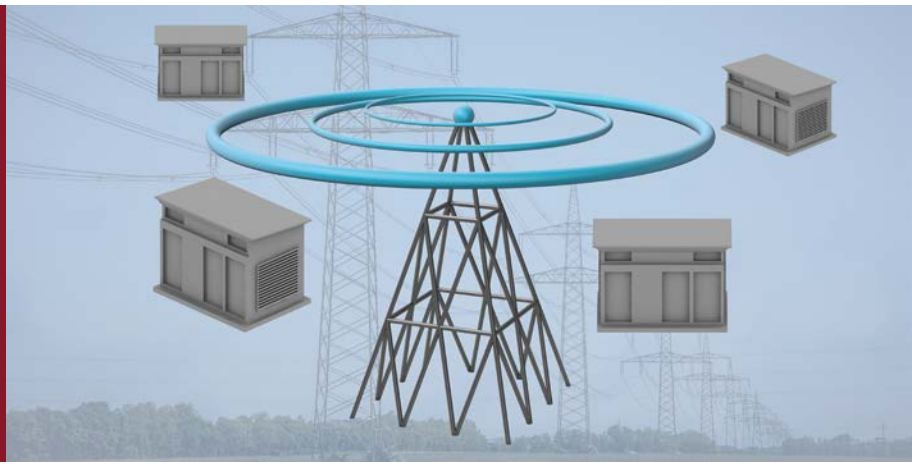
EMR-2

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.**

- ✓ **1, 2, 4 or 6 Fast Ethernet ports**
- ✓ **Cellular 2G, 3G or 4G interface**
- ✓ **Optional RS-232/RS-485 port**

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)

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). IPIP (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_{DC}, 80-260 V_{AC}). ➢ Max. power consumption at 48 V_{DC}: 5 W. ➢ Max. power consumption at 230 V_{AC}: 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 1 (+30dBm±2dB) for GSM1800 ➢ 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 BdI ➢ 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, 900/1800MHz.
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).

ZIV continually strives to improve products and services. The technical information included in this document is subject to change without prior notice.

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