



TEST REPORT

No.I20N00568-MPE

For

TCL Communication Ltd.

Whole Home WiFi Mesh System

Model Name: MS1G

With

Hardware Version: V2.0

Software Version: MS1G_00_01_00_01

FCC ID: 2ACCJB123

Issued Date: 2020-05-20

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

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REPORT HISTORY

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1. Summary of Test Report

1.1. Test Items

Description	Whole Home WiFi Mesh System
Model Name	MS1G
Applicant's name	TCL Communication Ltd.
Manufacturer's Name	TCL Communication Ltd.

1.2. Test Standards

FCC Part 2 (Section 2.1091 and 1.1310); 447498 D03 Supplement C Cross-Reference v01
IEEE C95.1-1992

1.3. Test Result

Pass

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518026

1.5. Project Data

Testing Start Date: 2020-05-19

Testing End Date: 2020-05-19

1.6. Signature

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(Prepared this test report)

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(Reviewed this test report)

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(Approved this test report)



2. Client Information

2.1 Applicant Information

Company Name:	TCL Communication Ltd.
Address /Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
City:	/
Country:	/
Telephone:	0086-755-36611722

2.2 Manufacturer Information

Company Name:	TCL Communication Ltd.
Address /Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
City:	/
Country:	/
Telephone:	0086-755-36611722

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description:	Whole Home WiFi Mesh System
Model name:	MS1G
Condition of EUT as received	No obvious damage in appearance
Frequency Bands:	WLAN 2.4G/5G
Test device Production information:	Production unit
Tx Frequency:	2412 – 2462MHz (WLAN 2.4G)
	5150 – 5250MHz, 5725 – 5850MHz(WLAN 5G)

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
EUT01aa	/	2.0	MS1G_00_01_00_01

*EUT ID: is used to identify the test sample in the lab internally.



4. Test Methodology

FCC Part 2 (Section 2.1091 and 1.1310)
447498 D03 Supplement C Cross-Reference v01
IEEE C95.1-1992

5. General Description

5.1. Evaluation Distance

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

5.2. Evaluation Method

Evaluation Method

$$P_d = (P_{out} * G) / (4 * \pi * R^2)$$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

Co-transmitting Evaluation Method

Conclusion:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

6. Assessment Result

6.1. Reference Levels Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz
 * = Plane-wave equivalent power density

6.2. Reference Levels Evaluation

Antenna band	Maximum gain (dBi)	Tune-up Power (dBm)
WLAN 2.4G (Ant1)	3.8	13
WLAN 5G (Ant1)	4.2	14.5
WLAN 2.4G (Ant2)	4.0	13
WLAN 5G (Ant2)	4.2	12.5
WLAN 2.4G MIMO (Ant1&Ant2)	7.0	14.5
WLAN 5G MIMO (Ant1&Ant2)	7.2	16.6

Power Density Calculations				
Evaluation Mode	Maximum E.I.R.P. (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Conclusion
WLAN 2.4G (Ant1)	47.9	0.010	1.0	Pass
WLAN 5G (Ant1)	74.1	0.015	1.0	Pass
WLAN 2.4G (Ant2)	50.1	0.010	1.0	Pass
WLAN 5G (Ant2)	46.8	0.009	1.0	Pass
WLAN 2.4G MIMO (Ant1&Ant2)	141.3	0.028	1.0	Pass
WLAN 5G MIMO (Ant1&Ant2)	239.9	0.048	1.0	Pass



Co-transmitting Power Density Calculations			
Co-transmitting Mode	Co-transmitting Power density	Limit	Conclusion
WLAN 2.4G (Ant1) + WLAN 5G (Ant2)	0.019	1	Pass
WLAN 5G (Ant1) + WLAN 2.4G (Ant2)	0.025	1	Pass

Conclusion: According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

*****END OF REPORT*****