Expansion Port Mounting

APPLICATION NOTE

Used Symbols

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

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

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

GPL License

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

techSupport@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 Czech 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 environmental impact. 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. Expansion Port Mounting

3.1   Plastic Enclosure

> **!**   **Attention!** Expansion port PORT1 and PORT2 can be connected only when the router is switched off.

At first, it is necessary to remove (snap out) front panel (position 5) and then take out the B-RB-v2 motherboard (position 1). The expansion port PORT1 (position 2) has to be connected to connector J8 (see the figure below) of the router motherboard (B-RB-v2, position 1) from TOP side. The expansion port PORT2 (position 3) has to be connected to connector J3 (see the figure below) of the router motherboard (B-RB-v2, position 1) from TOP side. Attach each expansion port to the B-RB-v2 board using three pieces of spacers (position 10). After mounting the expansion port, slide the router (motherboard with expansion ports) to the box and snap the front panel in.
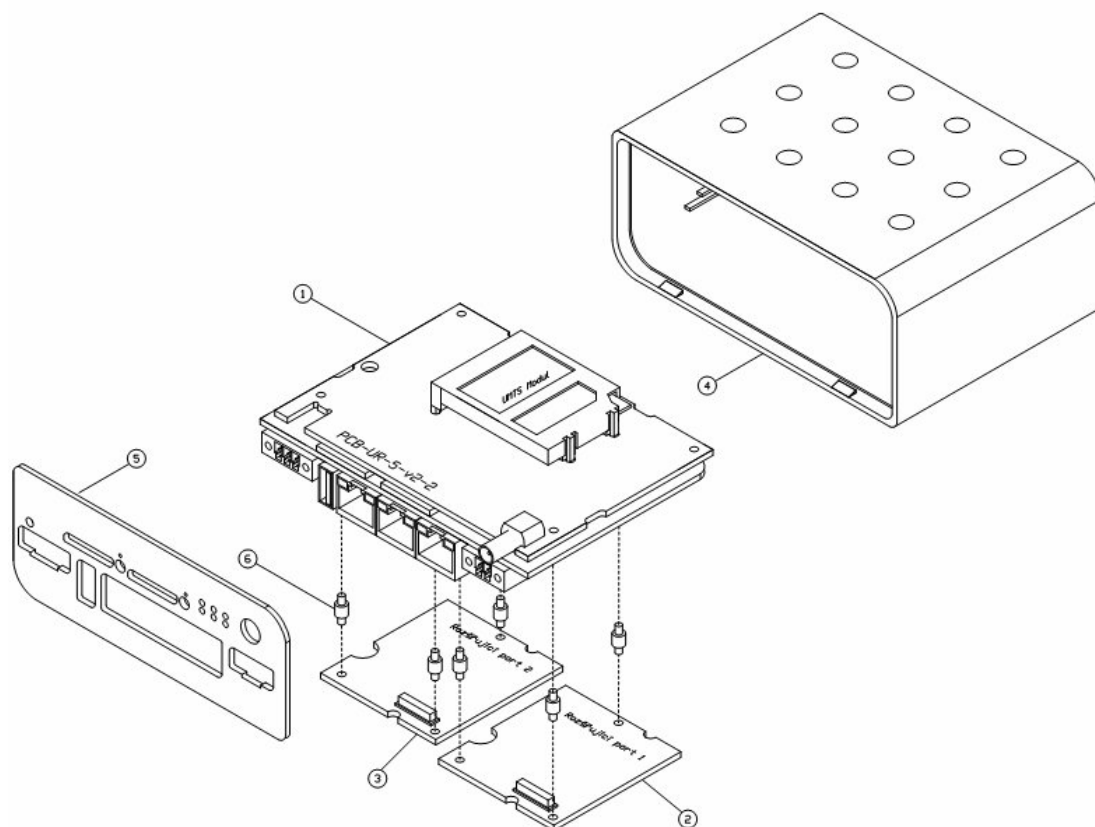
Figure 1: Router in plastic enclosure

Part	Description	Count
1	Router motherboard	1
2	Expansion port PORT 1	1
3	Expansion port PORT 2	1
4	Router box	1
5	Front panel of the router	1
6	Spacers for attaching the expansion port to the motherboard	6

Table 1: Part list for routers in plastic enclosure

3.2   Metal Enclosure

> **!**   **Attention!** Expansion port PORT1 and PORT2 can be connected only when the router is switched off.

Unscrew four screws (position 11) on the rear panel (position 6) and remove it. Then take out the B-RB-v2 motherboard (position 1). The expansion port PORT1 (position 2) has to be connected to connector J8 (see the figure below) of the router motherboard (B-RB-v2, position 1) from TOP side. The expansion port PORT2 (position 3) has to be connected to connector J3 (see the figure below) of the router motherboard (B-RB-v2, position 1) from TOP side. Attach each expansion port to the B-RB-v2 board using three pieces of spacers (position 10). After mounting the expansion port, slide the router (motherboard with expansion ports) to the enclosure, put the rear panel on the enclosure and screw it using four screws (position 11).
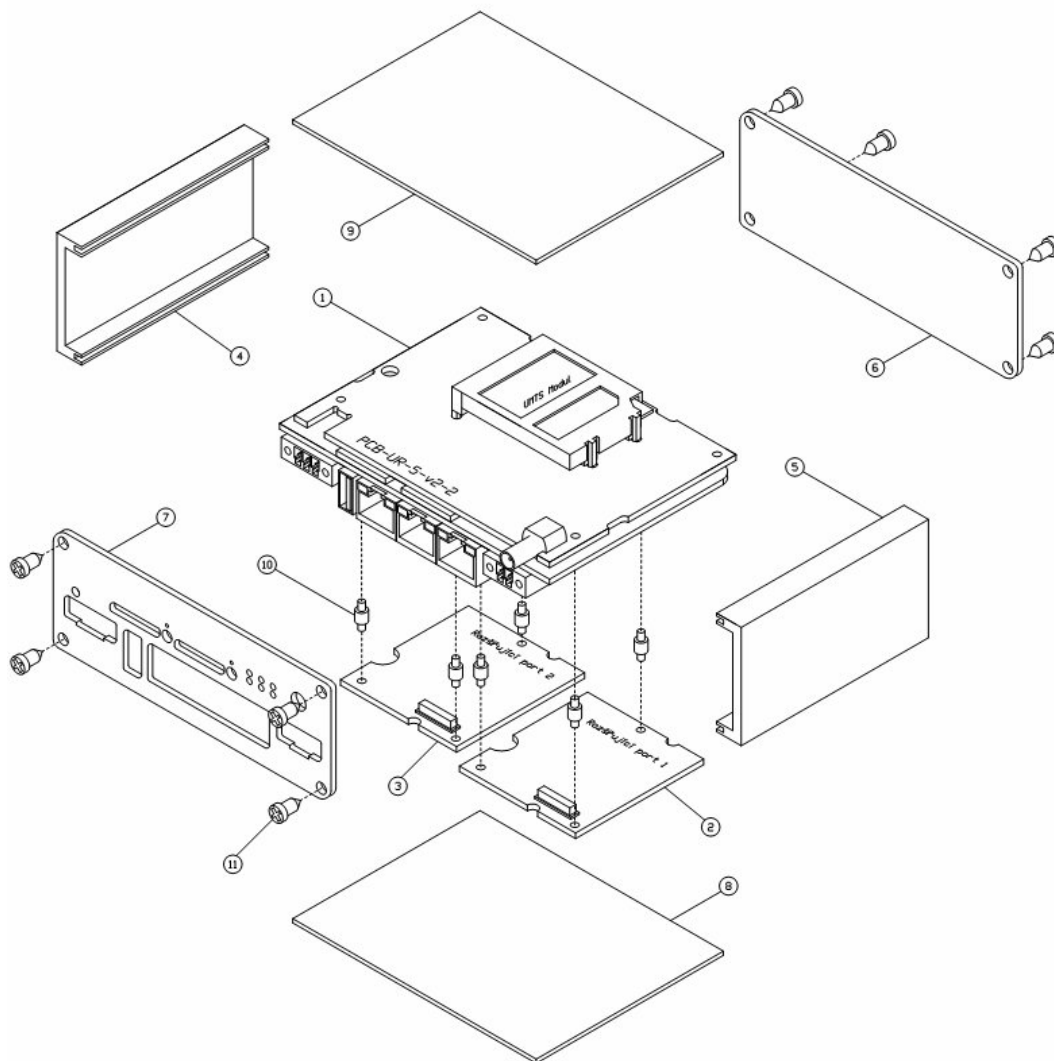

Figure 2: Router in metal enclosure

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Part	Description	Count
1	Router motherboard	1
2	Expansion port PORT 1	1
3	Expansion port PORT 2	1
4	Left sidewall	1
5	Right sidewall	1
6	Rear panel of the router	1
7	Front panel of the router	1
8	Bottom cover	1
9	Top cover	1
10	Spacers for attaching the expansion port to the motherboard	6
11	Screw for assembling the router enclosure	8

Table 2: Part list for routers in metal enclosure

4. Related Documents

[1]   Advantech Czech: **Configuration Manual – Cellular Industrial v2 Routers** (MAN-0021-EN)

[2]   Advantech Czech: **User guide – Expansion port RS232** (MAN-0020-EN)

[3]   Advantech Czech: **User guide – Expansion port RS485/422** (MAN-0025-EN)

[4]   Advantech Czech: **User guide – Expansion port ETH** (MAN-0027-EN)

[5]   Advantech Czech: **User guide – Expansion port CNT** (MAN-0028-EN)

[6]   Advantech Czech: **User guide – Expansion port MBUSD** (MAN-0030-EN)

[7]   Advantech Czech: **User guide – Expansion port SWITCH** (MAN-0029-EN)

[8]   Advantech Czech: **User guide – Expansion port WIFI** (MAN-0031-EN)

[9]   Advantech Czech: **User guide – Expansion port WMBUS** (MAN-0032-EN)

[10]   Advantech Czech: **User guide – Expansion port SDH** (MAN-0026-EN)

Product-related documents can be obtained on *Engineering Portal* at icr.advantech.cz address.