TAINY iQ-4GDSE2

Secure connection of wireless M2M applications to your IP network

Benefits:

- Flexible high-speed internet access without wired installation
- High-security thanks to IPsec-encrypted Dynamic Multipoint VPN connections with extended firewall functions
- Downlink up to 50 Mbps, Uplink up to 25 Mbps
- Redundancy of network providers thanks to two SIM card slots
- Convenient configuration via web-interface
- Rights management for role-based access control with TACACS+ support
- Standardized integration into a network management system using SNMPv3
- Signaling of radio status, signal strength and connections via LEDs
- Flexible reaction to operational events (e.g. alarms, input-signals)

Key Features:

- VPN router for fail-safe data transfer via public radio networks
- VPN supports certificates and SCEP
- Penta-Band LTE, Triple-Band UMTS/HSPA, Dual-Band GSM/GPRS/EDGE
- 1 Ethernet port to application, 1 Ethernet port to WAN
- Intelligent connection monitoring
- Dynamic Multipoint VPN, GRE, NHRP, IPsec, Firewall
- Integrated DHCP-server, DNS cache, NTP and SNMPv3
- Top-Hat Rail mounting
- Large input voltage range (12 – 60 V_{DC})

The TAINY iQ-4GDSE2 from Sagemcom Dr. Neuhaus GmbH combines LTE (4G) mobile radio modem, a VPN (Virtual Private Network) router and a firewall in a single device. It offers secure transfers of highly sensitive data by encrypted end-to-end connections.

The external communication can be carried out either by wireless mobile radio connection (LTE, HSPA, …) or by wired WAN connection (LAN). These interfaces work redundant. It's easily possible to realize a failsafe WAN connection thanks to configurable reactions on connection losses (e.g. change from wired WAN to mobile radio).

The integrated firewall protects the applications against unauthorized access – resulting in a optimal combination of flexibility and security. Responsible for stability and high availability is the intelligent communication management. This provides an uncomplicated way of incorporating remote stations into your own network.

Thanks to Dynamic Multipoint VPN secure data exchange between the devices without the need to redirect it through the control center is possible. The VPN connections can be used redundantly and can be managed over a PKI due to certificate- and SCEP-support.

Dr. Neuhaus

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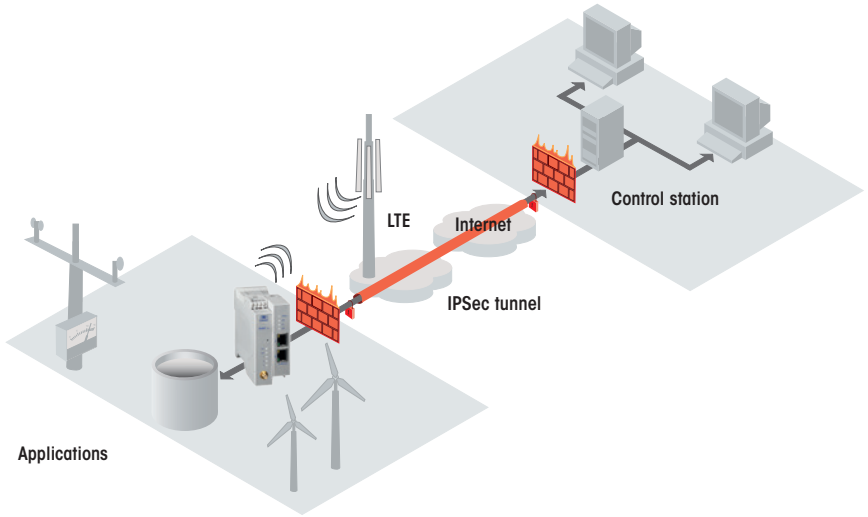
System components

- Device: TAINY iQ
- Antenna
- Power Supply
- SIM-card with data option
- VPN compliant remote station

Topology



Technical data

INTERFACE	
Application Interface	1x 10/100 base-T (RJ45-socekt); Ethernet IEEE802; 10/100 Mbit/s; Auto Cross Over
WAN Interface	1x 10/100 base-T (RJ45-socket); Ethernet IEEE802; 10/100 Mbit/s; Auto Cross Over (optional configurable as application interface)
Signal input/output	Input: switching voltage 5..30 V_{DC} potential-free; Output: U_{Max} 30V_{DC}, I_{Max} 20 mA, potential-free
Power Supply	$U_{nominal}$ = 12 – 42 V_{DC} (up to 60 V_{DC} if finger-protected by cabinet or cover); I_{rms} = 550 – 165 mA, I_{max} = 630 mA
FUNCTIONALITY	
VPN	Dynamic Multipoint VPN incl. certificate support; protocols: GRE, NHRP, SCEP, IPsec (3-DES; AES with 128; 192; 256 Bit), MD5, SHA1; Pre-Shared Key (PSK); NAT-T; Dead Peer Detection (DPD); IKE with main and agressive mode
Firewall	Stateful Inspection Firewall, Anti-Spoofing, NAT, Port forwarding
Configuration	Web-based Administration, SNMPv3 interface, multiple WAN configurations, multiple storable profiles
User management	user authentication by username/password or TACACS+, configurable user rights
Miscellaneous	DNS cache, DHCP server, RIPv2, VRRP, DynDNS, logbook, snapshot, firmware upgrade (local, remote), configurable reactions to operational events
RADIO	
Connection	LTE $DL_{max.}$ 50 Mbps, $UL_{max.}$ 25 Mbps; HSPA+ DL Cat.14 / UL Cat.6, Dual Carrier, $DL_{max.}$ 21.1 Mbps, $UL_{max.}$ 5.76 Mbps; EDGE class 12 / $DL_{max.}$ 237 kbps, $UL_{max.}$ 237 kbps; GPRS class 12 / $DL_{max.}$ 85.6 kbps, $UL_{max.}$ 85.6 kbps
Transmitting Power	Dual-Band GSM 900 (2 W) /1800 MHz (1 W); Triple-Band UMTS/HSPA+ (WCDMA/FDD) 900/1800/2100 MHz (0,25 W); Penta-Band LTE 800/900/1800/2100/2600 MHz (0.2 W); FDD-Band (20,8,3,7,1) (0.2 W)
Antenna Port	Impedance nominal : 50 ohm; 1x SMA socket
SIM-Card Slots	2 SIM-Card Slots for Mini-SIM (UICC; Format ID-000); 1.8 V or 3 V
APPROVALS	
Environmental Conditions	operational temperature: -25 °C to +70 °C *); storage temperature: -40 °C to +85 °C; humidity: 0-95 %, not condensing *) automatic shutdown of the radio module in case of reaching a critical temperature
Approval	R&TTE directive (1999/5/EG), ROHS directive EN 50581 (2011/65/EU), Class III, ETSI EN 301 908-01, ETSI EN 301 908-02, EN 301 908-13, ETSI EN 301 511, EN 301 489-1, ETSI EN 301 489-7, ETSI EN 301 489-24, EN 55022, EN 61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-10, -4-13, -4-18, -4-11, -4-29, EN 61000-6-2, EN 61000-6-3, EN 60950-1, EN 62479
MECHANIC	
Mechanics	top hat rail mounting; enclosure: plastic; protection class: IP30; dimensions: approx. 114.5 x 45 x 99 mm (D x W x H); weight: approx. 280 g
MISCELLANEOUS	
Accessories	power supply; various antennas; cross-over ethernet cable
Scope of Delivery	device
Order Number	TAINY iQ-4GDSE2, part no.: 320159

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