technical datasheet

9469-ETplus

Intrinsically Safe Wireless Access Point / Bridge

- Tri-Band operation
- Convert Ethernet device to wireless
- Zone 1, Division 1 mountable
- Rapid roaming
- 10/100Mbs Ethernet
- ATEX / IECEx certified
- FM / FMC approved
- Wide temp. range –20°C to +60°C
- PoEx™ Power over IS Ethernet option

The 9469-ETplus is a multi-functional module that can be used as an Access Point, Wireless Bridge (Client) or Wireless Repeater.

When used in the Access Point (AP) mode, it allows wireless devices to connect through it and onto the wired Ethernet network, either in AD-HOC or Infrastructure modes.

When used as a Bridge, it makes it possible to turn any 10/100 Ethernet device into a wireless device, or to connect two network segments together to make a single network (without the interconnecting wire or fibre optic).

Additionally the module may also be used in its Wireless Repeater (WDS) mode to extend the range covered by a wireless network.

Designed for hazardous-area mounting, the 9469-ETplus has intrinsically safe, Zone 1, ATEX and IECEx certification and Division 1 FM (USA and Canada) approvals, and may only require a suitably IP-rated enclosure, where necessary. The ATEX and IECEx approvals cover both surface industry and mining applications.

The unit may be powered by an intrinsically safe power supply or by Power over IS Ethernet (PoEx) providing intrinsically safe power and Ethernet communications over a single Cat5e cable.

The Tri-Band operation offers flexibility in situations where the 2.4GHz band may be overcrowded or where operation in the 5GHz and 5.4GHz bands is desired. Optional dual antennae also provide diversity improving wireless operation.

Compliant with IEEE 802.11 a/b/g/h & Super AG standards, up to 108 Mbps data rate and provides security: WEP, WPA-PSK, WPA2-PSK and IEEE 802.1X (RADIUS).

Status LEDs are provided on the front panel for:

- 'Power On'
- WLAN ' Activity'
- Status/Fault
- Copper UTP 'Activity'
- Copper UTP '10/100Mb Link'

Configuration is straight forward with an easy to use web based application. The unit supports 802.11d (multi-country roaming) which allows the country to be selected during setup, ensuring the configuration complies with regulatory limits. The module is supplied as a DIN-rail mountable unit.

SPECIFICATION

See also System Specification

POWER INPUT

PoEx or separately powered

Input voltage
12V DC (9.5–12.8V)

Input current
270mA

Input protection
Fuse + supply reversal diode

IS ETHERNET

Intrinsically Safe 10/100 base T

Connector
RJ45

PoEx
Powered Device

WLAN

Standards
IEEE 802.11a/b/g/h

Frequency range
2.4 / 5 / 5.4GHz

Data Rate
up to 108Mbps (Super AG mode)

Modulation
OFDM: BPSK, QPSK, 16QAM, 64QAM, DSSS: DBPSK, DQPSK, CCK

Operating channels (802.11bg)

USA / Canada	1-11
Europe / Australia	1-13
Japan	1-14 (channel 14 for 802.11b only)

Security
64/128 bits WEP, WPA-PSK, WPA2-PSK, IEEE 802.11x (RADIUS) authentication, MAC address filtering, SSID broadcast control

Transmit power
+20dBm with TPC (100mW max.)

RX Sensitivity
–92dBm for IEEE 802.11a/g
–95dBm for IEEE 802.11b

Rapid Roaming
<50ms

Antenna connector
2 x Female SMA - standard polarity

SOFTWARE

Administration software
Web-based management using any standard web browser (Internet Explorer, Netscape, Mozilla…), SNMP agent (MIB 2.12)

FIRMWARE

Runs versions 5.20 and higher

SAFETY

Location of module
Zone 1, IIC T4 hazardous area
or Class 1, Div 1, Groups A, B, C, D T4 hazardous location

Location of field wiring
Zone 0, IIC T4 hazardous area
or Class 1, Div 1, Groups A, B, C, D T4 hazardous location

Ethernet protection
intrinsically safe

Certification Code
See approvals page

Safety description
See certificate

MECHANICAL

Mounting
DIN rail

Dimensions (mm)

Length	75
Width	100
Height (off rail)	116

Weight
1200 g

LED INDICATORS

	OFF	FLASH	ON
PWR (green)	Power fail	N/A	Power OK
WLAN (yellow)	Idle	Wireless LAN data activity	N/A
STAT (red)	AP mode = Normal status	–	Fault
	Bridge mode = connection to AP is established	Bridge mode = attempting to connect to AP	
ACT (yellow)	Ethernet link disconnected	Ethernet link activity	Ethernet link connected
100 (green)	Ethernet link set to 10Mbps	N/A	Ethernet link is 100Mbps

ENVIRONMENTAL

Ambient temp

Operating	–20°C to +60°C

(except where stated in individual module specifications)

Storage	–20°C to +60°C

Relative Humidity
5 to 95% RH (non-condensing)

Ingress Protection
Select enclosure to suit application, see certificate for information