



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/programs

Certification ID: WFA124434

Product Info

Date of Certification	November 21, 2024
Company	Samsung Electronics
Product Name	SC-51D
Product Model Variant	2024-08-07
Model Number	SC-51D
Category	Phones
Sub-category	Smartphone

Summary of Certifications

CLASSIFICATION	CERTIFICATION
Applications & Services	Voice-Enterprise Wi-Fi Aware™
Connectivity	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities 6 GHz Spectrum Capabilities Wi-Fi CERTIFIED 6® Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Direct® Wi-Fi Enhanced Open™ 2021-01
Optimization	WMM® WMM®-Admission Control WMM®-Power Save Wi-Fi Agile Multiband™ Wi-Fi Optimized Connectivity™ 2020 Wi-Fi QoS Management™
Security	Protected Management Frames



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Summary of Certifications (continued)

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CLASSIFICATION

CERTIFICATION

Security

WPA2™-Enterprise 2018-04

WPA2™-Personal 2021-01

WPA3™-Enterprise 2020-02

WPA3™-Personal 2020-12

Spectrum & Regulatory Features

Spectrum & Regulatory



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Role: Access Point

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Wi-Fi Components

Wi-Fi Component Operating System

Android 15.0

Wi-Fi Component Firmware

2.0.0.0.1797.0

RF Architecture

Bands Supported	Transmit (Tx)	Receive (Rx)
2.4 GHz	2	2
6 GHz	2	2

Certifications

2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz

6 GHz Spectrum Capabilities

20 MHz Channel Width in 6 GHz

40 MHz Channel Width in 6 GHz

80 MHz Channel Width in 6 GHz

160 MHz Channel Width in 6 GHz

Protected Management Frames

WMM®

WPA2™-Personal 2021-01

WPA3™-Personal 2020-12

SAE-Public Key

Wi-Fi CERTIFIED 6®

A-MPDU with A-MSDU

Wi-Fi CERTIFIED 6® (continued)

Compressed Block Ack Rx (buffer size 256)

Compressed Block Ack Tx (buffer size 256)

LDPC Rx

LDPC Tx

MCS 8-9 Rx

MCS 8-9 Tx

MCS 10-11 Rx

MCS 10-11 Tx

SU beamformer

SU-MIMO

TXOP RTS Threshold

Wi-Fi 6E

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

Short Guard Interval

STBC

A-MPDU Tx

Wi-Fi Enhanced Open™ 2021-01



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Role: Station

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40 MHz Channel Width in 5 GHz

80 MHz Channel Width in 5 GHz

160 MHz Channel Width in 5 GHz

6 GHz Spectrum Capabilities

20 MHz Channel Width in 6 GHz

40 MHz Channel Width in 6 GHz

80 MHz Channel Width in 6 GHz

160 MHz Channel Width in 6 GHz

Protected Management Frames

Spectrum & Regulatory

802.11h

Voice-Enterprise

WMM®

WMM®-Admission Control

WMM®-Power Save

Legacy Power Save

Unschedule auto PS

WPA2™-Enterprise 2018-04

EAP methods

EAP AKA

EAP AKA Prime

EAP SIM

EAP TLS

EAP TTLS

PEAPv0

PEAPv1

WPA2™-Personal 2021-01



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WPA3™-Enterprise 2020-02

EAP methods

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

192-bit security

- 192-bit security RSA 3K with the TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 cipher suite

Server Certificate Validation

WPA3™-Personal 2020-12

SAE-Public Key

Wi-Fi Agile Multiband™

ANQP

- ANQP-based Neighbor report
- Beacon Report Measurement Active Mode
- Beacon Report Measurement Passive Mode
- BTM Query
- Cellular Data capable
- Fast Transition OTA on WPA2-Personal

Wi-Fi Aware™

- Bluetooth® Low Energy - Browser
- Bluetooth® Low Energy - Provider
- Bluetooth® Low Energy - Seeker
- Device Ranging

Wi-Fi CERTIFIED 6®

- A-MPDU with A-MSDU
- Beamforming sounding
- BSRP Trigger frame
- Compressed Block Ack Rx (buffer size 256)
- Compressed Block Ack Tx (buffer size 256)
- DL MU PPDU multi-tone
- DL MU-MIMO
- HE NDP
- Individual Target Wake Time
- LDPC Rx
- LDPC Tx
- MCS 8-9 Rx
- MCS 8-9 Tx
- MCS 10-11 Rx
- MCS 10-11 Tx
- MU EDCA Parameter Set element
- MU-BAR Trigger frame
- MU-RTS Trigger frame
- Operating mode control field
- Operating mode subfield in A-Control field
- Operating mode indication
- SU beamformee
- SU-MIMO
- UL OFDMA
- UL TB PPDU multi-tone
- Wi-Fi 6E
 - Multiple M-BSSID
- Wi-Fi 6 Release 2 features
 - M-BSSID control frames

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

Extended 5 GHz Channel Support



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Wi-Fi CERTIFIED™ ac (continued)

RTS with BW Signaling
A-MPDU with A-MSDU
DL MU-MIMO
LDPC Rx
MCS 8-9 Rx
Short Guard Interval
STBC
LDPC Tx
SU beamformee

Wi-Fi Optimized Connectivity™ 2020 (continued)

Probe Deferral and Suppression

Wi-Fi QoS Management™

MSCS setup at association

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

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

Wi-Fi Direct®

Wi-Fi Enhanced Open™ 2021-01

Wi-Fi Optimized Connectivity™ 2020

Active Scan
FILS Shared Key Authentication
 FILS Indication Element support
 AKM Suite Selector Type 15
 FILS Higher Layer Protocol with DHCP v4 Rapid Commit
Pushbutton