



FCC PART 15B

TEST REPORT

For

Shenzhen Jingwah Information Technology Co., Ltd.

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FCC ID: RBD-VTR1501

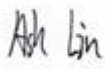
Report Type: Original Report	Product Name: Smart intercom voice terminal
Report Number:	2507Q34182E-EM-01
Report Date:	2025-03-07
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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	2507Q34182E-EM-01	R1V1	2025-03-07	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:		Shenzhen Jingwah Information Technology Co., Ltd.
Product Name:		Smart intercom voice terminal
Tested Model:		VTR1501
Trade mark:		PHILIPS
Power Supply:		DC 7.4V from battery or DC 5V from adapter
Adapter information	Model:	GA-0502000V
	Input:	AC 100-240V, 50/60Hz, 0.6A
	Output:	DC 5.0V, 1A
★Highest Operating Frequency:		480 MHz
EUT Receive Status:		Good
<i>Note:</i>		
<i>1. The highest operating frequency is provided by the applicant.</i>		
<i>2. All measurement and test data in this report was gathered from production sample serial number: 2YLO-4 (Assigned by the BACL (Xiamen). The EUT was received on 2025-02-18).</i>		

Objective

This report is prepared for *Shenzhen Jingwah Information Technology Co., Ltd.* in accordance with Part 2-Subpart J, and Part 15-Subparts A and B of the Federal Communication Commission's rules.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Xiamen) to collect test data is located on Unit 102, No. 902 Meifeng South Road, Binhai West Avenue, Science and Technology Innovation Park, Torch High tech Zone XiaMen.

Bay Area Compliance Laboratories Corp. (Xiamen) Lab is accredited to ISO/IEC 17025 by A2LA (Certificate Number: 7134.01) and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN1384.

Measurement Uncertainty

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

$$u_c(y) = \sqrt{\sum_i c_i^2 u^2(x_i)}$$

Item	Frequency Range	$U_{lab} = 2 u_c(y)$ (Confidence of 95%)
Conducted Emission	150kHz-30MHz	2.33dB
Radiated Emission	30MHz~200MHz	4.38dB
	200MHz~1GHz	4.50dB
	1GHz~6GHz	4.58dB
Humidity		5%
Temperature		1℃

SYSTEM TEST CONFIGURATION

Test Mode and Voltage

The system was configured for testing in a typical mode (as normally used by a typical user).	
Test mode:	Test Mode 1: Charging & Scanning Test Mode 2: Charging & Receiving
Test voltage:	DC 5V from adapter (AC 120V/60Hz)
Remark:	During all emission tests, the EUT was configured to measure its highest possible emission level and the worst case's test data was presented in this test report.

Description of Test Configuration

Operation Modes	Operation Frequency Range (MHz)	Test Frequency (MHz)
Scanning	400-480	400-480
UHF Receiving	400-480	400.0125, 440, 479.9875

EUT Exercise Software

No exercise software was used to test.

Special Accessories

No special accessory was used.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
HP	RF Communications test set	8920A	3524A07202
Unknown	Antenna	Unknown	Unknown

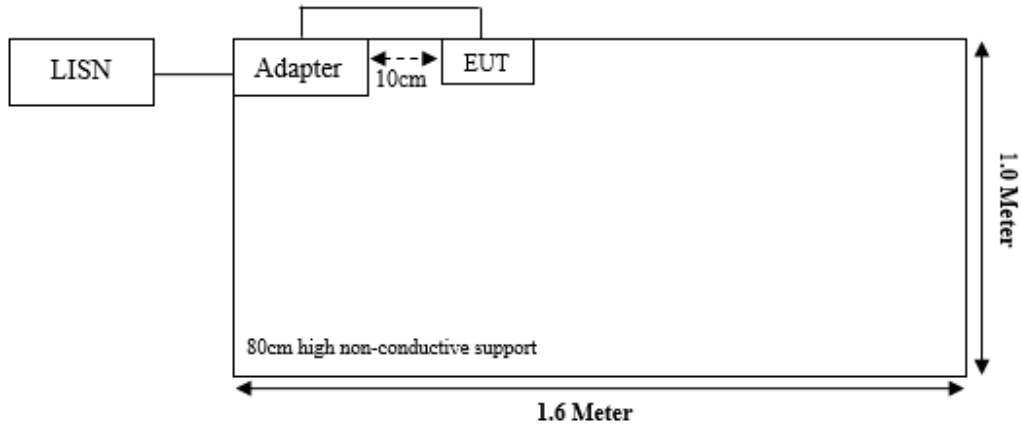
External I/O Cable

Cable Description	Length (m)	From Port	To Port
Antenna Cable	3.0	8920A	Antenna

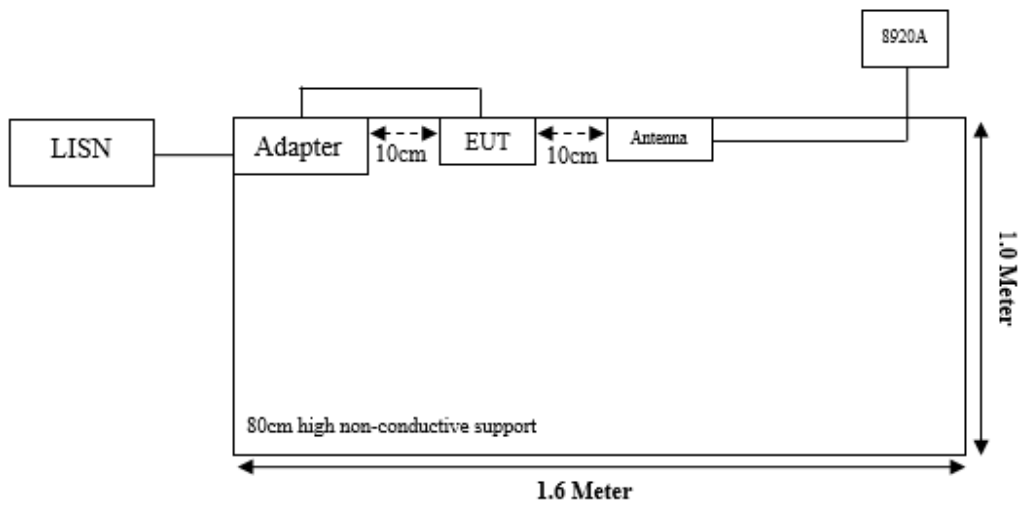
Block Diagram of Test Setup

Conducted Emission:

Test Mode 1:

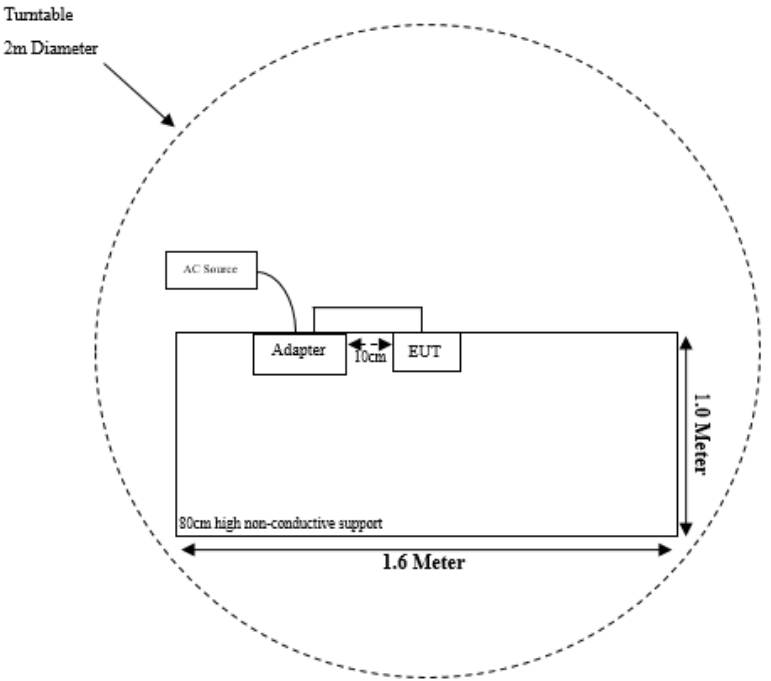


Test Mode 2:

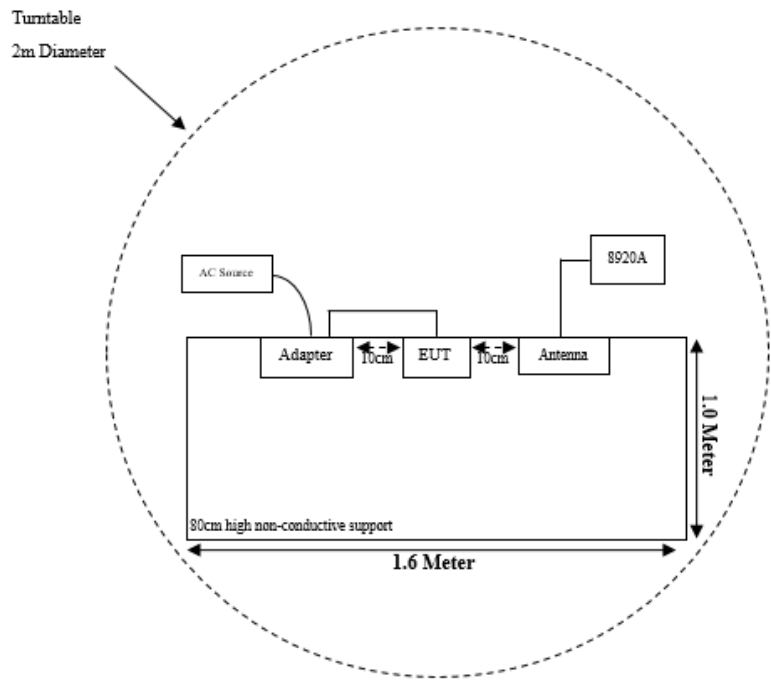


Radiated Emission:

Test Mode 1:



Test Mode 2:



SUMMARY OF TEST RESULTS

Rule Part	Description of Test	Results
FCC§15.107	Conducted Emission	Compliant
FCC§15.109	Radiated Emission	Compliant
FCC §15.121(b)	Scanning receivers and frequency converters used with scanning receivers	Compliant

TEST EQUIPMENT LIST

Test Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission					
EMI Test Receiver	Rohde & Schwarz	ESR	103105	2024/03/29	2025/03/28
LISN	Rohde & Schwarz	ENV216	100129	2024/03/29	2025/03/28
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	0357.8810.54	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH400T-N-4M	CC001	2024/03/29	2025/03/28
Test Software	Audix	E3	18621a	N/A	N/A
Radiated Emission 30 MHz to 1 GHz					
EMI Test Receiver	Rohde & Schwarz	ESR	103103	2024/03/29	2025/03/28
Antenna	Sunol Sciences	JB6	A122022-5	2023/07/27	2026/07/26
Amplifier	Sonoma	310B	120903	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH400T-N-4M	CC002	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH460B-N-2M	CC006	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH460B-N-12M	CC007	2024/03/29	2025/03/28
Test Software	Audix	E3	18621a	N/A	N/A
Radiated Emission Above 1 GHz					
Spectrum Analyzer	Rohde & Schwarz	FSU	100405	2025/02/20	2026/02/19
Horn Antenna	EMCO	3115	9002-3355	2024/11/19	2027/11/18
Preamplifier	A.H.Systems	PAM-0118P	489	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH800A-N-6M	CC003	2024/03/29	2025/03/28
Coaxial Cable	XINHANGWEIBO	XH800A-N-1M	CC005	2024/03/29	2025/03/28
Test Software	Audix	E3	18621a	N/A	N/A
Scanning Receiver					
Coaxial Cable	N/A	N/A	N/A	Each time	Each time
RF Communications test set	HP	8920A	3524A07202	2024/04/26	2025/04/25
Power Splitter	narda	4426LB-2	1661	N/A	N/A
Microwave Analog Signal Generator	Agilent	N5183A	MY47420335	2024/03/29	2025/03/28
Attenuator	Electronic Corporation	30-WA-FFN-30	1172435	2024/03/29	2025/03/28

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Xiamen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §15.107 - CONDUCTED EMISSION

Applicable Standard

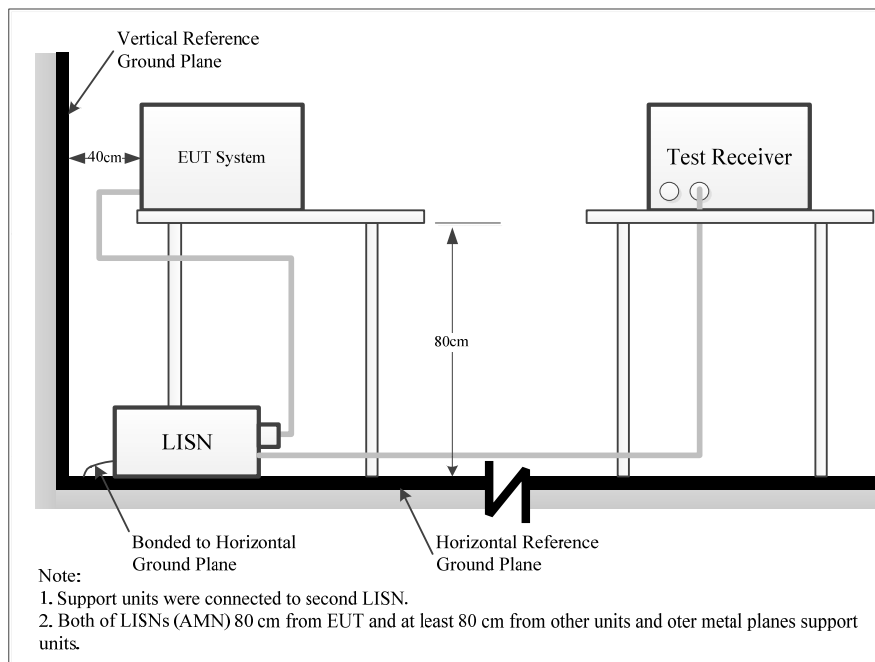
FCC §15.107

(a) Except for Class A digital devices, for equipment 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 μ H/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 band edges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	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.

Test System Setup



The measurement procedure of test setup is according with ANSI C63.4-2014. The related limit was specified in FCC Part 15.107 Class B 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.

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

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.

Result & Margin Calculation

The Result is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

$$\text{Factor (dB)} = \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)}$$

$$\text{Result (dB}\mu\text{V)} = \text{Reading (dB}\mu\text{V)} + \text{Factor (dB)}$$

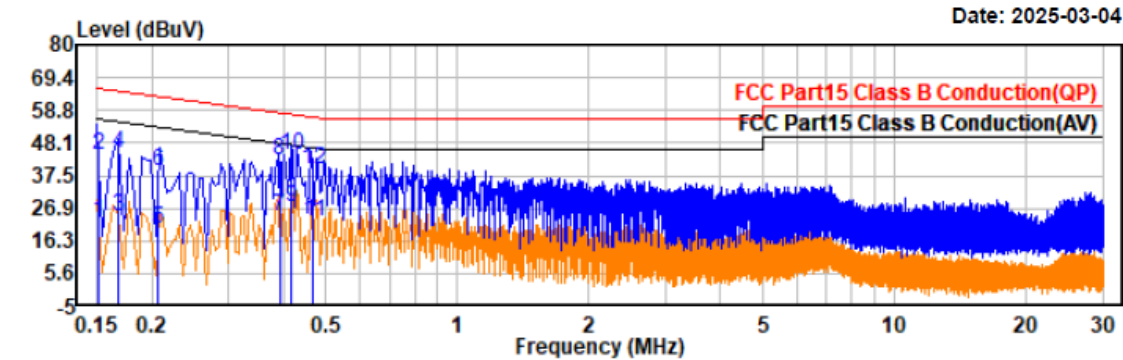
The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V)} - \text{Result (dB}\mu\text{V)}$$

Test Data

Project No.: 2507Q34182E-EM
 Test Mode: Mode 1(400-480MHz)
 EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C/61%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)



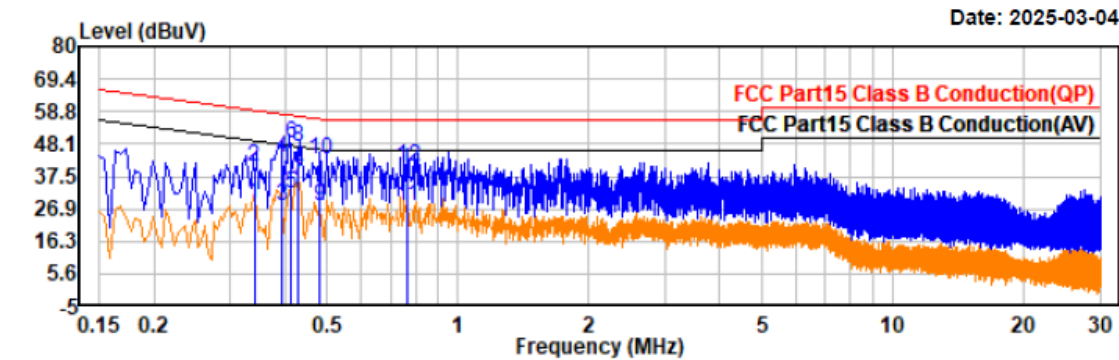
Trace: 1

Condition: QP RBW:9kHz
 AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.15	1.45	20.92	22.37	55.93	33.56	Line	Average
0.15	23.51	20.92	44.43	65.93	21.50	Line	QP
0.17	3.37	20.78	24.15	55.03	30.88	Line	Average
0.17	23.77	20.78	44.55	65.03	20.48	Line	QP
0.21	-0.41	20.56	20.15	53.34	33.19	Line	Average
0.21	18.22	20.56	38.78	63.34	24.56	Line	QP
0.39	3.88	20.36	24.24	48.02	23.78	Line	Average
0.39	22.08	20.36	42.44	58.02	15.58	Line	QP
0.42	7.01	20.34	27.35	47.53	20.18	Line	Average
0.42	24.08	20.34	44.42	57.53	13.11	Line	QP
0.47	2.10	20.31	22.41	46.55	24.14	Line	Average
0.47	19.07	20.31	39.38	56.55	17.17	Line	QP

Project No.: 2507Q34182E-EM
 Test Mode: Mode 1(400-480MHz)
 EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C/61%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)



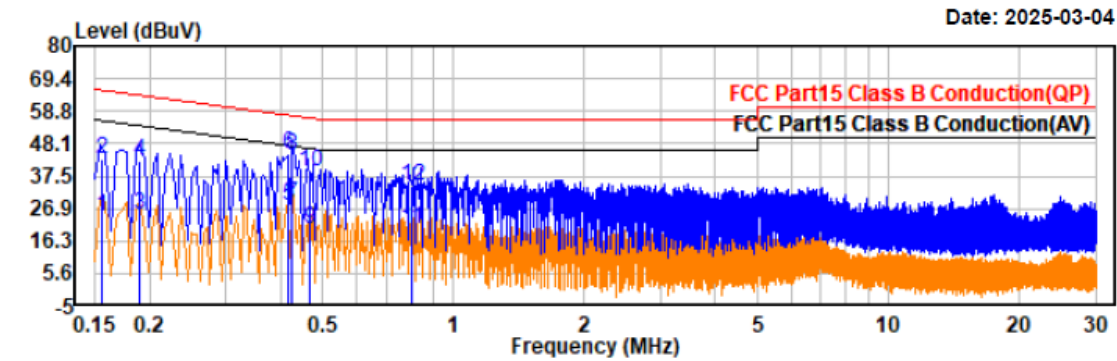
Trace: 1

Condition: QP RBW:9kHz
 AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.34	7.86	20.51	28.37	49.20	20.83	Neutral	Average
0.34	20.46	20.51	40.97	59.20	18.23	Neutral	QP
0.39	7.37	20.46	27.83	47.97	20.14	Neutral	Average
0.39	23.22	20.46	43.68	57.97	14.29	Neutral	QP
0.41	11.57	20.44	32.01	47.55	15.54	Neutral	Average
0.41	27.83	20.44	48.27	57.55	9.28	Neutral	QP
0.43	15.56	20.44	36.00	47.27	11.27	Neutral	Average
0.43	26.62	20.44	47.06	57.27	10.21	Neutral	QP
0.48	7.50	20.40	27.90	46.33	18.43	Neutral	Average
0.48	22.70	20.40	43.10	56.33	13.23	Neutral	QP
0.76	7.48	20.46	27.94	46.00	18.06	Neutral	Average
0.76	20.00	20.46	40.46	56.00	15.54	Neutral	QP

Project No.: 2507Q34182E-EM
 Test Mode: Mode 2(400.0125MHz)
 EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C/61%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)



Trace: 1

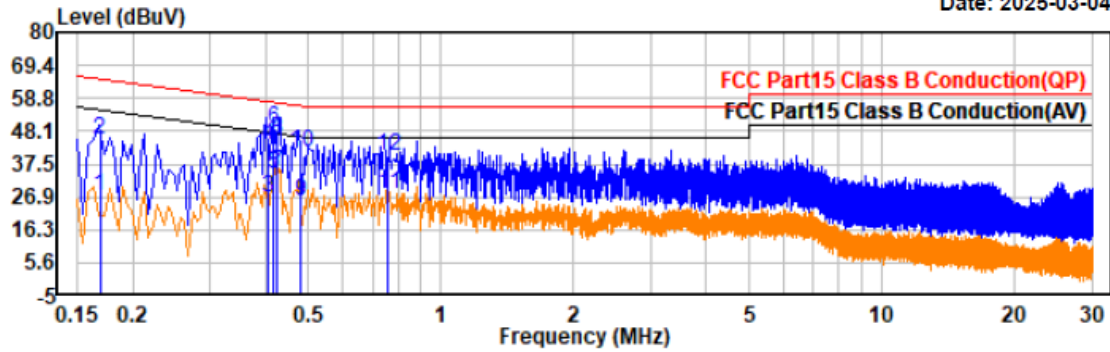
Condition: QP RBW:9kHz
 AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.16	3.71	20.88	24.59	55.71	31.12	Line	Average
0.16	21.98	20.88	42.86	65.71	22.85	Line	QP
0.19	4.27	20.63	24.90	54.05	29.15	Line	Average
0.19	22.12	20.63	42.75	64.05	21.30	Line	QP
0.42	7.38	20.34	27.72	47.51	19.79	Line	Average
0.42	24.22	20.34	44.56	57.51	12.95	Line	QP
0.42	7.83	20.33	28.16	47.35	19.19	Line	Average
0.42	23.72	20.33	44.05	57.35	13.30	Line	QP
0.47	-0.15	20.31	20.16	46.57	26.41	Line	Average
0.47	18.89	20.31	39.20	56.57	17.37	Line	QP
0.80	-0.22	20.66	20.44	46.00	25.56	Line	Average
0.80	13.91	20.66	34.57	56.00	21.43	Line	QP

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(400.0125MHz)
EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C/61%/100.1kPa
Tested by: Apollo Luo
Power Source: DC 5V from Adapter
(AC 120V/60Hz)

Date: 2025-03-04



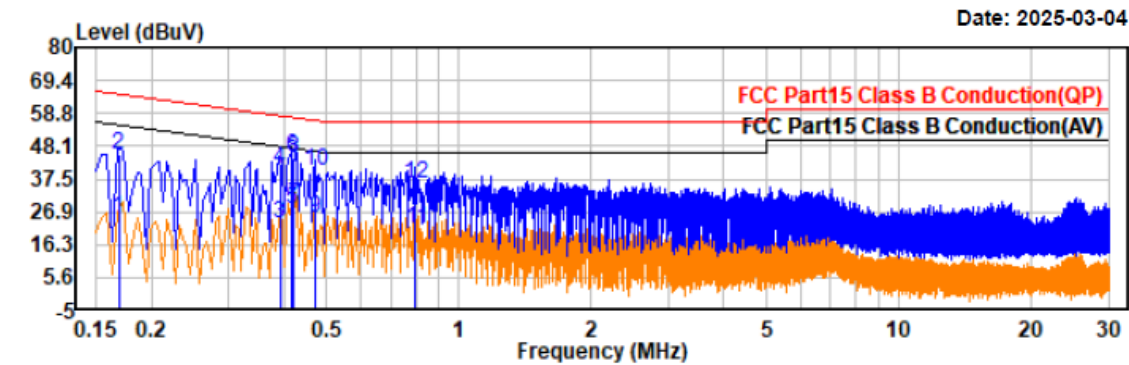
Trace: 1

Condition: QP RBW:9kHz
AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.17	6.36	20.70	27.06	55.03	27.97	Neutral	Average
0.17	24.92	20.70	45.62	65.03	19.41	Neutral	QP
0.41	6.08	20.45	26.53	47.75	21.22	Neutral	Average
0.41	22.97	20.45	43.42	57.75	14.33	Neutral	QP
0.42	13.74	20.44	34.18	47.51	13.33	Neutral	Average
0.42	28.28	20.44	48.72	57.51	8.79	Neutral	QP
0.43	14.59	20.44	35.03	47.33	12.30	Neutral	Average
0.43	24.69	20.44	45.13	57.33	12.20	Neutral	QP
0.48	5.00	20.40	25.40	46.29	20.89	Neutral	Average
0.48	20.68	20.40	41.08	56.29	15.21	Neutral	QP
0.76	7.61	20.45	28.06	46.00	17.94	Neutral	Average
0.76	19.67	20.45	40.12	56.00	15.88	Neutral	QP

Project No.: 2507Q34182E-EM
 Test Mode: Mode 2(440MHz)
 EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C/61%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)



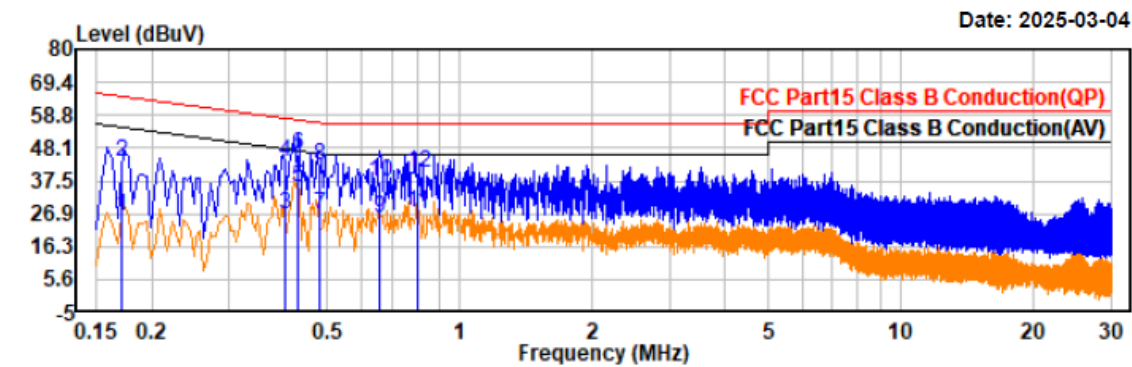
Trace: 1

Condition: QP RBW:9kHz
 AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.17	4.33	20.78	25.11	55.03	29.92	Line	Average
0.17	24.45	20.78	45.23	65.03	19.80	Line	QP
0.39	2.84	20.36	23.20	48.02	24.82	Line	Average
0.39	20.10	20.36	40.46	58.02	17.56	Line	QP
0.42	7.23	20.34	27.57	47.54	19.97	Line	Average
0.42	24.30	20.34	44.64	57.54	12.90	Line	QP
0.42	8.69	20.34	29.03	47.43	18.40	Line	Average
0.42	23.73	20.34	44.07	57.43	13.36	Line	QP
0.47	4.43	20.31	24.74	46.45	21.71	Line	Average
0.47	19.80	20.31	40.11	56.45	16.34	Line	QP
0.80	0.98	20.66	21.64	46.00	24.36	Line	Average
0.80	15.63	20.66	36.29	56.00	19.71	Line	QP

Project No.: 2507Q34182E-EM
 Test Mode: Mode 2(440MHz)
 EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C /61%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)



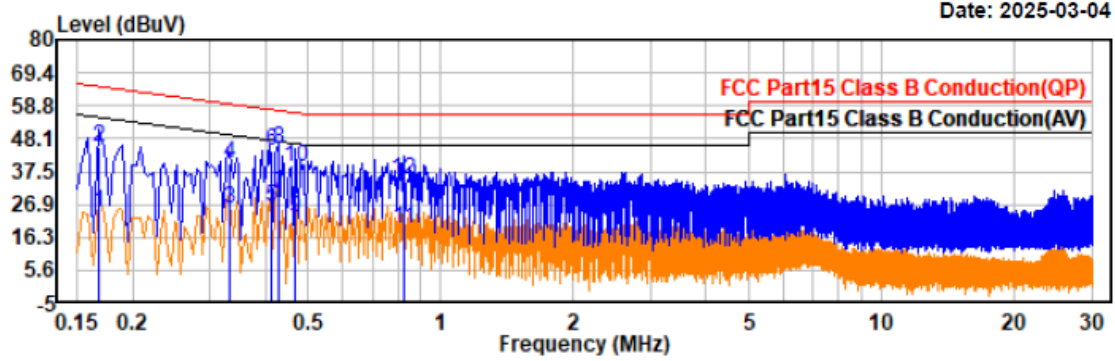
Trace: 1

Condition: QP RBW:9kHz
 AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.17	5.11	20.70	25.81	54.92	29.11	Neutral	Average
0.17	23.04	20.70	43.74	64.92	21.18	Neutral	QP
0.40	5.97	20.45	26.42	47.85	21.43	Neutral	Average
0.40	22.97	20.45	43.42	57.85	14.43	Neutral	QP
0.43	15.06	20.44	35.50	47.29	11.79	Neutral	Average
0.43	25.79	20.44	46.23	57.29	11.06	Neutral	QP
0.48	6.21	20.40	26.61	46.32	19.71	Neutral	Average
0.48	22.03	20.40	42.43	56.32	13.89	Neutral	QP
0.66	4.89	20.32	25.21	46.00	20.79	Neutral	Average
0.66	16.67	20.32	36.99	56.00	19.01	Neutral	QP
0.80	6.57	20.54	27.11	46.00	18.89	Neutral	Average
0.80	19.46	20.54	40.00	56.00	16.00	Neutral	QP

Project No.: 2507Q34182E-EM
 Test Mode: Mode 2(479.9875MHz)
 EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C/61%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)



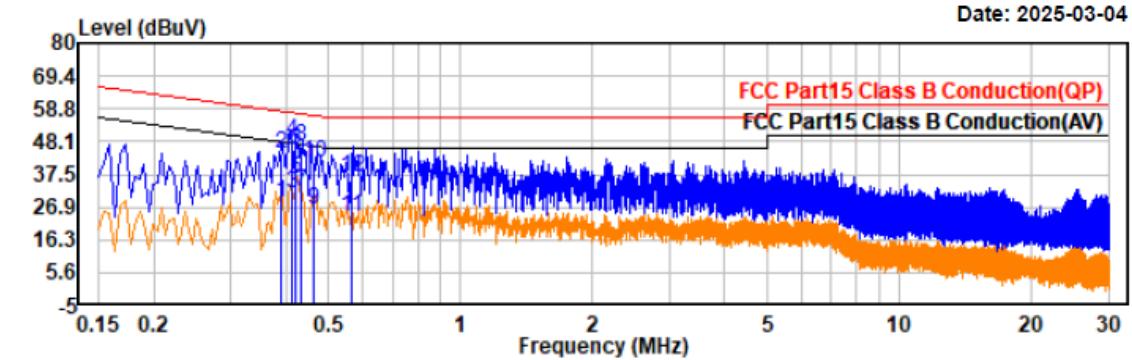
Trace: 1

Condition: QP RBW:9kHz
 AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.17	3.80	20.78	24.58	55.04	30.46	Line	Average
0.17	24.36	20.78	45.14	65.04	19.90	Line	QP
0.33	4.81	20.41	25.22	49.37	24.15	Line	Average
0.33	19.91	20.41	40.32	59.37	19.05	Line	QP
0.41	5.94	20.34	26.28	47.58	21.30	Line	Average
0.41	23.91	20.34	44.25	57.58	13.33	Line	QP
0.43	9.84	20.34	30.18	47.30	17.12	Line	Average
0.43	24.42	20.34	44.76	57.30	12.54	Line	QP
0.47	2.03	20.31	22.34	46.57	24.23	Line	Average
0.47	18.89	20.31	39.20	56.57	17.37	Line	QP
0.82	-1.43	20.69	19.26	46.00	26.74	Line	Average
0.82	13.99	20.69	34.68	56.00	21.32	Line	QP

Project No.: 2507Q34182E-EM
 Test Mode: Mode 2(479.9875MHz)
 EUT Model: VTR1501

Temp/Humi/ATM: 21.7°C/61%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)



Trace: 1

Condition: QP RBW:9kHz
 AV RBW:9kHz

Freq MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Phase	Remark
0.39	8.19	20.46	28.65	48.02	19.37	Neutral	Average
0.39	23.73	20.46	44.19	58.02	13.83	Neutral	QP
0.41	11.04	20.44	31.48	47.57	16.09	Neutral	Average
0.41	27.64	20.44	48.08	57.57	9.49	Neutral	QP
0.42	15.30	20.44	35.74	47.41	11.67	Neutral	Average
0.42	25.12	20.44	45.56	57.41	11.85	Neutral	QP
0.43	11.67	20.44	32.11	47.17	15.06	Neutral	Average
0.43	26.38	20.44	46.82	57.17	10.35	Neutral	QP
0.46	5.90	20.42	26.32	46.66	20.34	Neutral	Average
0.46	20.88	20.42	41.30	56.66	15.36	Neutral	QP
0.56	3.60	20.35	23.95	46.00	22.05	Neutral	Average
0.56	16.48	20.35	36.83	56.00	19.17	Neutral	QP

FCC §15.109 - RADIATED EMISSION IN FREQUENCY

Applicable Standard

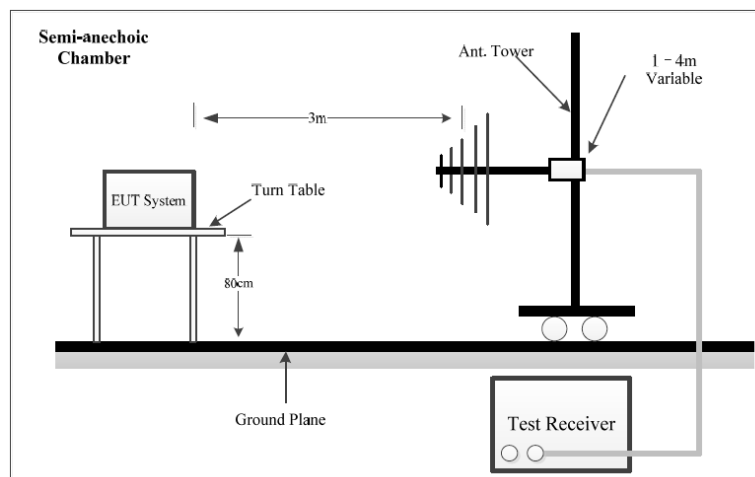
FCC§15.109

(a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

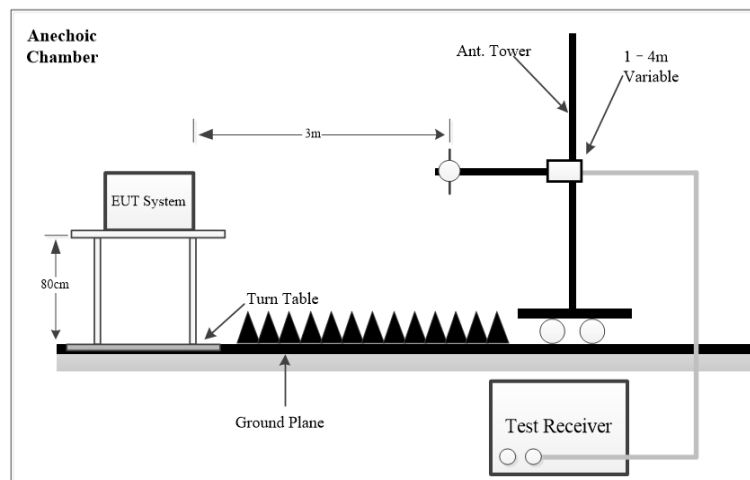
Frequency of emission (MHz)	Field strength (microvolts/meter)
30–88	100
88–216	150
216–960	200
Above 960	500

Test System Setup

Below 1 GHz:



Above 1 GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 Class B 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.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 5 GHz.

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

Frequency Range	RBW	VBW	Detector
30 MHz – 1000 MHz	100 kHz	300 kHz	PK
Above 1 GHz	1 MHz	3 MHz	PK
	1 MHz	10 Hz	AV

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.

Result & Margin Calculation

The Result is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Factor (dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)}$$

$$\text{Result (dB}\mu\text{V/m)} = \text{Reading (dB}\mu\text{V)} + \text{Factor (dB/m)}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Result (dB}\mu\text{V/m)}$$

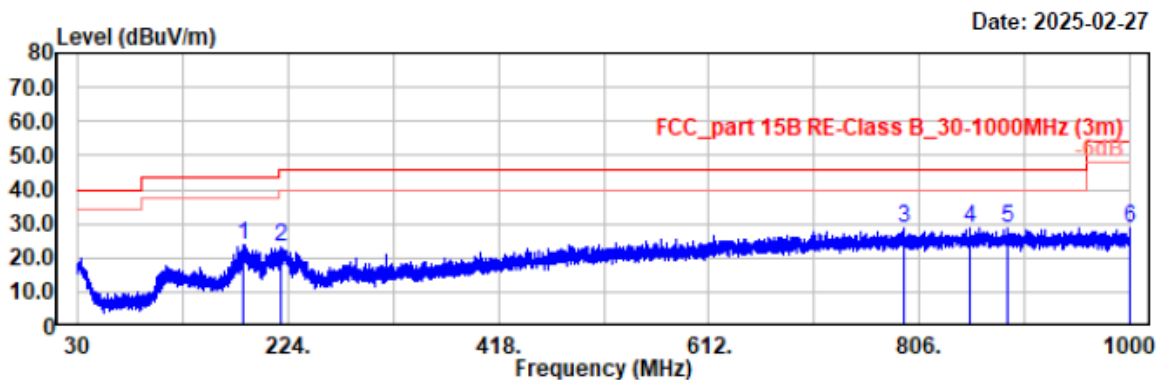
Test Data

Please refer to below plots:

1) 30MHz-1GHz:

Project No.: 2507Q34182E-EM
Test Mode: Mode 1(400-480MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
Tested by: Jason Hu
Power Source: DC 5V from Adapter
(AC 120V/60Hz)



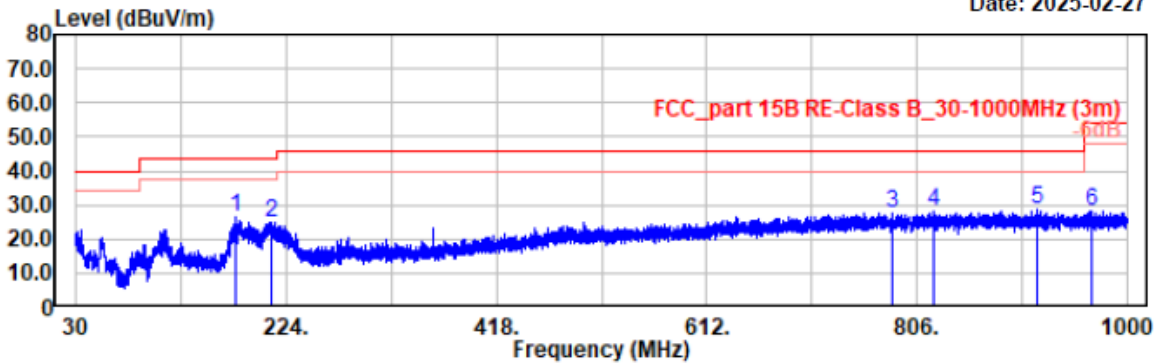
Condition: PK RBW:100kHz VBW:300kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
181.81	36.21	-12.36	23.85	43.50	19.65	Horizontal	Peak
216.73	35.93	-12.68	23.25	46.00	22.75	Horizontal	Peak
792.52	27.34	1.18	28.52	46.00	17.48	Horizontal	Peak
852.75	26.77	1.95	28.72	46.00	17.28	Horizontal	Peak
888.16	26.33	2.46	28.79	46.00	17.21	Horizontal	Peak
999.81	24.68	4.13	28.81	54.00	25.19	Horizontal	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 1(400-480MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
Tested by: Jason Hu
Power Source: DC 5V from Adapter
(AC 120V/60Hz)

Date: 2025-02-27



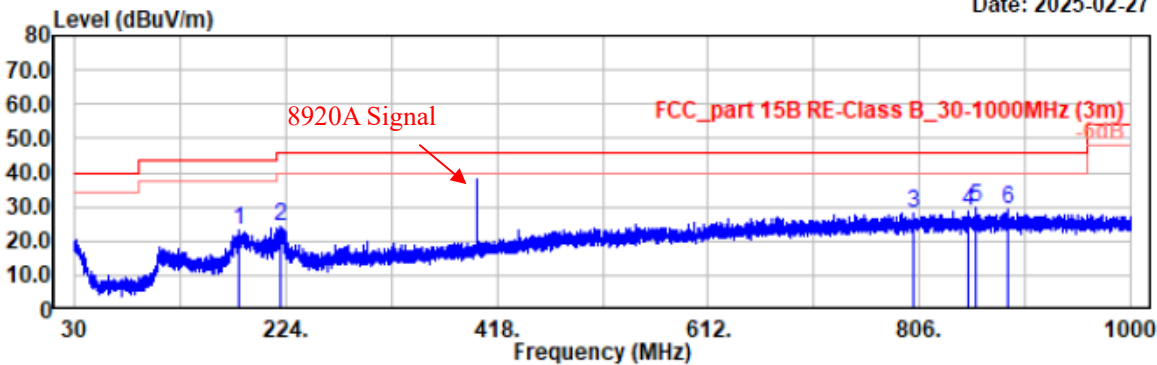
Condition: PK RBW:100kHz VBW:300kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
176.86	38.45	-12.19	26.26	43.50	17.24	Vertical	Peak
210.71	37.72	-12.63	25.09	43.50	18.41	Vertical	Peak
782.72	26.72	1.08	27.80	46.00	18.20	Vertical	Peak
821.71	26.75	1.63	28.38	46.00	17.62	Vertical	Peak
917.26	26.07	2.71	28.78	46.00	17.22	Vertical	Peak
967.21	24.81	3.46	28.27	54.00	25.73	Vertical	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(400.0125MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
Tested by: Jason Hu
Power Source: DC 5V from Adapter
(AC 120V/60Hz)

Date: 2025-02-27



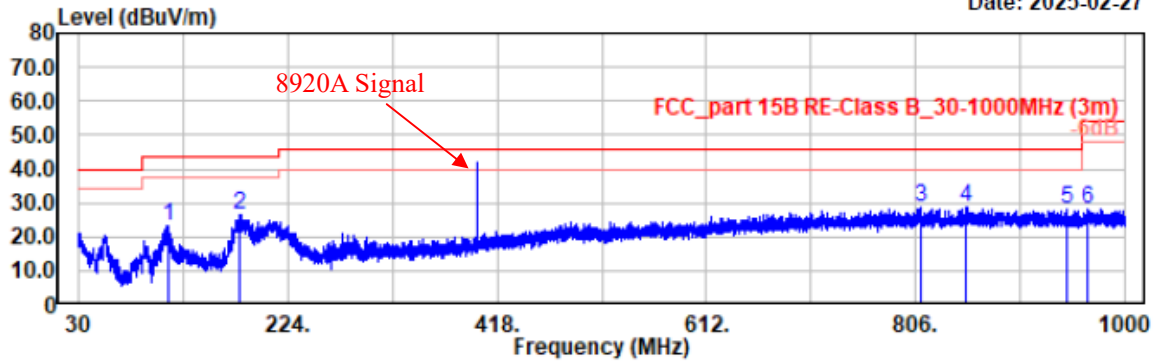
Condition: PK RBW:100kHz VBW:300kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
180.35	35.58	-12.36	23.22	43.50	20.28	Horizontal	Peak
218.37	37.04	-12.67	24.37	46.00	21.63	Horizontal	Peak
801.05	26.99	1.25	28.24	46.00	17.76	Horizontal	Peak
850.52	26.88	1.94	28.82	46.00	17.18	Horizontal	Peak
858.67	27.79	2.04	29.83	46.00	16.17	Horizontal	Peak
887.00	26.68	2.42	29.10	46.00	16.90	Horizontal	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(400.0125MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
Tested by: Jason Hu
Power Source: DC 5V from Adapter
(AC 120V/60Hz)

Date: 2025-02-27



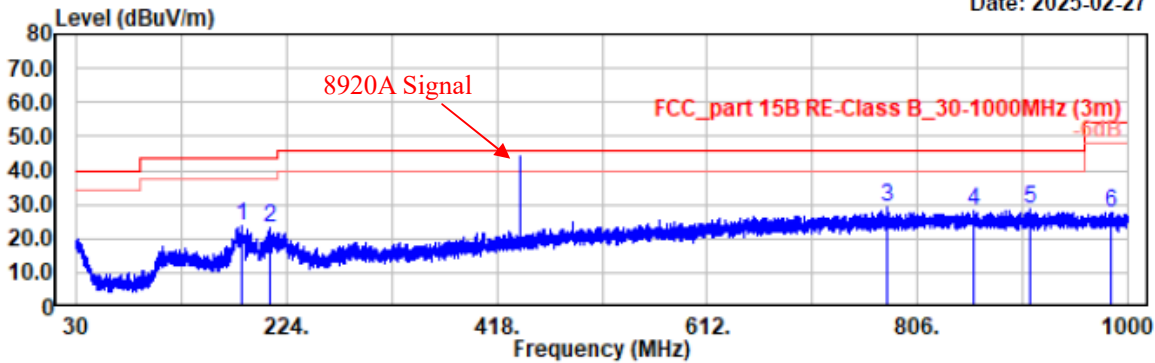
Condition: PK RBW:100kHz VBW:300kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
112.45	34.80	-11.46	23.34	43.50	20.16	Vertical	Peak
179.77	39.02	-12.34	26.68	43.50	16.82	Vertical	Peak
810.46	27.18	1.39	28.57	46.00	17.43	Vertical	Peak
853.53	26.66	1.95	28.61	46.00	17.39	Vertical	Peak
945.87	25.13	3.13	28.26	46.00	17.74	Vertical	Peak
965.47	24.85	3.49	28.34	54.00	25.66	Vertical	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(440MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
Tested by: Jason Hu
Power Source: DC 5V from Adapter
(AC 120V/60Hz)

Date: 2025-02-27



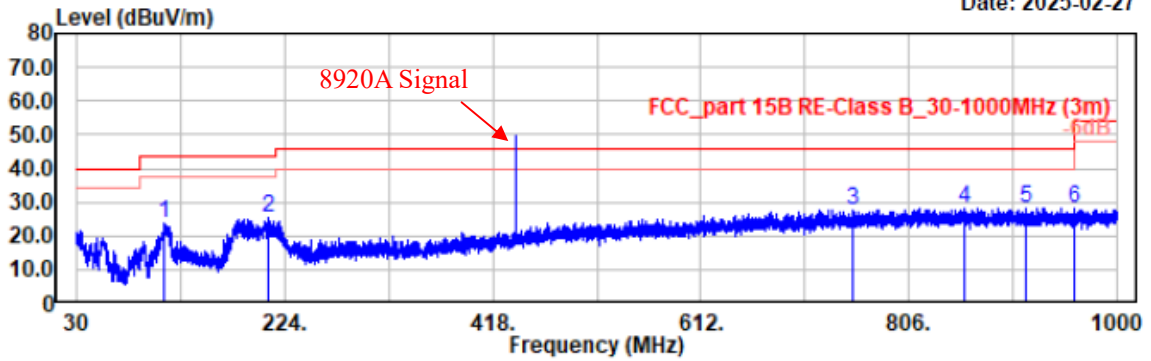
Condition: PK RBW:100kHz VBW:300kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
182.19	36.31	-12.38	23.93	43.50	19.57	Horizontal	Peak
208.19	35.58	-12.42	23.16	43.50	20.34	Horizontal	Peak
778.55	28.05	1.04	29.09	46.00	16.91	Horizontal	Peak
857.51	26.36	2.02	28.38	46.00	17.62	Horizontal	Peak
910.66	25.77	2.68	28.45	46.00	17.55	Horizontal	Peak
985.06	24.02	3.78	27.80	54.00	26.20	Horizontal	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(440MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
Tested by: Jason Hu
Power Source: DC 5V from Adapter
(AC 120V/60Hz)

Date: 2025-02-27



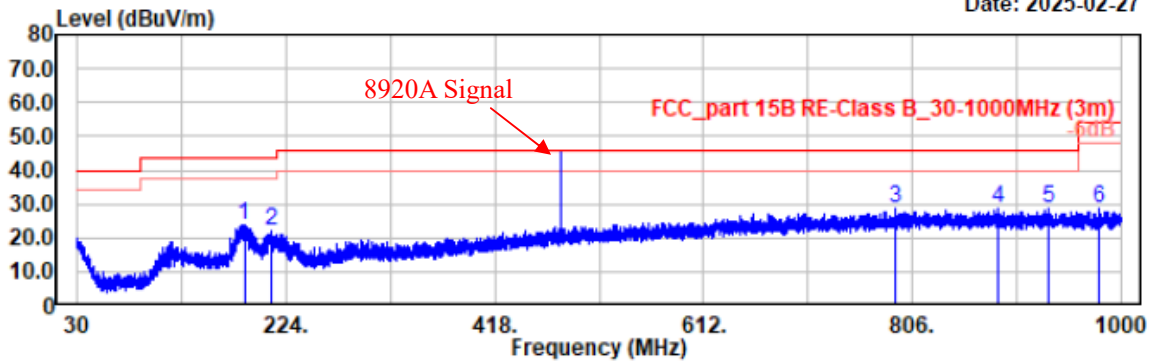
Condition: PK RBW:100kHz VBW:300kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
111.77	35.22	-11.58	23.64	43.50	19.86	Vertical	Peak
208.87	37.76	-12.50	25.26	43.50	18.24	Vertical	Peak
753.23	27.23	0.51	27.74	46.00	18.26	Vertical	Peak
857.41	26.24	2.02	28.26	46.00	17.74	Vertical	Peak
915.51	25.58	2.71	28.29	46.00	17.71	Vertical	Peak
960.13	24.66	3.38	28.04	54.00	25.96	Vertical	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(479.9875MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
Tested by: Jason Hu
Power Source: DC 5V from Adapter
(AC 120V/60Hz)

Date: 2025-02-27



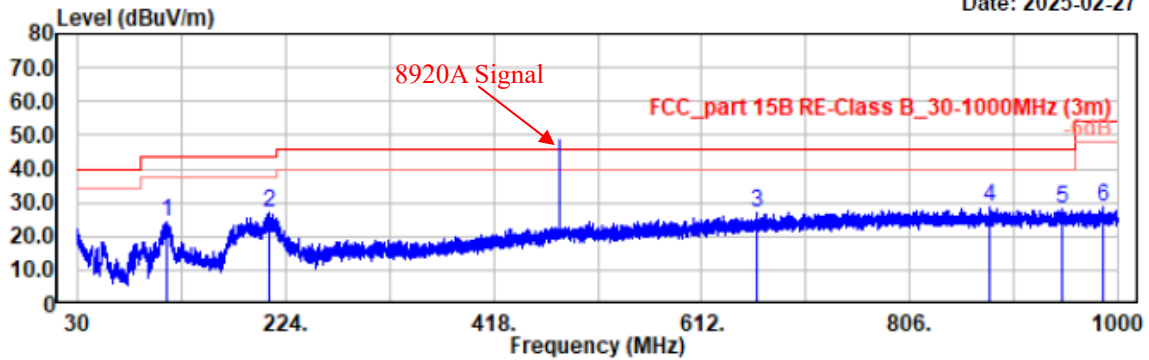
Condition: PK RBW:100kHz VBW:300kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
185.10	36.37	-12.47	23.90	43.50	19.60	Horizontal	Peak
210.81	34.52	-12.64	21.88	43.50	21.62	Horizontal	Peak
789.90	27.35	1.11	28.46	46.00	17.54	Horizontal	Peak
885.64	26.21	2.39	28.60	46.00	17.40	Horizontal	Peak
931.91	25.61	2.94	28.55	46.00	17.45	Horizontal	Peak
978.76	24.97	3.65	28.62	54.00	25.38	Horizontal	Peak

Project No.: 2507Q34182E-EM
 Test Mode: Mode 2(479.9875MHz)
 EUT Model: VTR1501
 Test distance: 3m

Temp/Humi/ATM: 23.8°C/53%/100.1kPa
 Tested by: Jason Hu
 Power Source: DC 5V from Adapter
 (AC 120V/60Hz)

Date: 2025-02-27



Condition: PK RBW:100kHz VBW:300kHz SWT:auto

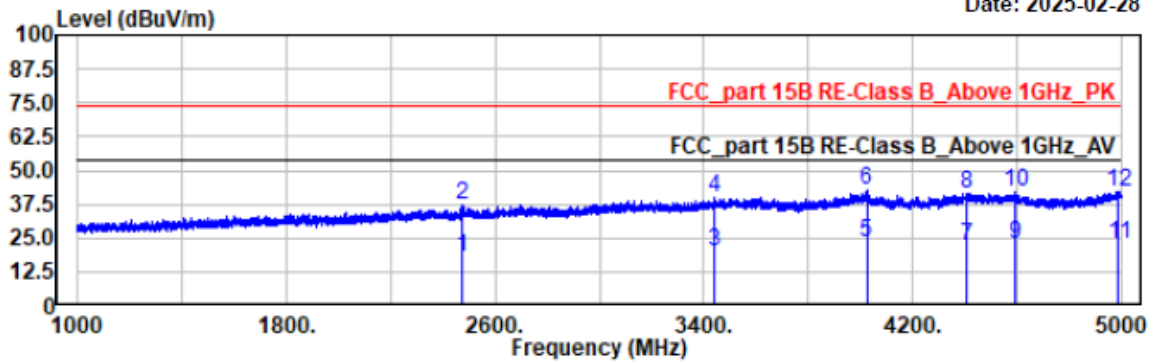
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
113.23	35.75	-11.31	24.44	43.50	19.06	Vertical	Peak
208.77	39.56	-12.49	27.07	43.50	16.43	Vertical	Peak
663.22	27.94	-0.79	27.15	46.00	18.85	Vertical	Peak
881.08	26.49	2.36	28.85	46.00	17.15	Vertical	Peak
948.98	24.99	3.14	28.13	46.00	17.87	Vertical	Peak
986.42	24.64	3.81	28.45	54.00	25.55	Vertical	Peak

2) 1GHz - 5GHz (Worst case)

Project No.: 2507Q34182E-EM
Test Mode: Mode 1(400-480MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 20.7°C/53%/100.1kPa
Tested by: Apollo Luo
Power Source: DC 5V from adapter
(AC 120V/60Hz)

Date: 2025-02-28



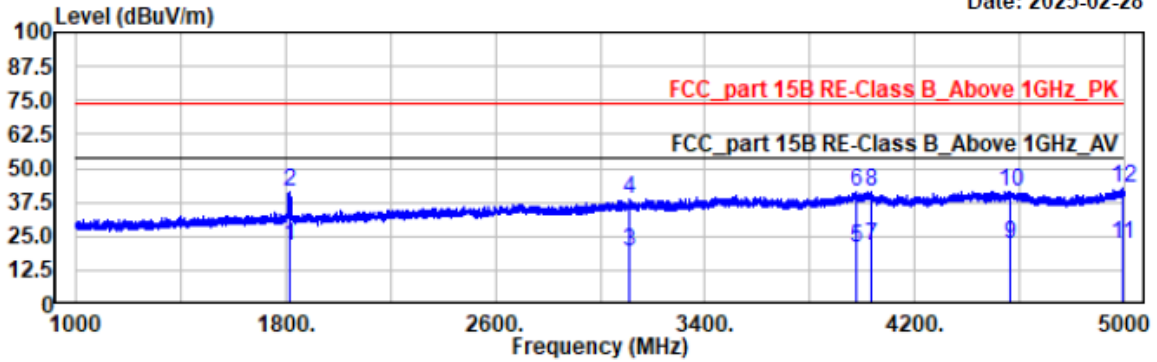
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2472.40	28.72	-10.82	17.90	54.00	36.10	horizontal	Average
2472.40	48.18	-10.82	37.36	74.00	36.64	horizontal	Peak
3440.40	27.90	-7.77	20.13	54.00	33.87	horizontal	Average
3440.40	47.49	-7.77	39.72	74.00	34.28	horizontal	Peak
4024.00	29.63	-6.44	23.19	54.00	30.81	horizontal	Average
4024.00	49.07	-6.44	42.63	74.00	31.37	horizontal	Peak
4409.60	27.65	-5.64	22.01	54.00	31.99	horizontal	Average
4409.60	47.33	-5.64	41.69	74.00	32.31	horizontal	Peak
4593.20	27.79	-5.26	22.53	54.00	31.47	horizontal	Average
4593.20	47.51	-5.26	42.25	74.00	31.75	horizontal	Peak
4988.40	27.61	-5.01	22.60	54.00	31.40	horizontal	Average
4988.40	47.20	-5.01	42.19	74.00	31.81	horizontal	Peak

Project No.: 2507Q34182E-EM
 Test Mode: Mode 1(400-480MHz)
 EUT Model: VTR1501
 Test distance: 3m

Temp/Humi/ATM: 20.7°C/53%/100.1kPa
 Tested by: Apollo Luo
 Power Source: DC 5V from adapter
 (AC 120V/60Hz)

Date: 2025-02-28



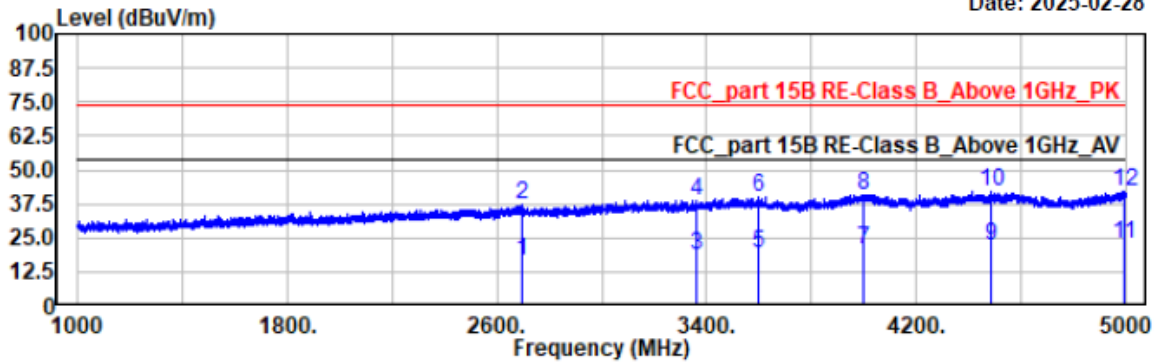
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
1818.00	34.45	-13.17	21.28	54.00	32.72	vertical	Average
1818.00	54.56	-13.17	41.39	74.00	32.61	vertical	Peak
3111.20	27.94	-8.71	19.23	54.00	34.77	vertical	Average
3111.20	47.60	-8.71	38.89	74.00	35.11	vertical	Peak
3980.80	27.40	-6.59	20.81	54.00	33.19	vertical	Average
3980.80	47.64	-6.59	41.05	74.00	32.95	vertical	Peak
4036.80	27.85	-6.40	21.45	54.00	32.55	vertical	Average
4036.80	47.68	-6.40	41.28	74.00	32.72	vertical	Peak
4564.40	27.33	-5.30	22.03	54.00	31.97	vertical	Average
4564.40	46.99	-5.30	41.69	74.00	32.31	vertical	Peak
4992.00	27.17	-5.01	22.16	54.00	31.84	vertical	Average
4992.00	47.52	-5.01	42.51	74.00	31.49	vertical	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(440MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 20.7°C/53%/100.1kPa
Tested by: Apollo Luo
Power Source: DC 5V from adapter
(AC 120V/60Hz)

Date: 2025-02-28



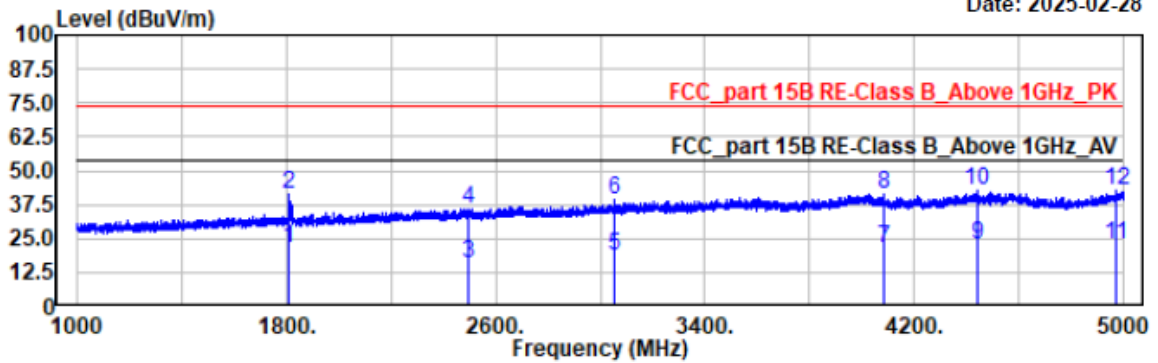
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2692.80	26.71	-10.03	16.68	54.00	37.32	horizontal	Average
2692.80	46.93	-10.03	36.90	74.00	37.10	horizontal	Peak
3358.40	26.83	-7.99	18.84	54.00	35.16	horizontal	Average
3358.40	46.70	-7.99	38.71	74.00	35.29	horizontal	Peak
3598.80	27.17	-7.73	19.44	54.00	34.56	horizontal	Average
3598.80	47.57	-7.73	39.84	74.00	34.16	horizontal	Peak
3998.00	27.30	-6.51	20.79	54.00	33.21	horizontal	Average
3998.00	47.53	-6.51	41.02	74.00	32.98	horizontal	Peak
4487.20	27.73	-5.36	22.37	54.00	31.63	horizontal	Average
4487.20	47.44	-5.36	42.08	74.00	31.92	horizontal	Peak
4993.20	27.93	-5.00	22.93	54.00	31.07	horizontal	Average
4993.20	47.09	-5.00	42.09	74.00	31.91	horizontal	Peak

Project No.: 2507Q34182E-EM
Test Mode: Mode 2(440MHz)
EUT Model: VTR1501
Test distance: 3m

Temp/Humi/ATM: 20.7°C/53%/100.1kPa
Tested by: Apollo Luo
Power Source: DC 5V from adapter
(AC 120V/60Hz)

Date: 2025-02-28



Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
1809.60	34.82	-13.19	21.63	54.00	32.37	vertical	Average
1809.60	54.38	-13.19	41.19	74.00	32.81	vertical	Peak
2492.00	26.39	-10.73	15.66	54.00	38.34	vertical	Average
2492.00	46.91	-10.73	36.18	74.00	37.82	vertical	Peak
3055.60	27.52	-8.85	18.67	54.00	35.33	vertical	Average
3055.60	47.86	-8.85	39.01	74.00	34.99	vertical	Peak
4081.60	27.35	-6.23	21.12	54.00	32.88	vertical	Average
4081.60	47.94	-6.23	41.71	74.00	32.29	vertical	Peak
4439.60	28.40	-5.56	22.84	54.00	31.16	vertical	Average
4439.60	48.20	-5.56	42.64	74.00	31.36	vertical	Peak
4970.40	27.97	-5.08	22.89	54.00	31.11	vertical	Average
4970.40	47.70	-5.08	42.62	74.00	31.38	vertical	Peak

FCC §15.121(b) – SCANNING RECEIVERS AND FREQUENCY CONVERTERS USED WITH SCANNING RECEIVERS

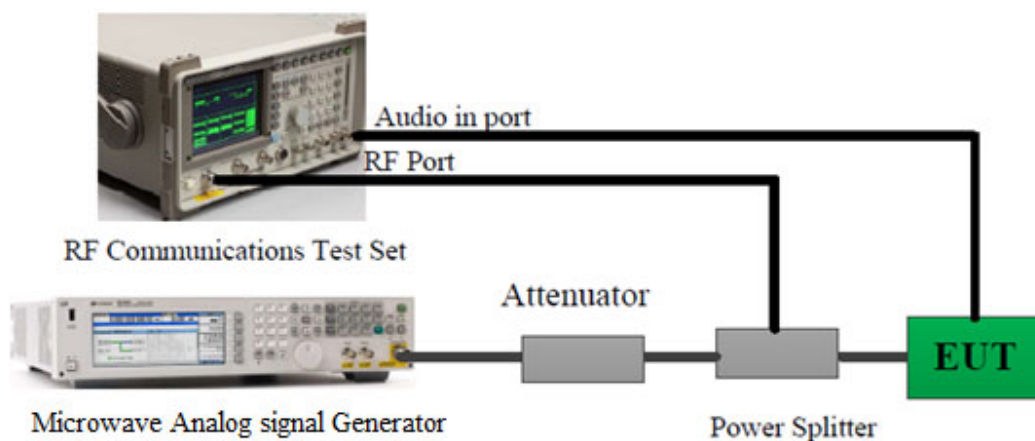
Applicable Standard

FCC §15.121(b).

(b) Except as provided in paragraph (c) of this section, scanning receivers shall reject any signals from the Cellular Radiotelephone Service frequency bands that are 38 dB or lower based upon a 12 dB SINAD measurement, which is considered the threshold where a signal can be clearly discerned from any interference that may be present.

Test Procedure

1. Connected the EUT as the below block diagram;



2. Apply a signal to the EUT antenna port at lowest, middle, highest channel frequencies of the operating band;
3. Adjust the audio output level of the EUT to it's rated value with the distortion less than 10%;
4. Adjust the 8920 output power to produce 12 dB SINAD without the audio output power dropping by more than 3 dB; These output level of the 8920 at each channel frequency is the sensitivity of the EUT;
5. Select the lowest or worst case sensitivity level for all of the bands as the reference sensitivity;
6. Adjust the Signal Generator output to a level of +60 dB above the reference sensitivity obtained in step 5 and its frequency to the frequency point in the Cellular Band;
7. Set the EUT squelch to threshold, the signal required to open the squelch must be lower than the reference sensitivity level;
8. Set the EUT in a scanning mode and allow it to scan through it's complete receiving range;
9. If the EUT un-squelched or stopped on any frequency, receiving at this frequency, then adjust the signal generator output level until 12 dB SINAD is produced, this level is the spurious value and the difference between the reference sensitivity and the spurious value is the rejection ratio and must be at least 38 dB;
10. Repeat above procedure at the frequencies 824, 836, 849 MHz for the mobile band, and 869, 881.5 and 894 MHz for the Cellular Base Band.

Test Data

Test Mode:	Scanning	Test Engineer:	Lucas Lin
Test Date:	2025-02-20	Test Result:	Pass

Environment Conditions:					
Temperature: (°C)	20.6	Relative Humidity: (%)	52	ATM Pressure: (kPa)	100.1

Scanning Frequency Range (MHz)	Test Frequency (MHz)	Measurement Result (Worst Case) (dB)	Limit (dB)
400-480	824, 836, 849, 869, 881.5, 895	47	>38

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2507Q34182E-EM-EXP EUT EXTERNAL PHOTOGRAPHS and
2507Q34182E-EM-INP EUT INTERNAL PHOTOGRAPHS

EXHIBIT B – TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2507Q34182E-EM-TSP TEST SETUP PHOTOGRAPHS.

Declarations

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk “★”.
2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95 % confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Xiamen).
6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

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