

TK701G

TK711U

TK704G

TK714U

TK704W



TK700

The industrial 2G GPRS- and 3G UMTS routers offered by Welotec enables the access to Ethernet devices or a local network remotely via mobile network with 2G and 3G transmission standards like UMTS / HSDPA / HSUPA / HSPA and GPRS / EDGE. Especially for applications like remote control, digital signage and condition monito-

ring these devices are easy to install and cost-effectively. With a huge number of functions and interfaces like VPN, OpenVPN, IPsec and the RS-232 serial port these routers are well-equipped for the most common applications. The 3G router can reach a data transmission speed of 14.4 Mbps upload and 5.76 Mbps download.



SARTELCO® SISTEMI SRL

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Technical details

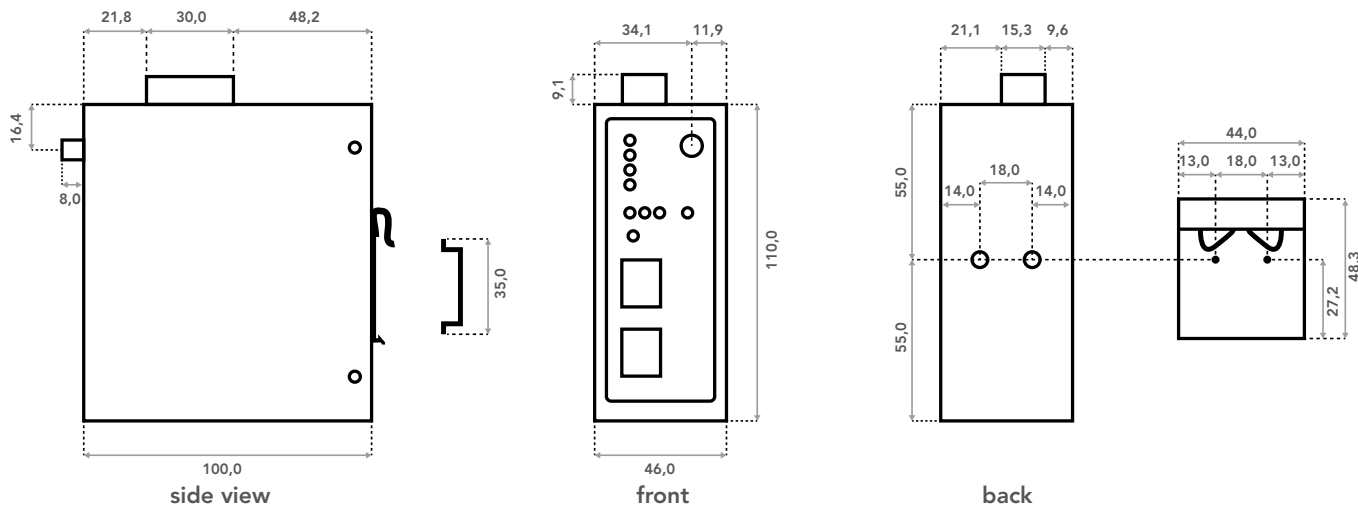
	TK701G	TK711U	TK704G	TK714U	TK704W
CELLULAR FEATURES					
Modul	Cinterion MC55i, GSM / GPRS 850 / 900 / 1800 / 1900 MHz Quad Band	Huawei MU609, HSPA 850 / 900 / 1800 / 1900 / 2100 MHz Quad Band	Cinterion MC55i, GSM / GPRS 850 / 900 / 1800 / 1900 MHz Quad Band	Huawei MU609, HSPA 850 / 900 / 1800 / 1900 / 2100 MHz Quad Band	-
Downlink	86 kbps	14,4 Mbps	86 kbps	14,4 Mbps	-
Uplink	42,8 kbps	5,76 Mbps	42,8 kbps	5,76 Mbps	-
Authentication	CHAP / PAP / MS-CHAP / MS-CHAP2				-
Cellular antenna connector	SMA (f)				-
APN functions	<ul style="list-style-type: none"> • APN (Access Point Name) • VPDN (Virtual Private Dialup Network, operators IP VPN) 				-
Dial on demand	Activated by Call / SMS / Local data flow				-
ETHERNET INTERFACE					
Connector	1 x RJ45 Port 10/100TX		4 x RJ45 Port 10/100TX		
SERIAL PORT					
Interface	1 x RS-232 / terminal block (RS-485 optional)				
Data rate	1200 bit/s - 115200 bit/s				
Protocol	Transparent TCP, Virtual COM, Modbus TCP / RTU, IEC 60870-5-101,104				
SYSTEM MANAGEMENT					
Management tools	Webbrowser, Telnet, SSH and Hyper Terminal				
Updates	Firmware update locally or via GPRS/UMTS				
SMS Features	Reboot and status SMS				
NETWORK FEATURES					
Routing	Static routing				
Network protocol	ICMP, TCP, IP, UDP, DHCP, NTP, DNS, HTTP, HTTPS, Telnet, ARP, VRRP, PPP, SSH				
Connection inspection	PPP LCP echo and ICMP keep alive for link inspection				
NAT and PAT	Network Address Translation (NAT) and Port Address Translation (PAT)				
DDNS (DynDNS)	Support Dynamic DNS				
VRRP	Hot backup, auto switch to slave router when master router failed				
Link Backup	-	Switching between 3G and WAN in case of error			-
NETWORK SECURITY					
IPsec	Supports up to 4 x VPN IPsec tunnel				
OpenVPN, PPTP, L2TP	Client and Server				
Authentication	Pre-shared key, digital certificate				
Firewall	Stateful Packet Inspection(SPI), filtering multicast, filtering PING packet, preventing DoS attack, different firewall strategies				
MAC adress bundling	Refuse illegal host access				
Port mapping	Allow extranet user to access specific intranet port				
Access control	Flexible access control of TCP, UDP, ICMP packets				

Technical details

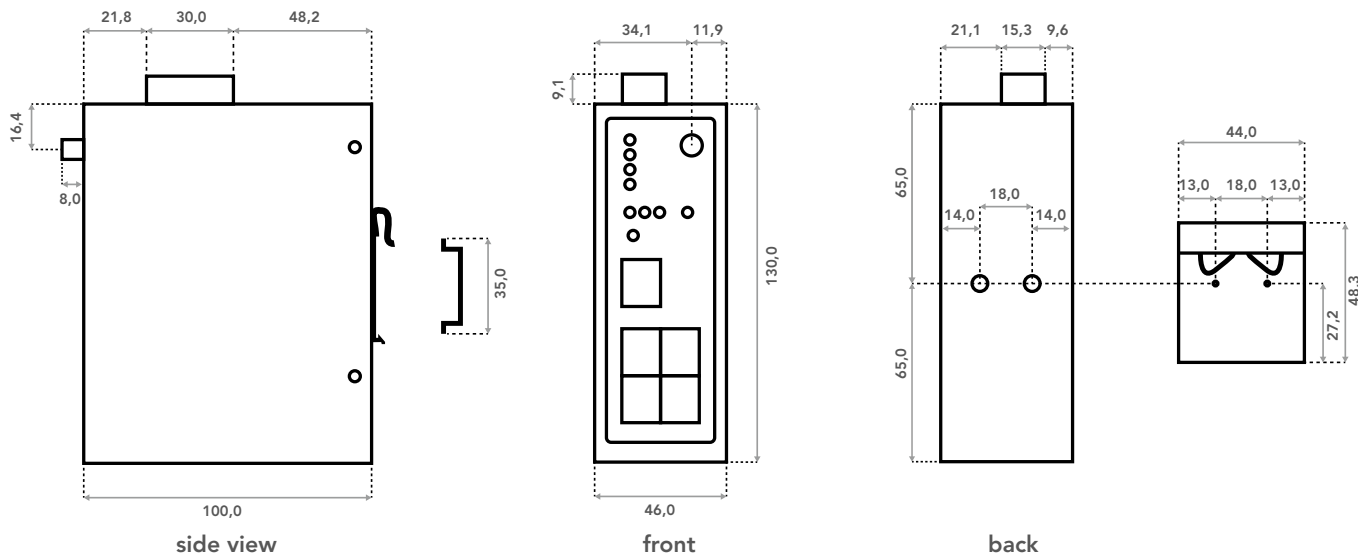
	TK701G	TK711U	TK704G	TK714U	TK704W
ADVANCED FUNCTIONS					
Realtime clock	Provide the system with accurate local time (NTP Client)				
Watchdog	Software and hardware watchdog				
LED	<ul style="list-style-type: none"> • LED indicators for the signal strength • 5 status LEDs: POWER, STATUS, WARN, ERROR, Modem or GPRS 				
POWER SUPPLY					
Power supply	9 ~ 48 V DC (reverse connection error)		12 ~ 48 V DC (reverse connection error)		
Power consumption	<ul style="list-style-type: none"> • Communication: 300mA @ 12V (max) • Idle: 120mA @ 12V (max) 				
Connector	terminal block, 5 mm				
HOUSING					
Material	Metal Housing				
Dimensions	46 x 100 x 110 mm		46 x 100 x 130 mm		
Weight	490 g		595 g		
Installation	DIN-rail mounting and Wall mounting				
OPERATION ENVIRONMENT					
Operating temperature	-25°C ~ +70°C				
Storage temperature	-40°C ~ +85°C				
Air humidity	5 ~ 95 %, non-condensing				
Protection class	IP30				
MTBF (hours)	351.123	284.399	351.123	284.399	351.123
APPROVALS					
Vehicles	-	ECE test mark	-	ECE test mark	-
EMI IMMUNITY					
ESD	EN 61000-4-2, Level 4				
RF	EN 61000-4-3, Level 3				
EFT	EN 61000-4-4, Level 4				
Surge protection	EN 61000-4-5, Level 3				
RC	EN 61000-4-6, Level 3				
Oscillatory Wave Immunity	EN 61000-4-12, Level 3				
ENVIRONMENTAL TESTING					
Anti-shock/Drop/Vibration	IEC 60068-2-27 / IEC 60068-2-32 / IEC 60068-2-6				
Impact strength	15 G / 11 ms				

Dimensions

TK7x1



TK7x4



All dimensions in millimeter

TK7x1

Screw pluggable terminal block
Power supply and serial port

Power LED
Status LED
Warn LED
Error LED

Signal strength LED

Reset button

Console serial port
RJ45

Ethernet
RJ45

SIM card slot

Antenna connector
SMA (f)

Modem LED

TK7x4

Screw pluggable terminal block
Power supply and serial port

Power LED
Status LED
Warn LED
Error LED

Signal strength LED

Reset button

Console serial port
RJ45

WAN
RJ45

LAN
RJ45

SIM card slot

Antenna connector
SMA (f)

Modem LED

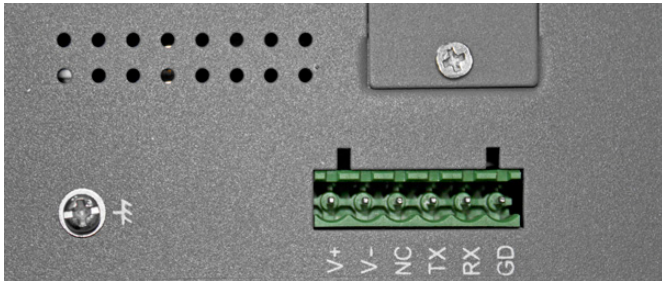
DMZ
RJ45

LAN
RJ45



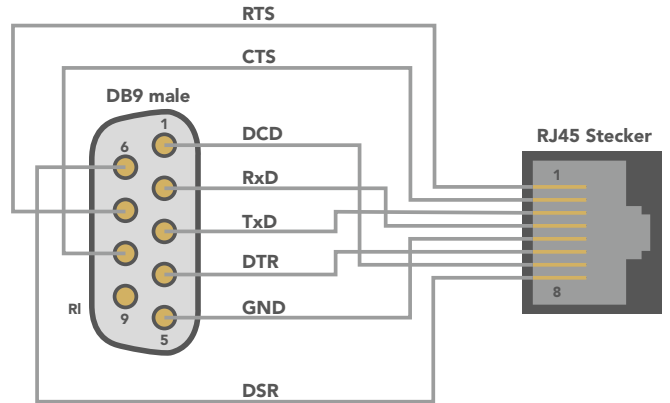
Others

Pin assignment:
Screw pluggable terminal block (5 mm)

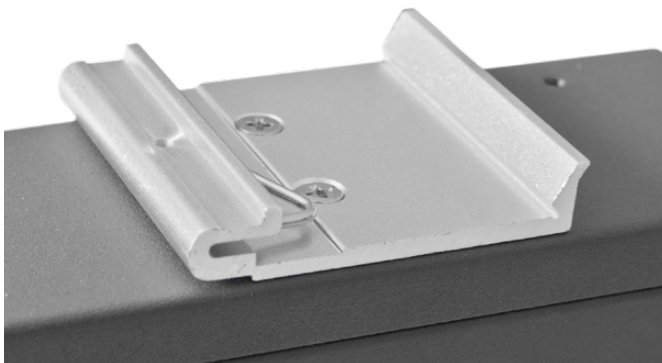


PIN	DESCRIPTION
V+	12 ~ 48 V DC
V-	0 V
NC	not assigned
TX / 485-	RS-232 TX, RS-485-
RX / 485+	RS-232 RX, RS-485+
GD	Ground for serial interface

Pin assignment:
Console Port DB9 - RJ45



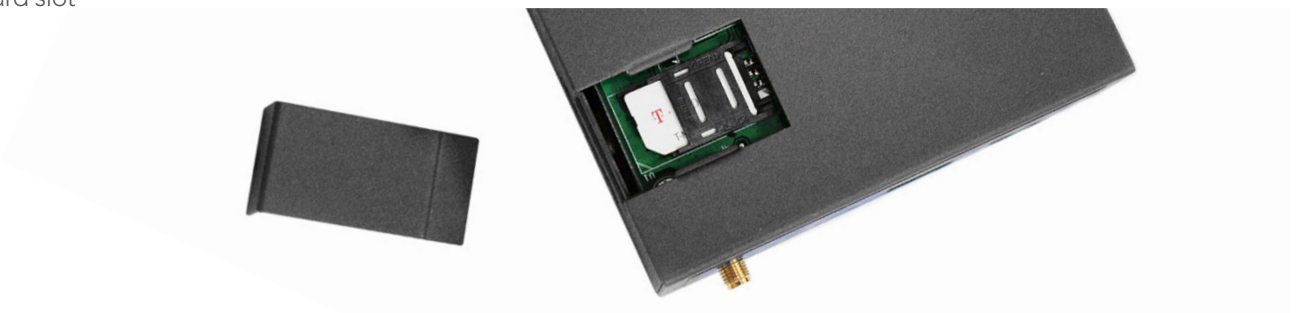
DIN-Rail mount (included in delivery)



Wall mount (optional)



SIM card slot



Accessories



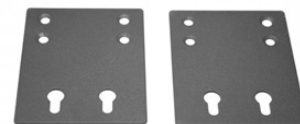
Power supply
100 ~ 265 V AC to 12 V DC
(included in delivery)
Art. No. 6912TK000000



Magnetic base antenna
with 3 m cable
(included in delivery)
Art. No. 6911WAGEN000



Terminal block connector
(included in delivery)
Art. No. 6912TK000002



Wall mount

Art. No. 6912TK000003

Antennas

Apart from many different antennas, we offer antenna extensions and adapters for each application. Below you can find a list of recommendable antennas for the TK700-Series routers.



WAO-GUL0W-2D500-SMAM0



FP8241850-10VP



WAO-GUL0D-2B050-SMAM0

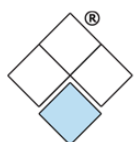


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ANTENNAS				
Type	Rod antenna	Panel antenna	Low-profile antenna	Yagi antenna
Radiation Type	Omnidirectional	Directional	Omnidirectional	Directional
Antenna Connector	SMA (m)	N (f)	SMA (m)	TNC (f)
Frequency Range	824 - 960 / 1710 - 2170 MHz	824 - 960 / 1710 - 2170 MHz	870 - 960 / 1710 - 2170 MHz	880 - 960 / 1710 - 2170 MHz
Gain	2 dBi	10 / 11 dBi	2 dBi	6 / 8 dBi
Polarization	Vertical	Vertical	Vertical / Horizontal	Vertical / Horizontal
Cable	5 m	Option	0,5 m	Option

ANTENNA CABLE				
Cable 2 m	-	N (m) to SMA (m)	-	TNC (m) to SMA (m)
Cable 5 m		N (m) to SMA (m)		TNC (m) to SMA (m)
Cable 10 m		N (m) to SMA (m)		TNC (m) to SMA (m)





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