

Data Sheet

EliteConnect™ Universal SMC2512W-AG



2.4GHz/5GHz High Power Wireless PCI Card

In today's enterprise world, mobility, flexibility, and security are the important ingredients for enhancing the productivity and convenience of wireless networks in corporate environments. SMC's new EliteConnect™ Universal 2.4GHz/5GHz High Power Wireless PCI Card (SMC2512W-AG) connects with an existing network installation so wireless enterprise desktop users can gain instant network access and resources. This new member of the EliteConnect product line from SMC combines superior performance, range, security, and reliability.

The new SMC2512W-AG offers some of the highest dual band transmitting power and receive sensitivity in the industry. The SMC EliteConnect Universal 2.4GHz/5GHz High Power Wireless PCI Card provides an extended operating range compared to the standard 802.11a/802.11b/802.11g clients. Since it has the ability to significantly decrease indoor multi-path distortion, users will experience dramatic improvements in the quality and throughput of their wireless networking. Equipped with the flexibility of 802.11a, 802.11b, and 802.11g, the SMC2512W-AG fits in and works throughout any wireless enterprise network. Based on the IEEE 802.11a/b/g standards, the new product can be configured for Ad-hoc mode (Peer-to-Peer) or Infrastructure mode (communication to the wired network via an Access Point). Since it is based on the 802.11a/b/g standards, it is interoperable among different 802.11a/b/g compliant vendors. The included EZ Installation Wizard enables quick and easy setup, saving time and resources when setting up the wireless users.

SMC2512W-AG 802.11a/b/g Wireless PCI Card operates at up to 2,145 feet and offers high-speed data rates of up to 54Mbps in 802.11g mode, and up to 108Mbps in 802.11a Turbo mode - 10 times faster than today's 802.11b 11 Mbps WLAN products. The new product provides a high level of security to enterprises by supporting Wi-Fi Protected Access (WPA) and 64/128-bit/152-bit WEP encryption. It also supports 802.1x, EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP and LEAP for user authentication to ensure only authorized users can access the resources of the wireless network. Moreover, profile management software allows the new high power wireless PCI adapter the ability to save multiple wireless settings corresponding to different locations or networks. Furthermore, SMC2512W-AG has a built-in utility program for scanning all available Wireless Access Points on the network.

Combine all of these features including excellent performance, range, reliability, and ease-of-use with our free 24/7 technical support and you have a state-of-the-art, best-of-breed high power Universal Wireless PCI Adapter to seamlessly integrate into a new or existing wireless network.

Features and Benefits

High Performance & Functionality

- PCI Local Bus Specification Revision 2.2 compliant
- 95/97 PC Card Standard compliant
- 3.3V or 5V operation
- IEEE 802.11a, 802.11b and 802.11g compliant
- 2.4GHz/5GHz unlicensed frequency band
- Data rates up to 108 Mbps turbo mode in 802.11a, up to 54 Mbps in 802.11g, and up to 11 Mbps in 802.11b with auto-fallback feature
- High transmit power up to 100mW in 802.11a, 100mW in 802.11g, and 125mW in 802.11b
- Extended operating range up to 2,145 ft.
- Enterprise level of security includes support of 64-bit, 128-bit or 152-bit WEP encryption in 802.11a mode; 64-bit or 128-bit WEP encryption in 802.11b and 802.11g modes, Wi-Fi Protected Access (WPA), 802.1x, EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP and LEAP for user authentication, and Advanced Encryption Standard (AES) in all 802.11a/b/g
- EZ Installation Wizard
- Ad-hoc or Infrastructure mode
- Automatic channel selection
- Site survey utility
- Ability to define multiple Profile settings
- Supports Major Windows Operating Systems

Compatibility

- PCI Local Bus Specification Revision 2.2 compliant
- 95/97 PC Card Standard compliant
- IEEE 802.11a, 802.11b, 802.11g
- Windows 98SE/ME/2000/XP

Product	Model No	Description
EliteConnect™ Universal	SMC2512W-AG	2.4GHz/5GHz High Power Wireless PCI Card

www.smc-europe.com www.smc.com

SMC[®]
Networks

Specifications

SMC2512W-AG

Standards:

- PCI Local Bus Specification 2.2
- PC Card 95/97 PC-16
- ACPI (PCI Power Management 1.0)

Interface

- PCI interface card

Dimension L x W

- 17,46 cm X 12,06 cm [including PC Card]

Weight

- 0.127 kg [including PC Card]

Ambient Temperature

- 0°C~70°C

Storage Temperature

- -40°C~125°C

Operating Systems

- Windows 98SE/ME/2000/XP

Power Supply Current (Operating)

- 50mA

SMC2536W-AG

Standards:

- 802.11a
- 802.11b
- 802.11g

Host Interface:

- Cardbus form factor with 32-bit interface, PC Card Standard v7.1 Type II

Operation Mode:

- Infrastructure & Ad-hoc mode

Transfer Data Rate:

802.11a (Normal mode)

- 54, 48, 36, 24, 18, 12, 9, 6Mbps, auto-fallback

802.11a (Turbo mode)

- 108, 96, 72, 48, 36, 24, 18, 12 Mbps, auto-fallback

802.11b/g

- 11, 5.5, 2, 1 Mbps, auto-fallback, up to 54 Mbps

Operating Range:

- 802.11a - up to 653 meters
- 802.11b - up to 538 meters
- 802.11g - up to 568 meters

Security:

- 64-bit, 128-bit, 152-bit WEP

Encryption

- Wi-Fi Protected Access (WPA)
- 802.1x, EAP-MD5, EAP-TLS, EAP-TTLS, LEAP, PEAP

Authentication

- AES & TKIP Encryption

Frequency Range:

North America:

- 2.412 ~ 2.462GHz, 5.15 ~ 5.35GHz, 5.725 ~ 5.825GHz
- 2.400 - 2.483GHz

Europe:

- 2.412 ~ 2.472GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz
- 2.400 - 2.483GHz

Japan:

- 2.421 ~ 2.484GHz, 5.15 ~ 5.25GHz
- 2.400 - 2.483GHz, 4.90 - 5.091GHz, 5.15 - 5.25GHz

China:

- 2.412 ~ 2.484GHz, 5.725 ~ 5.85GHz
- 2.400 - 2.483GHz

Modulation Technique:

802.11b/g

- DSSS (DBPSK, DQPSK, CCK)
- OFDM for data rate > 20 Mbps

802.11a

- OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

Channels:

802.11b/g

- US/Canada: 11 (1 ~ 11)
- Major European countries: 13 (1 ~ 13)
- France: 4 (10 ~ 13)
- Japan: 14 (1~13 or 14 th)
- China: 13 (1 ~ 13)

802.11a

- US/Canada: 12 non-overlapping channels (5.15 ~ 5.35GHz, 5.725 ~ 5.825GHz)
- Europe: 19 non-overlapping channels (5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz)
- Japan: 4 non-overlapping channels (5.15 ~ 5.25GHz)

Media Access Protocol:

- CSMA/CA

Antenna:

- Integrated Patch Antenna

Output Power:

11a mode:

- 20 dBm +2dBm at 6~24Mbps
- 19-dBm +2dBm at 36 Mbps
- 17-dBm +2dBm at 48 Mbps
- 15-dBm +2dBm at 54 Mbps

11g mode:

- 20 dBm+2dBm at 6~24Mbps
- 19-dBm +2dBm at 36 Mbps
- 17-dBm +2dBm at 48 Mbps
- 15-dBm +2dBm at 54 Mbps

11b mode:

- 20-dBm +2dBm at 11 Mbps

Operational Voltage:

- 3.3/5V

Current Consumption:

- TX: 11a: < 700 mA
- 11b/g: < 850 mA
- RX: 11a: < 300 mA
- 11b/g: < 500 mA

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Receive sensitivity:

802.11a:

- < -80 dBm at 6 Mbps
- < -80 dBm at 9 Mbps
- < -79 dBm at 12 Mbps
- < -78 dBm at 18 Mbps
- < -75 dBm at 24 Mbps
- < -73 dBm at 36 Mbps
- < -70 dBm at 48 Mbps
- < -67 dBm at 54 Mbps

802.11g:

- < -84 dBm at 6 Mbps
- < -84 dBm at 9 Mbps
- < -83 dBm at 12 Mbps
- < -82 dBm at 18 Mbps
- < -79 dBm at 24 Mbps
- < -77 dBm at 36 Mbps
- < -74 dBm at 48 Mbps
- < -71 dBm at 54 Mbps

802.11b:

- < -91 dBm at 1 Mbps
- < -89 dBm at 2 Mbps
- < -88 dBm at 5.5 Mbps
- < -87 dBm at 11 Mbps

LED:

- Link/Activity

Operation Systems:

- Windows 98SE, ME, 2K, XP

Compliance:

- Wi-Fi Compliant
- FCC part 15 (USA)
- IC RSS210 (Canada)
- ETSI, EN301 893, EN60950 (Europe)

Temperature Range:

- 10°C to 60°C - Operating
- -40°C to 70°C - Storage

Humidity (non-condensing):

- 5% ~ 95% typical

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