

TR-1904-LTE Router



Multi Service Router

Product Overview

Techroutes TR-1904-LTE router designed for establish a cellular broad band Internet connection in inside/outside. The CPE enables users to quickly create a secure wireless network and provide access to the Internet using a cellular network. By connect to cellular network; an Internet connection can be accessed and shared virtually anywhere within a wireless broadband network. Moreover the CPE can support IPv6.

TR-1904-LTE router provides a cost-effective broadband Machine-to-Machine (M2M) solution and supports the following radio access technologies: 4G LTE, 3G HSDPA, HSUPA HSPA+ UMTS, EDGE, GPRS GSM. The compact and rugged structure makes it a suitable product for deployments in M2M applications.

TR-1904-LTE router is easy to install and enables direct access to your remote LAN devices for control and monitoring purposes. It enables companies to remotely access equipment at mobile, remote networks and isolated sites.

TR-1904-LTE router offers wireless network routing optimised for machines, small networks and specialised Fixed IP services now available from wireless operators. It offers low cost router operation through Dial-out, Dial-in and always connected modes of operation.

TR-1904-LTE router offers SNMP and SMS based control allow easy management of huge number of units in your network centrally by TR Net view.

TR-1904-LTE router provides end to end data security from VPN such as IPSec, GRE, PPTP, L2TP, and Open VPN. Firewall security feature for protecting the network data as well as secure access of hardware.

TR-1904-LTE router supports Static route Dynamic (OSPF/BGP/RIP) routing Virtual Server/Port Forwarding IPv6 VRRP.

TR-1904-LTE router use in various applications Remote Data Monitor and Control, CCTV, security surveillance Water, gas and oil flow metering and schedule, AMR (automatic meter reading),Power station monitoring and control, Remote POS (point of sale) terminals, ATM, Traffic signals monitor and control, Traffic info guidance; Oil field, weather forecast, environmental protection. Telemetry, SCADA; Vehicle logistics and diagnostics controlling.

Technical Specification

Model	TR-1904-LTE
Hardware	CPU: 580Mhz RAM: 512M Flash: 128M
WAN	1x10/100Mbps Ethernet Port
LAN	4x10/100Mbps Ethernet Port
Cellular Interface	1x4G/3G/2G (Two SIM Slot with Active/Passive Mode)
Wi-Fi	802.11a/b/g/n Frequency Range:2.412 ~ 2.472Ghz Speed:802.11n in 300Mbps;
Ports/Connectors	Power (DC Jack, 2 Pin Terminal Block for wire connection) 2-4 cellular antenna connectors (SMA) 1 GPS antenna connector (SMA) 2 Wi-Fi antenna connectors (SMA) Serial RS232 / RS485 & 4 Digital I/O ports Terminal Socket (Optional) Reset button
Power	DC input steady state voltage range: 5-40 VDC Reverse polarity and transient voltage protection per ISO 7637-2 Ignition sensing (automatic ON and time-delay OFF) Power consumption: Idle: typical=100mA@12VDC; Maximum=500mA@12VDC Tx/Rx: typical=300mA@12VDC; Maximum=800mA@12VDC 12VDC 2A adapter recommended
LED	SYS, VPN, WiFi, Cell1, Cell2, Cell Signal1, Cell Signal2 LAN (10/100M) 1, 2, 3, 4, WAN, GPS
SIM	Support 1.8V/3V UIM/SIM cards, two SIM card slots
Size	PCB: 168mm x 111mm x 16mm Case: 180mm x 114mm x 32mm
Weight	750g without accessories 850g with accessories
Temprature	-10°C~60°C operating -30°C~75°C storage
Humidity (non-condensing)	10%~90% operating 5%~95% storage
Case/Shell	Alloy-metal
Compatible Mobile Networks	4G LTE (FDD/TDD) UMTS WCDMA (HSUPA/HSDPA/HSPA/HSPA+/DC-HSPA+) GSM EDGE/GPRS CDMA1x CDMA2000 EVDO Rev 0, Rev A, Rev B TD-SCDMA/TD-LTE

Cellular Frequency	<p>4G FDD LTE:</p> <p>Band 1 – 2100Mhz</p> <p>Band 3 – 1800Mhz</p> <p>Band 5 – 850Mhz</p> <p>Band 8 – 900Mhz</p> <p>4G TDD LTE:</p> <p>Band 38 – 2600Mhz</p> <p>Band 39 – 1900Mhz</p> <p>Band 40 – 2300Mhz</p> <p>Band 41 – 2500/2600Mhz</p> <p>3G:</p> <p>UMTS/HSPA/HSUPA/HSPA/HSPA+/DC-HSPA+ (WCDMA/FDD): 2100MHz(B1)/1900MHz (B2)/1800MHz (B3) /1700MHz /AWS(B4)/850MHz (B5)/900MHz (B8)/800MHz (B6)/1800MHz (B9)/850MHz (B19)</p> <p>2G:</p> <p>Quad-band EGSM 850/900/1800/1900Mhz;</p>
Bandwidth	<p>4G LTE FDD LTE:</p> <p>downlink 100Mbps / 150Mbps / 300Mbps / 600Mbps / 1200Mbps; uplink 50Mbps / 150Mbps / 300Mbps / 600Mbps;</p> <p>TDD LTE:</p> <p>150Mbps downlink, 50Mbps uplink;</p> <p>3G:</p> <p>DC-HSPA+: Downlink 42Mbps, Uplink 5.76Mbps; HSPA+(H): Downlink 21Mbps, Uplink 5.76Mbps; HSPA+(L): Downlink 14.4Mbps, Uplink 5.76Mbps; HSUPA: Downlink 7.2Mbps, Uplink 5.76Mbps; HSDPA: Downlink 7.2 Mbps, Uplink 384k bps; WCDMA/UMTS: Downlink/Uplink 384 kbps;</p> <p>2G:</p> <p>EDGE: Downlink 384 kbps, Uplink 118 kbps; GPRS: Downlink 108 kbps, Uplink 42.8 kbps</p>
Redundancy and Load Balancing	<p>Automated WAN Failover/Failback support</p> <p>Failover/failback with 4G/3G/2G Dual SIM (Active/Passive)</p> <p>WAN failure detection, Auto-dial feature, keep alive link</p> <p>LCP, ICMP check; Built-in watch dog</p> <p>Cellular (2G/3G/4G) & RJ45 WAN (xDSL, DHCP, Fixed IP) redundancy</p> <p>Option Feature: Ethernet with rule selection, advanced load balancing options (round robin, spillover, data usage, rate)</p>
Features	<p>DHCP Server, Client, Relay</p> <p>DNS and DNS Proxy</p> <p>DDNS</p> <p>UPnP</p> <p>DMZ</p> <p>Multicast/Multicast Proxy</p>

	QoS (DSCP and Priority Queuing) Virtual Server MAC Address Filtering VLAN 802.1Q Cellular and Wi-Fi MIMO supported Syslog (local and remote) Optimized EMC design Real-time clock (NTP, support update with defined hours); WAN/LAN/Memory statistics Local/remote profiles backup and retrieve
Routing	Static route, default route, RIP, OSPF, BGP, VRRP
IPv6	support
VPN	IPSec Tunnel, NAT-T, and transport modes; IKEv1 & IKEv2 Hash (MD5, SHA128, SHA256, SHA384, SHA512), Cipher (AES, 3DES, DES) GRE tunneling PPTP support L2TP, L2TP over IPSec support VPN pass-through Open VPN support (option) DMVPN (option); Certificate support Multiple networks supported in a single tunnel Site-to-site dynamic VPN with NHRP VTI Tunnel support
Security	RADIUS and TACACS+ support (Optional) 802.1x authentication for Ethernet Certificate support ALGs MAC Address Filtering Advanced Security Mode (local user management only) Per-Client Web Filtering IP Filtering Content Filtering (basic) Website Filtering Zone-Based Object Firewall with host address (IP or FQDN), port, and mac address NAT, PAT, SPI, port blocking, service filtering (FTP, SMTP, HTTP, RPL, SNMP, DNS, ICMP, NNTP, POP3, SSH), protocol filtering, WAN ping (allow/ignore)
Firmware update	support firmware update locally, remotely (LAN, WiFi and OTA WAN) and RMS (Remote Management System) option;
Management	GUI Telnet SSH SNMP V1/V2/V3 SMS control TR-069 option Techroutes Net view NMS

Order Information

Product	Description
TR-1904-LTE	Techroutes Outdoor LTE Router (1xCell Interface (4G/3G/2G) Dual SIM, 1x Fast Ethernet (10/100M) WAN Interface , 4x Fast Ethernet (10/100M) LAN Interface, Adapter Power Supply)
TR-MA-1M	5dB Magnetic Antenna with 1 Meter cable
TR-PP-12M	12dB Patch Panel Antenna with 10 Meter Cable
Cellular Antenna & Wi-Fi Antenna order separately	

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