

Expansion Port

# SDH

USER MANUAL



**B+B** SMARTWORX

Powered by

**ADVANTECH**

## Used Symbols



*Danger* – Information regarding user safety or potential damage to the router.



*Attention* – Problems that can arise in specific situations.



*Information, notice* – Useful tips or information of special interest.

## GPL Licence

Source codes under GPL licence are available free of charge by sending an email to:

[cellularsales@advantech-bb.com](mailto:cellularsales@advantech-bb.com).



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# 1. Safety Instruction



***Please, observe the following instructions:***

- The expansion port must be used in compliance with all applicable international and national laws and in compliance with any special restrictions regulating the utilization of the communication module in prescribed applications and environments.
- Use only the original Advantech B+B SmartWorx company accessories. Thus you will prevent possible health risks and damage to the devices and ensure compliance with all relevant provisions. Unauthorised adjustments or use of unapproved accessories may result in damage to the expansion port and breach of applicable laws. Use of unapproved adjustments or accessories may lead to cancellation of guarantee, which has no effects on your legal rights.
- Do not expose the expansion port to extreme conditions. Protect it from dust, moisture and heat.

## 2. Product Disposal Instructions

The WEEE (Waste Electrical and Electronic Equipment: 2012/19/EU) directive has been introduced to ensure that electrical/electronic products are recycled using the best available recovery techniques to minimize the impact on the environment. This product contains high quality materials and components which can be recycled. At the end of its life this product **MUST NOT** be mixed with other commercial waste for disposal. Check the terms and conditions of your supplier for disposal information.

## 3. Description of the Expansion Port



SDH expansion port can be fitted only to PORT2.

This expansion port is designed as an addition of router's board that allows v2 routers to use a SD card as a USB flash drive or as an internal memory that extends an existing capacity of the internal memory of your router.

In the event that the router is turned on, the SD card inserted into the SDH expansion port acts as an internal memory of the router (extends the existing memory). In the opposite case, i.e. the router is turned off and connected to PC by A-A type of USB cable, SD card acts as a USB flash drive. For this function the router can not be equipped with a jumper (for jumper position see figure below), otherwise this function will be blocked. Jumper is fitted to each one of produced boards as a standard.



Figure 1: Jumper position

### 3.1 Compatibility with Advantech B+B SmartWorx Routers

SDH expansion port can be used in all v2 routers with B-RB-v2-10 board or newer. It is also necessary to have the possibility to equip this board with PORT2. Therefore, it is intended for routers in a version known as FULL.

### 3.2 Technical Specifications

SDH expansion port		
Power supply	Internal	+3,3 V
Temperature	Operating temperature	-30 °C to +60 °C
	Storage temperature	-40 °C to +85 °C
Standards	Emission	EN 55022/B
	Immunity	ETS 300 342
	Safety	EN 60950
Supported technologies of SD cards		HS-SD, SDHC
Supported capacity of SD cards		up to 32 GB

Table 1: Technical specifications



**Attention!** For used SD cards it is necessary to distinguish industrial from commercial version. Industrial SD cards are usually marked with the word Industrial and are predetermined to demanding conditions. In practice, this means that industrial card can be used throughout the range of operating temperature of SD expansion port. Another advantage is increased resistance to falls and vibrations.

### 3.3 State Indication

LED diodes indication	
Green LED	Indicates that SDH expansion port is switched to the mode in which SD card extends the internal memory of the router
Yellow LED	Indicates that a file is loaded to SD card

Table 2: State indication

### 3.4 Delivery Identification

Trade name	Type name
SDH (HUB version)	XC-SD

Table 3: Product marking



Figure 2: Expansion port label



## 4. Recommended Literature

- [1] Advantech B+B SmartWorx: **Application Note – Expansion Port Mounting for v2 Routers (APP-0001-EN)**
- [2] Advantech B+B SmartWorx: **Configuration Manual – Cellular Industrial v2 Routers (MAN-0021-EN)**

## 5. Customers Support

### 5.1 Customer Support for NAM

Phone: +1-800-346-3119 (Monday – Friday, 7 a.m. to 5:30 p.m. CST)  
Fax: +1-815-433-5109  
E-mail: [support@advantech-bb.com](mailto:support@advantech-bb.com)  
Web: [www.advantech-bb.com](http://www.advantech-bb.com)

### 5.2 Customer Support for Europe

Phone: +353 91 792444  
Fax: +353 91 792445  
E-mail: [techSupport@advantech-bb.com](mailto:techSupport@advantech-bb.com)  
Web: [www.advantech-bb.com](http://www.advantech-bb.com)

### 5.3 Customer Support for Asia

Phone: +886-2-2792-7818 #1299 (Monday – Friday, 9 a.m. to 5:30 p.m. UTC+8)  
Fax: +886-2-2794-7327  
E-mail: [icg.support@advantech.com.tw](mailto:icg.support@advantech.com.tw)  
Web: [www.advantech.com](http://www.advantech.com)



#### Upkeep-advice:

- During cleaning of the router do not use aggressive chemicals, solvents and abrasive cleaners!

**CE** Hereby, Advantech B+B SmartWorx s.r.o. company declares that the router (radio equipment) with this expansion port installed is in compliance with EU Directive **2014/53/EU**. The router with this expansion port installed and no radio interface present is in compliance with EU Directives **2014/30/EU** and **2014/35/EU**.

The full text of the EU Declaration of Conformity of the corresponding router is available at the following internet address: [www.advantech-bb.cz/eudoc](http://www.advantech-bb.cz/eudoc)