



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

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CONDOR SMART COMMUNICATION SYSTEM MIGRATION SOLUTION

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.

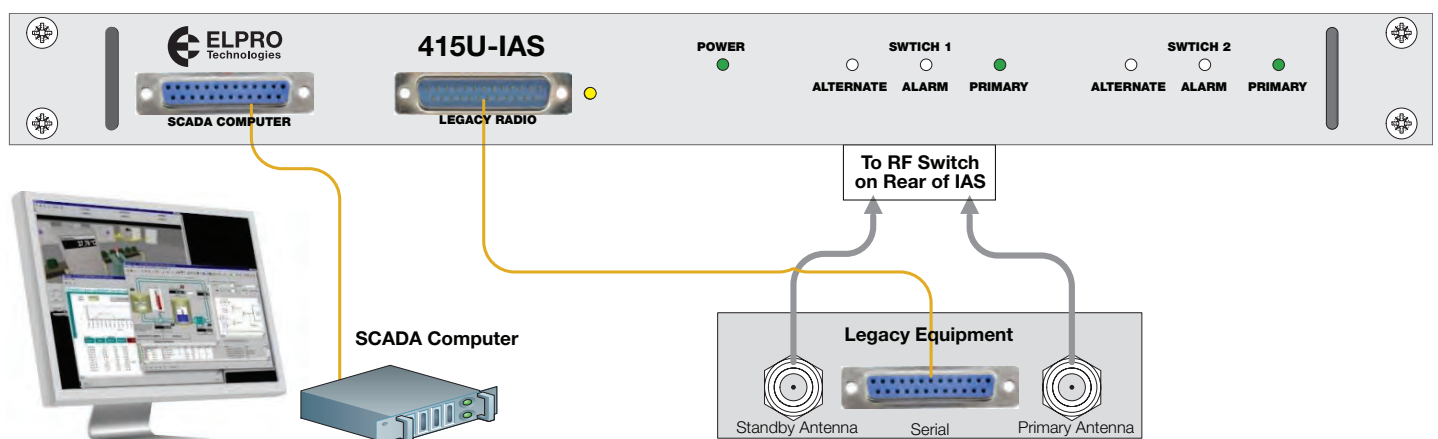
System updates and migration of communications network equipment in SCADA applications can be very challenging, costly and risky projects. The ELPRO 415U-IAS intelligent antenna switch reduces risk, minimises downtime and costs due to duplication of equipment and streamlines the update process.

FEATURES

- Reduces the changes required in base or repeater antenna systems saving time and money.
- Allows a planned, progressive rollout 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

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



SPECIFICATIONS*

Communcations	
Frequency Bands	148-174 Mhz, 400-480 MHz, 896-960 MHz
RF Insertion Loss	Less than 1 dB
RF Power	Max 10 W input with internal protection
VSWR	Max 1.3:1 (Return loss -18 dB)
Switch Isolation	30 dB

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

Connections	
Antenna	Primary, Antenna, Alternate for each Switch: 3 x N-Type for each Antenna
Terminals Supply	Pluggable screw terminal Up to 1.5 mm ² (28 - 16 AWG) 300 V / 8 A
RS-232	1 x DB9 male (415-BSR interface) 1 x DB25 female (legacy radio)
RS-485	2 wire data interface Terminal block

Compliance	
Regulatory	Australia: RCM, Europe: CE, USA: FCC, Canada: IC

Power Supply	
Nominal supply	9–30 Vdc, under/over voltage protection
Current	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) 0-99% RH noncondensing
Weight	2 kg (4.4 lbs)
Altitude	0-3000 m (0-10000')
Pollution Degree	4

Ordering Guide	
EL-415U-IAS-C1	Intelligent Antenna Switch Migration System 148-174 MHz
EL-415U-IAS-C4	Intelligent Antenna Switch Migration System 340-540 MHz
EL-415U-IAS-C9	Intelligent Antenna Switch Migration System 896-960 MHz

Compatible Condor Radios	
EL-415U-BSR-DC-Cx	415U SERIES BASE STATION REPEATER, 10 W, 148-960MHZ, FSK, QAM
EL-415U-E-Cx	415U-E WIRELESS ETHERNET MODEM, 5 mW-10 W, 6.25/12.5/25 kHz, 96 kbps QAM, 148-960 MHz
EL-415U-2-Cx	415U-E WIRELESS I/O GATEWAY MODEM, 5 mW-10 W, 6.25/12.5/25 kHz, 96 kbps QAM, 148-960 MHz
EL-415U-E-Cx-EX	415U-E WIRELESS ETHERNET MODEM, 5 mW-10 W, 6.25/12.5/25 kHz, 96 kbps QAM, 148-960 MHz
EL-415U-2-Cx-EX	415U-E WIRELESS I/O GATEWAY MODEM, 5 mW-10 W, 6.25/12.5/25 kHz, 96 kbps QAM, 148-960MHz
EL-415U-1-Cx	Condor 415U-1 Wireless Battery I/O, 5 mW-10 W, 6.25/12.5/25 kHz, 96 kbps QAM, 148-960 Mhz
EL-115S-11	Modbus IO Expansion 16 DI/O; 10.8-30 VDC
EL-115S-12	Modbus IO Expansion 8 DI/O, 8 AIN; 10.8-30 VDC
EL-115S-13	Modbus IO Expansion 8 DIO, 8 AOT; 10.8-30 VDC
EL-645M-4	4G-LTE Cellular IoT Router 2 Eth, 4 DIO, RS232

ACCESSORIES

Product Code	
CC3/10/20-SMA	Coaxial cable kit, 9.8' (3 m)/ 32' (10 m)/65' (20 m) , N-type to SMA
CCTAIL-SMA-F/M	Coaxial cable tail, 24" (600mm), SMA to N-type female or male
ETH-C5A	Ethernet cable, 6' (1.8 m), straight through, RJ-45 to RJ-45
PS-DINAC-24DC-OK	DIN rail power supply, 85–264 Vac, 24 Vdc/2.5 A
CSD-N-6000	Coaxial surge diverter, bulkhead N-type female to N-type female
CBLSER-RJ45	RS-232 Serial Cable DB9 Female to RJ45
CBLSER-DB9	RS-232 Serial Cable to PC DB9 2 Metre
CBLSER-DB25	RS-232 Serial Cable to PC DB9 1.5 Metre
CBLSER-DB25-D9	RS-232 Serial Cable PC D25 (male) to DB9 (female) 1.5 Metre



* Specifications are subject to change.

HOW TO ORDER

Simply send us an email at sales@elpro.com.au, contact your local distributor, or phone +61 7 3352 8600 or +1 855 443 5776 (Americas)

ABOUT ELPRO TECHNOLOGIES

ELPRO Technologies has over 35 years of history in providing secure industrial communications globally. We are an industrial wireless manufacturer with full engineering design, manufacture, supply and support of secure and flexible wireless solutions. Our products allow customers to gain control of their assets and improve their operations. As a global leader in industrial wireless I/O connectivity, we have a clear focus on the customer and solving their problems, using our innovative products and solutions. Our experienced team understand the value of quality backed by impeccable service.

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