



## CONDOR II

# ELPRO EL-415U-IAS INTELLIGENT ANTENNA SWITCH

CONDOR SMART COMMUNICATION  
SYSTEM MIGRATION SOLUTION

## DESCRIPTION

The Condor 415U-IAS allows legacy radio networks to be upgraded to state of the art Condor wireless radios in a controlled and systematic way. This reduces risk and downtime to the system performance, during system migration process.

The 415U-IAS utilizes existing antenna infrastructure and can be installed at the base or main repeater site. The 415-IAS allows for data and antenna connections to the legacy and Condor wireless units.

Monitoring the incoming serial data stream and communications to remotes site, the 415-IAS is able to route data through to legacy or Condor remote sites as sites are updated in the field. There is no Intervention by operations required.

The 415U-IAS can be installed into an existing system with a minimum of downtime, requiring only small cabling changes at the base or main repeater and minimum changes for existing SCADA polling parameters to complete installation. The 415U-IAS is paired with the Condor 415U-BSR base station repeater which provides a robust and reliable redundant hot standby base or repeater site.

System updates and migration of communications network equipment in SCADA applications can be very challenging, costly and risky projects. The ELPRO 415U-IAS intelligent antenna switch reduces risk, minimises downtime and costs due to duplication of equipment and streamlines the update process.

## APPLICATIONS

- **Water/Waste Water SCADA Networks**
- **Oil & Gas Well Monitoring Networks**
- **Pipeline monitoring**
- **Migrating legacy SCADA networks to Condor 415U wireless**
- **Alternative energy systems, such as Wind Turbines**

## FEATURES

- Reduces the changes required in base or repeater antenna systems saving time and money.
- Allows a planned, progressive roll-out of new Wireless field equipment, reducing risk of unexpected downtime.
- Integrated Antenna Switch with Intelligent data detection to automatically switch between legacy and new ELPRO wireless field units.
- Supports dual antennas systems allowing seamless operation with redundant base or repeaters.
- ELPRO Base or repeater units monitor all incoming data and automatically detect changes in field equipment from legacy to Condor.
- Modbus RTU support



### Order Codes

EL-415U-IAS-C1	Redundant Base Station/Repeater	148-174Mhz
EL-415U-IAS-C3	Redundant Base Station/Repeater	340-400Mhz
EL-415U-IAS-C4	Redundant Base Station/Repeater	400-480Mhz
EL-415U-IAS-C5	Redundant Base Station/Repeater	470-520Mhz
EL-415U-IAS-C8	Redundant Base Station/Repeater	894-902Mhz
EL-415U-IAS-C9	Redundant Base Station/Repeater	828-960Mhz

# SPECIFICATIONS



## ELPRO EL-415U-IAS INTELLIGENT ANTENNA SWITCH

### Communications

Frequency <sup>a</sup>	148-174 MHz, 340-400 MHz, 400-480 MHz 470-520 MHz, 894-902 MHz, 928-960 MHz
RF Insertion Loss	Less than 1dB
RF Power <sup>a</sup>	Max 10 W (+40 dBm) configurable
VSWR	Max 1.3:1 (Return loss -18 dB)
Switch Isolation	30dB

### Environmental

Ambient Temperature	-30°C to +60°C
Elevation	500m (1640') BSL to 2000m (6561') ASL
Humidity	0% to 90% Non-Condensing

### Interfaces

Antenna Switch	Two RF switches supporting redundant antenna Systems. Primary: ELPRO base or repeater Alternate: Legacy base or repeater ANT: Antenna System
Serial data	Legacy Radio: D25 RS-232 SCADA Computer: D25 RS-232 Rear DTE: D9 RS-232
Power	4 way screw terminal, pluggable
Earth Lug	M6 lug for system protective earth connection
Terminals Supply/RS485	Supply Input +/- RS-485 Base/Repeater Control

### LED Indications & Diagnostics

LED Indication	Power Alternate, Alarm, Primary for each antenna system
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### Connections

Antenna	Primary, Antenna, Alternate for each Switch: 3 x N-Type for each Antenna
Terminal Supply	Pluggable screw terminal Up to 1.5 mm <sup>2</sup> (28 - 16 AWG) 300 V / 8 A
RS232	1 x DB9 male (415-BSR interface) 1 x DB25 female (legacy radio)
RS485	2 wire data interface Terminal block

### Compliance

Regulatory	Australia: RCM, Europe: CE, USA: FCC, Canada: IC
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### Power supply

Nominal supply	9-30 Vdc, under/over voltage protection
Average current draw	30 mA @ 12 Vdc

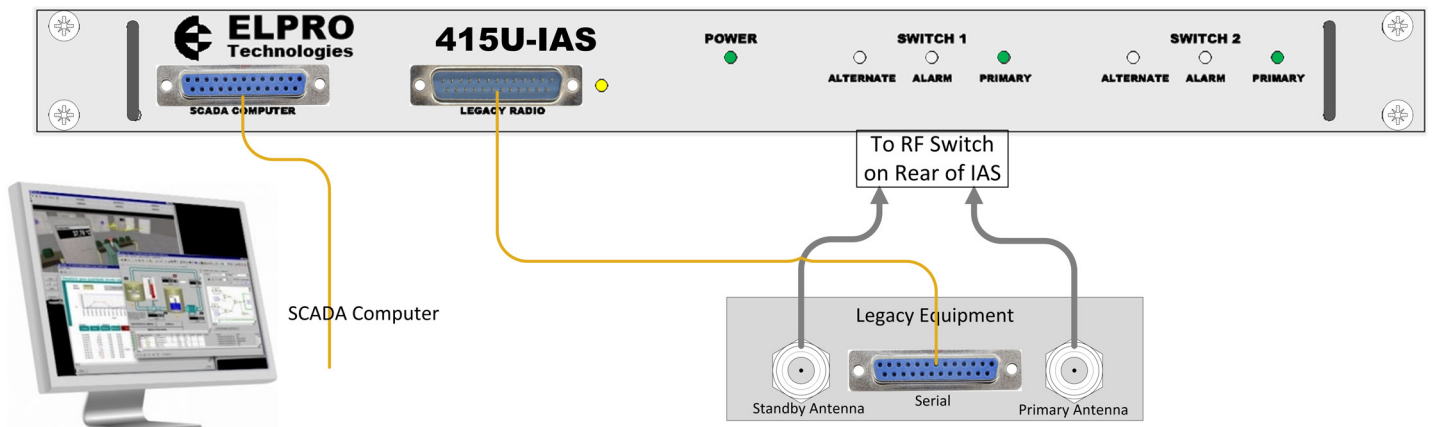
### General

Size	429(W) x 226(D) x 40(H) (19.9" x 8.9" x 1.6") Front panel 482(W) x 44(H) (19" x 1.7")
Housing	Rack Mounting Enclosure 1U
Mounting	19" Rack
Temperature rating	-40 to +75°C (-40 to +158°F)
Humidity rating	0-90% RH non-condensing
Weight	11.9 lb (5.4 kg)
Altitude	0-3000 m (0-10000')
Pollution Degree	4

#### Note:

<sup>a</sup> Available RF power and frequency may vary depending on country of application.

Specifications subject to change



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## HOW TO ORDER

Simply send us an email at [sales@elprotech.com](mailto:sales@elprotech.com), contact your local distributor, or phone **+61 7 3352 8600**

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