

RA Ecosystem Partner Solution GCT Lab ProtoKit IA Protocol Stack



Solution Summary

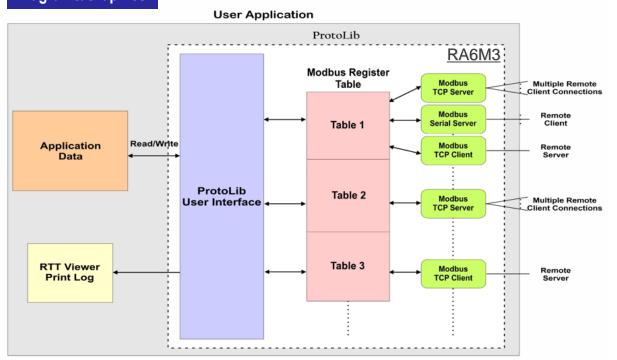
The protocol library stack designed and developed by GCT Lab for Renesas RA series MCUs supports Modbus, IEC 60870-5-101 and IEC 60870-5-104 communication standards. The optimized embedded Modbus TCP/IP and RTU stack enables communication with multiple clients and servers using ProtoKit application software developed and ported onto Renesas RA6M3 MCU by GCT Labs. It is easily ported to other RA microcontrollers with Ethernet functionality.

Features/Benefits

- Support for Modbus RTU, TCP/IP, Serial communication
- Implementation of the standard Modbus Function Codes and Exception Codes
- · Multi-Threading

- Multiple TCP/IP Modbus Servers and Clients
- Multiple Serial Modbus Servers
- Concurrent connections to a TCP/IP Modbus Server

Diagrams/Graphics



Target Markets and Applications

- Industrial IoT and I/O Module Interface
- Protocol Convertors
- IoT Gateway



Gayatri Comtek Lab Profile

Gayatri Comtek Lab, established since 1995, is a Team of passionate technocrats. In our Research & Development Lab, we experiment, design and develop products from concept to final stage. We have 3 USA patents to our credit. We have a track record of having a long-term association with our Clients, Associates and Vendors.

Technology Spectrum

Core Activities

- Embedded Design
- Circuit Design
- Firmware & Software
- Communication Protocols
- Manufacturing
- **❖** OEM Solutions

Industry Domain

- Substation Automation
- Process Automation
- Cyber Security
- Medical Diagnostics Equip
- CNC Machines Software
- IIoT enabled products

USA Patents

US9209971, US9336363, US9460302

Products / Solutions

Power & Energy

- Transformer Automatic Voltage Controller
- Remote Terminal Units
- Communication Gateways
- Standard Energy Meters
- ❖ Portable Power Source

Communication

Protocol Stack (IEC-61850, IEC-101/104/103, HSR-PRP, Modbus, ITU-T.30, HART, ...)

SCADA

- ❖ ProcVu (For Process Industries)
- PowerVu (For Electrical Utilities)

Kite (USA Patented Technology)

Enhanced Cloud Security for Data In
 Transit and Data at Rest

Special Solutions

- Remote Monitoring & Diagnostics System
- Pollution Monitoring System
- Digital Cinema Technology



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25+ years
Industrial Experience



INDIA



15+
Global Clients

USA

https://www.gctlab.in/