ALTEN CALSOFTLABS
AN ALTEN GROUP COMPANY

THERMAL PRINTER CONTROL CARD DESIGN

THE CLIENT

The client is a promising vendor of micro-controllers.

BUSINESS NEED

The client envisaged to design and develop thermal printer control card hardware based on M16 series Renesas micro-controller for industrial and commercial applications. The design supports both 2" and 3" thermal printer mechanisms. The challenges faced in the process includes the following:

- Design and develop a cost-effective, feature-rich controller that supports multiple size print mechanisms (2" and 3") and is fast enough to handle continuous print jobs
- Support multiple mode operations like master and slave operations
- Master mode had to support SPI interface so that it could be interfaced to any host Supporting SPI interface
- Development of APIs which could be used by any host for interfacing with the controller/printer

TECHNOLOGY USED

- M16 series micro-controller from Renesas
- Motor controller
- Board firmware
- SPI /Rs232
- APIs for SPI interface
- PADS & Orcad

SOLUTION DELIVERED

- Designed and developed thermal printer controller card based on Renesas R8C/25 processor with master and slave interfaces
- Developed motor controller interface and Fujitsu printer driver
- Designed & developed software for thermal printer application on prototype board
- Performed integration testing with printer mechanism (2" or 3") application as per approved test plan
- Fabricated, assembled and tested prototype board for required number of prototypes

BUSINESS BENEFITS

- Multi-mode Support
- Variable print size support

www.altencalsoftlabs.com

business@altencalsoftlabs.com