



FCC Test Report

For

Applicant Name: TECNO MOBILE LIMITED
Address: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25
SHAN MEI STREET FOTAN NT HONGKONG
EUT Name: Laptop Computer
Brand Name: TECNO
Model Number: T14DA
Series Model Number: Refer to section 2

Issued By

Company Name: BTF Testing Lab (Shenzhen) Co., Ltd.
Address: F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park,
Tantou Community, Songgang Street, Bao'an District, Shenzhen,
China

Report Number: BTF230918R00106
Test Standards: 47 CFR Part 15, Subpart B
FCC ID: 2ADYY-T14DA
Test Conclusion: Pass
Test Date: 2023-08-29 to 2023-09-19
Date of Issue: 2023-09-20

Prepared By:

Chris Liu

Chris Liu / Project Engineer
2023-09-20

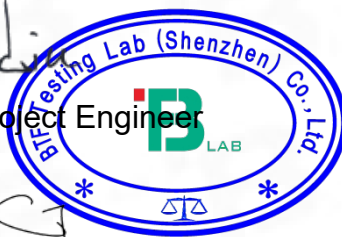
Date:

Approved By:

Ryan.CJ

Ryan.CJ / EMC Manager
2023-09-20

Date:



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Revision History		
Version	Issue Date	Revisions Content
R_V0	2023-09-20	Original
<i>Note: Once the revision has been made, then previous versions reports are invalid.</i>		

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1 Introduction

1.1 Identification of Testing Laboratory

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Phone Number:	+86-0755-23146130
Fax Number:	+86-0755-23146130

1.2 Identification of the Responsible Testing Location

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Phone Number:	+86-0755-23146130
Fax Number:	+86-0755-23146130
FCC Registration Number:	518915
Designation Number:	CN1330

1.3 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2 Product Information

2.1 Application Information

Company Name:	TECNO MOBILE LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.2 Manufacturer Information

Company Name:	TECNO MOBILE LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.3 Factory Information

Company Name:	GUANGXI SHANCHAUN TECHNOLOGY CO LTD
Address:	The Second Floor of Plant C01, Plant C02, Plant C03 and Plant D03

2.4 General Description of Equipment under Test (EUT)

EUT Name:	Laptop Computer
Test Model Number:	T14DA
Series Model Number:	N/A
Software Version:	Win 11 home
Hardware Version:	N156EBC01_MB_V11 VB

2.5 Technical Information

Power Supply:	Li-ion Battery: 528252-3S1P Rated Voltage: 11.61V Rated Capacity: 6460mAh/75Wh Limited Capacity: 6550mAh/76.04Wh Limited Charge Voltage: 13.35V
Power Adaptor:	Adapter1: DS65-2 Input: 100-240V~50/60Hz 1.5A Max Output: 5.0V $\overline{=}$ 3.0A 9.0V $\overline{=}$ 3.0A 12.0V $\overline{=}$ 3.0A 15.0V $\overline{=}$ 3.0A 20.0V $\overline{=}$ 3.25A 65.0W Adapter2: TCW-A61S-65W Input: 100-240V~50/60Hz 1.5A Max Output: DP: 5.0V $\overline{=}$ 3A 9V $\overline{=}$ 3A 12V $\overline{=}$ 3A 15V $\overline{=}$ 3A 20V $\overline{=}$ 3.25A PPS: 3.3-11V $\overline{=}$ 5A Max

Note:

#: This report only reflects the worst-case adapter 1 data.

3 Summary of Test Results

3.1 Test Standards

The tests were performed according to following standards:

47 CFR Part 15, Subpart B: Unintentional Radiators

3.2 Uncertainty of Test

Item	Measurement Uncertainty
Conducted Emission (150 kHz-30 MHz)	$\pm 2.64\text{dB}$
All emissions, radiated (<1GHz)	$\pm 4.12\text{dB}$

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

3.3 Summary of Test Result

Item	Standard	Requirement	Result
Conducted emissions on AC mains	47 CFR Part 15, Subpart B	15.107, Class B	Pass
Radiated emissions (Below 1GHz)	47 CFR Part 15, Subpart B	15.109, Class B	Pass
Radiated emissions (Above 1GHz)	47 CFR Part 15, Subpart B	15.109, Class B	Pass

4 Test Configuration

4.1 Test Equipment List

Conducted emissions on AC mains					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Pulse Limiter	SCHWARZBECK	VTSD 9561-F	00953	2022-11-24	2023-11-23
Coaxial Switcher	SCHWARZBECK	CX210	CX210	2022-11-24	2023-11-23
V-LISN	SCHWARZBECK	NSLK 8127	01073	2022-11-24	2023-11-23
LISN	AFJ	LS16/110VAC	16010020076	2023-02-23	2024-02-22
EMI Receiver	ROHDE&SCHWARZ	ESCI3	101422	2022-11-24	2023-11-23

Radiated emissions (Below 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-24	2024-03-23
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMAMAM-10m	21101566	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMAMAM-1m	21101568	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI7	101032	2022-11-24	2023-11-23
SIGNAL ANALYZER	ROHDE&SCHWARZ	FSQ40	100010	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Broadband Preamplifier	SCHWARZBECK	BBV9718D	00008	2023-03-24	2024-03-23
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21
EZ EMC	Frad	FA-03A2 RE+	/	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27

Radiated emissions (Above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-24	2024-03-23
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMAMAM-10m	21101566	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23

POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI7	101032	2022-11-24	2023-11-23
SIGNAL ANALYZER	ROHDE&SCHWARZ	FSQ40	100010	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Broadband Preamplifier	SCHWARZBECK	BBV9718D	00008	2023-03-24	2024-03-23
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21
EZ EMC	Frad	FA-03A2 RE+	/	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27

4.2 Test Auxiliary Equipment

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

4.3 Test Modes

Pretest Mode	Description
Mode 1	Video Recording
Model 2	Video Playing
Mode 3	Transferring with USB Disk (the worst case)
Mode 4	TF Card Playing

5 Emission Test Results (EMI)

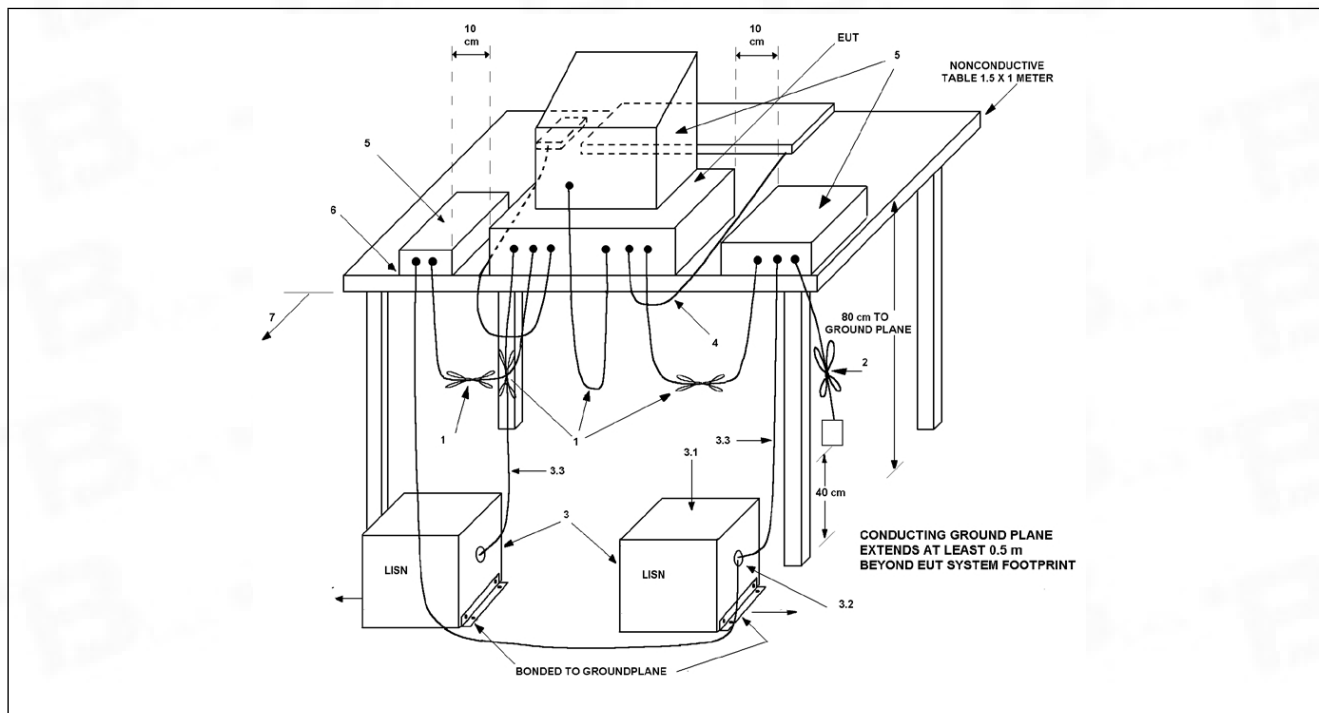
5.1 Conducted emissions on AC mains

Test Requirement:	15.107, Class B		
Test Method:	ANSI C63.4		
Test Limit:	Frequency of emission (MHz)	Conducted limit (dB μ V)	
		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.		
Procedure:	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		

5.1.1 E.U.T. Operation:

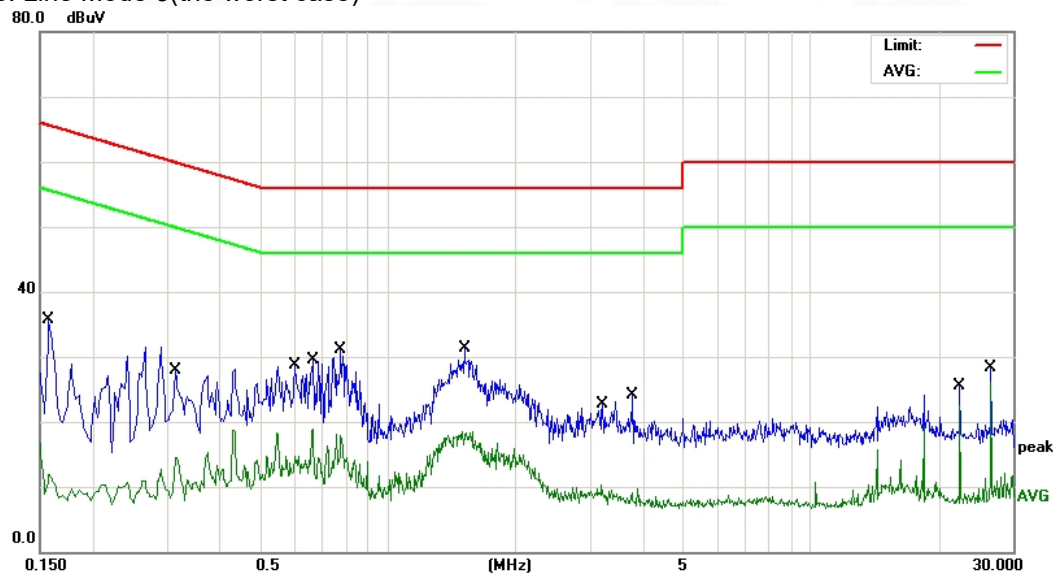
Operating Environment:	
Temperature:	24.1 °C
Humidity:	48.7 %
Atmospheric Pressure:	1010 mbar

5.1.2 Test Setup Diagram:



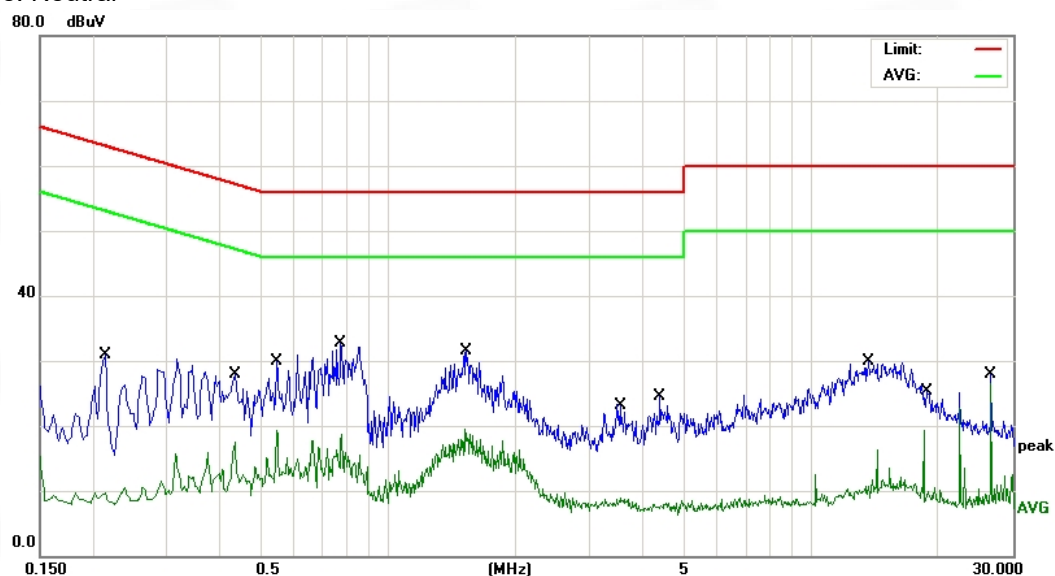
5.1.3 Test Data:

TM1 / Line: Line Mode 3(the worst case)



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1580	25.20	10.41	35.61	65.56	-29.95	QP
2		0.3140	4.03	10.43	14.46	49.86	-35.40	AVG
3		0.6020	18.17	10.48	28.65	56.00	-27.35	QP
4		0.6620	8.47	10.48	18.95	46.00	-27.05	AVG
5		0.7740	20.54	10.49	31.03	56.00	-24.97	QP
6		1.5020	7.90	10.59	18.49	46.00	-27.51	AVG
7		1.5140	20.69	10.59	31.28	56.00	-24.72	QP
8		3.1900	-0.30	10.67	10.37	46.00	-35.63	AVG
9		3.7860	13.37	10.68	24.05	56.00	-31.95	QP
10		22.5260	11.41	11.01	22.42	50.00	-27.58	AVG
11		26.6220	17.27	10.97	28.24	60.00	-31.76	QP
12	*	26.6220	15.20	10.97	26.17	50.00	-23.83	AVG

TM1 / Line: Neutral



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV	dBuV	dB	
1		0.2140	20.41	10.41	30.82	63.04	-32.22	QP
2		0.4340	6.96	10.46	17.42	47.18	-29.76	AVG
3		0.5460	8.90	10.47	19.37	46.00	-26.63	AVG
4	*	0.7740	22.14	10.49	32.63	56.00	-23.37	QP
5		1.5180	9.00	10.59	19.59	46.00	-26.41	AVG
6		1.5300	20.81	10.59	31.40	56.00	-24.60	QP
7		3.5620	-1.87	10.68	8.81	46.00	-37.19	AVG
8		4.4020	13.81	10.68	24.49	56.00	-31.51	QP
9		13.6540	18.84	10.99	29.83	60.00	-30.17	QP
10		18.4300	8.30	11.05	19.35	50.00	-30.65	AVG
11		26.6220	16.95	10.97	27.92	60.00	-32.08	QP
12		26.6220	15.62	10.97	26.59	50.00	-23.41	AVG

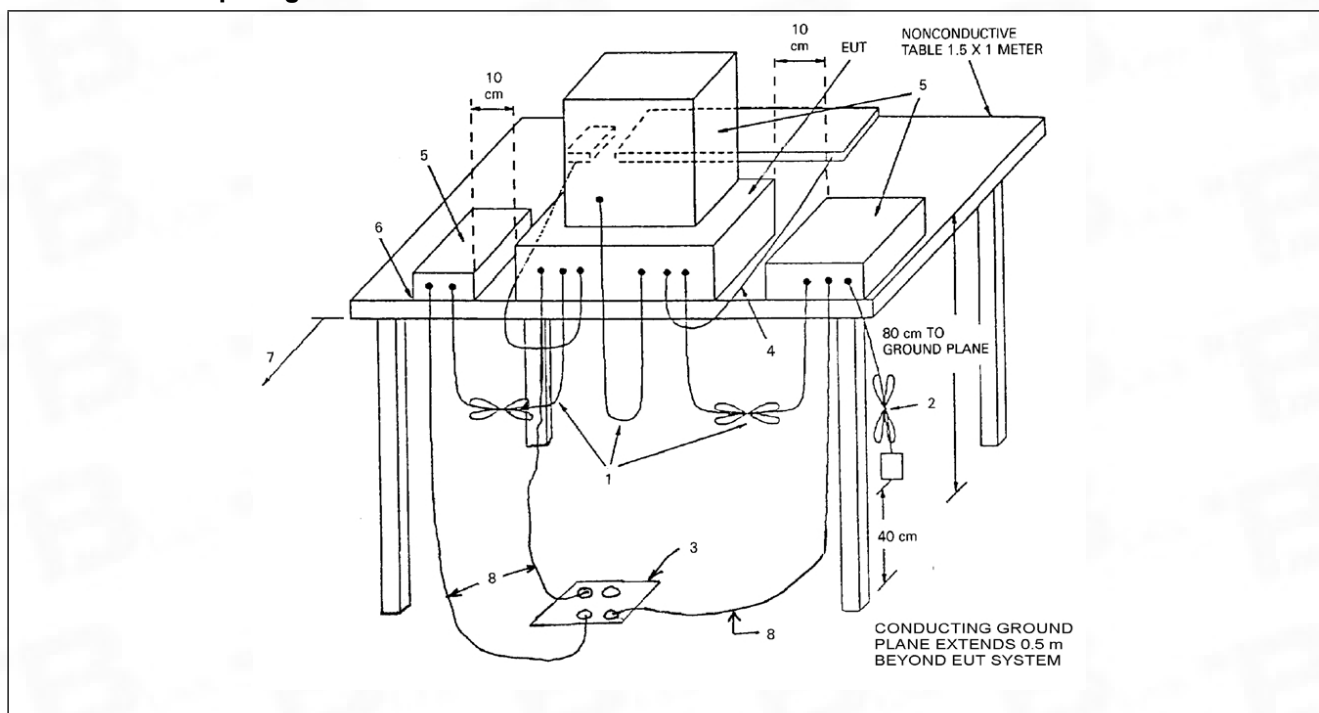
5.2 Radiated emissions (Below 1GHz)

Test Requirement:	15.109, Class B				
Test Method:	ANSI C63.4				
Test Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:				
	Frequency of emission (MHz)	Field strength @3m		Field strength @10m	
		(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)
	30 – 88	100	40	30	29.5
	88 – 216	150	43.5	45	33.1
	216 – 960	200	46	60	35.6
	Above 960	500	54	150	43.5
Procedure:	<p>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.</p> <p>Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor</p>				

5.2.1 E.U.T. Operation:

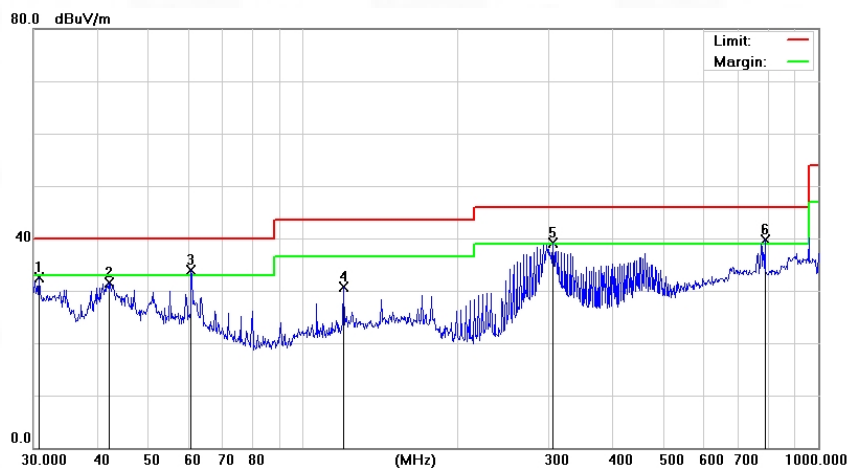
Operating Environment:	
Temperature:	24.1 °C
Humidity:	48.7 %
Atmospheric Pressure:	1010 mbar

5.2.2 Test Setup Diagram:



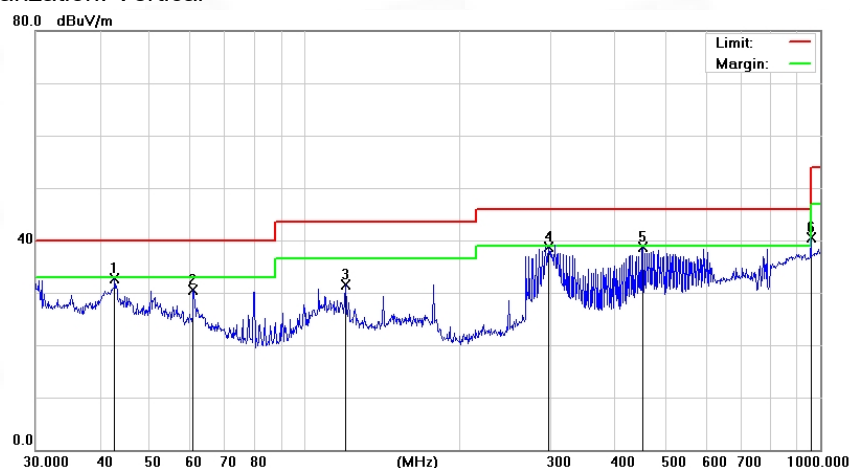
5.2.3 Test Data:

TM1 / Polarization: Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV/m	dBuV/m	dB	
1		30.7455	30.28	2.20	32.48	40.00	-7.52	QP
2		42.1542	28.39	3.16	31.55	40.00	-8.45	QP
3	*	60.7044	32.18	1.79	33.97	40.00	-6.03	QP
4		119.8556	29.47	1.16	30.63	43.50	-12.87	QP
5	!	305.6800	36.76	2.37	39.13	46.00	-6.87	QP
6	!	787.8513	27.47	12.25	39.72	46.00	-6.28	QP

TM1 / Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		42.7496	49.18	-16.51	32.67	40.00	-7.33	QP
2		60.7044	47.13	-16.70	30.43	40.00	-9.57	QP
3		119.8556	48.39	-16.83	31.56	43.50	-11.94	QP
4		297.2241	55.84	-17.04	38.80	46.00	-7.20	QP
5		452.7197	55.63	-16.96	38.67	46.00	-7.33	QP
6	*	958.7943	54.89	-14.30	40.59	46.00	-5.41	QP

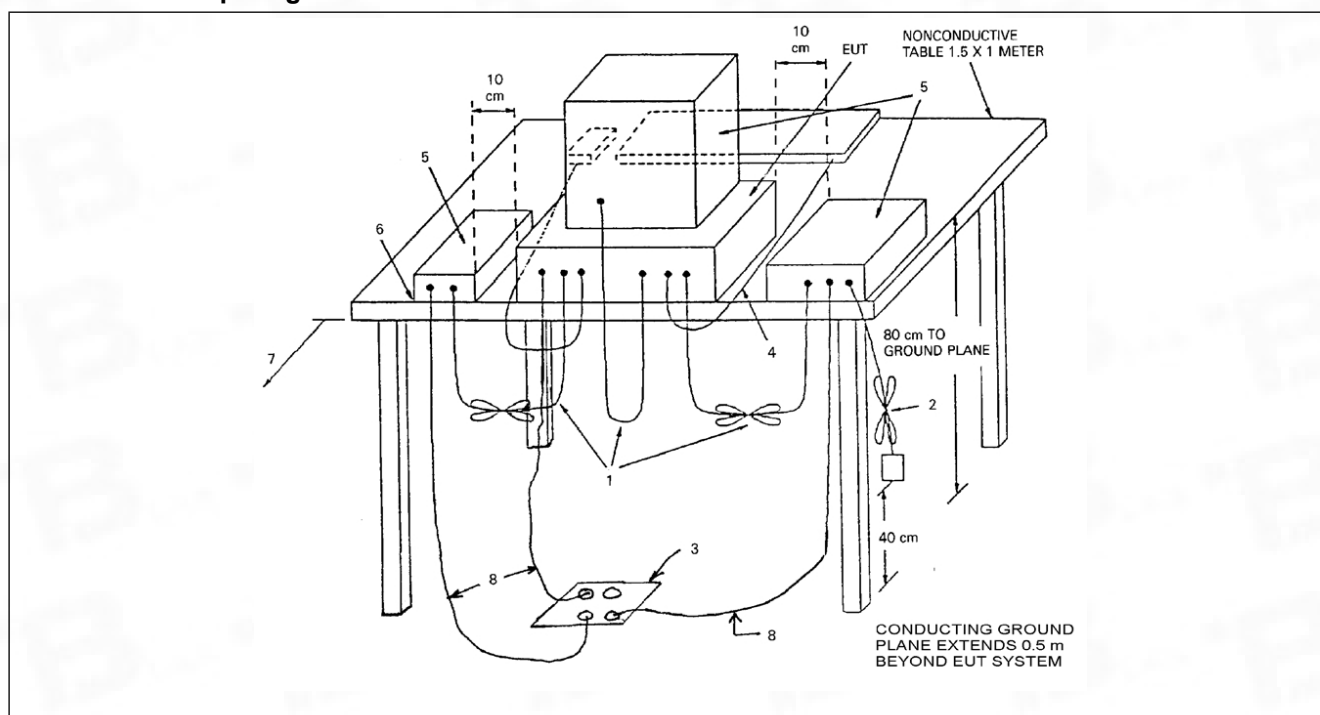
5.3 Radiated emissions (Above 1GHz)

Test Requirement:	15.109, Class B			
Test Method:	ANSI C63.4			
Test Limit:	Frequency of emission (MHz)	Field strength @3m		
		Average (uV/m)	Average (dBuV/m)	Peak (dBuV/m)
	Above 1GHz	500	54	74
Procedure:	<p>An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. For below 1GHz test, Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. For above 1GHz test, Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.</p> <p>Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor</p>			

5.3.1 E.U.T. Operation:

Operating Environment:	
Temperature:	22.2 °C
Humidity:	54.7 %
Atmospheric Pressure:	1010 mbar

5.3.2 Test Setup Diagram:



5.3.3 Test Data:

TEST RESULTS

Above 1GHz(1~6GHz) :(Mode 3—worst case)

Freq. (MHz)	Ant. Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
1552.35	V	65.45	40.75	74	54	-8.55	-13.25
2399.95	V	61.35	39.58	74	54	-12.65	-14.42
1614.23	H	59.44	40.45	74	54	-14.56	-13.55
2333.72	H	59.47	40.47	74	54	-14.53	-13.53

Remark:

All emissions not reported were more than 20dB below the specified limit or in the noise floor.

Freq. = Emission frequency in MHz

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Over= Emission Level - Limit.

All the x/y/z orientation has been investigated, and only worst case is presented in this report.



Test Report Number: BTF230918R00106



BTF Testing Lab (Shenzhen) Co., Ltd.

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Bao'an District, Shenzhen, China

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-- END OF REPORT --