TAINY HMOD-V2-IO

Secure connection of wireless M2M applications on your IP network

Benefits:

- Wireless router for industrial Ethernet networks
- Cost effective billing data volume (GPRS/EDGE/UMTS/HSDPA*)
- High security through IPsec encryption, VPN tunnel and firewall
- High-speed UMTS/HSDPA* max. bandwidth 3.6 MBit/s / 384KBit/s (DL/UL)
- Real-time data through "Always Online" without fixed IP-Adress
- High flexibility regarding installation locations
- Quad Band GSM enables worldwide use
- High connection availability and stability
- Display of network, signal strength and connection via LEDs

Key Features:

- GPRS/EDGE/UMTS/HSDPA* modem with integrated VPN router (IPsec) and firewall
- Bi-directional GPRS/EDGE/UMTS/HSDPA* communication
- Ethernet interface to application
- Intelligent connection monitoring
- Integrated DHCP server
- 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 to +60 °C)
- Configuration via integrated web server – local and remote

The TAINY HMOD-V2-IO from Dr. Neuhaus Telekommunikation combines GPRS/EDGE/UMTS/HSDPA* radio modem, VPN (Virtual Private Network) router and Firewall in a single device. As a result, it is possible to transport highly sensitive data wirelessly and securely via 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 communication management guarantees the stability and high availability of the connection. This provides an uncomplicated way of incorporating remote stations in an IP network.

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 refers to a technology for increasing the data transfer rate in GSM mobile radio networks by introducing an additional modulation procedure. EDGE enables further GPRS enhancement to speed up data transfer by one to five times.

HSDPA: High Speed Downlink Packet Access is a UMTS mobile radio standard transfer method. The method enables DSL-like transfer speeds on a mobile radio network, thus enabling mobile transfer of large data volumes.

Dr. Neuhaus

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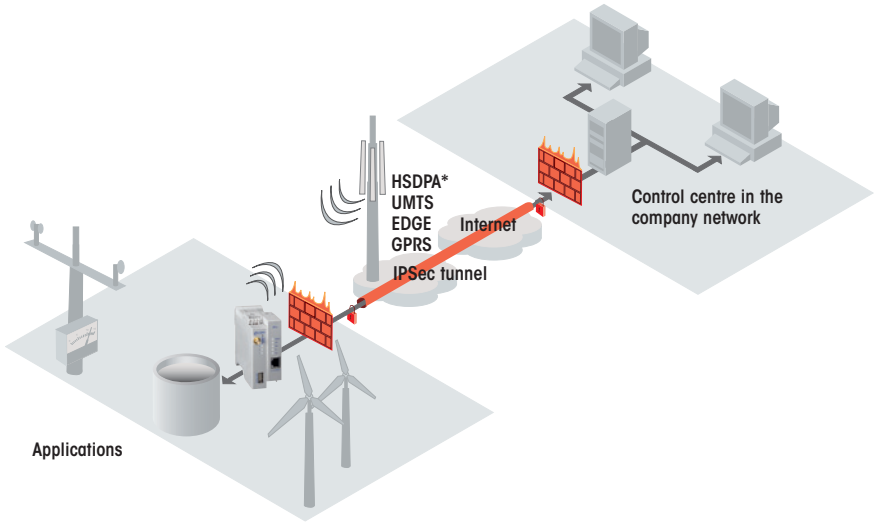
System components

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

Topology



Technical data

INTERFACE	
Application Interface	10/100 Base-T (RJ45 port); Ethernet IEEE802; 10/100 Mbit/s; auto crossover
Service Interface	"Service" USB-A
Power Supply	Device input voltage: nominal 12-60 VDC, min. -10 %, max +20 %; IIn 365 - 92mA; IBurst 1.26A at full transmission power (power level 10) with continuous data transfer; IIn 174 - 59mA in idle mode (connection is present, but no data communication); burst repetition rate 4.62ms; 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..30 VDC, potential-free; Output: U_{max} 30 VDC, I_{max} 20 mA, potential-free
FUNCTIONALITY	
Virtual Private Network	Protocol: IPSec (tunnel und transport mode); encryption: 3DES, AES, DES; packet authentification: MD5, SHA-1; Internet Key Exchange (IKE), authentification: Pre-Shared Key (PSK), X.509v3 certificates; NAT-T, DynDNS, Dead Peer Detection (DPD)
Firewall	Stateful inspection firewall; anti-spoofing; NAT (IP masquerading); port forwarding
Others	DNS cache; DHCP server; NTP; remote logging
Management	Web-based administration, remote access via EDGE/GPRS/HSDPA* via https or SSH
RADIO	
Connection	HSDPA*: up to 3.6 MBit/s download / up to 384 KBit/s upload; UE CAT [1-6], 11, 12 supported; UMTS: up to 384 KBit/s download & upload EDGE* (EGPRS): Class 10; up to 237 KBit/s download / up to 118 KBit/s upload; modulation and encoding method: MCS-1 though 9; mobile station class B; GPRS: Class 10; up to 85.6 KBit/s download / up to 42.8 KBit/s upload; encoding method: CS 1-4; mobile station class B; full PBCCH support;
Transmitting Power	Quadband GSM 850/ 900/1800/1900 MHz; Tri-Band UMTS/HSDPA (WCDMA/FDD) 850/1900/2100 MHz
Antenna Port	Nominal impedance: 50 Ohm; jack: SMA
APPROVALS	
Environmental Conditions	Operation -20 °C to +60 °C; air humidity 0-95 %, non-condensing
Approval	CE; R&TTE (GSM); GSM/GPRS module with GCF approval, 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 type/class: IP20; Dimensions: approx. 114.5 x 45 x 99 mm (L x W x H); height: approx. 280 g;
MISCELLANEOUS	
Accessories	Various antennas; power supply, adapter
Scope of Delivery	Device, CD with user manual, crossover network cable
Order Number	TAINY HMOD-V2-IO, part no.: 318316

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