

CM820T/ CM820T-W 4G WiFi Router Datasheet



>>| Product Introduction

The Comset CM820T-W Router is a new generation 4G LTE WiFi Modem Router with download speeds of up to 100 Mbps. The CM820T-W is one of the few routers on the Australian market capable of falling back to 3G on Telstra's 850 MHz and Optus and Vodafone's 900 MHz. The CM820T-W is designed to suit Australian conditions. It performs fast and reliable data communication for a wide range of Machine-to-Machine (M2M) applications.

The CM820T-W 4G LTE WiFi Router enables users to quickly create a secure wireless network. It provides access to the Internet over the 4G LTE cellular network.

The durable and rugged design makes the CM820T-W the router of choice for remote harsh environments. Its compact design, easy integration and rich built-in features make the Comset CM820T-W suitable for a wide range of industrial M2M applications, including industrial automation, building automation, smart metering, security, surveillance, health, mining and environmental monitoring.

>>| Hot Spot

- Built-in 4G industrial cellular module and SIM card slot
- Auto-dial feature, keep alive link

- Built-in watch dog
- 1 x WAN RJ45 port + 4 x LAN RJ45 ports
- 4G failover for fixed line broadband connections
- Two CM820 can backup each other if one unit fails
- Rapid service deployment applications
- VPN (PPTP,L2TP, IPSec, GRE, Tunnel), SNMP
- WiFi 802.11b/g/n 150Mbps (CM820T-W model)
- WiFi can be used as WiFi client
- GPS (optional CM820T-G model)
- I/O port * 2 (optional)
- SMS call to control router to be online, offline, reboot, status info, alarm

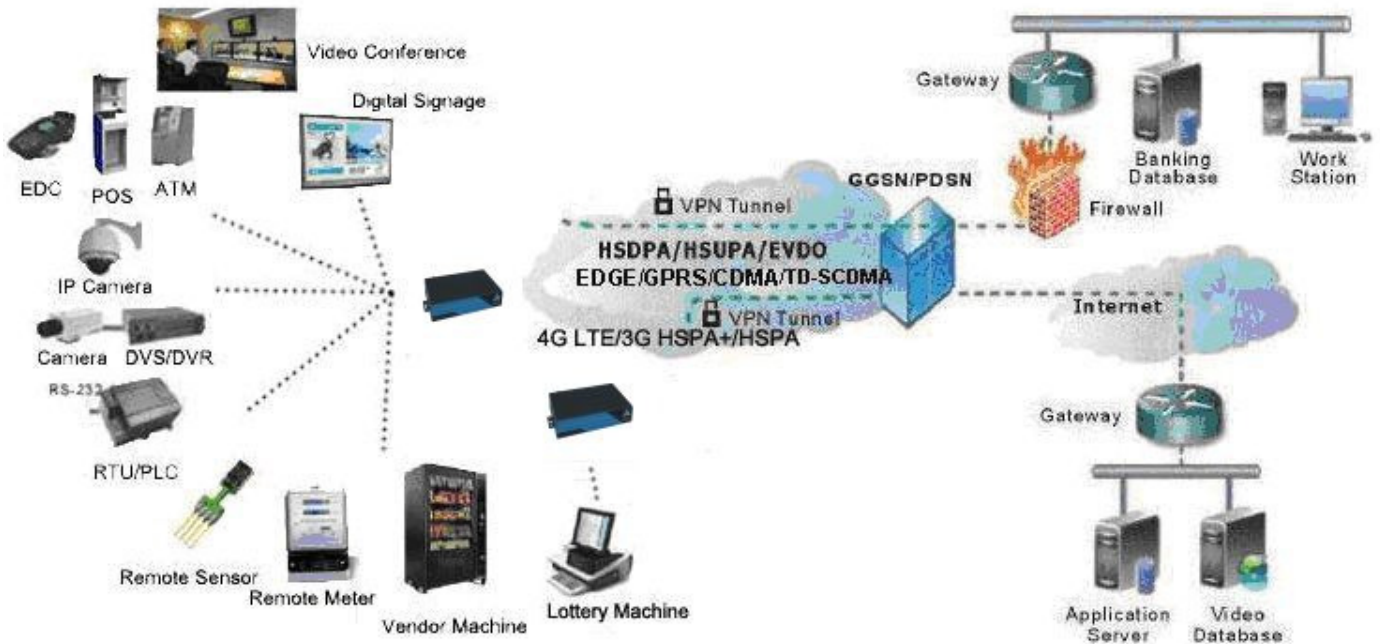
>>| Brief

Broadband M2M Communications

The product line 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 such as CCTV, ATM, telemetry, SCADA, retail (POS), digital signage, and intelligent traffic systems.

>>| Typical Topology



>>| Industrial Application

- 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, street lamp monitoring and control
- Early Warning of Mountain Torrent
- Fleet management
- Power distribution network supervision
- Central heating system supervision
- Weather station data transmission
- Hydrologic data acquisition
- Vending machine
- Telemetry, SCADA
- Vehicle logistics and diagnostics controlling
- Parking meter and Taxi Monitor
- Telecom equipment supervision (Mobile base station, microwave or optical relay station)

>>| Basic Features

- Supports multi-band 4G LTE, DC-HSPA+, HSPA+, HSPA, UMTS, GSM, GPRS, EDGE
- SMA Standard antenna
- Optimized EMC design
- Always on line: On-line detection, automatic redial and keep-alive
- Wide range power input
- Smart power management
- Reliable, flexible, easy to use and management
- RS-232 interface transparent communication (DTU modem function)
- 4 LAN RJ45 ports for Ethernet interface & 1 WAN RJ45 port
- WiFi 802.11b/g/n (CM820T-W model)

>>| Enhanced Features

- Real-time clock
- VPN (PPTP, L2TP, IPSec, GRE, Tunnel), and VPN pass-through
- Built-in DHCP server
- Supports NAT and DMZ host
- Supports DNS proxy and Dynamic DNS (DDNS)
- Supports Static routing table
- Supports packet filter
- Built-in multi-routing backup (Ethernet and dialup network)
- System and network monitoring
- WAN interface traffic statistics
- Support multiple protocol conversion
- Transparent data transmission (DTU feature)
- WEB/Telnet/console management interface
- Support radio network data envelope counting
- Self-diagnostic and alarm output
- Local/remote profiles backup and retrieve
- Local/remote firmware upgrade via web
- Remote web management
- Urgent event alarm via SMS
- Firewall, packet filtering
- Support data center communication
- Support NTP
- Support LED status indication
- Support VLAN
- Support LCP, ICMP check

>>| Specification

Wireless	
Compatible Mobile Networks	<ul style="list-style-type: none"> • 4G LTE • UMTS WCDMA (HSUPA/HSDPA/HSPA/HSPA+) • GSM EDGE • GSM GPRS
Cellular Frequency	<ul style="list-style-type: none"> • 4G LTE FDD: 800/900/1800/2100/2600MHz • UMTS/HSPA/HSUPA/HSPA/HSPA+ (WCDMA/FDD) 850/900/1900/2100Mhz • Quad-band EGSM 850/900/1800/1900
Bandwidth	<ul style="list-style-type: none"> • 4G LTE Downlink 100Mbps Uplink 50 Mbps • DC HSPA+ Downlink 21/42Mbps Uplink 5.76Mbps • HSPA 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 • EDGE Downlink 236,8 kbps Uplink 118 kbps • GPRS Downlink 85.6 kbps Uplink 42.8 kbps
Wi-Fi	<ul style="list-style-type: none"> • 802.11b/g/n; 150Mbps (CM820T-W model)

SMS	SMS call to control router to be online, offline, reboot, status info, alarm
GPS	<ul style="list-style-type: none"> Optional (CM820T-G model)
VLAN	Supports two LAN IP addresses
Fail Over Redundancy (network Backup feature)	<ul style="list-style-type: none"> Auto-dial feature, keep alive link Built-in watch dog Cellular (2G/3G), RJ45 WAN (xDSL, DHCP, Fixed IP), WiFi client (CM820T-W model)
DTU	With DTU feature, serial RS232 to Cellular Gateway
VPN	VPN, IPSec, L2TP, PPTP, GRE (IPSec can be server and client, PPTP L2TP, GRE can be client)
Firmware upgrade	Supported locally and remotely
Protocol	
Protocol support	TCP, UDP, SMTP, POP, ICMP, FTP, PPP, PPPoE, DHCP, DDNS, DNS, SNMP, WPS, DMZ, Syslog (local and remote), NAT, xDSL, NTP, QoS, SNMP, RIP, support firmware update locally or remotely
Security	
Security	<ul style="list-style-type: none"> Supports 64/128 bits WEP, 802.1x, WPA, and WPA2 Supports WDS Supports WPA1/2 – PSK TKIP, AES encryption Supports WPA1/2 – 802.1x Supports EAP – TLS, TTLS, LEAP, PEAP Supports access with user name & password. Supports access control base WAN/LAN interface Supports access control base source IP address Defense DOS attack, supports SYN flooding, IP surfing, ping of Death, fragile, teardrop, land etc. Supports PAP & CHAP Supports IP filtering
Advanced Firewall Features	<ul style="list-style-type: none"> Network Address Translation (NAT) Stateful Packet Inspection (SPI) VPN Pass-through
Media Access Control	CSMA/CA with ACK

Certifications	RADIUS Client
Interface	
LAN	4 x 10/100M LAN ports (RJ45 interface) 1 x 10/100M WAN port (RJ45 interface)
Antenna	2 x antennas for Wi-Fi (detachable SMA interface x 1, Internal x 1, CM820T-W model) Or, 3 x antennas for Cellular and GPS (detachable 50 Ω SMA female interface, CM820T-G model), Cellular support diversity receiving (MIMO)
Led	<ul style="list-style-type: none"> • SYS*1 • VPN*1 • Signal*1 • Cell*1 • WAN*1 • LAN*1 • WiFi*1
Serial port	DB9 for RS232
IO port	2 (optional)
At command	Supported
UIM/SIM Card Slot	Supports 1.8V/3V UIM/SIM cards, one sim card slot
DC Jack	Two types of input jack for DC 2.5mm DC jack*1 Terminal Block*1
Power	
Power supply	DC5V-40V, typical DC9V1A or 12V 1A, 12V car use
Power consumption	<p>Current</p> <ul style="list-style-type: none"> • Idle: 22mA@12VDC • Max: 208mA@12VDC • Average:125mA@12VDC <p>Power</p> <ul style="list-style-type: none"> • Idle: 1.2w@12VDC • Max: 2.5w@12VDC

	<ul style="list-style-type: none"> • Average:2w@12VDC
Software	
Device Management	<ul style="list-style-type: none"> • WEB interface (Internet Explorer v6 or Later; Mozilla Firefox v1.5 or Later, Chrome, Opera, Safari or other Java-enabled Browsers)
Minimum System Requirements	<p>Mobile Internet Access Subscription and Internet PC Adapter Computer with:</p> <ul style="list-style-type: none"> • Windows 7, Vista , Windows XP SP2, Windows 2000 SP4, or Mac OS® X (v10.4/v10.3), Linux • Internet Explorer 6 or Mozilla Firefox • CD-ROM Drive • Network Interface Card
Physical	
Operating Temperature	<ul style="list-style-type: none"> • Storage: -40 °C to 85 °C • Working: -30 °C to 75 °C
Humidity	95% Maximum (Non-condensing)
Dimensions	<p>PCBA: 156mm x 104mm x 20mm With case: 168mm x 104mm x 25mm</p>
Weight	<p>455g (not including antennas) 550g (including antennas) 850g (including all accessories)</p>
Others	
Warranty	1 Year
Regulatory Compliance	<p>RCM *, FCC, CE, RoHS * Effective 1st March 2013, the C-Tick and A-Tick marks are consolidated into a single compliance mark, RCM. For more information, visit the ACMA website.</p>
Package Contents	<ul style="list-style-type: none"> • The CM820 Series Router • CAT5 Ethernet Cable • Power Adapter • Antennas • Other depends on option features