

Application Note for the GS81 Modem

Modem Introduction

The GS81 4G Modem from SAN Telequip is an industrial-grade cellular communication device supporting LTE, WCDMA, CDMA, and GSM networks. With RS232/RS485/USB interfaces and AT command control, it enables reliable data, voice, and messaging communication for industrial applications.

Objective

The objective of this application is to provide SMS alerts through SMS-based applications, enable internet connectivity over the serial port, and support SMS read and write functionality using standard AT command-based applications.

System Architecture Overview

Application Diagram:

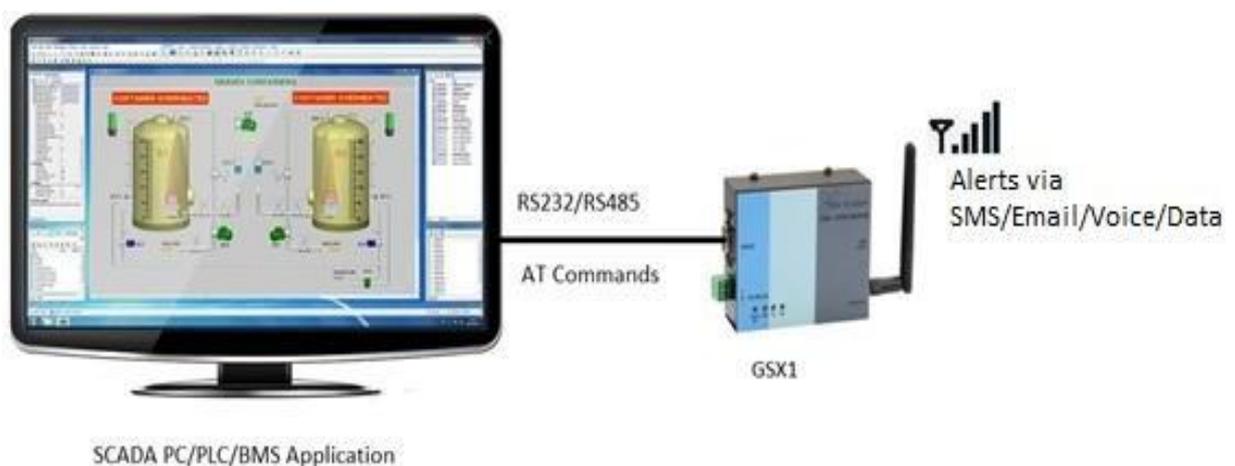


Diagram Explanation

1. SCADA System/ PC/ PLC/ Application

The SCADA system acts as the central monitoring platform and works as a Modbus RTU master. It communicates with the GW HM over RS-485 to read process values, device status, and diagnostics. The data is used for real-time monitoring, logging, and alarms.

2. GS81 Modem

GW HM functions as a protocol converter between HART field instruments and Modbus RTU systems. It reads HART process variables and maps them into fixed Modbus registers. This enables seamless integration of HART devices with existing PLC or SCADA systems.

Summary

The GS81 4G Modem enables reliable industrial communication by supporting SMS alerts, SMS read/write, and serial internet connectivity using AT commands. It connects SCADA/PLC systems over cellular networks for remote monitoring and data access.