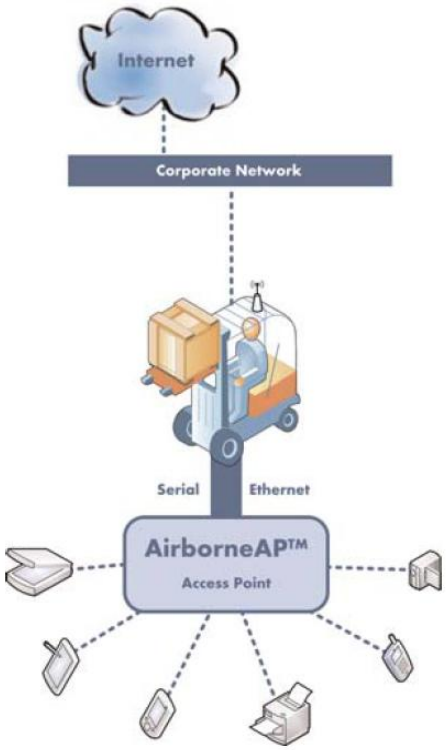
B&B ELECTRONICS

PRODUCT INFORMATION

APXG-Q5420

Infrastructure Access Point/Wireless Router/Client

- ✓ **Two serial ports, one Ethernet port**
- ✓ **RS-232/422/485 to 802.11 b/g and Ethernet to 802.11 b/g**
- ✓ **Supports up to eight clients**
- ✓ **Wireless security (WPA2-Enterprise, WPA, WEP, EAP)**
- ✓ **Onboard certificate delivery and storage**
- ✓ **Plug-n-play serial to 802.11 connectivity and Ethernet to 802.11 connectivity**
- ✓ **2 kV serial ESD surge suppression**
- ✓ **Variable DC power supply (5-36 VDC) with screw terminal connectors**
- ✓ **Extended operating temperature range (-20°C to +85°C)**
- ✓ **Airborne SpeedLink roaming for enhanced connection reliability**



AirborneAP™ access point technology enables M2M equipment to create self sufficient Wi-Fi networks, allowing easy access to equipment data or resources from Wi-Fi-enabled devices, including laptops, tablets and handhelds powered by Android, iOS, or Windows.

AirborneAP™ access point technology includes secure authentication using WPA2 (AES-CCMP) and a fully functional DHCP server to provide unique addresses for each authenticated client. The Airborne™ Access Point supports up to 8 clients on a local network.

AirborneAP™ access points specifically address the functional and packaging demands of M2M solutions providers. As an example, an

Ordering Information

Model Number	Description
APXG-Q5420	Industrial wireless access point with RS-232/422/485 to 802.11b/g
Accessories	
PS-SDS	Optional 120VAC/DC power supply
ACH2-AT-DP002	2 dBi portable (Rubber duck) antenna
ACH2-AT-DP003	5 dBi portable (Rubber duck) antenna
ACH2-AT-DP011	5 dBi magnetic mount vehicle antenna

B&B ELECTRONICS

www.bb-elec.com orders@bb-elec.com support@bb-elec.com
International Office: 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA 815-433-5100 Fax 433-5104
European Office: Westlink Commercial Park Oranmore Co. Galway Ireland +353 91 792444 Fax +353 91 792445

B&B ELECTRONICS

PRODUCT INFORMATION

integrated AirborneAP™ access point can turn an isolated piece of equipment in a service truck into a wireless gateway. This creates a Wi-Fi network around the vehicle that enables multiple handhelds and tablets to talk to each other. This local Wi-Fi network can also enable access to other equipment with embedded Wi-Fi capability in the truck, and even provide access to the internet using a cellular modem.

AirborneAP™ access points support Ethernet and serial interfaces. The Ethernet interface can be placed in bridge mode to support connection to an existing network of devices, effectively extending access to the network for wireless devices. Alternatively, the Ethernet interface can be set to wireless router mode, enabling advanced networking to wide area network (WAN) and internet connections. Utilizing the serial interfaces, wireless clients can access the serial devices using the wireless network.

AirborneAP™ access points can be switched from access point to client mode through the web or command line interfaces. In client mode, the devices provide WPA2-Enterprise Class Extensible Authentication Protocols (EAP) with support for authentication certificates. Advanced security including WEP, WPA (TKIP), WPA2 (AES – FIPS 197), WPA2 Enterprise, 802.11i and 802.1x (EAP) are standard over the entire product family. The units include support for EAP-TLS, EAP-TTLS, PEAP, EAP-FAST and LEAP with AES-CCMP supported in the hardware.

Power	
Input Voltage	5-36VDC +/-5%, 500mA (MAX)
Power Connection	2-position terminal block, 2.1mm barrel jack
Power Use	2.5W at 5VDC
Supply In-rush Current	3000mA (MAX) for 20ms
Environmental	
Op. Temp	-20°C to +85°C
Storage Temp	-55°C to +150°C
Op. Humidity	5% - 95% (non-condensing)
Mechanical	
Vibration	20G peak-to-peak, 20Hz-2KHz swept
Shock	1500G peak-to-peak, 0.5mS duration
Enclosure	Metal Enclosure
Mounting	DIN rail mounting adapter
Dimensions	120.14 mm x 120.12 mm x 29.21 mm (4.89" x 4.73" x 1.15")

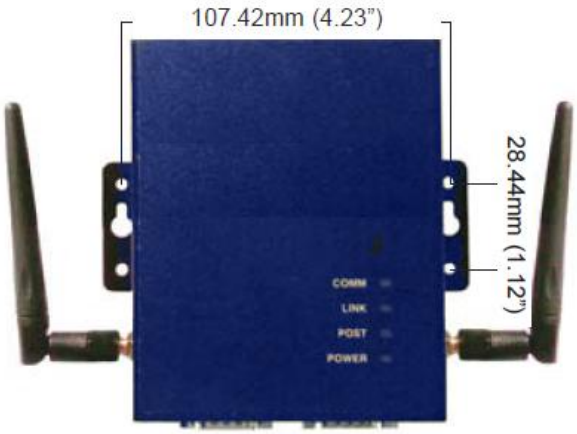
Regulatory Approvals

FCC Part 15.247, Class B Sub C Modular Approval
Industry Canada RSS-210
CE
ETSI EN300-328 v1.7.1
ETSI 60950-1
Directive 2004/108/EC
ETSI EN 55022:2006 + A1:2007 (emissions)
ETSI EN 55024:1998 + A1:2001
ETSI EN 55024:1998 + A2:2003 (immunity)
FCC Part 15 Subpart B:2007
- Part 15.107(b) (conducted emissions, Class A)
- Part 15.109(g) (radiated emissions, Class B)
Industry Canada ICES-003:2004, Issue 4
AS/NZS CISPR 11:2004 (Australia/New Zealand)
RoHS and WEEE Compliant

Specifications

Wireless Technology:	IEEE 802.11b/g, Wi-Fi Compliant
Wired Interface:	2 ports, RS-232/422/485, MEI (2 wire), 10/100 Ethernet (Infrastructure Bridge Mode, NAT3 Router Mode), Software selectable
Frequency:	2.4~2.4835 GHz (US/Canada/Europe) 2.4~2.497 GHz (Japan)
Modulation Technology:	DSSS, CCK, OFDM
Modulation Type:	DBPSK, DQPSK, CCK, BPSK, QPSK, 16QAM, 64QAM
Network Access Modes:	Access Point, Infrastructure, Ad Hoc
Channels:	USA/Canada: 11 Channels Europe: 13 Channels France: 4 Channels Japan: 14 Channels (13 channels for 802.11g)
Wireless Data Rates:	802.11b = 11, 5.5, 2, 1 Mbps 802.11g = 54, 48, 36, 24, 18, 12, 9, 6 Mbps
Network Protocols:	TCP/IP, ARP, ICMP, DHCP, DHS, UDAP, TFTP, UDP, PING, HTTP, FTP
Receive Sensitivity:	54 Mb/s = -69dBm 6Mb/s = -86dBm 1Mb/s = -86dBm
Wireless Security :	Open, WEP 64 & 128 bit, WPA-PSK (TKIP), WPA2-PSK (AES), 802.1x (EAP), WPA-Enterprise, WPA2-Enterprise, EAP-TLS/MSCHAPv2, EAP-TTLS/MSCHAPv2, EAP-TTLS (MD5), EAP-PEAPv0/MSCHAPv2, LEAP

	- Zero host security footprint - Advanced certificate storage and management (*Enterprise and EAP in client mode only)
Secure Communications:	- SSH and SSL tunneling - Encrypted configuration



Top View

Front View


Port View

Applications

Communicating with mobile machines is critical to maintaining workflow efficiency. The Airborne AP™ Access Point enables reliable data transfer, monitoring and machine configuration, and communication over a plant's wireless 802.11 network.

AirborneAP;™ Access Point can be integrated and deployed into a wide range of applications across various industries including:

- Vehicle telematics & diagnostics
- Material handling & logistics
- Industrial Automation Test & measurement
- Security & access control

www.bb-elec.com orders@bb-elec.com support@bb-elec.com
International Office: 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA 815-433-5100 Fax 433-5104
European Office: Westlink Commercial Park Oranmore Co. Galway Ireland +353 91 792444 Fax +353 91 792445