

# APPLICATION BRIEF

## 2020

### CUSTOM CONFIGURATION READER INTERFACE

#### Brief Description:

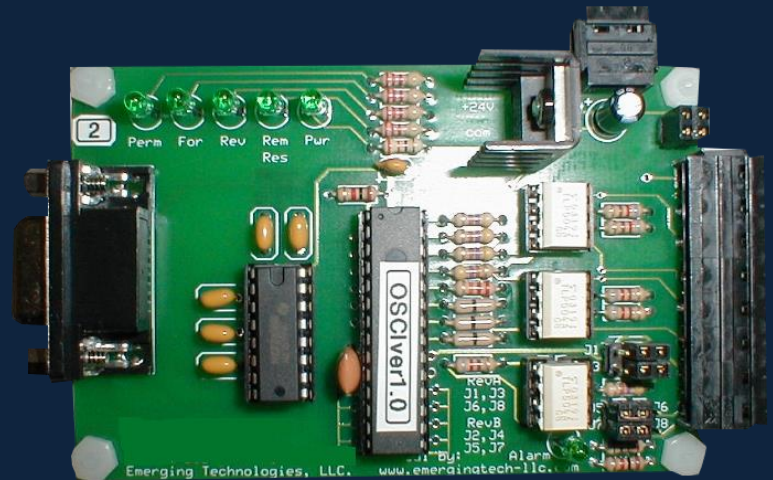
Emerging Technologies, LLC. was called upon to develop an interface that could provide communication between a customer supplied device and a host computer. The interface also needed the ability to control the device I/O via RS232 request from the host computer. The MCU on the interface was programmed to put the device into communication mode using a proprietary synchronous communication. Data is read back from the device using a proprietary asynchronous variable baud rate communication. The information is then communicated with the host computer using standard asynchronous serial communication. Additionally this interface utilizes optical isolation between the host computer and the device.

The purpose of the interface is to facilitate communication with, and control of the customer device to allow testing via setting the I/O from the host computer, verification of the configuration, and reading of internal values store in the devices on board MCU.

Emerging Technologies utilized Microchip PIC series MCU's and in house PCB design / build capabilities for this custom interface.

#### Customer Benefit:

The customer was able to perform production testing and post production interrogation on their device using the Emerging Technologies, LLC. custom designed interface when no off the shelf interface was available.



#### ET Responsibilities:

- ✓ Functional Specification Generation
- ✓ Design / Engineering
- ✓ Fabrication
- ✓ Programming – Software
- ✓ Programming – Firmware
- ✓ Field Installation
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support
- Other

#### Technologies:

- Embedded Computers
- ✓ Microcontrollers
- Visual Software
- ✓ Control Software
- ✓ Data Acquisition
- Computer Based Control
- ✓ Communications
- ✓ System Integration
- Other

#### Customer Category:

- OEM
- ✓ Industrial Manufacturer
- Custom Equipment
- Utility
- R&D