

Benefits:

- Wireless router for industrial Ethernet networks
- Cost-effective billing based on data volume (GPRS/EDGE/UMTS/ HSPA+*)
- Security through firewall and packet filter
- Highspeed UMTS/HSPA+* max. bandwidth 14,4 Mbit/s / 5,76 Mbit/s (DL/UL)
- Real-time data through "Always Online"
- Quad Band GSM enables worldwide use via GSM, GPRS, EDGE and Five-band UMTS/HSPA+*
- High connection availability and stability
- Display of network, signal strength and connection via LEDs
- Easy installation and mounting

Key Features:

- GPRS/EDGE/UMTS/HSPA+* router with firewall and DynDNS Client
- Bi-directional GPRS/EDGE/UMTS/HSPA+* communication
- 2 Ethernet interfaces to application
- Intelligent connection monitoring
- Integrated DHCP server
- Optimized for top-hat-rail mounting
- Large input voltage range (12...60 VDC, Peak 72 VDC)
- Large temperature range (-40 °C...+70 °C)
- Configuration via integrated web server – local and remote
- Sending of alert SMS and SNMP traps
- Antenna diversity for HSPA+*



The TAINY HMOD-L3-IO from Dr. Neuhaus Telekommunikation is a GPRS/EDGE/UMTS/HSPA+* wireless router to access the Internet or a private 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 supervision guarantees the stability and availability of the connection. This way remote stations are easily integrated in IP networks.

The device can be configured locally or remotely via a Web interface. In addition, the TAINY EMOD router can be easily managed by a central management solution via SNMP functions. An integrated SNMP trap agent enables the device to send its status information to a central location.

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

To ensure that even with fluctuating conditions, the best wireless 3G network, supports the TAINY HMOD-L3-IO to connect a second antenna.

*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.

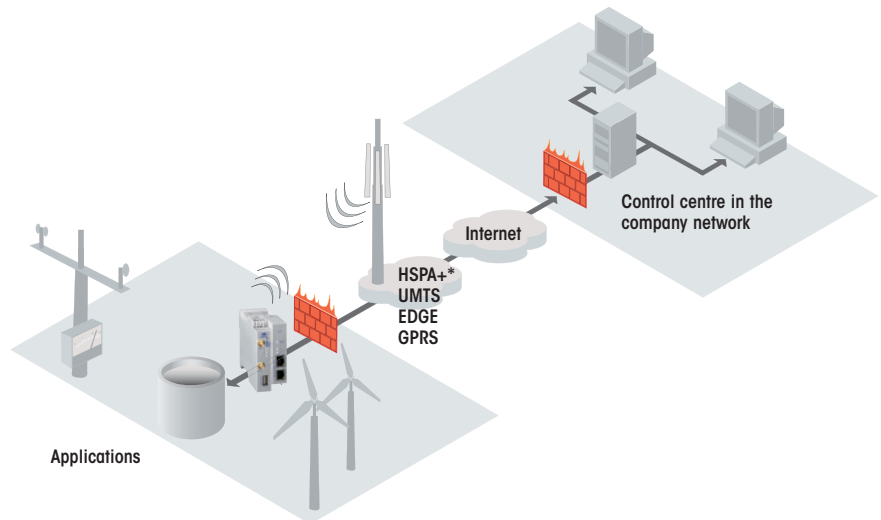
*HSPA+: High Speed Downlink Packet Access is a UMTS mobile radio standard transfer method. The method enables DSL-like transfer speeds on a mobile radio network, thus enabling mobile transfer of large data volumes.



System components

- Device: TAINY HMOD-L3-IO
- 1 x Antenna, optionally a second for increased data throughput
- Power supply
- SIM carte with data option

Topology



Technical data

INTERFACE

Application Interface	2x 10/100 base-T (RJ45-jack); Ethernet IEEE802; 10/100 Mbit/s; Auto Cross Over, 2 port switch
Service Interface	„Service“ USB-A
Power Supply	Device input voltage: nominal 12-60 VDC; min. -10%, max +20%; power consumption Idle mode: lin 180 - 60 mA (connection establish, but non data traffic); power consumption GPRS operation (typical): 5,1 w/420 mA @ 24 V, 6,6 w/110 mA @ 60 V; burst 1A at full transmitter power with continuous data transfer; burst rep rate 4,62 ms; power consumption HSPA+ operation (typical): 6 w/500 mA @ 12 V, 6 w/250 mA @ 24 V, 7,2 w /120 mA @ 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

Firewall	Stateful inspection firewall; anti-spoofing; NAT (IP masquerading); port forwarding
Extras	DNS cache; DHCP server; NTP; remote logging; Alarm SMS, SNMP Trap; SMS from application: 1:1 NAT
Management	Web-based administration, https or SSH remote access via EDGE/GPRS/HSPA+*; SNMP; automatic management via SSH

RADIO

Connection	HSPA+*: up to 14,4 Mbit/s download / up to 5,76 Mbit/s upload; UMTS: up to 384 kbit/s download and upload; EDGE*: Class 12, up to 237kbit/s download and upload; GPRS: class 12, up to 85,6 kbit/s download and upload
Transmitting Power	Quad band; GSM 850/900/1800/1900 MHz; fiveband UMTS/HSPA+* (WCDMA/FDD 800/850/900/1900/2100 MHz)
Antenna Port	Nominal impedance: 50 ohms; connector: 2x SMA for diversity antenna (Operation with antenna is possible)

APPROVALS

Environmental Conditions	Operation -40 °C to +70 °C; humidity 0-95 %, non-condensing
Approval	CE; R&TTE (GSM); GSM/GPRS module with GCF-certification, PTCRB; EMV/ESD: EN 55024, EN 55022 Klasse 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. 280 g;
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MISCELLANEOUS

Accessories	various antennas; power supply; adapter, Cross-Over network cable
Scope of Delivery	Device, CD with user manual
Order Number	TAINY HMOD-L3-IO, part no.: 319603

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