

# **ELPRO Technologies - Secure Industrial Communications**

For over 35 years, ELPRO Technologies wireless business has helped companies around the world improve the management of their assets by offering a full range of secure and reliable communications systems. ELPRO's wireless business has a full range of products to help your facility safely and reliably use wireless technology to accomplish even your most critical needs. Our products can be used in a variety of applications, including water/wastewater, oil and gas, mining, utility, solar, flood and environmental and industrial automation.

We specialize in connectivity solutions for long-haul data communication in both licenced and licence free bands including IoT technologies.

We offer scalable solutions from basic point-to-point connections to large scale mesh deployments. Our solutions also cover both machine-to-machine and field instruments to control rooms for SCADA and DCS connectivty.

Comprehensive solutions - ELPRO's industrial wireless solutions can provide the most fundamental improvement in industrial applications. Innovative customers use wireless and IoT technologies to raise their overall equipment effectiveness, enhance safety and improve production quality. Coupled with far lower capital deployment costs, wireless infrastructure has moved beyond a convenience to a competitive advantage and an essential block for industrial applications.

Gain flexible control to streamline operations for greater quality and improved information management. We offer solutions that extend the boundary of monitoring and control into the most challenging and remote environments.

Integrate critical processes and manage the growing diversity of automation technologies. We support the integration into existing systems and environments controlled by SCADA, DCS, PLC or PC-based automation, enabling you to choose the best solution for your needs.

Safe and secure industrial wireless products include features to help customers build applications that provide a high level of data integrity and protection against malicious attacks. The built-in security features of ELPRO industrial modules include advanced encryption and filtering, multi-level authentication with user access and event logging.

Increase productivity at production startup, meet compliance deadlines and resolve ongoing maintenance problems. We help you gain insight into local and remote sites, conserving your resources and budget.

Improve safety by reducing or eliminating the need to expose workers to existing or potential hazards. Our solutions service critical applications ranging from mine slope wall detection, Flood warning and public safety networks to safety shower alerts.

Reduce total costs with simple to complex wireless architectures, and over small or large sites. We provide wire-free economics while delivering wire-like reliability.



## Wireless I/O

ELPRO offers a full range of wireless I/O modules that can transmit both digital and analog signals over the wireless network. Cutting edge meshing capabilities provide industry leading reliability to ensure devices always stay within network. Expansion I/O is available to support even the largest of networks.



#### Bidirectional - Mesh I/O

148 - 174MHz: 415U-2 340 - 520MHz: 415U-2 896 - 960MHz: 415U-2

(2022 release)



#### Bidirectional - Mesh I/O

868/869MHz: 915U-2

900MHz: 915U-2



#### Bidirectional - Mesh I/O

2.4GHz: 215U-2



#### Bidirectional - Battery Powered I/O

148 - 174MHz: 415U-1

340 - 520MHz: 415U-1 148 - 174MHz: ERT-A2

896 - 960MHz: 415U-1

(2022 release)



#### Bidirectional - I/O

148 - 512MHz: 105U-1 868/869MHz: 105U-1 900MHz: 905U-1



Unidirectional - I/O

868/869MHz: 105U-L-T/R 900MHz: 905U-L-T/R



**Unidirectional - Inputs** 

868/869MHz: 505U-K 900MHz: 905U-K



Unidirectional - Battery Powered I/P

900MHz: 905U-K-IP

# IoT



**Wireless Fieldbus Gateways** 

I/O to Ethernet

115E-2



Expansion I/O - I/O to serial

115S-11, 12, 13



# ELPRO offers gateways available in common industrial and environmental protocols, allowing your new wireless network to seamlessly

communicate with any existing network infrastructure, making implementation of wireless solutions simple and reliable.





#### Modbus TCP/RTU and DNP3

148 - 174MHz: 415U-2 340 - 520MHz: 415U-2

896 - 960MHz: 415U-2





#### Modbus TCP/RTU

868/869MHz: 915U-2 900MHz: 915U-2 2.4GHz: 215U-2



#### Modbus TCP/RTU and DNP3

115E-2



ALERT/ALERT2™, Modbus and DNP3

115E-2-ERT



#### PROFIBUS® DP (Master/Slave)

148 - 512MHz: 105U-G-PR1/2 868/869MHz: 105U-G-PR1/2

900MHz: 905U-G-PR1/2



Allan Bradley DF1, Modbus RTU

148 - 512MHz: 105U-G-MD1 868/869MHz: 105U-G-MD1

900MHz: 905U-G-MD1



#### EtherNet IP, Modbus TCP

148 - 512MHz: 105U-G-ET1 868/869MHz: 105U-G-ET1

900MHz: 905U-G-ET1

### Wireless Ethernet and Cellular

Ethernet is increasing in capability and importance in today's world. ELPRO is on the forefront of this technology, offering Ethernet data solutions in several radio frequency bands that provide users flexibility of selecting a technology matching their own unique application requirements. To support legacy applications, RS232 and RS485 gateway and serial server is supported in many of the products to provide interfacing with old and new assets. Full product portfolio includes licenced and licence free frequencies of Ethernet networking solutions and modems.





#### Licence / Licence Free - Mesh

148 - 174MHz: 415U-E
 340 - 520MHz: 415U-E
 896 - 960MHz: 415U-E

(2022 release)





Licence-free Mesh 2.4GHz

• 2.4GHz: 215U-2







#### Redundant Base Station and Repeater

148 - 174MHz: 415U-BSR-DC
 340 - 520MHz: 415U-BSR-DC
 896 - 960MHz: 415U-BSR-DC
 (2022 release)



900MHz: 945U-E





Licence / Licence Free

360 - 512MHz: 450U-E
 928 - 960MHz: 950U-E



802.11a at 5.8GHz

• 5.8GHz: 245U-E-A1



802.11b/g at 2.4GHz

• 2.4GHz: 245U-E-G1



Licence Free - Narrow Band

868/869MHz: 805U-E900MHz: 905U-E



Cellular & WiFi

• 645M-4



IIoT - Battery Powered I/O

• 415U-1-IoT (2022 Release)

## **Wireless Serial**

ELPRO's serial products are available in both licenced and licence free options. They connect to PLC's, SCADA, DCS and other intelligent serial devices and are highly scalable from simple point to point to large networks. In addition, many of the Wireless I/O and Ethernet products provide serial interface support.





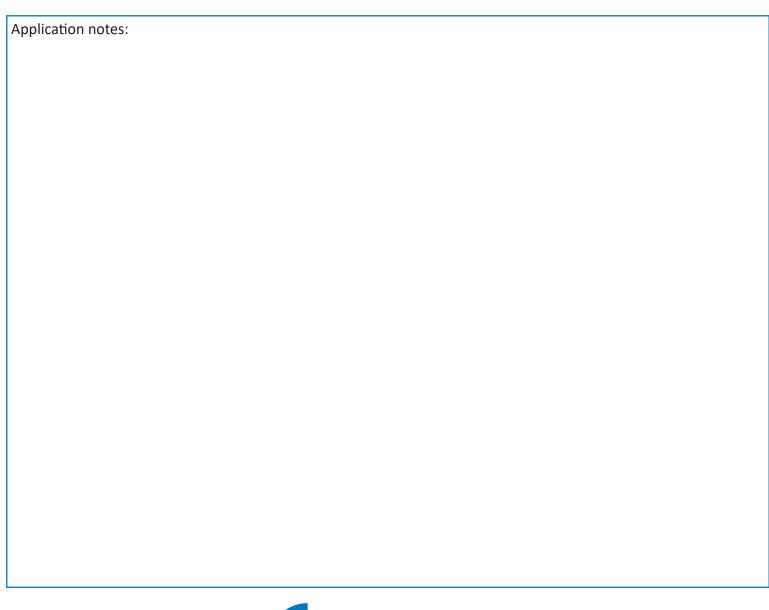
#### 60MHz

• 455U-D-60



#### Licence Free

868/869MHz: 805U-D900MHz: 905U-D





#### **ELPRO Technologies**

29 Lathe St Virginia, QLD 4014 Australia

Telephone: Global: +61 7 3352 8600 sales@elpro.com.au www.elpro.com.au

#### **ELPRO Technologies Inc**

2028 East Ben White Blvd, #240-5665 Austin, TX 78741-6931 USA

> Telephone: USA: +1 855 443 5776 sales@elprotech.com www.elprotech.com

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Licence free options may not be available in all areas.