EMR-2
Compact Wan Router

Designed to provide layer 3 connectivity by using public wireless networks in order to:

- Safely integrate an existing remote IP network with an Intranet,
- Allow safe access to the devices connected to the router from and to the Internet,
- Integrate a remote device (host), independent or connected in a remote LAN, in an existing or new IP network, in a reliable manner.

Main applications
- Remote access to local networks or to Ethernet devices
- Back-up and Alternative Control links
- Mobile networks
- Safe access to remote data
- Video transmission
- Connections in remote locations
- Serial to IP encapsulation (depending on configuration)

✓ 1, 2, 4 or 6 Fast Ethernet ports
✓ Cellular 2G, 3G or 4G interface
✓ Optional RS-232/RS-485 port
Equipment interfaces
- 1 RS-232 or RJ-45 service console (DCE mode).
- 1, 2, 4 or 6 Fast Ethernet ports type 10/100Base-Tx with RJ-45 connector.
- 1 wireless WAN interface GSM/GPRS (2G), UMTS/HSDPA (3G) or LTE (4G), with 2 external SIM card slots.
- 1 optional port with RS-232/RS-485 interface (DCE).

Main facilities
Automatic port speed detection. Static routing information (configured by the user). Dynamic routing information (RIP & OSPF routing protocol). VRRP redundancy protocol. NAT rules. IPSec tunnels with DMVPN (Dynamic Multipoint VPN) support. NHRP (Next Hop Resolution Protocol), IP/IP (IP over IP) and GRE tunnels. VLANs management per port. The Fast Ethernet ports can have different IP addresses. Filtering. Stateful IP firewall. Assignment of Quality of Service, and layer 3/4 Quality of Service management. STP and RSTP for resolving loops in the network and operation in rings.

Management system
Local and remote management through a console (115200 bit/s) or a built-in web server (HTTP/HTTPS), SSH and Telnet server.

Additional services
- SNMP v1, v2c, v3.
- DHCP, NTP, TACACS+ and RADIUS.

Technical Information

| Mounting | DIN rail mounting.  
|          | Dimensions: Height: 67 mm; Width: 220 mm; Depth: 140 mm.  
|          | Weight: 750 g  
| Power supply | Multirange (38-310 V<sub>dc</sub>, 80-260 V<sub>ac</sub>).  
|          | Max. power consumption at 48 V<sub>dc</sub>: 5 W.  
|          | Max. power consumption at 230 V<sub>ac</sub>: 9 W.  

| Temperature | From -25°C to +70°C  
| Relative humidity | Not greater than 95%, in accordance with IEC 721-3-3 class 3K5 (climatogram 3K5)  
| Material | Grey (RAL 7024) Lexan 920 fire-resistant (UL 94 V0) plastic  
| EMI immunity & environment compliance | IEC 61850-3.  
|          | IEC 61000-6-5.  

| WAN interface characteristics |  
| GPRS (2G) | Quad band: 850/900/1800/1900MHz.  
|          | Class 4 (+33dBm±2dB) for EGSM850  
|          | Class 4 (+33dBm±2dB) for EGSM900  
|          | Class 1 (+30dBm±2dB) for GSM1800  
|          | Class 1 (+30dBm±2dB) for GSM1900  
| UMTS (3G) | UMTS/HSPA+: Dual band, 900/2100MHz.  
|          | GSM/GPRS/EDGE: Dual band, 900/1800MHz.  
|          | Class 4 (+33dBm±2dB) for EGSM900  
|          | Class 4 (+33dBm±2dB) for EGSM1800  
|          | Class E2 (+27dBm±3dB) for GSM 900 8-PSK  
|          | Class E2 (+26dBm+3/-4dB) for GSM 1800 8-PSK  
|          | Class 3 (+24dBm+1/-3dB) for UMTS 2100, WCDMA FDD Bdl  
|          | Class 3 (+24dBm+1/-3dB) for UMTS 900, WCDMA FDD BdvIII  
| LTE (4G) | LTE: 800/900/1800/2100/2600MHz.  
|          | LTE data up to 100 Mbit/s (downlink) and 50 Mbit/s (uplink).  
|          | Tri-band UMTS: 900/1800/2100MHz.  
|          | GSM/GPRS/EDGE: Dual band, 900/1800/1900MHz.  
| Encapsulation protocols (encapsulation model only) | IEC 60870-5 101/102/103 (the first two with the variants to support link addresses of 1 or 2 bytes).  
|          | DLMS, GESTEL, MODBUS, DNP 3.0, SAP20, PROCOME, Pid1, Twc.  
| Asynchronous serial data port (encapsulation model only) | Data bits: 5, 6, 7 or 8.  
|          | Stop bits: 1 or 2.  
|          | Parity: odd, even or none.  
|          | Speed: 600 bit/s to 115200 bit/s.  
|          | Flow control: none, hardware or software.  
|          | Interface: V.24/V.28 of the ITU-T (EIA RS-232C) or RS-485 (2-wire or 4-wire).