

WiFi-107E Datasheet

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Revision History

Rev.	Date	History
1.0	2011/3/1	1. 1 st release

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1. Overview



802.11a/b/g Mini-PCI Module

- Chipset: Atheros AR5006XS AR5414A
- Mini PCI Interface Type IIIB
- Antenna connector: UFL *2
- Operates in the 802.11a/b/g 2.4/5GHz.
- 64/128-bit WEP Encryption, WPA
- Support Windows 2000/XP, Linux driver

2. Specification

Chipset	Atheros AR5006XS AR5414A
Interface Type	Mini PCI Interface Type IIIB
Dimensions	60x45x4 mm
Weight	20g
Frequency Band	802.11a 5.15GHz to 5.85GHz (subject to local regulations) 802.11b ISM band 2.400 ~ 2.484GHz (subject to local regulations) 802.11g ISM band 2.400 ~ 2.484GHz (subject to local regulations)
Network Standard	IEEE 802.11a,802.11b,802.11g
Number of Channel	802.11a *subject to local regulations 802.11b USA and Canada – 11 Most European countries – 13 Japan – 14 France – 4 802.11g USA and Canada – 13 Most European countries – 13 Japan – 14
Spreading	802.11a Orthogonal Frequency Division Multiplexing (OFDM) 802.11b Direct Sequence Spread Spectrum (DSSS) 802.11g Orthogonal Frequency Division Multiplexing (OFDM)
Modulation	802.11a/g : 64 QAM, 16 QAM,QPSK, BPSK 802.11b : CCK,DQPSK,DBPSK
Data Rate	802.11a 54, 48, 36,24,18,12, 9, 6 Mbps per channel, auto fallback for extended range 802.11b 11,5.5, 2, 1 Mbps per channel, auto fallback for extended range 802.11g 108, 54, 48, 36,24,18,12, 9, 6 Mbps per channel, auto fallback for extended range
Antenna	Single antenna with 1dBi antenna gain at 2.4GHz band and 2dBi antenna gain at 5GHz band. (External antenna)
Transmitted power	802.11a please see the output power table for detail. tolerance: +/-1.5dBm 802.11b please see the output power table for detail. tolerance: +/-1.5dBm 802.11g please see the output power table for detail. tolerance: +/-1.5dBm
Receive Sensitivity	802.11a/g Nominal Temp Range: - 6Mbps 10-5 BER @ -90dBm, typical - 9Mbps 10-5 BER @ -89dBm, typical - 12Mbps 10-5 BER @ -88dBm, typical - 18Mbps 10-5 BER @ -86dBm, typical - 24Mbps 10-5 BER @ -82dBm, typical - 36Mbps 10-5 BER @ -78dBm, typical - 48Mbps 10-5 BER @ -72dBm, typical - 54Mbps 10-5 BER @ -68dBm, typical 802.11b Typ. -88dBm@11Mbps,+/-2dBm Typ. -91dBm@5.5Mbps Typ. -92dBm@2Mbps Typ. -93dBm@1Mbps

Power consumption(peak)	802.11a Continue TX: 510mA @3.3V Continue RX: 250 mA@3.3V 802.11b Continue TX: 380mA@3.3V Continue RX: 220mA@3.3V 802.11g Continue TX: 400mA@3.3V Continue RX: 280 mA@3.3V
Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.11a, IEEE 802.11b, IEEE 802.11g draft standard , Wi-Fi compliant
Warranty	1 year
Environmental	Temperature Range: 0 ~ 55°C (Operating); -20 ~ 80°C (Storing) Operating Humidity: Operating Humidity 10% to 85% Non-Condensing Storage Humidity 5% to 90% Non-Condensing
Operating Range	Open Space: Up to 260 m: Indoor: 100 m The transmission speed varies in the surrounding environment
Network Protocol	TCP/IP, IPX, NDIS4, and NDIS5 ,NDIS 5.1
Management Utility	Monitor Internet Access Status via UI
Supplied Driver	Windows 98SE/ME/2000/XP, Linux
Operating Voltage	3.3V + 5%,

Appendix: Part Number Table

Product	Advantech PN
802.11a/b/g, Atheros AR5414, 1T1R, Mini-PCI card	WIFI-107E