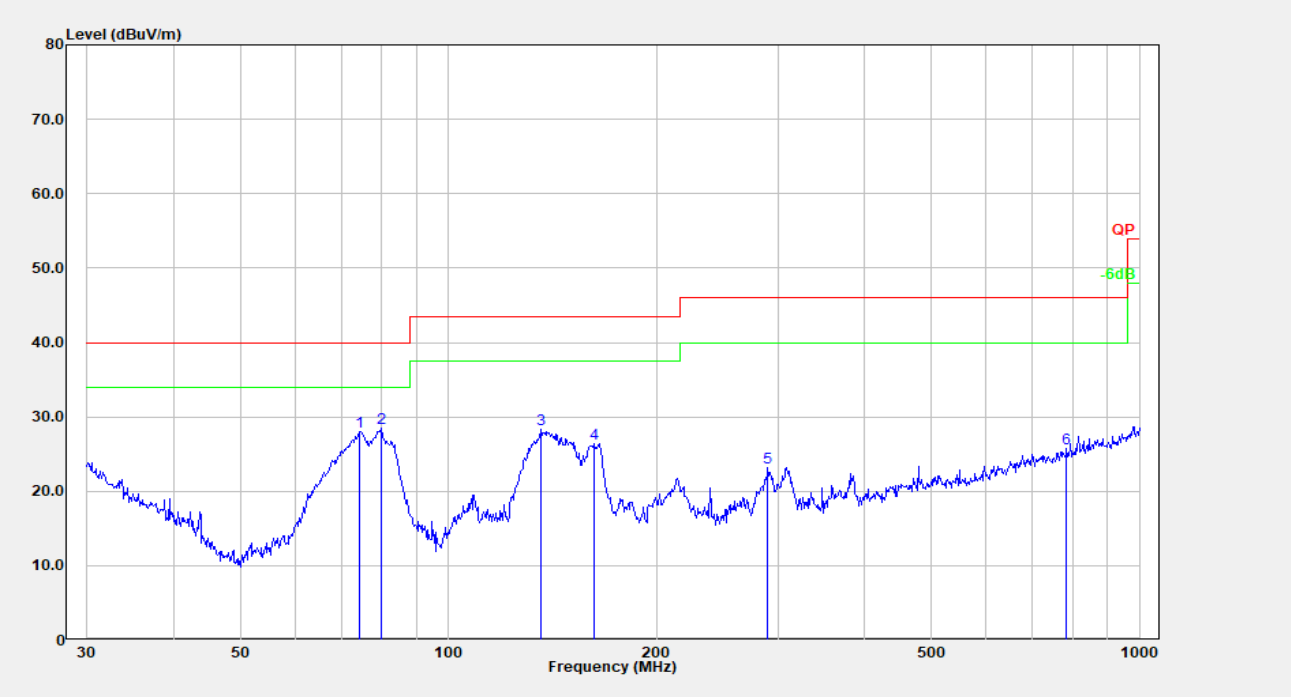
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	73.617	44.04	-17.08	26.96	40.00	13.04	Peak
2	80.644	45.95	-17.66	28.29	40.00	11.71	Peak
3	86.200	46.19	-17.38	28.81	40.00	11.19	Peak
4	134.088	44.72	-11.80	32.92	43.50	10.58	Peak
5	294.114	35.26	-10.99	24.27	46.00	21.73	Peak
6	485.609	35.84	-6.55	29.29	46.00	16.71	Peak

Vertical:



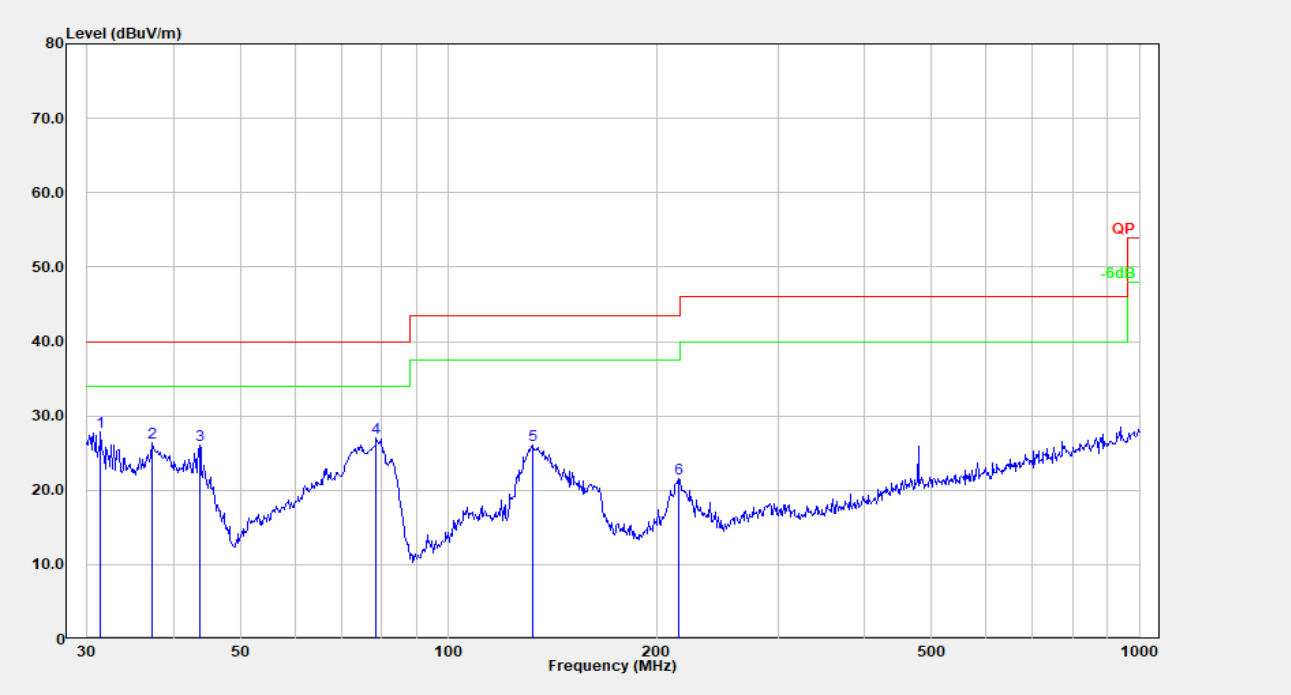
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.531	35.10	-4.20	30.90	40.00	9.10	Peak
2	39.437	39.94	-11.07	28.87	40.00	11.13	Peak
3	43.659	40.85	-13.70	27.15	40.00	12.85	Peak
4	85.298	45.62	-17.42	28.21	40.00	11.79	Peak
5	133.151	39.83	-11.77	28.05	43.50	15.45	Peak
6	211.527	37.09	-12.66	24.43	43.50	19.07	Peak

Adapter 3# with code scanner 2#:
Horizontal:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	74.396	45.17	-17.16	28.01	40.00	11.99	Peak
2	80.081	46.14	-17.70	28.44	40.00	11.56	Peak
3	135.982	40.17	-11.90	28.27	43.50	15.23	Peak
4	162.611	38.94	-12.54	26.40	43.50	17.10	Peak
5	290.017	34.32	-11.21	23.11	46.00	22.89	Peak
6	785.093	28.37	-2.54	25.83	46.00	20.17	Peak

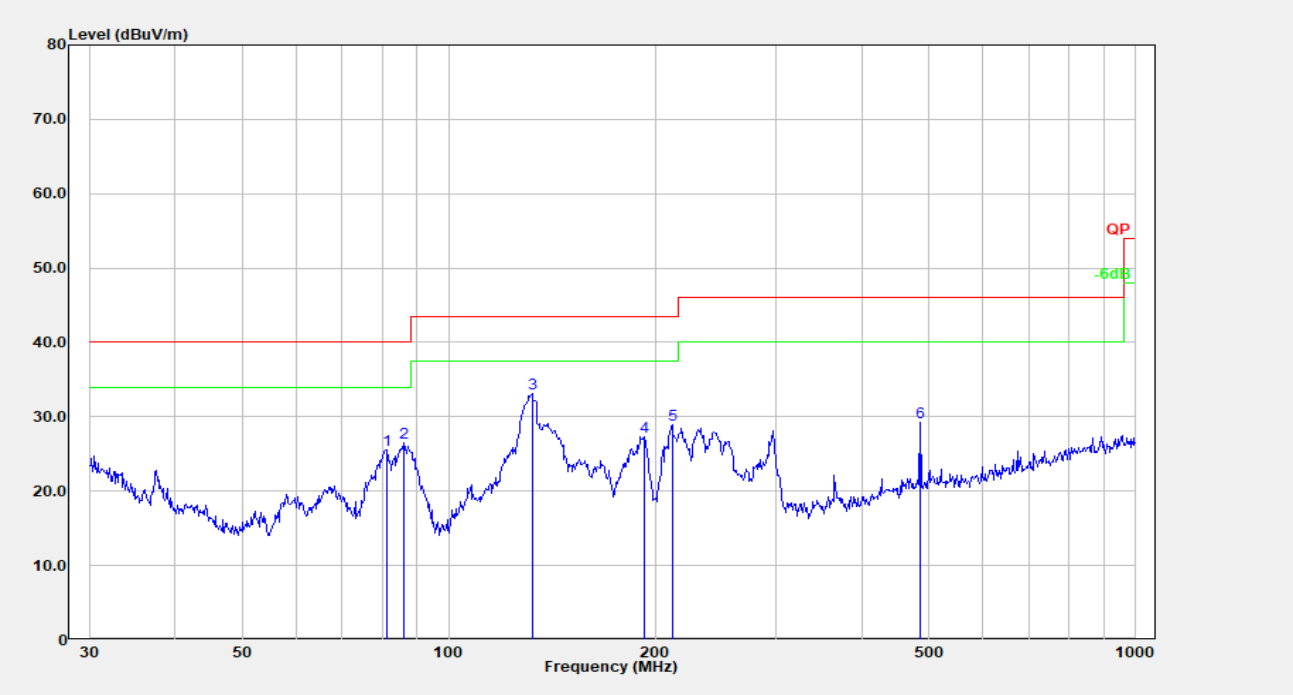
Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.399	32.70	-4.86	27.84	40.00	12.16	Peak
2	37.285	35.77	-9.40	26.37	40.00	13.63	Peak
3	43.659	39.83	-13.70	26.13	40.00	13.87	Peak
4	78.689	44.66	-17.57	27.08	40.00	12.92	Peak
5	132.685	37.87	-11.73	26.13	43.50	17.37	Peak
6	215.268	34.33	-12.81	21.52	43.50	21.98	Peak

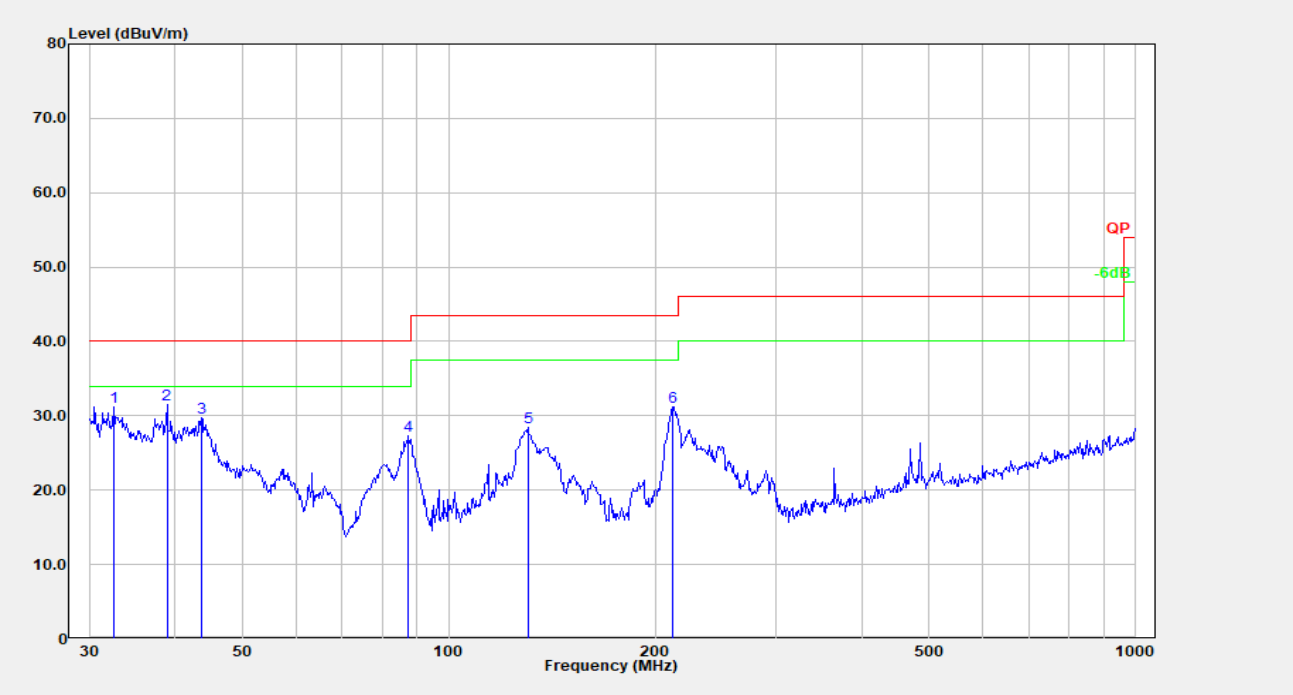
Adapter 4# with code scanner 1#::

Horizontal:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	81.212	43.13	-17.63	25.51	40.00	14.49	Peak
2	86.200	43.89	-17.38	26.51	40.00	13.49	Peak
3	132.221	44.82	-11.68	33.15	43.50	10.35	Peak
4	193.095	40.56	-13.20	27.36	43.50	16.14	Peak
5	211.527	41.64	-12.66	28.98	43.50	14.52	Peak
6	485.609	35.76	-6.55	29.21	46.00	16.79	Peak

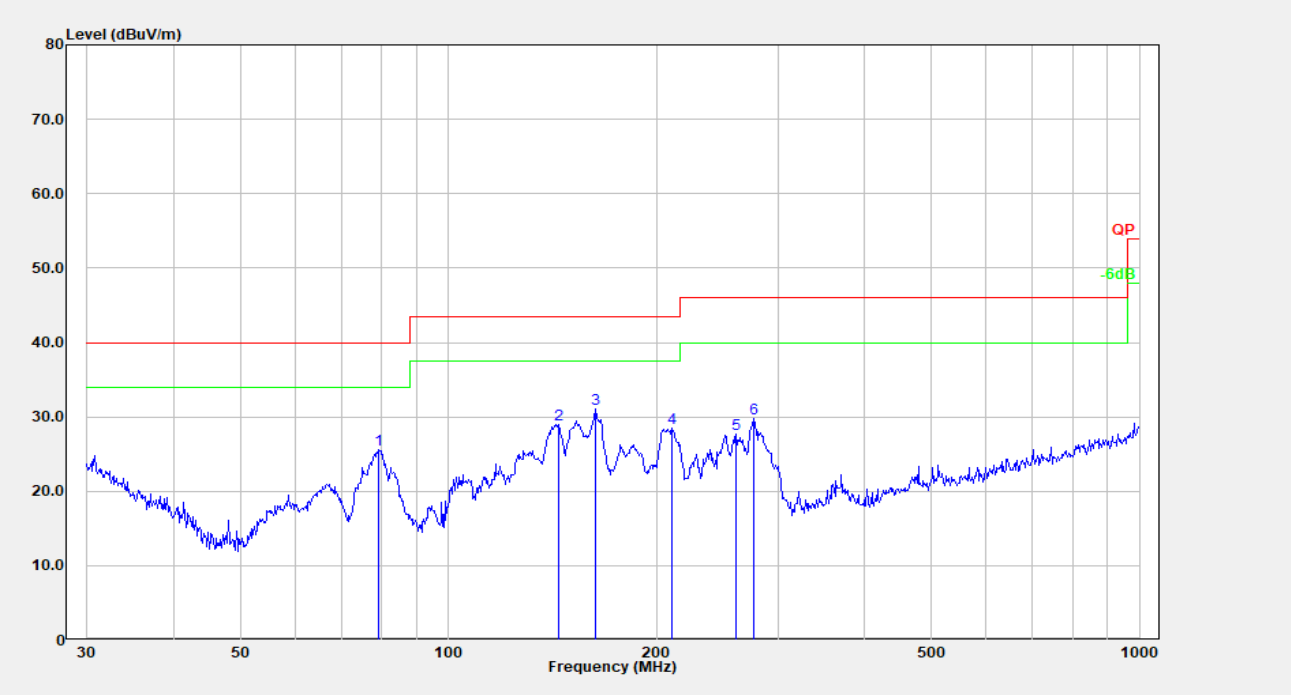
Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	32.520	36.85	-5.74	31.12	40.00	8.88	Peak
2	38.888	42.12	-10.63	31.49	40.00	8.51	Peak
3	43.659	43.38	-13.70	29.68	40.00	10.32	Peak
4	87.418	44.63	-17.31	27.31	40.00	12.69	Peak
5	130.379	40.00	-11.57	28.43	43.50	15.07	Peak
6	212.270	43.90	-12.69	31.21	43.50	12.29	Peak

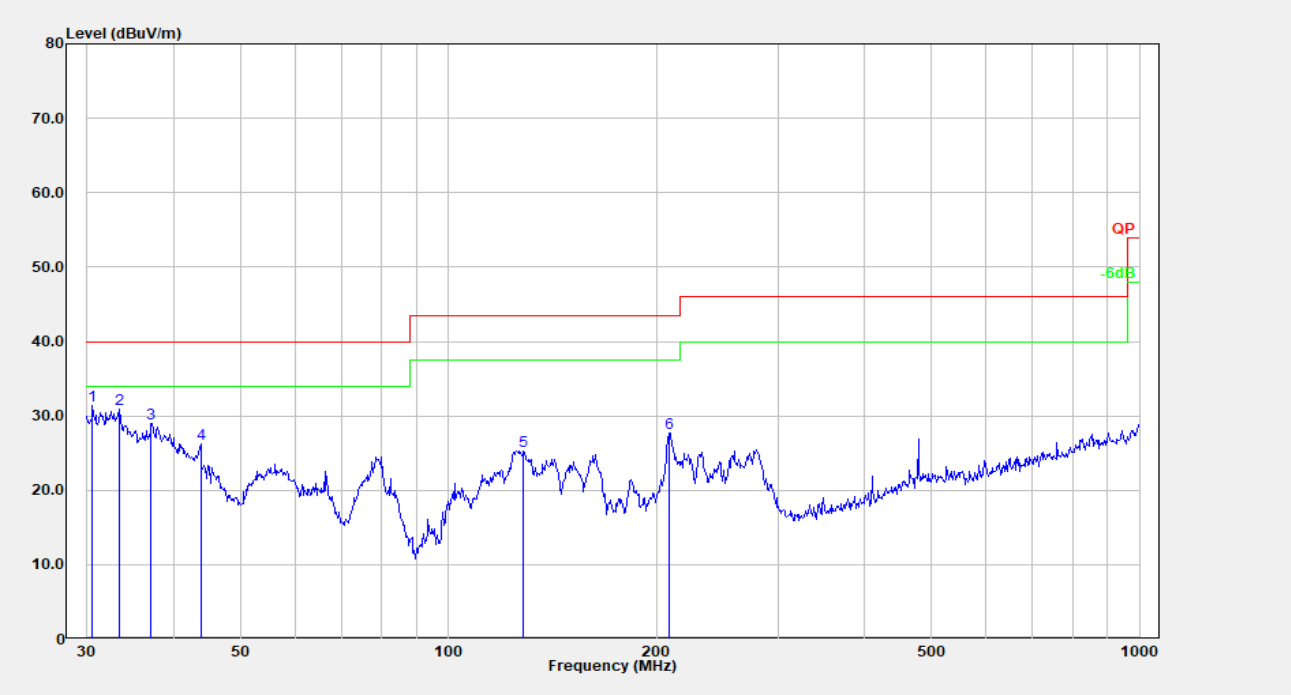
Adapter 4# with code scanner 2#:

Horizontal:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	79.243	43.19	-17.63	25.56	40.00	14.44	Peak
2	144.335	41.20	-12.20	29.00	43.50	14.50	Peak
3	163.182	43.59	-12.59	30.99	43.50	12.51	Peak
4	210.786	41.12	-12.63	28.49	43.50	15.01	Peak
5	261.058	40.33	-12.59	27.74	46.00	18.26	Peak
6	277.094	41.73	-11.99	29.74	46.00	16.26	Peak

Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.531	35.55	-4.20	31.35	40.00	8.65	Peak
2	33.328	37.33	-6.36	30.96	40.00	9.04	Peak
3	37.155	38.30	-9.30	29.00	40.00	11.00	Peak
4	43.812	40.04	-13.80	26.25	40.00	13.75	Peak
5	128.563	36.85	-11.53	25.31	43.50	18.19	Peak
6	208.580	40.28	-12.58	27.70	43.50	15.80	Peak

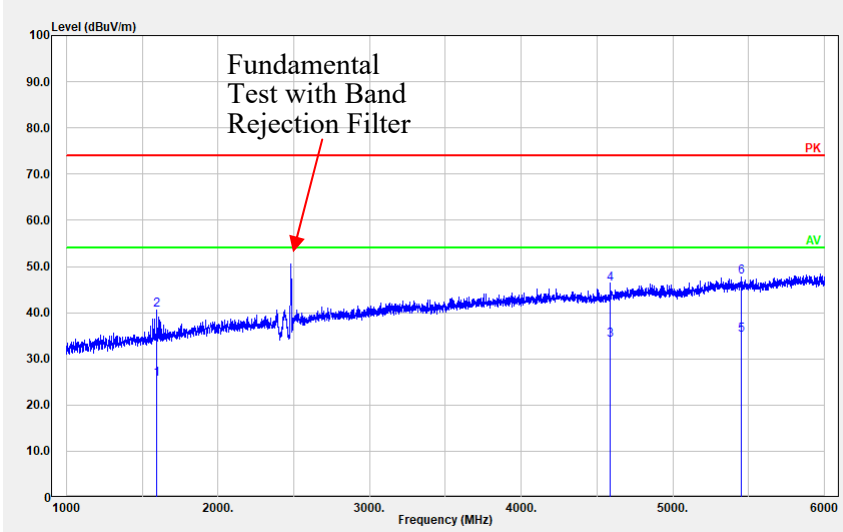
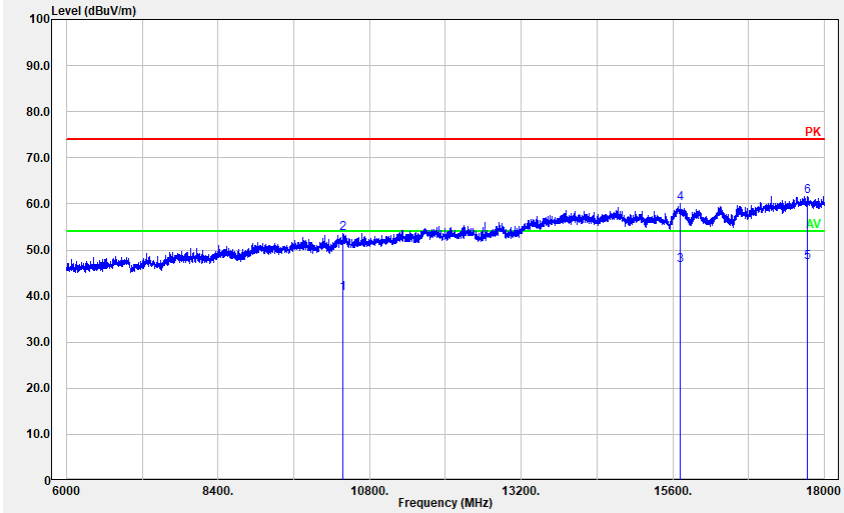
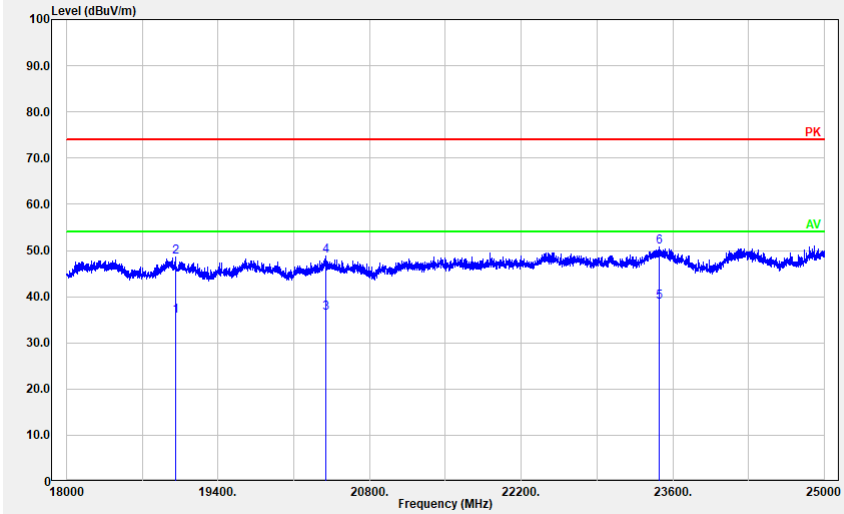
2) Spot check with 1-25GHz:

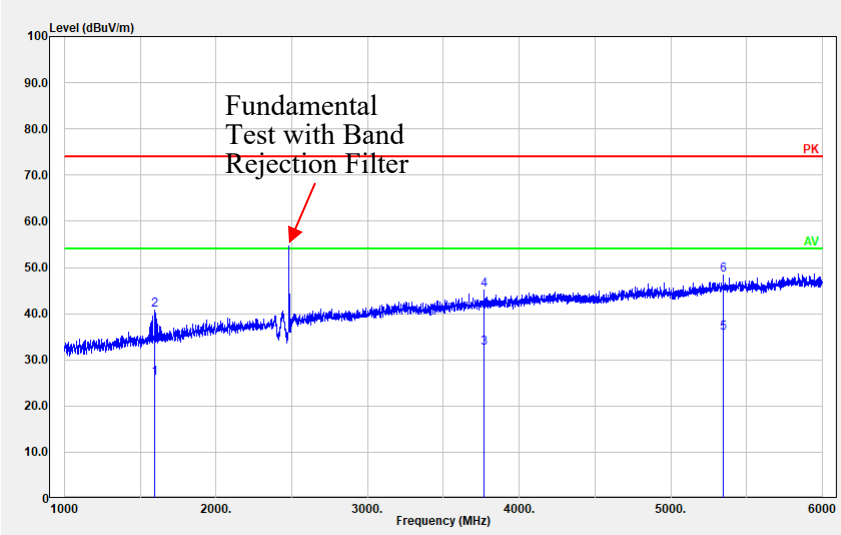
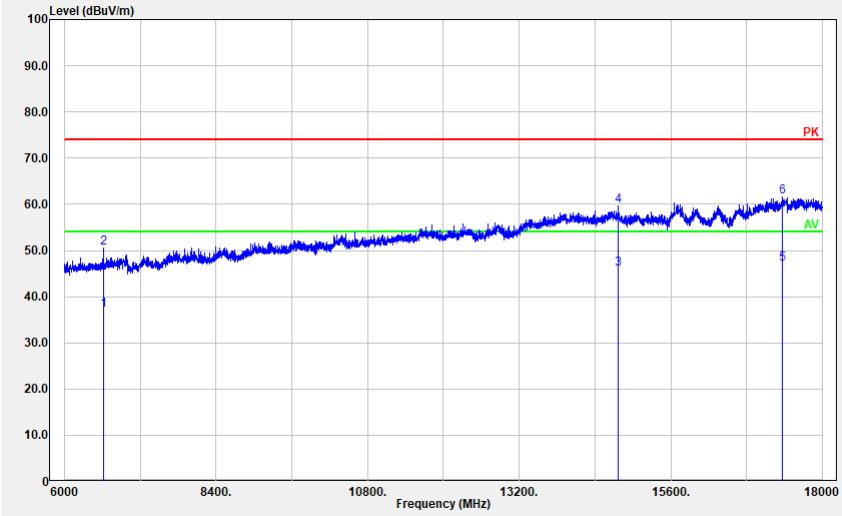
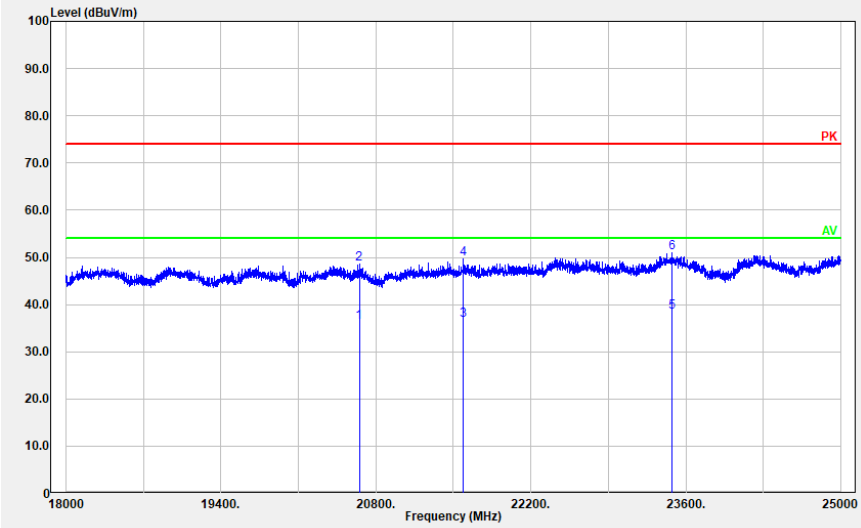
Adapter 1# with code scanner 1#:

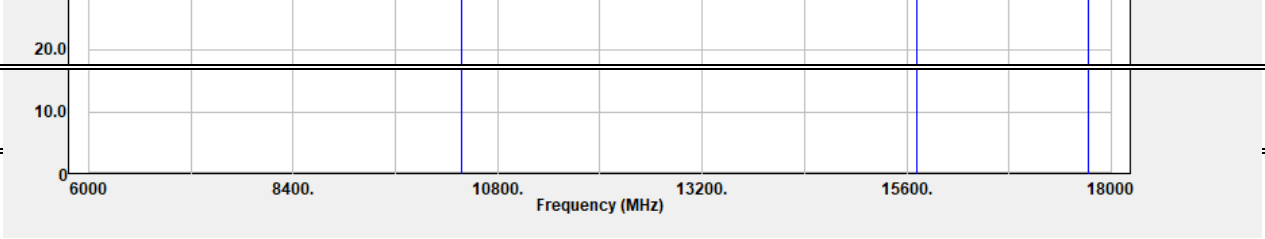
8DPSK Mode was worst mode of original report

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2402 MHz							
2402.00	60.53	PK	H	31.51	92.04	N/A	N/A
2402.00	49.07	AV	H	31.51	80.58	N/A	N/A
2402.00	68.60	PK	V	31.51	100.11	N/A	N/A
2402.00	57.35	AV	V	31.51	88.86	N/A	N/A
2390.00	27.13	PK	V	31.46	58.59	74.00	15.41
2390.00	14.03	AV	V	31.46	45.49	54.00	8.51
4804.00	34.13	PK	V	10.91	45.04	74.00	28.96
4804.00	21.34	AV	V	10.91	32.25	54.00	21.75
7206.00	34.75	PK	V	14.22	48.97	74.00	25.03
7206.00	22.80	AV	V	14.22	37.02	54.00	16.98
Middle Channel: 2441 MHz							
2441.00	59.84	PK	H	31.61	91.45	N/A	N/A
2441.00	48.58	AV	H	31.61	80.19	N/A	N/A
2441.00	67.89	PK	V	31.61	99.50	N/A	N/A
2441.00	56.71	AV	V	31.61	88.32	N/A	N/A
4882.00	33.78	PK	V	11.07	44.85	74.00	29.15
4882.00	21.46	AV	V	11.07	32.53	54.00	21.47
7323.00	34.66	PK	V	14.80	49.46	74.00	24.54
7323.00	22.74	AV	V	14.80	37.54	54.00	16.46
High Channel: 2480MHz							
2480.00	60.15	PK	H	31.64	91.79	N/A	N/A
2480.00	49.33	AV	H	31.64	80.97	N/A	N/A
2480.00	68.10	PK	V	31.64	99.74	N/A	N/A
2480.00	56.75	AV	V	31.64	88.39	N/A	N/A
2483.50	26.94	PK	V	31.64	58.58	74.00	15.42
2483.50	14.14	AV	V	31.64	45.78	54.00	8.22
4960.00	34.45	PK	V	11.23	45.68	74.00	28.32
4960.00	22.25	AV	V	11.23	33.48	54.00	20.52
7440.00	35.42	PK	V	15.26	50.68	74.00	23.32
7440.00	23.16	AV	V	15.26	38.42	54.00	15.58

Worst Test plots(8DPSK high channel was the worst)

Horizontal	
1-6GHz	
6-18GHz	
18-25GHz	

Vertical	
1-6GHz	
6-18GHz	
18-25GHz	



4.3 Maximum Peak Conducted Output Power

Serial Number:	CR21120036-RF-S1	Test Date:	2022-01-17
Test Site:	RF	Test Mode:	Transmitting
Tester:	Carl Liang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	18.4	Relative Humidity: (%)	53	ATM Pressure: (kPa)	101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	USB Wideband Power Sensor	U2021XA	MY54080015	2021-07-22	2022-07-21
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	2021-08-08	2022-08-07
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	2021-08-08	2022-08-07

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Modes	Test Frequency (MHz)	Peak Conducted Output Power (dBm)	Limits (dBm)
BDR Mode (GFSK)	2402	10.07	21
	2441	10.18	21
	2480	10.53	21
EDR Mode (π/4-DQPSK)	2402	9.62	21
	2441	9.53	21
	2480	10.11	21
EDR Mode (8DPSK)	2402	9.78	21
	2441	9.74	21
	2480	10.28	21
Note: the result is consistent with original test result.			

5. RF EXPOSURE EVALUATION

5.1 Applicable Standard

FCC §15.247 (i)

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See §1.1307(b)(1) of this chapter.

5.2 Measurement Result

Result: Compliance. Please refer to the SAR report: RXZ211221004SA01.

===== END OF REPORT=====