



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: WFA130497

Product Info

Date of Certification	August 2, 2024
Company	Pepperl+Fuchs SE
Product Name	Smart-Ex 03
Product Model Variant	Smart-Ex 03
Model Number	Smart-Ex 03
Category	Phones
Sub-category	Smartphone

Summary of Certifications

CLASSIFICATION	CERTIFICATION
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 Enhanced Open™ 2023-12
Optimization	WMM® Wi-Fi Agile Multiband™
Security	Protected Management Frames WPA2™-Enterprise 2018-04 WPA2™-Personal 2021-01 WPA3™-Enterprise 2022-12 WPA3™-Personal 2023-12
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 13

Wi-Fi Component Firmware

WLAN.HSP.1.1.2-00934

RF Architecture

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

Certifications

2.4 GHz Spectrum Capabilities

20 MHz Channel Width in 2.4 GHz

40 MHz Channel Width in 2.4 GHz

Protected Management Frames

WMM®

WPA2™-Personal 2021-01

WPA3™-Personal 2023-12

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

Short Guard Interval

STBC

A-MPDU Tx

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Role: Station

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Wi-Fi Components

Wi-Fi Component Operating System

Android 13

Wi-Fi Component Firmware

WLAN.HSP.1.1.2-00934

RF Architecture

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

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
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

Spectrum & Regulatory (continued)

802.11h

WMM®

WPA2™-Enterprise 2018-04

EAP methods
EAP TLS
EAP TTLS
PEAPv0
PEAPv1

WPA2™-Personal 2021-01

WPA3™-Enterprise 2022-12

EAP methods
EAP TLS
EAP TTLS
PEAPv0
PEAPv1
Server Certificate Validation

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Role: Station

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WPA3™-Personal 2023-12

Wi-Fi Agile Multiband™

ANQP
Beacon Report Measurement Active Mode
Cellular Data capable
Fast Transition OTA on WPA2-Personal
Fast Transition OTA on WPA2-Enterprise

Wi-Fi CERTIFIED 6®

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

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ ac

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 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 Enhanced Open™ 2023-12

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