

TEST REPORT

Application No.: SZCR2511005052WM
Applicant: TCL Communication Ltd.
Address of Applicant: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Manufacturer: TCL Communication Ltd.
Address of Manufacturer: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Equipment Under Test (EUT):
EUT Description: GSM/UMTS/LTE/NR Mobile phone
Model No.: T523SP, T523V ♣
 ♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
FCC ID: 2ACCJH197
Standard(s) : 47 CFR Part 15, Subpart B
Date of Receipt: 2025-11-17
Date of Test: 2025-11-28 to 2025-12-03
Date of Issue: 2025-12-30

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu

Keny Xu
EMC Laboratory Manager



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (EMC Laboratory)

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2025-12-30		Original

Authorized for issue by:				
		Calvin Weng		
		Calvin Weng/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		



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2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at Mains Terminals (150kHz-30MHz)	47 CFR Part 15, Subpart B	ANSI C63.4-2014 +C63.4a-2017	15.107(a);Class B	Pass
Radiated Emissions (30MHz-1GHz)		ANSI C63.4-2014 +C63.4a-2017	15.109(a);Class B	Pass
Radiated Emissions (Above 1GHz)		ANSI C63.4-2014 +C63.4a-2017	15.109(g);Class B	Pass

Declaration of EUT Family Grouping:

Model No.: T523SP, T523V

Only T523SP were tested, since according to the declaration from the applicant, The differences between T523SP and T523V show as follow:

1.The Model Name between T523SP and T523V is different.

Except for the above-mentioned modification, all the other portions remain unchanged.

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4 General Information

4.1 Details of E.U.T.

EUT Description:	GSM/UMTS/LTE/NR Mobile phone
Model No.:	T523SP, T523V
Hardware Version:	07
Software Version:	vBQSA
Power supply:	DC3.91V by Li-ion battery(5000mAh) Battery M/N:TLp050E7 Battery Manufacturer:Dongguan Veken Battery Co.,Ltd.
Cable(s):	USB cable:1m unshielded cable without ferrite core

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Test modes

Pretest these modes to find the worst case and show the worse data in the test items:	13	Normal Operation: Charge+Front Camera+BT+WIFI+NFC +GSM 850
	idle+earphone	
	14	Normal Operation: Charge+Rear Camera+BT+WIFI+NFC +WCDMA B5
	idle+earphone	
	15	Normal Operation: Charge+BT+WIFI+NFC+LTE B12 idle+FM+earphone
	16	Normal Operation: Charge+BT+WIFI+NFC+NR n5 idle+Play
	MP4+earphone	
	17	Normal Operation: EUT USB Type C charge other device+WWAN idle
	18	Normal Operation: EUT OTG mode(read data from USB disk)
	19	Normal Operation: Data exchange between PC and EUT



4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Huizhou Puan Electronics Co.,Ltd.	QC16US	--
Laptop	Lenovo	L480	REF. No.SEA18C01F
Mouse	Lenovo	M-U0025-O	REF. No.:SEA24A01
Router	NETGEAR	DGN2200	REF. No.SEA22A00
U-disk	Sandisk	SDCZ60-016G	REF. No.SEA0100
Mobile phone	HUAWEI	LYA-AL00	S2D7N19124014116

4.4 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at Mains Terminals (150kHz-30MHz)	$\pm 3.1\text{dB}$
Radiated Emissions (30MHz-1GHz)	$\pm 6.0\text{dB}$ for 3m; $\pm 5.0\text{dB}$ for 10m
Radiated Emissions (Above 1GHz)	$\pm 4.6\text{dB}$

Remark:

The U_{lab} (lab Uncertainty) is less than $U_{\text{CISPR/ETSI}}$ (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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4.5 Test Location

All tests were performed at:

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Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.6 Test Facility

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

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None



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5 Equipment List

Conducted Emissions at Mains Terminals (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2025-05-07	2028-05-06
EMI Test Receiver	Rohde&Schwarz	ESR	SZ-WRG-M-047	2025-01-08	2026-01-07
Measurement Software	AUDIX	e3 V8.2014-6-27a	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2025-07-05	2026-07-04
LISN	Rohde&Schwarz	ENV216	SEM007-01	2025-07-25	2026-07-24
LISN	ETS-LINDGREN	3816/2	SEM007-02	2025-03-03	2026-03-02

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2025-07-25	2026-07-24
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2025-08-29	2027-08-28
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2025-03-04	2026-03-03
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2025-07-05	2026-07-04

Radiated Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2025-05-07	2028-05-06
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2025-03-04	2026-03-03
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2025-07-22	2026-07-21
Microwave system amplifier	Agilent	83017A	SEM005-25	2025-09-10	2026-09-09
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2025-07-05	2026-07-04



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General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2025-07-23	2026-07-22
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2025-07-23	2026-07-22
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2025-03-03	2026-03-02



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6 Emission Test Results

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

Test Requirement: 47 CFR Part 15, Subpart B
 Test Method: ANSI C63.4-2014 +C63.4a-2017
 Test Engineer: Wade Li

Limit:
 0.15M-0.5MHz 66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average
 0.5M-5MHz 56dB(μV) quasi-peak, 46dB(μV) average
 5M-30MHz 60dB(μV) quasi-peak, 50dB(μV) average
 Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

6.1.1 E.U.T. Operation

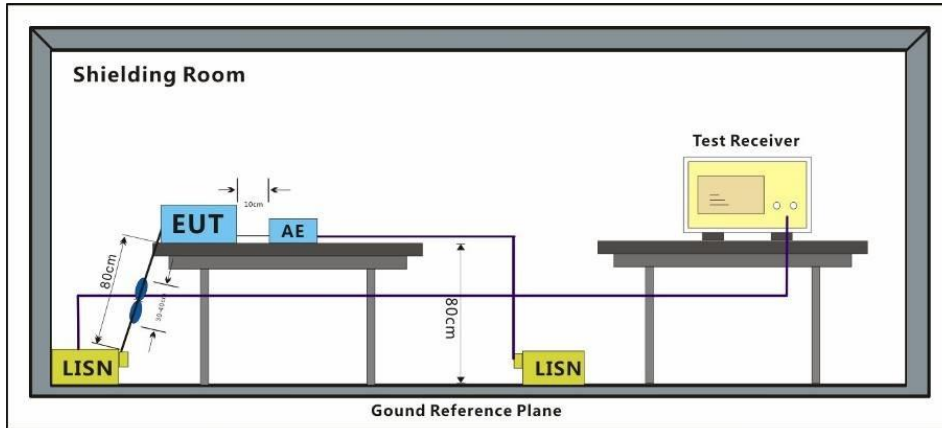
Operating Environment:
 Temperature: 25.3 °C Humidity: 40.5 % RH Atmospheric Pressure: 1020 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	13	Normal Operation: Charge+Front Camera+BT+WIFI+NFC +GSM 850 idle+earphone
Final test	14	Normal Operation: Charge+Rear Camera+BT+WIFI+NFC +WCDMA B5 idle+earphone
Final test	15	Normal Operation: Charge+BT+WIFI+NFC+LTE B12 idle+FM+earphone
Final test	16	Normal Operation: Charge+BT+WIFI+NFC+NR n5 idle+Play MP4+earphone



6.1.3 Test Setup Diagram



6.1.4 Measurement Procedure and 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.

Remark : Level= Read Level+ Cable Loss+ LISN Factor



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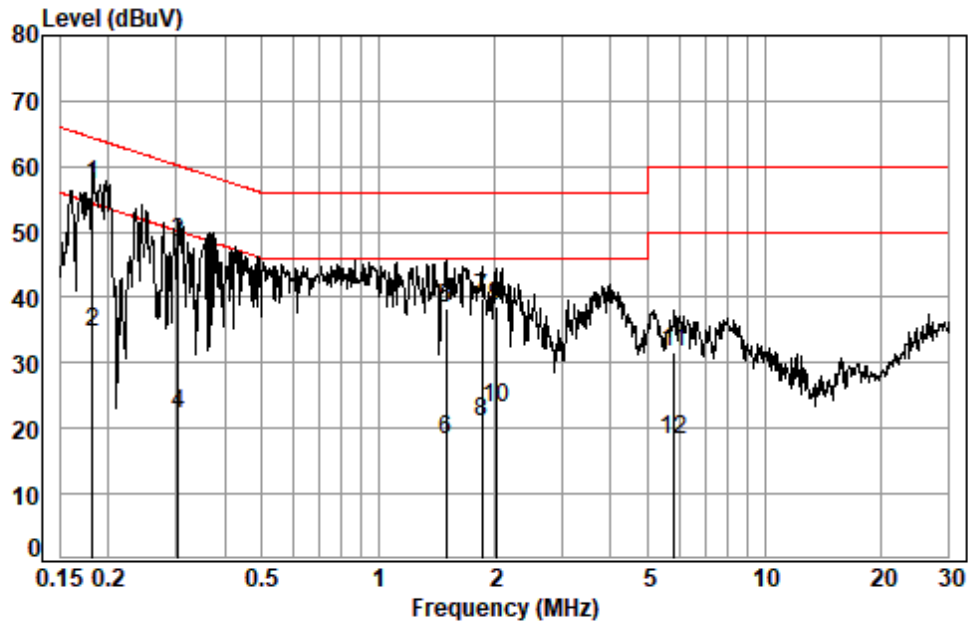
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Test Mode: 13; Line: Live line



Site : Shielding Room
Condition: Line
Job No. : 05052WM
Test mode: 13

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1825	0.07	10.14	46.97	57.18	64.37	-7.19	QP
2 *	0.1825	0.07	10.14	24.38	34.59	54.37	-19.78	Average
3	0.3035	0.08	9.84	38.41	48.33	60.15	-11.82	QP
4	0.3035	0.08	9.84	12.20	22.12	50.15	-28.03	Average
5	1.4953	0.12	9.58	28.72	38.42	56.00	-17.58	QP
6	1.4953	0.12	9.58	8.56	18.26	46.00	-27.74	Average
7	1.8581	0.12	9.58	30.00	39.70	56.00	-16.30	QP
8	1.8581	0.12	9.58	11.39	21.09	46.00	-24.91	Average
9	2.0225	0.12	9.58	28.87	38.57	56.00	-17.43	QP
10	2.0225	0.12	9.58	13.38	23.08	46.00	-22.92	Average
11	5.8358	0.14	9.67	21.76	31.57	60.00	-28.43	QP
12	5.8358	0.14	9.67	8.54	18.35	50.00	-31.65	Average



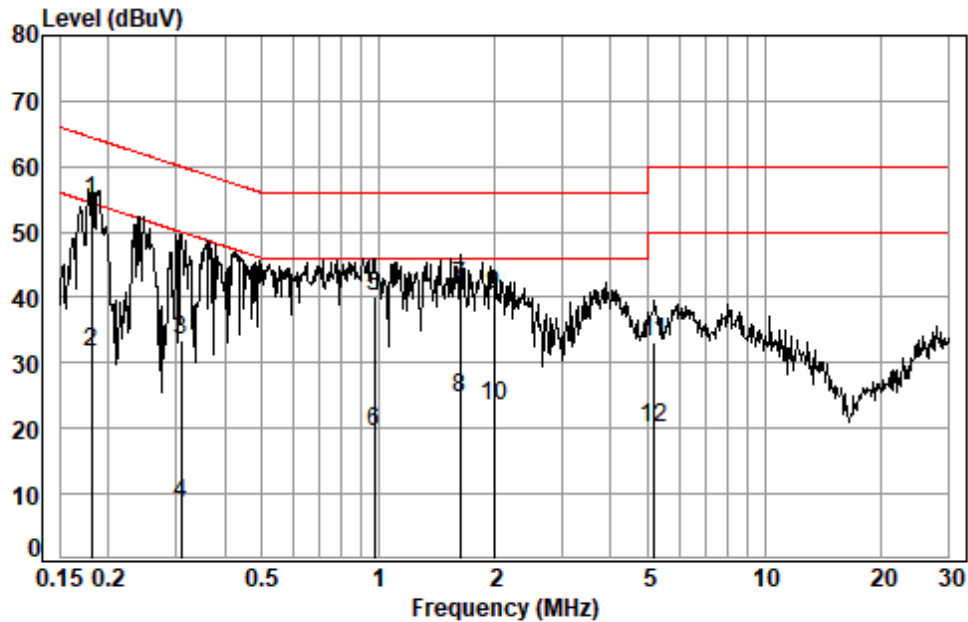
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Test Mode: 13; Line: Neutral Line

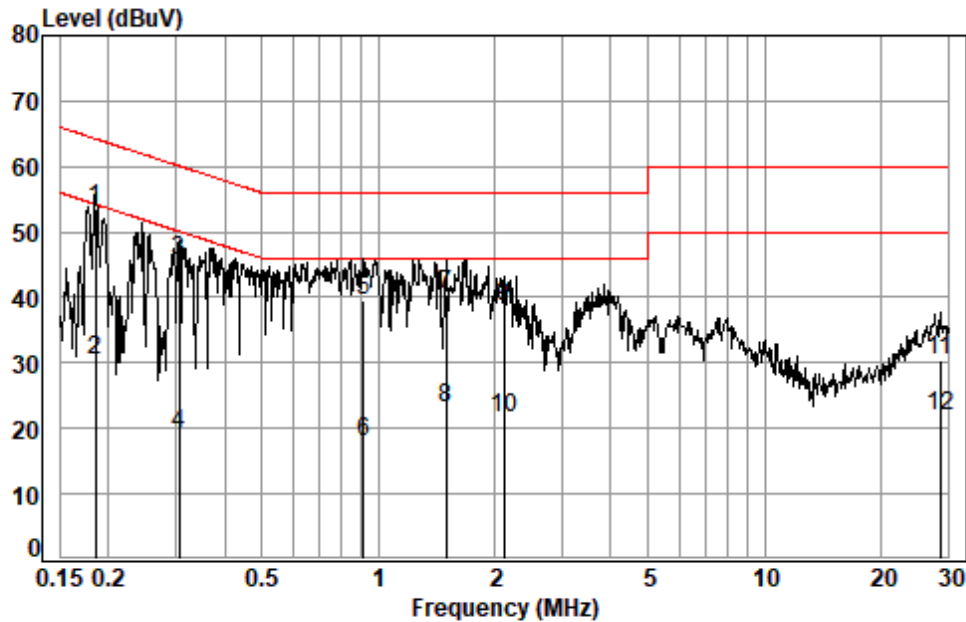


Site : Shielding Room
Condition: Neutral
Job No. : 05052WM
Test mode: 13

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1815	0.07	10.10	44.67	54.84	64.42	-9.58	QP
2	0.1815	0.07	10.10	21.61	31.78	54.42	-22.64	Average
3	0.3083	0.08	9.77	23.51	33.36	60.02	-26.66	QP
4	0.3083	0.08	9.77	-1.23	8.62	50.02	-41.40	Average
5	0.9787	0.11	9.55	30.53	40.19	56.00	-15.81	QP
6	0.9787	0.11	9.55	9.78	19.44	46.00	-26.56	Average
7	1.6276	0.12	9.55	32.08	41.75	56.00	-14.25	QP
8 *	1.6276	0.12	9.55	15.09	24.76	46.00	-21.24	Average
9	1.9906	0.12	9.55	30.92	40.59	56.00	-15.41	QP
10	1.9906	0.12	9.55	13.73	23.40	46.00	-22.60	Average
11	5.1937	0.14	9.57	23.58	33.29	60.00	-26.71	QP
12	5.1937	0.14	9.57	10.33	20.04	50.00	-29.96	Average



Test Mode: 14; Line: Live line



Site : Shielding Room
Condition: Line
Job No. : 05052WM
Test mode: 14

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1854	0.07	10.14	43.45	53.66	64.24	-10.58	QP
2	0.1854	0.07	10.14	20.30	30.51	54.24	-23.73	Average
3	0.3051	0.08	9.84	35.76	45.68	60.10	-14.42	QP
4	0.3051	0.08	9.84	9.28	19.20	50.10	-30.90	Average
5	0.9136	0.11	9.60	29.72	39.43	56.00	-16.57	QP
6	0.9136	0.11	9.60	8.38	18.09	46.00	-27.91	Average
7	1.5033	0.12	9.58	30.77	40.47	56.00	-15.53	QP
8 *	1.5033	0.12	9.58	13.43	23.13	46.00	-22.87	Average
9	2.1213	0.12	9.59	29.05	38.76	56.00	-17.24	QP
10	2.1213	0.12	9.59	12.00	21.71	46.00	-24.29	Average
11	28.4519	0.26	10.49	19.54	30.29	60.00	-29.71	QP
12	28.4519	0.26	10.49	11.22	21.97	50.00	-28.03	Average



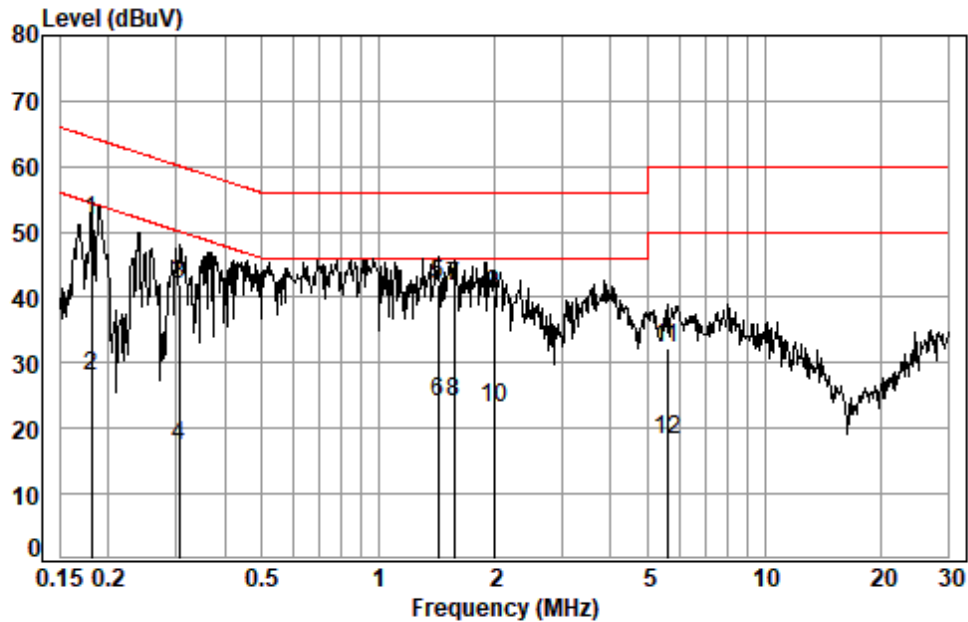
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Test Mode: 14; Line: Neutral Line



Site : Shielding Room

Condition: Neutral

Job No. : 05052WM

Test mode: 14

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1806	0.07	10.11	41.56	51.74	64.46	-12.72	QP
2	0.1806	0.07	10.11	17.88	28.06	54.46	-26.40	Average
3	0.3051	0.08	9.77	32.20	42.05	60.10	-18.05	QP
4	0.3051	0.08	9.77	7.45	17.30	50.10	-32.80	Average
5	1.4333	0.12	9.55	32.42	42.09	56.00	-13.91	QP
6	1.4333	0.12	9.55	14.24	23.91	46.00	-22.09	Average
7	1.5684	0.12	9.55	31.95	41.62	56.00	-14.38	QP
8 *	1.5684	0.12	9.55	14.35	24.02	46.00	-21.98	Average
9	1.9906	0.12	9.55	30.74	40.41	56.00	-15.59	QP
10	1.9906	0.12	9.55	13.42	23.09	46.00	-22.91	Average
11	5.5936	0.14	9.59	22.47	32.20	60.00	-27.80	QP
12	5.5936	0.14	9.59	8.59	18.32	50.00	-31.68	Average



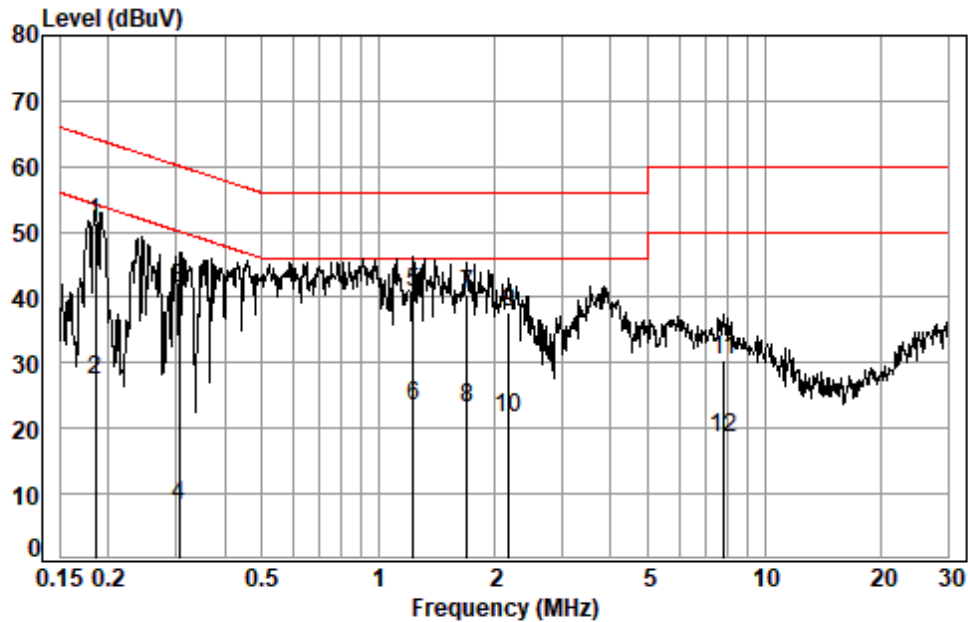
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Test Mode: 15; Line: Live line



Site : Shielding Room
Condition: Line
Job No. : 05052WM
Test mode: 15

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1854	0.07	10.14	41.14	51.35	64.24	-12.89	QP
2	0.1854	0.07	10.14	17.24	27.45	54.24	-26.79	Average
3	0.3051	0.08	9.84	31.59	41.51	60.10	-18.59	QP
4	0.3051	0.08	9.84	-1.74	8.18	50.10	-41.92	Average
5	1.2357	0.11	9.58	31.06	40.75	56.00	-15.25	QP
6 *	1.2357	0.11	9.58	13.72	23.41	46.00	-22.59	Average
7	1.6981	0.12	9.58	30.90	40.60	56.00	-15.40	QP
8	1.6981	0.12	9.58	13.29	22.99	46.00	-23.01	Average
9	2.1783	0.12	9.59	28.06	37.77	56.00	-18.23	QP
10	2.1783	0.12	9.59	12.01	21.72	46.00	-24.28	Average
11	7.8516	0.15	9.68	20.74	30.57	60.00	-29.43	QP
12	7.8516	0.15	9.68	8.71	18.54	50.00	-31.46	Average



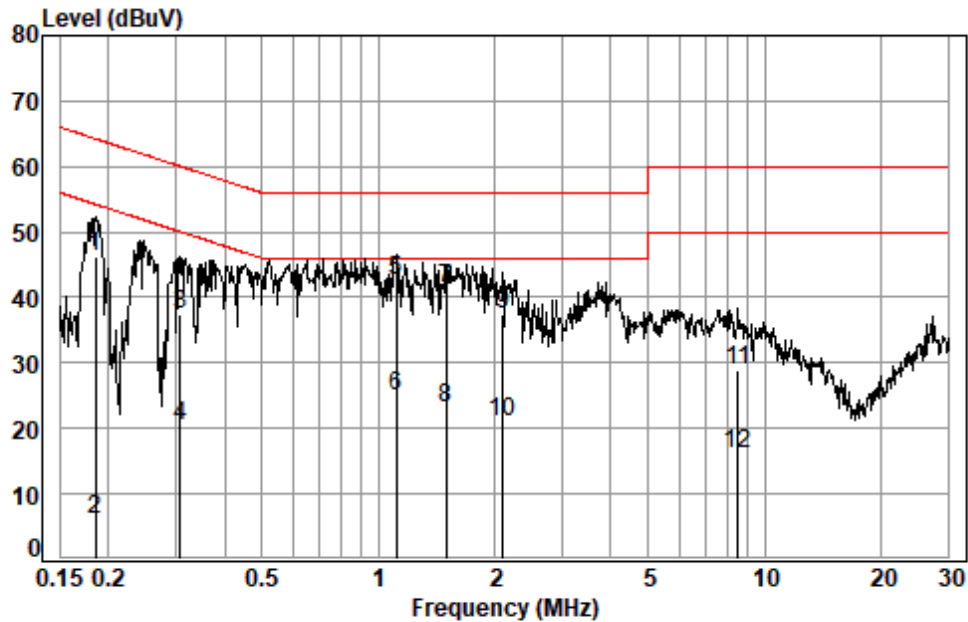
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Test Mode: 15; Line: Neutral Line



Site : Shielding Room
Condition: Neutral
Job No. : 05052WM
Test mode: 15

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1854	0.07	10.10	36.21	46.38	64.24	-17.86	QP
2	0.1854	0.07	10.10	-3.98	6.19	54.24	-48.05	Average
3	0.3067	0.08	9.77	27.70	37.55	60.06	-22.51	QP
4	0.3067	0.08	9.77	10.43	20.28	50.06	-29.78	Average
5 *	1.1114	0.11	9.54	32.87	42.52	56.00	-13.48	QP
6 *	1.1114	0.11	9.54	15.25	24.90	46.00	-21.10	Average
7	1.5033	0.12	9.55	31.58	41.25	56.00	-14.75	QP
8	1.5033	0.12	9.55	13.45	23.12	46.00	-22.88	Average
9	2.0990	0.12	9.55	27.75	37.42	56.00	-18.58	QP
10	2.0990	0.12	9.55	11.33	21.00	46.00	-25.00	Average
11	8.5463	0.15	9.61	19.29	29.05	60.00	-30.95	QP
12	8.5463	0.15	9.61	6.24	16.00	50.00	-34.00	Average



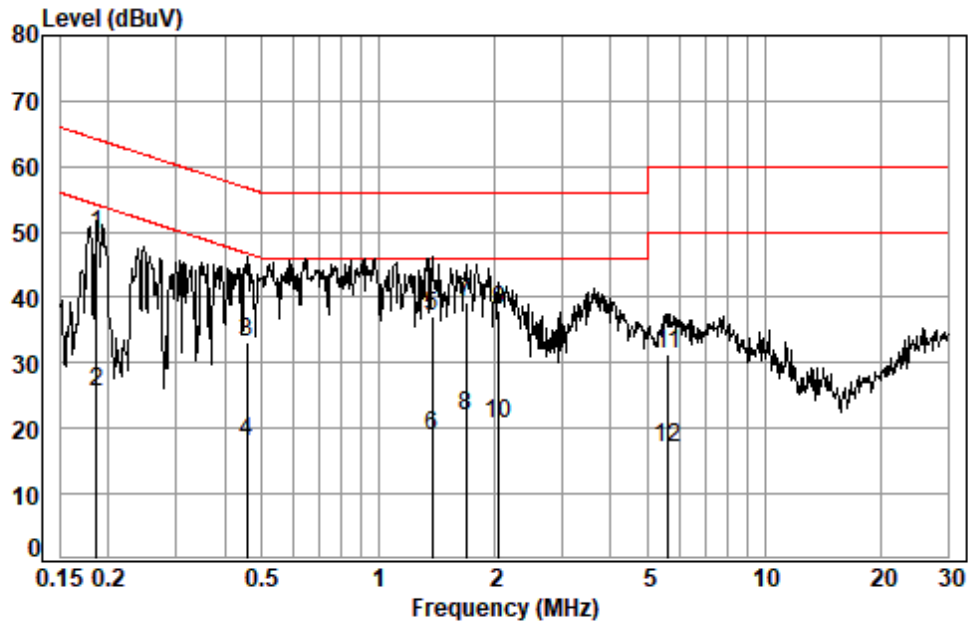
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Test Mode: 16; Line: Live line



Site : Shielding Room

Condition: Line

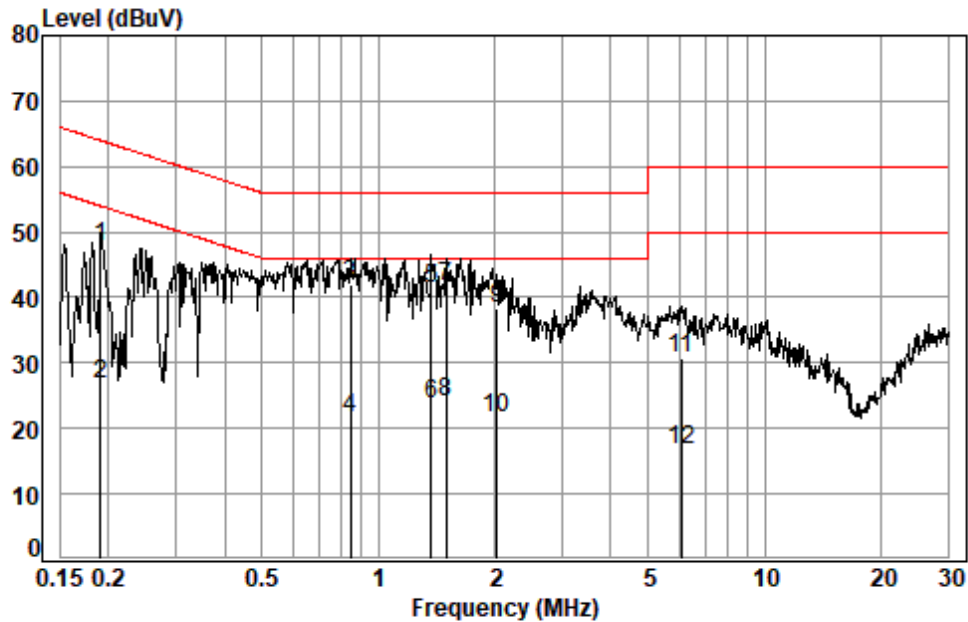
Job No. : 05052WM

Test mode: 16

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1864	0.07	10.14	39.52	49.73	64.20	-14.47	QP
2	0.1864	0.07	10.14	15.42	25.63	54.20	-28.57	Average
3	0.4564	0.09	9.60	23.58	33.27	56.76	-23.49	QP
4	0.4564	0.09	9.60	8.15	17.84	46.76	-28.92	Average
5	1.3811	0.12	9.58	27.52	37.22	56.00	-18.78	QP
6	1.3811	0.12	9.58	9.08	18.78	46.00	-27.22	Average
7	1.6891	0.12	9.58	29.55	39.25	56.00	-16.75	QP
8 *	1.6891	0.12	9.58	12.32	22.02	46.00	-23.98	Average
9	2.0549	0.12	9.58	28.25	37.95	56.00	-18.05	QP
10	2.0549	0.12	9.58	10.94	20.64	46.00	-25.36	Average
11	5.6234	0.14	9.67	21.59	31.40	60.00	-28.60	QP
12	5.6234	0.14	9.67	7.25	17.06	50.00	-32.94	Average



Test Mode: 16; Line: Neutral Line



Site : Shielding Room
Condition: Neutral
Job No. : 05052WM
Test mode: 16

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1914	0.07	10.09	37.72	47.88	63.98	-16.10	QP
2	0.1914	0.07	10.09	16.67	26.83	53.98	-27.15	Average
3 *	0.8483	0.11	9.59	32.14	41.84	56.00	-14.16	QP
4	0.8483	0.11	9.59	12.01	21.71	46.00	-24.29	Average
5	1.3738	0.12	9.54	31.71	41.37	56.00	-14.63	QP
6	1.3738	0.12	9.54	14.10	23.76	46.00	-22.24	Average
7	1.5033	0.12	9.55	31.92	41.59	56.00	-14.41	QP
8 *	1.5033	0.12	9.55	14.22	23.89	46.00	-22.11	Average
9	2.0333	0.12	9.55	28.74	38.41	56.00	-17.59	QP
10	2.0333	0.12	9.55	12.05	21.72	46.00	-24.28	Average
11	6.0885	0.14	9.61	20.90	30.65	60.00	-29.35	QP
12	6.0885	0.14	9.61	6.99	16.74	50.00	-33.26	Average



6.2 Radiated Emissions (30MHz-1GHz)

Test Requirement: 47 CFR Part 15, Subpart B
 Test Method: ANSI C63.4-2014 +C63.4a-2017
 Measurement Distance: 3m
 Test Engineer: Mason Wu

Limit:

FREQUENCY (MHz)	dBμV/m (At 10m)	dBμV/m (At 3m)
	Class B	Class B
30MHz -88MHz	29.5	40.0
88MHz-216MHz	33.1	43.5
216MHz-960MHz	35.6	46.0
960MHz-1000MHz	43.5	54.0
Detector: Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz		

6.2.1 E.U.T. Operation

Operating Environment:

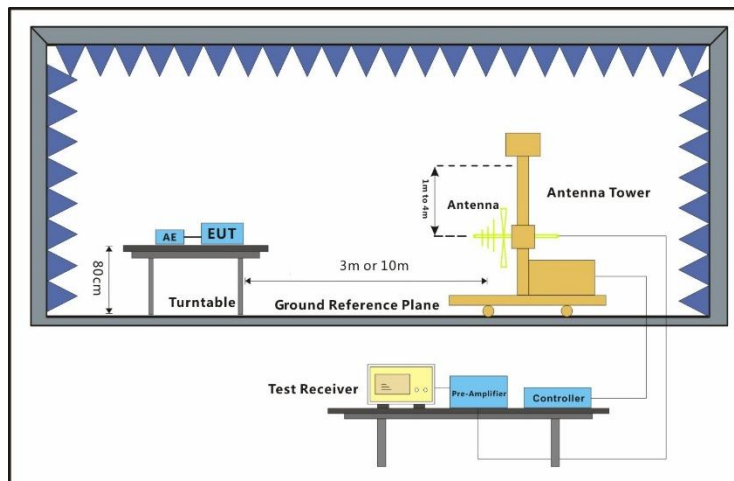
Temperature: 23.4 °C Humidity: 42.5 % RH Atmospheric Pressure: 1020 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	13	Normal Operation: Charge+Front Camera+BT+WIFI+NFC +GSM 850 idle+earphone
Pre-scan	14	Normal Operation: Charge+Rear Camera+BT+WIFI+NFC +WCDMA B5 idle+earphone
Pre-scan	15	Normal Operation: Charge+BT+WIFI+NFC+LTE B12 idle+FM+earphone
Pre-scan	16	Normal Operation: Charge+BT+WIFI+NFC+NR n5 idle+Play MP4+earphone
Final test	17	Normal Operation: EUT USB Type C charge other device+WWAN idle
Final test	18	Normal Operation: EUT OTG mode(read data from USB disk)
Final test	19	Normal Operation: Data exchange between PC and EUT



6.2.3 Test Setup Diagram



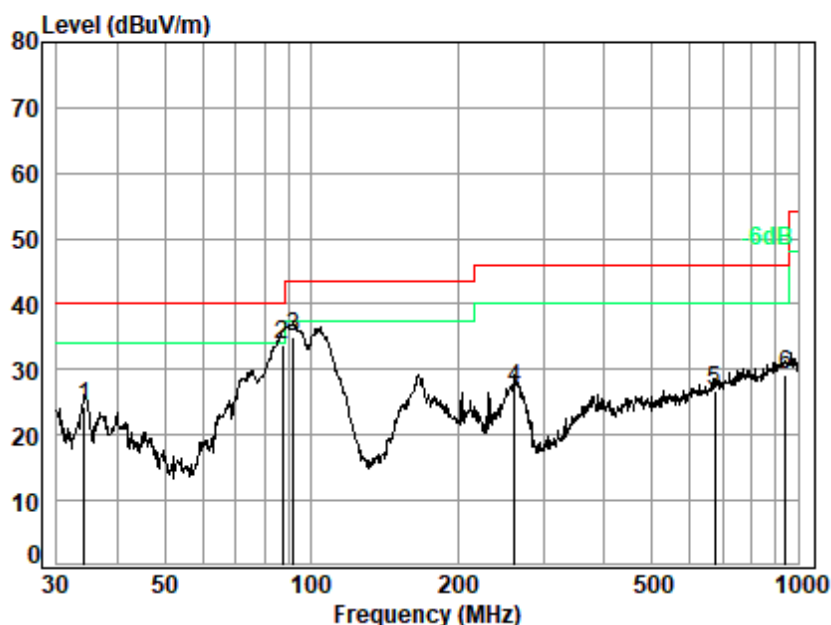
6.2.4 Measurement Procedure and Data

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.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



Test Mode: 13; Polarity: Horizontal



Site : chamber

Condition: 3m HORIZONTAL

Job No. : 05052WM

Test Mode: 13

	Ant	Cable	Preamp	Read		Limit	Over	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	34.156	19.34	0.78	27.65	31.82	24.29	40.00	-15.71 QP
2 q	87.112	11.33	1.16	27.61	49.01	33.89	40.00	-6.11 QP
3	91.816	11.89	1.19	27.60	49.63	35.11	43.50	-8.39 QP
4	261.058	17.19	1.97	27.60	35.54	27.10	46.00	-18.90 QP
5	672.845	25.64	3.33	27.90	25.57	26.64	46.00	-19.36 QP
6	942.131	28.19	4.06	26.72	23.74	29.27	46.00	-16.73 QP



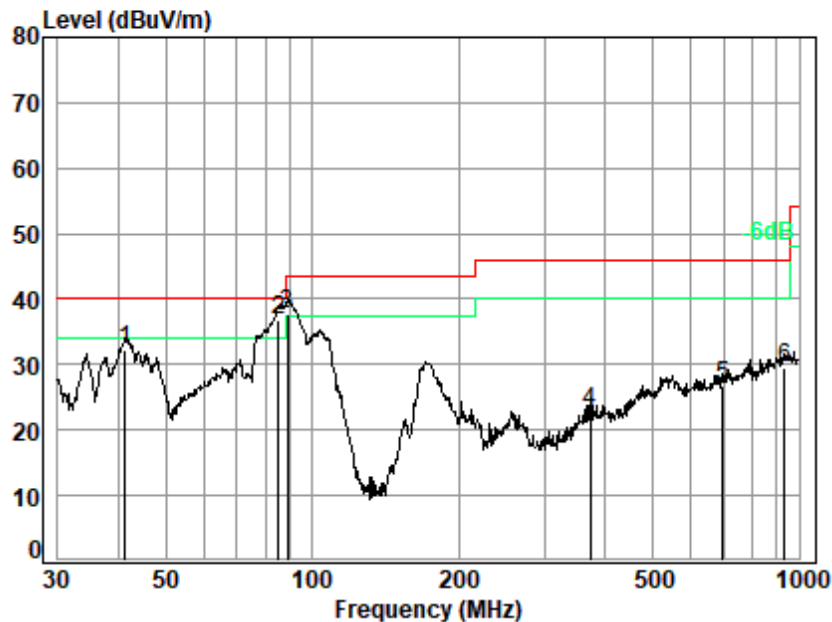
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Test Mode: 13; Polarity: Vertical

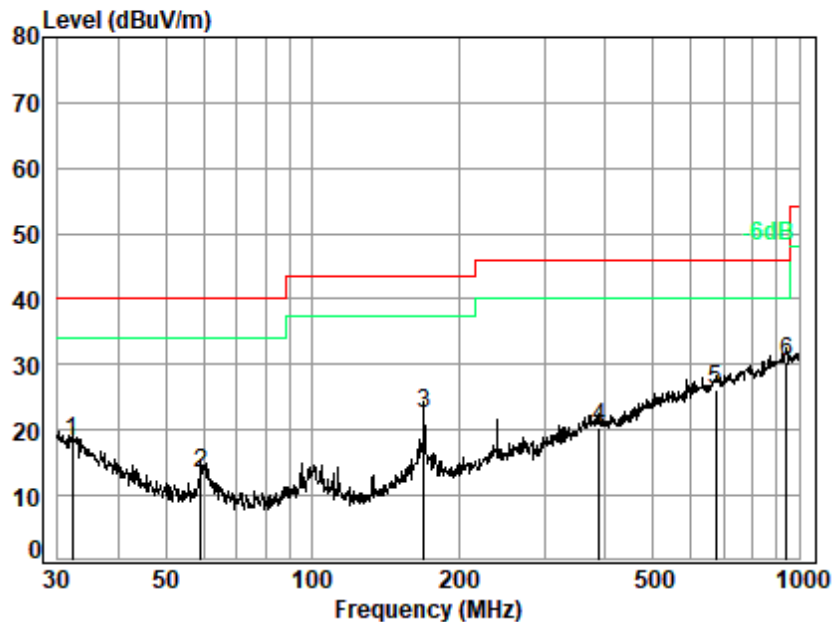


Site : chamber
Condition: 3m VERTICAL
Job No. : 05052WM
Test Mode: 13

		Ant	Cable	Preamp	Read		Limit	Over	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	41.277	15.76	0.83	27.64	43.23	32.18	40.00	-7.82	QP
2	85.298	11.07	1.14	27.61	52.16	36.76	40.00	-3.24	QP
3	88.964	11.61	1.17	27.61	52.65	37.82	43.50	-5.68	QP
4	372.005	20.54	2.39	27.69	27.58	22.82	46.00	-23.18	QP
5	696.857	25.88	3.40	27.84	25.30	26.74	46.00	-19.26	QP
6	935.546	28.18	4.05	26.76	24.04	29.51	46.00	-16.49	QP



Test Mode: 17; Polarity: Horizontal



Site : chamber

Condition: 3m HORIZONTAL

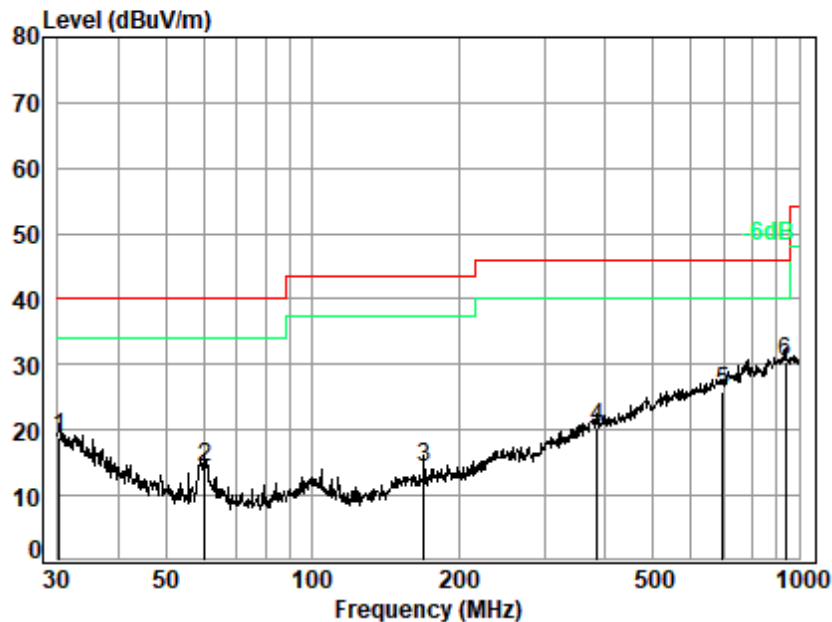
Job No. : 05052WM

Test Mode: 17

	Ant	Cable	Preamp	Read		Limit	Over	
Freq	Factor	Loss	Factor	Level	Level	Line	Limit	Remark
MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	32.179	20.20	0.76	27.65	24.99	18.30	40.00	-21.70 QP
2	59.025	11.59	0.92	27.62	28.43	13.32	40.00	-26.68 QP
3	169.599	13.25	1.59	27.75	35.35	22.44	43.50	-21.06 QP
4	389.355	20.78	2.45	27.73	25.03	20.53	46.00	-25.47 QP
5	672.845	25.64	3.33	27.90	25.07	26.14	46.00	-19.86 QP
6 q	942.131	28.19	4.06	26.72	24.97	30.50	46.00	-15.50 QP



Test Mode: 17; Polarity: Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : 05052WM
Test Mode: 17

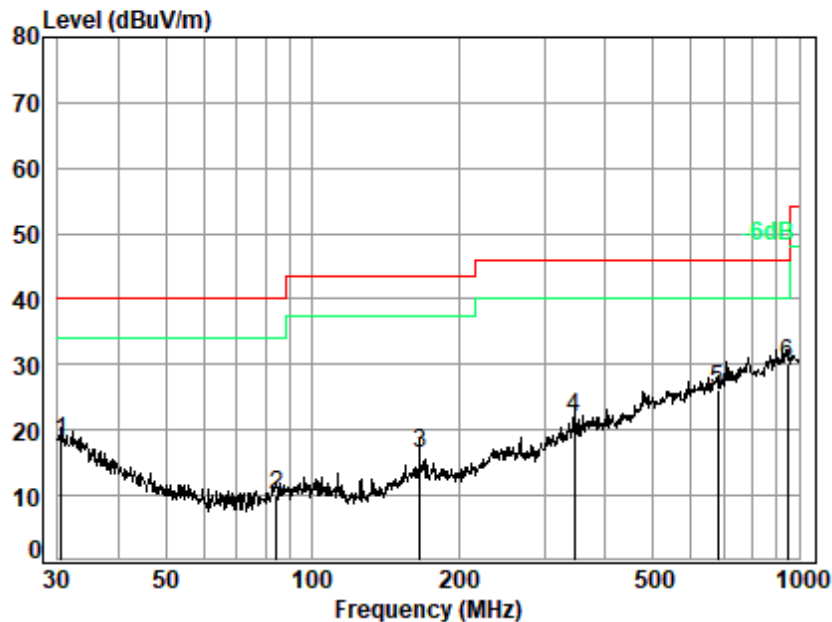
	Ant Freq	Cable Factor	Preamp Loss	Read Factor	Level	Limit	Over	
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	30.211	21.10	0.74	27.65	24.67	18.86	40.00	-21.14 QP
2	60.280	11.45	0.92	27.62	29.69	14.44	40.00	-25.56 QP
3	169.599	13.25	1.59	27.75	27.18	14.27	43.50	-29.23 QP
4	385.281	20.89	2.44	27.72	24.80	20.41	46.00	-25.59 QP
5	696.857	25.88	3.40	27.84	24.30	25.74	46.00	-20.26 QP
6 q	938.833	28.15	4.06	26.74	24.98	30.45	46.00	-15.55 QP



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Test Mode: 18; Polarity: Horizontal



Site : chamber

Condition: 3m HORIZONTAL

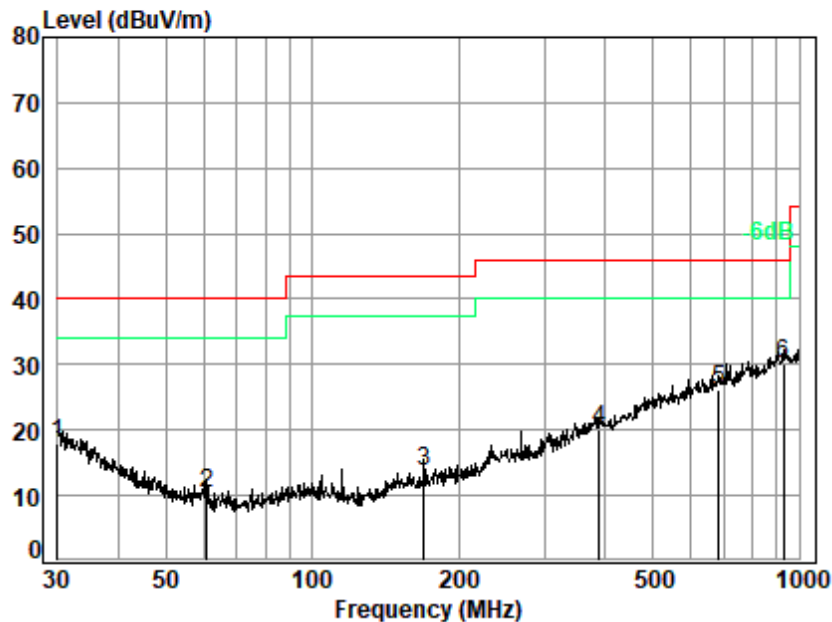
Job No. : 05052WM

Test Mode: 18

	Ant	Cable	Preamp	Read		Limit	Over	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	30.531	20.95	0.74	27.65	24.20	18.24	40.00	-21.76 QP
2	84.405	10.94	1.14	27.61	25.51	9.98	40.00	-30.02 QP
3	166.068	13.16	1.57	27.75	29.47	16.45	43.50	-27.05 QP
4	345.595	19.58	2.30	27.62	27.58	21.84	46.00	-24.16 QP
5	679.960	25.86	3.35	27.88	24.97	26.30	46.00	-19.70 QP
6 q	945.440	28.26	4.07	26.70	24.53	30.16	46.00	-15.84 QP



Test Mode: 18; Polarity: Vertical

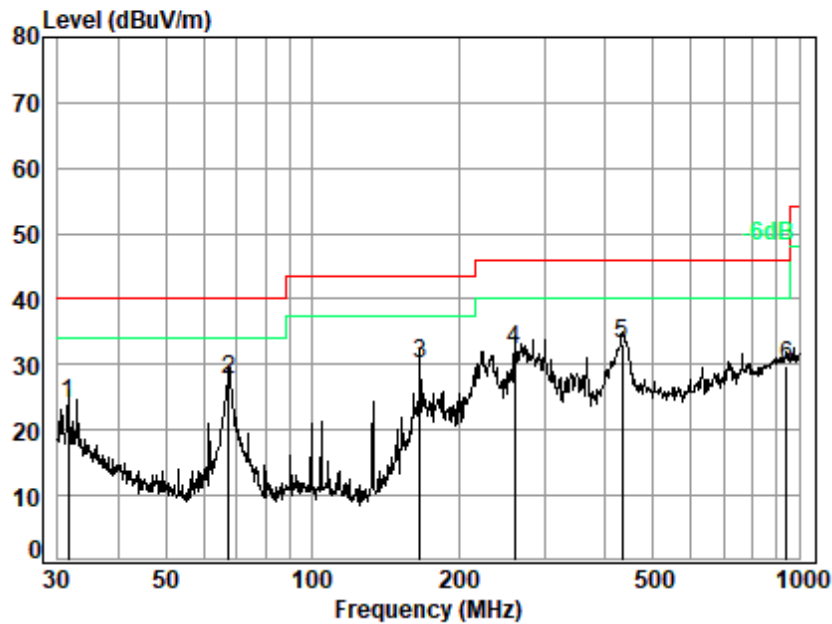


Site : chamber
Condition: 3m VERTICAL
Job No. : 05052WM
Test Mode: 18

	Ant Freq	Cable Factor	Preamp Loss	Read Factor	Level Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV dBuV/m	dBuV/m	dB	
1	30.000	21.20	0.74	27.65	23.59 17.88	40.00	-22.12	QP
2	60.704	11.40	0.92	27.62	25.70 10.40	40.00	-29.60	QP
3	169.599	13.25	1.59	27.75	26.50 13.59	43.50	-29.91	QP
4	389.355	20.78	2.45	27.73	24.50 20.00	46.00	-26.00	QP
5	684.745	25.75	3.37	27.87	25.05 26.30	46.00	-19.70	QP
6 q	929.008	28.16	4.04	26.80	24.72 30.12	46.00	-15.88	QP



Test Mode: 19; Polarity: Horizontal

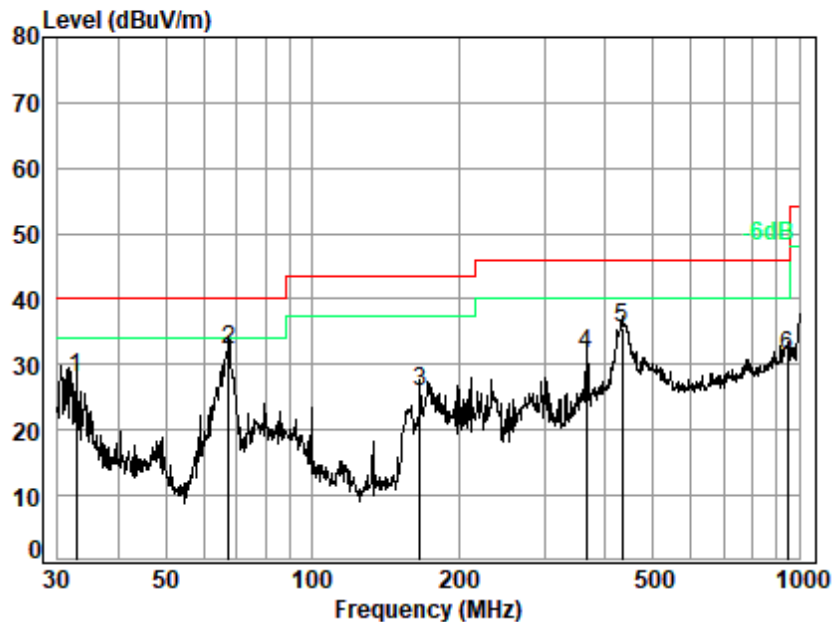


Site : chamber
Condition: 3m HORIZONTAL
Job No. : 05052WM
Test Mode: 19

	Ant	Cable	Preamp	Read		Limit	Over	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	31.510	20.50	0.75	27.65	30.55	24.15	40.00	-15.85 QP
2 q	67.438	10.77	0.97	27.62	43.53	27.65	40.00	-12.35 QP
3	166.651	13.15	1.57	27.75	43.21	30.18	43.50	-13.32 QP
4	260.144	17.22	1.97	27.61	40.76	32.34	46.00	-13.66 QP
5	432.546	20.99	2.60	27.82	37.33	33.10	46.00	-12.90 QP
6	942.131	28.19	4.06	26.72	24.31	29.84	46.00	-16.16 QP



Test Mode: 19; Polarity: Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : 05052WM
Test Mode: 19

		Ant	Cable	Preamp	Read	Limit	Over	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	32.749	19.98	0.76	27.65	34.97	28.06	40.00	-11.94 QP
2 q	67.438	10.77	0.97	27.62	47.98	32.10	40.00	-7.90 QP
3	166.068	13.16	1.57	27.75	38.85	25.83	43.50	-17.67 QP
4	365.539	20.31	2.37	27.67	36.48	31.49	46.00	-14.51 QP
5	432.546	20.99	2.60	27.82	39.69	35.46	46.00	-10.54 QP
6	945.440	28.26	4.07	26.70	25.80	31.43	46.00	-14.57 QP



6.3 Radiated Emissions (Above 1GHz)

Test Requirement: 47 CFR Part 15, Subpart B

Test Method: ANSI C63.4-2014 +C63.4a-2017

Measurement Distance: 3m

Test Engineer: Tommy Luo

Limit:

Above 1GHz 74(dBμV/m) peak, 54(dBμV/m) average at 3m distance

83.54(dBμV/m) peak, 63.54(dBμV/m) average at 1m distance

Detector: Peak for pre-scan (1MHz resolution bandwidth) 1GHz to 40GHz

6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 21.1 °C

Humidity: 50.3 % RH

Atmospheric Pressure: 1020 mbar

6.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	13	Normal Operation: Charge+Front Camera+BT+WIFI+NFC +GSM 850 idle+earphone
Final test	14	Normal Operation: Charge+Rear Camera+BT+WIFI+NFC +WCDMA B5 idle+earphone
Pre-scan	15	Normal Operation: Charge+BT+WIFI+NFC+LTE B12 idle+FM+earphone
Pre-scan	16	Normal Operation: Charge+BT+WIFI+NFC+NR n5 idle+Play MP4+earphone
Final test	17	Normal Operation: EUT USB Type C charge other device+WWAN idle
Final test	18	Normal Operation: EUT OTG mode(read data from USB disk)
Final test	19	Normal Operation: Data exchange between PC and EUT



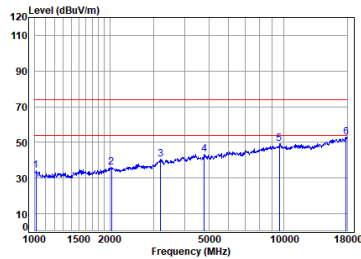
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Shenzhen Branch Inspection & Testing Laboratory

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.ssgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

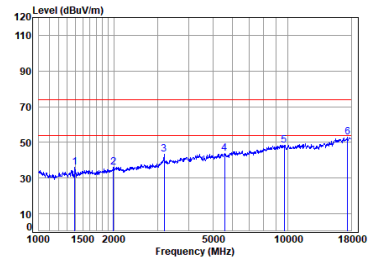
13 H



Site : chamber
Condition: 3m HORIZONTAL
Job No : 05052NM
Mode : 13

	Freq	Cable Loss	Factor	Ant Factor	Preamp	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB	
1	1011.629	5.88	25.93	54.61	56.86	34.06	74.00	-39.94	Peak	
2	2036.090	5.04	28.94	54.90	57.17	36.25	74.00	-37.75	Peak	
3	3196.094	6.01	32.87	54.85	56.53	40.56	74.00	-33.44	Peak	
4	4790.245	7.40	34.22	54.22	55.81	43.21	74.00	-30.79	Peak	
5	9613.430	10.74	37.43	53.35	54.35	49.17	74.00	-24.83	Peak	
6	p17844.590	11.41	43.90	52.48	50.32	53.15	74.00	-20.85	Peak	

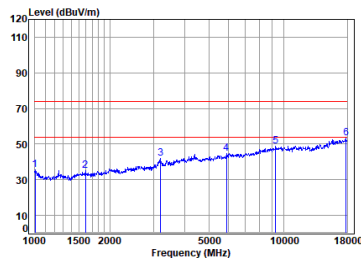
13 V



Site : chamber
Condition: 3m VERTICAL
Job No : 05052NM
Mode : 13

	Freq	Cable Loss	Factor	Ant Factor	Preamp	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB	
1	1394.300	5.16	24.59	54.74	61.14	36.15	74.00	-37.85	Peak	
2	1995.309	5.01	28.72	54.90	57.24	36.07	74.00	-37.93	Peak	
3	3186.869	6.01	32.79	54.85	59.22	43.17	74.00	-30.83	Peak	
4	5583.251	8.29	34.70	53.53	54.20	43.66	74.00	-30.34	Peak	
5	9697.151	10.71	37.50	53.32	53.59	48.48	74.00	-25.52	Peak	
6	p17436.710	11.17	43.40	52.68	51.14	53.03	74.00	-20.97	Peak	

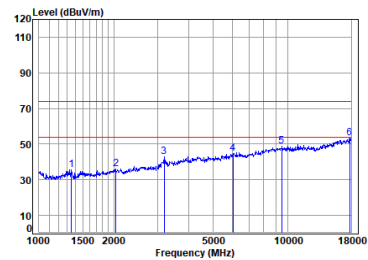
14 H



Site : chamber
Condition: 3m HORIZONTAL
Job No : 05052NM
Mode : 14

	Freq	Cable Loss	Factor	Ant Factor	Preamp	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB	
1	1002.895	5.90	26.21	54.60	57.95	35.46	74.00	-38.54	Peak	
2	1597.181	4.99	26.81	54.80	58.02	35.02	74.00	-38.98	Peak	
3	3196.094	6.01	32.87	54.85	57.73	41.76	74.00	-32.24	Peak	
4	5898.442	8.78	34.59	53.20	54.75	44.92	74.00	-29.08	Peak	
5	9285.710	10.69	37.34	53.48	54.24	48.79	74.00	-25.21	Peak	
6	p17793.090	11.38	43.89	52.50	50.65	53.42	74.00	-20.58	Peak	

14 V

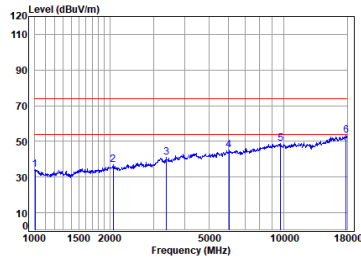


Site : chamber
Condition: 3m VERTICAL
Job No : 05052NM
Mode : 14

	Freq	Cable Loss	Factor	Ant Factor	Preamp	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB	
1	1350.667	5.23	24.50	54.73	60.44	35.44	74.00	-38.56	Peak	
2	2041.984	5.05	28.97	54.91	56.84	35.95	74.00	-38.05	Peak	
3	3186.869	6.01	32.79	54.85	58.84	42.79	74.00	-31.21	Peak	
4	6036.421	8.93	34.97	53.10	53.73	44.53	74.00	-29.47	Peak	
5	9475.497	10.76	37.45	53.40	54.19	49.00	74.00	-25.00	Peak	
6	p17741.740	11.35	43.84	52.53	50.79	53.45	74.00	-20.55	Peak	



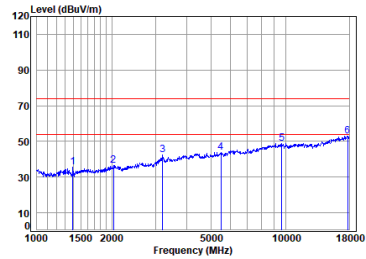
17 H



Site : chamber
Condition: 3m HORIZONTAL
Job No : 05052NM
Mode : 17

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 1082.895	5.90	26.21	54.60	56.54	34.05	74.00	-39.95	Peak
2 2055.729	5.07	28.94	54.91	57.81	36.91	74.00	-37.09	Peak
3 3376.523	6.12	32.26	54.71	57.40	41.07	74.00	-32.93	Peak
4 6036.421	8.93	34.97	53.10	54.39	45.19	74.00	-28.81	Peak
5 9725.221	10.70	37.45	53.31	53.94	48.78	74.00	-25.22	Peak
6 p17793.090	11.38	43.89	52.50	50.42	53.19	74.00	-20.81	Peak

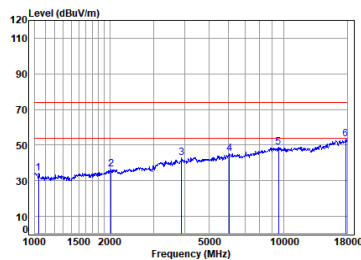
17 V



Site : chamber
Condition: 3m VERTICAL
Job No : 05052NM
Mode : 17

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 1394.300	5.16	24.59	54.74	60.58	35.59	74.00	-38.41	Peak
2 2036.090	5.04	28.94	54.90	57.43	36.51	74.00	-37.49	Peak
3 3196.094	6.01	32.87	54.85	58.34	42.37	74.00	-31.63	Peak
4 5503.143	8.17	34.51	53.62	54.79	43.85	74.00	-30.15	Peak
5 9641.257	10.73	37.48	53.34	54.07	48.94	74.00	-25.06	Peak
6 p17741.740	11.35	43.84	52.53	50.48	53.14	74.00	-20.86	Peak

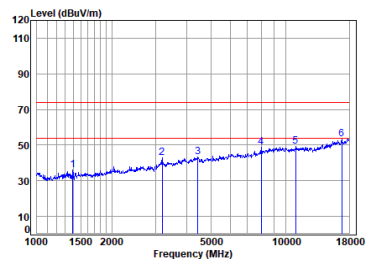
18 H



Site : chamber
Condition: 3m HORIZONTAL
Job No : 05052NM
Mode : 18

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 1035.293	5.83	25.17	54.62	57.68	34.06	74.00	-39.94	Peak
2 2024.354	5.03	28.90	54.90	57.54	36.57	74.00	-37.43	Peak
3 3890.255	6.75	33.66	54.37	56.66	42.70	74.00	-31.30	Peak
4 6053.894	8.92	35.01	53.11	54.45	45.27	74.00	-28.73	Peak
5 9530.432	10.76	37.50	53.38	54.01	48.89	74.00	-25.11	Peak
6 p17741.740	11.35	43.84	52.53	50.75	53.41	74.00	-20.59	Peak

18 V

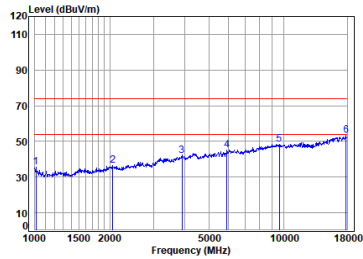


Site : chamber
Condition: 3m VERTICAL
Job No : 05052NM
Mode : 18

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 1394.300	5.16	24.59	54.74	61.20	36.21	74.00	-37.79	Peak
2 3186.869	6.01	32.79	54.85	58.77	42.72	74.00	-31.28	Peak
3 4430.628	7.13	34.43	54.25	55.82	43.13	74.00	-30.87	Peak
4 7989.893	9.07	36.40	53.10	56.34	48.71	74.00	-25.29	Peak
5 10980.470	11.04	37.48	53.00	53.54	49.06	74.00	-24.94	Peak
6 p16842.290	10.99	43.03	52.73	52.07	53.36	74.00	-20.64	Peak



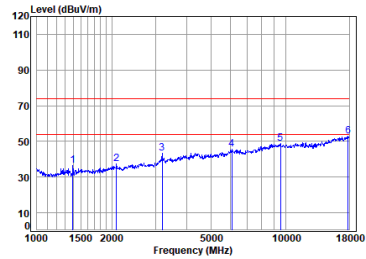
19 H



Site : chamber
Condition: 3m HORIZONTAL
Job No : 05052NM
Mode : 19

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1088.709	5.89	26.02	54.60	58.49	35.80	74.00	-38.20	Peak
2	2059.767	5.06	28.96	54.91	57.47	36.58	74.00	-37.42	Peak
3	3901.516	6.77	33.79	54.36	55.77	41.97	74.00	-32.03	Peak
4	5915.516	8.80	34.63	53.19	55.14	45.38	74.00	-28.62	Peak
5	9613.430	10.74	37.43	53.35	53.69	48.51	74.00	-25.49	Peak
6	p17793.090	11.38	43.89	52.50	50.44	53.21	74.00	-20.79	Peak

19 V



Site : chamber
Condition: 3m VERTICAL
Job No : 05052NM
Mode : 19

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1394.300	5.16	24.59	54.74	61.57	36.58	74.00	-37.42	Peak
2	2089.751	5.09	28.04	54.91	58.48	37.50	74.00	-36.50	Peak
3	3186.869	6.01	32.79	54.85	59.38	43.33	74.00	-30.67	Peak
4	6071.417	8.92	35.04	53.11	54.87	45.72	74.00	-28.28	Peak
5	9530.432	10.76	37.50	53.38	53.85	48.73	74.00	-25.27	Peak
6	p17844.590	11.41	43.90	52.48	49.88	52.71	74.00	-21.29	Peak



7 Test Setup Photo

Please refer to SZCR2511005052WM Appendix_ Setup Photo-15B

8 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for SZCR2511005052WM

- End of the Report -

