Emerging Technologies

CUSTOM PROGRAMMING/TEST SYSTEM INTERFACE

Brief Description:

Emerging Technologies, LLC. was called upon to develop an interface that could facilitate four related interfaces to the single customer device. The interfaces consisted of "piggy back" connection of a calibration chip <u>or</u> the in circuit serial programmer (ICSP), asynchronous to synchronous serial converter, and remote controlled discrete I/O.

The purpose of the interface is to facilitate communication with, and control of the customer device under test (DUT). The process requires discretely switching in the calibration chip, gather data from the DUT via the synchronous to asynchronous converter, and switching out the cal. Chip and then aligning the programmer for ICSP on the target MCU on the DUT. Final testing of the DUT is monitored via the discrete I/O connection.

Emerging Technologies utilized Microchip PIC series MCU's, MPLAB, in house PCB design / build capabilities, and custom Visual Basic application development for this custom interface. The interface was integrated, by Emerging Technologies, with a variety of existing software and hardware.

Customer Benefit:

The customer was able to perform production calibration and test on their device using the Emerging Technologies, LLC. custom designed interface when no off the shelf interface was available.
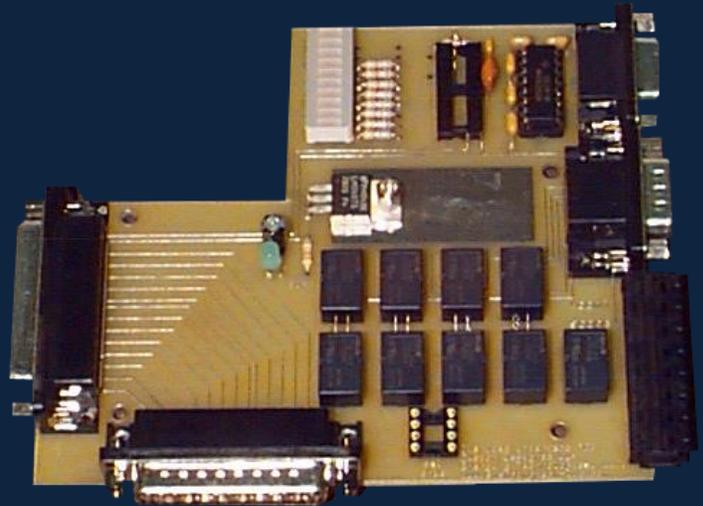
ET Responsibilities:
- ✓ Functional Specification Generation
- ✓ Design / Engineering
- ✓ Fabrication
- ✓ Programming – Software
- ✓ Programming – Firmware
- ✓ Field Installation
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support
-   Other

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