PRODUCT SUMMARY

The Delta Integrated DI 20114 is an edge device to machine interface unit.

It is designed to connect Delta Integrated's edge devices to industry standard fire panels, using one of its three relay outputs to inform the panel that a device on the mesh network has sent an alert.

It has an inbuilt LCD display that shows the information on the connected nodes.

The 20114 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 2M-bits/sec.
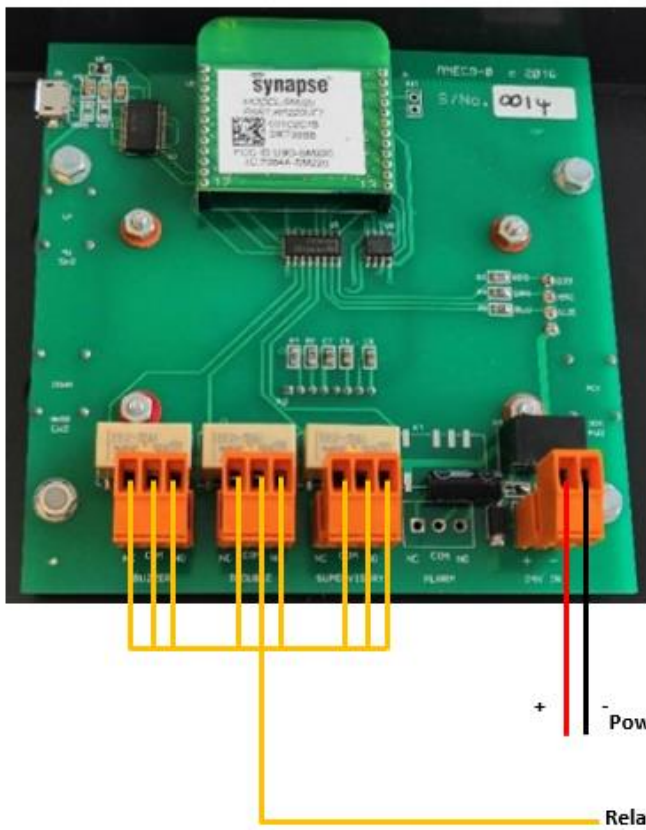
SNAP OS on-board Python interpreter provides rapid application development and over-the-air programming, while Atmel's low-power RF single-chip design saves board space and lowers power consumption. The modules provide up to 16 channels of operation in the ISM 2.4GHz frequency band.

BENEFITS AT A GLANCE

- 3 x relay outputs allow for simple communications with pre-existing fire and safety systems representing trouble, supervisory and buzzer outputs (35Vdc max at 2amps)

- Dual line 16-character LCD display with node information and alert type displayed, colour changes between flashing red (Non-acknowledged), red (Acknowledged) and green (Resolved) depending on the state.

- Stainless steel enclosure

- Transmit power output up to +20 dBm

- SNAP mesh enabled (2.4GHz, IEEE 802.15.4)

- RF Data rate up to 2Mbps

- Powerful processing to manage the data received over the mesh

- Self-healing mesh network

- 0°C to +49°C industrial operating temperature

CONNECTION DIAGRAM

DETAILS

1. Power Supply: 12-24Vdc @ 150mA
2. Relay Outputs
    1. Single Pole Double Throw
        1. Common
        2. Normally Open
        3. Normally Closed

COMPLIANCE

- ACMA Radiocommunication (Low Interference Potential Devices) Compliant
- SNAP mesh enabled (2.4GHz, IEEE 802.15.4)

APPLICATIONS

- Connecting Delta Integrated's mesh network to a Fire Panel
- Displaying the status of nodes on the mesh network
- Simple control systems

SPECIFICATIONS

Electrical rating
- 12-24Vdc

Dimensions
- 275 x 175 x 67mm

Mounting
- 4 x key-hole slots on the rear of the panel

PRINCIPLES OF OPERATION

The DI 20114 operates using the SNAP Mesh Network. This innovative and secure technology ensures stable and near instantaneous network communications. In the event that the direct route of communication between units is broken the mesh can reroute communications to ensure continued communication.

CERTIFICATION

- FFC Part 15.247, FCC ID: U90-SM220
- Industry Canada (IC), 7084A-SM220
- Pending FM Approval as part of a complete system under FM 3135 Sprinkler Valve Supervisory Devices Approval Standard

DELTA
INTEGRATED SYSTEMS