TCN Gateway

The RGWM1000 equipment is a railway on-board gateway coupling to IEC 61375 and UIC 556 leaflet.
The RGWM1000 is enclose in a compact 3U sub-rack. Coupling two RGWM1000 units by means of the serial interface the Gateways act as a redundant TCN node. Traffic data, redundancies and all other features are programmable by XML files.

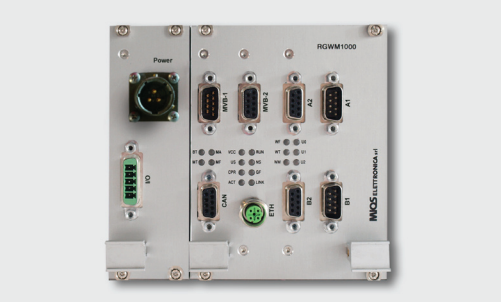
It consists of:

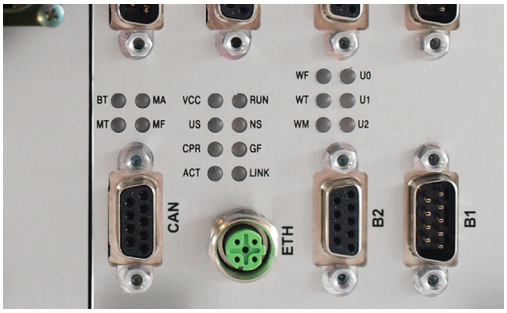
- a power supply with 2 digital inputs and 1 digital outputs;
- a Xilinx Zynq® SoC CPU core with built-in MVB and WTB controller and Ethernet interfaces;
- a MVB attachment unit;
- a WTB attachment unit with Fritting.

The RGWM1000 main tasks are:

- Exchange process data and message data on MVB and WTB buses (RTP stack protocol);
- Handling WTB network inauguration (WTB Link Layer);
- MVB management (Bus administrator);
- Process Data Marshaling (data import & export between WTB and MVB);
- Train Network Manager (Agent and Manager);
- Mapping Server 12 (UIC 556 4th Ed.).

Other special tasks (i.e. maintenance test, TCN protocol analyzer) can be managed via MVB or Ethernet.
RGWM1000 has been homologated by Italcertifer on March 2016.





MAIN STANDARDS COMPLIANCE

- EN 50155 - IEC 60571 - IEC 61375

ENVIRONMENTAL

- Nominal Power supply: 24 Vdc (37,5 Vdc, 72 Vdc and 110 Vdc are available)
- Power consumption: 10W
- Operating Temperature: According to Class TX EN 50155 IEC 60571
- Dimension (mm): 199 x 133 x 185
- Protection: IP20

SYSTEM FEATURES

- Microprocessor Xilinx Zynq® dual core ARM Cortex A9 + internal FPGA
- 512 MB DDR3
- 32 MB NOR Flash
- SD Card Up to 16 Gb (optional)

STANDARD CONNECTIVITY

- 1 Ethernet 10/100 Base-T (2nd optional)
- 1 WTB full redundant with fritting funcion
- 1 MVB bus full redundant EMD (ESD or OGF available on request)
- 1 isolated CAN bus
- 1 isolated RS232/485/422 (optional)
- 2 Digital Inputs
- 1 Digital Output