

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: T15DA

Series Model Number: Refer to section 2

Issued By

Company Name: BTF Testing Lab (Shenzhen) Co., Ltd.

F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park,

Address: Tantou Community, Songgang Street, Bao'an District, Shenzhen,

China

Report Number: BTF230612R00606

Test Standards: 47 CFR Part 15, Subpart B

FCC ID: 2ADYY-T15DA

Test Conclusion: Pass

Test Date: 2023-05-09 to 2023-06-01

Date of Issue: 2023-06-15

Prepared By:

Chris Liu / Project Engineel

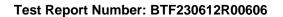
Date: 2023-06-1

Approved By:

Ryan.CJ / EMC Manager

Date: 2023-06-15

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Revision History				
Version	Issue Date	Revisions Content		
R_V0	2023-06-15	Original		
Note: Once the I	revision has been made, then pre	rious versions reports are invalid.		

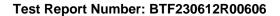
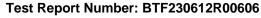




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1 Introduction

1.1 Identification of Testing Laboratory

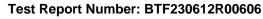
Company Name: BTF Testing Lab (Shenzhen) Co., Ltd.		
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China	
Phone Number:	+86-0755-23146130	
Fax Number:	+86-0755-23146130	

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
Address:	STREET FOTAN NT HONGKONG

2.2 Manufacturer Information

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

2.3 Factory Information

Company Name:	GUANGXI SHANCHAUN TECHNOLOGY CO LTD		
	2nd floor of building1 in zone 3, building2 in zone 3, 1st floor of building 2 in zone		
Address:	4, Guangxi 3nod Smart Industrial Park, No. 3 Gaoke Road, Haicheng District,		
	Beihai City, Guangxi Zhuang Autonomous Region		

2.4 General Description of Equipment under Test (EUT)

EUT Name:	Laptop Computer	
Test Model Number:	T15DA	
Series Model Number:	N/A	

2.5 Technical Information

	Model: 165
	Rated Voltage: 11.55V
Power Supply:	Rated Capacity: 6060mAh/70Wh
	Limited Capacity: 6160mAh/71.14Wh
	Limited Charge Voltage: 13.2V
	Adapter1: DS65-1
	Input: 100-240V-50/60Hz 1.5A Max
	Output: 5.0V===3.0A 9.0V===3.0A 12.0V===3.0A 15.0V===3.0A 20.0V===3.25A 65.0W
	Adapter2: DS65-3
	I Input: 100-240V-50/60Hz 1.5A Max
	Output: 5.0V==3.0A 9.0V==3.0A 12.0V==3.0A 15.0V==3.0A 20.0V==3.25A 65.0W
Bower Adenter:	Adapter3: TCW-E61S-65W
Power Adaptor:	Input: 100-240V-50/60Hz 1.5A Max
	Output: DP: 5.0V==3.0A 15.0W 9.0V==3.0A 27.0W 12.0V==3.0A 36.0W 15.0V ==3.0A 45.0W 20.0V==3.25A 65.0W
	PPS: 3.3-11.0V===5.0A 55.0W Max
	Adapter4: TCW-U61S-65W
	Input: 100-240V-50/60Hz 1.5A Max
	Output: DP: 5.0V===3.0A 15.0W 9.0V===3.0A 27.0W 12.0V===3.0A 36.0W 15.0V
	==-3.0A 45.0W 20.0V===3.25A 65.0W
	PPS: 3.3-11.0V===5.0A Max



Test Report Number: BTF230612R00606

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

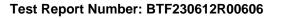
3.2 Uncertainty of Test

Item	Measurement Uncertainty	
Conducted Emission (150 kHz-30 MHz)	±2.64dB	
All emissions, radiated (<1GHz)	±4.12dB	

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





Test Configuration

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&SCHWA RZ	ESCI3	101422	2022-11-24	2023-11-23

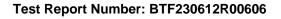
Radiated emissions (Below 1GHz)											
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date						
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-24	2024-03-23						
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23						
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	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-SMASMAM-1 m	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&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23						
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2022-11-24	2023-11-23						
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	1						
Broadband Preamplilifier	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-SMASMAM-1 0m	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&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	80000	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



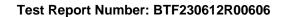


4.2 Test Auxiliary Equipment

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.

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)

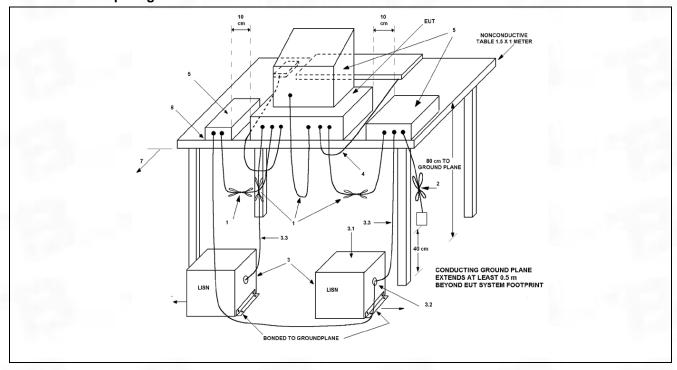
Conducted emissions on AC mains

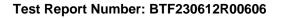
Test Requirement:	15.107, Class B								
Test Method:	ANSI C63.4	ANSI C63.4							
	Frequency of emission (MHz)	Conducted limit ((dBμV)						
		Quasi-peak	Average						
Test Limit:	0.15-0.5	66 to 56*	56 to 46*						
rest Limit.	0.5-5	56	46						
	5-30	60	50						
	*Decreases with the logarithm of	*Decreases with the logarithm of the frequency.							
Procedure:	An initial pre-scan was performed were performed at the were detected.	ne frequencies with m							
	Remark: Level= Read Level+ Cabl	e 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:

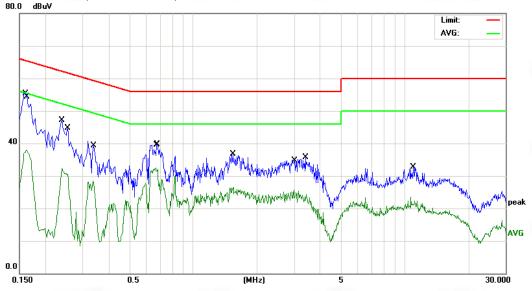




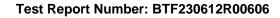


5.1.3 Test Data:

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

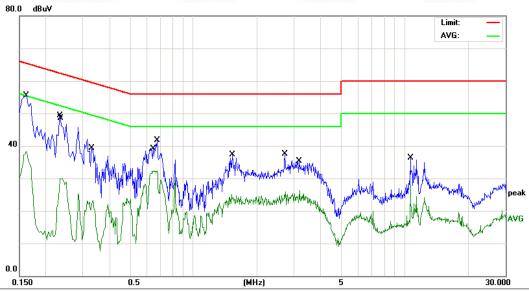


No. M	lk. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	0.1620	27.52	10.41	37.93	55.36	-17.43	AVG
2 *	0.1641	42.28	10.41	52.69	65.25	-12.56	QP
3	0.2380	21.84	10.42	32.26	52.16	-19.90	AVG
4	0.2562	30.56	10.42	40.98	61.55	-20.57	QP
5	0.3339	17.99	10.44	28.43	49.35	-20.92	AVG
6	0.6620	22.12	10.48	32.60	46.00	-13.40	AVG
7	0.6740	29.31	10.48	39.79	56.00	-16.21	QP
8	1.5380	26.17	10.59	36.76	56.00	-19.24	QP
9	1.5460	15.86	10.59	26.45	46.00	-19.55	AVG
10	2.9780	14.96	10.67	25.63	46.00	-20.37	AVG
11	3.3820	25.01	10.67	35.68	56.00	-20.32	QP
12	10.9660	21.85	10.84	32.69	60.00	-27.31	QP

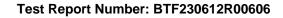








No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1620	45.13	10.41	55.54	65.36	-9.82	QP
2		0.1620	27.80	10.41	38.21	55.36	-17.15	AVG
3		0.2340	38.91	10.42	49.33	62.30	-12.97	QP
4		0.2380	19.57	10.42	29.99	52.16	-22.17	AVG
5		0.3303	28.69	10.44	39.13	59.44	-20.31	QP
6		0.6460	21.91	10.48	32.39	46.00	-13.61	AVG
7		0.6740	31.12	10.48	41.60	56.00	-14.40	QP
8		1.5140	14.48	10.59	25.07	46.00	-20.93	AVG
9		1.5300	26.72	10.59	37.31	56.00	-18.69	QP
10		2.7100	26.85	10.67	37.52	56.00	-18.48	QP
11		3.1780	15.59	10.67	26.26	46.00	-19.74	AVG
12		10.6700	17.26	10.83	28.09	50.00	-21.91	AVG





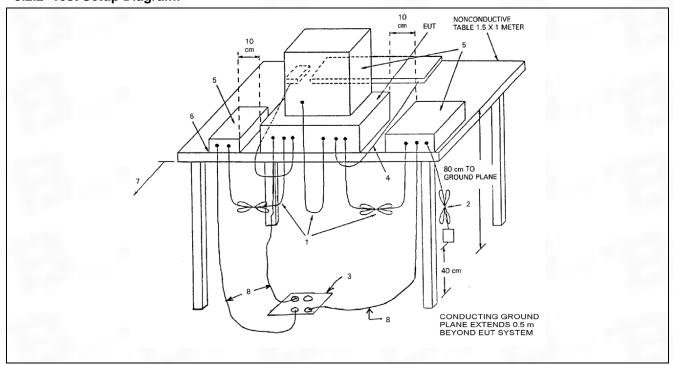
5.2 Radiated emissions (Below 1GHz)

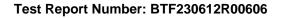
Test Requirement:	15.109, Class B								
Test Method:	ANSI C63.4								
	unintentional radiators at a dis values:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:							
	Frequency of emission	Field strer	_		ength @10m				
Test Limit:	(MHz)	(uV/m)	(dBuV/	(uV/m)	(dBuV/m)				
Test Littit.			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:	peak detection mode. Quasi-peak sweep graph. The EUT orthogonal polarities.	n initial pre-scan was performed in the chamber using the spectrum analyser in eak detection mode. Quasi-peak measurements were conducted based on the eak sweep graph. The EUT was measured by BiConiLog antenna with 2							

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:

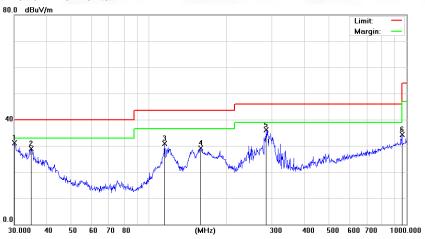




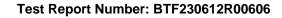


5.2.3 Test Data:

TM1 / Polarization: Horizontal

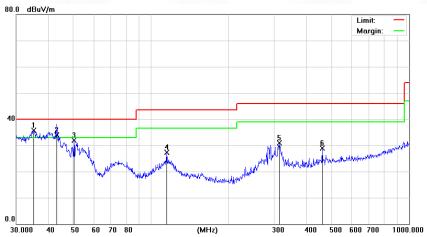


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	30.0000	25.00	6.03	31.03	40.00	-8.97	QP
2		34.8823	25.62	3.25	28.87	40.00	-11.13	QP
3		114.9169	34.10	-3.24	30.86	43.50	-12.64	QP
4		158.6677	32.08	-2.97	29.11	43.50	-14.39	QP
5		284.9767	38.12	-1.95	36.17	46.00	-9.83	QP
6		958.7943	25.16	9.09	34.25	46.00	-11.75	QP

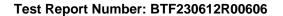




TM1 / Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	35.1278	32.53	3.10	35.63	40.00	-4.37	QP
2	!	43.0902	35.68	-1.82	33.86	40.00	-6.14	QP
3		50.2324	38.44	-6.61	31.83	40.00	-8.17	QP
4		114.9169	30.62	-3.24	27.38	43.50	-16.12	QP
5		314.3765	32.23	-1.42	30.81	46.00	-15.19	QP
6		460.7271	28.07	0.87	28.94	46.00	-17.06	QP





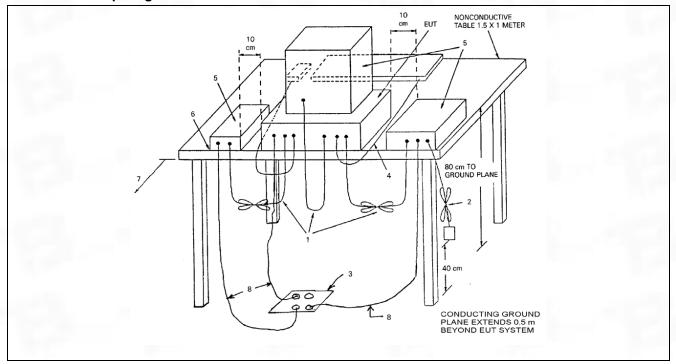
5.3 Radiated emissions (Above 1GHz)

Test Requirement:	15.109, Class B							
Test Method:	ANSI C63.4							
	Frequency of emission (MHz) Field strength @3m							
Test Limit:		Average (uV/m)	Average (dBuV/m)	Peak (dBuV/m)				
	Above 1GHz	500	54	74				
Procedure:	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. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor							

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:





Test Report Number: BTF230612R00606

5.3.3 Test Data:

TEST RESULTS

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

Freq.	Ant. Pol.	Emission L	evel(dBuV)	Limit 3m(dBuV/m)		Over(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV
1754.45	V	60.65	39.31	74	54	-13.35	-14.69
2942.65	V	58.36	40.50	74	54	-15.64	-13.50
1867.48	Н	59.82	39.39	74	54	-14.18	-14.61
2883.40	Н	58.27	39.27	74	54	-15.73	-14.73

Remark:

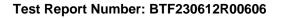
All emissions not reported were more than 20dB below the specified limit or in the noise floor.

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.







BTF Testing Lab (Shenzhen) Co., Ltd.

F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

www.btf-lab.com

-- END OF REPORT --