



Wi-Fi Interoperability TEST REPORT

No. 24T04Z101045-026

for

TCL Communication Ltd.

Product Name: 9491G

Model Number: 9491G

CID: WFA131214

Wi-Fi Component Firmware 2023-10-26-192901

Issued Date: 2024-06-17

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 CTTL.

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No. 24T24T04Z101045-026

REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04Z101045-026	Rev.0	1st edition	2024-06-17

Note: the latest revision of the test report supersedes all previous version.

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1. Test Laboratory

1.1. Testing Location

Location 1: CTTL-Terminal(CuiHu)

Address: CuiHu Cloud Center, No. 1 Gaolizhang Road, Wenquan
Town, Haidian District, Beijing, China

1.2. Testing Environment

Normal Temperature: 20-22℃

Relative Humidity: 40-60%

1.3. Project data

Testing Start Date: 2024-05-21

Testing End Date: 2024-06-17

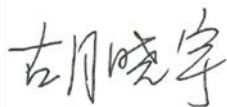
1.4. Signature



Wang ZhenTao
(Prepared this test report)



Xie Fangfang
(Reviewed this test report)



Hu Xiaoyu
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
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2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
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Park, Shatin, NT, Hong Kong
City: Seoul
Postal Code: /
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3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Series Number	e88f6f7ee439
CID	WFA131214
Product Name	9491G
Model Number	9491G
Wi-Fi Component Firmware Version	2023-10-26-192901
Wireless Chipset	MT6631N/B
Operating System	Android
OS Version	Android

Note: Photographs of EUT are shown in ANNEX A of this test report.

3.2. Product Designators

Device Type	Enterprise
Product Type	STA
Primary Product Category	Tablet (Wi-Fi and other)
Additional Category of Product	N/ A
Does this product want be designate as a Source	Yes
Is this product an Application Specific Device	No
Does this product support Wi-Fi Test Suite	Yes
Is 802.11a Device:	Yes
Is 802.11b Device:	Yes
Is 802.11g Device:	Yes
Is 802.11n Device:	Yes
Is 802.11ac Device:	Yes
Is 802.11ax Device:	No
Spatial Streams	

Band	Transmit	Receive
2.4GHz	1	1
5GHz	1	1

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

4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Fragment and Forge Vulnerability Detection Test Plan v1.1 FFD.

5. Test Results

5.1. Summary of Measurement Results

No	Test Cases	Standard Sub-clause	Mandatory/Optional	Verdict
1	ICMP Echo Reuest test	Clause5.0.1	M	P
2	Fragmented ICMP Echo Reuest test	Clause 5.0.2	M	P
3	ICMP Echo Reuest enclosed in an A-MSDU test	Clause 5.0.3	M	P
4	Frame aggregation attack test	Clause 5.2.1	O	P
5	Frame aggregation attack with a malformed packet test	Clause 5.2.2	O	P
6	Mixed key fragment attack with non-consecutive PN test	Clause 5.3.1	M	P
7	Mixed key fragment attack with consecutive PN test	Clause 5.3.2	M	P
8	Cached fragment attack with reassociation test	Clause 5.4.1	M	P
9	Cached fragment attack with reassociation with a time delay test	Clause 5.4.2	M	P
10	Cached fragment attack with de-authentication test	Clause 5.4.3	M	P
11	Cached fragment attack with de-authentication and reconnection with a time delay test	Clause 5.4.4	M	P
12	Non-consecutive Packet Number attack test	Clause 5.5.1	M	P
13	Encrypted fragment followed by plaintext fragment attack test	Clause 5.6.1	M	P
14	Multiple mixed fragment attack test	Clause 5.6.2	M	P
15	Plaintext fragment followed by encrypted fragment attack test	Clause 5.6.3	M	P
16	Plaintext frame attack test	Clause 5.6.4	M	P
17	Plaintext fragment attack test	Clause 5.6.5	M	P
18	Broadcast plaintext fragment attack after connection test	Clause 5.7.1	M	P
19	Broadcast plaintext fragment attack during 4-way handshake test	Clause 5.7.2	M	P
20	Faking A-MSDUs as EAPOL after a secure connection test	Clause 5.8.1	M	P
21	Faking malformed A-MSDU as EAPOL after a secure connection test	Clause 5.8.2	M	P
22	Faking A-MSDUs as EAPOL during 4-way handshake test	Clause 5.8.3	M	P
23	Faking Malformed A-MSDU as EAPOL during 4-way handshake test	Clause 5.8.4	M	P

Please refer to **ANNEX B2** for details.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

5.2. Statements

The test cases as listed in section 5.1 of this report for the EUT specified in section 3 was performed by CTTL according to the standards or reference documents listed in section 4.2

The EUT met all requirements of the standards or reference documents, and only the WLAN function was tested.

6. Test Facilities Utilized

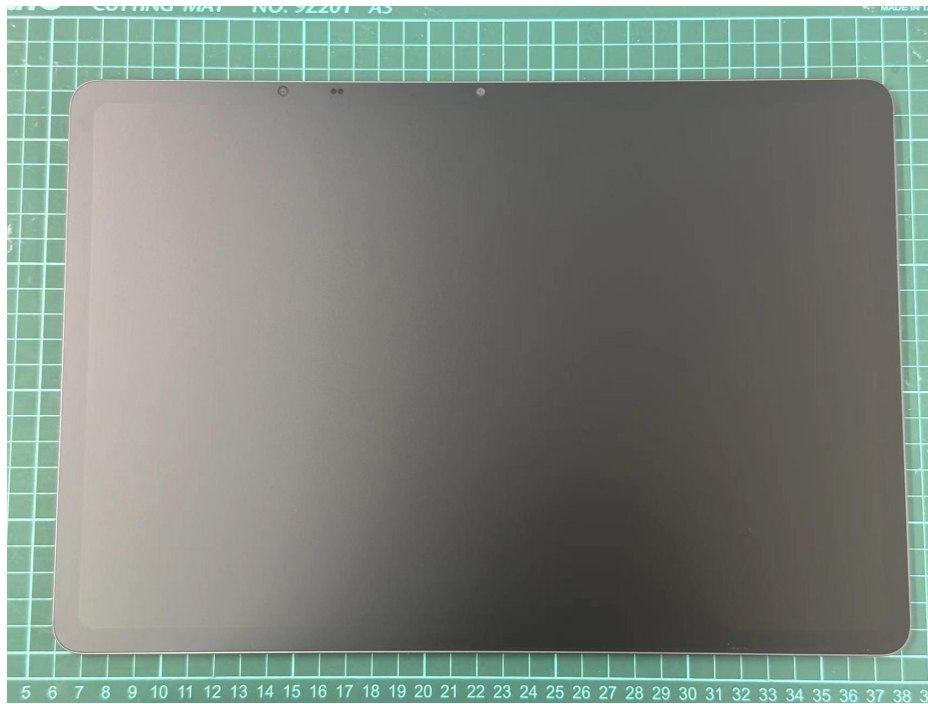
Approved test equipment

Vendor	Product	Contact
Alfa	Alfa-AWUS036NHA	support@wi-fi.org

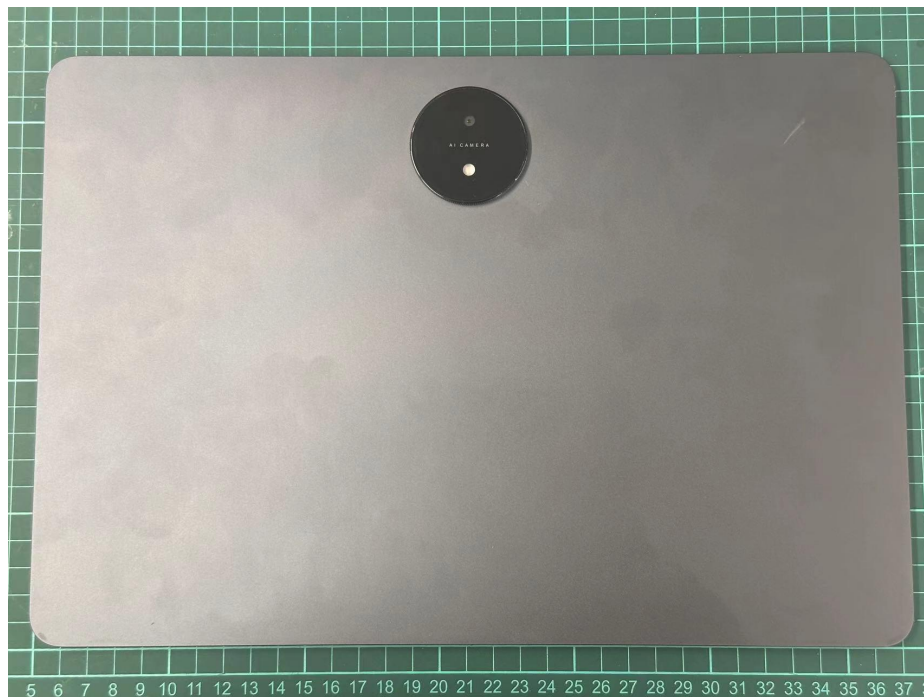
Additional test tools

Device	Product	Other certification programs using this device	Contact
Wireless Sniffer	Sniffer/Intel AX200 NGWG.NV	Wi-Fi 6	support@wi-fi.org

ANNEX A: EUT photograph



EUT Photo (Front view)



EUT Photo (Back view)

ANNEX B: EUT parameters

B.1. Measurement Method

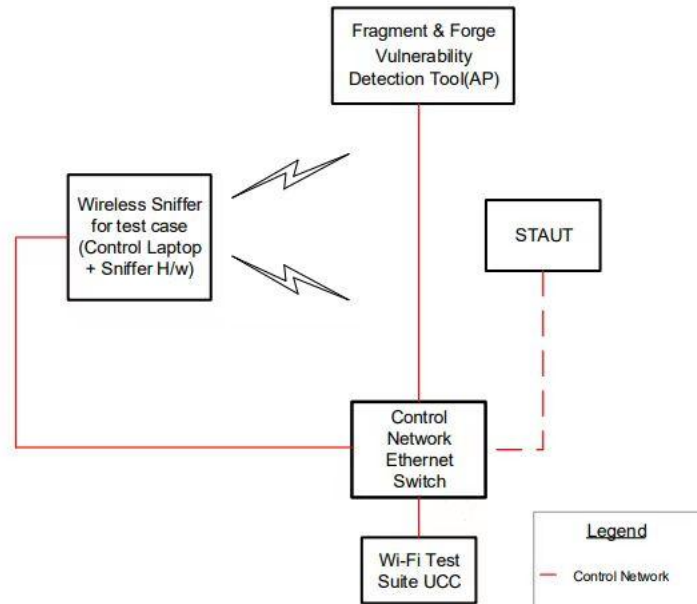


Fig.1 TGn Chariot Test Bed Schematic

1). IxChariot is used for all the throughput tests and WMM related tests.

The stations and the IxChariot Server operate as IxChariot endpoints, with the tests configured and controlled from the IxChariot Console. STAs run under Windows XP with SP2. In practice the IxChariot Console and three RADIUS servers may be run on the same machine. The RADIUS servers used for testing are Devicescape, HostAPD, Radiator and Microsoft. The Devicescape and Hostapd run on a Linux OS machine.

B.2 Measurement Result

No	Test Item	Standard Requirement	Test Result	Conclusion
1	Clause 5.0.1	ICMP Echo Reuest test	Pass	P
2	Clause 5.0.2	Fragmented ICMP Echo Reuest test	Pass	P
3	Clause 5.0.3	ICMP Echo Reuest enclosed in an A-MSDU test	Pass	P
4	Clause 5.2.1	Frame aggregation attack test	Pass	P
5	Clause 5.2.2	Frame aggregation attack with a malformed packet test	Pass	P
6	Clause 5.3.1	Mixed key fragment attack with non-consecutive PN test	Pass	P
7	Clause 5.3.2	Mixed key fragment attack with consecutive PN test	Pass	P
8	Clause 5.4.1	Cached fragment attack with reassociation test	Pass	P
9	Clause 5.4.2	Cached fragment attack with reassociation with a time delay test	Pass	P
10	Clause 5.4.3	Cached fragment attack with de-authentication test	Pass	P
11	Clause 5.4.4	Cached fragment attack with de-authentication and reconnection with a time delay test	Pass	P
12	Clause 5.5.1	Non-consecutive Packet Number attack test	Pass	P
13	Clause 5.6.1	Encrypted fragment followed by plaintext fragment attack test	Pass	P
14	Clause 5.6.2	Multiple mixed fragment attack test	Pass	P
15	Clause 5.6.3	Plaintext fragment followed by encrypted fragment attack test	Pass	P
16	Clause 5.6.4	Plaintext frame attack test	Pass	P
17	Clause 5.6.5	Plaintext fragment attack test	Pass	P
18	Clause 5.7.1	Broadcast plaintext fragment attack after connection test	Pass	P
19	Clause 5.7.2	Broadcast plaintext fragment attack during 4-way handshake test	Pass	P
20	Clause 5.8.1	Faking A-MSDUs as EAPOL after a secure connection test	Pass	P
21	Clause 5.8.2	Faking malformed A-MSDU as EAPOL after a secure connection test	Pass	P
22	Clause 5.8.3	Faking A-MSDUs as EAPOL during 4-way handshake test	Pass	P
23	Clause 5.8.4	Faking Malformed A-MSDU as EAPOL during 4-way handshake test	Pass	P

ANNEX C: TEST LAYOUT



Wi-Fi Certification Test Laboratory

ANNEX D: Accreditation Certificate



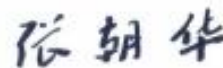
The image shows a template for a laboratory accreditation certificate. It features the ILAC-MRA and CNAS logos at the top. The text is in both English and Chinese. The English text reads: "China National Accreditation Service for Conformity Assessment LABORATORY ACCREDITATION CERTIFICATE (Registration No. CNAS L0570) Telecommunication Technology Labs, CAICT (Legal Entity: China Academy of Information and Communications Technology) No.52, Huayuan North Road, Haidian District, Beijing, China is accredited in accordance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence to undertake the service described in the schedule attached to this certificate. The scope of accreditation is detailed in the attached schedule bearing the same registration number as above. The schedule forms an integral part of this certificate. Effective Date: 2023-06-20 Expiry Date: 2029-06-19 Signed on behalf of China National Accreditation Service for Conformity Assessment [Signature] China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment, CNAS is a signatory of the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement (ILAC MRA) and the Asia Pacific Accreditation Cooperation Mutual Recognition Arrangement (APAC MRA). The validity of the certificate can be checked on CNAS website at http://www.cnas.org.cn/english/findanaccreditedbody/index.shtml."

China National Accreditation Service for Conformity Assessment
LABORATORY ACCREDITATION CERTIFICATE
(Registration No. CNAS L0570)

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(Legal Entity: China Academy of Information and Communications Technology)
No.52, Huayuan North Road, Haidian District, Beijing, China
is accredited in accordance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence to undertake the service described in the schedule attached to this certificate.
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Effective Date: 2023-06-20
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END OF REPORT