FCC PART 15 SUBPART C TEST REPORT

FCC PART 15.247

Report Reference No. ..... :	**CTA25061301501**
FCC ID. ..... :	**2BNKS-TW37**
Compiled by (position+printed name+signature) .:	File administrators Zoey Cao
Supervised by (position+printed name+signature) .:	Project Engineer Ace Chai
Approved by (position+printed name+signature) .:	RF Manager Eric Wang
Date of issue ..... :	Jun. 30, 2025

Testing Laboratory Name ..... :	**Shenzhen CTA Testing Technology Co., Ltd.**
Address ..... :	Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Applicant's name ..... :	**Maxtop Global Trading Limited**
Address ..... :	WORKSHOP 60, 3/F, BLOCK A, EAST SUN INDUSTRIAL CENTRE NO. 16 SHING YIP STREET KOWLOON, HONG KONG, China
Test specification ..... :	
Standard ..... :	**FCC Part 15.247**
TRF Originator ..... :	Shenzhen CTA Testing Technology Co., Ltd.

Test item description ..... :	**WIRELESS CAMERA**
Trade Mark ..... :	N/A
Manufacturer ..... :	ShenZhen HuaFuShiXun Tech Co., Ltd
Model/Type reference ..... :	TW37
Listed Models ..... :	TW36, QS12, QS6, QS16, QS13, QS17, TW39, TW38
Modulation Type ..... :	CCK/DSSS/OFDM/ OFDMA
Operation Frequency ..... :	From 2412 - 2462MHz
Rating ..... :	Input: 5V ⎓ 2.0A Battery: 3.7V 8000mAh 29.6Wh
Result ..... :	**PASS**

TEST REPORT

Equipment under Test	:	WIRELESS CAMERA
Model /Type	:	TW37
Listed Models	:	TW36, QS12, QS6, QS16, QS13, QS17, TW39, TW38
Model difference	:	The Main PCB board, circuit, structure and internal of these models are the same, LED light panels and components of power supply board and antenna type and model number and colour are different for these model.
Applicant	:	**Maxtop Global Trading Limited**
Address	:	WORKSHOP 60, 3/F, BLOCK A, EAST SUN INDUSTRIAL CENTRE NO. 16 SHING YIP STREET KOWLOON, HONG KONG, China
Manufacturer	:	**ShenZhen HuaFuShiXun Tech Co., Ltd**
Address	:	Floor 3, Building 16, 370 Huan Guang Middle Rd., Guang Lan, Long Hua District, Shen Zhen, China

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.
ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices
KDB558074 D01 v05r02: Guidance for Compliance Measurements on Digital Transmission Systems (DTS) ,Frequency Hopping Spread Spectrum System(HFSS), and Hybrid System Devices Operating Under §15.247 of The FCC rules.

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Jun. 13, 2025
Testing commenced on	:	Jun. 13, 2025
Testing concluded on	:	Jun. 30, 2025

2.2 Product Description

Product Name:	WIRELESS CAMERA
Model/Type reference:	TW37
Power supply:	Input: 5V ⎓ 2.0A Battery: 3.7V 8000mAh 29.6Wh
testing sample ID：	CTA250613015-1# (Engineer sample) CTA250613015-2# (Normal sample)
Hardware version:	V1.0
Software version:	V1.0
WIFI :	
Supported type:	802.11b/802.11g/802.11n/ax(H20)/ 802.11n/ax(H40)
Modulation:	802.11b: DSSS 802.11g/802.11n(H20)/ 802.11n(H40): OFDM 802.11ax(H20)/ 802.11ax(H40): OFDMA
Operation frequency:	802.11b/802.11g/802.11n/ax(H20): 2412MHz~2462MHz 802.11n/ax(H40): 2422MHz~2452MHz
Channel number:	802.11b/802.11g/802.11n/ax(H20): 11 802.11n/ax(H40):7
Channel separation:	5MHz
Antenna type:	External antenna
Antenna gain:	2.02 dBi

2.3 Equipment Under Test

Power supply system utilised

Refer to section 2.2

2.4 Short description of the Equipment under Test (EUT)

This is a WIRELESS CAMERA.
For more details, refer to the user's manual of the EUT.

Test Software Version	Tools software(ADB command)		
Frequency	2412 MHz	2437MHz	2462 MHz
802.11b	16	16	16
802.11g	16	16	16
802.11n20	16	16	16
802.11ax20	16	16	16
Frequency	2422 MHz	2437MHz	2452 MHz
802.11n40	16	16	16
802.11ax40	16	16	16

2.5 EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

○ - supplied by the manufacturer
● - supplied by the lab

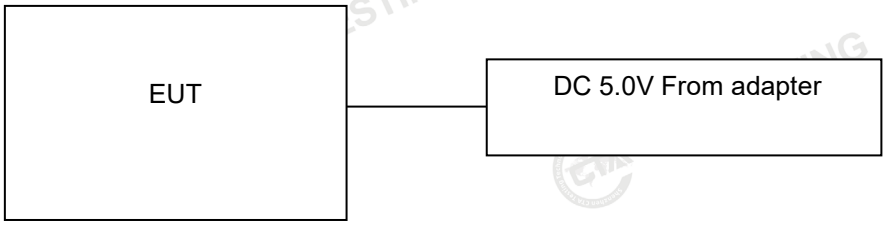
●	Adapter information (Auxiliary test supplied by test Lab)		Model: EP-TA20CBC Input: AC 100-240V 50/60Hz Output: DC 5V 2A

2.6 EUT operation mode

The application provider specific test softwareto control sample in continuous TX and RX for testing meet KDB558074 test requirement.
IEEE 802.11b/g/n: Thirteen channels are provided to the EUT.

Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	2412	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	11	2462
5	2432		
6	2437		
7	2442		

2.7 Block Diagram of Test Setup



2.8 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.9 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

3.2 Test Facility

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

FCC-Registration No.: 517856 Designation Number: CN1318
Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01
Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

ISED#: 27890 CAB identifier: CN0127
Shenzhen CTA Testing Technology Co., Ltd. has been listed by Innovation, Science and Economic Development Canada to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:
Radiated Emission:

Temperature:	25 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

Conducted testing：

Temperature:	25 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar

AC Power Conducted Emission

Temperature:	24 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar

3.4 Test Description

FCC PART 15.247		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 15.247(a)(2)	6dB Bandwidth	PASS
FCC Part 15.247(d)	Spurious RF Conducted Emission	PASS
FCC Part 15.247(b)	Maximum Peak Conducted Output Power	PASS
FCC Part 15.247(e)	Power Spectral Density	PASS
FCC Part 15.109/ 15.205/ 15.209	Radiated Emissions	PASS
FCC Part 15.247(d)	Band Edge	PASS
FCC Part 15.203/15.247 (b)	Antenna Requirement	PASS

Remark:
1. The measurement uncertainty is not included in the test result.
2. We tested all test mode and recorded worst case in report
3. RF Conducted test Offset= cable loss,For conducted spurious emission test, cable loss is the maximum value in the range of test.

Data Rate Used:
Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel
Maximum Peak Conducted Output Power Power Spectral Density 6dB Bandwidth Spurious RF conducted emission Radiated Emission 9KHz~1GHz& Radiated Emission 1GHz~10th Harmonic	11b/DSSS	1 Mbps	1/6/11
	11g/OFDM	6 Mbps	1/6/11
	11n(20MHz)/OFDM 11ax(20MHz)/OFDMA	MCS0	1/6/11
	11n(40MHz)/OFDM 11ax(40MHz)/OFDMA	MCS0	3/6/9
Band Edge	11b/DSSS	1 Mbps	1/11
	11g/OFDM	6 Mbps	1/11
	11n(20MHz)/OFDM 11ax(20MHz)/OFDMA	MCS0	1/11
	11n(40MHz)/OFDM 11ax(40MHz)/OFDMA	MCS0	3/9

3.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.
Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd. :

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)

Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)
Time	/	±2%	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.6 Equipments Used during the Test

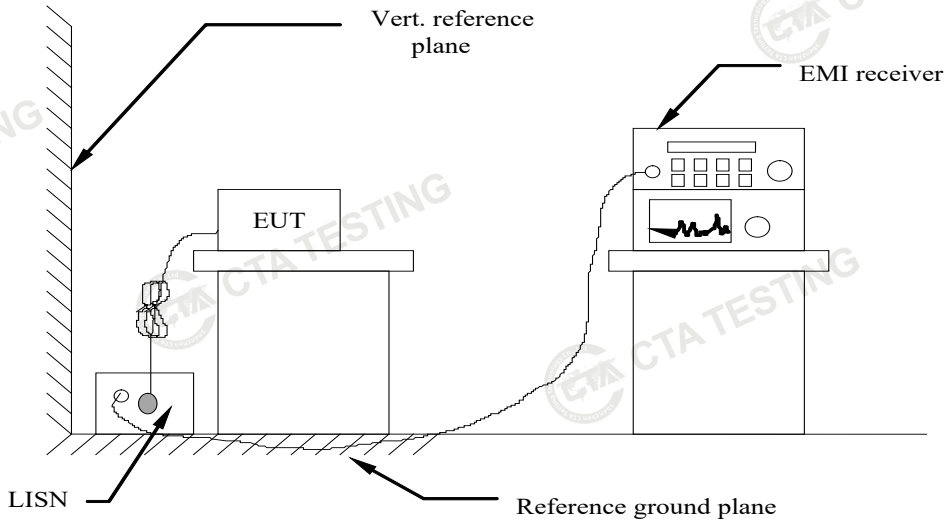
Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	CTA-308	2024/08/03	2025/08/02
LISN	R&S	ENV216	CTA-314	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESPI	CTA-307	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESCI	CTA-306	2024/08/03	2025/08/02
Spectrum Analyzer	Agilent	N9020A	CTA-301	2024/08/03	2025/08/02
Spectrum Analyzer	R&S	FSU	CTA-337	2024/08/03	2025/08/02
Vector Signal generator	Agilent	N5182A	CTA-305	2024/08/03	2025/08/02
Analog Signal Generator	R&S	SML03	CTA-304	2024/08/03	2025/08/02
Universal Radio Communication	CMW500	R&S	CTA-302	2024/08/03	2025/08/02
Temperature and humidity meter	Chigo	ZG-7020	CTA-326	2024/08/03	2025/08/02
Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2026/10/16
Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2026/10/12
Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2026/10/16
Broadband Horn Antenna	A-INFOMW	LB-180500H-2.4F	CTA-336	2023/09/13	2026/09/12
Amplifier	Schwarzbeck	BBV 9745	CTA-312	2024/08/03	2025/08/02
Amplifier	Taiwan chengyi	EMC051845B	CTA-313	2024/08/03	2025/08/02
Directional coupler	NARDA	4226-10	CTA-303	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2024/08/03	2025/08/02
Automated filter bank	Tonscend	JS0806-F	CTA-404	2024/08/03	2025/08/02
Power Sensor	Agilent	U2021XA	CTA-405	2024/08/03	2025/08/02
Amplifier	Schwarzbeck	BBV9719	CTA-406	2024/08/03	2025/08/02
Spectrum analyzer	R&S	FSV40-N	CTA-344	2025/05/17	2026/05/16
Power Meter	R&S	NRVS	CTA-354	2024/08/03	2025/08/02

Test Equipment	Manufacturer	Model No.	Version number	Calibration Date	Calibration Due Date
EMI Test Software	Tonscend	TS®JS32-RE	5.0.0.2	N/A	N/A
EMI Test Software	Tonscend	TS®JS32-CE	5.0.0.1	N/A	N/A
RF Test Software	Tonscend	TS®JS1120-3	3.1.65	N/A	N/A
RF Test Software	Tonscend	TS®JS1120	3.1.46	N/A	N/A

4 TEST CONDITIONS AND RESULTS

4.1 AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2013.
2 Support equipment, if needed, was placed as per ANSI C63.10-2013
3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013
4 The EUT received power from adapter, the adapter received AC120V/60Hz and AC 240V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5 All support equipments received AC power from a second LISN, if any.
6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT.The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8 During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following：

Frequency range (MHz)	Limit (dBuV)	
	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 RESULTS

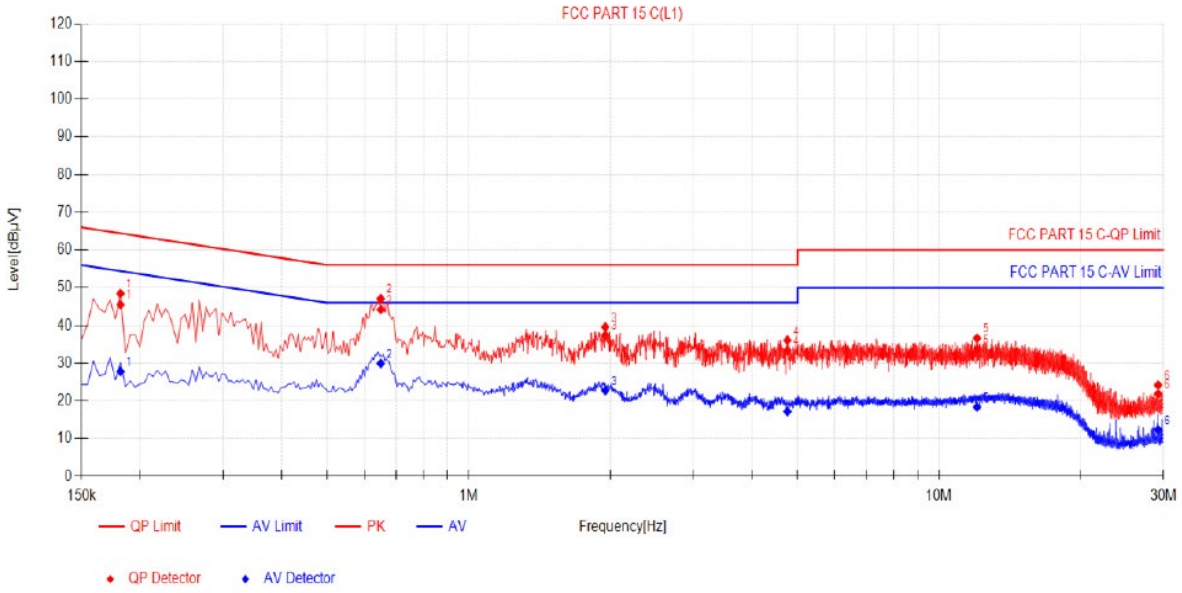
Remark:

1. All modes of 802.11b/g/n/ax were tested at Low, Middle, and High channel; only the worst result of 802.11b CH11 was reported as below:

2. Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:

Model: TW37

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1815	10.01	35.51	45.52	64.42	18.90	17.80	27.81	54.42	26.61	PASS
2	0.6495	9.98	34.23	44.21	56.00	11.79	19.93	29.91	46.00	16.09	PASS
3	1.95	9.92	27.48	37.40	56.00	18.60	12.80	22.72	46.00	23.28	PASS
4	4.758	9.97	23.40	33.37	56.00	22.63	7.23	17.20	46.00	28.80	PASS
5	12.0435	10.27	23.44	33.71	60.00	26.29	8.11	18.38	50.00	31.62	PASS
6	29.2335	10.60	11.26	21.86	60.00	38.14	1.75	12.35	50.00	37.65	PASS

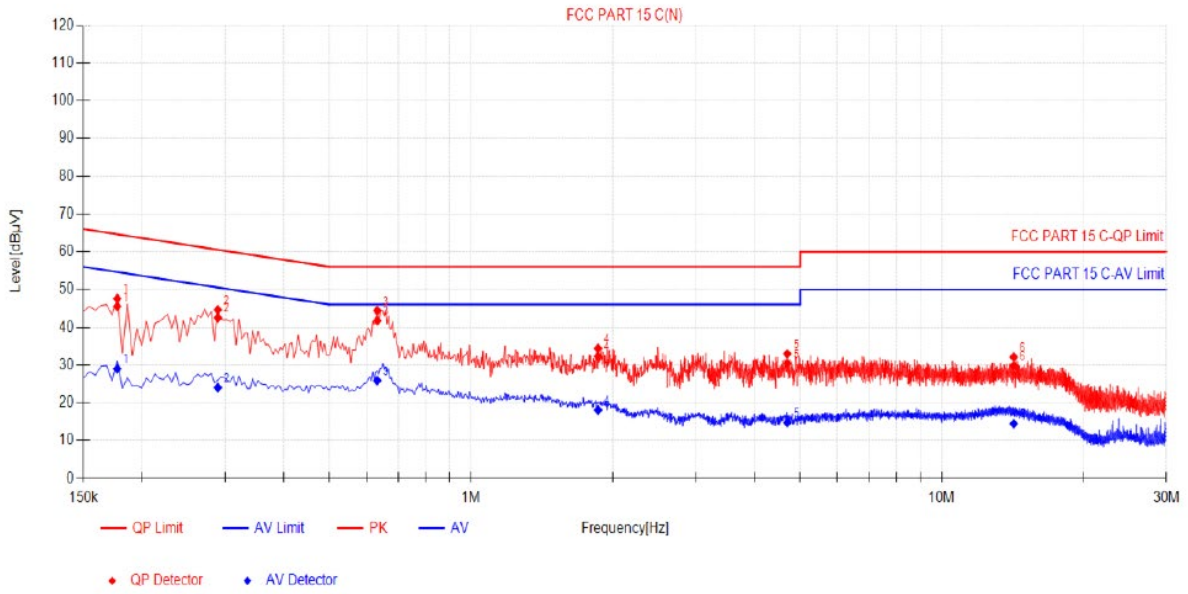
Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)

2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)

4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



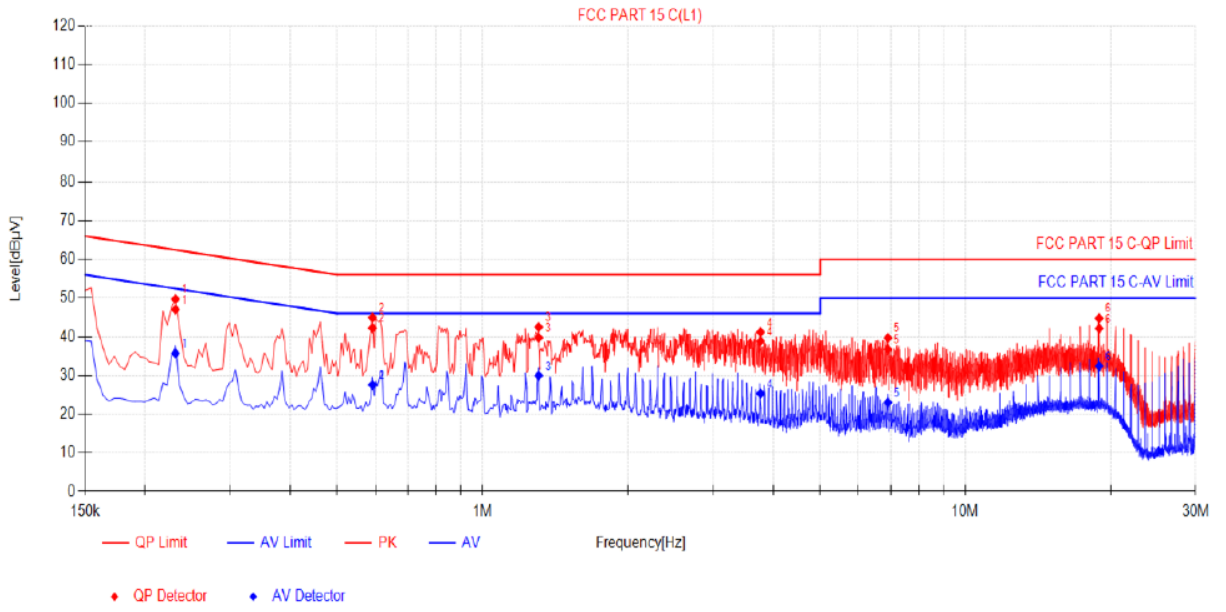
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.177	10.05	35.45	45.50	64.63	19.13	18.94	28.99	54.63	25.64	PASS
2	0.2895	9.89	32.63	42.52	60.54	18.02	14.13	24.02	50.54	26.52	PASS
3	0.6315	10.12	31.62	41.74	56.00	14.26	15.76	25.88	46.00	20.12	PASS
4	1.86	10.18	22.13	32.31	56.00	23.69	7.91	18.09	46.00	27.91	PASS
5	4.695	10.09	20.30	30.39	56.00	25.61	4.64	14.73	46.00	31.27	PASS
6	14.217	10.42	19.40	29.82	60.00	30.18	4.03	14.45	50.00	35.55	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: TW36:

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.231	10.00	37.00	47.00	62.41	15.41	25.68	35.68	52.41	16.73	PASS
2	0.591	10.04	32.18	42.22	56.00	13.78	17.50	27.54	46.00	18.46	PASS
3	1.3065	9.90	29.84	39.74	56.00	16.26	20.04	29.94	46.00	16.06	PASS
4	3.7635	9.94	28.91	38.85	56.00	17.15	15.38	25.32	46.00	20.68	PASS
5	6.9135	10.28	26.47	36.75	60.00	23.25	12.74	23.02	50.00	26.98	PASS
6	18.924	10.40	31.71	42.11	60.00	17.89	21.99	32.39	50.00	17.61	PASS

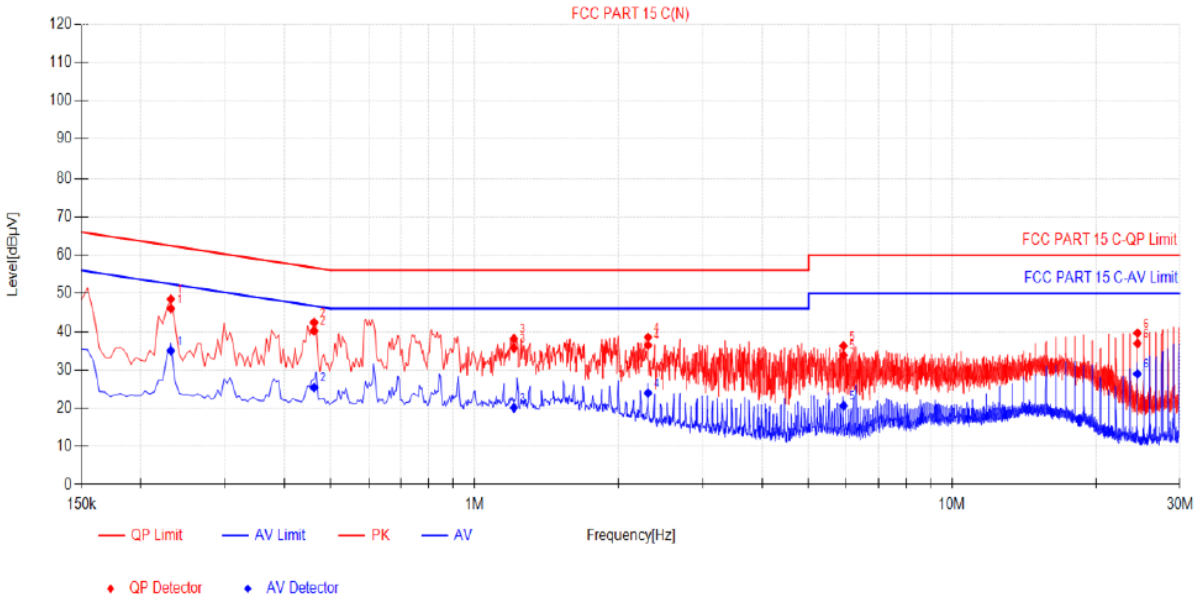
Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)

2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)

4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



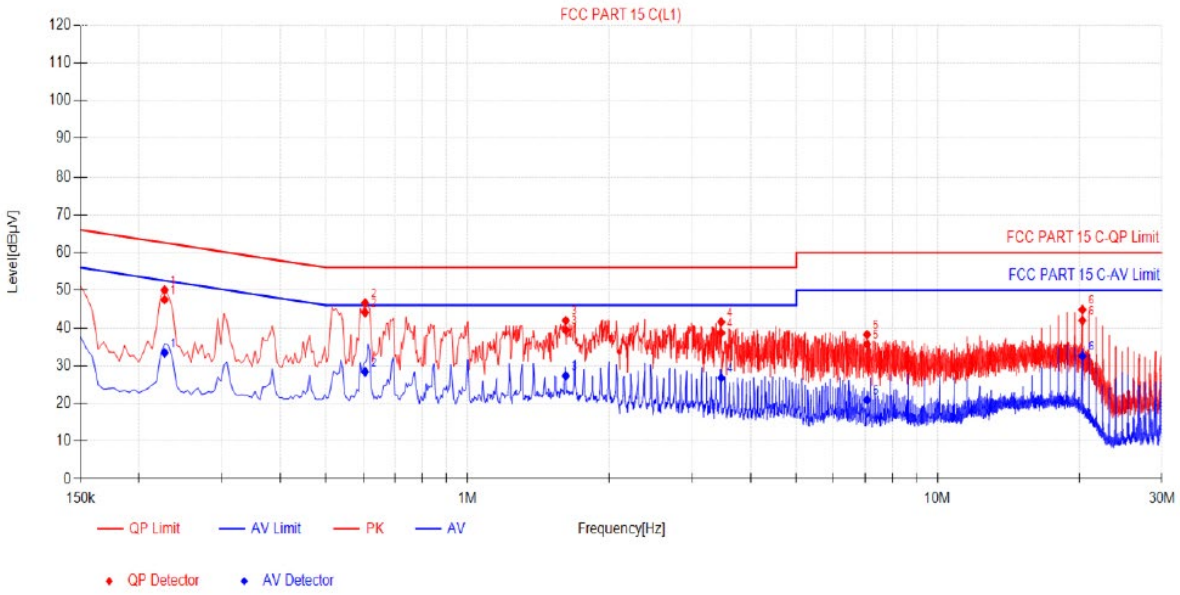
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.231	9.99	36.01	46.00	62.41	16.41	25.01	35.00	52.41	17.41	PASS
2	0.4605	9.98	30.20	40.18	56.68	16.50	15.41	25.39	46.68	21.29	PASS
3	1.2075	10.18	25.51	35.69	56.00	20.31	9.93	20.11	46.00	25.89	PASS
4	2.3055	10.14	26.27	36.41	56.00	19.59	13.81	23.95	46.00	22.05	PASS
5	5.919	10.24	23.60	33.84	60.00	26.16	10.39	20.63	50.00	29.37	PASS
6	24.432	10.68	26.21	36.89	60.00	23.11	18.29	28.97	50.00	21.03	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: QS12

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L

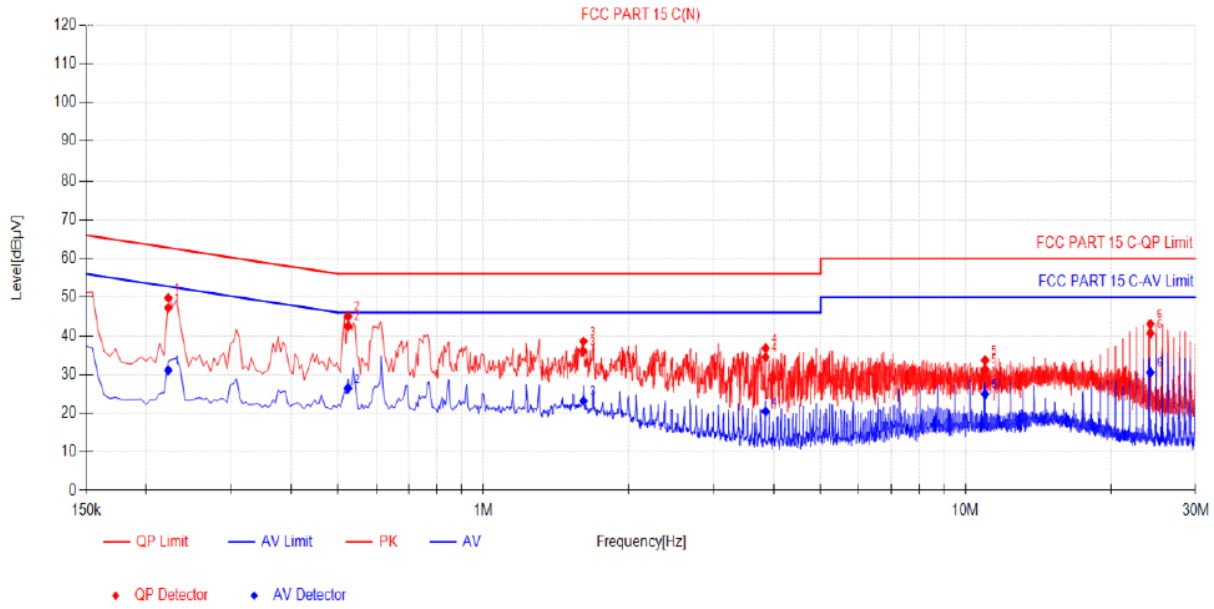


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.2265	10.01	37.49	47.50	62.58	15.08	23.40	33.41	52.58	19.17	PASS
2	0.6045	10.04	34.05	44.09	56.00	11.91	18.34	28.38	46.00	17.62	PASS
3	1.617	9.91	29.49	39.40	56.00	16.60	17.37	27.28	46.00	18.72	PASS
4	3.462	9.97	28.74	38.71	56.00	17.29	16.81	26.78	46.00	19.22	PASS
5	7.0755	10.30	25.37	35.67	60.00	24.33	10.62	20.92	50.00	29.08	PASS
6	20.3235	10.43	31.54	41.97	60.00	18.03	22.14	32.57	50.00	17.43	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



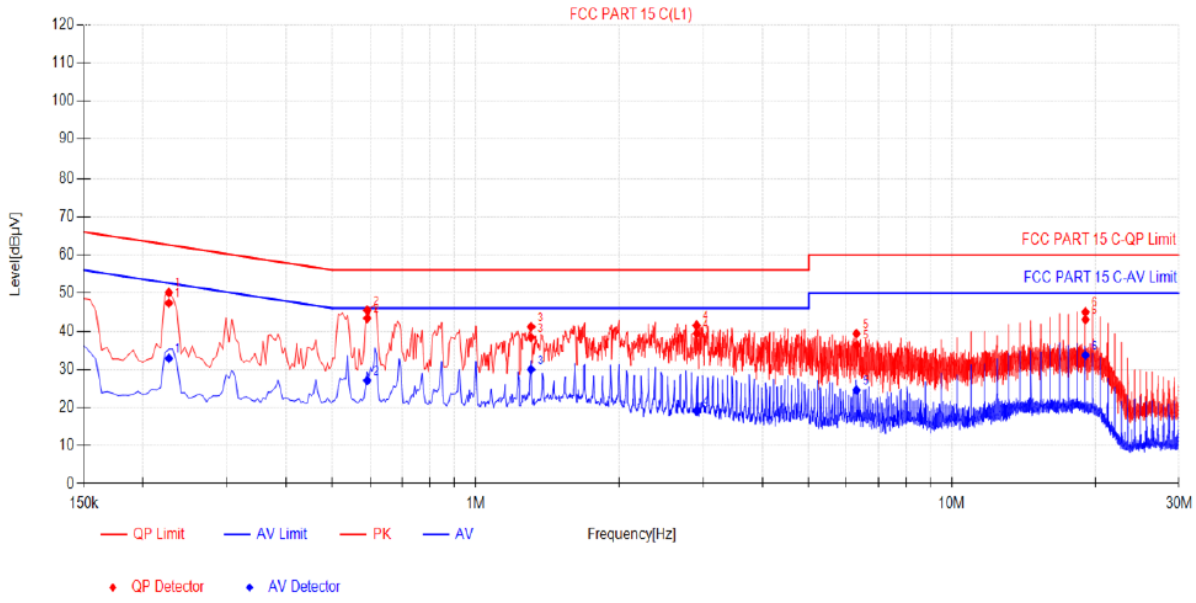
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.222	9.98	37.24	47.22	62.74	15.52	21.09	31.07	52.74	21.67	PASS
2	0.5235	10.04	32.43	42.47	56.00	13.53	16.34	26.38	46.00	19.62	PASS
3	1.6125	10.15	25.83	35.98	56.00	20.02	13.04	23.19	46.00	22.81	PASS
4	3.8445	10.14	24.36	34.50	56.00	21.50	10.32	20.46	46.00	25.54	PASS
5	10.9725	10.40	20.90	31.30	60.00	28.70	14.53	24.93	50.00	25.07	PASS
6	24.162	10.68	29.97	40.65	60.00	19.35	19.86	30.54	50.00	19.46	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: QS6

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L

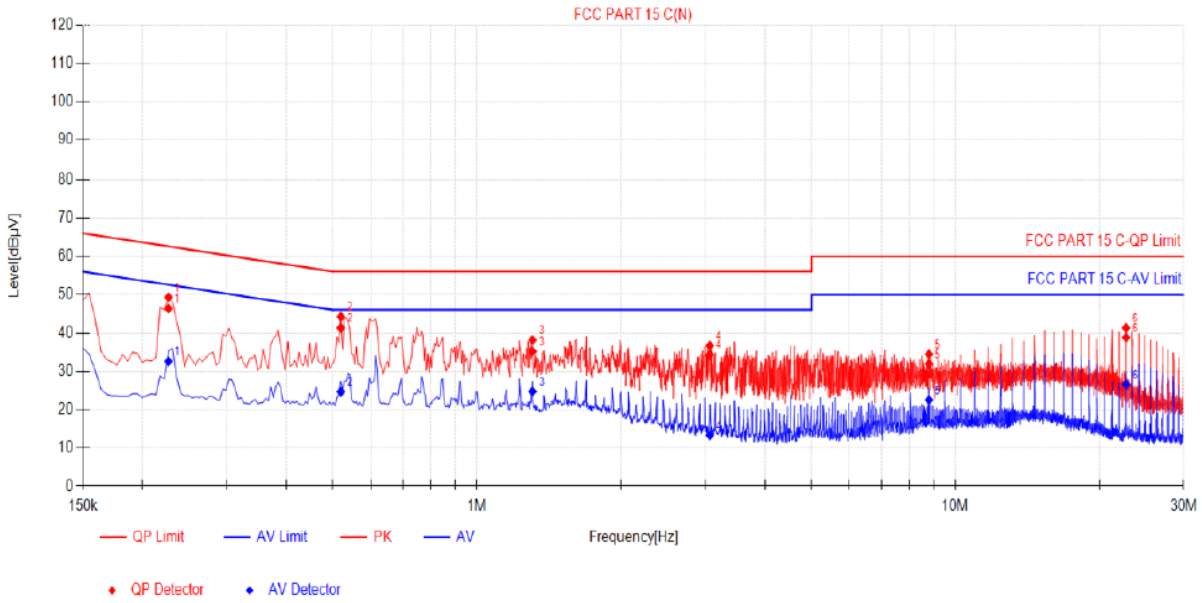


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.2265	10.01	37.34	47.35	62.58	15.23	22.86	32.87	52.58	19.71	PASS
2	0.591	10.04	33.32	43.36	56.00	12.64	17.03	27.07	46.00	18.93	PASS
3	1.3065	9.90	28.46	38.36	56.00	17.64	20.05	29.95	46.00	16.05	PASS
4	2.9085	10.03	29.36	39.39	56.00	16.61	9.05	19.08	46.00	26.92	PASS
5	6.306	10.19	26.17	36.36	60.00	23.64	14.37	24.56	50.00	25.44	PASS
6	19.0725	10.40	32.63	43.03	60.00	16.97	23.33	33.73	50.00	16.27	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



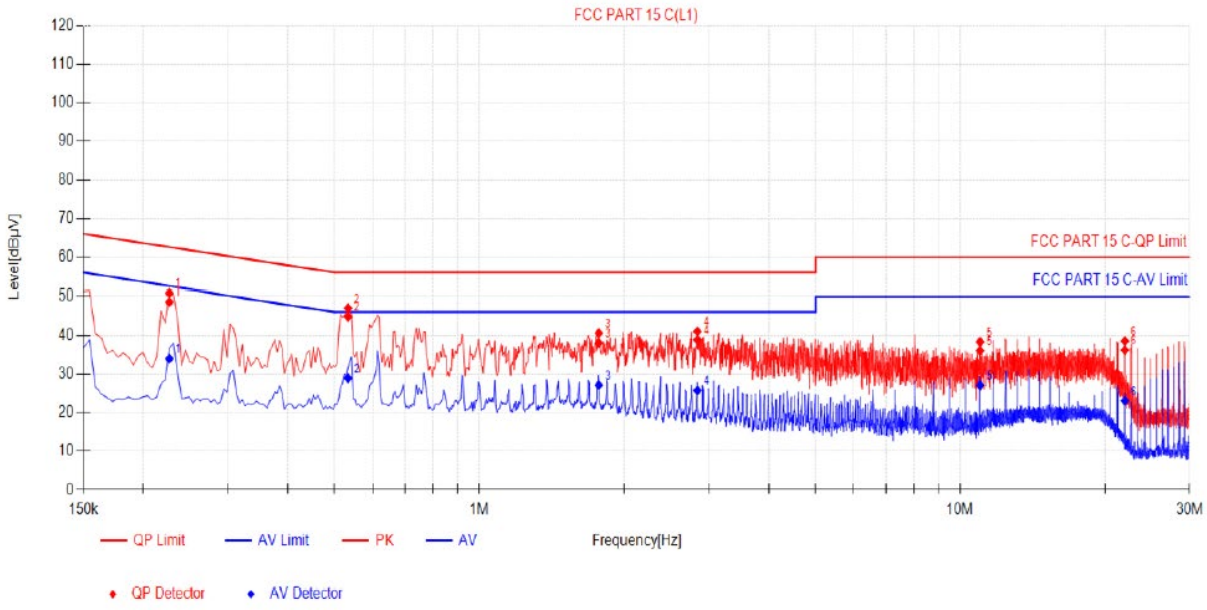
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.2265	9.99	36.38	46.37	62.58	16.21	22.61	32.60	52.58	19.98	PASS
2	0.519	10.04	31.27	41.31	56.00	14.69	14.65	24.69	46.00	21.31	PASS
3	1.3065	10.16	25.03	35.19	56.00	20.81	14.58	24.74	46.00	21.26	PASS
4	3.066	10.24	24.18	34.42	56.00	21.58	3.04	13.28	46.00	32.72	PASS
5	8.8035	10.41	21.59	32.00	60.00	28.00	12.11	22.52	50.00	27.48	PASS
6	22.7445	10.64	28.19	38.83	60.00	21.17	15.93	26.57	50.00	23.43	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: QS16

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L

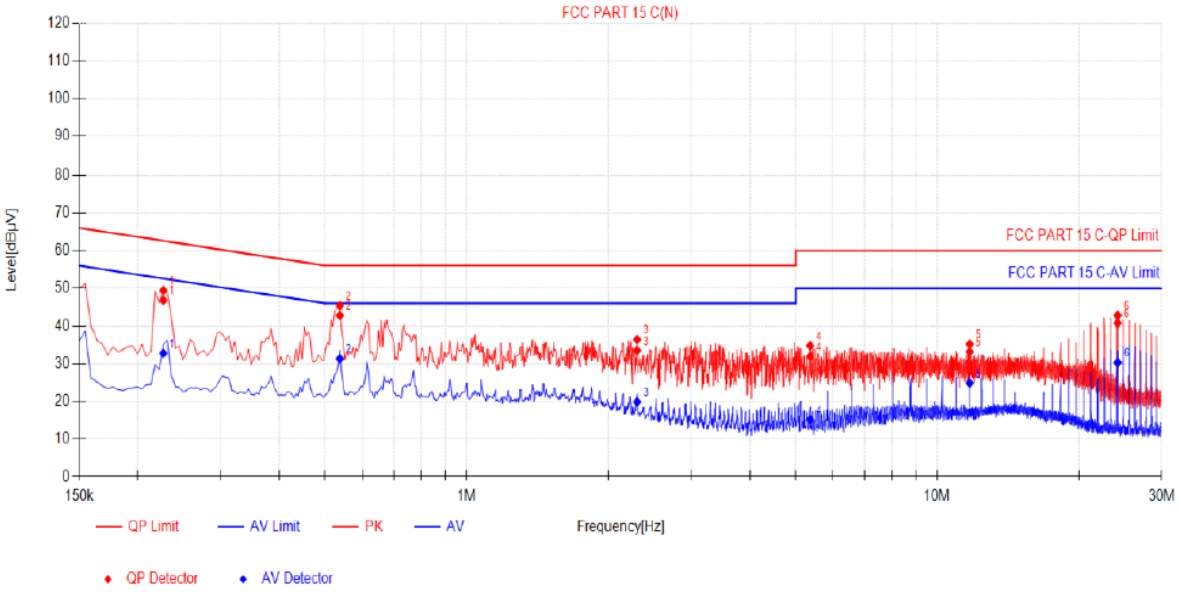


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.2265	10.01	38.62	48.63	62.58	13.95	23.96	33.97	52.58	18.61	PASS
2	0.5325	10.03	34.78	44.81	56.00	11.19	18.89	28.92	46.00	17.08	PASS
3	1.77	9.91	28.13	38.04	56.00	17.96	17.19	27.10	46.00	18.90	PASS
4	2.841	10.04	28.82	38.86	56.00	17.14	15.67	25.71	46.00	20.29	PASS
5	10.9995	10.26	25.74	36.00	60.00	24.00	16.80	27.06	50.00	22.94	PASS
6	21.9975	10.46	25.73	36.19	60.00	23.81	12.60	23.06	50.00	26.94	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



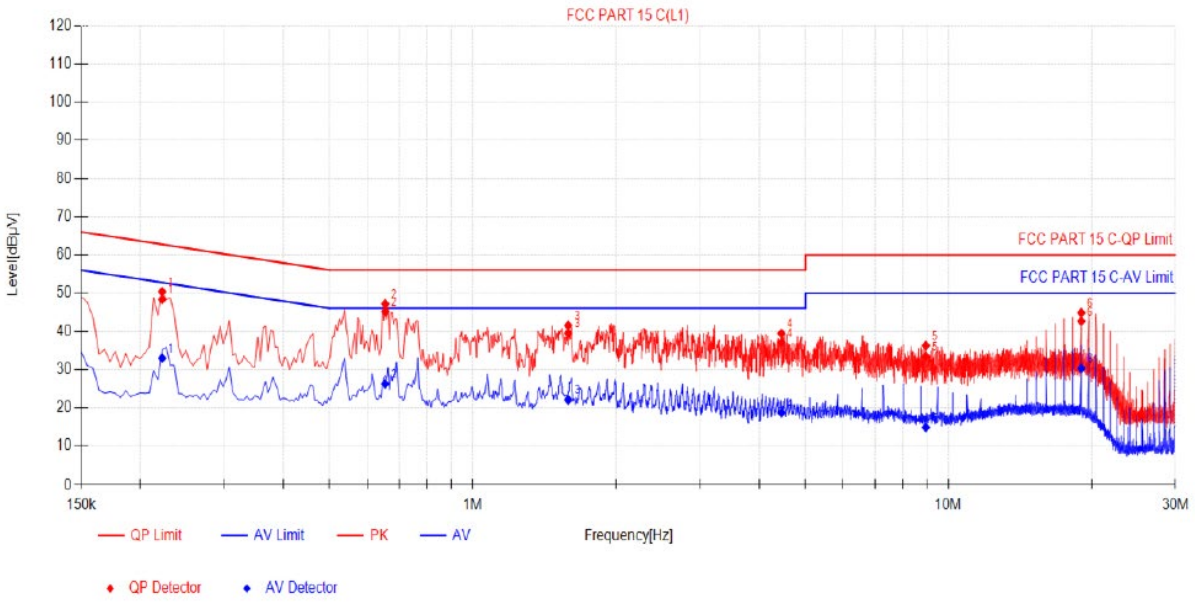
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.2265	9.99	36.81	46.80	62.58	15.78	22.78	32.77	52.58	19.81	PASS
2	0.537	10.06	32.70	42.76	56.00	13.24	21.24	31.30	46.00	14.70	PASS
3	2.301	10.15	23.32	33.47	56.00	22.53	9.71	19.86	46.00	26.14	PASS
4	5.37	10.14	21.81	31.95	60.00	28.05	5.01	15.15	50.00	34.85	PASS
5	11.724	10.41	22.75	33.16	60.00	26.84	14.45	24.86	50.00	25.14	PASS
6	24.1845	10.68	30.06	40.74	60.00	19.26	19.59	30.27	50.00	19.73	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: QS13

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L

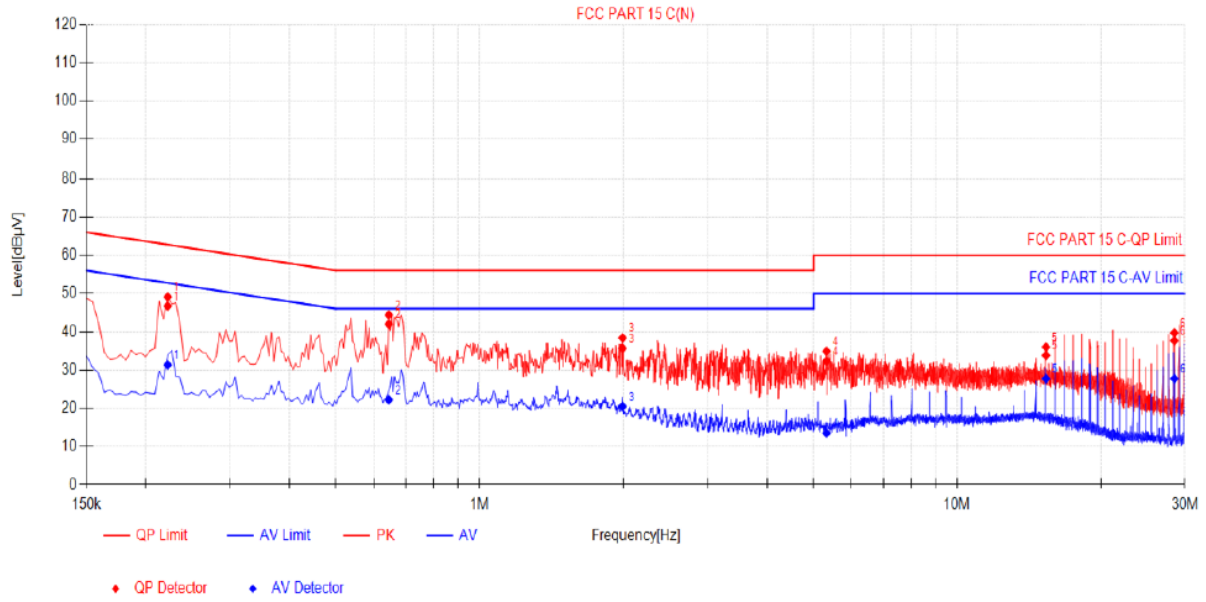


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.222	10.03	38.31	48.34	62.74	14.40	22.92	32.95	52.74	19.79	PASS
2	0.654	9.97	35.18	45.15	56.00	10.85	16.25	26.22	46.00	19.78	PASS
3	1.5855	9.90	29.59	39.49	56.00	16.51	12.18	22.08	46.00	23.92	PASS
4	4.452	9.95	27.15	37.10	56.00	18.90	8.76	18.71	46.00	27.29	PASS
5	8.961	10.27	23.14	33.41	60.00	26.59	4.58	14.85	50.00	35.15	PASS
6	19.0185	10.40	32.23	42.63	60.00	17.37	19.90	30.30	50.00	19.70	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



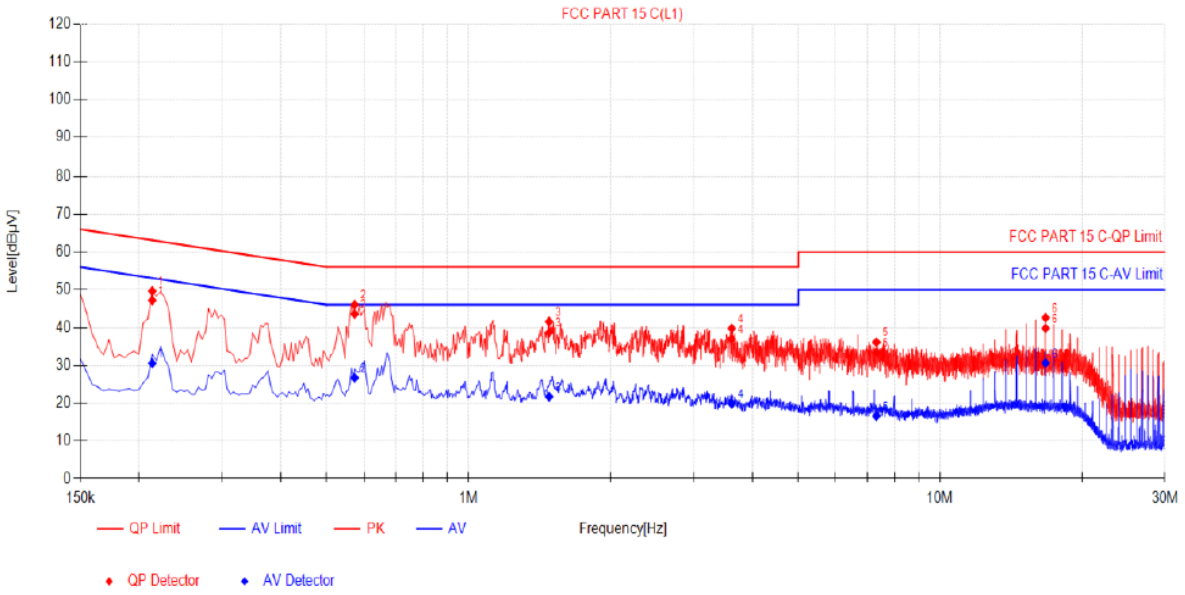
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.222	9.98	36.72	46.70	62.74	16.04	21.34	31.32	52.74	21.42	PASS
2	0.645	10.11	31.86	41.97	56.00	14.03	12.10	22.21	46.00	23.79	PASS
3	1.9905	10.19	25.47	35.66	56.00	20.34	10.29	20.48	46.00	25.52	PASS
4	5.325	10.14	22.14	32.28	60.00	27.72	3.37	13.51	50.00	36.49	PASS
5	15.351	10.43	23.41	33.84	60.00	26.16	17.30	27.73	50.00	22.27	PASS
6	28.4955	10.80	26.84	37.64	60.00	22.36	16.94	27.74	50.00	22.26	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: QS17

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L

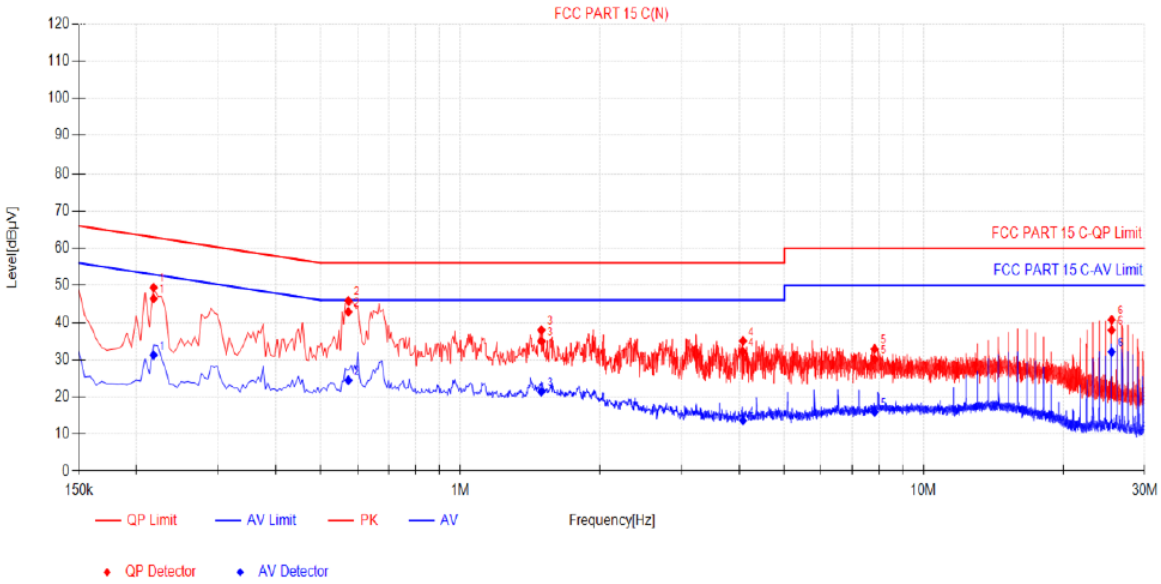


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.213	10.06	37.12	47.18	63.09	15.91	20.49	30.55	53.09	22.54	PASS
2	0.573	10.04	33.51	43.55	56.00	12.45	16.65	26.69	46.00	19.31	PASS
3	1.482	9.90	28.76	38.66	56.00	17.34	11.79	21.69	46.00	24.31	PASS
4	3.615	9.96	27.02	36.98	56.00	19.02	9.85	19.81	46.00	26.19	PASS
5	7.3275	10.29	23.11	33.40	60.00	26.60	6.26	16.55	50.00	33.45	PASS
6	16.737	10.34	29.45	39.79	60.00	20.21	20.30	30.64	50.00	19.36	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



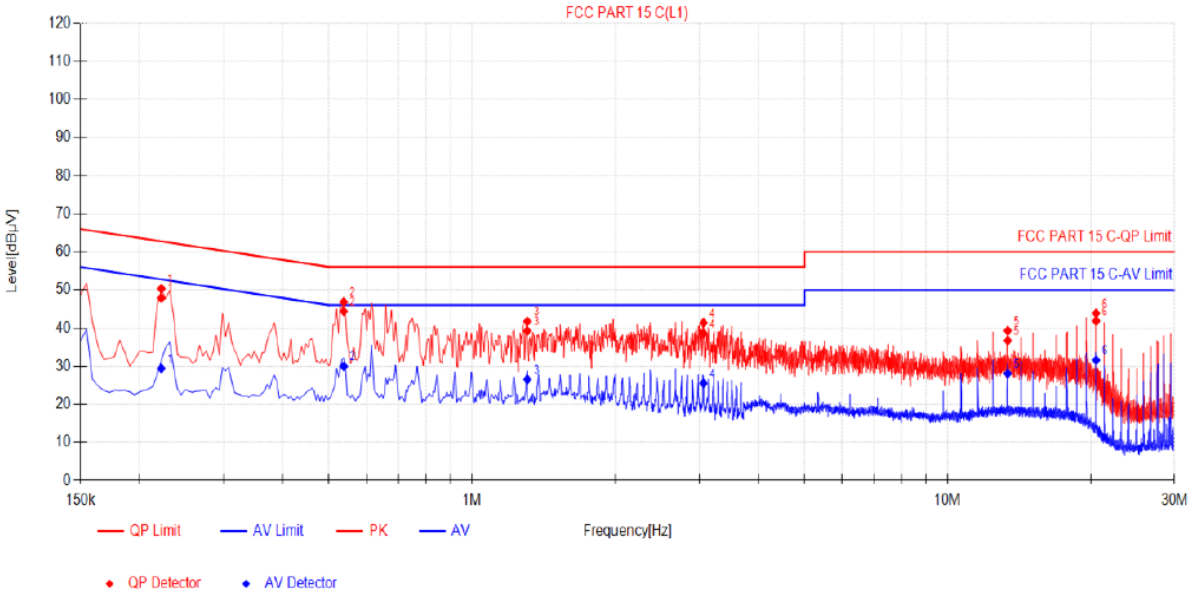
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.2175	9.98	36.44	46.42	62.91	16.49	21.24	31.22	52.91	21.69	PASS
2	0.573	10.12	32.73	42.85	56.00	13.15	14.35	24.47	46.00	21.53	PASS
3	1.4955	10.13	24.86	34.99	56.00	21.01	11.24	21.37	46.00	24.63	PASS
4	4.074	10.11	22.06	32.17	56.00	23.83	3.53	13.64	46.00	32.36	PASS
5	7.836	10.42	19.70	30.12	60.00	29.88	5.49	15.91	50.00	34.09	PASS
6	25.4535	10.71	27.21	37.92	60.00	22.08	21.36	32.07	50.00	17.93	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: TW39

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L

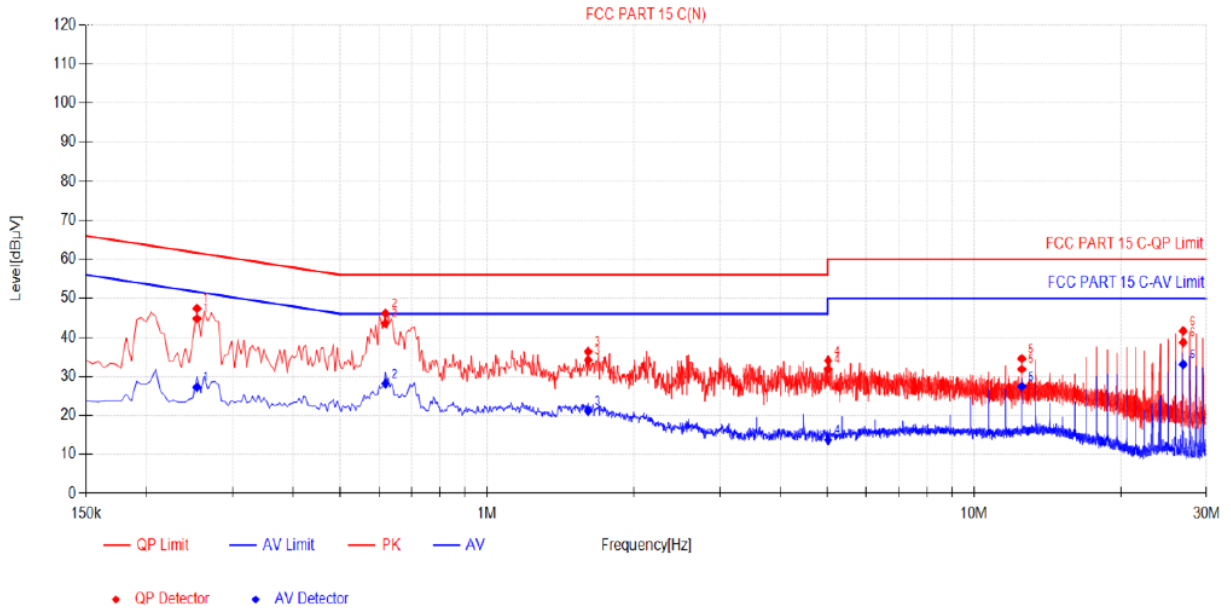


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.222	10.03	37.82	47.85	62.74	14.89	19.40	29.43	52.74	23.31	PASS
2	0.537	10.03	34.32	44.35	56.00	11.65	19.96	29.99	46.00	16.01	PASS
3	1.3065	9.90	29.35	39.25	56.00	16.75	16.64	26.54	46.00	19.46	PASS
4	3.066	10.01	28.58	38.59	56.00	17.41	15.53	25.54	46.00	20.46	PASS
5	13.3845	10.29	26.43	36.72	60.00	23.28	17.78	28.07	50.00	21.93	PASS
6	20.5305	10.44	31.42	41.86	60.00	18.14	21.18	31.62	50.00	18.38	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



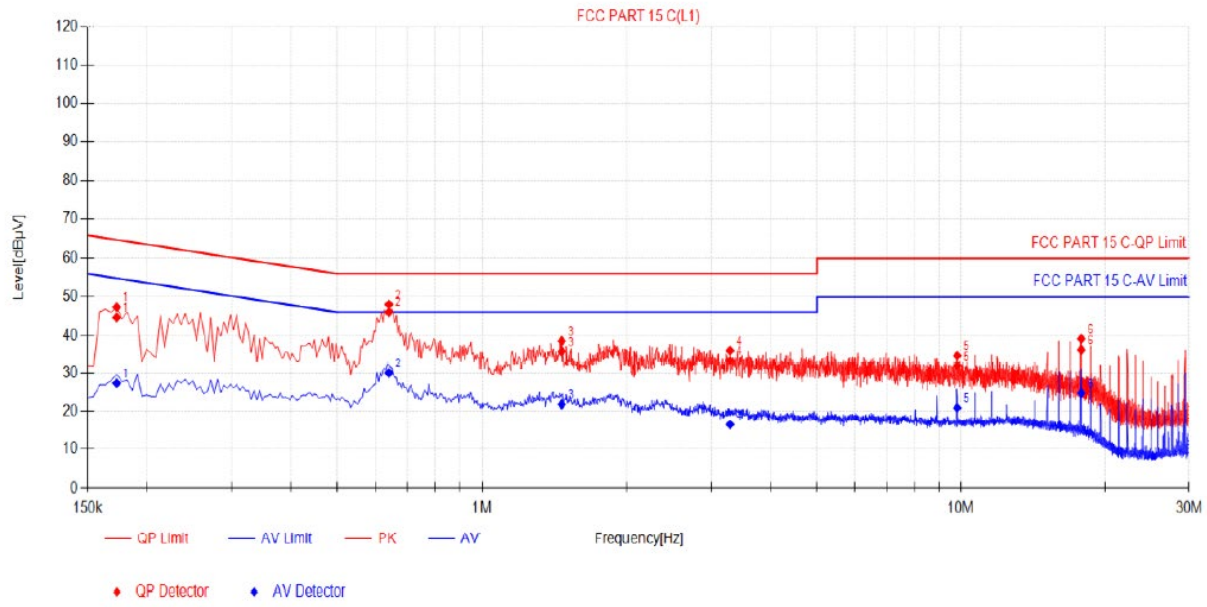
Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.2535	10.01	34.77	44.78	61.64	16.86	17.17	27.18	51.64	24.46	PASS
2	0.618	10.14	33.44	43.58	56.00	12.42	18.03	28.17	46.00	17.83	PASS
3	1.6125	10.15	23.99	34.14	56.00	21.86	10.95	21.10	46.00	24.90	PASS
4	5.0145	10.08	21.79	31.87	60.00	28.13	3.63	13.71	50.00	36.29	PASS
5	12.5295	10.41	21.44	31.85	60.00	28.15	16.99	27.40	50.00	22.60	PASS
6	26.8665	10.75	27.90	38.65	60.00	21.35	22.32	33.07	50.00	16.93	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Model: TW38

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	L

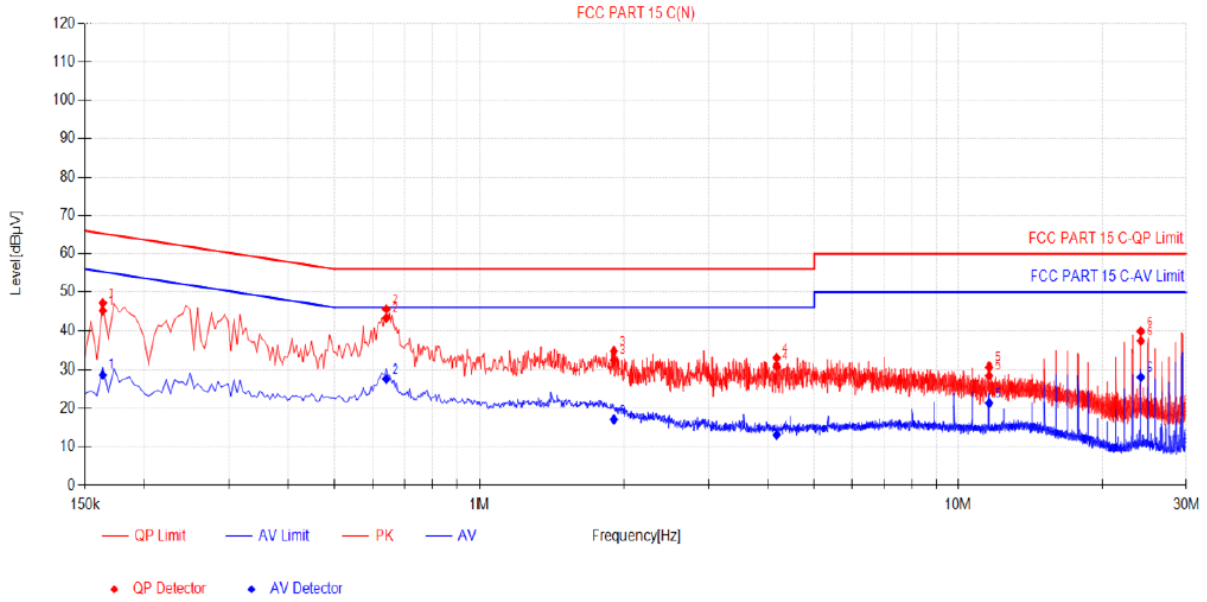


Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1725	9.97	34.67	44.64	64.84	20.20	17.43	27.40	54.84	27.44	PASS
2	0.6405	9.99	36.05	46.04	56.00	9.96	20.05	30.04	46.00	15.96	PASS
3	1.464	9.90	25.92	35.82	56.00	20.18	11.99	21.89	46.00	24.11	PASS
4	3.291	9.99	23.39	33.38	56.00	22.62	6.41	16.40	46.00	29.60	PASS
5	9.8295	10.25	21.66	31.91	60.00	28.09	10.70	20.95	50.00	29.05	PASS
6	17.8665	10.37	25.83	36.20	60.00	23.80	14.44	24.81	50.00	25.19	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

Power supply:	DC 5.0V from Adapter AC 120V/60Hz	Polarization	N



Final Data List

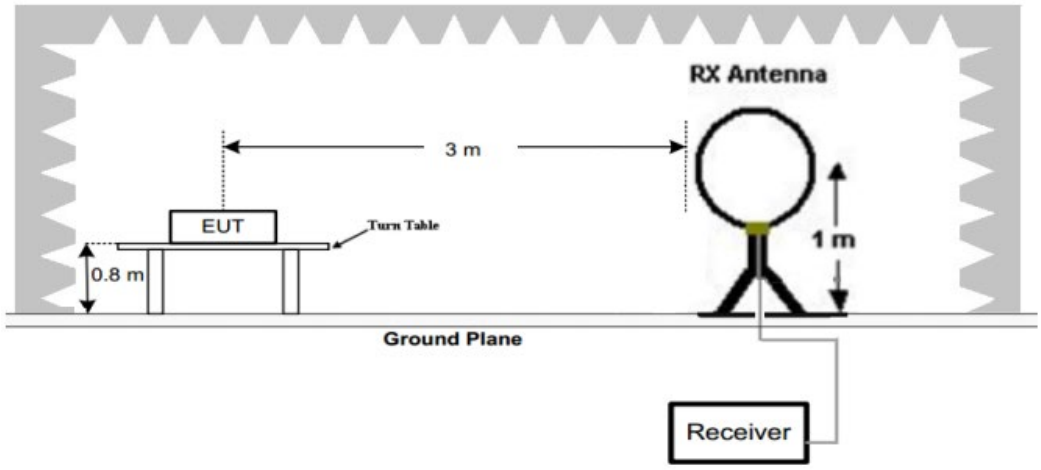
NO.	Freq. [MHz]	Factor [dB]	QP Reading[dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1635	10.05	35.09	45.14	65.28	20.14	18.65	28.70	55.28	26.58	PASS
2	0.6405	10.12	33.15	43.27	56.00	12.73	17.52	27.64	46.00	18.36	PASS
3	1.905	10.18	22.09	32.27	56.00	23.73	6.93	17.11	46.00	28.89	PASS
4	4.173	10.11	20.75	30.86	56.00	25.14	2.95	13.06	46.00	32.94	PASS
5	11.6025	10.41	18.10	28.51	60.00	31.49	10.98	21.39	50.00	28.61	PASS
6	24.1035	10.67	26.62	37.29	60.00	22.71	17.43	28.10	50.00	21.90	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

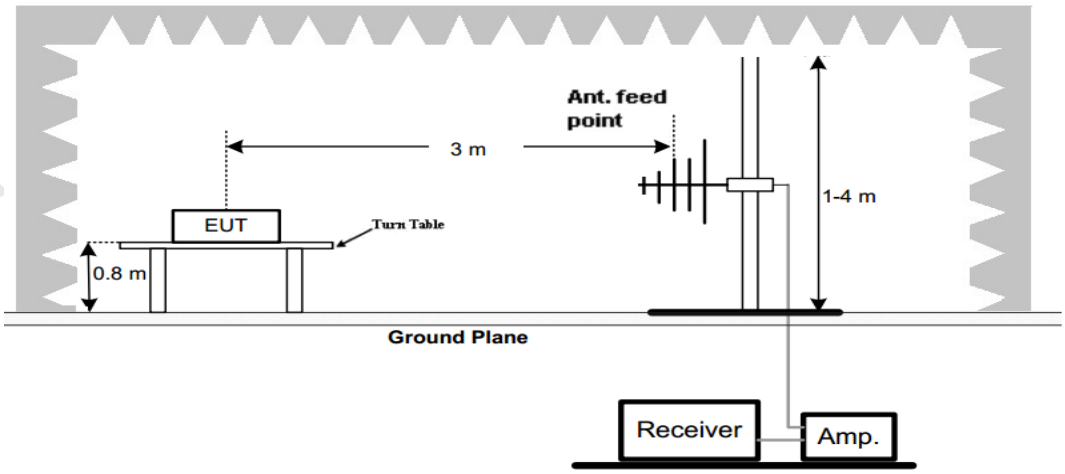
4.2 Radiated Emission

TEST CONFIGURATION

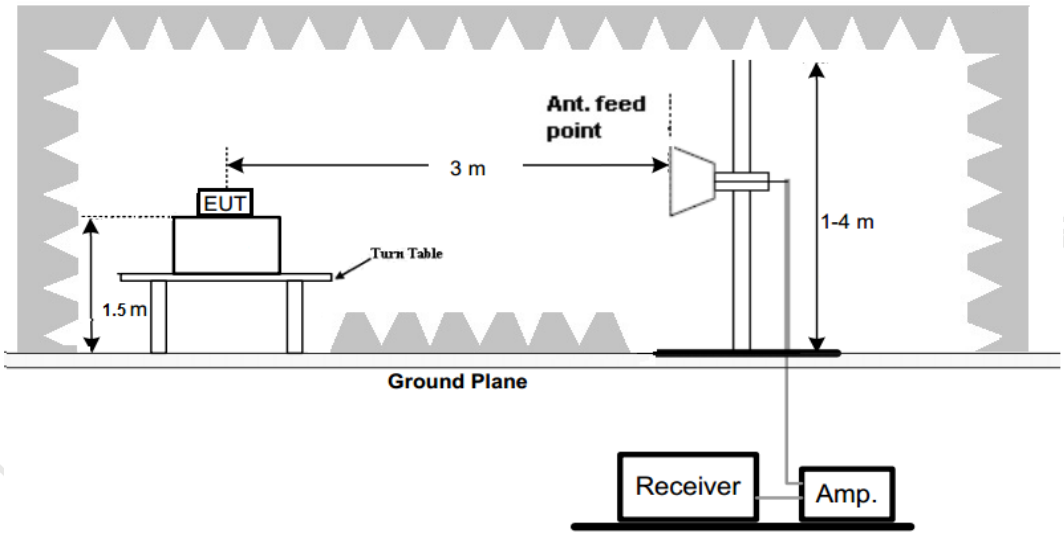
Frequency range 9 KHz – 30MHz

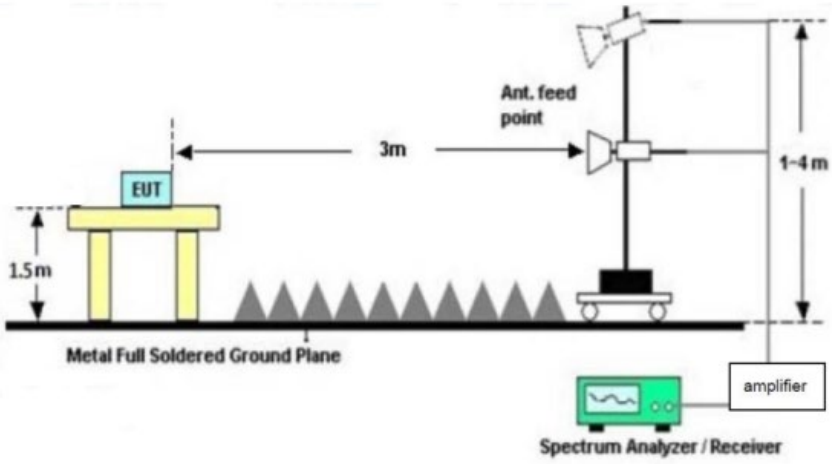


Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz





TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –1GHz;the EUT was placed on a turn table which is 1.5m above ground plane when testing frequency range 1GHz – 25GHz.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. Radiated emission test frequency band from 9KHz to 25GHz.
6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Ultra-Broadband Antenna	3
1GHz-18GHz	Double Ridged Horn Antenna	3
18GHz-25GHz	Horn Anternna	1

7. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

Transd=AF +CL-AG

RADIATION LIMIT

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission from intentional radiators at a distance of 3 meters shall not exceed the following table. According to § 15.247(d), in any 100kHz bandwidth outside the frequency band in which the EUT is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the100kHz bandwidth within the band that contains the highest level of desired power.

The pre-test have done for the EUT in three axes and found the worst emission at position shown in test setup photos.

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST RESULTS

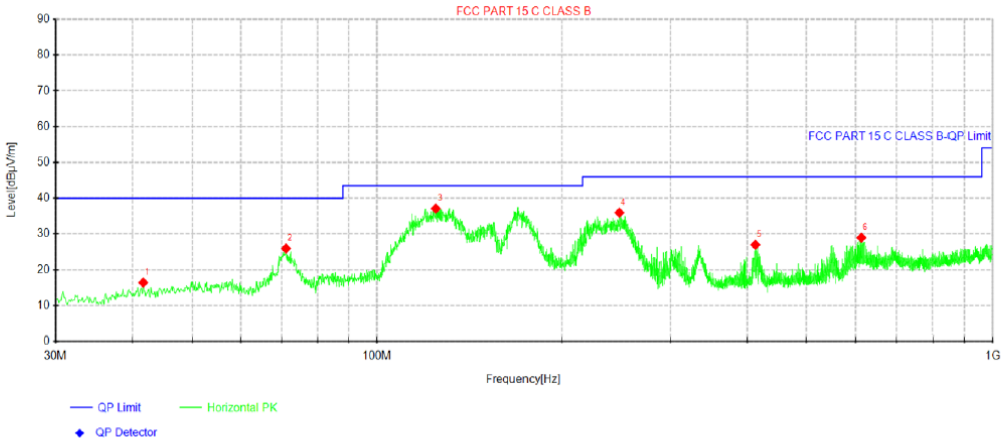
Remark:

1. This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.
2. All three channels (lowest/middle/highest) of each mode were measured below 1GHz and recorded worst case at 802.11b low channel.
3. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.
4. We tested the product in both adapter and solar panel power supply modes, and recorded the worst data for using the adapter in the report.

Model: TW37

For 30MHz-1GHz

Horizontal



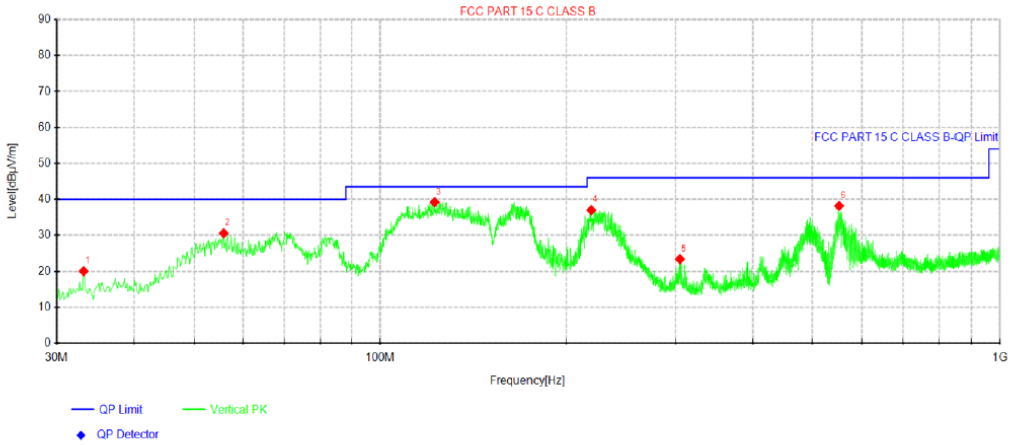
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	41.64	28.21	16.42	-11.79	40.00	23.58	100	265	Horizontal
2	71.1038	40.93	25.94	-14.99	40.00	14.06	100	0	Horizontal
3	124.575	52.82	37.09	-15.73	43.50	6.41	200	231	Horizontal
4	247.886	48.13	35.97	-12.16	46.00	10.03	100	288	Horizontal
5	412.422	37.04	26.97	-10.07	46.00	19.03	100	115	Horizontal
6	613.818	34.66	28.98	-5.68	46.00	17.02	200	161	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	33.1525	33.92	20.04	-13.88	40.00	19.96	100	106	Vertical
2	55.8262	42.32	30.57	-11.75	40.00	9.43	100	315	Vertical
3	122.392	54.06	39.22	-14.84	43.50	4.28	200	8	Vertical
4	219.392	49.52	37.02	-12.50	46.00	8.98	100	5	Vertical
5	304.995	34.27	23.39	-10.88	46.00	22.61	100	189	Vertical
6	551.86	46.93	38.17	-8.76	46.00	7.83	200	8	Vertical

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

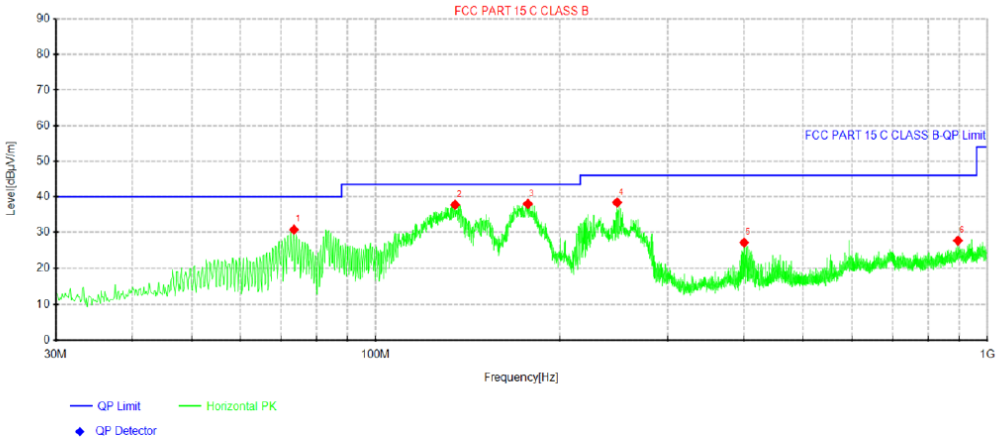
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Model: TW36

For 30MHz-1GHz

Horizontal

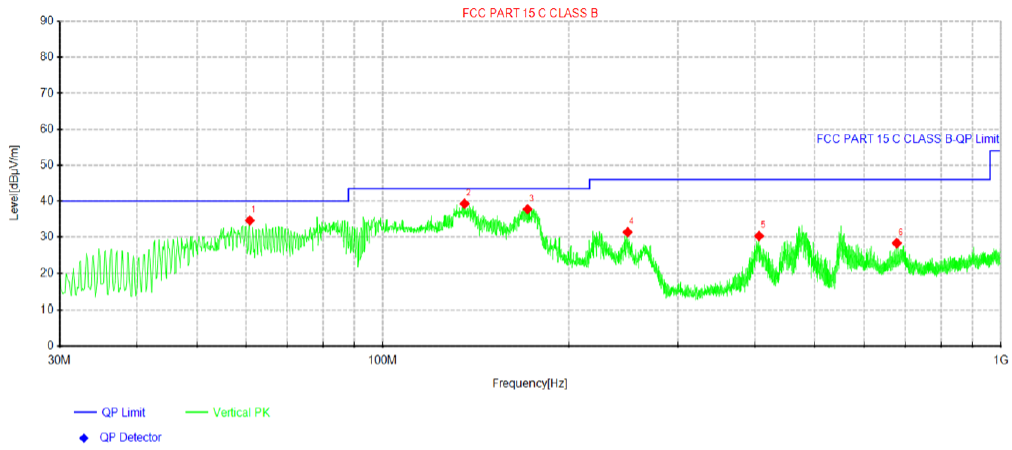


Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	73.5288	46.43	30.76	-15.67	40.00	9.24	100	0	Horizontal
2	134.881	53.86	37.75	-16.11	43.50	5.75	100	184	Horizontal
3	177.318	52.68	37.99	-14.69	43.50	5.51	100	242	Horizontal
4	248.128	50.56	38.40	-12.16	46.00	7.60	100	291	Horizontal
5	400.297	37.22	27.13	-10.09	46.00	18.87	100	254	Horizontal
6	894.876	30.27	27.68	-2.59	46.00	18.32	100	173	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)
3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	60.9188	47.62	34.64	-12.98	40.00	5.36	100	21	Vertical
2	135.608	55.34	39.30	-16.04	43.50	4.20	100	134	Vertical
3	171.498	52.74	37.79	-14.95	43.50	5.71	100	320	Vertical
4	248.856	43.54	31.40	-12.14	46.00	14.60	100	2	Vertical
5	406.238	40.42	30.32	-10.10	46.00	15.68	100	2	Vertical
6	678.323	33.68	28.36	-5.32	46.00	17.64	100	296	Vertical

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

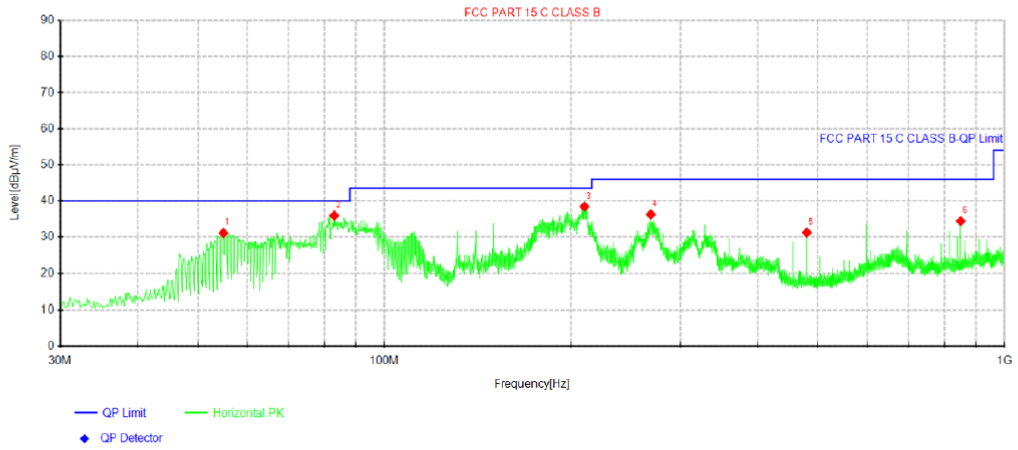
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Model: QS12

For 30MHz-1GHz

Horizontal



Suspected Data List

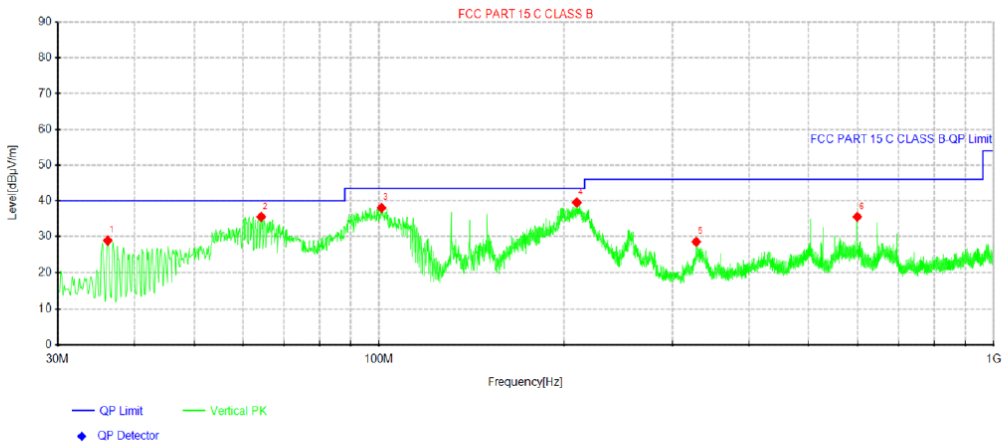
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	54.9775	42.69	31.14	-11.55	40.00	8.86	100	0	Horizontal
2	82.9862	52.16	35.94	-16.22	40.00	4.06	100	152	Horizontal
3	210.177	51.16	38.42	-12.74	43.50	5.08	100	58	Horizontal
4	268.862	47.93	36.27	-11.66	46.00	9.73	100	70	Horizontal
5	479.958	40.57	31.25	-9.32	46.00	14.75	100	152	Horizontal
6	850.013	38.12	34.41	-3.71	46.00	11.59	100	268	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.1838	42.19	28.89	-13.30	40.00	11.11	100	102	Vertical
2	64.3138	49.34	35.53	-13.81	40.00	4.47	100	34	Vertical
3	100.931	51.03	38.07	-12.96	43.50	5.43	100	360	Vertical
4	209.813	52.29	39.55	-12.74	43.50	3.95	100	354	Vertical
5	328.153	39.43	28.56	-10.87	46.00	17.44	100	360	Vertical
6	599.996	41.46	35.55	-5.91	46.00	10.45	100	309	Vertical

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

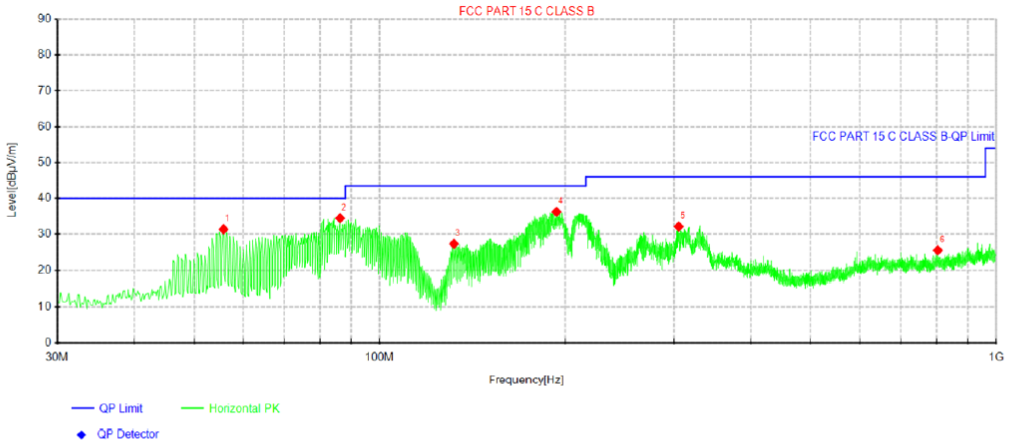
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Model: QS6

For 30MHz-1GHz

Horizontal



Suspected Data List

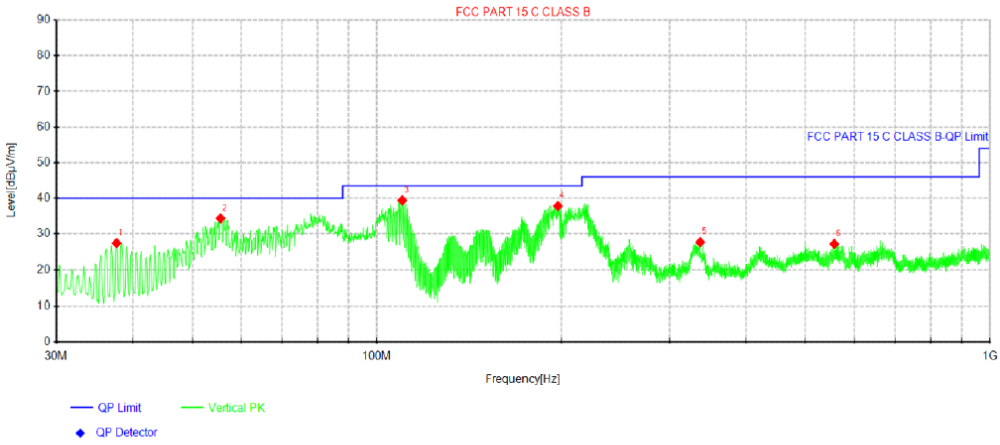
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	55.8262	43.14	31.39	-11.75	40.00	8.61	100	1	Horizontal
2	86.26	50.02	34.47	-15.55	40.00	5.53	100	12	Horizontal
3	131.971	43.62	27.31	-16.31	43.50	16.19	100	204	Horizontal
4	193.566	49.57	36.26	-13.31	43.50	7.24	100	77	Horizontal
5	305.48	43.03	32.15	-10.88	46.00	13.85	100	273	Horizontal
6	804.06	30.06	25.54	-4.52	46.00	20.46	100	146	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	37.6388	40.23	27.45	-12.78	40.00	12.55	100	124	Vertical
2	55.5838	46.05	34.36	-11.69	40.00	5.64	100	306	Vertical
3	110.025	52.77	39.43	-13.34	43.50	4.07	100	239	Vertical
4	197.325	50.90	37.88	-13.02	43.50	5.62	100	3	Vertical
5	336.762	38.49	27.70	-10.79	46.00	18.30	100	341	Vertical
6	557.316	35.62	27.21	-8.41	46.00	18.79	100	171	Vertical

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

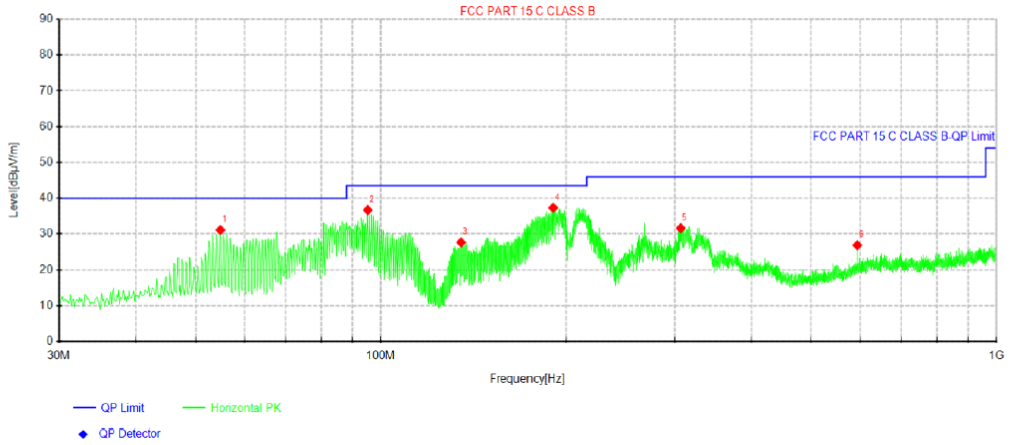
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Model: QS16

For 30MHz-1GHz

Horizontal



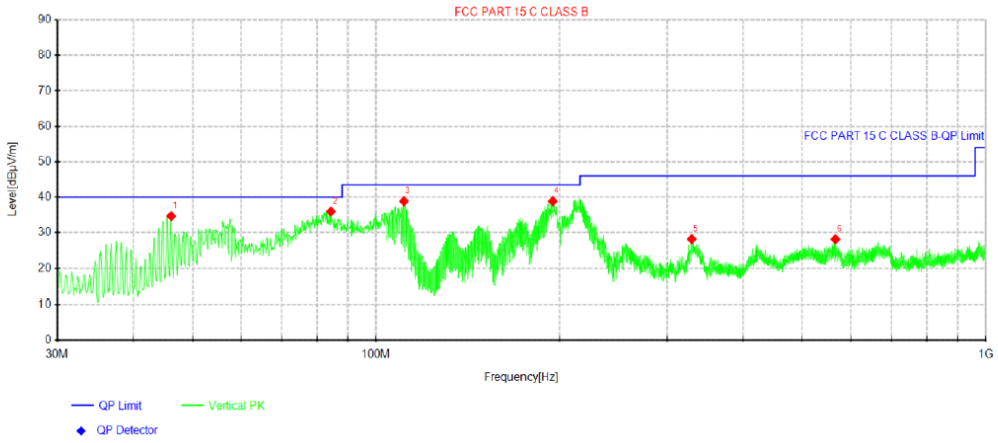
Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	54.8562	42.67	31.13	-11.54	40.00	8.87	100	349	Horizontal
2	95.2325	50.52	36.69	-13.83	43.50	6.81	100	159	Horizontal
3	135.002	43.78	27.69	-16.09	43.50	15.81	100	217	Horizontal
4	190.535	50.83	37.33	-13.50	43.50	6.17	100	67	Horizontal
5	306.935	42.51	31.63	-10.88	46.00	14.37	100	252	Horizontal
6	594.055	33.08	26.90	-6.18	46.00	19.10	100	229	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	46.1262	46.05	34.68	-11.37	40.00	5.32	100	353	Vertical
2	84.32	51.93	35.97	-15.96	40.00	4.03	100	359	Vertical
3	111.116	52.32	38.91	-13.41	43.50	4.59	100	237	Vertical
4	194.9	52.14	38.92	-13.22	43.50	4.58	100	34	Vertical
5	329.245	39.06	28.21	-10.85	46.00	17.79	100	342	Vertical
6	566.895	36.04	28.16	-7.88	46.00	17.84	100	168	Vertical

Note:1).Level (dBμV/m)= Reading (dBμV)+ Factor (dB/m)

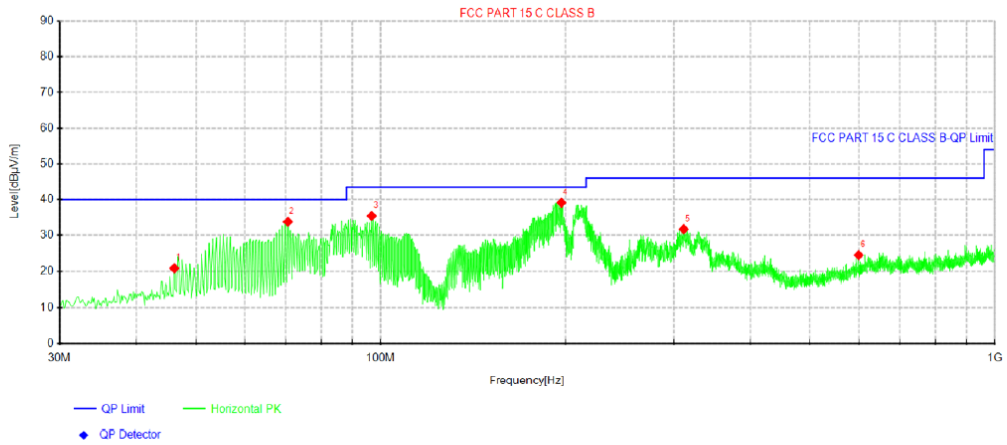
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBμV/m) - Level (dBμV/m)

Model: QS13

For 30MHz-1GHz

Horizontal



Suspected Data List

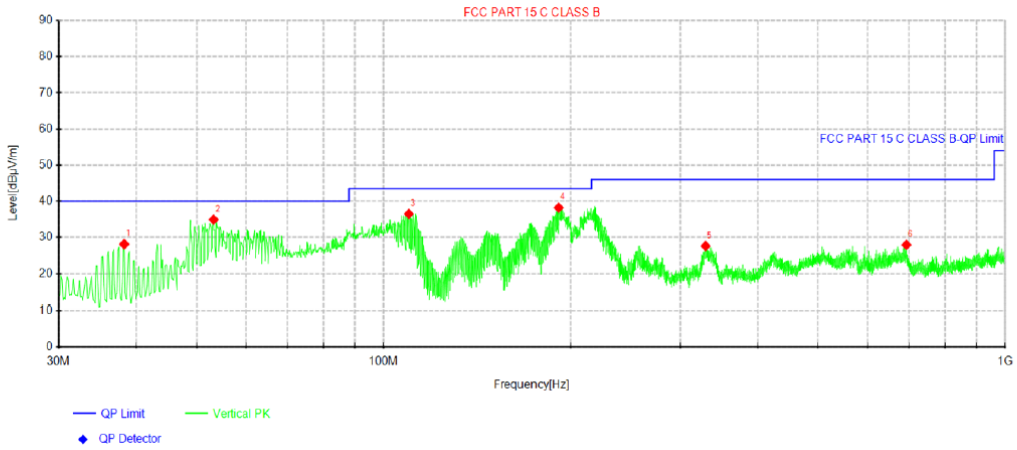
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	46.1262	32.15	20.78	-11.37	40.00	19.22	100	357	Horizontal
2	70.6188	48.64	33.79	-14.85	40.00	6.21	100	0	Horizontal
3	96.6875	48.99	35.43	-13.56	43.50	8.07	100	166	Horizontal
4	196.84	52.20	39.14	-13.06	43.50	4.36	100	61	Horizontal
5	311.542	42.61	31.72	-10.89	46.00	14.28	100	293	Horizontal
6	600.117	30.39	24.48	-5.91	46.00	21.52	100	212	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	38.245	40.72	28.14	-12.58	40.00	11.86	100	138	Vertical
2	53.28	46.32	34.91	-11.41	40.00	5.09	100	81	Vertical
3	109.782	49.84	36.51	-13.33	43.50	6.99	100	254	Vertical
4	191.262	51.69	38.25	-13.44	43.50	5.25	100	11	Vertical
5	329.608	38.49	27.64	-10.85	46.00	18.36	100	360	Vertical
6	693.358	33.12	27.95	-5.17	46.00	18.05	100	254	Vertical

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

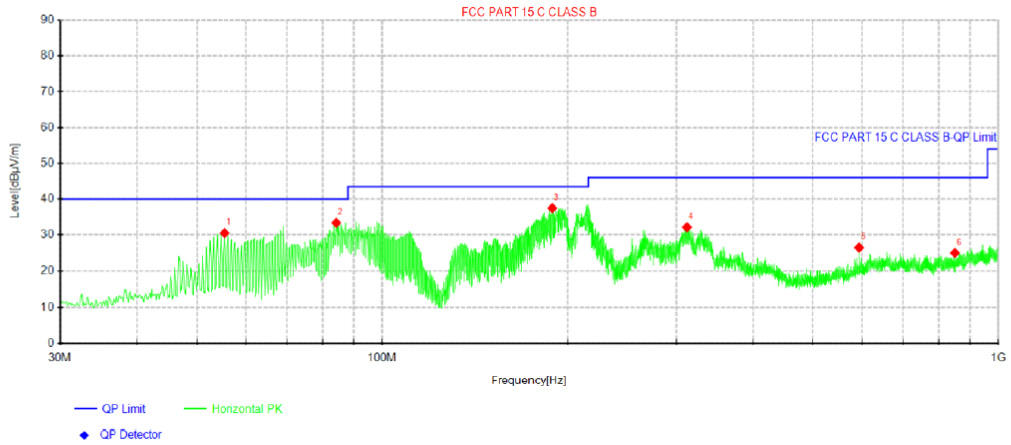
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Model: QS17

For 30MHz-1GHz

Horizontal



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	55.4625	42.20	30.54	-11.66	40.00	9.46	100	0	Horizontal
2	84.1988	49.34	33.36	-15.98	40.00	6.64	100	15	Horizontal
3	188.837	51.18	37.49	-13.69	43.50	6.01	100	57	Horizontal
4	312.391	43.04	32.14	-10.90	46.00	13.86	100	269	Horizontal
5	594.055	32.65	26.47	-6.18	46.00	19.53	100	210	Horizontal
6	850.135	28.70	24.99	-3.71	46.00	21.01	100	150	Horizontal

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)