

Dual Band (2.4 GHz, 5 GHz) Wi-Fi Ethernet Bridge/Router, Serial Server

AirborneM2M™ Industrial ABDN-xx-IN50xx Series

B+B SMARTWORX

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PRODUCT FEATURES

- RS-232/422/485 or 10/100 Mbps Ethernet to 802.11a/b/g/n (2.4 GHz, 5 GHz)
- One or two serial ports, one Ethernet port
- Advanced Enterprise class wireless security
- Variable DC power supply (5-36 VDC)
- PoE 802.3af Power-over-Ethernet (Model ABDN-ER-IN5018)
- Extended operating temperature range (-40 to +85 °C)
- AirborneM2M SpeedLink roaming - enhanced connection reliability
- Supported by Airborne Management Center (AMC) device discovery, management and control application software

The AirborneM2M™ line of Industrial Wireless Device Serial Servers and Ethernet Bridge/Routers are built for networking equipment in a wide array of machine-to-machine (M2M) applications. AirborneM2M industrial series features industrial strength packaging and supports a wide temperature rating (-40 to +85° C) to withstand challenging M2M environments. Available in both single and dual serial port models or a single Ethernet port model. Power options include 5-36VDC input or Power-over-Ethernet "PoE" 802.3af on select models.

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 multi-layered security approach addresses the requirements of Enterprise-class networks and corporate IT departments. These advanced security features include wireless security (801.11i/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

The latest AirborneM2M SpeedLink roaming feature 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
ABDN-ER-IN5010	Dual Band AirborneM2M Industrial Wireless Ethernet Bridge/Router
ABDN-ER-IN5018	Dual Band AirborneM2M Industrial Wireless Ethernet Bridge/Router with PoE
ABDN-SE-IN5410	Dual Band AirborneM2M Industrial Wireless Serial Server with one RS-232/422/485 port
ABDN-SE-IN5420	Dual Band AirborneM2M Industrial Wireless Serial Server with two RS-232/422/485 ports

Available in: North America, European Union (EU), Japan

ACCESSORIES - sold separately

PS-WDS: 120-240VAC, 50/60Hz, 5VDC, 2A barrel connector power supply

MDR-20-24: 120-240VAC, 50/60Hz, 24VDC, 1.0A DIN rail power supply

ACH2-DBAT-DP002: 2dBi portable (rubber duck) 2.4GHz / 5GHz antenna

All product specifications are subject to change without notice.

ABDN-er-se-IN50xx_EthBridgeRouter-SerSvr_1918ds

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SPECIFICATIONS

TECHNOLOGY	
Wireless Technology	IEEE 802.11 a/b/g/n, Wi-Fi Compliant
Wired Interface	2 ports, RS-232/422/485, (RS-232/422 4 wire or RS-485 2 wire) 10/100 Ethernet port (Bridge, Router (NAT3) Modes) Software selectable
Frequency	2.4~2.4835 GHz (US/Canada/Europe) 2.4~2.497 GHz (Japan) 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
	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 Japan: 14 Channels 802.11b 13 Channels 802.11g 23 Channels 802.11a
Wireless Data Rates	802.11a/g = 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11b = 11, 5.5, 2, 1 Mbps 802.11n = 65, 58.5, 42, 39, 26, 19.5, 13, 6.5 Mbps
Network Protocols	TCP/IP, ARP, ICMP, DHCP, DNS, UDAP, TFTP, UDP, PING, HTTP, FTP
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 – 802.11 a	54Mb/s = -74 dBm 36Mb/s = -80 dBm 6Mb/s = -90 dBm
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
Secure Communications	SSH and SSL tunneling. Encrypted configuration.
Transmit Power	802.11b = 15 dBm (31.6mW) 802.11g = 12.6dBm (18.12mW) 802.11a = 17 dBm (50.1mW)

POWER	
Input Voltage	5-36VDC +/-5%, 500mA (maximum)
Power Connection	2-position terminal block, 2.1mm barrel jack
Power Use	2.5W at 5VDC
Supply In-rush Current	3000mA (maximum) for 20ms
PoE	PoE using a 802.3af Class 1 PSE device (Model ABDN-ER-IN5018)
LED INDICATORS	
4 LEDs	COMM, LINK, POWER, POST (Power on Self Test)
ENVIRONMENTAL	
Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to +85 °C
Operating Humidity	5 to 95% (non-condensing)
MECHANICAL	
Antenna	RP-SMA Omni-directional 2dBi 2.4GHz / 5GHz Antenna
Enclosure	Metal enclosure
Mounting	Panel mount, optional DIN rail brackets
Dimensions	120.14 x 120.12 x 29.21 mm (4.89 x 4.73 x 1.15 in)
MEANTIME BEFORE FAILURE (MTBF)	
MTBF	ABDN-ER-IN5010 = 392467 hours ABDN-ER-IN5018 = 377995 hours ABDN-SE-IN5410 = 360740 hours ABDN-SE-IN5420 = 350412 hours
APPROVALS, DIRECTIVES & STANDARDS	
North America	FCC Title 47 Part 15 Class B Sub C Intentional Radiator
CE - Directives (Europe)	2014/35/EU - Low Voltage Directive 2014/53/EU - Radio Equipment Directive (RED) Hereby, Advantech B+B SmartWorx declares that the radio equipment type Wi-Fi Ethernet Bridge/Router or Serial Server is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.advantech-bb.com 2011/65/EU - Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU - Waste Electrical & Electronic Equipment Directive (WEEE)
CE - Standards (Europe)	EMC: ETSI EN 300 328 v2.1.1 - EMC & Radio Spectrum Matters (ERM) Wideband Transmission Systems - 2.4 GHz ISM Band ETSI EN 301 893 v1.8.5 - EMC & Radio Spectrum Matters (ERM) Wideband Transmission Systems - 5 GHz ISM Band ETSI EN 301 489-1 v2.1.1 - Applied in accordance with the specific requirements of: ETSI EN 301 489-17 v3.1.1 - EMC & Radio Spectrum Matters (ERM) Broadband Data Systems EN 55032+AC, Class A - Information Technology Equipment (ITE) - RF Emissions EN 55024 - Information Technology Equipment (ITE) - Immunity Characteristics - Limits and Methods of Measurement Safety: EN 60950-1 + A1 + A11 + A12 + A2 - Information Technology Equipment (ITE) - Safety - Part 1 - General Requirements RF Exposure: EN 62311 - Assessment of electronic and electrical equipment related to human exposure restrictions for EM fields (0 Hz to 300 GHz)

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
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- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

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Разъемы специального, военного и аэрокосмического назначения:

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«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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