

Appendices

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Appendix A

Specifications : airPoint-PRO

General Characteristics

Type	Wireless Access Point and Bridge
Compatibility	IEEE 802.11b (High Rate) Wi-Fi IEEE 802.3 10/100MBps
Media Access Protocol	CSMA/CA with ACK & RTS/CTS (Carrier Sense Multiple Access / Collision Avoidance with Acknowledgment)
Data Rates	High Rate: 11Mbps (CCK) Medium Rate: 5.5Mbps (CCK) Standard Rate: 2Mbps (DQPSK) Low Rate: 1Mbps (DBSK)
Network Operating System	Microsoft Windows Networking Novell Client 3.x, 4.x
Host Operating System	Windows 98SE, ME, 2000, XP
LEDs	Power, Eth, Transmission

Radio Characteristics

Frequency Band	2.4 GHz ISM Band (2.4 - 2.4835 GHz)
Number of Selectable Channels (Overlapping)	North America (FCC) 11 Europe (ETSI) 13 France (FR) 4 Japan (JP) 14 Singapore (iDA) 13 Other Countries FCC 11, ETSI 13
Modulation Techniques	DSSS (Direct Sequence Spread Spectrum): • CCK (Complimentary Code Keying), for High and Medium Transmit Rates • DQPSK (Differential Quadrature Phase Shift Keying) for Standard Transmit Rate • DBPSK (Differential Binary Phase Shift Keying) for Low Transmit Rate
Security	64-bit & 128-bit WEP encryption
Spreading Sequence	11 chip Barker Sequence
Frame Error Rate	Better than 8%
Output Power	100mW Max with 2.5dBi/5dBi antenna
Regulations	Europe ETSI 300-328, CE Marked USA FCC 47 CFR Part 15C, Section 15.247 - FCC Certification-ID: PWG AIRPOINTPRO

Regulations	Canada	RSS 139
	Japan	MPT Radio Regulations
	Singapore	iDA approved

Power Characteristics

Power Consumption	350 mA at 12V DC
Power Supply	12 to 50V DC 12 V DC External Adapter provided.(100 V ~ 264 V / 50 ~60 Hz AC IN 12V DC OUT) - Power Injector Provided.

Physical Characteristics

Dimensions	L 150mm; W 128mm; H 28mm
Weight	250 gms
Operating Temperature	0° to 40° C
Storage Temperature	-25° to 60° C
Humidity	Operating: 0 to 70% (non-condensing) Storage: 10 to 90% (non-condensation)

Supported Frequency sub-bands (in MHz)

Channel number	FCC countries	ETS countries	France	Japan	Singapore
1	2412	2412	Not Allocated	2412	2412
2	2417	2417	Not Allocated	2417	2417
3	2422	2422	Not Allocated	2422	2422
4	2427	2427	Not Allocated	2427	2427
5	2432	2432	Not Allocated	2432	2432
6	2437	2437	Not Allocated	2437	2437
7	2442	2442	Not Allocated	2442	2442
8	2447	2447	Not Allocated	2447	2447
9	2452	2452	Not Allocated	2452	2452
10	2457	2457	2457	2457	2457
11	2462	2462	2462	2462	2462
12	Not Allocated	2467	2467	2467	2467
13	Not Allocated	2472	2472	2472	2472

14	Not Allocated	Not Allocated	Not Allocated	2484	Not Allocated
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NOTE:

FCC countries adhere to the regulations as defined by the U.S. Federal Communications Commission (FCC).

ETSI countries adhere to the regulations as defined by the European Telecommunications Standards Institute (ETSI).

Range

Distance in meters	11Mbps	5Mbps	2Mbps	1Mbps
Outdoor Open Space	800	1000	1300	1600
Semi-Open Office	70	80	100	120
Closed Office	40	50	70	80

NOTE:

The range of values listed in the table above are typical distances measured at smartBridges' premises.

These represent indicative values and may vary according to actual radio conditions at the location where the airPoint-PRO will be used.

The range of your wireless devices can be affected when they are placed near metal surfaces and solid high-density materials like concrete walls, wood constructions, steel structures etc.

Range is also affected by "obstacles" in the signal path of radio. These obstacles may either absorb or reflect the radio signal.

Environments can be described as follows:

- Outdoor Open Space environment: Devices are in Radio Line of Sight (RLOS) and there is no physical obstruction between them.
- Semi-Open Office environment: Workspace is divided by shoulder-height, hollow (glass, plastic) wall elements; airPoint-PRO is placed at desktop level.
- Closed Office environment: Workspace is divided by high-density solid wall structures.

Appendix B

Warranty Information

smartBridges warrants product to be free of defects, and agrees to repair or replace the product that proves defective. airPoint-PRO is warranted for one year from date of purchase. This warranty does not cover accidents, misuse, neglect, unauthorized product modification, or acts of nature.

Please visit customer support area of smartBridges web site for making warranty claims. smartBridges may elect to exchange the product or refund the full purchase price of the unit.

Except as expressly provided above, smartBridges makes no warranties or conditions, express, implied, or statutory, including without limitation, the implied warranties of merchantability and fitness for a particular purpose or infringement of any patent, copyright or other intellectual property right. smartBridges shall not be liable for damage to other property caused by any defects in this product, damages based upon inconvenience, loss of use of the product, loss of time or data, commercial loss, or any other damages, whether special, incidental, consequential, or otherwise, whether under theory of contract, tort (including negligence), indemnity, product liability, or otherwise. smartBridges products are not intended for use in medical, life saving, or life sustaining applications. In no event shall smartBridges' liability exceed the normal purchase price for this product.

Software License

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Appendix C

Declaration of Conformity and Regulatory Information

DECLARATION OF CONFORMITY TO FCC REGULATIONS, Part 15 FCC ID - PWG AIRPOINTPRO

smartBridges declares that the equipment described in this document is within the requirements of the Code of Federal Regulations - Title 47 Part 15, Subpart B, Class B for a digital device. This declaration is based upon the compliance of the airPoint-pro Wireless Access Point to the above standards. smartBridges has determined that airPoint-pro has been shown to comply with the applicable technical standards if no unauthorized changes are made to the equipment and if the equipment is properly maintained and operated. These units are identical to the units tested and found acceptable with the applicable standards. Records maintained by smartBridges continue to reflect that the units being produced under this Declaration of Conformity, within the variation that can be expected due to quantity production and tested on a statistical basis, continue to comply with the applicable technical standards.

FCC Rules and Regulations - Part 15

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1. This device may not cause harmful interference and, 2. This device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.

In order to maintain compliance with FCC regulations, standard network cables must be used with this equipment. Operation with non-approved equipment or non-standard cables is likely to result in interference to radio and TV reception. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

CANADIAN DEPARTMENT OF COMMUNICATION, INDUSTRY CANADA STATEMENT

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par le Ministère des Commu-nications du Canada.

EUROPEAN COMMUNITY CE MARK, DECLARATION OF CONFORMITY

smartBridges Pte. Ltd. declares that the equipment described in this document is in conformance with the requirements of the European Council Directives - 73/23/EEC, Low Voltage Directive with Amendment 93/68/EEC and 89/336/EEC, EMC Directive with Amendments 92/31/EEC and 93/68/EEC. This declaration is based upon compliance of the product to the following standards: EN 55022 (CISPR 22B), RF Emissions Control and EN 50082-1 (IEC 801-2, 3, 4) Immunity to Electromagnetic Disturbance.

SAFETY NOTICE

This product is intended for use with UL 1950/EN60950/IEC950 (or other NRTL) listed ITE computer that contains operator-accessible Ethernet ports.

This being a electromagnetic radiating device we recommend keeping the equipment 20 cm away from the human body. Radiating levels are within safety limits set by FCC