

ELPRO Technologies

CONNECTIVITY/CELL

ELPRO EL-645M-4
LTE CELLULAR MODEM, WIFI & ROUTER

Industrial 4G-LTE Wireless Modems & Routers, Industrial IOT Connectivity

DESCRIPTION

The ELPRO 645M-4 is today's leading solution for enabling your devices to the Internet of Things (IoT) and Industrie 4.0. Secure connectivity of your devices has never been so important in today's industrial world.

With the 645M-4 cellular modem, there is a secure, fast, reliable, and simple way to connect your devices to remotely monitor and control them from anywhere.

Using the 4G /LTE broadband cellular technology including 4GX, the 645M-4 ensures fast, reliable, and consistent connectivity with mission-critical field devices and assets.

The 645M-4 is a perfect complement to ELPRO wireless solutions, allowing customers to remotely access their networks and is a perfect tool for troubleshooting and diagnosing network health.

APPLICATIONS

- Water / wastewater pump control connectivity
- Irrigation monitoring and control
- Secure remote access to equipment
- Utility metering
- Wellhead monitoring
- Video Surveillance
- Pipeline management
- IIoT Deployments
- Smart grid networking
- Secure Peer to Peer networks

FEATURES

- 3G/4G/LTE Connectivity including Band 28
- Compact design for easy integration into machines or electrical cabinets
- SMS to control router online/offline, reboot, status, IO alarm, WiFi state
- Integrated RS232 Serial Server
- Automatic fallback to 3G networks
- LAN/WAN Fallback for redundant networks
- WiFi for remote hotspot and mobile applications
- IPSec & OpenVPN Client & Server, L2TP, PPTP
- GRE, Port Forward, DMZ
- Enhanced security for both cyber and data transmission
- 2 x 10/100M LAN / WAN Ports
- Antenna diversity for WiFi and Cellular bands
- 5-40VDC input range with wide operating temperature

MODELS

Order Codes	
645M-4-AU	4G/LTE Celluar Wifi Modem & Router
645M-4-US	4G/LTE Celluar Wifi Modem & Router
645M-4-EU	4G/LTE Celluar Wifi Modem & Router

SPECIFICATIONS

CONNECTIVITY/CELL

ELPRO EL-645M-4
LTE CELLULAR MODEL, WIFI & ROUTER

Communications TX & RX			
Model	AU	US	EU
Region	Australia, Asia, New Zealand, South America	North America	EMEA, Thailand
Cell Category	CAT1	CAT1	CAT1
LTE	B1/B2/B3/B4/B5/B7/ B8/B28/B40	B2/B4/B5/B12/B13/ B14/B66/B71	B1/B3/B7/B8/B20/ B28A
WCDMA	B1/B2/B5/B8	B2/B4/B5	B1/B8
GSM/EDGE	B2/B3/B5/B8	N/A	B3/B8
Carrier	Telstra, Optus, Vodaphone	Verizon, AT&T, T-Mobile, FirstNet, US Cellular, Rogers, Telus	Vodaphone, O2, Three, Orange, Deutsche Telecom
WiFi	802.11b/g/n: 300Mbps, RF Power; 20dBm 100mW, Access Point / Client / WDS		

Networking	
User Configuration	Web Page
Configurable Parameters	Network connection, tunnelling protocol, security, gateway protocols, LAN configuration
Network Protocols Passthrough	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)
Security	64/128 bits WEP, 802.1x, WPA and WPA2 TKIP, AES encryption WPA1/2- 802.1x EAP- TLS, TTLS, LEAP, PEAP Username and password Access control base WAN/LAN Access control base source IP PAP-CHAP / IP filtering /Radius Client
VLAN	ID Tagging supported
VPN	OpenVPN: up to 5 connections - client/server GRE: Layer2/3, up to 5 GRE tunnels, L2TP, PPTP IPsec: IKEv1, IKEv2, up to 5 IPsec tunnels
Remote Management	Auto-dial feature, Keep alive link cellular (2G/3G/4G), RJ45 WAN (xDSL, DHCP, FIxed IP), Wifi Client.
Serial Server	RS232 Terminal to IP Server
SMS	SMS call to control router to be online, offline, reboot, status info, alarm, IO, WiFi on, WiFi off

Interfaces & I/O	
LAN	1 x WAN, 3 x LAN or 4 x LAN, Auto 10/100Mbps
Cell	2 x SMA Female Main / AUX
Wifi	2 x SMA Female Diversity switched Main / AUX
RS232 Serial	2 wire interface (Tx and Rx) Terminal block
Terminals blocks	Removable, max conductor 16 AWG 0.1 in.^{2} (1.5 mm^2)
Discrete input/ Outputs	4 x DIO digital inputs or digital outputs (0-3.3 VDC) SMS monitor and Control
LEDs	SYS, VPN, SIGNAL, CELL, WAN, LAN, WiFi

Power supply	
Nominal supply	5-40 Vdc
Average current draw	122 mA at 12Vdc
Transmit current draw	208 mA peak at 12Vdc
Power Connection	2.5mm DC Jack or Terminal Block (prefered)

General	
Size (H x W x D)	106 x 60 x 21 mm (4.2" x 2.5" x 0.8")
Housing	Sheetmetal powder-coated, IP30
Mounting	Panel Mount, DIN Rail Mount (optional extra)
Temperature rating	-40 to +85°C (-40 to +185°F)
Humidity rating	0-90% RH noncondensing
Weight	220g (8oz)

Compliance	
Regulatory	Australia: RCM, Europe: CE, USA: FCC, Canada: IC
Safety	EN/IEC 62368 (RoHS compliant)

Specifications subject to change

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HOW TO ORDER

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