

TK701G

TK701U
TK711U

TK704G

TK704U
TK714U

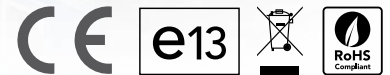
TK704W



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.



Technical details

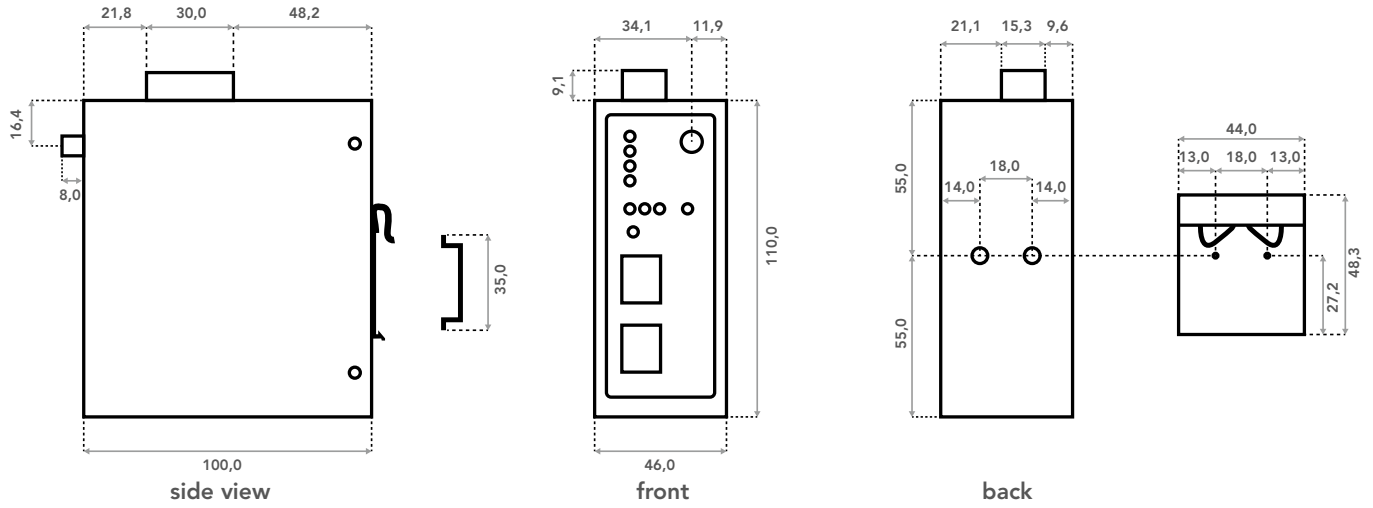
| | TK701G | TK701U | TK711U | TK704G | TK704U | TK714U | TK704W |
|---------------------------|--|---|--|--|---|--|--------|
| CELLULAR FEATURES | | | | | | | |
| Modul | Cinterion MC55i, GSM / GPRS 850 / 900 / 1800 / 1900 MHz Quad Band | Huawei EM770W, HSPA 850 / 900 / 1800 / 1900 / 2100 MHz Quad Band | Huawei MU609, HSPA 850 / 900 / 1800 / 1900 / 2100 MHz Quad Band | Cinterion MC55i, GSM / GPRS 850 / 900 / 1800 / 1900 MHz Quad Band | Huawei EM770W, HSPA 850 / 900 / 1800 / 1900 / 2100 MHz Quad Band | Huawei MU609, HSPA 850 / 900 / 1800 / 1900 / 2100 MHz Quad Band | - |
| Downlink | 86 kbps | 7,2 Mbps | 14,4 Mbps | 86 kbps | 7,2 Mbps | 14,4 Mbps | - |
| Uplink | 42,8 kbps | 5,76 Mbps | 5,76 Mbps | 42,8 kbps | 5,76 Mbps | 5,76 Mbps | - |
| Authentication | CHAP / PAP / MS-CHAP / MS-CHAP2 | | | | | | - |
| 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 | | | |

Technical details

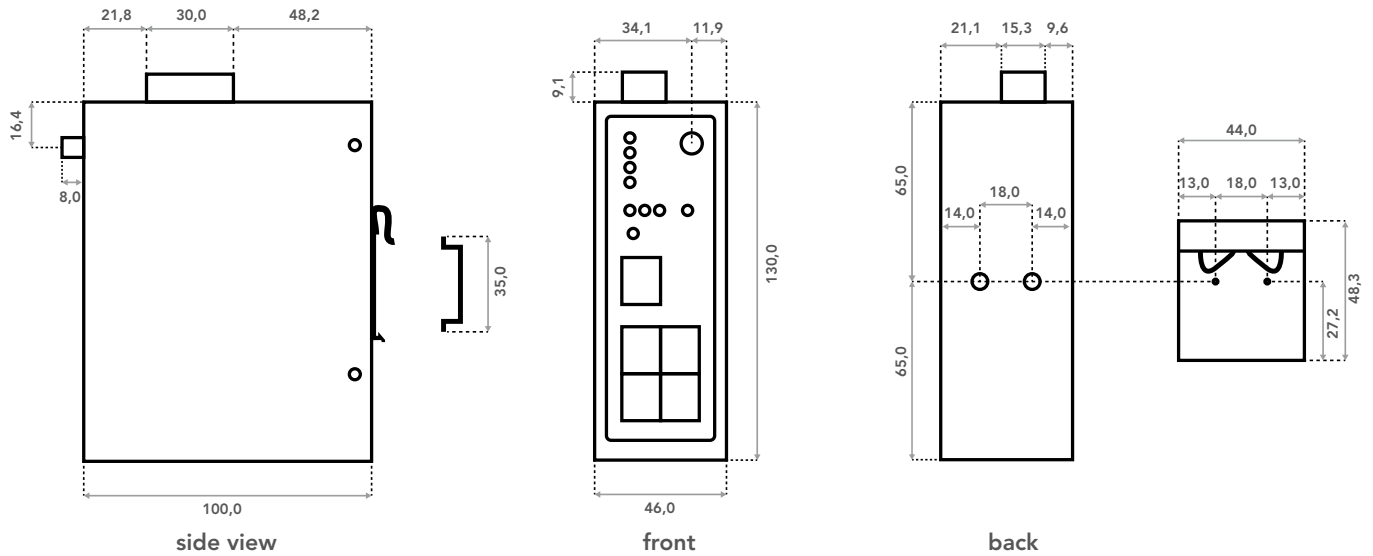
| | TK701G | TK701U | TK711U | TK704G | TK704U | TK714U | TK704W |
|------------------------------|--|---------|---------|---|---------|---------|---------|
| NETWORK SECURITY | | | | | | | |
| IPsec | Supports up to 4 x VPN IPsec tunnel | | | | | | |
| OpenVPN, PPTP, L2TP | Client and Server | | | | | | |
| 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 | | | | | | |
| 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 | 284.399 | 351.123 | 284.399 | 284.399 | 351.123 |
| 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

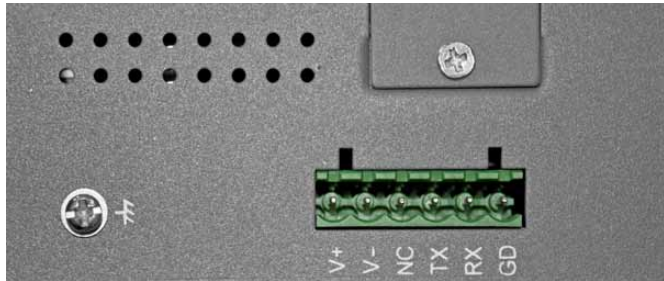
DMZ
RJ45

LAN
RJ45



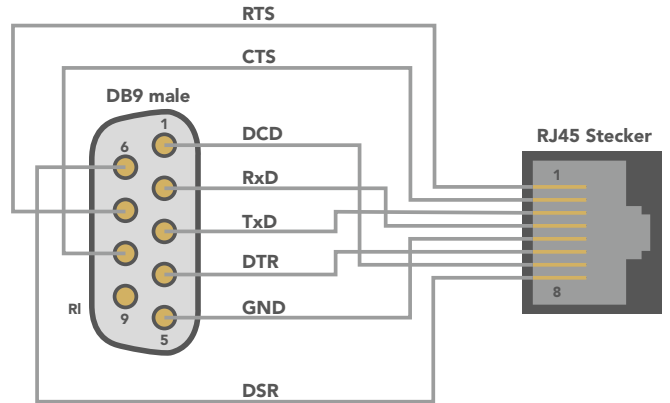
Others

Pin assignment:
Screw pluggable terminal block (5 mm)

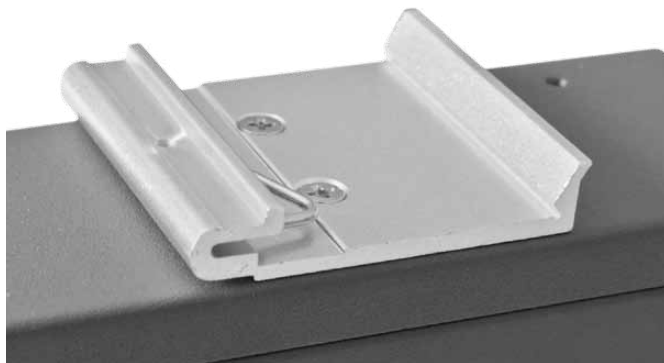


| PIN | DESCRIPTION |
|-----------|-----------------------------|
| V+ | 12 ~ 48 V DC |
| V- | 0 V |
| NC | not assigned |
| TX / 485- | RS-232 TX, RS-485- |
| RX / 485+ | RS-232 RX, RS-485+ |
| GD | Ground for serial interface |

Pin assignment:
Console Port DB9 - RJ45



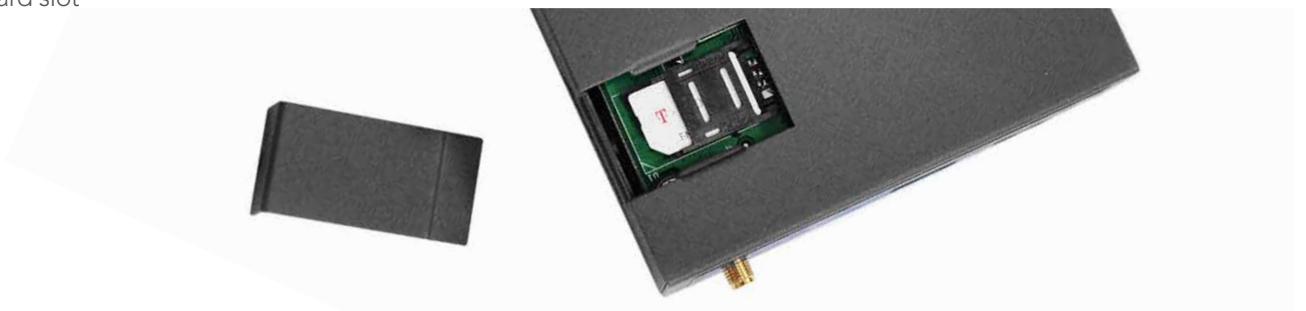
DIN-Rail mount (included in delivery)



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



CACELY-TNC



FP8241850-10VP



WAO-GUL0D-2B050-SMAM0

| ANTENNA | | | | |
|-----------------|---|--------------------------------|--------------------------------|--|
| Version | Wall mount antenna | Yagi antenna | Directional antenna | Low profile antenna |
| Frequency range | 880 ~ 900 / 1710 ~ 1880 / 1850 ~ 1990 / 2100 MHz | 880 ~ 960 / 1710 ~ 2170 MHz | 824 ~ 960 / 1710 ~ 2170 MHz | 890 ~ 960 / 1710 ~ 1880 / 1850 ~ 1990 / 1900 ~ 2170 MHz |
| Gain | 5/2,5 dBi | 6/8 dBi | 10/11 dBi | 0 dBi |
| Polarisation | Vertical | Vertical/Horizontal | Vertical Linear | Linear |
| Connection | SMA (m) | TNC (f) | N (f) | 2x SMA (m) |
| Cable | 5 m | optional | optional | 0,5 m |
| CABLE | | | | |
| Cable 2 m | - | TNC to SMA | N to SMA | - |
| Cable 5 m | | TNC to SMA | N to SMA | |
| Cable 10 m | | TNC to SMA | N to SMA | |