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PRODUCT INFORMATION

TOUGHLINK 2501

Technical Specifications	
Enclosure format	2-DIN
Dimensions (WxHxD)	178 x 97 x 316 mm 7.01 x 3.82 x 12.44 in
Weight (ca.)	3,8 kg 8.4 lb
Power rating	12 VDC, 5A max PoE+-able
Power supply	External power supply, 100–240 VAC, 50–60 Hz
Operating temperature	-30° – +70° C -22° – 158° F
Power supply cooling	Passive
Humidity	10 – 90 % (non-condensing) only with additional housing
LAN Interface	GBit Ethernet
WAN Interface	1x GBit Ethernet und 4x 4.5G LTE-A Europe/Americas pre-installed
WLAN Access point	2x 2.4 & 5 GHz Dual Band 802.11a/b/g/n 3x3 MIMO
GPS	L1 band with 1.57 GHz
Bonding capacity	150 Mbps
SIM card holders	2 slots per mobile data interface (Dual SIM)
Maximum power consumption	60 Watt
Typical power consumption	20 Watt
Recommended number of users in LAN	75

With Toughlink, Viprinet offers a new router platform that can cope with even the most extreme demands. Up to five broadband connections can be bonded to form a highly available connection. The extraordinarily robust housing enables mobile and stationary missions from the Sahara to the North Pole.

Toughlink offers a constantly updated range of standard configurations. However, it is also possible to have the routers configured individually for each customer. An optional additional housing cover makes the device waterproof. The Toughlink platform is more than just a router: In addition to the actual router firmware, certain editions will be able to run their own applications as virtual machines in parallel.

Toughlink model 2501 is equipped with four LTE modems that are optimally aligned to the frequency bands of Europe and America. The GPS function enables the current location of the router in the administration tool to be read out at any time, which is essential for efficient fleet or fleet management.

The device is easy to handle. SIM cards can be changed very easily during operation, and the SIM card holders are designed as dual SIMs: Two SIM cards can be provided for each interface, between which the modem switches automatically. This simplifies cross-border use of the device, as it can be equipped with SIM cards from different mobile network operators even before the start of the journey to ensure fail-safe connectivity even across national borders. The device is therefore particularly suitable for use on the road and for all scenarios in which Internet must be quickly available, e. g. events or building site connectivity.

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A Gigabit Ethernet interface provides the aggregated bandwidth to the LAN. At the same time, the two integrated WLAN access points with 2.4 or 5 GHz provide the available bandwidth without cables. Using the LAN interface, Toughlink can be supplied with power via PoE+. Therefore, if the device is mounted outside a building or vehicle, it only requires one single (Ethernet) cable to supply the interior.

All antenna connections are equipped with FAKRA connectors. These plugs allow simple "plug & play", but are also self-closing and strain-relieved at the same time. With that, antennas can be installed or removed within seconds. In addition, the connectors enable optimal permanent installation.

Frequency Bands

- LTE-FDD Band 1/2/3/4/5/7/12/13/20/25/26/29/30 (2100/1900/1800/1700/850/2600/700ac/700c/ 800DD/1900/US 850/US 700de/2300 MHz)
- LTE-TDD Band 41 (2500 MHz)
- HSPA+/UMTS Band 1/2/3/4/5/8 (2100/1900/1800/1700/850/900 MHz)
- GPS: L1 Band with 1.57 GHz

Connectors

- 8x FAKRA connector for LTE / MIMO
- 6x FAKRA connector for WLAN AP
- 1x FAKRA connector for GPS

Features

- Real bonding of all connection bandwidths
- Quality of Service / traffic shaping
- Monitoring (graphical and remote-syslog)
- Traffic accounting via external server

Delivery Content

- 1x Toughlink 2501
- 1x Power supply unit
- 1x Power cable
- 1x Manual
- 1x CD with software
- Antennas according to order

ACCESSORIES

Antenna Solutions

- LTE/UMTS MIMO Dual Omni Panel Antenna
- LTE/UMTS Car Antenna
- LTE/UMTS Bumper Mount Antenna

Optional Additional Licenses

- Extended SNMP Monitoring
- Streaming Optimization
- Node Stacking
- Enterprise Node Features