TK500 Series

INDUSTRIAL ROUTER

Fully integrated with:

SMART EMS
Rollout and central management of routers and edge gateways

VPN Security Suite
Secure E2E access to devices and machines in the field

Industrial Router TK500 Series

- Five Ethernet Ports
- Depending on version with WiFi, RS-232, RS-485, 4G LTE
- DIN-Rail mounting and 12 to 24 V DC power supply
- Integrated Firewall, OpenVPN and IPsec
- Very compact and rugged housing
- Fully integrated with Welotec Smart EMS and VPN Security Suite

OVERVIEW PRODUCT MODEL	
TK525L-v3	LTE-Router
TK525L-W-v3	LTE-WiFi Router
TK525W-v3	WAN-Router
TK555L-v3	LTE Router (US-Model)

CAT-TK500-V6.0 EN ed. 04/2024 Welotec GmbH

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TK500 Series

SPECIFICATIONS

CELLULAR CHARACTERISTICS				
	TK525L-v3	TK525L-W-v3	TK525W-v3	TK555L-v3
Cellular Chipset	Quectel EC25-EC	Quectel EC25-EC	-	Fibocom FM101-CG
4G Standard	Cat.4	Cat.4	-	Cat.6
GSM Bands	B3/ B8	B3/ B8	-	B2/B3/B5/B8
UMTS Bands	B3/ B8	B3/ B8	-	B2/B4/B5
LTE Bands	FDD: B1/B3/B7/B8/ B20/B28A TDD: B38/B40/B41	FDD: B1/B3/B7/B8/ B20/B28A TDD: B38/B40/B41	-	FDD: B2/B4/B5/B12/ B13/B29
Download (max)	150	150	-	300
Upload (max.)	50	50	-	50
SIM card	Dual Nano-SIM	Dual Nano-SIM	-	Dual Nano-SIM
Antenna Connectors	2 * SMA (f)	2 * SMA (f)	-	2 * SMA (f)
WIFI CHARACTERISTICS				
	TK525L-v3	TK525L-W-v3	TK525W-v3	TK555L-v3
WiFi	-	2.4 GHz IEEE802.11 b/g/n	-	-
WiFi Modes	-	Client / Access Point	-	-
WiFi Security	-	Client: WPA-PSK/ WPA2-PSK TKIP/AES Access Point: WPA-PSK/WPA2-PSK	-	-
Antenna Connectors	-	2 * SMA RP	-	-
ETHERNET CHARACTERISTICS				
	TK525L-v3	TK525L-W-v3	TK525W-v3	TK555L-v3
Ethernet	5 * 10/100 Mbps isolated Fast Ethernet RJ45 ports (1 WAN Port, 4 LAN ports with VLAN capabilities)			
OTHER INTERFACES				
	TK525L-v3	TK525L-W-v3	TK525W-v3	TK555L-v3
Serial Interface	1 x RS232, 1 x RS485			
LED	Power, Status, WAN, WiFi (depending on model)			
MECHANICAL AND ENVIRONMENTAL				
	TK525L-v3	TK525L-W-v3	TK525W-v3	TK555L-v3
Dimensions	127x 108.2x 35mm			
Weight	460g			
Protection	IP30			
Housing	Metal			
Storage Temperature	-40 … 85°C			

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SPECIFICATIONS

Operating Temperature	-20 … 70°C			
Humidity	5 … 95% (non-condensing)			
POWER CHARACTERISTICS				
	TK525L-v3	**TK525L-W-v3**	**TK525W-v3**	**TK555L-v3**
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				
	TK525L-v3	**TK525L-W-v3**	**TK525W-v3**	**TK555L-v3**
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				
	TK525L-v3	**TK525L-W-v3**	**TK525W-v3**	**TK555L-v3**
Shockproof	IEC60068-2-27			
Free Fall	IEC60068-2-32			
Vibration Resistance	IEC60068-2-6			
CERTIFICATIONS				
	TK525L-v3	**TK525L-W-v3**	**TK525W-v3**	**TK555L-v3**
Planned	CE, UKCA, FCC, UL, cUL, CB, India, Australia			
FIRMWARE CHARACTERISTICS				
	TK525L-v3	**TK525L-W-v3**	**TK525W-v3**	**TK555L-v3**
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 infra-structures			
Configuration	Configuration via Smart EMS, WebUI, SSH and serial console			
Monitoring	SNMP v1/v2/v3 supporting SNMP traps (planned), local and remote System-Logs			

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TK525 V2 VS. TK525 V3

TK525 V2 VS. TK525 V3

	TK525 v2	**TK525 v3**
Dimensions	127x 108.2x 35mm	127x 108.2x 35mm
Housing Color	Gold	Black
SIM Card-Format	Mini-SIM	Nano-SIM
Dual SIM	Yes	Yes
CPU	580MHz	580MHz
RAM	128 MB	128 MB
Power Supply	12 … 24 VDC	9 … 36 VDC
Power Consumption Idle/Active	2,4W / 3,84W	2,4W / 3,84W
Connector for Power Supply and serial interface	Terminal Block 7pin	Terminal Block 7pin (not compatible to v2)

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TK500 Series

MODEL VIEWS

TK525L-v3

TK525L-W-v3

TK525W-v3

TK555L-v3

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