

## 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: WFA16482**

#### **Product Info**

Date of Certification	August 30, 2012
Company	Apple
Product Name	2012 MacBook Air 11.6 Inch
Product Model Variant	2012-08-30 (WFA16482 - 17588)
Model Number	MacBookAir5,1
Category	Computers & Accessories
Sub-category	Laptop Computer

#### **Summary of Certifications**

CLASSIFICATION	CERTIFICATION
Connectivity	2.4 GHz Spectrum Capabilities 5 GHz Spectrum Capabilities Wi-Fi CERTIFIED™ a Wi-Fi CERTIFIED™ b Wi-Fi CERTIFIED™ g Wi-Fi CERTIFIED™ n
Optimization	WMM®
Security	WPA2 <sup>™</sup> -Enterprise WPA2 <sup>™</sup> -Personal WPA <sup>™</sup> -Enterprise WPA <sup>™</sup> -Personal
Spectrum & Regulatory Features	Spectrum & Regulatory



# Wi-Fi CERTIFIED™ Certificate

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Wi-Fi Components   RF Architecture     Proprietary / Other, description:(empty)   Bands Supported   Transmit (Tx)   Receive (Rx)     2.4 GHz   2   2     5 GHz   2   2     SPectrum Capabilities     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     802.11h   Wi-Fi CERTIFIED™ b     802.11h   AMPDU Tx     Spectrum & Regulatory   Wi-Fi Cuartified unterval	Role: Station			Page 2 of 2	
Proprietary / Other, description:(empty)   Bands Supported   Transmit (Tx)   Receive (Rx)     2.4 GHz   2   2     5 GHz   2   2     Certifications     2.4 GHz   2     Certifications     2.4 GHz Spectrum Capabilities     WPA2 <sup>™</sup> -Personal     20 MHz Channel Width in 2.4 GHz   WPA <sup>™</sup> -Enterprise     40 MHz Channel Width in 2.4 GHz   WPA <sup>™</sup> -Personal     5 GHz Spectrum Capabilities   Wi-Fi CERTIFIED <sup>™</sup> a     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED <sup>™</sup> b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED <sup>™</sup> b     802.11h   Mi-Fi CERTIFIED <sup>™</sup> n     802.11h   A-MPDU Tx Short Guard Interval	Wi-Fi Components				
Wi-Fi Component Firmware (empty)   2.4 GHz   2   2     2.4 GHz   2   2     5 GHz   2   2     Certifications     Certifications     WPA2 <sup>™</sup> -Personal     20 MHz Channel Width in 2.4 GHz     40 MHz Channel Width in 2.4 GHz   WPA <sup>™</sup> -Enterprise     40 MHz Channel Width in 5.4 GHz   WPA <sup>™</sup> -Personal     5 GHz Spectrum Capabilities   Wi-Fi CERTIFIED <sup>™</sup> a     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED <sup>™</sup> b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED <sup>™</sup> b     802.11h   A-MPDU Tx     802.11h   A-MPDU Tx	······································	RF Architecture			
2.4 GHz   2   2     5 GHz   2   2     Certifications     Certifications     WPA2™-Personal     20 MHz Channel Width in 2.4 GHz   WPA <sup>™</sup> -Enterprise     40 MHz Channel Width in 2.4 GHz   WPA <sup>™</sup> -Enterprise     5 GHz Spectrum Capabilities   Wi-Fi CERTIFIED <sup>™</sup> a     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED <sup>™</sup> b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED <sup>™</sup> b     Spectrum & Regulatory   Wi-Fi CERTIFIED <sup>™</sup> n     802.11h   A-MPDU Tx Short Guard Interval		Bands Supported	Transmit (Tx)	Receive (Rx)	
5 GHz 2 2   Certifications   2.4 GHz Spectrum Capabilities WPA2 <sup>™</sup> -Personal   20 MHz Channel Width in 2.4 GHz WPA <sup>™</sup> -Enterprise   40 MHz Channel Width in 2.4 GHz WPA <sup>™</sup> -Personal   5 GHz Spectrum Capabilities Wi-Fi CERTIFIED <sup>™</sup> a   20 MHz Channel Width in 5 GHz Wi-Fi CERTIFIED <sup>™</sup> b   40 MHz Channel Width in 5 GHz Wi-Fi CERTIFIED <sup>™</sup> b   802.11h AMPDU Tx Short Guard Interval	•	2.4 GHz	2	2	
2.4 GHz Spectrum Capabilities   WPA2™-Personal     20 MHz Channel Width in 2.4 GHz   WPA™-Enterprise     40 MHz Channel Width in 2.4 GHz   WPA™-Personal     5 GHz Spectrum Capabilities   Wi-Fi CERTIFIED™ a     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     802 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     802.11h   A-MPDU Tx     Short Guard Interval   A-MPDU Tx		5 GHz	2	2	
20 MHz Channel Width in 2.4 GHz   WPA™-Enterprise     40 MHz Channel Width in 2.4 GHz   WPA™-Personal     5 GHz Spectrum Capabilities   Wi-Fi CERTIFIED™ a     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     802.11h   Wi-Fi CERTIFIED™ n     802.11h   A-MPDU Tx     Short Guard Interval   A-MPDU Tx	Certifications				
40 MHz Channel Width in 2.4 GHz   WPA™-Personal     5 GHz Spectrum Capabilities   Wi-Fi CERTIFIED™ a     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     802.11h   Wi-Fi CERTIFIED™ n     802.11h   A-MPDU Tx     Short Guard Interval	2.4 GHz Spectrum Capabilities	WPA2™-Personal			
Sectrum Capabilities   WPA™-Personal     20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ a     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     Spectrum & Regulatory   Wi-Fi CERTIFIED™ g     802.11h   Wi-Fi CERTIFIED™ n     A-MPDU Tx   Short Guard Interval		WPA™-Enterprise			
20 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     Spectrum & Regulatory   Wi-Fi CERTIFIED™ g     802.11h   A-MPDU Tx     Short Guard Interval   Short Guard Interval		WPA™-Personal			
40 MHz Channel Width in 5 GHz   Wi-Fi CERTIFIED™ b     Spectrum & Regulatory   Wi-Fi CERTIFIED™ g     802.11h   Wi-Fi CERTIFIED™ n     A-MPDU Tx   Short Guard Interval	5 GHz Spectrum Capabilities	Wi-Fi CERTIFIED™ a			
Spectrum & Regulatory   Wi-Fi CERTIFIED™ n     802.11h   A-MPDU Tx     Short Guard Interval   Short Guard Interval		Wi-Fi CERTIFIED™ b			
802.11h   Wi-Fi CERTIFIED™ n     802.11h   A-MPDU Tx     Short Guard Interval   Short Guard Interval		Wi-Fi CERTIFIED™ g			
A-MPDU Tx Short Guard Interval		Wi-Fi CERTIFIED™	'n		
	802.110	A-MPDU Tx			
	WMM®	Short Guard Interval			
WPA2™-Enterprise	WPA2™-Enterprise				
EAP methods					
EAP FAST-MSCHAPv2 EAP TLS					
EAP TTLS					
PEAPv0 PEAPv1					