TEST REPORT

Application No.:	SEWM2212000312RG
Applicant:	Sony Corporation
Address of Applicant:	1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan
Manufacturer:	Sony Corporation
Address of Manufacturer:	1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan
EUT Description:	GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac, NFC and GNSS
Trade Mark:	Sony
FCC ID:	PY7-18176E
Standards:	FCC 47 CFR Part 15, Subpart C 15.225
Date of Receipt:	2022/11/30
Date of Test:	2022/12/26 to 2023/03/09 (for original report SEWM2212000308RG07) 2023/01/01 to 2023/03/09 (for new report SEWM2212000312RG07)
Date of Issue:	2023/03/09
Test Result :	**PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Authorized Signature:

Panta Sun

Panta Sun
Wireless Laboratory Manager

1 Version

Revision Record				
Version	***Chapter***	***Date***	***Modifier***	***Remark***
01		2023/03/09		Original

Prepared By		**(Ives Cheng) / Test Engineer**
Checked By		**(Well Wei) / Reviewer**

2 Test Summary

Test Item	FCC Rules No.	Test Method	Test Result	Result
Antenna Requirement	15.203	--	Clause 4.1	PASS
AC Power Line Conducted Emission	15.207	ANSI C63.10 2013	Clause 4.3	PASS*
20dB Spectrum Bandwidth	15.215(c)	ANSI C63.10 2013	Clause 4.4	PASS
Frequency Stability	15.225(e)	ANSI C63.10 2013	Clause 4.5	PASS
Field Strength of Fundamental Emissions	15.225(a)(b)(c)	ANSI C63.10 2013	Clause 4.6	PASS*
Radiated Spurious Emissions	15.225(d)/15.209	ANSI C63.10 2013	Clause 4.7	PASS*
Remark: “PASS*” There is FCC ID PY7-18176E (this model) spot check data. "Pass" refers to FCC ID PY7-51629L (parent model) data.				

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone 215000 t (86-512) 62992980 www.sgsgroup.com.cn
中国·苏州·中国（江苏）自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编：215000 t (86-512) 62992980 sgs.china@sgs.com

Remark:

This test report (Report No.: SEWM2212000312RG07 issue on 2023/03/09) is based on the original test report (Report No.: SEWM2212000308RG07 issue on 2023/03/09).

Introduction section:

Sony corporation, hereby declares that the test data reuse policy of FCC KDB 484596D01 v01 has been followed and take full responsibility that the test data as referenced form the parent model report FCC ID PY7-51629L represents compliance for the new FCC ID PY7-18176E.

Difference section:

Sony corporation, hereby declares FCC ID PY7-18176E(this model) is the variant from FCC ID PY7-51629L(parent model). They have the same dimension and share the same PCB layout, antennas and components in WLAN and Bluetooth, Though both devices use different names for the NFC chipset, this difference lies in the payment manager application software installed on the secure microcomputer, and there is also no difference in electrical and RF performance for NFC.

Reference detail section:

Therefore in this report AC Power Line Conducted Emission, Field Strength of Fundamental Emissions and Radiated Spurious Emissions were performed based on the worst case of the original report with report number SEWM2212000308RG07 issue on 2023/03/09 and other test data in this report are based on the previous report with report number SEWM2212000308RG07 issue on 2023/03/09.

Rule part	Equipment class	Reference FCC ID	Type Grant /permissive Change	Reference Report	Variant model FCC ID	Variant model Report
15C	DXX	PY7-51629L	Original Grant	SEWM2212000 308RG07	PY7-18176E	SEWM2212000 312RG07

Summary of the Spot check:

AC Power Line Conducted Emission test and radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing and the verification test results similar to the original FCC ID. All tests meet FCC technical limits. Detail sport check test result can be found in the variant model report.

Test Item	PY7-18176E Worst Result	PY7-51629L Worst Result	Difference(dB)
AC Power Line Conducted Emission	36.54	40.45	-3.91
Field Strength of Fundamental Emissions	49.23	54.04	-4.81
Radiated Spurious Emissions	27.61	29.39	-1.79

Contents

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3 General Information

3.1 Details of Client

Applicant:	Sony Corporation
Address of Applicant:	1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan
Manufacturer:	Sony Corporation
Address of Manufacturer:	1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan

3.2 Test Location

Company:	SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.
Address:	South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone
Post code:	215000
Test engineer:	Ives Cheng, Tizzy Song

3.3 Test Facility

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

- **A2LA (Certificate No. 6336.01)**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6336.01.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0120.

IC#: 27594.

- **FCC –Designation Number: CN1312**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized as an accredited testing laboratory.

Designation Number: CN1312.

Test Firm Registration Number: 717327

3.4 General Description of EUT

EUT Description:	GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac, NFC and GNSS
Trade Mark:	Sony
Hardware Version:	A
Software Version:	0.287
SN:	HQ62B2030D HQ62B20A2C
Operation Frequency:	13.56MHz
Modulation Type:	ASK
NFC Type:	Type A, B, F and V
	Remark: the EUT has been pre-scanned in NFC Type A, B, F and V. the worst type(Type A) was recorded in this report if no others remark in the test items.
Antenna Type:	Loop Antenna
Remark: As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.	

3.5 Test Environment

Environment Parameter	101.0 kPa Selected Values During Tests	
Relative Humidity	44-46 % RH Ambient	
Value	**Temperature(℃)**	**Voltage(V)**
NTNV	22~23	3.89
LTLV	-20	3.40
LTHV	-20	4.48
HTLV	50	3.40
HTHV	50	4.48

Remark:

NV: Normal Voltage LV: Low Extreme Test Voltage HV: High Extreme Test Voltage

NT: Normal Temperature LT: Low Extreme Test Temperature HT: High Extreme Test Temperature

3.6 Description of Support Units

The EUT has been tested as an independent unit.

4 Test results and Measurement Data

4.1 Antenna Requirement

Standard requirement:	47 CFR Part 15C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
The antenna of the EUT are permanently attached.	

4.2 Worst-case configuration and mode

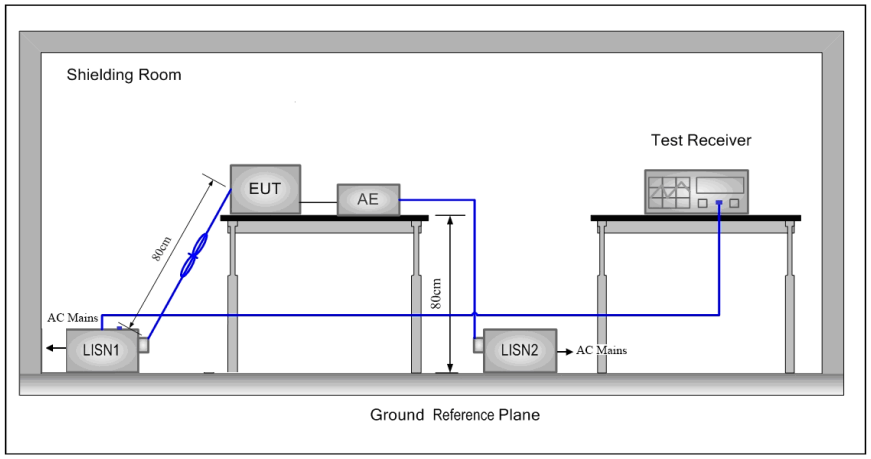
The fundamental of the EUT was investigated under three orthogonal orlentations X, Y, and Z. The X orientation was determined to be the worst-case orientation.

In addition, Type A, B, F, and V at each supported data rate and with/without a tag were investigated to determine the worst case based on the highest power and spurious emissions. Type A, 106Kbps without tag was determined to be the worst case and therefore Type A, 106Kbps without tag was selected for all final tests.

Although these tests were performed ther than open area test site, adequate comparison measurements were confirmed against 30m open are test site. Therefore sufficient tests were made to demonstrate that the altemative site prduces results that correlate with the ones of tests made in an ope field based on KDB 414788.

4.3 AC Power Line Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.207		
Test Method:	ANSI C63.10: 2013		
Test Frequency Range:	150kHz to 30MHz		
Limit:	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 Procedure:	1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane. 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.		

Test Setup:	
Instruments Used:	Refer to section 6 for details.
Test Results:	Pass

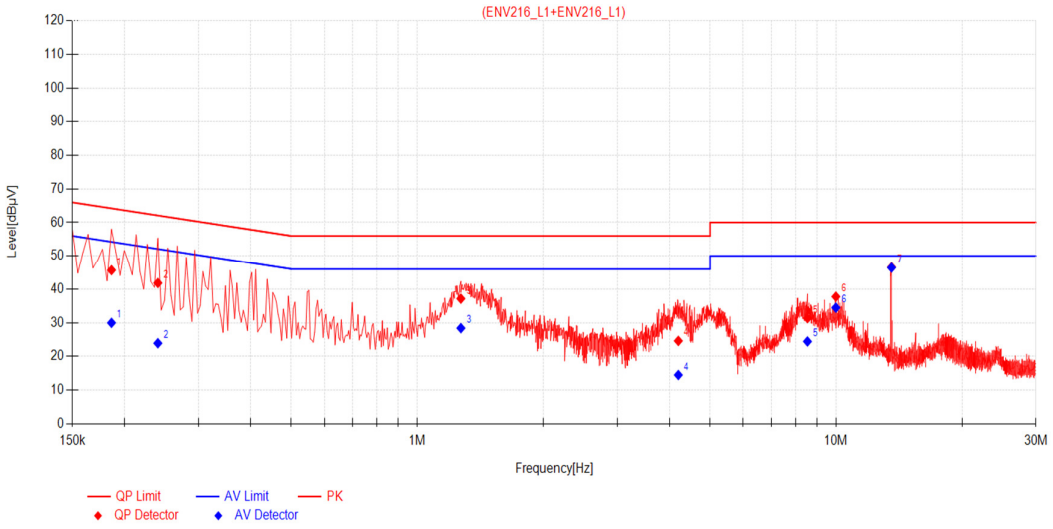
Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

For PY7-51629L(parent model) data:

Phase:	Line

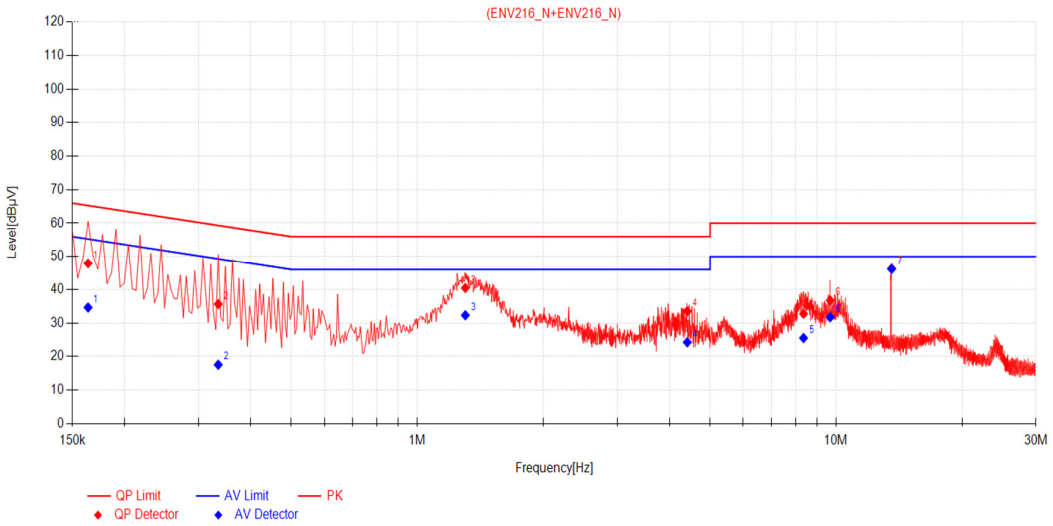


Final Data List

NO.	Frequency [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	0.1860	10.77	34.89	45.66	64.21	18.55	19.20	29.97	54.21	24.24	PASS
2	0.2400	10.80	31.03	41.83	62.10	20.27	13.12	23.92	52.10	28.18	PASS
3	1.2705	10.78	26.39	37.17	56.00	18.83	17.63	28.41	46.00	17.59	PASS
4	4.2000	10.71	13.91	24.62	56.00	31.38	3.79	14.50	46.00	31.50	PASS
5	8.5425	10.66	20.72	31.38	60.00	28.62	13.79	24.45	50.00	25.55	PASS
6	9.9870	10.63	27.13	37.76	60.00	22.24	23.85	34.48	50.00	15.52	PASS
7	13.5645	10.55	36.01	46.56	60.00	13.44	35.87	46.42	50.00	3.58	PASS

Remark:
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Value =Reading[dBµV] + Factor(Lisn factor[dB] + cable loss[dB]).
3. Margin = Limit[dBµV] – Value[dBµV]

Phase:	Neutral



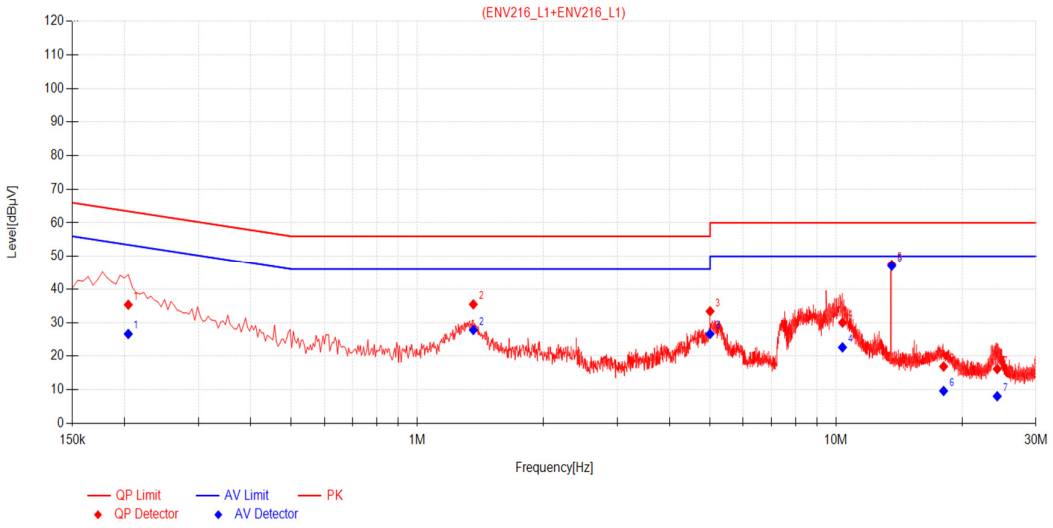
Final Data List

NO.	Frequency [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	10.72	37.18	47.90	65.28	17.38	23.91	34.63	55.28	20.65	PASS
2	0.3345	10.79	24.85	35.64	59.34	23.70	6.76	17.55	49.34	31.79	PASS
3	1.3020	10.78	29.67	40.45	56.00	15.55	21.52	32.30	46.00	13.70	PASS
4	4.4115	10.70	22.80	33.50	56.00	22.50	13.55	24.25	46.00	21.75	PASS
5	8.3625	10.59	22.14	32.73	60.00	27.27	14.94	25.53	50.00	24.47	PASS
6	9.6855	10.66	26.06	36.72	60.00	23.28	21.08	31.74	50.00	18.26	PASS
7	13.5735	10.62	35.66	46.28	60.00	13.72	35.52	46.14	50.00	3.86	PASS

Remark:
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Value =Reading[dBµV] + Factor(Lisn factor[dB] + cable loss[dB]).
3. Margin = Limit[dBµV] – Value[dBµV]

For PY7-18176E (this model) of the Spot check:

Phase:	Line

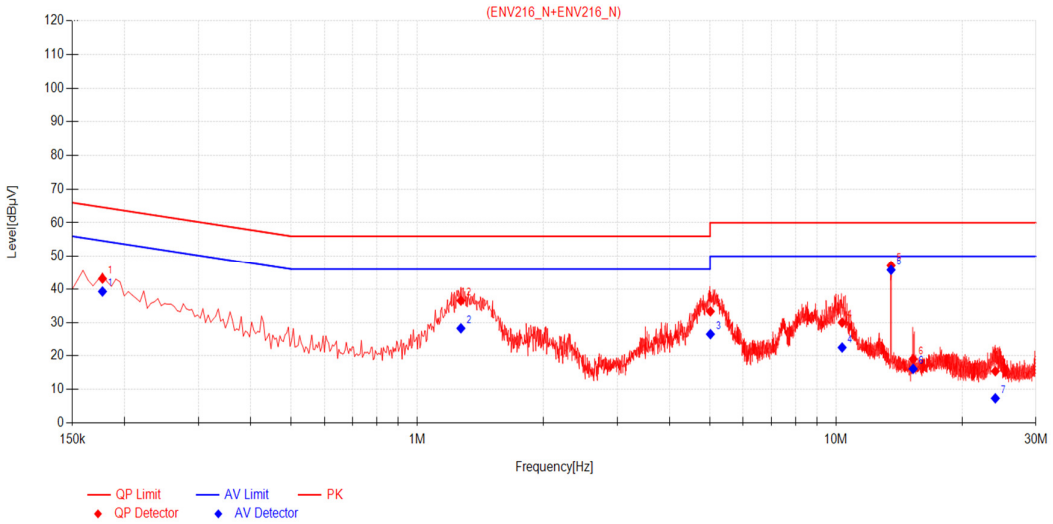


Final Data List

NO.	Frequency [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	0.2040	10.82	24.51	35.33	63.45	28.12	15.80	26.62	53.45	26.83	PASS
2	1.3605	10.79	24.67	35.46	56.00	20.54	17.02	27.81	46.00	18.19	PASS
3	5.0010	10.64	22.74	33.38	60.00	26.62	16.00	26.64	50.00	23.36	PASS
4	10.3605	10.62	19.38	30.00	60.00	30.00	12.01	22.63	50.00	27.37	PASS
5	13.5825	10.55	36.88	47.43	60.00	12.57	36.43	46.98	50.00	3.02	PASS
6	18.0645	10.46	6.46	16.92	60.00	43.08	-0.83	9.63	50.00	40.37	PASS
7	24.2565	10.29	5.89	16.18	60.00	43.82	-2.23	8.06	50.00	41.94	PASS

Remark:
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Value =Reading[dBµV] + Factor(Lisn factor[dB] + cable loss[dB]).
3. Margin = Limit[dBµV] – Value[dBµV]

Phase:	Neutral

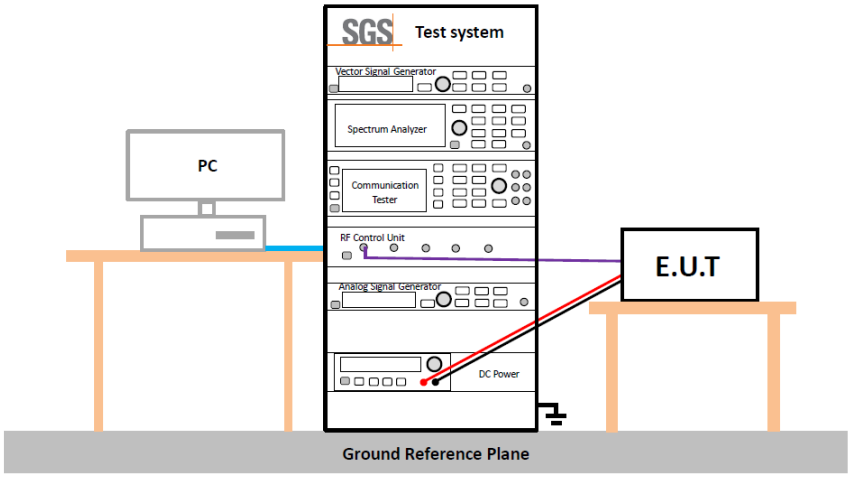


Final Data List

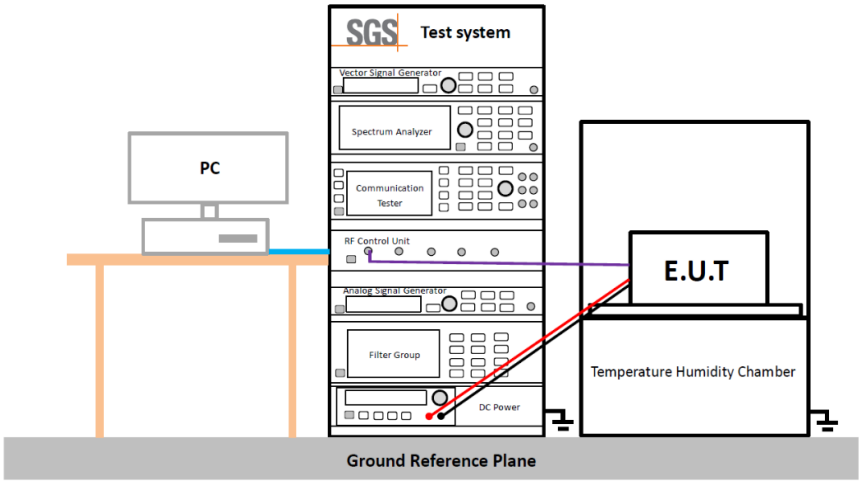
NO.	Frequency [MHz]	Factor [dB]	QP Reading [dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1770	10.71	32.40	43.11	64.63	21.52	28.55	39.26	54.63	15.37	PASS
2	1.2705	10.78	25.76	36.54	56.00	19.46	17.46	28.24	46.00	17.76	PASS
3	5.0100	10.64	22.67	33.31	60.00	26.69	15.86	26.50	50.00	23.50	PASS
4	10.3380	10.66	19.31	29.97	60.00	30.03	11.85	22.51	50.00	27.49	PASS
5	13.533	10.62	36.45	47.07	60.00	12.93	35.13	45.75	50.00	4.25	PASS
6	15.2790	10.59	8.44	19.03	60.00	40.97	5.54	16.13	50.00	33.87	PASS
7	24.0090	10.51	4.91	15.42	60.00	44.58	-3.19	7.32	50.00	42.68	PASS

Remark:
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Value =Reading[dBµV] + Factor(Lisn factor[dB] + cable loss[dB]).
3. Margin = Limit[dBµV] – Value[dBµV]

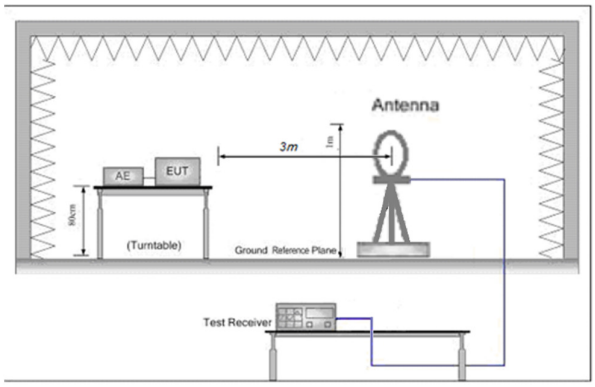
4.4 20dB Spectrum Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.215(c)
Test Method:	ANSI C63.10: 2013 Section 6.9.3
Test Setup:	
Instruments Used:	Refer to section 6 for details
Limit:	Intentional radiators must be designed to ensure that the 20dB and 99% emission bandwidth in the specific band 13.553~13.567MHz.
Test Results:	Pass
The detailed test data see: **Appendix**	

4.5 Frequency Stability

Test Requirement:	47 CFR Part 15C Section 15.225(e)
Test Method:	ANSI C63.10: 2013 Section 6.8
Test Setup:	
Instruments Used:	Refer to section 6 for details
Limit:	The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% (100ppm) of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.
Test Results:	Pass
The detailed test data see: **Appendix**	

4.6 Field Strength of Fundamental Emissions

Test Requirement:	47 CFR Part 15C Section 15.225				
Test Method:	ANSI C63.10 :2013 Section 6.4.7				
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Limit:	Frequency	Field Strength (μV/m) at 30m	Field Strength (dBμV/m) at 30m	Field Strength (dBμV/m) at 10m	Field Strength (dBμV/m) at 3m
	1.705~13.110 MHz	30	29.5	48.58	69.5
	13.110-13.410 MHz	106	40.5	59.58	80.5
	13.410-13.553 MHz	334	50.5	69.58	90.5
	13.553-13.567 MHz	15,848	84.0	103.08	124.0
	13.567-13.710 MHz	334	50.5	69.58	90.5
	13.710-14.010 MHz	106	40.5	59.58	80.5
	14.010~30.000 MHz	30	29.5	48.58	69.5
Test Setup:	 Figure 1. Below 30MHz				
Test Procedure:	a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters(for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.				

	f. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case. g. Repeat above procedures until all frequencies measured was complete. h. RBW set to 9kHz.
Exploratory Test Mode:	Transmitting with modulation. Charge + Transmitting mode.
Final Test Mode:	**Transmitting with modulation.** Pretest the EUT at Charge + Transmitting mode.Only the worst case is recorded in the report.
Instruments Used:	Refer to section 6 for details
Test Results:	Pass
The detailed test data see: **Appendix**	

4.7 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.225				
Test Method:	ANSI C63.10 :2013 Section 6.4&6.5				
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	Above 960MHz	500	54.0	Quasi-peak	3
	Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.				

Test Setup:

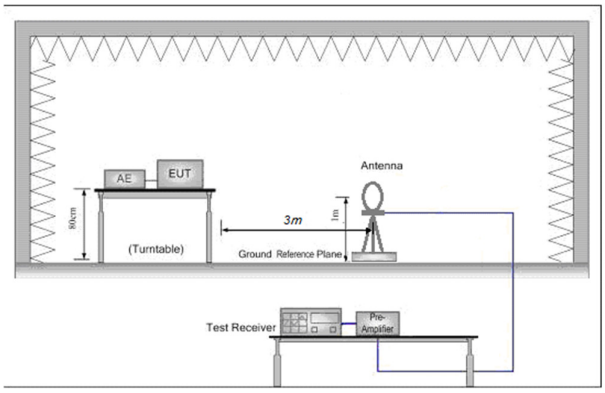


Figure 1. Below 30MHz

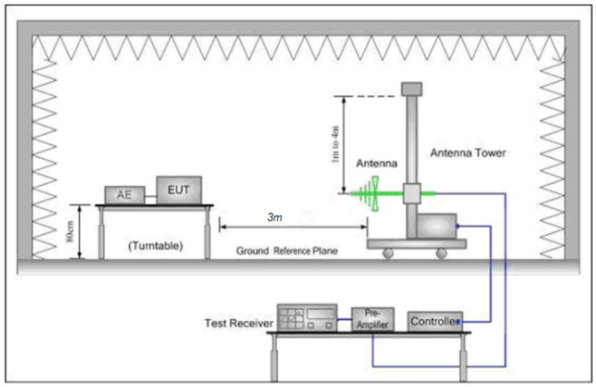


Figure 2. Above 30MHz

Test Procedure:	i. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. j. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. k. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. l. For each suspected emission, the EUT was arranged to its worst case and then

	the antenna was tuned to heights from 1 meter to 4 meters(for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. m. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. n. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case. o. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting with modulation. Charge + Transmitting mode.
Final Test Mode:	Transmitting with modulation. Pretest the EUT at Charge + Transmitting mode.Only the worst case is recorded in the report.
Instruments Used:	Refer to section 6 for details
Test Results:	Pass
The detailed test data see: **Appendix**	

5 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	±1.0 %
2	Occupied Bandwidth	±1.0 %
3	Conduction Emission	± 2.90dB (150kHz to 30MHz)
4	Radiated Emission	± 3.13dB (9k -30MHz)
		± 4.88dB (30M -1GHz)

Remark:
The U_{lab} (lab Uncertainty) is less than $U_{cispr/ETSI}$ (CISPR/ETSI Uncertainty), so the test results
– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

6 Equipment List

RF Test Equipment					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy/mm/dd)**	**Cal.Due date (yyyy/mm/dd)**
Shielding Room	Brilliant-emc	N/A	SUWI-04-01-06	2021/05/08	2024/05/07
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-07	2022/02/16	2023/02/15
				2023/02/06	2024/02/05
Signal Analyzer	ROHDE&SCHWARZ	FSV3030	SUWI-01-02-02	2022/05/17	2023/05/16
Measurement Software	Tonscend	JS1120-3 Test System V3.1.55	SUWI-02-09-09	NCR	NCR
Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	2022/05/28	2023/05/27
Wideband Radio Communication Tester	ROHDE&SCHWARZ	CMW500	SUWI-01-16-05	2022/02/14	2023/02/13
				2023/02/06	2024/02/05
DC Power Supply	HYELEC	HY3005B	SUWI-01-18-01	2022/02/15	2023/02/14
				2023/02/06	2024/02/05
Power meter	Anritsu	ML2495A	SUWI-01-31-01	2022/11/23	2023/11/22
Pulse power sensor	Anritsu	MA2411B	SUWI-01-32-01	2022/11/23	2023/11/22
MXG Vector signal genitor	KEYSIGHT	N5182B	SUWI-01-38-01	2022/02/14	2023/02/13
				2023/02/06	2024/02/05
Temperature Chamber	ESPEC	SU-242	SUWI-01-13-01	2022/02/15	2023/02/14
				2023/02/06	2024/02/05

CE Test System					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy/mm/dd)**	**Cal.Due date (yyyy/mm/dd)**
Shielding Room	Brilliant-emc	N/A	SUWI-04-03-01	2021/05/08	2024/05/07
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2022/02/19	2023/02/18
				2023/02/08	2024/02/07
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-06	2022/02/16	2023/02/15
				2023/02/07	2024/02/06
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-01	2022/02/19	2023/02/18
				2023/02/08	2024/02/07
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-02	2022/02/19	2023/02/18
				2023/02/08	2024/02/07
Measurement Software	Tonscend	JS32-CE 4.0.0.2	SUWI-02-09-05	NCR	NCR

RSE Test System					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy/mm/dd)**	**Cal.Due date (yyyy/mm/dd)**
Semi-Anechoic Chamber	Brilliant-emc	N/A	SUWI-04-02-02	2021/11/25	2024/11/24
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-15	2022/02/16	2023/02/15
				2023/02/07	2024/02/06
Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	2022/05/28	2023/05/27
Signal Analyzer	KEYSIGHT	N9020A	SUWI-01-02-06	2022/11/23	2023/11/22
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2022/02/19	2023/02/18
				2023/02/08	2024/02/07
Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	VULB 9163	SUWI-01-11-04	2021/12/05	2023/12/04
Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	BBHA 9120D	SUWI-01-11-05	2021/12/05	2023/12/04
Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	BBHA 9170	SUWI-01-11-03	2021/05/14	2023/05/13
Active Loop Antenna	SCHWRZBECK MESS-ELEKTRONIK	FMZB 1519B	SUWI-01-21-01	2021/06/10	2023/06/09
Amplifier	Tonscend	TAP9K3G32	SUWI-01-14-06	2022/11/23	2023/11/22
Amplifier	Tonscend	TAP01018050	SUWI-01-14-04	2022/11/23	2023/11/22
Amplifier	Tonscend	TAP30M7G30	SUWI-01-14-05	2022/11/23	2023/11/22
Measurement Software	Tonscend	JS32-RE V4.0.0.0	SUWI-02-09-04	NCR	NCR

7 Photographs - Setup Photos

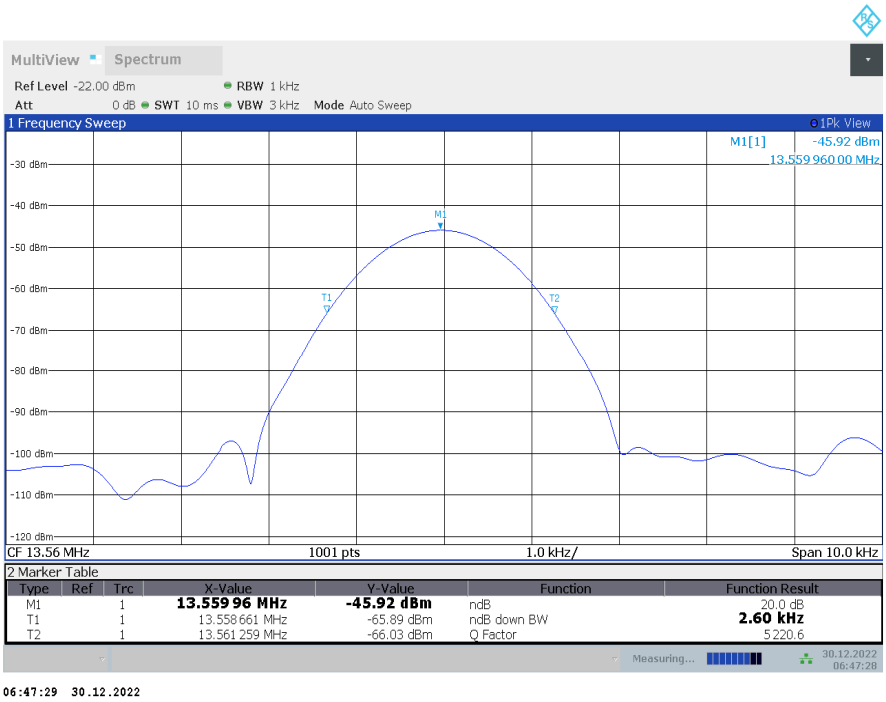
Refer to Appendix A.4 NFC Setup Photos.

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone 215000 t (86-512) 62992980 www.sgsgroup.com.cn
中国·苏州·中国（江苏）自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编：215000 t (86-512) 62992980 sgs.china@sgs.com

Appendix

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone 215000 t (86-512) 62992980 www.sgsgroup.com.cn
中国·苏州·中国（江苏）自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编：215000 t (86-512) 62992980 sgs.china@sgs.com

20dB Bandwidth



Note:

Because the measured signal is CW or CW-like adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

Frequency tolerance

Declared Frequency (MHz)		13.56MHz			
Startup					
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Frequency Tolerance (%)	Limit (%)	Result
50	3.89	13.55991	0.0007	±0.01	Pass
40		13.55998	0.0001		Pass
30		13.55996	0.0003		Pass
20		13.55998	0.0001		Pass
10		13.55998	0.0001		Pass
0		13.55997	0.0002		Pass
-10		13.55995	0.0004		Pass
-20		13.55996	0.0003		Pass
20	4.48	13.55997	0.0002		Pass
	3.40	13.55996	0.0003		Pass

Declared Frequency (MHz)		13.56MHz			
2mins					
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Frequency Tolerance (%)	Limit (%)	Result
50	3.89	13.55998	0.0001	±0.01	Pass
40		13.55996	0.0003		Pass
30		13.55991	0.0007		Pass
20		13.55997	0.0002		Pass
10		13.55995	0.0004		Pass
0		13.55997	0.0002		Pass
-10		13.55998	0.0001		Pass
-20		13.55996	0.0003		Pass
20	4.48	13.55997	0.0002		Pass
	3.40	13.55998	0.0001		Pass

Declared Frequency (MHz)		13.56MHz			
5mins					
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Frequency Tolerance (%)	Limit (%)	Result
50	3.89	13.55995	0.0004	±0.01	Pass
40		13.55998	0.0001		Pass
30		13.55995	0.0004		Pass
20		13.55998	0.0001		Pass
10		13.55997	0.0002		Pass
0		13.55997	0.0002		Pass
-10		13.55995	0.0004		Pass
-20		13.55996	0.0003		Pass
20	4.48	13.55995	0.0004		Pass
	3.40	13.55996	0.0003		Pass

Declared Frequency (MHz)		13.56MHz			
10mins					
Temperature (°C)	Voltage(VDC)	Measurement Frequency(MHz)	Frequency Tolerance (%)	Limit (%)	Result
50	3.89	13.55994	0.0004	±0.01	Pass
40		13.55997	0.0002		Pass
30		13.55998	0.0001		Pass
20		13.55997	0.0002		Pass
10		13.55998	0.0001		Pass
0		13.55997	0.0002		Pass
-10		13.55995	0.0004		Pass
-20		13.55996	0.0003		Pass
20	4.48	13.55995	0.0004		Pass
	3.40	13.55996	0.0003		Pass

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone 215000 t (86-512) 62992980 www.sgsgroup.com.cn
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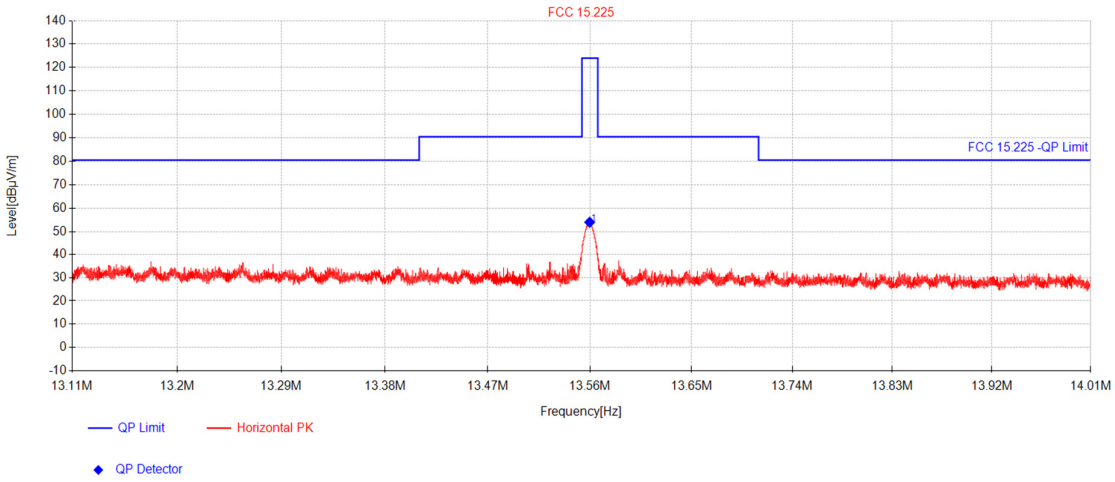
Field Strength of Fundamental Emissions

For PY7-51629L(parent model) data:

NFC_Emission Mask(Type 4)

Polarization: Horizontal

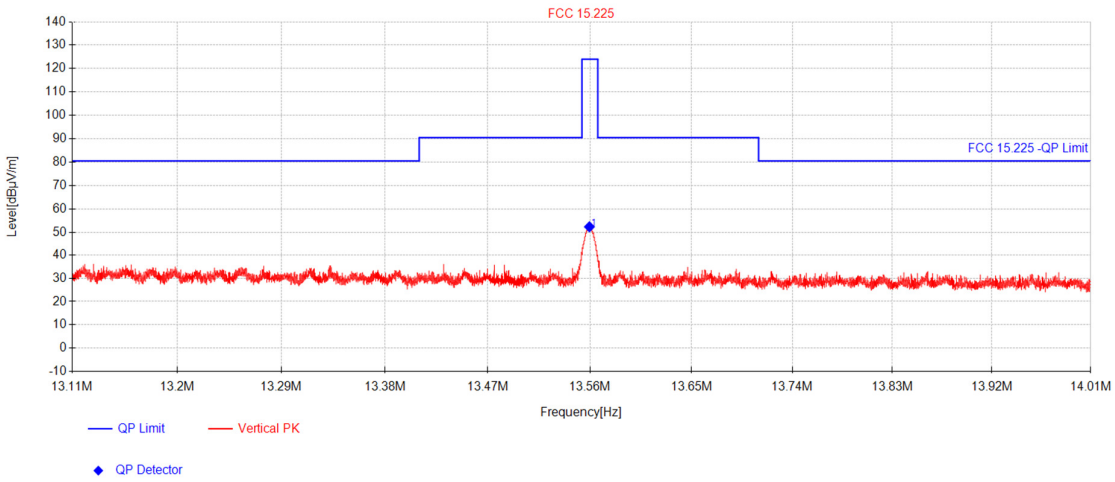


Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	13.5598	33.68	19.67	0.69	54.04	124.00	69.96	100	349	Horizontal

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

Polarization: Vertical



Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	13.5596	32.03	19.67	0.69	52.39	124.00	71.61	100	2	Vertical

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

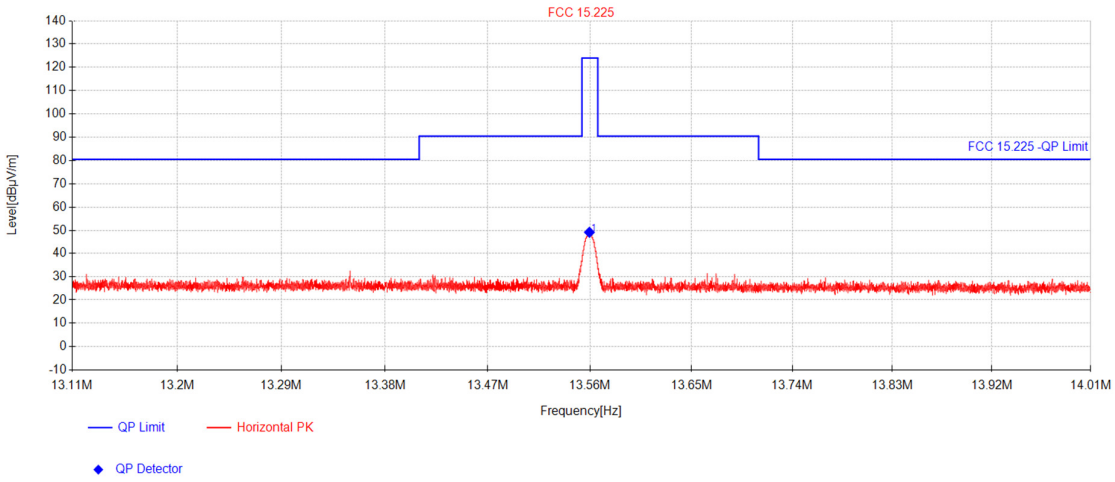
Test for spot check:

For PY7-18176E (this model)data:

Field Strength of Fundamental Emissions

NFC_Emission Mask(Type 4)

Polarization:	Horizontal

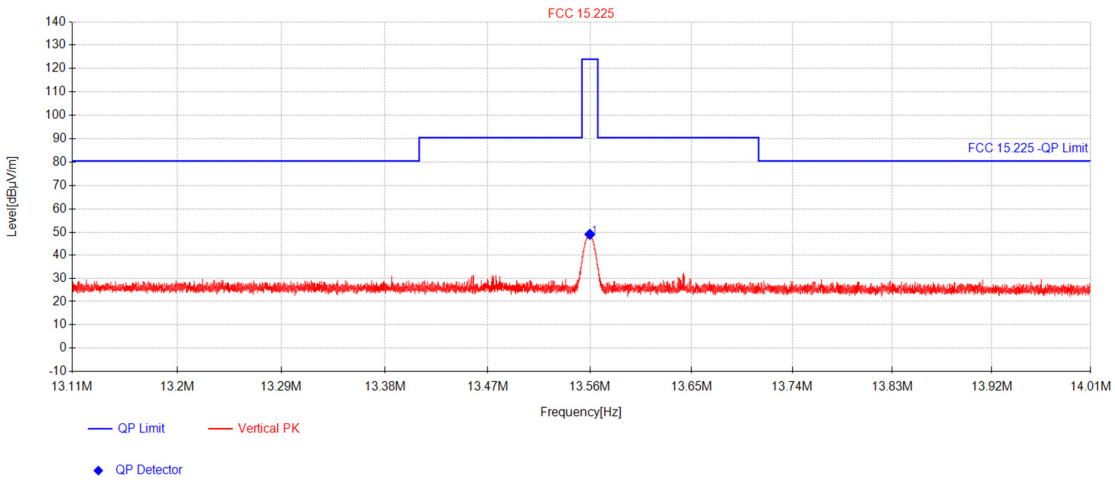


Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	13.5596	28.87	19.67	0.69	49.23	124.00	74.77	100	187	Horizontal

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

Polarization:	Vertical



Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	13.56	28.81	19.67	0.69	49.17	124.00	74.83	100	202	Vertical

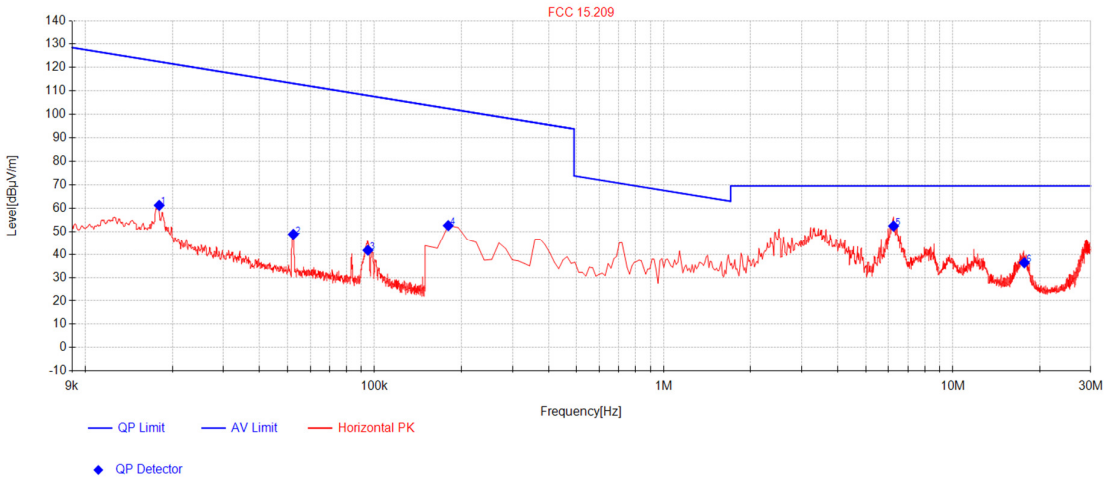
Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

Radiated Spurious Emissions

For PY7-51629L(parent model) data:

NFC_RSE(Type 4)

Polarization: Horizontal

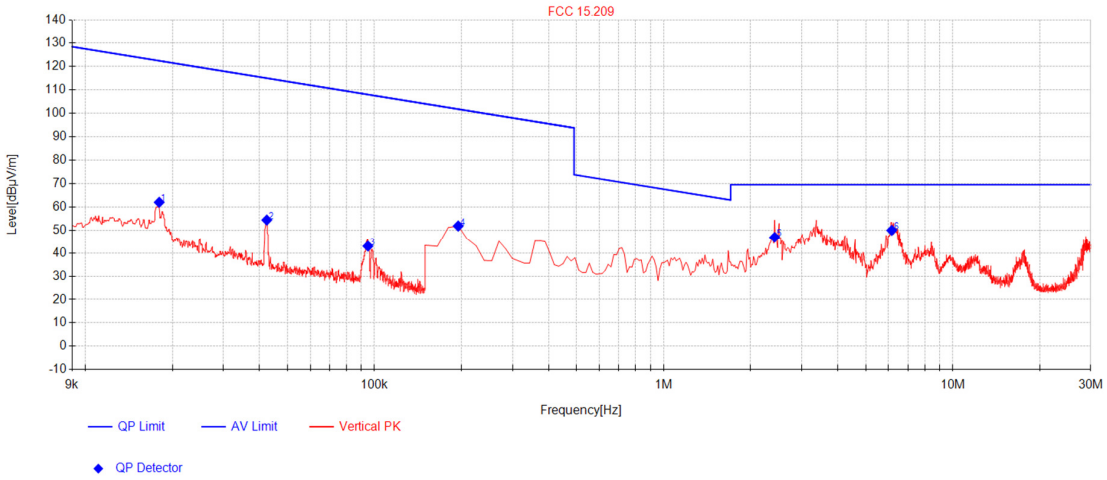


Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	0.018	40.96	19.84	0.43	61.23	122.49	61.26	100	124	Horizontal
2	0.0524	28.57	19.81	0.43	48.81	113.21	64.40	100	346	Horizontal
3	0.0949	21.03	20.22	0.43	41.69	108.05	66.36	100	19	Horizontal
4	0.1799	31.84	20.30	0.43	52.57	102.50	49.93	100	1	Horizontal
5	6.2424	32.01	19.84	0.55	52.40	69.54	17.14	100	3	Horizontal
6	17.6807	15.65	19.87	0.77	36.28	69.54	33.26	100	139	Horizontal

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

Polarization:	Vertical



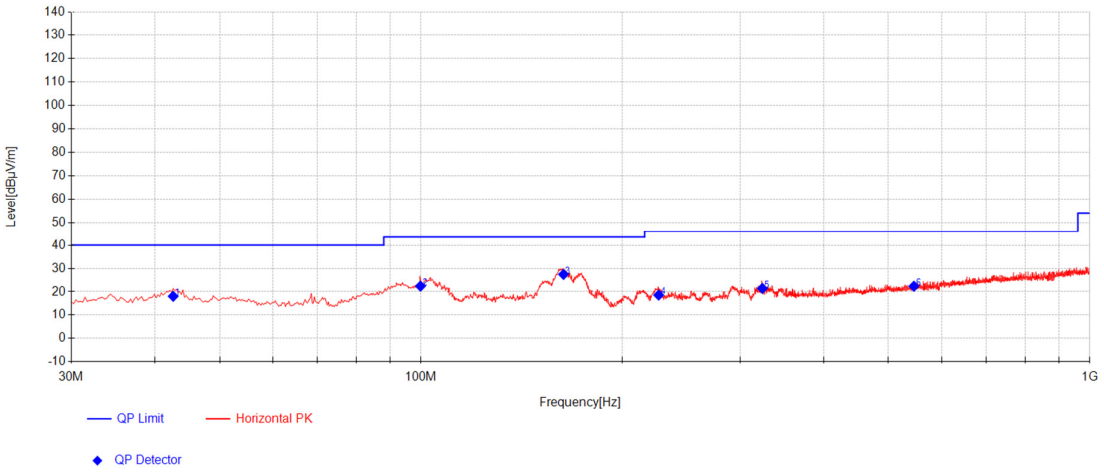
Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	0.018	41.73	19.84	0.43	62.00	122.49	60.49	100	359	Vertical
2	0.0424	34.14	19.84	0.43	54.41	115.05	60.64	100	181	Vertical
3	0.0949	22.24	20.22	0.43	42.90	108.05	65.15	100	27	Vertical
4	0.1948	31.1	20.30	0.43	51.83	101.81	49.98	100	0	Vertical
5	2.4197	26.63	19.74	0.48	46.85	69.54	22.69	100	129	Vertical
6	6.1529	29.58	19.84	0.55	49.97	69.54	19.57	100	349	Vertical

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

NFC_RE(Type 4)

Polarization:	Horizontal

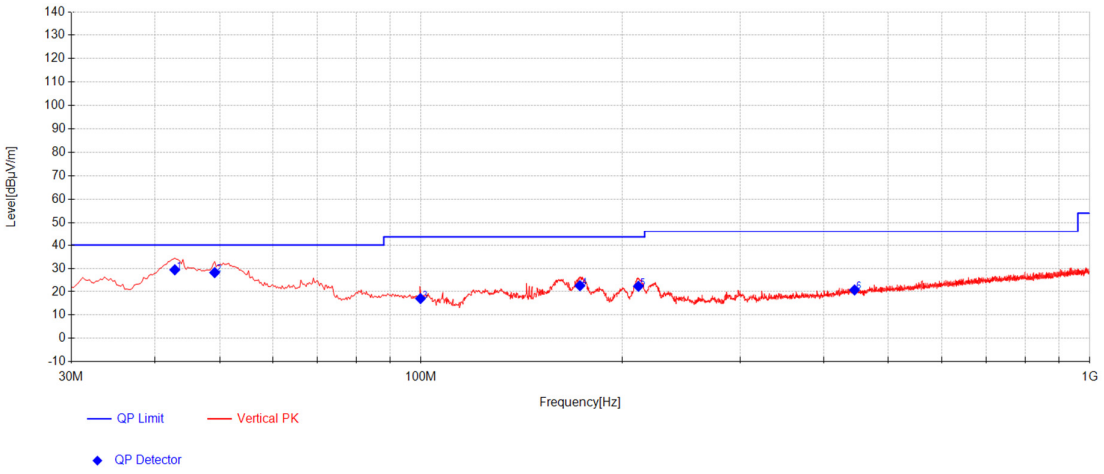


Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.61	32.24	13.85	-28.06	18.03	40.00	21.97	102	283	Horizontal
2	99.84	39.62	10.14	-27.36	22.39	43.50	21.11	285	62	Horizontal
3	163.375	39.86	14.23	-26.67	27.43	43.50	16.07	263	41	Horizontal
4	226.6675	34.26	10.79	-26.49	18.56	46.00	27.44	265	22	Horizontal
5	323.91	34.26	13.29	-26.15	21.41	46.00	24.59	241	145	Horizontal
6	545.7975	29.63	17.32	-24.61	22.34	46.00	23.66	142	5	Horizontal

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Final Value Level = Reading + Antenna Factor + Factor.
3. Factor=Cable loss – Preamplifier Factor.

Polarization:	Vertical



Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.8525	43.62	13.83	-28.06	29.39	40.00	10.61	102	338	Vertical
2	49.1575	42.65	13.56	-28.02	28.19	40.00	11.81	285	11	Vertical
3	99.84	34.29	10.14	-27.36	17.06	43.50	26.44	263	308	Vertical
4	172.8325	34.69	14.49	-26.58	22.59	43.50	20.91	265	278	Vertical
5	211.39	38.69	10.28	-26.64	22.34	43.50	21.16	241	338	Vertical
6	444.9175	29.86	15.84	-24.95	20.75	46.00	25.25	142	129	Vertical

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Final Value Level = Reading + Antenna Factor + Factor.
3. Factor=Cable loss – Preamplifier Factor.

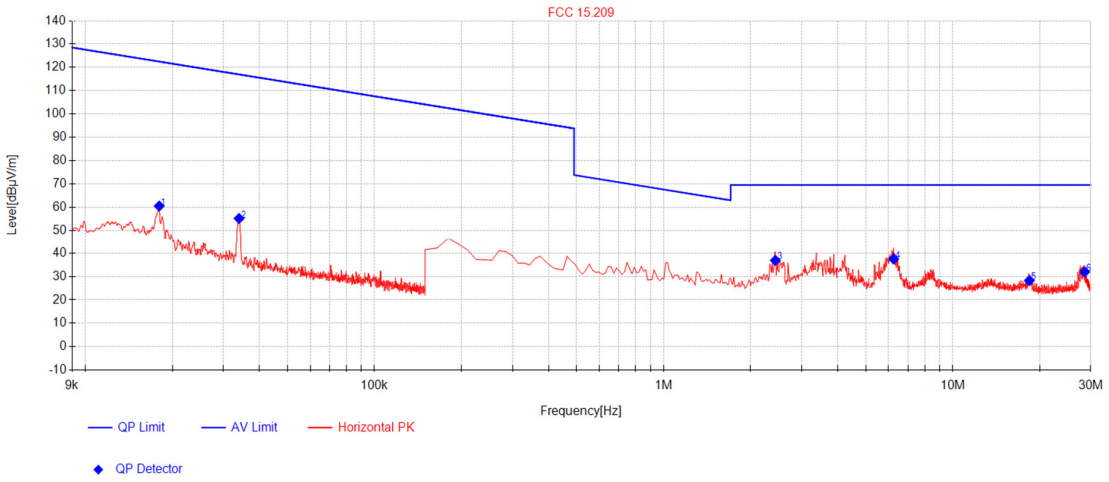
Test for spot check:

For PY7-18176E (this model)data:

Radiated Spurious Emissions

NFC_RSE(Type 4)

Polarization: Horizontal

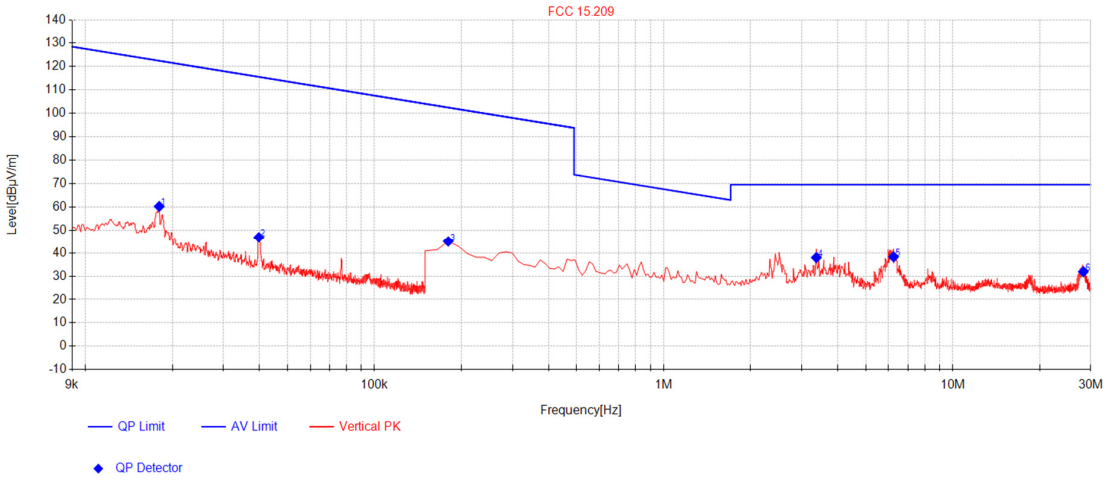


Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	0.018	40.23	19.84	0.43	60.50	122.49	61.99	100	57	Horizontal
2	0.034	34.87	19.88	0.43	55.18	116.97	61.79	100	163	Horizontal
3	2.4347	16.58	19.74	0.48	36.80	69.54	32.74	100	53	Horizontal
4	6.2424	17.02	19.84	0.55	37.41	69.54	32.13	100	322	Horizontal
5	18.4124	7.62	19.83	0.78	28.23	69.54	41.31	100	130	Horizontal
6	28.6113	11.29	19.62	0.97	31.88	69.54	37.66	100	0	Horizontal

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

Polarization: Vertical



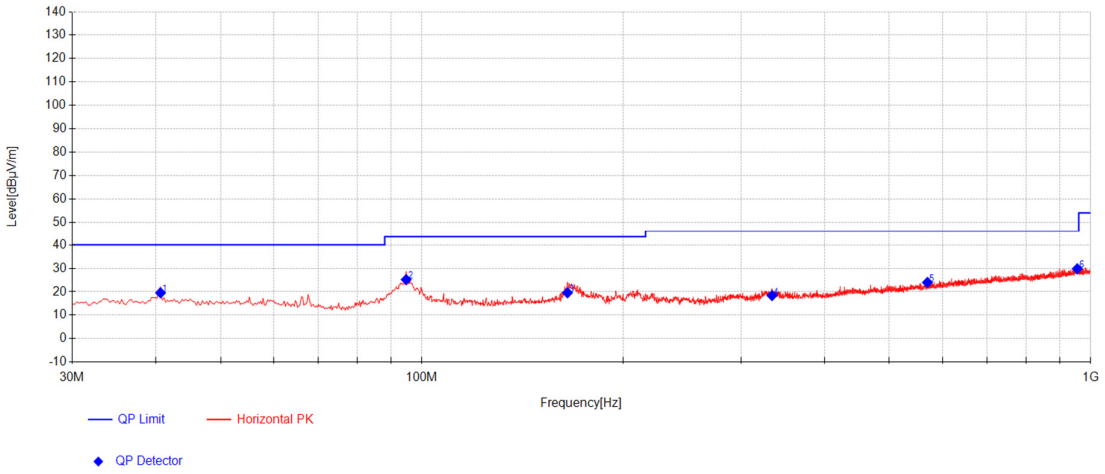
Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	0.018	39.97	19.84	0.43	60.24	122.49	62.25	100	124	Vertical
2	0.0398	26.59	19.85	0.43	46.87	115.60	68.73	100	124	Vertical
3	0.1799	24.3	20.30	0.43	45.03	102.50	57.47	100	237	Vertical
4	3.3754	17.63	19.82	0.49	37.94	69.54	31.60	100	0	Vertical
5	6.2424	17.89	19.84	0.55	38.28	69.54	31.26	100	304	Vertical
6	28.2977	11.29	19.64	0.97	31.89	69.54	37.65	100	124	Vertical

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Value = Reading + Antenna Factor + Factor.
3. Factor=Cable loss.

NFC_RE(Type 4)

Polarization:	Horizontal

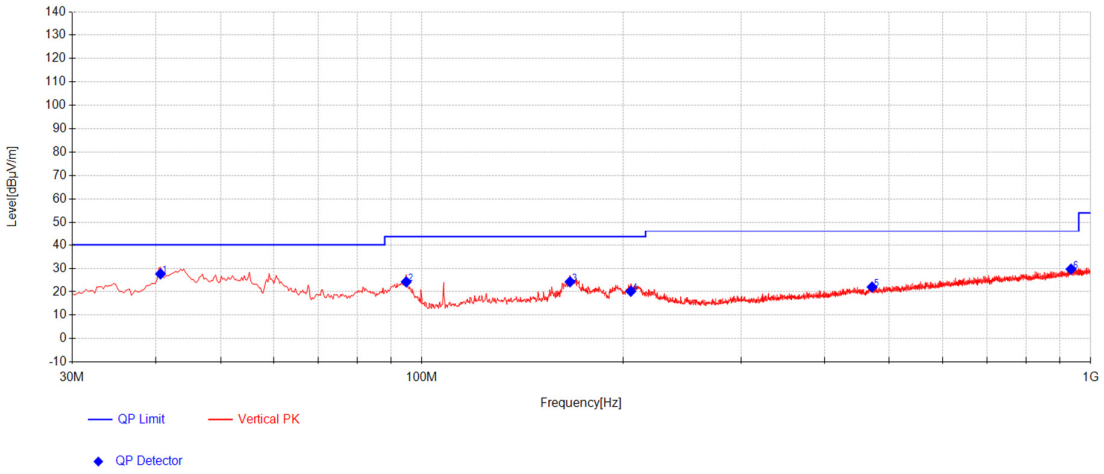


Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	40.67	33.58	14.01	-28.08	19.52	40.00	20.48	215	360	Horizontal
2	94.7475	42.91	9.78	-27.52	25.16	43.50	18.34	229	360	Horizontal
3	165.0725	31.89	14.28	-26.61	19.55	43.50	23.95	268	314	Horizontal
4	333.8525	30.68	13.50	-25.79	18.39	46.00	27.61	185	6	Horizontal
5	570.0475	30.75	17.76	-24.57	23.94	46.00	22.06	172	25	Horizontal
6	954.895	30.27	22.15	-22.64	29.78	46.00	16.22	263	140	Horizontal

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Final Value Level = Reading + Antenna Factor + Factor.
3. Factor=Cable loss – Preamplifier Factor.

Polarization:	Vertical



Final Data List

NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	40.67	41.67	14.01	-28.08	27.61	40.00	12.39	269	99	Vertical
2	94.7475	41.95	9.78	-27.52	24.20	43.50	19.30	241	77	Vertical
3	166.5275	36.47	14.32	-26.57	24.22	43.50	19.28	186	278	Vertical
4	205.3275	36.94	10.08	-26.82	20.19	43.50	23.31	153	339	Vertical
5	471.1075	30.62	16.20	-24.80	22.02	46.00	23.98	224	6	Vertical
6	934.525	30.55	21.99	-22.91	29.63	46.00	16.37	169	148	Vertical

Remark:
1. The Quasi-Peak measurements were performed on the EUT.
2. Final Value Level = Reading + Antenna Factor + Factor.
3. Factor=Cable loss – Preamplifier Factor.

---End of Report---

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