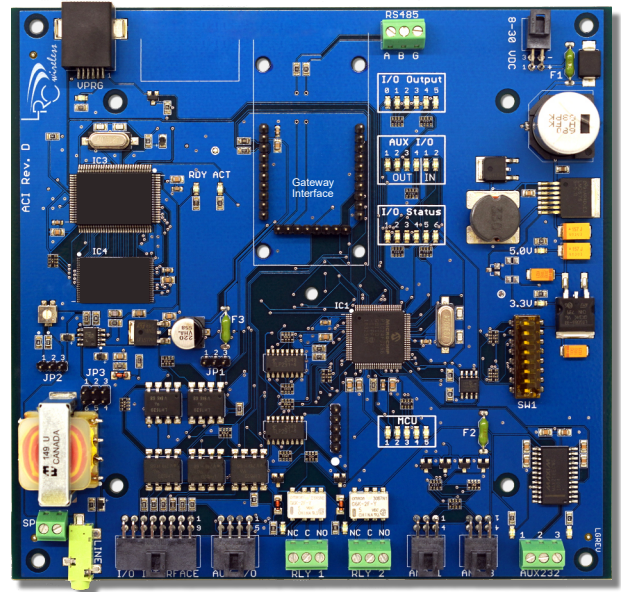# ACI
Advanced Control Interface

Overview

The ēlert™ Advanced Control Interface (ACI) is a mass notification system controller designed that greatly enhances process of notifying industry personnel and/or the public of environmental and industrial emergencies. The ACI communicates with the ēlert™ Dispatch Server via the DNP3 protocol by way of RS-485 or Ethernet communications.

The ACI has been designed to be installed in Whelen IPS and WPS siren cabinets as an alternate control and diagnostic processor that expands the effective capability and range of existing systems by providing enhanced messaging, control, monitoring, and diagnostics.

An on-board voice chip set provides the ability to manage tone and multi-lingual speech transmissions during an emergency event. Up to 33 minutes of voice messages and alert tones arranged in a reference library can be activated during an event. Output audio is interfaced to external equipment through a switchable 600 ohm or line level output.

An auxiliary serial port provides the expanded ability to display messaging simultaneously on digital signage. This provides the added ability to display what is being spoken by the alerting system so that personnel in high noise areas or far away from the siren can accurately receive the message.

Additional peripherals can be controlled or monitored by the ACI though its additional I/O connections to further enhance the process of ensuring peak performance and reliability of the host siren system.

Features and Functionality

- 8-30 VDC Power Supply
- Voice Synthesizer chipset with 8MB of on-board flash memory providing zero-power message storage.
- Up to 33 minutes of recorded audio.*
- Selectable Line Level, 8 ohm or 600 ohm audio output
- On-board jumpers for audio and function configuration.
- Status LEDs to simplify troubleshooting of system
- External push button and status indicator interface
- External Whelen siren interface
- Two Form-C, 5A Relays
- Two 0-5V analog inputs for external sensors
- Auxiliary RS232 port provides interface to external marque signage
- Communication gateway interface to support DNP3 protocol via TCP, UDP or RTU.
- Firmware upgradable

System Diagram

3rd Party
Siren System

Digital or LTE

Encrypted
Over-the-Air

DNP 3.0 Protocol

Master Radio

Remote Radio

ACI

Server / User Interface 1

TCP/IP Network

3rd Party
Siren System

ACI

Server / User Interface 2

Backup Server(s)

Digital Signage

Emergency Information

ACI

Intercom

Strobe Light

Self-Powered Speaker