

Benefits:

- Wireless router for industrial Ethernet networks
- Cost-effective billing based on data volume (GPRS/EDGE*)
- High security through IPsec encryption, VPN tunnel and firewall
- Complete use of EDGE* bandwidth max. 236.8 kbps (down-/uplink)
- Real-time data through "Always Online" without fixed IP-Address
- High flexibility regarding installation locations
- Quad Band GSM enables worldwide use
- High connection availability and stability
- Display of GPRS network, signal strength and connection via LEDs

Key Features:

- GPRS/EDGE* modem with integrated VPN-Router (IPsec) and firewall
- Bidirectional GPRS/EDGE*-communication
- Ethernet interface to application
- Intelligent connection monitoring
- Integrated DHCP server
- Optimized for top hat rail mounting
- Switching output to signal VPN connection
- Large input voltage range (nominal 12...60 VDC, Peak 72 VDC)
- Large temperature range (-20 °C...+60 °C)
- Configuration via integrated web server – local and remote



The TAINY EMOD-V2-IO from Dr. Neuhaus Telekommunikation combines a GPRS/EDGE* wireless modem, a VPN (Virtual Private Network) router and a firewall in a single device. As a result, it is possible to transport highly sensitive data wirelessly and securely via the GSM network.

The integrated firewall provides extensive additional protection for the application against unauthorized access – resulting in a perfect combination of security and flexibility.

Intelligent communications management guarantees the stability and availability of the connection.

Thanks to the compact plastic housing in standard design it is optimized for top hat rail mounting in control cabinets.

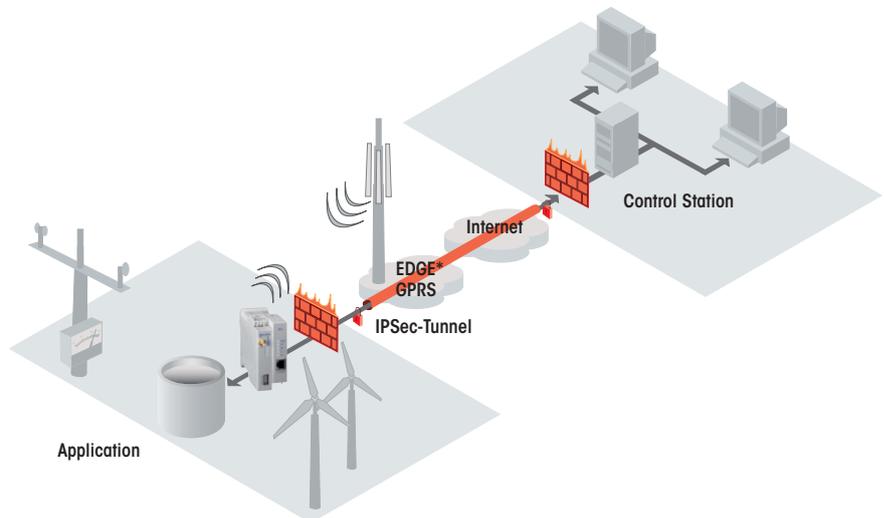
*EDGE: Enhanced Data Rates for GSM Evolution is a digital GSM technology that allows increased data transmission rates by implement new modulation and coding schemes. EDGE enables as enhancement of GPRS up to 5 times faster data transmission rates.



System Components

- Device: TAINY EMOD-V2-IO
- Antenna
- Power supply
- SIM card with data option
- VPN compliant remote station

Topology



Technical Data

INTERFACE

Application Interface	10/100 base-T (RJ45 jack), Ethernet IEEE802; 10/100 Mbps; Auto Cross Over
Service Interface	„Service“ USB-A
Power Supply	Device input voltage: nominal 12-60 VDC, min. -10%, max +20%; I _{in} 365 - 92 mA; I _{Burst} 1,26 A at full transmitter power (Power Level 10) with continuous data transfer; I _{in} 174 - 59 mA at Idle-Mode (connection establish, but non data traffic); burst repeat rate 4,62 ms; power consumption (typical): 4,4 W @ 12 V, 4,0 W @ 24 V, 5,5 W @ 60 V
Signal input/output	Input: switching voltage 5..30VDC, potential-free; Output: U _{max} 30 VDC, I _{max} 20 mA, potential-free

FUNCTIONALITY

Virtual Private Network	Protocol: IPSec (tunnel and transport mode); encryption: 3DES, AES, DES; paket authentication: MD5, SHA-1; Internet Key Exchange (IKE), authentication: Pre-Shared Key (PSK), X.509v3 certificates; NAT-T, DynDNS, Dead Peer Detection (DPD)
Firewall	Stateful packet inspection firewall; anti-spoofing; NAT (IP masquerading); port forwarding
Other	DNS cache; DHCP server; NTP; remote logging
Management	Web-based administration, https or SSH remote access via EDGE/GPRS or CSD

RADIO

Connection	EDGE* (EGPRS): class 12, up to 4 uplinks / up to 4 downlinks, max. 5 Slots; modulations and coding process: MCS-1 to 9; Mobile station class B; GPRS: class 12, up to 4 uplinks / up to 4 downlinks, max. 5 Slots; coding process: CS-1, CS-2, CS-3, CS-4; Mobile station class B; Full PBCCH support; CSD / MTC: V.110, RLP, non-transparent 2,4, 4,8, 9,6, 14,4 kbps; SMS (TX): Point-to-point MO
Transmitting Power	Quad band; GSM 850 MHz: max. 2 watts, GSM 900 MHz: max. 2 watts, DCS 1800 MHz: max. 1 watt, PCS 1900 MHz: max. 1 watt;
Antenna Port	Nominal impedance: 50 ohms; connector: SMA (female)

APPROVALS

Environmental Conditions	Operation -20 °C to +60 °C; humidity 0-95 %, non-condensing
Approvals	CE; R&TTE (GSM); GSM/GPRS module with GCF certification, PTCRB; EMV/ESD: EN 55024; EN 55022 Class A; EN 61000-6-2; Electrical safety: EN 60950

MECHANIC

Mechanics	Top hat rail mounting; housing: plastic; protection class: IP20; dimensions: approx. 114.5 x 45 x 99 mm (D x W x H); weight: approx. 280g
------------------	---

MISCELLANEOUS

Accessories	Various antennas, power supply, adapter
Scope of Delivery	Device; CD with user manual; Cross-Over network cable
Order Number	TAINY EMOD-V2-IO, part no.: 317302

Subject to technical modification. All data are based on manufacturer's specifications. No guarantee or liability for incorrect entries or omissions. All deliveries and services are provided by Dr. Neuhaus Telekommunikation GmbH on the basis of the "General Terms and Conditions" in the current version. All product names are trademarks of their respective owners. Dr. Neuhaus Telekommunikation GmbH 06/2010, Doc.-No.: 3173AQ011 Rev. 1.2

