



### Smart and cost-effective hot-standby HW back-up for RipEX radio network critical sites

RipEX-HS is a brand new hot-standby solution for radio networks based on RipEX, the **most advanced** and **highest-performing radio modem** in its category, produced by the RACOM company.

The RipEX radio ( <http://www.racom.eu/eng/products/radio-modem-ripex.html> ) allows data transmission speeds up to **83 kbps** in the 25kHz channel, offers exceptional sensitivity (-98dBm/83kbps/25 kHz BER10e-6), supports Ethernet as well as serial interfaces and a wide range of SCADA protocols (Modbus, IEC101, DNP3, Comli, DF1, Profibus, IEC104, Modbus TCP and others).

**RipEX-HS is a result of continuous RACOM effort to deliver the most reliable radio networks.** It is designed to be used at **critical sites**, where HW reliability is essential – typically **master or repeater stations**.

**RipEX-HS is 19" rack 3U back-up chassis assembled with 2 standard RipEX units with identical configurations.** Both units are booted, however only one is active. When the active unit HW alarm output changes to "On" (when a controlled value exceeds the respective threshold), the sw-free controller automatically switches all interfaces (COM1, COM2, ETH, ANT) to the second unit, which takes over all functions. There is minimal **drop-out while switching, under 2s**. The triggers available are values for: RSS, DQ, TXLost[%] - lost packets on Radio channel, Ucc - power voltage, Inside temperature, RF power, VSWR, ETH[Rx/Tx], COM1[Rx/Tx], COM2[Rx/Tx].

Each radio in RipEX-HS is powered by an **independent power supply** which is designed to be connected to its own power phase. This makes RipEX-HS resistant to one-phase blackout and brings **additional stability in terms of device powering**. In terms of power, RipEX-HS is offered in 2 hardware options: 100-220 VAC 50-60 Hz, or 36-60 VDC. The AC powered option can be supplemented by RipEX-HSB, a back-up battery pack. It is a standalone 19" rack 3U box assembled with separate batteries for each RipEX unit. It allows approx. 10 hours of RipEX-HS operation.

RipEX-HS offers **4 operating modes** set by buttons on the front panel:

- Auto** - the primary active unit is RipEX "A", when it fails, the controller auto-switches over to RipEX "B"
- Auto toggle** - the same as Auto mode, in addition after a set time controller automatically switches over to RipEX "B", even if "A" doesn't have any alarm and uses "B" for a set period in order to confirm that RipEX "B" is fully operational.
- A or B** - only RipEX "A" (B) is active and controller will never switch to RipEX "B" (A)

RipEX-HS is maintained via a standard RipEX **web interface**. There are LED panels for each RipEX unit on the front panel plus 4 HW alarm outputs which inform about device status. RipEX-HS can be also integrated with standard **NMS** systems as it supports sending of **SNMP traps**, e.g. with each switch-over to/from the back-up unit.

All those features make RipEX-HS ( <http://www.racom.eu/eng/products/ripex-hot-standby.html> ) a **high utility and added value device for cost-effective network reliability enhancement**.

#### About RACOM

RACOM manufactures three main product lines: Radio Modems, GPRS/EDGE/UMTS/HSPA Routers and Microwave Links. RACOM has been on the market for over 20 years and is today one of the leading players in the global market of data transfer for SCADA & Telemetry applications and plays a significant role in setting development trends in this field. Thousands of RACOM radio and GPRS routers cover the world from the poles to the equator in dozens of countries. Further information can be found at [www.racom.eu](http://www.racom.eu).

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