SysEng (S) Pte Ltd

SysEng has deployed many outdoor wire-less remote monitoring and control systems since 1996 and extensive field and practical experiences in hardware, software, setup and support. We provide our clients reliable and cost effective solution, based upon a **Total Cost of Ownership** approach.

Some of the Applications:

- Control & Monitoring of Industrial equipment faults, liquid levels, etc
- Monitor Refrigerators
- Remote site control and Data Acquisition
- Data Loggers
- Process Monitoring and Reporting
- Remote Meter Reading
- Alarm / Security Systems
- Mobile Tracking Application
- Remote Warning Siren and Lights

- Remote resets when system hangs
- Monitors UPS activations
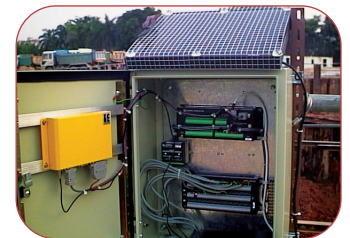- Smart SMS Mouse trap !

SMS Alert Messages to Handphones

SMS Warning Red & Yellow Rotating Light Module

GPRS Weather Monitoring Stations powered from Solar Panel

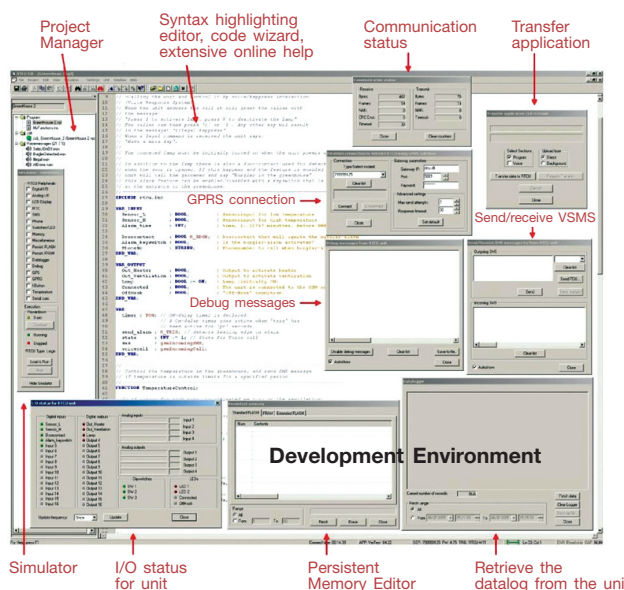**GPRS Real Time Sound Level Monitoring Station**

GPRS Real Time Strain Gage Level Monitoring Station powered from Solar Panel

Logic IO Full feature Wire-less Remote Terminal Control Unit

The RTCU is a M2M product range from Denmark's Logic IO used by many clients as it is proven and tested product for mission critical applications. The unit has built-in GSM/SMS and GPRS capabilities and is fully programmable with a multi-tasking BASIC like software language.

The unit has extensive power management functions to conserve energy when used in remote applications. It can be programmed to perform localized intelligence programmed decisions like thermal shut-down of equipment without going through other wire-less networks which have latency effects and not suitable for real time control application. It has on-board 512K Flash memory for data logging applications. The unit runs from mains and +12V, has Digital I/Os, Analog inputs, RS232/485 ports, 1-wire bus and optional 12 channel GPS receiver.

Windows based Development Environment for RTCU for project, on-line help, syntax highlighting editor, code generation wizard, voice recorder,etc. It has a built-in simulator for the RTCU functions of GSM phone, SMS messaging, GPS, Analog, Digital I/Os to help clients to shorten the development time.

Project Manager
Syntax highlighting editor, code wizard, extensive online help
Communication status
Transfer application
GPRS connection →
Send/receive VSMS
Debug messages →

Development Environment

Simulator
I/O status for unit
Persistent Memory Editor
Retrieve the datalog from the unit

RTCU M10G

CE approved
EN-50081-1 Emission
EN-61000-6-2 Immunity
IP44 Aluminum casing

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TCS Low Cost Basic Wire-less SMS Remote Terminal Unit

TCS product range is a low cost simple to use RTUs. The unit has an embedded on-board software which is configurable either with a serial cable or SMS with a mobile phone. Password control is used to prevent unauthorized modifications. Highly reliable as it has many industrial user base and stable design since 2000.

TCS Micro is ideal solution for a simple low cost remote control and monitoring applications:

- Remote Control & Monitoring using SMS
- Configurable SMS message with Mobile Phone or Serial cable
- Small foot print with on board antenna
- 1 Opto-coupled Input
- 1 Low Power Relay
- Operates from 12 to 24 Vac/dc
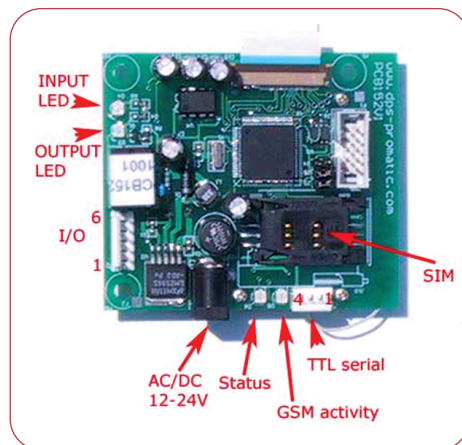
TCS Basic is suitable for simple remote control and monitoring for multiple inputs

- 8 Digital Inputs
- 8 Digital Open Collector Outputs
- 1 Low Power Relay (via DO Ch8)
- Operates from 12 to 24 Vac/dc
- On board Lead battery charger

Optional

- 1 4-to 20 mA Analog Input
- 1 Temperature Input
- 512K Flash for Data Logging option
- Speech Synthesizer
- DTMF Decoder

INPUT LED
OUTPUT LED
I/O 6
1
SIM
AC/DC 12-24V
Status
GSM activity
TTL serial

158
89 mm
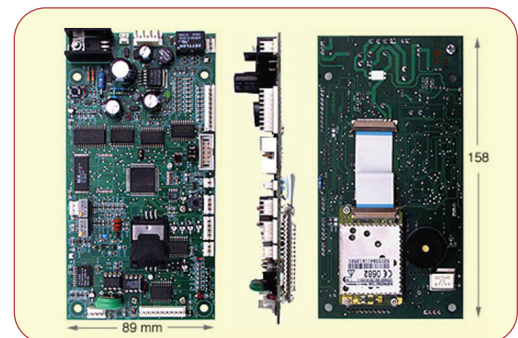
GSM/GPRS Module with embedded micro-controller

For high volume clients, SysEng embedded group can design application specific units using GSM/GPRS modules for various applications with additional peripherals and I/Os.

Mission Critical M2M Remote Water Level Monitoring System

In 1999, SysEng first Wire-less M2M Industrial Water Remote Monitoring & Control using GSM. This mission critical system monitors the water levels and transfer this information to the pumping stations. For data communication, the system uses analog leased line with a 100% backup GSM data line.

M2M RTCU & RF Antenna Lightning Protection
Modem
25 km from remote site to pumping station
Leased Line
GSM

A — Mains 240V ac with spike voltage suppressors
RTU with Lightning Protection
Ultrasonic Level sensor (0 ~ 15 m)
RS 485

B — RTU with Lightning Protection
Ultrasonic Level sensor (0 ~ 15 m)
RS 485

C — RTU with Lightning Protection
Ultrasonic Level sensor (0 ~ 15 m)

Modem junction unit with Lightning Protection
Real Time Water Level Monitoring
Trend chart | Trend chart
M2M RTCU

Backup system
Wireless Water Monitoring System
Trend chart | Trend chart