



## 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](http://www.wi-fi.org/certification/programs)



**Certification ID: WFA55195**

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

### Summary of Certifications

<b>CLASSIFICATION</b>	<b>PROGRAM</b>
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