

# Industrial Routers LAN ROUTER

XR5i v2F Series

B+B SMARTWORX

Powered by

ADVANTECH



## PRODUCT FEATURES

- Modular design to fit application requirements
- Provided secure connection between two networks
- Provides USB, Serial and I/O connectivity
- SNMP protocol for remote management
- VPN support

The XR5i v2F industrial router secures connections between two local networks (LAN) via two Ethernet interfaces 10/100. The XR5i v2F can also convert serial RS232, RS485, M-BUS, I/O to IP local area network (LAN Ethernet 10/100). WiFi models are available.

The XR5i v2F Industrial router will also connect two devices with different serial interfaces (RS232, RS485, M-Bus, I/O, etc.) to the local network. In this configuration, the communication device has an Ethernet 10/100 port and two serial interfaces which user definable. A third option uses combination of two previous versions, when the industrial XR5i v2F router equipped with two Ethernet interfaces 10/100 and one optional serial interface. Standard on the XR5i v2F Industrial Router is one Ethernet 10/100 port, one USB A (host) port, I/O port and two optional interfaces. Users can select a second Ethernet port, 10/100, serial interface RS232/RS485/RS422/MBUS or other Inputs/Outputs (I/O). Industrial XR5i v2F router can be ordered with either a plastic or metal housing.

Configuration is password protected, via web interface. The router supports creation of VPN tunnels using IPsec, OpenVPN and L2TP to ensure safe communication. Web interface provides detail statistics about router activities.

## SELECTED APPLICATIONS

Transportation and security  
IT and communication  
Self-service terminals  
Energy and power industry  
Metrology, alarm and warning systems

## R-SEENET™

Router Management Software consisting of two parts:

**R-SeeNet Server** application can be programmed to automatically send SNMP queries (Simple Network Management Protocol) to each router defined in the network. The application retrieves status information from the routers and records it in the SQL database.

**R-SeeNet PHP** is a web-based application that accesses the SQL database and provides the network administrator detailed information on individual routers and network health.

## ORDERING INFORMATION

**Note: Check with your local distributor for availability and options. Contact Advantech B+B SmartWorx distributors.**

Europe, Middle East, Africa, Asia, South America, Latin America.

BB - XR2F00XXXX

### Accessories

0	No Accessories
1	Accessories with EU power supply
2	Accessories with UK power supply
3	Accessories with Australia power supply
4	Accessories with US power supply

### Enclosure

1	Plastic enclosure
2	Metal enclosure

### PORT2 (Full version only)

0	No expansion port
1	ETH
2	RS232
3	RS485
4	RS422
5	MBUS
6	CNT (4× BI, 2×, 1×B0) - I/O port
7	WiFi
8	WMBUS (Wireless M-BUS)

### PORT1

0	No expansion port
1	ETH
2	RS232
3	RS485
4	RS422
5	MBUS
6	CNT (4× BI, 2×, 1×B0) - I/O port
9	Switch

## SMARTWORX HUB™

**SmartWorx HUB** takes management of your devices to new levels of flexibility and efficiency. Giving you a complete view of your installed device population, SmartWorx Hub delivers invaluable configuration, diagnostic and management facilities directly to your desktop, wherever you are.

Manage a single device or your entire device population at the same time. Whether you need to modify configuration parameters, download or upgrade installed firmware and applications or view detailed information regarding network statistics, you can do it all from any location.

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## SPECIFICATIONS

### FIXED INTERFACES

1× Ethernet	10/100 Mbps, independent or bridged
1× I/O	Binary input/output
1× USB	USB 2.0 Host, Type A

### OPTIONAL INTERFACES

1× PORT 1	Ethernet (10/100Mbps), RS232, RS422/485, M-Bus I/O Input/Output, Ethernet Switch (with PORT 2)
1× PORT 2	RS232, RS422/485, M-Bus, WM-Bus, SDH, WiFi Ethernet Switch (with PORT 1)

### POWER

Source	9 - 36 VDC
Consumption	Idle - 1.6 W WiFi Com. to 1.9 W Full Com. to 2.5 W

### MECHANICAL

Dimension Plastic version	51 x 87 x 116mm
Dimension Metallic version	42 x 87 x 113mm
Protection	IP30
Weight Plastic version	150 g
Weight Metallic version	280 g

### ENVIRONMENTAL

Operating Temperature	-40 to +75°C
Storage Temperature	-40° to +85°C
Humidity	Operating - 0 to 95% relative humidity non condensing Storage - 0 to 95% relative humidity non condensing

### I/O PORT

Binary input	Reed contact with trigger level 1.3 up to 1.4 V
Binary output	100 mA/ max. 30 V

### CPU & MEMORY

CPU	32b ARM microprocessor, 0.25 DMIPS per MHz
Flash memory	16 MB DDR SDRAM
RAM	64 MB
M-RAM	128 kB

### SOFTWARE FEATURES

Linux based, possibility to program your own application
NTP client, NTP Server – time synchronization
M-RAM memory inside – router statistic's saving into memory

### NETWORKING

DHCP – automatic IP addressing in LAN network
NAT/PAT – IP address and ports translation between inside/outside network
RRP – virtual backup router function
DynDNS client – access to the router with a dynamic IP address
Dial-in – the ability to communicate over dial CSD call
PPPoE Bridge – PPP frames encapsulation inside ETH frames

### VPN TUNNELING

IPsec, OpenVPN, L2TP – secure encrypted tunnels
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### CONFIGURATION AND DIAGNOSTIC

HTTP server – configuration via web server
Telnet – configuration and access to the file system
SNMP – router diagnostics, communication with I/O and M-Bus
Remote router group configuration change, switching among configuration profiles
SSH – encrypted configuration and access to the file system

### STANDARDS/REGULATION

EMC	ETSI EN 301 489-1 V2.1.1, ETSI EN 301 489-17 V3.1.1, ETSI EN 301 489-3 V2.1.1
Safety	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 + AC:2011

### WiFi <sup>\*optional</sup>

Antenna connector	R-SMA – 50 Ohms
Supported WiFi band	2.4 GHz
Standards	802.11b, 802.11g, 802.11n
2.4 GHz supported channels	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
RX Sensitivity	11b, 11 Mbps: typ. -85 dBm 11g, 54 Mbps: typ. -70 dBm (HT20) 11n, MSC7: typ. -66 dBm (HT40) 11n, MSC7: typ. -62 dBm
TX Output Power	11b, 11 Mbps: min. 18, typ. 19, max. 20 dBm 11g, 54 Mbps: min. 14.5, typ. 16, max. 17.5 dBm 802.11n (HT20): min. 13.5, typ. 15, max. 16.5 dBm 802.11n (HT40): min. 13.5, typ. 15, max. 16.5 dBm
Type of device	Access point, station

## ACCESSORIES

ORDER CODE	DESCRIPTION	INCLUDED IN PACKAGE	INCLUDED IN SET PACKAGE	SOLD SEPARATELY
BB-SBD40	Metal DIN holder for Metal versions of routers v2	✓	✓	✓
BB-CPD2-G	Plastic DIN holder for Plastic versions of routers v2	✓	✓	✓
BB-AW-A24G-M5SRP	Antenna WiFi stick 5dB, SMA-RP connector		✓	✓
BB-KD-ETH	Ethernet cross cable 1.5m		2×	✓
BB-CON-WR2	2-pin Terminal block for Power Supply	✓		✓
BB-CON-WR3	3-pin terminal block for I/O	✓	✓	✓
BB-RPS-v2-WR2-EU	Power supply with WR connector (2 pins) - 12V/1A - EU plug		✓	✓
BB-RPS-v2-WR2-US	Power supply with WR connector (2 pins) - 12V/1A - US plug		✓	✓
BB-RPS-v2-WR2-UK	Power supply with WR connector (2 pins) - 12V/1A - UK plug		✓	✓
BB-RPS-v2-WR2-AUS	Power supply with WR connector (2 pins) - 12V/1A - AUS plug		✓	✓
BB-KN-WR2-3	Power supply cable 2-wire, 3m		✓	✓
Quick Start Guide		✓	✓	