



Wi-Fi CERTIFIED™ Interoperability 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: WFA55195

Page 1 of 2

Date of Last Certification	September 11, 2014
Company	Qualcomm
Product	Qualcomm Atheros QCA61x4 Wireless Network Adapter
Model Number	NFA345
Product Identifier(s)	
Category	Other
Subcategory	Reference Design
Hardware Version	Product: QCA6164-5, Wi-Fi Component: NFA345
Firmware Version	Product: X86_Host_100258_FW_1.1-00088, Wi-Fi Component: X86_Host_100258_FW_1.1-00088
Operating System	Proprietary / Other: Win8.1
Frequency Band(s)	2.4 GHz, 5 GHz

Summary of Certifications

CLASSIFICATION	PROGRAM
Connectivity	Wi-Fi CERTIFIED™ a, b, g, n, ac
	WPA™ - Personal
	WPA2™ - Enterprise, Personal
	Wi-Fi Direct®
Optimization	WMM®
	WMM®-Power Save
Access	Wi-Fi Protected Setup™
Applications & Services	Voice-Personal



Security

WPA™ - Personal
WPA2™ - Enterprise, Personal
EAP Type(s)
EAP-TLS
EAP-TTLS/MSCHAPv2
PEAPv0/EAP-MSCHAPv2
Protected Management Frames

Wi-Fi CERTIFIED™ a

Wi-Fi CERTIFIED™ b

Wi-Fi CERTIFIED™ g

Wi-Fi CERTIFIED™ n

2.4 GHz, 5 GHz
1 Spatial Stream 2.4 GHz
1 Spatial Stream 5 GHz
Short Guard Interval
TX A-MPDU
STBC Receive
40 MHz operation in 2.4 GHz, with coexistence mechanisms
40 MHz operation in 5 GHz

Wi-Fi CERTIFIED™ ac

1 Spatial Stream 5 GHz
Rx MCS 8-9 (256-QAM)
Rx STBC 2x1
Rx A-MPDU of A-MSDU
Low Density Parity Check coding
Tx SU beamformee

Wi-Fi Direct®

2.4 GHz, 5 GHz

WMM®

WMM®-Power Save

Wi-Fi Protected Setup™

2.4 GHz, 5 GHz
PIN
Push-Button (PBC)

Voice-Personal

Spectrum and Regulatory Features

Spectrum and Regulatory Features (continued)

802.11h