EMC Test Report

Report No.:	JYTSZ-R01-2500540
Applicant:	Nextivity, Inc.
Address of Applicant:	16550 West Bernardo Drive, Bldg 5, Suite 550San Diego, CA 92127, USA
Equipment Under Test (EUT)	
Product Name:	Cellphone Signal Booster
Model No.:	PU:Q50-XEPU, NU: Q51-RXNU, CU: Q51-RXCU
Trade Mark:	CEL-FI
FCC ID:	NU: YETQ51-RXNU, CU: YETQ51-RXCU
Applicable Standards:	FCC CFR Title 47 Part 15B
Date of Sample Receipt:	14 Oct., 2025
Date of Test:	15 Oct., to 17 Nov., 2025
Date of report Issued:	18 Nov., 2025
Test Result:	PASS

Project by:	Project Engineer	***Date:***	*18 Nov., 2025*
Reviewed by:	Senior Engineer	***Date:***	*18 Nov., 2025*
Approved by:	Manager	***Date:***	*18 Nov., 2025*

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

1 Version

Version No.	Date	Description
00	*18 Nov., 2025*	*Original*

2 Contents

3 General Information

3.1 Client Information

Applicant:	Nextivity, Inc.
Address:	16550 West Bernardo Drive, Bldg 5, Suite 550San Diego, CA 92127, USA
Manufacturer:	Nextivity, Inc.
Address:	16550 West Bernardo Drive, Bldg 5, Suite 550San Diego, CA 92127, USA

3.2 General Description of E.U.T.

Product Name:	Cellphone Signal Booster
Model No.:	PU:Q50-XEPU, NU: Q51-RXNU, CU: Q51-RXCU
Power Supply:	48 Vdc (via EPS - POE)
AC Adapter:	Model No.:Q50-XEPU Input: AC90-264V, 50/60Hz 4.85A Output: DC 57V, 1.9A 90W MAX
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3.3 Disclaimer

Disclaimer:
For the information or data provided by the client in this report, the relevant results or conclusions of this report are only made for these data or information. The testing laboratory is not responsible for the authenticity and accuracy of these data or information.

3.4 Test Configuration Description

The CEL-FI QUATRA 100M offers a cutting-edge solution for enhancing cellular coverage, tailored to expand C-band 5G networks using SA architecture. It provides rapid 100MHz n77 coverage extension and employs fiber-based, lossless signal distribution with a scalable, daisy-chain architecture via Coverage Units to support complex site coverage needs.

CEL-FI QUATRA 100M consists of three units: the Network Unit (NU), the Coverage Unit (CU) and the Power Unit(PU). The NU comprises a transmitter and receiver which communicate with the cell tower and the CU. CU comprises a transmitter and receiver which communicate with the User Equipment (e.g. Cellphone) and the NU. The PU provides power and networking for NU and CU. Figure 1 illustrates the typical application. The system operates with the need to install external antennas.

Users place the NU in an area with the strongest signal from the carrier networks. The CUs are then either placed in the center of the home or office, or in the area where the best signal quality is most needed. The NU and CU are placed at varying distances apart and are communicated via Ethernet cables. One PU can connect one NU and upto Four (4) CUs via Ethernet Cat 5 cables.

The NU transmits and receives Cellular signals from the base station and operates similar to a cellular handset. The CU transmits and receives signals with the cellular handset and operates on frequencies similar to the cellular base station.

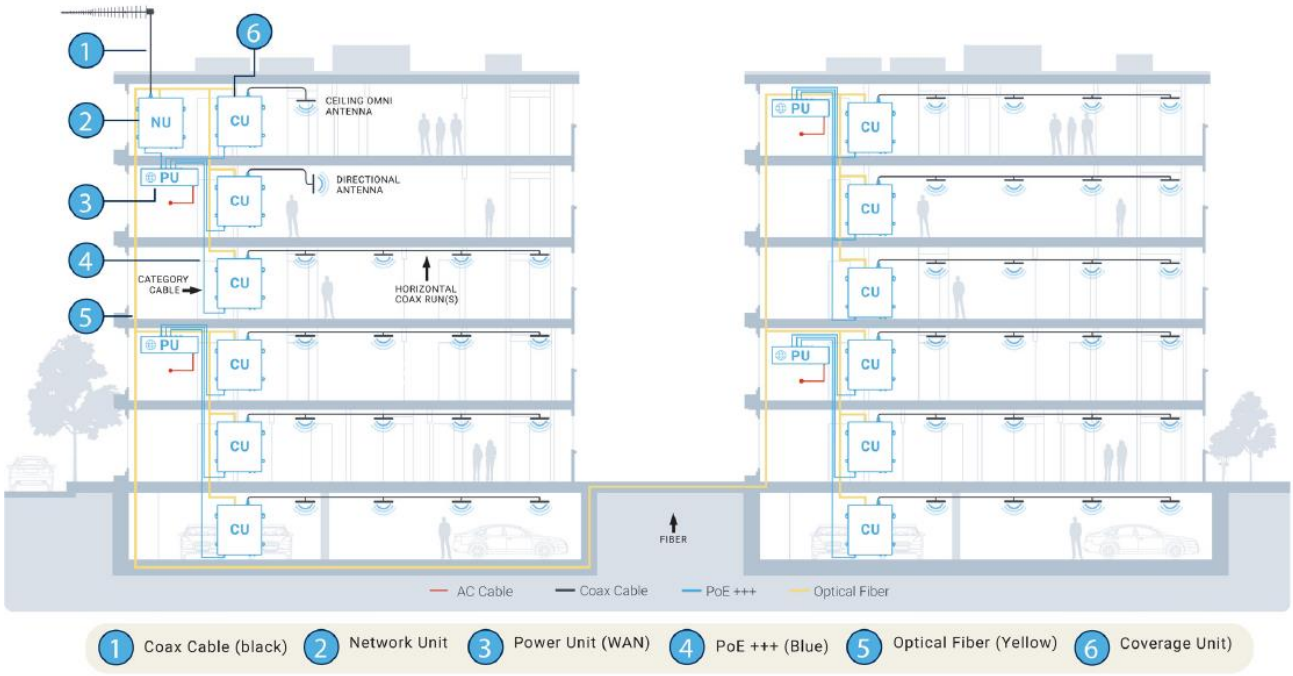


Figure 1

3.5 Test Mode

Operating Mode	Detail Description
Working mode	Keep the EUT in normal working mode (Note: PU as main test equipment, NU and CU as auxiliary test equipment, NU and CU in transmit mode)
The sample was placed 0.8m above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.	

3.6 Description of Test Auxiliary Equipment

Manufacturer	Description	Model	S/N	FCC ID/DoC
Lenovo	Laptop	ThinkPad T14 Gen 1	SL10Z47277	DoC
Nextivity	3dB Load	N/A	N/A	/

3.7 Description of Cable Used

Cable Type	Description	Length	From	To
N/A	N/A	N/A	N/A	N/A

3.8 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
Conducted Emission for LISN (9kHz ~ 150kHz)	3.0 dB
Conducted Emission for LISN (150kHz ~ 30MHz)	2.4 dB
Radiated Emission (30MHz ~ 200MHz) (3m SAC)	4.6 dB
Radiated Emission (200MHz ~ 1000MHz) (3m SAC)	5.8 dB
Radiated Emission (1GHz ~ 6GHz) (3m SAC)	4.5 dB
Radiated Emission (6GHz ~ 18GHz) (3m SAC)	4.7 dB
Note: *All the measurement uncertainty value were shown with a coverage k=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.*	

3.9 Additions to, Deviations, or Exclusions from the Method

No

3.10 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

3.11 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info-JYTee@lets.com, Website: http://jyt.lets.com

3.12 Test Instruments List

Radiated Emission(3m SAC):

Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	9m*6m*6m	WXJ001-1	04-14-2021	04-13-2026
BiConiLog Antenna	Schwarzbeck	VULB9163	WXJ002	01-03-2025	01-02-2026
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-2	01-03-2025	01-02-2026
Pre-amplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9743B	WXJ001-2	12-16-2024	12-15-2025
Pre-amplifier (1GHz ~ 18GHz)	SKET	LNPA_0118G-50	WXJ001-3	12-16-2024	12-15-2025
EMI Test Receiver	Rohde & Schwarz	ESRP7	WXJ003-1	12-16-2024	12-15-2025
Spectrum Analyzer	Rohde & Schwarz	FSP 30	WXJ004	12-16-2024	12-15-2025
Coaxial Cable (30MHz ~ 1GHz)	JYTSZ	JYT3M-1G-NN-8M	WXG001-4	01-15-2025	01-14-2026
Coaxial Cable (1GHz ~ 18GHz)	JYTSZ	JYT3M-18G-NN-8M	WXG001-5	01-15-2025	01-14-2026
Band Reject Filter Group	Tonscend	JS0806-F	WXJ089	N/A	
Test Software	Tonscend	TS+	Version: 3.0.0.1		

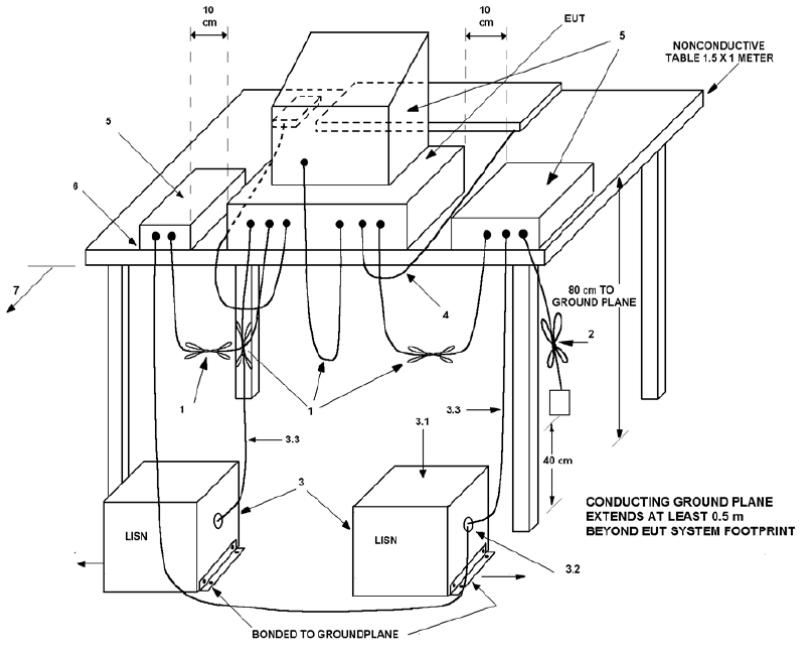
Conducted Emission:

Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
EMI Test Receiver	Rohde & Schwarz	ESR3	WXJ003-2	05-08-2025	05-07-2026
LISN	Schwarzbeck	NSLK 8127	QCJ001-13	12-17-2024	12-16-2025
LISN	Rohde & Schwarz	ESH3-Z5	WXJ005-1	12-17-2024	12-16-2025
LISN Coaxial Cable (9kHz ~ 30MHz)	JYTSZ	JYTCE-1G-NN-2M	WXG003-1	01-15-2025	01-14-2026
RF Switch	TOP PRECISION	RSU0301	WXG003	N/A	
Test Software	AUDIX	E3	Version: 6.110919b		

4 Measurement Setup and Procedure

4.1 Test Setup

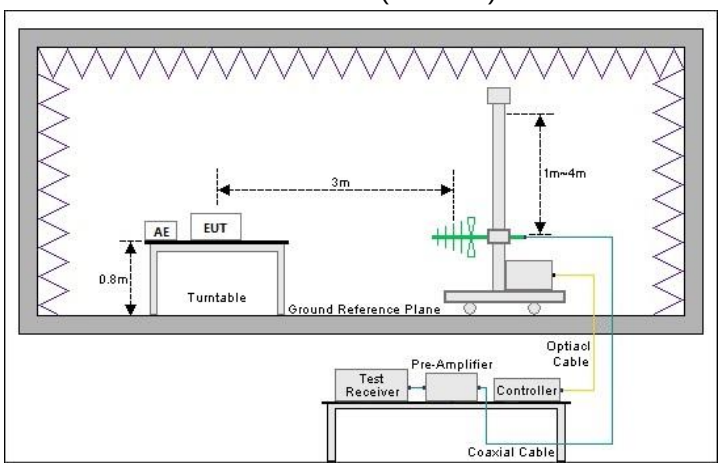
1) Conducted emission measurement:



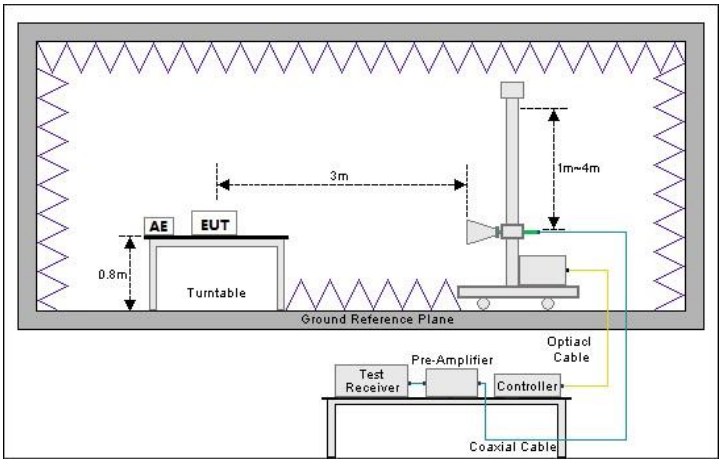
Note: The detailed descriptions please refer to Figure 8 of ANSI C63.4:2014.

2) Radiated emission measurement:

Below 1GHz (3m SAC)



Above 1GHz (3m SAC)



4.2 Test Procedure

Test method	Test step
Conducted emission	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4 on conducted measurement.
Radiated emission	**For below 1GHz:** 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m. 2. EUT works in each mode of operation that needs to be tested，and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data. **For above 1GHz:** 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m. 2. EUT works in each mode of operation that needs to be tested，and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.

5 Test Results

5.1 Summary

5.1.1 Clause and data summary

Test items	Standard clause	Test data	Result
Conducted Emission	Part 15.107	See Section 5.2	Pass
Radiated Emission	Part 15.109	See Section 5.3	Pass

Remark:

1. *The EUT is a **Class B** digital device.*
2. *Pass: The EUT complies with the essential requirements in the standard.*

Test Method:	*ANSI C63.4:2014*

5.1.2 Test Limit

Test items: Conducted Emission

Limit:

Frequency (MHz)	Class A Limit (dBµV)		Class B Limit (dBµV)	
	Quasi-Peak	Average	Quasi-Peak	Average
0.15 – 0.5	79	66	66 to 56 Note 1	56 to 46 Note 1
0.5 – 5	73	60	56	46
5 – 30	73	60	60	50

Note 1: The limit level in dBµV decreases linearly with the logarithm of frequency.
Note 2: The more stringent limit applies at transition frequencies.

Test items: Radiated Emission

Limit:

Frequency (MHz)	Class A Limit (dBµV/m)		Class B Limit (dBµV/m)	
	Quasi-Peak @ 3m	Quasi-Peak @ 10m	Quasi-Peak @ 3m	Quasi-Peak @ 10m
30 – 88	49.0	39.0	40.0	30.0
88 – 216	53.5	43.5	43.5	33.5
216 – 960	56.0	46.0	46.0	36.0
960 – 1000	60.0	50.0	54.0	44.0

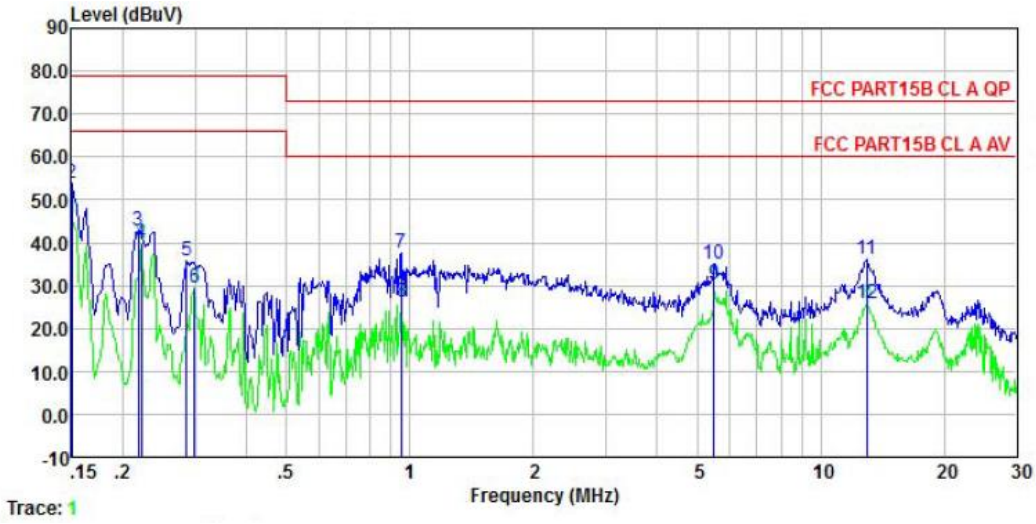
Note: The more stringent limit applies at transition frequencies.

Frequency	Class A Limit (dBµV/m) @ 3m		Class B Limit (dBµV/m) @ 3m	
	Average	Peake	Average	Peake
Above 1 GHz	60.0	80.0	54.0	74.0

Note: The measurement bandwidth shall be 1 MHz or greater.

5.2 Conducted Emission

Product name:	Cellphone Signal Booster	**Product model:**	Q50-XEPU
Test by:	Kiran Zeng	**Test mode:**	Working mode
Test frequency:	150 kHz ~ 30 MHz	**Phase:**	Line
Test voltage:	AC 120 V/60 Hz		

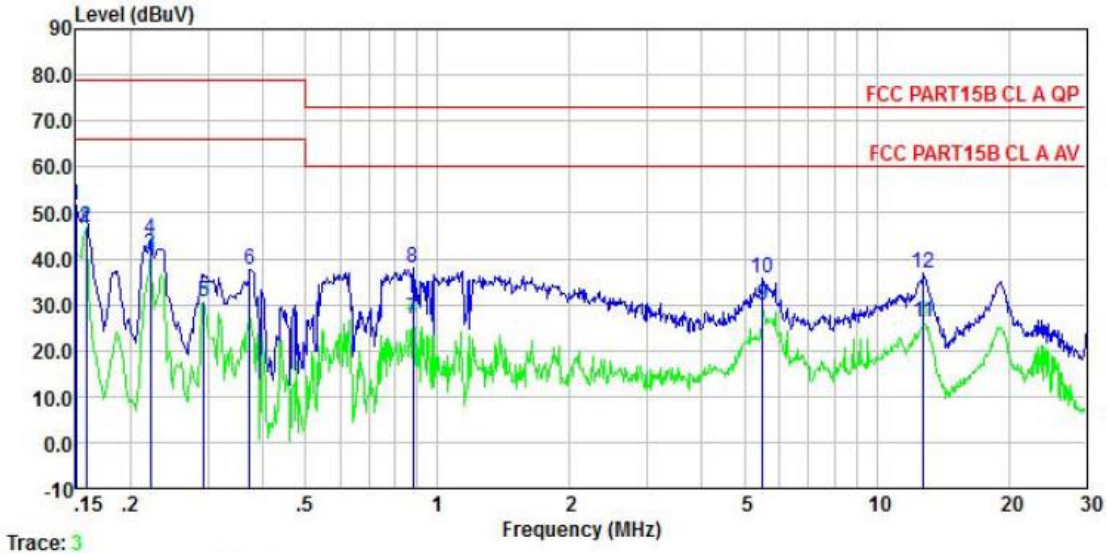


	Freq	Read Level	LISN Factor	Aux Factor	Aux2 Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dB	dBuV	dBuV	dB	
1	0.150	35.84	0.10	0.00	9.88	0.00	45.82	66.00	-20.18	Average
2	0.150	43.85	0.10	0.00	9.88	0.00	53.83	79.00	-25.17	QP
3	0.219	32.62	0.10	0.00	9.88	0.00	42.60	79.00	-36.40	QP
4	0.222	29.68	0.10	0.00	9.88	0.00	39.66	66.00	-26.34	Average
5	0.286	25.65	0.10	0.00	9.88	0.00	35.63	79.00	-43.37	QP
6	0.299	19.34	0.10	0.00	9.88	0.00	29.32	66.00	-36.68	Average
7	0.953	27.78	0.10	0.00	9.88	0.00	37.76	73.00	-35.24	QP
8	0.958	16.12	0.10	0.00	9.88	0.00	26.10	60.00	-33.90	Average
9	5.505	20.06	0.26	0.00	9.90	0.00	30.22	60.00	-29.78	Average
10	5.505	24.87	0.26	0.00	9.90	0.00	35.03	73.00	-37.97	QP
11	12.920	25.71	0.59	0.00	9.92	0.00	36.22	73.00	-36.78	QP
12	12.988	15.45	0.59	0.00	9.92	0.00	25.96	60.00	-34.04	Average

Remark:

1. Level = Read level + LISN Factor + Cable Loss.

Product name:	Cellphone Signal Booster	Product model:	Q50-XEPU
Test by:	Kiran Zeng	Test mode:	Working mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz		



	Freq	Read Level	LISN Factor	Aux Factor	Aux2 Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dB	dBuV	dBuV	dB	
1	0.150	41.47	0.10	0.00	9.88	0.00	51.45	79.00	-27.55	QP
2	0.158	37.03	0.10	0.00	9.88	0.00	47.01	66.00	-18.99	Average
3	0.222	30.84	0.10	0.00	9.88	0.00	40.82	66.00	-25.18	Average
4	0.222	34.45	0.10	0.00	9.88	0.00	44.43	79.00	-34.57	QP
5	0.294	20.64	0.10	0.00	9.88	0.00	30.62	66.00	-35.38	Average
6	0.373	27.55	0.10	0.00	9.88	0.00	37.53	79.00	-41.47	QP
7	0.880	17.10	0.10	0.00	9.88	0.00	27.08	60.00	-32.92	Average
8	0.880	27.87	0.10	0.00	9.88	0.00	37.85	73.00	-35.15	QP
9	5.505	19.44	0.33	0.00	9.90	0.00	29.67	60.00	-30.33	Average
10	5.505	25.36	0.33	0.00	9.90	0.00	35.59	73.00	-37.41	QP
11	12.784	15.78	0.62	0.00	9.92	0.00	26.32	60.00	-33.68	Average
12	12.784	26.34	0.62	0.00	9.92	0.00	36.88	73.00	-36.12	QP

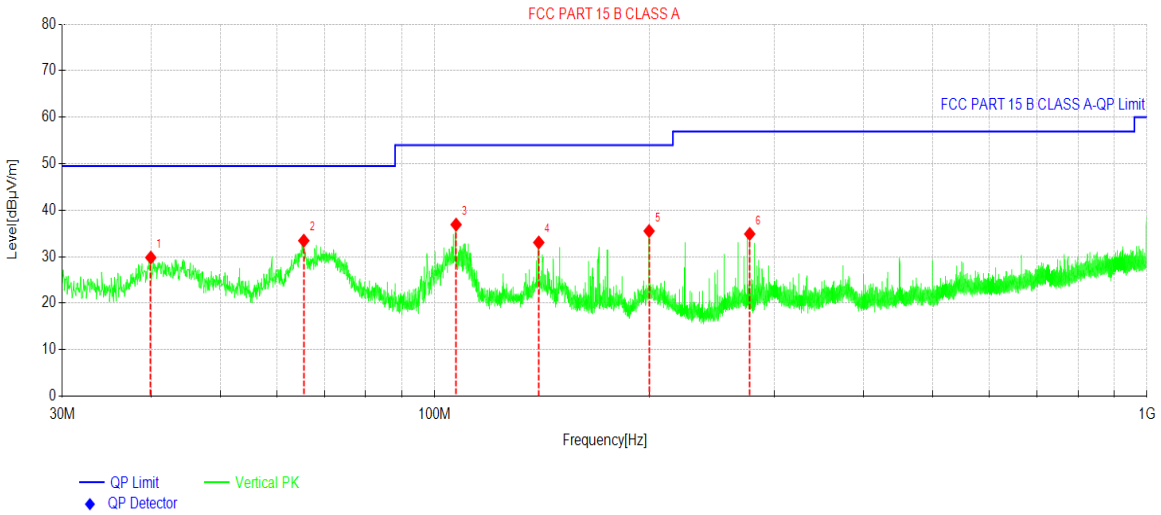
Remark:

1. Level = Read level + LISN Factor + Cable Loss.

5.3 Radiated Emission

Below 1GHz:

Product Name:	Cellphone Signal Booster	**Product Model:**	Q50-XEPU
Test By:	Kiran Zeng	**Test mode:**	Working mode
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Vertical
Test Voltage:	AC 120V/60Hz		



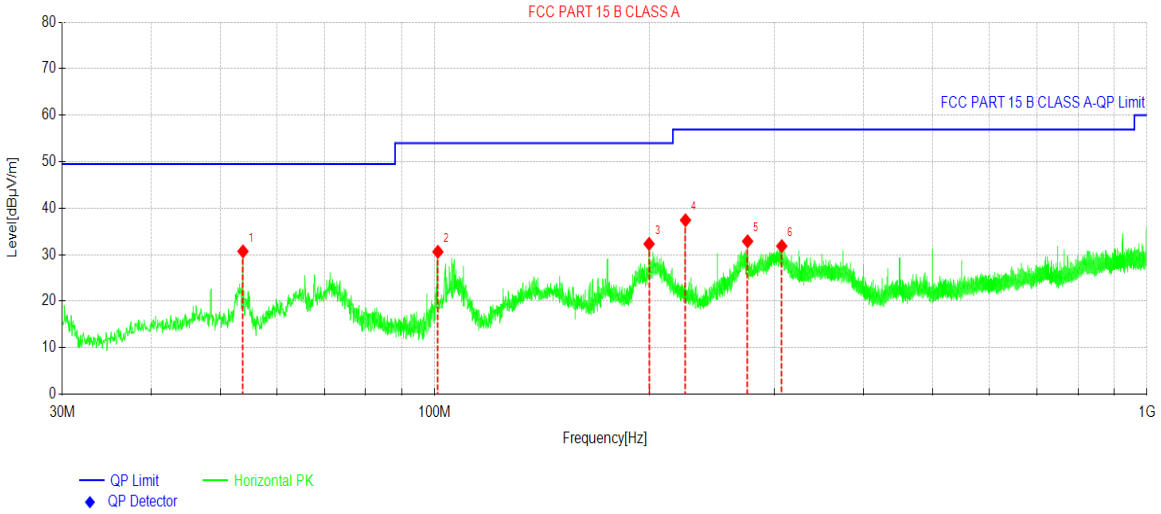
Suspected Data List

NO.	Freq. [MHz]	Reading[dBµV/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	39.9430	43.60	-13.80	29.80	49.50	19.70	PK	Vertical
2	65.5038	48.60	-15.16	33.44	49.50	16.06	PK	Vertical
3	107.1674	51.34	-14.45	36.89	54.00	17.11	PK	Vertical
4	140.0035	51.05	-18.01	33.04	54.00	20.96	PK	Vertical
5	200.0010	50.02	-14.51	35.51	54.00	18.49	PK	Vertical
6	276.8773	48.35	-13.47	34.88	56.90	22.02	PK	Vertical

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Cellphone Signal Booster	Product Model:	Q50-XEPU
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



Suspected Data List

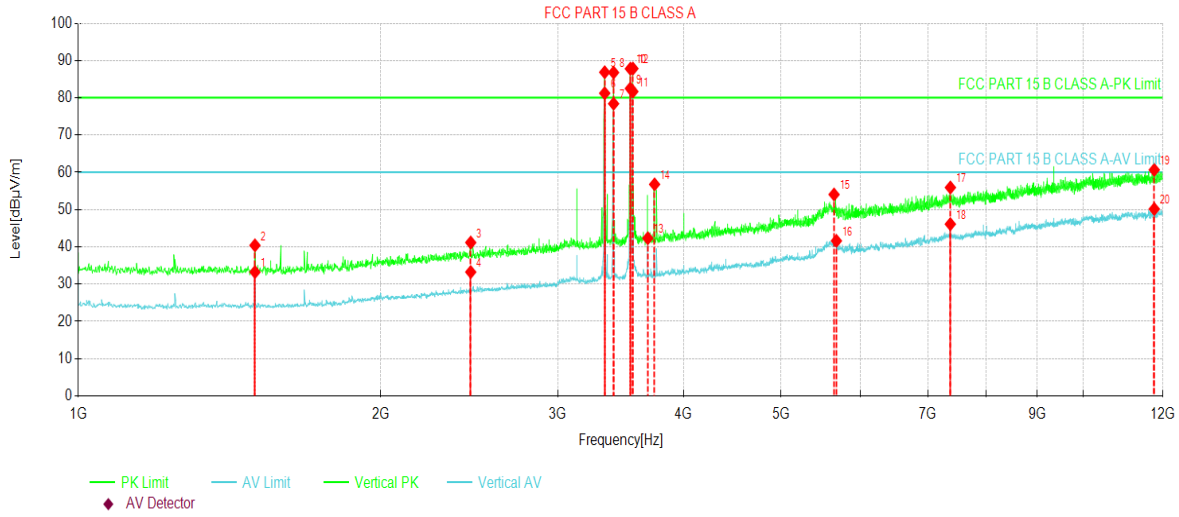
NO.	Freq. [MHz]	Reading[dBµV/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	53.8147	44.29	-13.59	30.70	49.50	18.80	PK	Horizontal
2	101.0561	45.23	-14.62	30.61	54.00	23.39	PK	Horizontal
3	200.0010	46.82	-14.51	32.31	54.00	21.69	PK	Horizontal
4	224.9797	51.75	-14.34	37.41	56.90	19.49	PK	Horizontal
5	274.9857	46.17	-13.30	32.87	56.90	24.03	PK	Horizontal
6	307.1429	44.46	-12.62	31.84	56.90	25.06	PK	Horizontal

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

Above 1GHz:

Product Name:	Cellphone Signal Booster	**Product Model:**	Q50-XEPU
Test By:	Kiran Zeng	**Test mode:**	Working mode
Test Frequency:	1000 MHz ~ 12000 MHz	**Polarization:**	Vertical
Test Voltage:	AC 120V/60Hz		



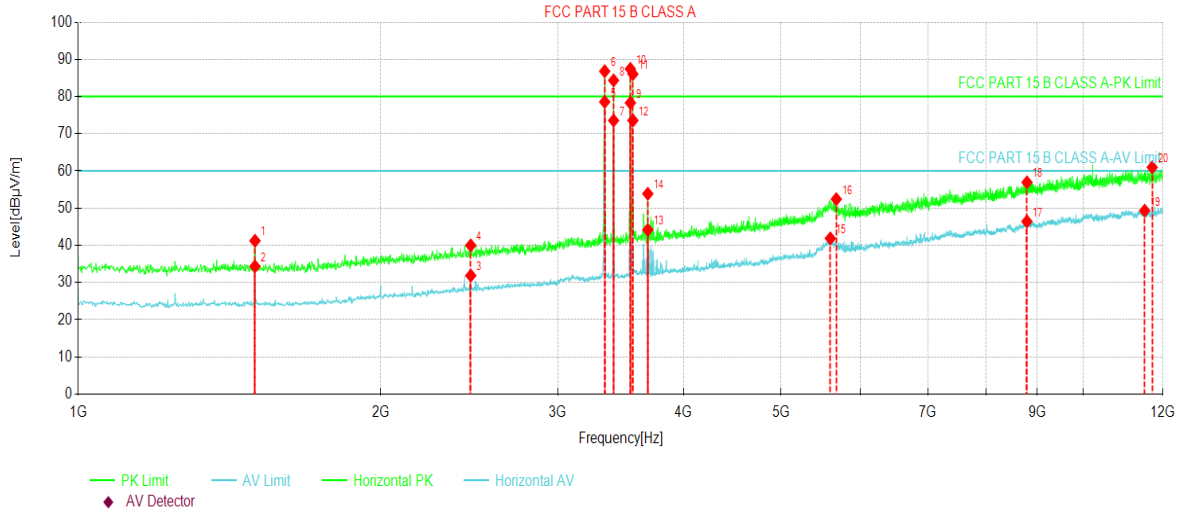
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1499.1250	56.40	33.24	-23.16	60.00	26.76	AV	Vertical
2	1499.1250	63.56	40.40	-23.16	80.00	39.60	PK	Vertical
3	2457.5000	60.51	41.15	-19.36	80.00	38.85	PK	Vertical
4	2457.5000	52.60	33.24	-19.36	60.00	26.76	AV	Vertical
5	3340.2500	103.50	86.86	-16.64	5G NR n77 Tx			
6	3340.2500	97.86	81.22	-16.64	5G NR n77 Tx			
7	3409.0000	94.85	78.40	-16.45	5G NR n77 Tx			
8	3409.0000	103.22	86.77	-16.45	5G NR n77 Tx			
9	3542.3750	98.30	82.49	-15.81	5G NR n77 Tx			
10	3542.3750	103.59	87.78	-15.81	5G NR n77 Tx			
11	3563.0000	97.35	81.68	-15.67	5G NR n77 Tx			
12	3563.0000	103.51	87.84	-15.67	5G NR n77 Tx			
13	3686.7500	57.51	42.31	-15.20	5G NR n77 Tx			
14	3744.5000	71.80	56.76	-15.04	5G NR n77 Tx			
15	5648.8750	59.49	54.04	-5.45	80.00	25.96	PK	Vertical
16	5679.1250	47.33	41.61	-5.72	60.00	18.39	AV	Vertical
17	7373.1250	57.92	55.92	-2.00	80.00	24.08	PK	Vertical
18	7373.1250	48.09	46.09	-2.00	60.00	13.91	AV	Vertical
19	11762.1250	56.21	60.65	4.44	80.00	19.35	PK	Vertical
20	11762.1250	45.71	50.15	4.44	60.00	9.85	AV	Vertical

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

2.Test Frequency up to 18GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

Product Name:	Cellphone Signal Booster	Product Model:	Q50-XEPU
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	1000 MHz ~ 12000 MHz	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	1499.1250	64.38	41.22	-23.16	80.00	38.78	PK	Horizontal
2	1499.1250	57.51	34.35	-23.16	60.00	25.65	AV	Horizontal
3	2457.5000	51.23	31.87	-19.36	60.00	28.13	AV	Horizontal
4	2457.5000	59.34	39.98	-19.36	80.00	40.02	PK	Horizontal
5	3340.2500	95.21	78.57	-16.64	5G NR n77 Tx			
6	3340.2500	103.44	86.80	-16.64	5G NR n77 Tx			
7	3409.0000	90.02	73.57	-16.45	5G NR n77 Tx			
8	3409.0000	100.80	84.35	-16.45	5G NR n77 Tx			
9	3542.3750	94.12	78.31	-15.81	5G NR n77 Tx			
10	3542.3750	103.24	87.43	-15.81	5G NR n77 Tx			
11	3563.0000	101.73	86.06	-15.67	5G NR n77 Tx			
12	3563.0000	89.26	73.59	-15.67	5G NR n77 Tx			
13	3686.7500	59.37	44.17	-15.20	5G NR n77 Tx			
14	3686.7500	69.07	53.87	-15.20	5G NR n77 Tx			
15	5600.7500	46.89	41.87	-5.02	60.00	18.13	AV	Horizontal
16	5677.7500	58.13	52.42	-5.71	80.00	27.58	PK	Horizontal
17	8786.6250	46.21	46.42	0.21	60.00	13.58	AV	Horizontal
18	8788.0000	56.73	56.94	0.21	80.00	23.06	PK	Horizontal
19	11506.3750	45.08	49.31	4.23	60.00	10.69	AV	Horizontal
20	11707.1250	56.70	60.97	4.27	80.00	19.03	PK	Horizontal

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

2.Test Frequency up to 18GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

------End of report------