



# AMEREX – 30113 Triple digital and one digital output encapsulated

#### 30113 Triple digital input

AMEREX Integrated 30113 triple digital inputs module is one of a range of base units that can be connected easily to other items of equipment, such as valve monitoring equipment, fire alarm panels and many other applications.

AMEREX Integrated 30113 employs innovative ideas and technologies to provide the best possible mesh platform for the user.

The 30113 is an IEEE 802.15.4, low-power, highly reliable solution for embedded wireless control and monitoring networks requiring high data rates. The 30113 employs SNAP OS, the industry's first internet-enabled, wireless mesh network operating system, into the Atmel ATmega128RFA1 single-chip AVR® microcontroller with an integrated transceiver that delivers up to 2Mbits/sec.

SNAP OS on-board Python interpreter provides rapid application development and over-the-air programming, while Atmel's low-power RF single-chip design saves board space and lowers power consumption.

The modules provide up to 16 channels of operation in the ISM 2.4GHz frequency band.

## Benefits AT A GLANCE:

- 3 x Digital inputs
- 1 x Relay driver output (rated 100mA)
- 1 x LED output
- Transmit Power output up to +20 dBm
- SNAP mesh enabled (2.4GHz, IEEE 802.15.4)
- RF Data rate up to 2Mbps
- Power requirements 5-24v dc. or separate battery pack (P/N 30120 or 30121)
- Mesh networking (2.4GHz)
- -40°C to +70°C Industrial operating temperature



### **AMEREX-30113**

By default, the 30113 operating system automatically forms a mesh network with other nodes immediately on receiving power. No further configuration is necessary.

AMEREX Integrated 30113 module has been especially designed for ease of use and to provide the user with a stable mesh network.

The 30113 provides three digital inputs and one monitored digital input which is selectable via on-board jumper.

The unit also provides a LED output and a single output for a relay rated at 100mA.

The 30113 is powered by 24v d.c.

\*The 30113 has the ability for the user to choose an on-board antenna or have an external antenna installed.

### In depth information:

- 32 GPIO with up to 7 A/D inputs
- 128k flash, 58.5k free for over-the-air AIF-2016000 uploaded user apps

• Two UART ports for control or transparent data

- Low power modes:
  - Timed Sleep Mode 1 : 1.27 μA
  - Timed Sleep Mode 2 : 1.47 μA
  - Untimed Sleep Mode : < 390 nA
- Spread Spectrum (DSSS) technology
- Up to 2 Mbps radio data rate
- 2.4 GHz RF Frequency
- AES 128-bit encryption
- · Integrated on-board compact F antenna or
- U.FL connecter\*
- Surface Mount, Solder-able
- 4K internal EEPROM
- 8 PWM outputs
- Supports over the air firmware upgrades.





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Part Number: Form Number: