



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

## Certification ID: WFA16990

### Product Info

<b>Date of Certification</b>	August 28, 2014
<b>Company</b>	Realtek Semiconductor Corporation
<b>Product Name</b>	Realtek RTL8812AE 2T2R 802.11ac/a/b/g/n miniCard
<b>Product Model Variant</b>	2014-08-28 (WFA16990 - 2201608)
<b>Model Number</b>	RTL8812AE
<b>Category</b>	Other
<b>Sub-category</b>	Embedded Module

### Summary of Certifications

CLASSIFICATION	CERTIFICATION
<b>Access</b>	Wi-Fi Protected Setup™
<b>Applications &amp; Services</b>	Miracast®
<b>Connectivity</b>	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ ac Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n Wi-Fi Direct®
<b>Optimization</b>	WMM®
<b>Security</b>	WPA2™-Enterprise WPA2™-Personal
<b>Spectrum &amp; Regulatory Features</b>	Spectrum & Regulatory

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# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA16990



Role: Station

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## Wi-Fi Components

### Wi-Fi Component Operating System

Windows 7, version:Win7 x86

### Wi-Fi Component Firmware

7010.8.321.2014

### RF Architecture

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

### Spectrum & Regulatory

802.11h

### WMM®

### WPA2™-Enterprise

EAP methods  
EAP TLS  
PEAPv0

### WPA2™-Personal

### Wi-Fi CERTIFIED™ a

### Wi-Fi CERTIFIED™ ac

A-MPDU with A-MSDU  
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  
RIFS  
Short Guard Interval

### Wi-Fi Direct®

Wi-Fi Direct Services

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# Wi-Fi CERTIFIED™ Certificate

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Role: Station

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## Wi-Fi Direct® (continued)

Wi-Fi Direct Send - Transmit  
Wi-Fi Direct Send - Receive  
Wi-Fi Direct for DLNA® - Receive  
Miracast - Display  
Miracast - Source  
Wi-Fi Direct Toolkit

## Wi-Fi Protected Setup™

PIN  
Pushbutton

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# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA16990



Role: Source

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## Wi-Fi Components

### Wi-Fi Component Operating System

Windows 7, version:Win7 x86

### Wi-Fi Component Firmware

7010.8.321.2014

### RF Architecture

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

## Certifications

Miracast®

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# Wi-Fi CERTIFIED™ Certificate

Certification ID: WFA16990



Role: Display

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## Wi-Fi Components

### Wi-Fi Component Operating System

Windows 7, version:Win7 x86

### Wi-Fi Component Firmware

7010.8.321.2014

### RF Architecture

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

## Certifications

Miracast®

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