



Wi-Fi CERTIFIED® Certificate

This certificate lists the features that have successfully completed Wi-Fi Alliance interoperability testing. Learn more: www.wi-fi.org



Certification ID: WFA129427

Product Info

Date of Certification	January 5, 2024
Company	TCL Communication Ltd.
Product Name	T509K
Product Model Variant	T509K
Model Number	T509K
Category	Phones
Sub-category	Smartphone

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Access	Passpoint® Release 3 Wi-Fi Protected Setup™
Alternative topologies	Wi-Fi Direct®
Network management	WMM® WMM®-Power Save
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2020-02 WPA3™-Personal 2022-06
Wi-Fi (MAC/PHY)	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Spectrum & Regulatory Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n

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Certification ID: WFA129427



Role: Access Point

Page 2 of 4

Wi-Fi Components

Wi-Fi Component Operating System

Android 13

Wi-Fi Component Firmware

t-neptune-mp-soc1_0e1-2015-
CERVINO_SOC1_0_E1_ASIC-
20220818200502

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	1	1
5 GHz	1	1

Certifications

2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz
40 MHz Channel Width in 2.4 GHz

5 GHz Spectrum Capabilities

20 MHz Channel Width in 5 GHz
40 MHz Channel Width in 5 GHz
80 MHz Channel Width in 5 GHz

Protected Management Frames

WMM®

WPA2™-Personal 2021-01

WPA3™-Personal 2022-06

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU
MCS 8-9 Rx

Wi-Fi CERTIFIED™ ac (continued)

Short Guard Interval

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

OBSS on Extension Channel
Short Guard Interval
A-MPDU Tx

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Certification ID: WFA129427



Role: Station

Page 3 of 4

Wi-Fi Components

Wi-Fi Component Operating System

Android 13

Wi-Fi Component Firmware

t-neptune-mp-soc1_0e1-2015-
CERVINO_SOC1_0_E1_ASIC-
20220818200502

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	1	1
5 GHz	1	1

Certifications

2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz

Spectrum & Regulatory (continued)

802.11h

5 GHz Spectrum Capabilities

20 MHz Channel Width in 5 GHz
40 MHz Channel Width in 5 GHz
80 MHz Channel Width in 5 GHz

WMM®

WMM®-Power Save

Legacy Power Save
Unschedule auto PS

Passpoint® Release 3

Network Icon support
Online Sign Up and Policy provisioning
ANQP-element for OSU provider selection
Online Sign Up using single SSID
Venue Information
Terms and Conditions
Roaming Consortium Selection

WPA2™-Enterprise 2018-04

EAP methods
EAP AKA
EAP AKA Prime
EAP SIM
EAP TLS
EAP TTLS
PEAPv0
PEAPv1

Protected Management Frames

Spectrum & Regulatory

WPA2™-Personal 2021-01

WPA3™-Enterprise 2020-02

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Certification ID: WFA129427



Role: Station

Page 4 of 4

WPA3™-Enterprise 2020-02 (continued)

EAP methods
EAP AKA
EAP AKA Prime
EAP SIM
EAP TLS
EAP TTLS
PEAPv0
PEAPv1
Server Certificate Validation

Wi-Fi Direct®

Wi-Fi Protected Setup™

PIN
Pushbutton

WPA3™-Personal 2022-06

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

MCS 8-9 Rx
Short Guard Interval
STBC
SU beamformee

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

A-MPDU Tx
HT Duplicate Mode
OBSS on Extension Channel
Power Management
Short Guard Interval
STBC

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