



4G GPS DATA LOGGER

- LTE CAT 4 for M2M and IoT
- Worldwide LTE, UMTS/HSPA+ and GSM/GPRS
- Wireless & Ethernet Network Simultaneous Data Transmission
- 4MB Internal Data Logging Memory
- SD Memory Card Expansion Slot (max. 32GB)
- Data & Alarm via GPRS, SMS & Ethernet
- Mobile Phone SMS Alarm
- Programmable Data Upload Interval 5s~24hrs
- Programmable Data Logging Interval
- Multi-I/O Channels: temperature, humidity, analog, digital, pulse channels
- Digital Alarm Input & Relay Output
- Modbus Meter via RS232/RS485
- Up to 11 temperature sensors
- Support Fixed IP and DDNS

Free Bundled Software

- * Premier Client Lite for Win10, iOS, Android
support GPS on Google Map & Windows Map

Functional Modules

4G Network [Global Bands]

LTE FDD, LTE TDD [4G network]
UMTS & GSM [3G & 2G network]

Map GPS

GNSS Receiver: GPS/GLONASS/Galileo

GPRS/EDGE

Supports UDP and TCP over 3G/2G network

SMS

SMS Alarm to max. 8 mobile phones

Programmable I/O Channels

Each channel is programmable individually as:

- * Analog, Pulse, Temperature/Humidity Sensor
- * Digital Alarm Input, Modbus Meter Registers

Optional Ethernet

Supports UDP and TCP
Support TCP Modbus

Optional Numeric LED

Four Digital Numerical LED display
Live Data Display of Four Channels

Free Tools

- * TCP Modbus Software
- * OPC Server Driver

GSX8-HV-4GP / GSX8-MS-4GP

- * Programmable Data Upload Interval (5 seconds ~ 24 hours)
- * Programmable Data Logging Interval (1 min ~ 60 min)
- * Live data and history data over GPRS, SMS or Ethernet
- * Live Data includes GPS location data
- * Support both live data and packet data
- * Setup via USB, SMS, Network or over Internet via GPRS
- * Support Dynamic Domain Name or Fixed IP over GPRS
- * Support UDP / TCP protocol data transmission
- * 4MB Internal Memory storing 60000 records
- * SD Card memory expansion (max. 32GB)
- * Power Loss Alert, Internal UPS
- * Alarm SMS text message user programmable in each channel
- * Programmable higher/high/low/lower alert levels in each channel

GPS Module Built-in



Programmable 11 Analog Channels

- ◆ 8 x Temperature Sensors
- ◆ 1 x Humidity Sensors
- ◆ 8 x Analog Sensors

Programmable 11 Digital Inputs

- ◆ Power Loss/Resume
- ◆ 4 x Alarm Sensors
- ◆ 4 x Pulse Sensors

Output Channels

- ◆ 4 x Relay Outputs
- ◆ 2 x DC 5V Outputs
- ◆ Temperature Sensor Power

GSX8-HV-4GP is a data logger designed for temperature logging and remote monitoring. Its channels can be programmed as:

*"8 Digital Temperature Sensors + 3 Analog Temperature Sensors",
 "5 Digital Temperature Sensors + 5 Analog Sensors",
 "3 Digital Temperature Sensors + 8 Analog Sensors", ... or other combinations.*

Digital Temperature Sensors

- ◆ DSD18B20 logged with its unique serial number
- ◆ Good for calibration and validation certificate for each sensor
- ◆ All temperature readings will be uploaded in one data record

Alarm Delay Time

- ◆ Programmable delay time for each temperature channel
- ◆ Reduce false alarm generated by short period high/low temperature

Programmable 11 Analog Channels

- ◆ 2 x Temperature Sensors
- ◆ 1 x Humidity Sensors
- ◆ 8 x Analog Sensors
- ◆ 8 x Modbus Data Registers

Programmable 11 Digital Inputs

- ◆ Power Loss/Resume
- ◆ 10 x Alarm Sensors
- ◆ 4 x Pulse Sensors
- ◆ 8 x Modbus Data Registers

Output Channels

- ◆ 4 x Relay Outputs
- ◆ 2 x DC 5V Outputs
- ◆ Temperature Sensor Power

GSX8-MS-4GP is a data logger designed for Modbus meter remote monitoring. Its channels can be mapped to 16 data registers.

Modbus registers can be up to 8 floating points and 8 integers data, and compatible to ABB, Elster, Coruz meters via RS232/485 port.

Support Modbus protocol

- ◆ reads and logs Modbus meter data into memory
- ◆ uploads Modbus data via GPRS or Ethernet

User Defined Register Read Command

- ◆ Send Read command via RS485 / RS232
- ◆ Read data via RS485 / RS232 port

User Defined Register Address

- ◆ Programmable Modbus device address & data register address
- ◆ Data Type selectable

Channels & Sensors

- * GSX8 series are built with temperature, humidity sensors, and numerous I/O for sensors.
- * Digital Channels can be programmed as alarm, pulse sensors or Modbus integer registers.
- * Analog Channels can be programmed as analog sensors, temperature or Modbus floating point registers.

Network

Protocol: UDP or TCP
GPRS: 4G Mobile Module
Ethernet: RJ45 Port 100/100M

Channels

AD Channel: High Precision 16Bit AD converter
Signal Type: 4 ~ 20mA or 0 ~ 5VDC
Accuracy: 16 bit
Alert: Programmable 1st high / low level
Programmable 2nd high / low level
Digital Input : Power Type or Dry contact
Relay Output: Max. DC24V @3A, AC120V @3A
Logging Control - turn on before logging
- turn off after logging
Alarm Control - turn on/off alarm triggered
Pulse Input: Pulse Frequency, Max. 40 pulses /s

Optional Digital Temperature Sensor

Sensor: DS18B20
Range: -55 ~ 125 °C
Accuracy: +/- 0.5 °C
Resolution: 12 bit (0.0625 °C)
Housing: steel housing
Power Input: 3.5~5.5VDC
Sensor Cable: 2 meter (max. 150m)



Power Rating

Power Input: 9~24VDC
Power Rating: Standby 20mA, Data Upload 500mA

Temperature & Humidity Combo Sensor

Sensor: DS18B20 or HTU21
Range: -55 ~ 125 °C, 1 ~ 100% RH
Accuracy: +/- 0.5 °C, +/- 5% RH
Resolution: 12 bit (0.0625 °C)
Housing: PVC
Power Input: 3.5~5.5VDC
Sensor Cable: 2 meter (max. 150m)



Optional Numeric LED Display

- * 4 Sets 4-digits LED display
- * User selectable display channels
- * Instant view of live data



External LED Display

Optional Solar Power Kit



- * Built-in Solar Panel Controller
- * Internal 3Ah Li-ion Rechargeable Battery
- * Direct connection to solar panel
- * Automatic switch to battery power when losing sunlight
- * Automatic recharge battery on sunlight
- * IP67 Aluminum waterproof and crash proof enclosure
- * Aluminum Casing, 280 x 199 x 90 mm
- * Solar Panel is not included in package

Smart Data Logger provides “logging control” feature.

- It makes use of relay output to control the power on/off of sensors.
- It turns on the power source to sensor during logging, and off after logging.
- This feature lowers the power consumption especially in solar power pack.



GSX8-MS-4GP_C
GSX8-HV-4GP_C

Premier Client Lite for Windows, iOS, Android

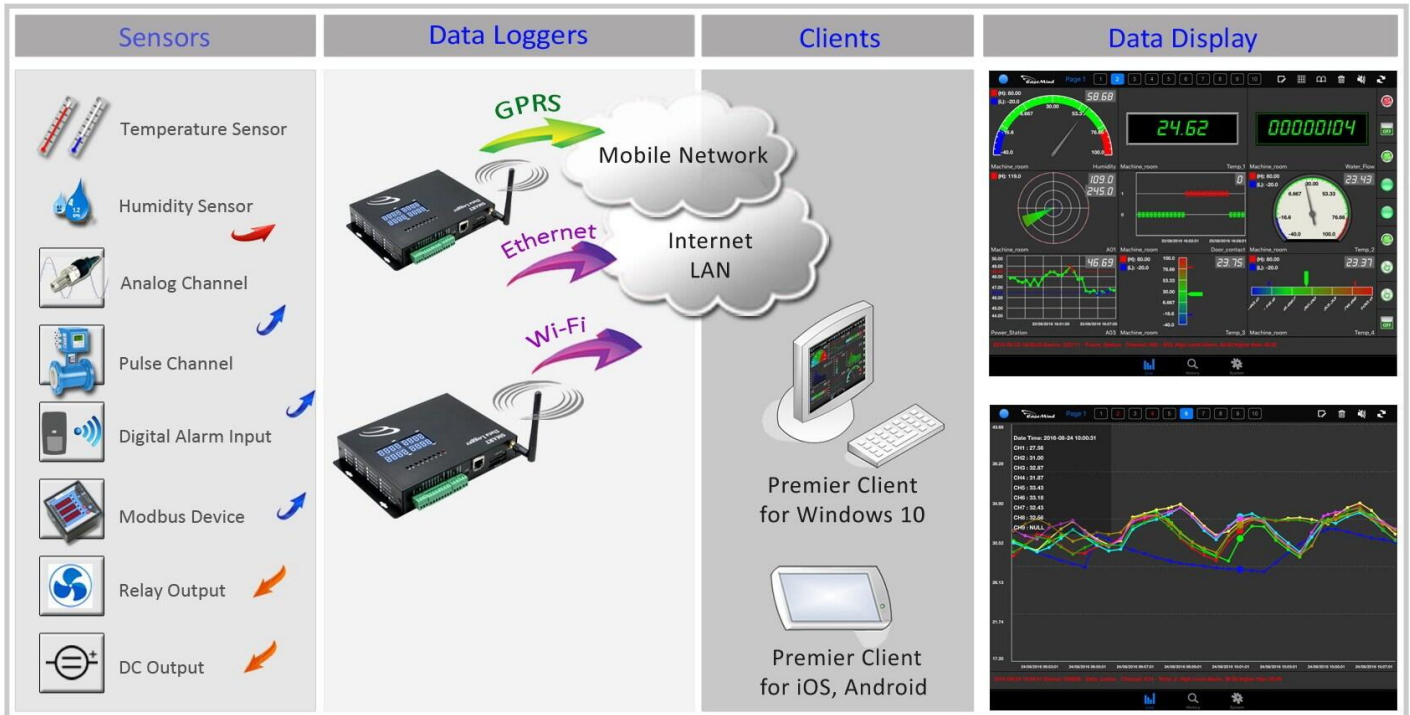
Premier Client Lite [Direct Mode] is bundled with each 4G Data Logger.

It provides a tool of receiving live & historical data, and a user-friendly graphical display of data.

Premier Client

for Windows 10, iPhone, iPad, Android Phone

[Download "Premier Client" Brochure](#)



How "Premier Client Lite" works?



Data Logger logs and uploads live data via UDP or TCP over 4G and Ethernet Network.

"Premier Client Lite" is the Free Client Software [Direct Mode] receiving data from data loggers.

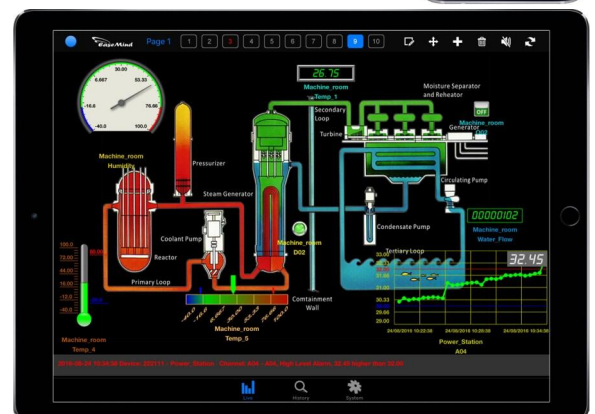
"Premier Client Lite for Windows, iPad & Android" supports:

- ◆ Live Data Display on
 1. Split Screen
 2. Line Charts
 3. HMI
 4. Dashboard
 5. Data Listing
 6. GPS Map
- ◆ Local Data Storage
- ◆ Historical Data Display
- ◆ User configurable alarm level of each channel
- ◆ On-screen alert in display and audio
- ◆ Max. 2 Data Loggers
- ◆ Alarm Email

Instant Touch. Drop & Drag Operation.

No more proprietary display equipment!

Direct Access data from the data logger!



Premier Server Client System

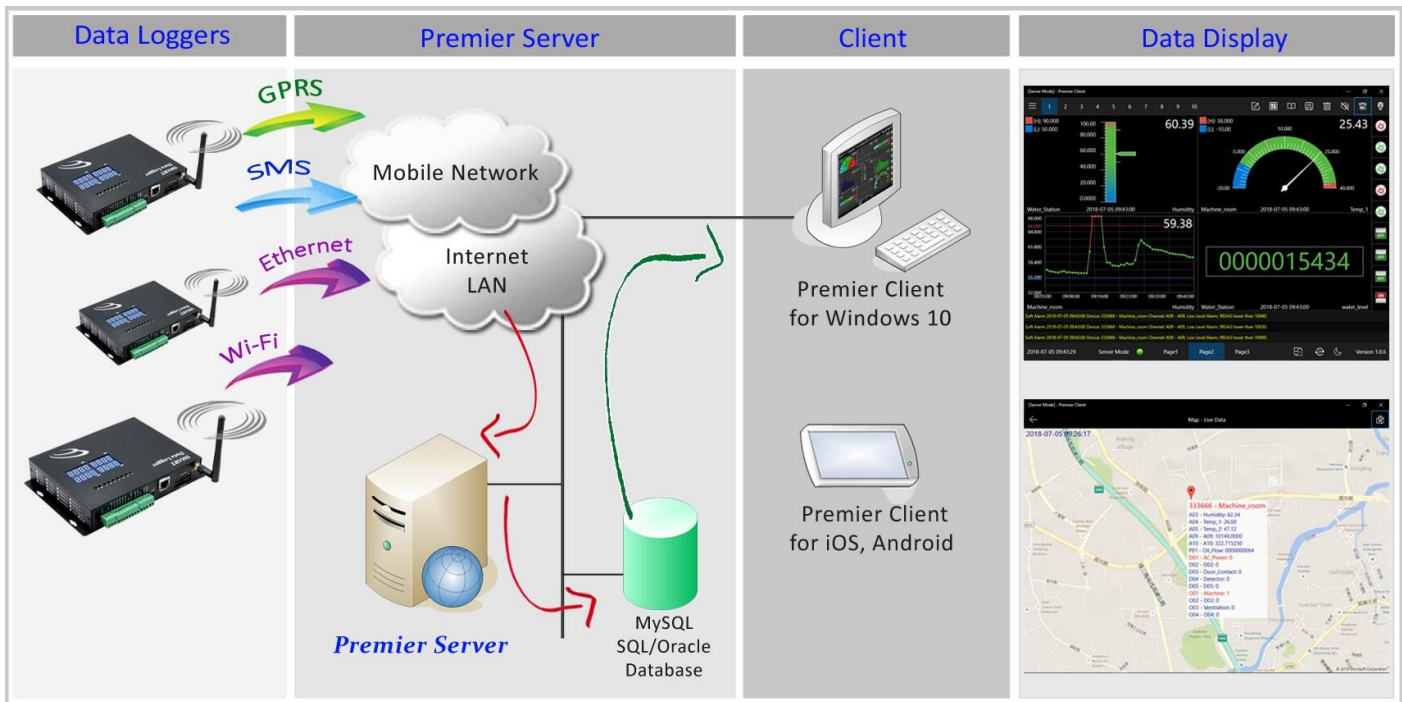
Premier Server provides the central management of data loggers, incoming data, database and remote users.

Central Management of data loggers, remote users and database

Premier GSX8 Server

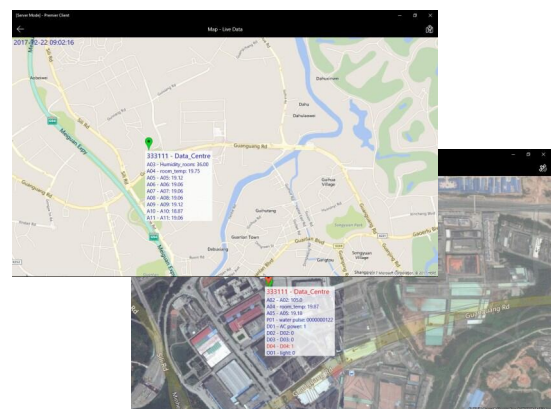
- ◆ Receiving data via Internet, SMS, LAN & Wi-Fi
- ◆ Real time display of devices, server & clients status
- ◆ Alert users via alarm email or client software
- ◆ Devices & Remote User Grouping
- ◆ Central Management of Database in: MySQL / SQL / Oracle
- ◆ UTC compliant - support global time zones

[Download "Premier Server" Brochure](#)



Premier Client (Windows 10, iOS, Android)

- ◆ Retrieving live and historical data from Premier Server
- ◆ Real time monitoring of a number of data loggers
- ◆ Instant on-screen alerts when live data is beyond the alarm levels
- ◆ Data Analysis for each channel
- ◆ Live Alarm List and Email Alarm
- ◆ Independent Alarm Setting for each channel and remote user
- ◆ Display location of devices with data in Google Map & Microsoft Map



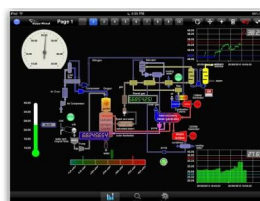
SPLIT

Meter & Chart View
2x2, 3x3



DATA LIST

Listing of
devices and channels



HMI

Human Machine
Interface



CHART

Comparison of
channels & devices



Dashboard

64 Channels
Single Screen Display

Models

Model Selection	GSN8-HV-4GP	GSX8-HV-4GP	GSN8-MS-4GP	GSX8-MS-4GP
4G Module	✓	✓	✓	✓
GPRS & SMS	✓	✓	✓	✓
Ethernet	✓	—	✓	—
Metal Enclosure	17 x 13 x 3 cm			
Power Input: 9 ~ 24VDC	✓		✓	
Rechargeable Backup Battery	✓		✓	
Power Loss Alert	✓		✓	
Built-in 5VDC output	✓		✓	
AD Channel (AD)	11		11	
* Analog Sensor	8		8	
* Temperature Sensor	8		2	
Digital Channel (DI)	4		10	
* Pulse Sensor	4		4	
* Alarm Sensor	4		10	
Relay Output (DO)	4		4	
Internal Memory	4MB		4MB	
SD Memory Card Slot	✓		✓	
Modbus Device Support	—		16 data registers	
Digital Temperature Sensor (max.)	8		2	
Humidity Sensor	1		1	
GPS Module	GPS Location Data (worldwide)			
Data Logging Interval	Programmable (1 ~ 60 minutes)			
Data Upload Interval	Programmable (5s ~ 24 hours)			
Data Upload	On Schedule / Manual Request / Alarm Triggered			
Internal Data Record	Average 60000 records (4MB)			
Alarm Trigger	Analog Level Ultra-High/High/Low/Ultra-Low, Digital Alarm, Power Loss/Resume			
Server Network Connection	Dynamic Domain Name / Fixed IP			
Data Transmission	[GSX4/8: GPRS, SMS] * [GSN4/8: GPRS, SMS, Ethernet] * [NSX4/8: Ethernet]			
Protocol	[Ethernet - UDP & TCP], [GPRS - UDP & TCP]			
Central Server	Independent Server IP for GPRS & Ethernet Data			
Modbus Device Port	RS485 & RS232			
Alarm Data	GPRS / Ethernet / SMS			
SMS Alarm Text	User programmable SMS alarm text to max. 8 mobile phones			
Local Setup	via Ethernet or USB Port by PC Software			
PC Communication Port	RJ45 10/100M Ethernet or USB Port			
Remote Command	GPRS, SMS or Ethernet			
4G [Worldwide]	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28			
	LTE TDD: B38/B39/B40/B41			
3G & 2G	WCDMA: B1/B2/B4/B5/B6/B8/B19, 3G UMTS/HSPA+, GSM 850/900/1800/1900			
Bundled Software Free	Standard Edition			
Setup Software	Ethernet Network, or USB Port			
Client Software	Premier Client Lite [for Windows, iOS, Android] - supports Google Map & Windows Map			
Centre Software	Data Receiving & Saving in txt file, max. 99 data loggers			
TCP Modbus Tool	Support TCP Server mode in Modbus protocol			
OPC Server Driver	Third Party OPC Server integration			
Optional Software	Premier GPS Server Client Software Package			