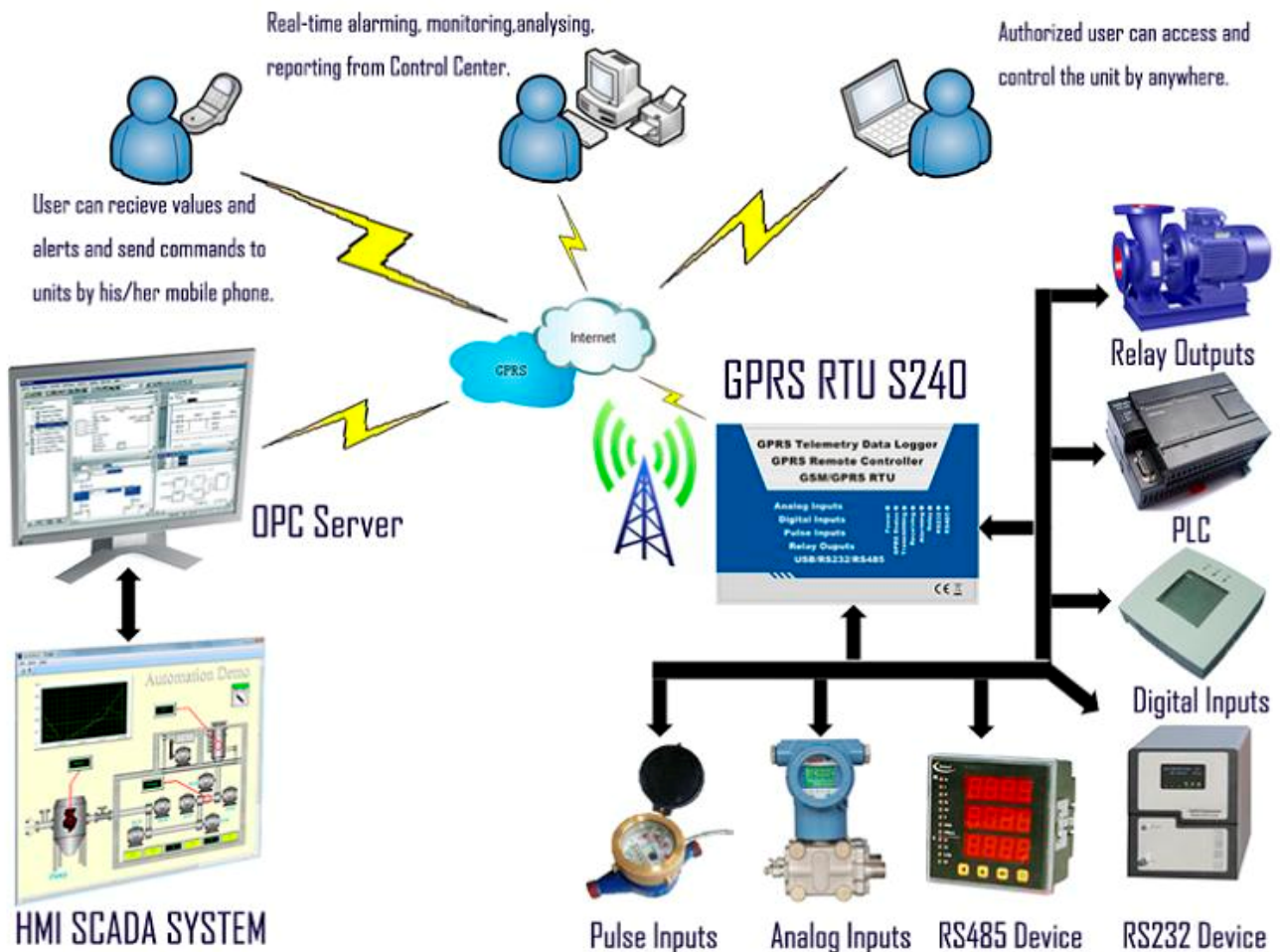


## GSM GPRS RTU Telemetry Data Logger

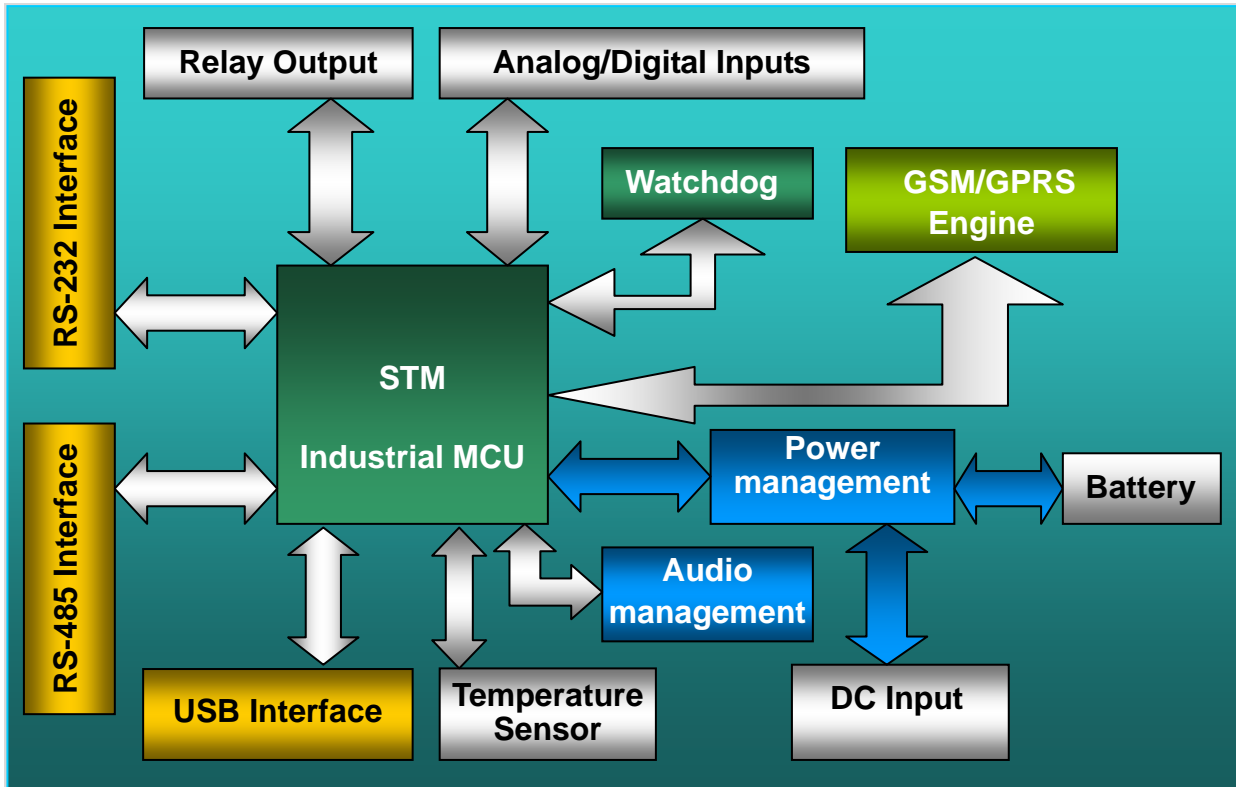
The King Pigeon S Serial GSM GPRS RTU Telemetry Data Logger equipped Siemens MC55i quad-band GPRS Module inside, is a low cost, M2M, data logger, universal GSM GPRS Engine which can transmit and receive analog, digital and pulse counter data, PLC, Variety metering equipments to any device connected to the GSM/GPRS network such as mobile phones, Web Sites, monitoring center, control room, SCADA, etc.



### Features:

- Quad-band Siemens MC55i GPRS Module and High-density performance line ARM 32-bit MCU inside;
- Direct connection to the GSM GPRS Network;
- Transparent Serial Data Tunneling using low cost SMS/GPRS network;
- Remote Configuration by SMS Messages or GPRS;
- Upload data via GPRS or SMS on Schedule or event occurs;
- Supports Dynamic Domain name or Static IP address;
- Supports SMS, GPRS UDP and TCP protocols;
- Supports Modbus RTU protocols;

- 1 USB Port, 1 RS232 Serial Port, and 1 RS485 Serial Port;
- 6 Opto-isolated digital inputs can be programmed to NC/NO/Edge/Level type by switch, Passive Contact Type and Active Contact (3~24VDC) type can be programmed by DIP switch, DIN1 and DIN2 are Completely isolated. when alarm occurs can send Alarm Messages by SMS or GPRS or auto dial the preset phone numbers;
- 6 digital inputs can be used as Pulse Counters;
- 4 Digital Relay Outputs can be programmed as dial to switch on/off with free communication fee, alarm-linkage and Schedule to action, also can be send SMS to switch on/off;
- 10 Analog Inputs. (12 bit resolution, 0-5V or 0-20mA);
- 2 Thermometer Inputs for DS18B20, measures temperatures from -55°C to +125°C. Fahrenheit equivalent is -67°F to +257°F,  $\pm 0.5^{\circ}\text{C}$  accuracy from -10°C to +85°C, Thermometer resolution is programmable from 9 to 12 bits;
- 4 Power Source Outputs for external device, like Thermometer or transducer, 3 with 3.3V/400mA, another with 12VDC/750mA;
- Supports 1 SMS Center Number and 1 IP address or 1 Dynamic Domain name;
- MTBF(Mean Time Between Failure) up to 2Years;
- User friendly PC Programming Interface, it can remotely program the terminals as well as to upload the data from the terminals by SMS or GPRS, all of the Current Value or status of the terminal can be display directly, and also will display the SMS Command details while you programming it;
- More Protocols can be updated by user through USB Port with the updated firmware;
- Power supply 9V to 24V(Recommend 12VDC).



### Specifications of GPRS RTU:

Parameter Item	Reference Scope
DC Power supply	Standard adapter: DC 12V/1.5A Reference scope 9-24V DC
Power consumption	Standby:12V/70mA; Working Max.: 12V/300mA
GPRS Module	Siemens MC55i
Frequency bands	Quad-band: EGSM 850,EGSM900, GSM 1800, GSM 1900, Compliant to GSM Phase 2/2+
Transmit power	Class 4 (2W) at EGSM 900 and EGSM 850; Class 1 (1W) at GSM 1800 and GSM 1900
GPRS connectivity	GPRS multi-slot class 10
GPRS Data Transmission	GPRS data downlink transfer: max. 85.6 kbps; GPRS data uplink transfer: max. 42.8 kbps.
TCP/IP stack	TCP,UDP
SIM interface	Supporting 3V SIM Card
External antenna	Connected via 50 Ohm antenna connector or antenna pad, SMA Antenna interface
Serial Interfaces	1 RS-232 Port,1 RS485 Port, 1 USB Port;
Protocols	SMS, GPRS UDP, TCP, Modbus RTU, and more equipment protocols can be added according to requirements.

<b>Digital Inputs</b>	6 OPT Coupler (Active Contact 3-24V);NC/NO/Edge/Level type; Active Contact and Passive Contact By Switch; Can be used as Pulse Counters;
<b>Analog Inputs</b>	10 Analog Inputs. 12 bit resolution, 0-5V or 0-20mA;
<b>Thermometer Inputs</b>	2 Ports DS18B20, Measures temperatures from -55°C to +125°C. Fahrenheit equivalent is -67°F to +257°F, ±0.5°C accuracy from -10°C to +85°C, Thermometer resolution is 12 bits.
<b>Digital Relay Outputs</b>	4, 120VAC/3A, 24VDC 3A, Can be controlled by Event, scheme, Incoming call, SMS Commands, Timer, Interlock; 2 outputs can setup as NC or NO type;
<b>Power Source Outputs</b>	3 Ports with 3.3VDC/400mA Power for external device; 1 Port with 12VDC/750mA Power for external device;
<b>Internal Backup Battery</b>	7.2v 1200mAH
<b>Work Temperature range</b>	-10-+70 °C
<b>Humidity range</b>	Relative humidity 95% (condensation free)
<b>Exterior dimension</b>	168mm*113mm*32.3mm
<b>Net Weight</b>	1000 g

### Standard Package list:

GSM/GPRS RTU X 1

Power supply adapter X 1 (12V 1.5A 1)

USB cable for communication X 1

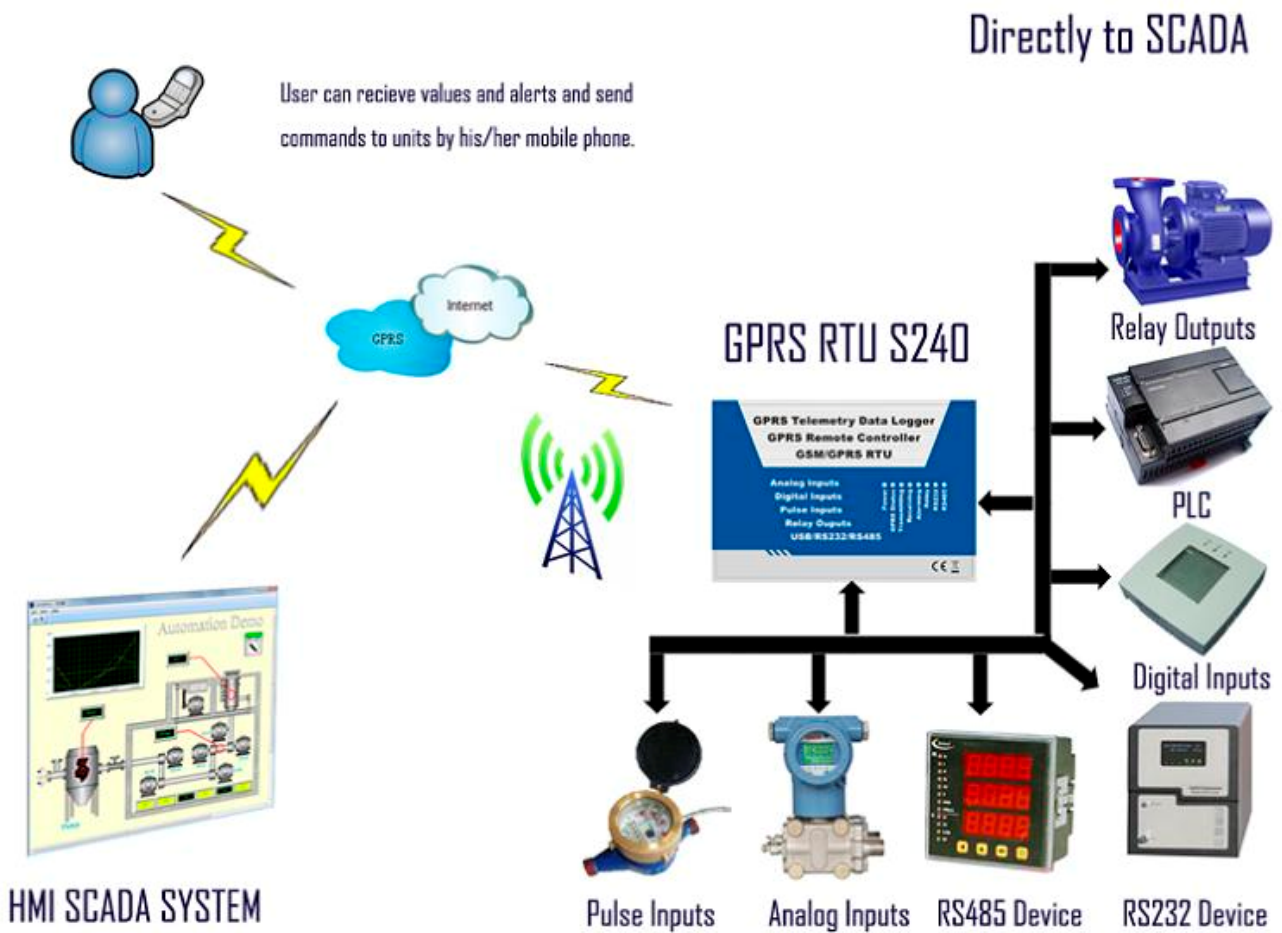
CD (PC Configurator and User Manual) X 1

GSM Antenna X 1

### Monitoring Center or OPC Server or SCADA:

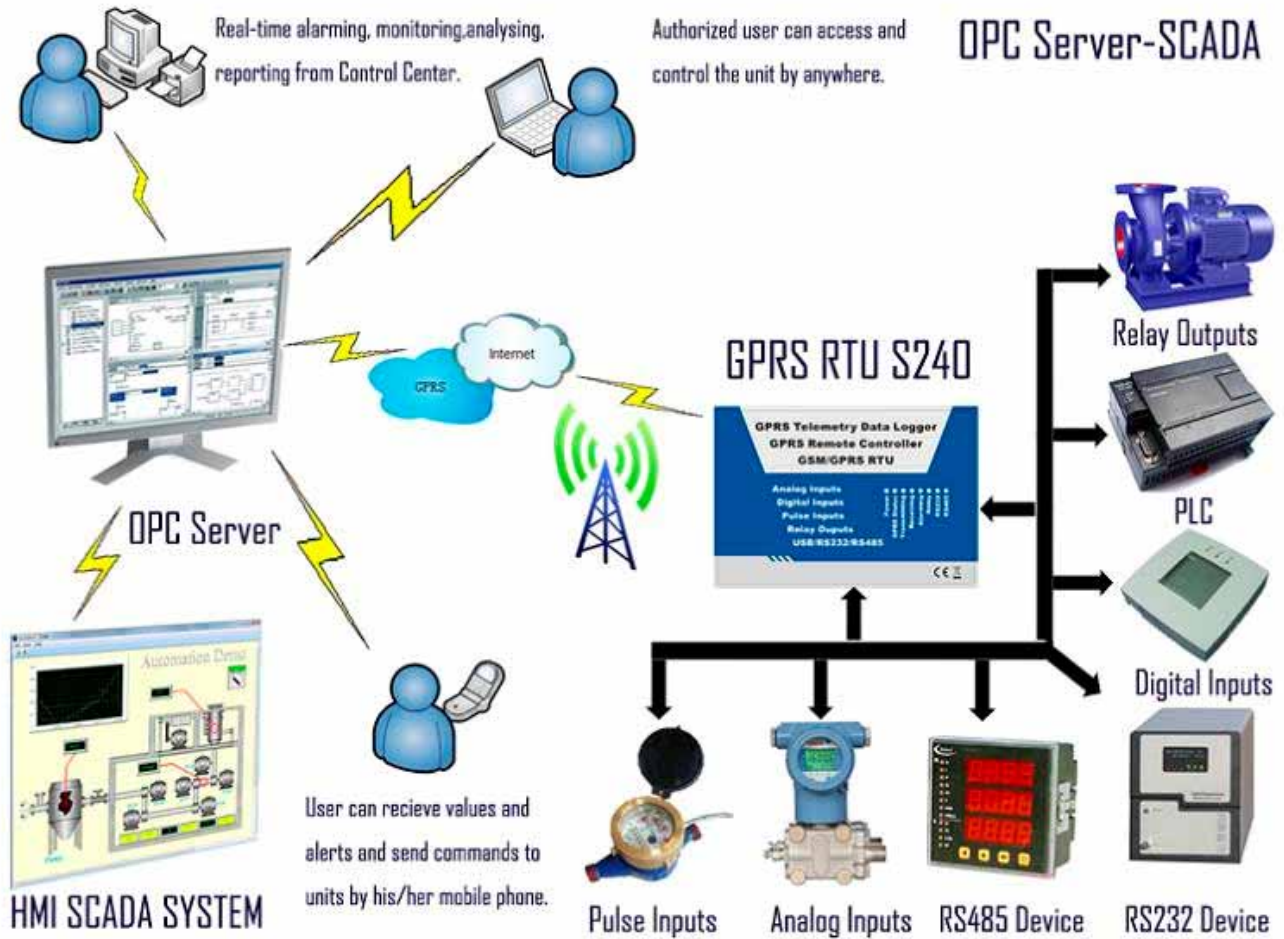
#### 1. Directly to SCADA System

If the users want to log data to its present SCADA system directly, the user must develop the GSM/GPRS Driver then install in its present SCADA according to our communication protocols, the communication protocols please see appendix. The topological graph please see below:



## 2. Monitoring by SCADA System through OPC Server

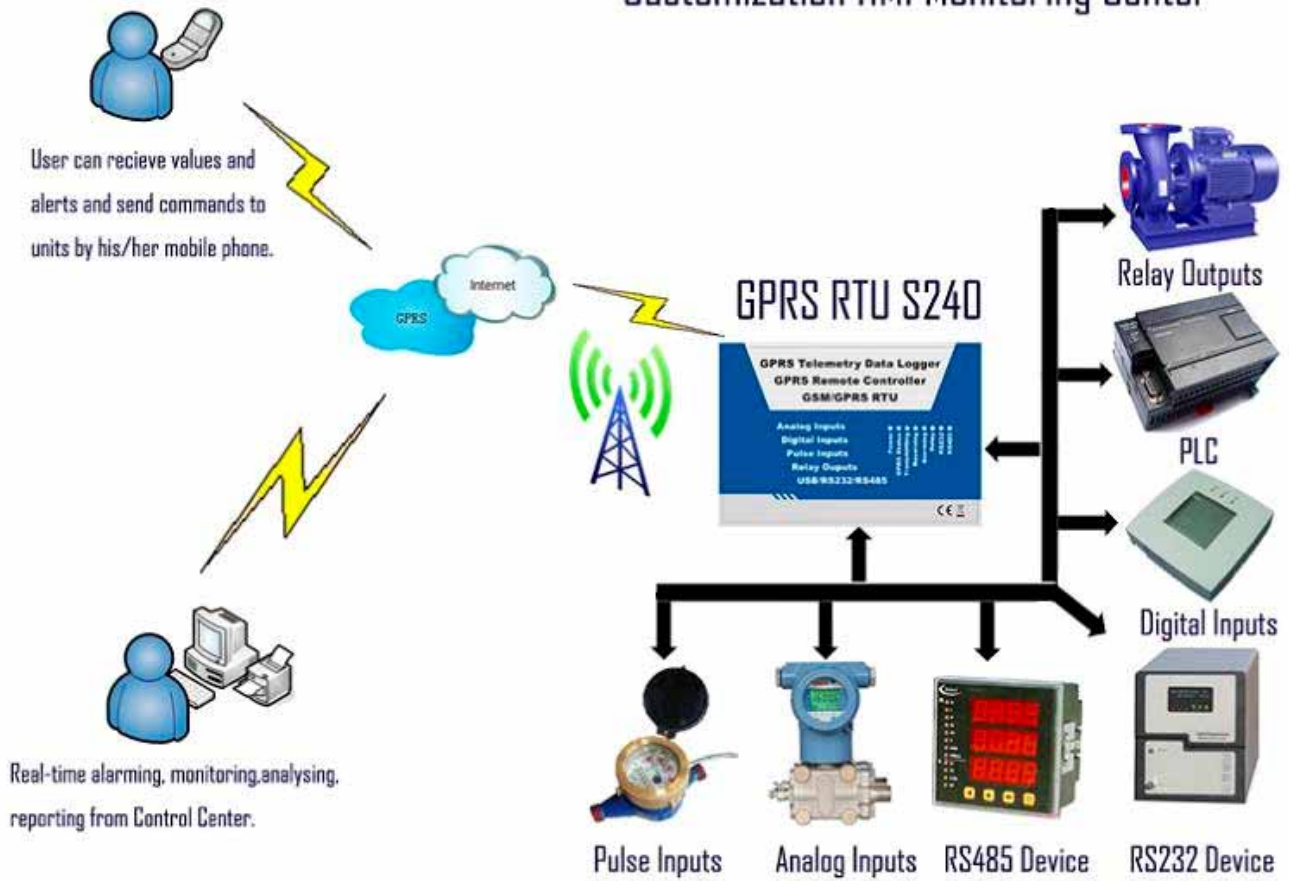
If the users want to log data to its present SCADA system through OPC Server, the user must develop the GSM/GPRS Driver then install in its present OPC Server according to our communication protocols, so that the OPC Clients can access the GSM/GPRS RTU through OPC Server. The communication protocols please see appendix. The topological graph please see below:



### 3. By customer customization monitoring center

If the users want to log data to its customization monitoring center, the user must develop the GSM/GPRS Driver then install in its monitoring center software according to our communication protocols. The communication protocols please see appendix. The topological graph please see below:

## Customization HMI Monitoring Center



### 4. By Mobile phone through SMS.

The GSM/GPRS RTU can send the reports and events by SMS to 1 SMS Center number and 6 user numbers.

