TK500-v3 Series

LTE-Wi-Fi Router

DIN Rail Industrial Router
TK500-v3 Series

Robust industrial router designed for demanding environments, providing reliable connectivity and integrated cybersecurity features. Five Ethernet Ports, RS-232, RS-485 DIN-Rail mounting and 9 to 36 V DC power supply Integrated Firewall, OpenVPN and IPsec Very compact and rugged housing Fully integrated with Welotec Smart EMS and VPN Security Suite 5 year warranty

4G/LTE support

Optional 4G/LTE ensures fast data rates and optimal network coverage.

Device Management

Easy rollout of VPN configurations and certificates to connected Welotec devices (incl. Docker Container).

Secure E2E connection

Integrated with Welotec VPN Security Suite for easy setup of scalable VPN infrastructures.

Compact housing

High computing power in a small package.

Cyber Security

BSI-compliant encryption and unique device identification (e.g. via serial number or IMSI).

DIN-Rail mounting

Designed to be used in switching cabinets with DIN-Rail mounting.

Technical Details

Ethernet Characteristics

Ethernet	5 * 10/100 Mbps isolated Fast Ethernet RJ45 ports (1 WAN Port, 4 LAN ports with VLAN capabilities)

Other Interfaces

Serial Interface	1 x RS232, 1 x RS485

Mechanical and Environmental

Dimensions (W x H x D)	127 x 108.2 x 35mm
Weight	460g
Protection	IP30
Housing	Metal
Storage Temperature	-40 up to 85°C
Operating Temperature	-20 up to 70°C
Humidity	5 to 95% (non-condensing)

Power Characteristics

Voltage	9 … 36 VDC – over-current protection + reverse polarity protection
Standby Power	120mA-200mA@12V
Working Power	150mA-320mA@12V

Peak Power	320mA@12V

EMC Characteristics

Static	EN61000-4-2, level 3
Radiation Electric Field	EN61000-4-3, level 3
Pulsed Electric Field	EN61000-4-4, level 3
Surge	EN61000-4-5, level 3
Conducted Disturbance Immunity	EN61000-4-6, level 3
Shock Wave Resistance	EN61000-4-12, level 3
Power Frequency Magnetic Field Resistance	EN61000-4-8, horizontal / vertical 400A/m (>level 2)

Physical Characteristics

Shockproof	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration Resistance	IEC60068-2-6

Firmware Characteristics

Firewall	Stateful Packet Inspection, Access Control List, URL Filter
VPN	IPSec (IKEv1 + IKEv2), OpenVPN, WireGuard, ZeroTier
Stability	Watchdogs for Connectivity and Malfunction Recovery, Dual-SIM failover, Link Backup

Device Management	Fully Compatible with SMART EMS - OTA Firmware and Configuration Updates
Remote Access	Fully Compatible with VPN Security Suite for automated setup of distributed VPN infrastructures
Configuration	Configuration via Smart EMS, WebUI, SSH and serial console
Monitoring	SNMP v1/v2/v3 supporting SNMP traps (planned), local and remote System-Logs

Approvals

CE (EU)	In process
RoHS	Yes
REACH	Yes
FCC	In process
ICES	In process
ECE R10	In process
ECE R118	Yes

Cellular Characteristics

Cellular Chipset	Quectel EC200A-EU
4G Standard	Cat.4
GSM Bands	B3/ B8
UMTS Bands	B1/ B5/ B8
LTE Bands	FDD: B1/ B3/ B5/ B7/ B8/ B20/ B28 TDD:

	B38/ B40/ B41
Download (max)	150
Upload (max.)	50
SIM card	Dual Nano-SIM
Antenna Connectors	2 * SMA (f)

WiFi Characteristics

WiFi	2.4 GHz IEEE802.11 b/g/n
WiFi Modes	Client / Access Point
WiFi Security – Client	WPA-PSK/ WPA2-PSK TKIP/AES
WiFi Security – Access Point	WPAPSK/ WPA2-PSK
Antenna connectors	2x SMA (f) RP

LED

Power, Status, WAN, WiFi, Signal (3 LEDs)

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