

Report No.: SEWM2212000312RG06

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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

Standard(s): FCC 47 CFR Part 15, Subpart B

Date of Receipt: 2022/11/30

Date of Test: 2023/01/06 to 2023/01/10

Date of Issue: 2023/01/13

Test Result: Pass*

Authorized Signature:

Panta Sun

Wireless Laboratory Manager



^{*} In the configuration tested, the EUT complied with the standards specified above.



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	Revision Record				
Version	Version Chapter Date Modifier Remark				
01		2023/01/13		Original	

Prepared By	King-P Li	
	(King-p Li) / Test Engineer	
Checked By	well wei'	
	(Well Wei) / Reviewer	



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Test Summary

Emission Part						
Item	Standard	Method	Requirement	Result		
Conducted Emissions at Mains Terminals (150kHz-30MHz)	FCC 47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass		
Radiated Emissions (30MHz-1GHz)	FCC 47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass		
Radiated Emissions (above 1GHz)	FCC 47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass		

Internal Source	Upper Frequency	
Below 1.705MHz	30MHz	
1.705MHz to 108MHz	1GHz	
108MHz to 500MHz	2GHz	
500MHz to 1GHz	5GHz	
Above 1GHz	5th harmonic of the highest frequency or 40GHz, whichever is lower	



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1 General Information

EUT Description:	GSM/WCDMA/LTE Pho	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:	HQ62B20A1	HQ62B20A1			
	Band	Tx (MHz)	Rx (MHz)		
	GSM850	824~849	869~894		
	GSM1900	1850~1910	1930~1990		
	WCDMA Band IV	1710~1755	2110~2155		
	WCDMA Band V	824~849	869~894		
	LTE Band 4	1710~1755	2110~2155		
	LTE Band 5	824~849	869~894		
Frequency Bands:	LTE Band 12	699~716	729~746		
Trequeriey Barras.	LTE Band 41	2496~2690	2496~2690		
	Wi-Fi 2.4G	2412~2462	2412~2462		
	Bluetooth	2402~2480	2402~2480		
	Wi-Fi 5G	5150~5850	5150~5850		
	NFC	13.56	13.56		
	GNSS (GPS L1C/A+Glonass G1+ Beidou B1I+Galileo E1)	/	1559~1610		

Remark:

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Accessory:

Adapter No.	Model No.	Manufacturer
1	XQZ-UC1	Sony Corporation

USB cable no.	Model no.	Manufacturer
1	XQZ-UB1	Sony Corporation
2	UCB20	Sony Corporation

Earphone No.	Model No.	Manufacturer
1	MDR-EX15AP	Sony Corporation



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1.1 Description of Support Units

Description	Manufacturer	Model No.	Inventory No.
Router	Smavwave Technology Co.,Ltd	SRT 421	SUWI-04-34-01
Computer	Lenovo	T14	SUWI-03-33-04
Mouse	Lenovo	3D optical Mouse	SUWI-03-33-05

1.2 Test Location

All tests were performed at:

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

1.3 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

1.4 Deviation from Standards

None

1.5 Abnormalities from Standard Conditions

None



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2 Emission Test Results

2.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

Test Requirement:	47 CFR Part 15, Subpart B			
Test Method:	ANSI C63.4:2014			
Frequency Range:	150kHz to 30MHz			
Receiver Setup:	RBW = 9kHz, VBW = 30kHz			
	Frequency Range (MHz)	Limit(dBμV)		
		Quasi-peak	average	
	0.15M-0.5MHz	66 ~ 56*	56 ~ 46*	
Limit:	0.5M-5MHz	56	46	
	5M-30MHz	60	50	
	*Decreases with the logarithm of the frequency			
	Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz			

2.1.1 E.U.T. Operation

Operating Environment:

Operating Environment.	
Temperature:	22~23°C
Humidity:	44~46%RH
Atmospheric Pressure:	101.0 kPa
	a: adapter+usb Cable+BT+2.4GWLAN +Camera(Rear)+GSM850
	b: adapter+usb Cable+BT+5GWLAN +Camera(Front)+WCDMA Band 5
Pretest these modes to	c: adapter+usb Cable+BT+2.4GWLAN +MP4+LTE Band 5
find the worst case:	d: adapter+usb Cable+BT+5GWLAN +GPS RX+LTE Band 12
	e: adapter+usb Cable+BT+2.4GWLAN +NFC ON+WCDMA Band 4
	f: Transfer data between the EUT and the PC+USB cable
The worst case for final	a: adapter+usb Cable+BT+2.4GWLAN +Camera(Rear)+GSM850
test:	f: Transfer data between the EUT and the PC+USB cable
Remark:	Select the GSM/WCDMA/LTE with the worst power for the pre-test (TX&RX), and only the worst data will be reflected in the report.



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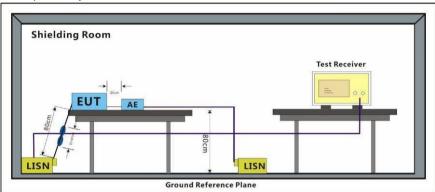


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2.1.2 Test Setup Procedures

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.



2.1.3 Measurement Data

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.



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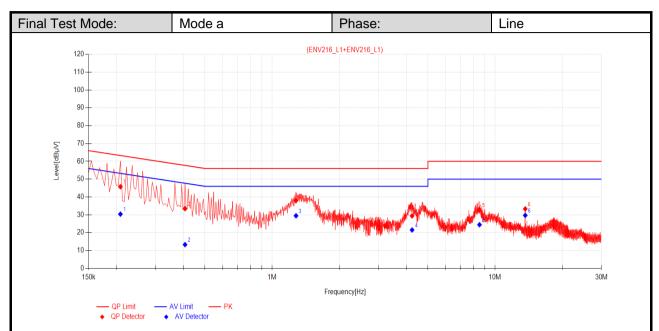
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Final	Final Data List										
NO	Frequenc y [MHz]	Facto r [dB]	QP Readin g [dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margi n [dB]	AV Readin g [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margi n [dB]	Verdic t
1	0.2085	10.82	34.94	45.76	63.26	17.50	19.57	30.39	53.26	22.87	PASS
2	0.4065	10.51	22.94	33.45	57.72	24.27	2.79	13.30	47.72	34.42	PASS
3	1.2795	10.78	27.28	38.06	56.00	17.94	18.70	29.48	46.00	16.52	PASS
4	4.2450	10.72	18.68	29.40	56.00	26.60	10.81	21.53	46.00	24.47	PASS
5	8.5200	10.66	22.10	32.76	60.00	27.24	13.79	24.45	50.00	25.55	PASS
6	13.6680	10.54	22.79	33.33	60.00	26.67	19.17	29.71	50.00	20.29	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[dB μ V] Value[dB μ V]



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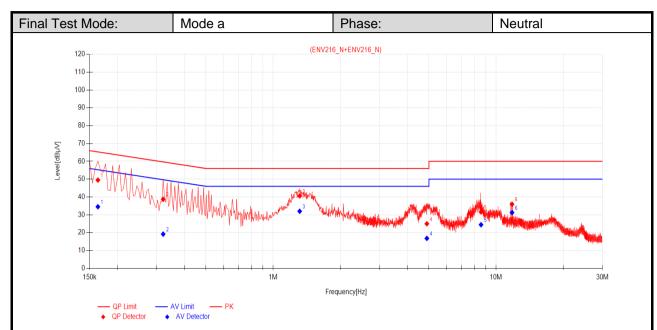
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Final	Final Data List										
NO	Frequenc y [MHz]	Facto r [dB]	QP Readin g [dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margi n [dB]	AV Readin g [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margi n [dB]	Verdic t
1	0.1635	10.72	38.78	49.50	65.28	15.78	23.81	34.53	55.28	20.75	PASS
2	0.3210	10.78	27.94	38.72	59.68	20.96	8.41	19.19	49.68	30.49	PASS
3	1.3155	10.78	29.83	40.61	56.00	15.39	21.23	32.01	46.00	13.99	PASS
4	4.8930	10.64	14.35	24.99	56.00	31.01	6.17	16.81	46.00	29.19	PASS
5	8.5650	10.59	21.03	31.62	60.00	28.38	13.86	24.45	50.00	25.55	PASS
6	11.8005	10.64	25.29	35.93	60.00	24.07	20.64	31.28	50.00	18.72	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[dB μ V] Value[dB μ V]



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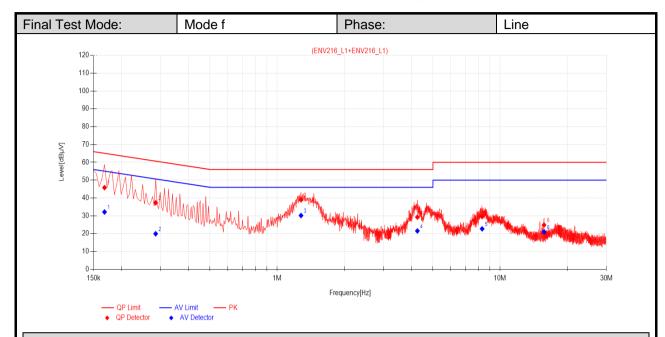
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Final	Final Data List										
NO	Frequenc y [MHz]	Facto r [dB]	QP Readin g [dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margi n [dB]	AV Readin g [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margi n [dB]	Verdic t
1	0.1680	10.71	35.12	45.83	65.06	19.23	21.46	32.17	55.06	22.89	PASS
2	0.2850	10.67	26.66	37.33	60.67	23.34	9.27	19.94	50.67	30.73	PASS
3	1.2795	10.78	28.20	38.98	56.00	17.02	19.38	30.16	46.00	15.84	PASS
4	4.2585	10.72	18.57	29.29	56.00	26.71	10.83	21.55	46.00	24.45	PASS
5	8.3130	10.68	18.89	29.57	60.00	30.43	12.04	22.72	50.00	27.28	PASS
6	15.7605	10.51	14.37	24.88	60.00	35.12	10.46	20.97	50.00	29.03	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[dB μ V] Value[dB μ V]



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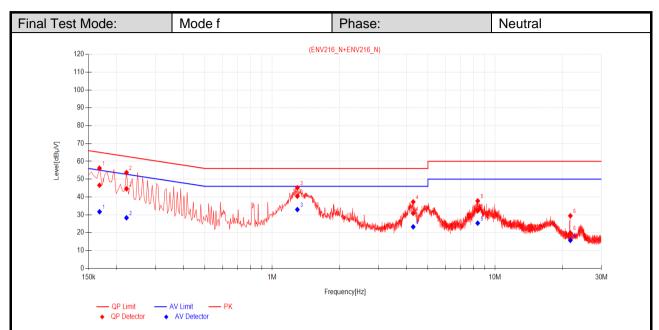
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Final	Final Data List										
NO	Frequenc y [MHz]	Facto r [dB]	QP Readin g [dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margi n [dB]	AV Readin g [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margi n [dB]	Verdic t
1	0.1680	10.72	35.88	46.60	65.06	18.46	21.00	31.72	55.06	23.34	PASS
2	0.2220	10.69	33.90	44.59	62.74	18.15	17.64	28.33	52.74	24.41	PASS
3	1.2975	10.78	29.66	40.44	56.00	15.56	22.19	32.97	46.00	13.03	PASS
4	4.2945	10.71	20.14	30.85	56.00	25.15	12.57	23.28	46.00	22.72	PASS
5	8.3625	10.59	21.68	32.27	60.00	27.73	14.74	25.33	50.00	24.67	PASS
6	21.7860	10.44	9.38	19.82	60.00	40.18	5.26	15.70	50.00	34.30	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[dB μ V] Value[dB μ V]



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2.2 Radiated Emissions (30MHz-1GHz)

Test Requirement:	47 CFR Part 15, Subpart B		
Test Method:	ANSI C63.4:2014		
Frequency Range:	30MHz to 1GHz		
Measurement Distance:	3m		
	Frequency Range (MHz)	Limit(dBµV/m)	Detector
	30MHz -88MHz	40.0	Quasi-peak
Limit:	88MHz-216MHz	43.5	Quasi-peak
	216MHz-960MHz	46.0	Quasi-peak
	960MHz-1000MHz	54.0	Quasi-peak
Detector:	Peak for pre-scan (120kHz res	solution bandwidth) 30M	to1000MHz

2.2.1 E.U.T. Operation

Z.Z.1 L.O.11. Operation	
Temperature:	22~23°C
Humidity:	44~46%RH
Atmospheric Pressure:	101.0 kPa
	a: adapter+usb Cable+BT+2.4GWLAN +Camera(Rear)+GSM850
	b: adapter+usb Cable+BT+5GWLAN +Camera(Front)+WCDMA Band 5
Pretest these modes to	c: adapter+usb Cable+BT+2.4GWLAN +MP4+LTE Band 5
find the worst case:	d: adapter+usb Cable+BT+5GWLAN +GPS RX+LTE Band 12
	e: adapter+usb Cable+BT+2.4GWLAN +NFC ON+WCDMA Band 4
	f: Transfer data between the EUT and the PC+USB cable
The worst case for final	d: adapter+usb Cable+BT+5GWLAN +GPS RX+LTE Band 12
test:	f: Transfer data between the EUT and the PC+USB cable
Remark:	1. Select the GSM/WCDMA/LTE with the worst power for the pre-test (TX&RX), and only the worst data will be reflected in the report.
	2. The dominant frequency has been processed by the filter.



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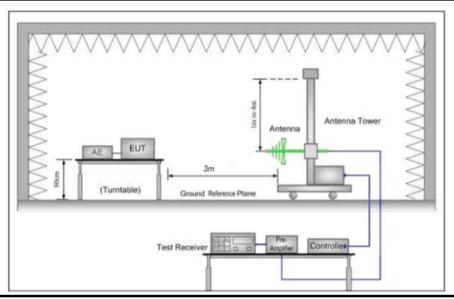


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2.2.2 Test Setup Procedures

- 1. The EUT was placed in a semi Anechoic Chamber as show below
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna height is adjusted between 1 to 4 meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- 5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- 6. Set the test-receiver system to Peak Detect Function with specified bandwidth with Maximum Hold Mode, and the trace was allowed to stabilize.
- 7. If the emission level of the EUT in peak mode was 6 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.



2.2.3 **Measurement Data**

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

The three polarities of X,Y,Z were measured by EUT, but only the worst data had been displayed.



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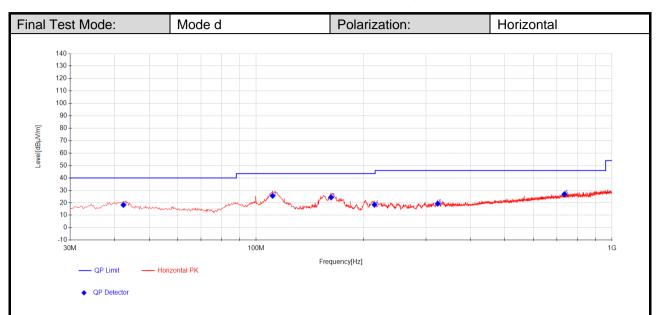
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Final	Final Data List										
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	42.3675	32.49	13.87	-28.06	18.30	40.00	21.70	186	277	Horizontal	
2	111.2375	41.83	11.27	-27.46	25.64	43.50	17.86	293	44	Horizontal	
3	162.405	36.87	14.20	-26.70	24.38	43.50	19.12	244	1	Horizontal	
4	215.0275	34.62	10.40	-26.54	18.48	43.50	25.02	187	360	Horizontal	
5	323.6675	32.17	13.29	-26.16	19.30	46.00	26.70	216	350	Horizontal	
6	734.9475	30.76	20.08	-23.89	26.95	46.00	19.05	227	197	Horizontal	

Remark:

- 1. The Quasi-Peak measurements were performed on the EUT.
- 2. Value = Reading + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Margin = Limit[dB μ V/m] –Value[dB μ V/m]



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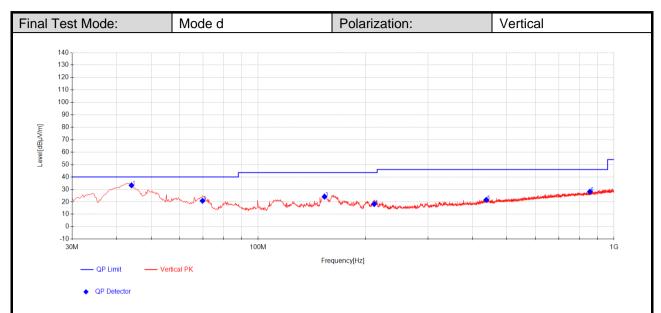
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Final	Final Data List											
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity		
1	44.065	47.59	13.73	-28.05	33.27	40.00	6.73	196	335	Vertical		
2	69.77	37.69	10.86	-27.74	20.82	40.00	19.18	213	92	Vertical		
3	153.675	37.44	13.94	-27.24	24.14	43.50	19.36	284	314	Vertical		
4	211.875	34.52	10.30	-26.62	18.19	43.50	25.31	175	349	Vertical		
5	437.6425	30.86	15.67	-24.92	21.61	46.00	24.39	209	107	Vertical		
6	855.7125	30.74	21.11	-23.67	28.18	46.00	17.82	149	223	Vertical		

Remark:

- 1. The Quasi-Peak measurements were performed on the EUT.
- 2. Value = Reading + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Margin = Limit[dB μ V/m] –Value[dB μ V/m]



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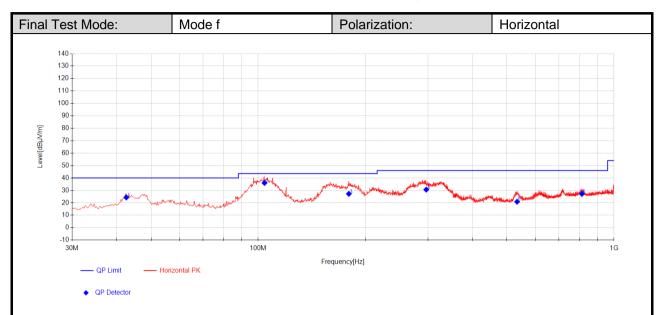
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Final	Final Data List											
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity		
1	42.61	38.56	13.85	-28.06	24.35	40.00	15.65	255	338	Horizontal		
2	104.1949	52.83	10.54	-27.38	35.99	43.50	7.51	217	62.6	Horizontal		
3	179.865	39.45	14.68	-26.88	27.24	43.50	16.26	169	0	Horizontal		
4	296.75	44.12	12.72	-26.23	30.61	46.00	15.39	187	343	Horizontal		
5	534.1575	28.63	17.11	-24.84	20.90	46.00	25.10	263	0	Horizontal		
6	812.305	30.18	20.78	-23.79	27.18	46.00	18.82	219	335	Horizontal		

Remark:

- 1. The Quasi-Peak measurements were performed on the EUT.
- 2. Value = Reading + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Margin = Limit[dB μ V/m] –Value[dB μ V/m]



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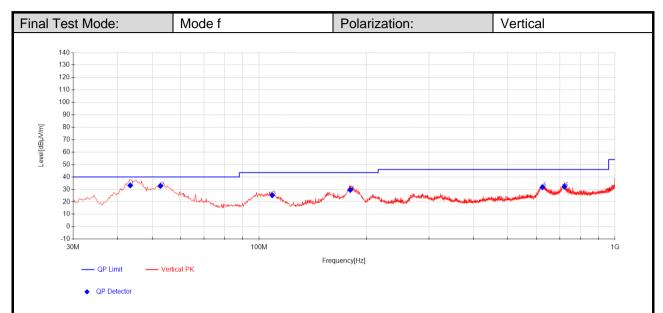
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Final	Final Data List									
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	43.4171	47.47	13.79	-28.06	33.20	40.00	6.80	152	244	Vertical
2	52.795	47.35	13.32	-27.90	32.77	40.00	7.23	185	196	Vertical
3	108.8125	41.69	11.01	-27.41	25.29	43.50	18.21	217	114	Vertical
4	180.35	41.88	14.60	-26.90	29.57	43.50	13.93	266	256	Vertical
5	625.3375	37.44	18.65	-24.32	31.78	46.00	14.22	137	359	Vertical
6	720.8825	35.69	19.90	-23.32	32.27	46.00	13.73	219	360	Vertical

Remark:

- 1. The Quasi-Peak measurements were performed on the EUT.
- 2. Value = Reading + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Margin = Limit[dB μ V/m] –Value[dB μ V/m]



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2.3 Radiated Emissions (above 1GHz)

Test Requirement:	47 CFR Part 15, Subpa	urt B				
Test Method:	ANSI C63.4:2014					
Frequency Range:	Above 1GHz					
Measurement Distance:	3m					
	Frequency (MHz)	Limit (dBµV/m)	Detector			
Limit:	Above 4CH-	74	Peak			
	Above 1GHz 54 Average					
Detector:	Peak for pre-scan (1000kHz resolution bandwidth) 5th harmonic of the highest frequency or 40GHz, whichever is lower.					

2.3.1 E.U.T. Operation

Z.o.1 L.o.1. Operation					
Temperature:	22~23°C				
Humidity:	44~46%RH				
Atmospheric Pressure:	101.0 kPa				
	a: adapter+usb Cable+BT+2.4GWLAN +Camera(Rear)+GSM850				
	b: adapter+usb Cable+BT+5GWLAN +Camera(Front)+WCDMA Band 5				
Pretest these modes to	c: adapter+usb Cable+BT+2.4GWLAN +MP4+LTE Band 5				
find the worst case:	d: adapter+usb Cable+BT+5GWLAN +GPS RX+LTE Band 12				
	e: adapter+usb Cable+BT+2.4GWLAN +NFC ON+WCDMA Band 4				
	f: Transfer data between the EUT and the PC+USB cable				
The worst case for final	a: adapter+usb Cable+BT+2.4GWLAN +Camera(Rear)+GSM850				
test:	f: Transfer data between the EUT and the PC+USB cable				
Remark:	Select the GSM/WCDMA/LTE with the worst power for the pre-test (TX&RX), and only the worst data will be reflected in the report.				
	2. The dominant frequency has been processed by the filter.				



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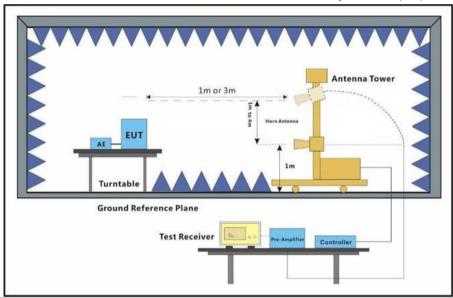


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2.3.2 Test Setup Procedures

- 1. The EUT was placed in a full Anechoic Chamber as show below
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation (Distance from antenna to EUT is 1m for measurements >18GHz).
- 4. The antenna height is adjusted between 1 to 4 meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- 5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- 6. Set the test-receiver system to Peak and AV Detect Function with specified bandwidth with Maximum Hold Mode, and the trace was allowed to stabilize.
- 7. At a measurement distance of 1 meter the limit line was increased by 20*LOG(3/1) = 9.54 dB.



2.3.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

The three polarities of X, Y, Z were measured by EUT, but only the worst data had been displayed. Scan from 5th harmonic of the highest frequency or 40GHz, whichever is lower, the disturbance above 18GHz was very low. The points marked on below plots are the highest emissions could be found when testing, so only below points had been displayed.



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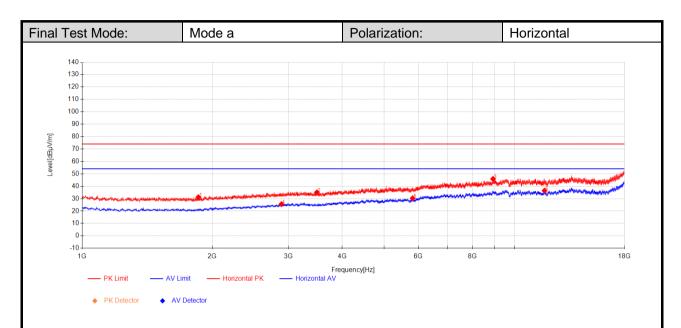
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Final	Final Data List									
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1858.5	53.50	25.91	31.20	-48.21	74.00	42.80	296	260	Horizontal
2	3494.75	51.75	29.40	35.09	-46.06	74.00	38.91	265	131	Horizontal
3	8933.9	46.55	38.53	45.90	-39.18	74.00	28.10	142	260	Horizontal
4	2892.1	43.08	29.23	25.52	-46.79	54.00	28.48	263	260	Horizontal
5	5820.35	40.13	33.63	30.31	-43.45	54.00	23.69	221	353	Horizontal
6	11751.65	32.42	38.85	36.37	-34.90	54.00	17.63	102	360	Horizontal

Remark

- 1. The Peak and Average measurements were performed on the EUT.
- 2. Level = Reading Level + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier gain(dB)

Margin = Limit[dB μ V/m] - Level[dB μ V/m]



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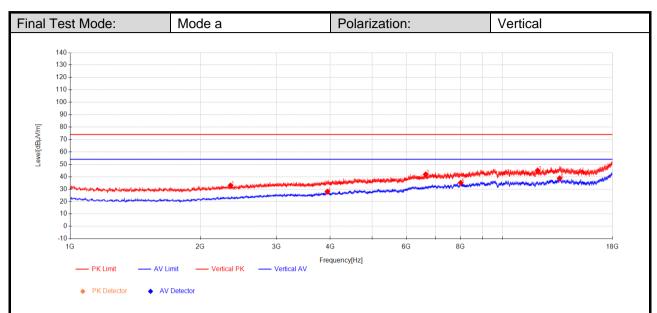
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Final	Final Data List									
NO.	Frequency	Reading	AF	Level	Factor	Limit	Margin	Height	Angle	Polarity
NO.	[MHz]	[dBµV]	[dB/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polatily
1	2350.65	52.97	27.60	32.96	-47.61	74.00	41.04	296	101	Vertical
2	6652.5	49.29	35.51	41.89	-42.90	74.00	32.11	265	176	Vertical
3	12079.75	41.73	38.68	45.04	-35.37	74.00	28.96	142	203	Vertical
4	3938.45	43.04	30.45	27.97	-45.52	54.00	26.03	263	229	Vertical
5	8015.05	38.55	37.52	35.09	-40.98	54.00	18.91	241	25	Vertical
6	13579.15	33.04	39.95	38.70	-34.29	54.00	15.30	142	51	Vertical

Remark:

- 1. The Peak and Average measurements were performed on the EUT.
- 2. Level = Reading Level + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier gain(dB)

Margin = Limit[dB μ V/m] - Level[dB μ V/m]



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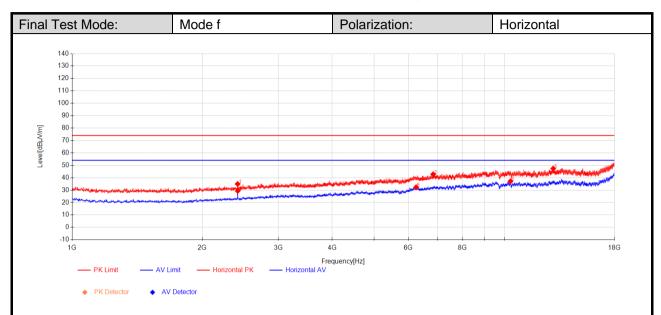
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Final	Final Data List									
NO.	Frequency	Reading	AF	Level	Factor	Limit	Margin	Height	Angle	Polarity
NO.	[MHz]	[dBµV]	[dB/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polatily
1	2416.1	54.67	27.73	34.95	-47.45	74.00	39.05	254	203	Horizontal
2	6848.85	49.49	35.90	42.75	-42.64	74.00	31.25	142	282	Horizontal
3	12986.7	42.83	39.59	47.41	-35.01	74.00	26.59	263	360	Horizontal
4	2416.95	49.11	27.73	29.40	-47.45	54.00	24.60	221	203	Horizontal
5	6254.7	40.60	34.71	32.30	-43.01	54.00	21.70	142	101	Horizontal
6	10339.8	35.14	38.87	37.15	-36.87	54.00	16.85	221	3	Horizontal

Remark:

- 1. The Peak and Average measurements were performed on the EUT.
- 2. Level = Reading Level + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier gain(dB)

Margin = Limit[dB μ V/m] - Level[dB μ V/m]



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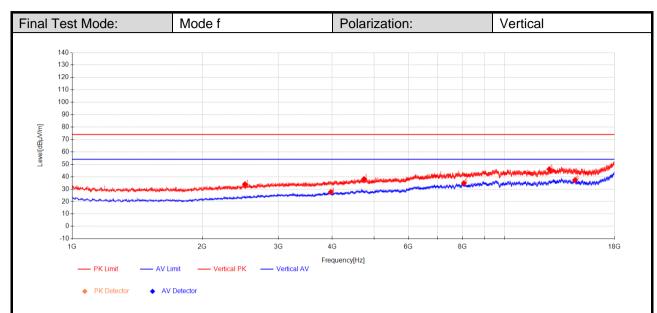
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Final	Final Data List									
NO.	Frequency	Reading	AF	Level	Factor	Limit	Margin	Height	Angle	Polarity
NO.	[MHz]	[dBµV]	[dB/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polatily
1	2512.15	52.85	27.94	33.99	-46.80	74.00	40.01	296	308	Vertical
2	4739.15	50.76	31.97	38.16	-44.57	74.00	35.84	265	0	Vertical
3	12717.25	42.09	39.32	46.11	-35.30	74.00	27.89	241	130	Vertical
4	3969.05	42.64	30.53	27.66	-45.51	54.00	26.34	142	234	Vertical
5	8068.6	37.93	37.58	34.86	-40.64	54.00	19.14	263	260	Vertical
6	14591.5	31.78	39.61	37.37	-34.02	54.00	16.63	258	0	Vertical

Remark:

- 1. The Peak and Average measurements were performed on the EUT.
- 2. Level = Reading Level + AF + Factor:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier gain(dB)

Margin = Limit[dB μ V/m] - Level[dB μ V/m]



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3 Equipment List

CE Test System									
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date (yyyy/mm/dd)	Cal Due Date (yyyy/mm/dd)				
Wideband Radio Communication Tester	Anritsu	MT8820C	SUWI-01-16-08	2022/02/14	2023/02/13				
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-06	2022/02/16	2023/02/15				
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2022/02/19	2023/02/18				
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-01	2022/02/19	2023/02/18				
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-02	2022/02/19	2023/02/18				
Measurement Software CE	Tonsend	JS32-CE V4.0.0.2	SUWI-02-09-05	NCR	NCR				



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	RE Test System								
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-04-02-01	2021/05/08	2024/05/07				
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-05	2022/02/16	2023/02/15				
Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	2022/05/28	2023/05/27				
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2022/02/19	2023/02/18				
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	VULB 9163	SUWI-01-11-01	2021/05/16	2023/05/15				
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9120D	SUWI-01-11-02	2021/05/16	2023/05/15				
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9170	SUWI-01-11-03	2021/05/14	2023/05/13				
Amplifier	Tonscend	TAP9K3G40	SUWI-01-14-01	2022/02/14	2023/02/13				
Amplifier	Tonscend	TAP01018050	SUWI-01-14-02	2022/02/14	2023/02/13				
Amplifier	Tonscend	TAP18040048	SUWI-01-14-03	2022/02/19	2023/02/18				
Active Loop Antenna	SCHWRZBECK MESS- ELEKTRONIK	FMZB 1519B	SUWI-01-21-01	2021/06/10	2023/06/09				
Wideband Radio Communication Tester	Anritsu	MT8820C	SUWI-01-16-08	2022/02/14	2023/02/13				
Measurement Software	Tonscend	JS32-RE 4.0.0.0	SUWI-02-09-04	NCR	NCR				



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4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 2.9dB (150kHz to 30MHz)
		± 4.8dB (30MHz -1GHz)
2	Radiated Emission	± 4.8dB (1GHz to 18GHz)
		± 4.80dB (Above 18GHz)

Remark:

The $U_{\mbox{\tiny lab}}$ (lab Uncertainty) is less than $U_{\mbox{\tiny cispr/ETSI}}$ (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.



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5 Photographs

5.1 Test Setup

Refer to Appendix A.1 15B Setup Photos.

---End of Report---



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