645M-4 4G/LTE Cellular WiFi modem and router

Secure Industrial Cellular and WiFi connectivity for IIoT applications

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

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.

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

Specifications
Specifications subject to change.

Specification	Description		

Cellular - Radio

	-AU Australia/Asia New Zealand South America	-US North America	-EU EMEA/Thailand
Model			
Cell Category	Cat 1	Cat 4	Cat 1
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		B3/B8
Carrier	Telstra, Optus, Vodaphone	Verizon/AT&T/ T-Mobile/U.S. Cellular/Rogers/ Telus	Vodaphone, O2, Three, Orange, Deutsche Tele-com
WiFi	802.11b/g/n; 300Mbps RF Power; 20dBm 100mW Access Point/ Client / WDS		

Networking

VPN	OpenVPN, IPSec, L2TP, PPTP Server and Client Supported
Protocols Supported	TCP, UDP, SMTP, POP, ICMP, FTP, PPP, PPPoE, DHCP, DDNS, DNS, SNMP, WPS, DMZ, Syslog (local and re-mote), 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
Fail over redundancy	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

Specification	Description

Interfaces

LAN	2 x 10/100M RJ45
Serial	1 x RS232 Terminal Interface
Antenna	2 x WiFi SMA (Diversity Support) 2 x Cellular SMA
I/O	4 x DIO Input or Output (0-3.3VDC) SMS Monitor & Control
LED	SYS, VPN, SIGNAL, CELL, WAN, LAN, WiFi

Power

Input Power	5-40VDC
Current Consumption	Idle 122mA@12VDC Max 208mA@12VDC
Power Connection	2.5mm DC Jack or Terminal block

Physical

Operating Temperature	-40 to +85deg Celsius -40 to +185deg Fahrenheit
Humidity	95% non condensating
Weight	220grams / 8ounce
Dimensions	100mm x 60mm x 21mm 4in x 2.5in x 0.8in
Warranty	3 Years
Mounting	Panel mount (optional DIN rail mount)
Sim Card	Standard SIM (15 x 25mm)

Compliance

Regulatory	RCM, CE, FCC, UL, IC, RoHS

Ordering Guide

North America	EL-645M-4-US
Europe	EL-645M-4-EU
Rest of the World	EL-645M-4-AU

ELPRO Technologies