

## **DETAILS**

- 3G + 4G + 4GX Modem Router
- OpenWrt Fully Featured Linux OS
- OpenVPN Server and Client
- → Band B28 700 MHz (Telstra 4GX and Optus 4G Plus)
- Ability to select and lock in frequency band
- LTE CAT4 with 150Mbps **Download Speeds**
- MIMO LTE Technology
- Automatic failover between ADSL/NBN and 4G LTE
- Supports Modbus TCP and Modbus RTU networks
- Fully operational on telstra.corp APN

# LTE CAT-4 WiFi Router with SIM Card Slot (CM685V-4)

The Comset CM685V-4 is a CAT-4 industrial grade 3G/4G/4GX LTE WiFi Modem Router built on the OpenWrt Linux operating system and designed to suit Australian conditions. With download speeds of up to 150 Mbps and upload speeds of up to 50 Mbps, it is one of the few routers on the Australian market that support band B28 (700MHz).



#### SECURE CONNECTIVITY

The Comset CM685V-4 supports the latest LTE technology, to perform fast and reliable data communication. It enables users to quickly create a secure and fast wireless network. It features a built-in WiFi N300 with speeds of up to 300 Mbps, one Ethernet WAN port for fixed internet connection, and one Ethernet LAN port. It also includes a GPIO with four digital output ports to control electrical devices via SMS, such as turning on a pump or opening a gate. These four DIO ports can also be used as digital input ports that can send an email or an SMS when triggered for alarm notification.

Other features include VPN IPSEC, PPTP, L2TP, and Open VPN to establish a secure connection over the 3G/4G network.

### **RUGGED DESIGN**

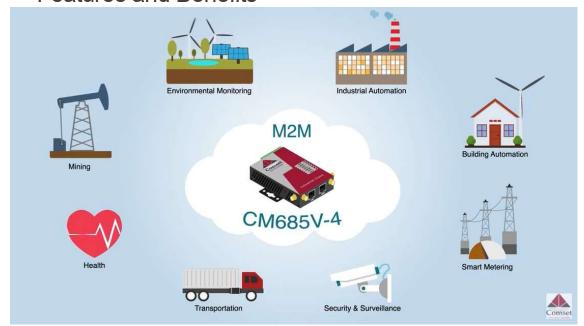
The durable and rugged design makes the CM685V-4 the router of choice for Australia's harshest and most remote environments. The compact design, easy integration and rich builtin features make it suitable for a wide range of industrial M2M applications, including industrial automation, building automation, smart metering, security, surveillance, transportation, health, mining, and environmental monitoring.



## **BASIC FEATURES**

- → Supports multi-band 4G, 4GX, DC-HSPA+, HSPA+, HSPA, UMTS, GSM, GPRS, EDGE
- SMA Standard antennas (Four magnetic base antennas included)
- Optimized EMC design
- → Always on-line: On-line detection and automatic redial
- Wide range power input (5-40VDC)
- Smart power management
- Reliable, flexible, easy to
- User friendly set-up wizard for easy configuration and set-up
- Network traffic real-time graphs
- → Network Diagnostic Tools (Ping, Traceroute and NSLookup)
- RS-232 interface transparent communication (DTU modem function)
- 1 x Ethernet LAN RJ45 port & 1 x Ethernet WAN RJ45 port
- WiFi 802.11b/g/n N300

# **Features and Benefits**



### ENHANCED FEATURES

- Real-time clock
- VPN Server/Client (Open VPN, PPTP, L2TP, IPSec), and VPN pass-through
- Built-in DHCP server
- Supports DHCP Relay
- Supports NAT and DMZ host
- Supports DNS proxy and Dynamic DNS (DDNS)
- Supports Static routing table
- Supports packet filtering
- Built-in multi-routing backup (Ethernet and dialup network)
- System and network monitoring
- WAN interface traffic statistics
- Supports multiple protocol conversion
- Transparent data transmission (DTU feature)

- WEB/Telnet/console management interface
- Supports radio network data envelope counting
- Self-diagnostic and alarm output
- Local/remote profiles backup and retrieve
- Local/remote firmware upgrade via the web
- Remote web management
- Urgent event alarm via SMS
- Firewall, packet filtering
- Supports data center communication
- Supports NTP
- Supports LED status indication
- Supports VLAN ID tagging
- Supports LCP, ICMP check



# **Specifications**

#### **WIRELESS**

#### **Compatible Mobile Networks**

- 4G/4GX
- UMTS WCDMA (HSUPA/ HSDPA/ HSPA/ HSPA+/ DC-HSPA+)
- GSM EDGE
- GSM GPRS

#### **Cellular Frequency**

- 4G LTE FDD B1 (2100), B2 (1900), B3 (1800), B4 (1700), B5 (850), B7 (2600), B8 (900), B28 (700)
- 4G LTE TDD band B40 2300Mhz
- UMTS/ HSPA/ HSUPA/ HSPA/ HSPA+/ DC-HSPA+ 850/ 900/ 1900/ 2100Mhz
- Quad-band EGSM 850/ 900/ 1800/ 1900MHz

#### **Bandwidth**

- 4G LTE FDD/ 4GX LTE-A
- Downlink 150Mbps Uplink 50Mbps
- 4G LTE TDD
- Downlink 130Mbps Uplink 35Mbps
- DC HSPA+
- Downlink 21/42Mbps Uplink 5.76Mbps
- HSPA
- Downlink 14.4Mbps Uplink 5.76Mbps
- HSUPA
- Downlink 7.2Mbps Uplink 5.76Mbps
- HSDPA
- Downlink 7.2Mbps Uplink 384 Kbps
- WCDMA/UMTS
- Downlink 384 Kbps Uplink 384 Kbps
- EDGE
- Downlink 236 Kbps Uplink 118 Kbps
- GPR
- Downlink 85.6 Kbps Uplink 42.8 Kbps

# WiFi

802.11b/g/n; 300Mbps

#### SMS

 SMS call to control router to be online, offline, reboot, status info, alarm, WiFi on, WiFi off

#### VLAN

ID tagging supported

# Fail Over Redundancy (network backup feature)

- Auto-dial feature, keep alive link
- Cellular (2G/3G/4G), RJ45 WAN (xDSL, DHCP, Fixed IP), WiFi client

#### DTU

 DTU feature, serial RS232 to Cellular Gateway

#### **VPN**

- OpenVPN, IPSec, L2TP, PPTP
- Server and Client supported

#### Firmware upgrade

Supported locally and remotely

#### 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, Dynamic routing (OSPF, OSPF6, RIP, RIPng, BGP)
- Support firmware update locally and remotely

#### Security

- Supports 64/128 bits WEP, 802.1x, WPA and WPA2
- Supports WDS
- TKIP, AES encryption
- Supports WPA1/2- 802.1x
- Supports EAP- TLS, TTLS, LEAP, PEAP
- Supports access with username and password
- Supports access control base WAN/LAN interface
- Supports access control base source IP address
- Defence DOS attack, supports SYN flooding, IP surfing, ping of death, fragile, teardrop, land
- Supports PAP and CHAP
- Supports IP filtering

#### **Advanced Firewall Features**

- Network Address Translation (NAT)
- Stateful Packet Inspection (SPI)
- VPN Pass-through

#### **Media Access Control**

CSMA/CA with ACK

#### Certifications

Radius Client

#### **INTERFACES**

#### LAN

- 1 x 10/100M LAN port (RJ45 interface)
- 1 x 10/100M LAN/WAN port (RJ45 interface)

#### Antennas

- 2 x antennas for WiFi (detachable SMA interface x 2)
- 2 x antennas for Cellular (detachable SMA interface x 2, cellular supports diversity receiving MIMO)

#### I FD

- SYS\*1 CELL\*1 LAN\*1
- SIGNAL\*1

#### Serial port

RS232 built-in terminal block interface

#### **AT** command

Supported

#### **UIM/SIM Card Slot**

Supports 1.8/3V UIM/SIM cards, one sim card slot

#### DC Jack

Two types of power input
 Two types of power input
 2.5mm DC jack \* 1
 Terminal block \* 1

#### **POWER**

#### Power supply

- DC5V-40V, typical DC9V 1A or 12V 1A
- 12V car use supported

#### Power consumption

Current - Idle 122mA@12VDC
 - Max 208mA@12VDC

- Average 167mA@12VDC
Power - Idle 1.2W@12VDC
- Max 2.5W@12VDC

#### - Max 2.5W@12VDC - Average 2W@12VDC

#### **SOFTWARE**

#### **Device Management**

 WEB interface (Internet Explorer v6 or later, Mozilla Firefox v1.5 or later, Chrome, Opera, Safari or other Java-enabled browsers)

#### **Minimum System Requirements**

- Mobile Internet Access Subscription and Internet PC Adapter
- Computer with:

# PHYSICAL

#### **Operating Temperature**

Working -40°C to 85°C

# Humidity

95% Maximum (non-condensing)

#### Dimensions

With case 100mm x 60mm x 21mm

# Weight

- 220g (not including antennas)
- 330g (including antennas)
- 650g (including all accessories)

# OTHER

#### Warranty

• 1 Year

# **Regulatory Compliance**

RCM, CE, RoHS

#### **Package Contents**

- CM685 RouterCAT5 Ethernet
- Power Adapter4 x Antennas (2 x

Cell, 2 x WiFi)

CableSerial Cable