



WIRELESS HEALTH CARE



Dual Band Wi-Fi Bridge
Model ABDN-ER-DP551

UPGRADE YOUR LEGACY MEDICAL EQUIPMENT WITH EASY TO INSTALL, DUAL BAND WI-FI BRIDGES

– PLUG AND PLAY, 2.4 GHZ OR 5 GHZ



DESIGNED AND BUILT FOR MEDICAL APPLICATIONS

Some medical devices become immensely more valuable if you can make them mobile. Moving a modern medical cart from room to room is far more efficient than moving the patients and their beds so long as you can still maintain reliable network connections. Other devices, like EKG monitors and X-Ray machines, call for less mobility but still require dependable wireless data connectivity.

Wi-Fi can be the answer. Wi-Fi is standards-based and will interoperate reliably with multiple vendor products. Wi-Fi networks are widely deployed in hospitals and can be used to connect remote medical devices to networks, letting them share data with other network nodes.

Wi-Fi supports robust security protocols, ensuring that the confidentiality of patient data is protected at all times. It lets a network administrator work from a central location while performing critical diagnostics tests and software updates anywhere on the network. Wi-Fi devices are steadily becoming more compact and less power hungry, allowing for easier integration into mobile devices.

But, as Wi-Fi access has proliferated in hospitals, Wi-Fi signals from personal devices belonging to patients and visitors have begun to saturate the license-free 2.4 GHz band. This can lead to degraded connections, timeouts and data retries.

Dual band Wi-Fi is the answer. You can continue taking advantage of the benefits of Wi-Fi and to address the issue of overcrowded hospital airspace at the same time.



THE SOLUTION

B+B SmartWorx' ABDN-ER-DP551 is a dual band Ethernet bridge and router that can connect equipment to networks via either the 2.4 GHz and 5 GHz license free bands. Where the 2.4 GHz band is overcrowded, the ABDN-ER-DP551 can operate at 5 GHz. Every radio environment is a bit different, so the ability to use either license free band provides vital flexibility. Additionally, the ABDN-ER-DP551's small form factor and low power requirements let it fit just about anywhere, even in the most crowded medical cart, and it will operate on USB power. Its advanced security protocols ensure that patients' private information will always be secure.

MULTIPLE SOLUTIONS

The ABDN-ER-DP551 is a member of B+B SmartWorx' AirborneM2M family of dual band Wi-Fi M2M solutions. AirborneM2M devices provide reliable network connections. They support advanced Wi-Fi security authentication and encryption protocols. They are built for rugged environments and easy to set up and use. Models with serial ports are available making it easy to network-enable legacy serial equipment.



EMBEDDED SOLUTIONS

B+B SmartWorx' AirborneM2M technology is also available as an embedded module. Our medical device manufacturer is now investigating an engineering project that will integrate AirborneM2M technology directly into their systems with all of the same features and capabilities – and an even smaller form factor.

AIRBORNEM2M™

- DUAL BAND WIRELESS

The AirborneM2M line of enterprise wireless Ethernet Routers and Bridges are built for networking equipment in an array of machine to machine (M2M) applications. The small, compact form factor, integrated options and ease of use make it ideal for commercial enterprise environments.

PRODUCT FEATURES

- 10/100 Mbps to 802.11a/b/g/n (2.4 GHz, 5 GHz)
- Wide operating temperature range (-20°C to +85°C)
- Compact form factor
- AirborneM2M SpeedLink roaming provides enhanced connection reliability
- Advanced Enterprise Class wireless security (WPA2-Enterprise, WPA, WEP, EAP)
- Available in OEM version (without enclosure)
- Supported by Airborne Management Center (AMC) device discovery, management and control application software

DUAL-BAND WI-FI

The AirborneM2M products establish wireless connections over both 2.4 GHz and 5 GHz bands. Whenever the 2.4 GHz airspace is overcrowded with competing wireless transmission, AirborneM2M products can be switched over to 5 GHz band to keep data flowing.

ENTERPRISE CLASS SECURITY

Security protocols are important to mission-critical wireless M2M applications. AirborneM2M's multi-layered security approach addresses the requirements of Enterprise-class networks and corporate IT departments. These advanced security features include wireless security (802.11i/WPA2 Enterprise); network security (EAP authentication and certificate support); communication security (SSH functionality and fully encrypted data tunnels); and device security (multi-level encryption capability to protect configuration data).

SPEEDLINK™ ROAMING

AirborneM2M SpeedLink roaming further enhances the high level of connection reliability. SpeedLink enables AirborneM2M devices to roam quickly and freely throughout a wireless network without losing important data. If you're walking around a hospital or driving through a warehouse, SpeedLink ensures you stay connected.

ORDERING INFORMATION

| MODEL NUMBER | DESCRIPTION |
|---------------------------------------|---|
| AirborneM2M™ Enterprise Series | |
| ABDN-ER-DP551 | Dual Band 802.11a/b/g/n (2.4 GHz, 5 GHz) Ethernet bridge and router with WPA2-Enterprise, WPA, WEP, EAP Security. AC power supply. |
| ABDN-ER-DP551U | Dual Band 802.11a/b/g/n (2.5 GHz, 5 GHz) Ethernet bridge and router with WPA2-Enterprise, WPA, WEP, EAP Security. Dual USB port, power cable. |
| ABDN-ER-DP553 | Dual Band 802.11a/b/g/n (2.4 GHz, 5 GHz) Ethernet bridge and router OEM Version (open board, without enclosure) |



SPECIFICATIONS

| | |
|--------------------------------|--|
| Technology | IEEE 802.11a/b/g/n, Wi-Fi Compliant |
| Wired Interface | 10/100 Ethernet port (Bridge, Router (NAT3) Modes) |
| Frequency | 2.4 ~ 2.4835 GHz (US/Canada/Europe) 5.150 ~ 5.350 GHz 5.725 ~ 5.825 GHz |
| Modulation Technology | DSSS, CCK, OFDM |
| Modulation Type | DBPSK, DQPSK, CCK, BPSK, QPSK, 16QAM, 64QAM |
| Network Access Modes | Infrastructure (Client), Ad Hoc |
| Channels | US/Canada: 11 Channels 802.11b/g 13 Channels 802.11a Europe: 13 Channels 802.11b/g 19 Channels 802.11a France: 4 Channels 802.11b/g |
| Wireless Data Rate | 802.11b = 11, 5.5, 2, 1 Mbps 802.11a/g = 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n = 65, 58.5, 42, 39, 26, 19.5, 13, 6.5 Mbps |
| MAC | CSMA/CA with ACK, RTS, CTS |
| Network Protocols | TCP/IP, ARP, ICMP, DHCP, DNS, UDAP, TFTP, UDP, PING |
| Receive Sensitivity 802.11 b/g | 54Mb/s = -72 dBm 36Mb/s = -78 dBm 18Mb/s = -84 dBm 6Mb/s = -89 dBm 11Mb/s = -86 dBm 1Mb/s = -92 dBm |
| Receive Sensitivity 802.11a | 54Mb/s = -74 dBm 36Mb/s = -80 dBm 18Mb/s = -86 dBm 6Mb/s = -90 dBm |
| Dimensions | 63.4 x 99.0 x 46.7 mm (2.6 x 4.0 x 1.9 in) |
| Transmit Power | 802.11b 15 dBm (31.6mW) 802.11g 12.6dBm (18.12mW) 802.11a 17 dBm (50.1mW) |
| Security Protocols | Disabled, WEP 64 & 128bit, WPA (TKIP), WPA (AES), WPA2 (AES), 802.1x (EAP) Supplicant 802.11i, WPA & WPA2 Enterprise supplicants (EAP-TLS, EAP-TTLS(MSCHAPv2), EAPTTLS (MDS5), EAP-PEAPv0 (MSCHAPv2, LEAP), EAP-FAST, LEAP) Supports Certificates, Private Key Upload, Storage (Multiple) |
| Antenna | Integrated RP-SMA Omni-directional 2dBi 2.4/5 GHz Antenna |
| Power Supply | 5.0VDC +/- 5% |
| Supply In-rush Current | 3000mA (MAX) for 20ms |
| DC Characteristics | Operating Current (Tx, 802.11g) = 370mA Typ. Operating Current (Rx, 802.11g) = 200mA Typ. Operating Temperature: -20° to +85°C Storage Temperature: -20° to +85°C |
| Environmental | Relative Humidity: 5% - 95% (non-condensing) Vibration: 20G peak-to-peak, 20Hz-2KHz swept Shock: 1500G peak-to-peak, 0.5mS duration |
| Interfaces | 10/100 Ethernet |
| Enclosure | Nylon (Gray) |
| LED Indicators | 3 Indicator LEDs (Power, LINK, COMM) |
| Agency Approvals | North America: FCC Title 47 Part 15 Class B Sub C Intentional Radiator, IOC RSS210 Europe: CE ETSI EN300 328, RoHS & WEEE compliant |

Dual Band Wireless Products
backed up by data communications experts



GLOBAL REACH FOR GLOBAL SUPPORT

You build your business and we will build your communication solution. Whether you choose standard products or require special designs for specific applications – consider B+B SmartWorx as your connection.

Find B+B products in more than 60 countries around the world

Talk to your favorite distributor about B+B SmartWorx products, or to find a channel partner near you, please go to

www.bb-smartworx.com



Worldwide Headquarters
707 Dayton Road
Ottawa, IL 61350 USA
Phone: 1-815-433-5100
Fax: 1-815-433-5109
orders@bb-smartworx.com

EMEA International Sales
Oranmore, Co. Galway, Ireland
Phone: +353 91 792444
Fax: +353 91 792445
eSales@bb-smartworx.com

CZ - Conel s.r.o.
Sokolská 71
562 04 Ústí nad Orlicí III.
Czech Republic
Phone: +420 465 521 020
Fax: +420 464 647 299
GSM: +420 603 872 287
sales@conel.cz

California USA - IMC Office
25531 Commercentre Dr. #210
Lake Forest, CA 92630
Phone: 949-465-3000
Fax: 949-465-3020
sales@bb-smartworx.com

Custom & OEM Product Design
Phone: 815-433-5222
Fax: 815-433-5104
Attn: Custom Dept.
custom@bb-smartworx.com
Custom Quote Request Form:
bb-smartworx.com/custom.asp