

TOP-TSR402G

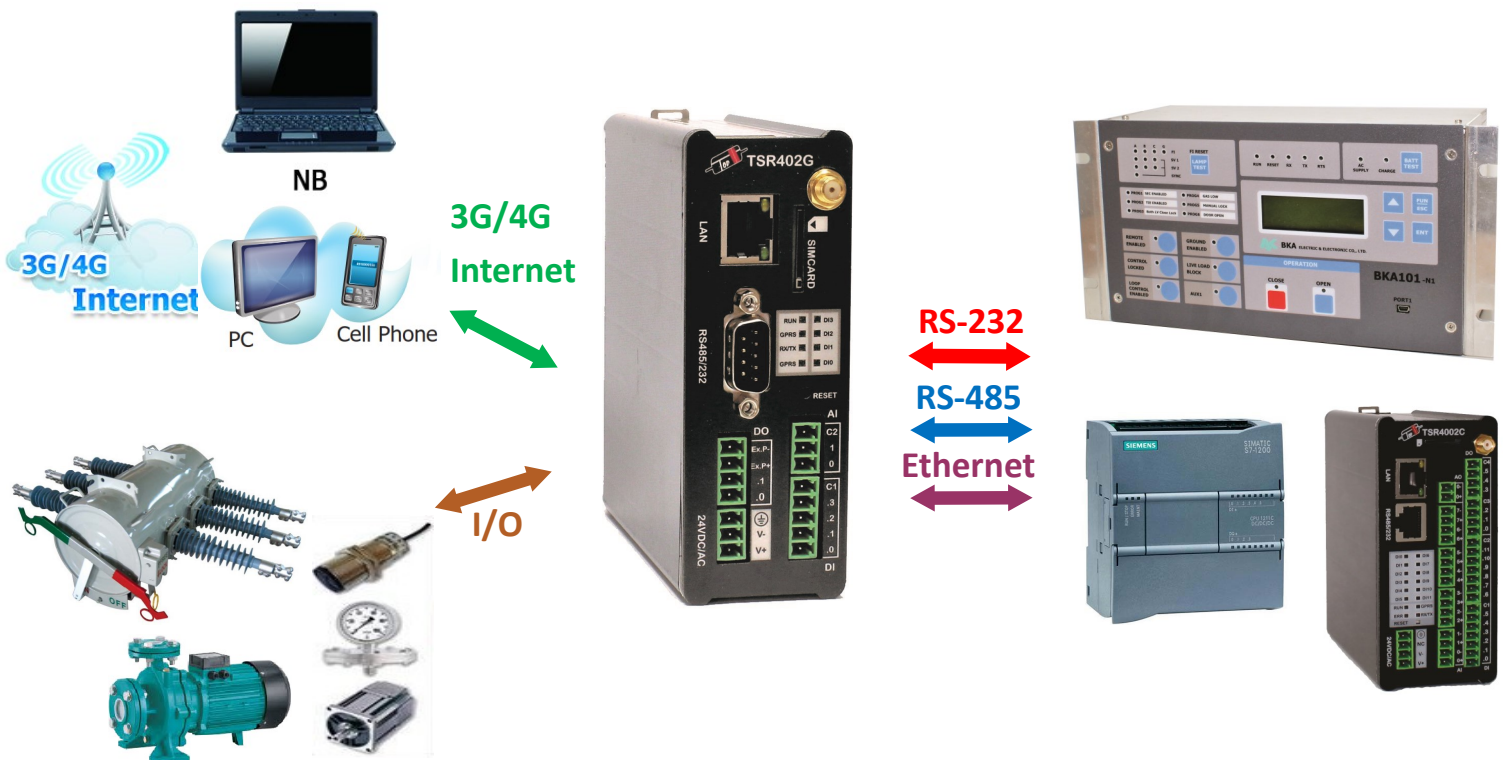
Intelligent 4G/3G/2G Remote Control Device
2-Ch AI , 4-Ch DI and 2-Ch DO Module

- ### Features
- Multi-band LTE-TDD/LTE-FDD/HSPA+ and GSM/GPRS/EDGE
 - Dual-band UMTS/HSDPA 900/1800 MHz
 - Modbus/TCP-UDP-ASCII-RTU Protocol for SCADA Software
 - Support Modbus Master Protocol
 - Support DNP3/TCP-Serial_IEC60870-101-104 Protocol
 - Support DNP3 Master Protocol
 - Ethernet, serial, and cellular communication
 - 10/100 Base-TX Ethernet / RS485 / RS232
 - IO Scan Time < 1ms

Introduction

The TSR402G is a cellular IP gateway that can conveniently and transparently connects your existing Ethernet and serial devices to a LTE,4G cellular network. With TOP industrial designs, higher EMS level are tested to ensure the highest reliability for any harsh environment. The TSR402G cellular IP gateways are the most compact, simple and robust industrial LTE solution.

Application

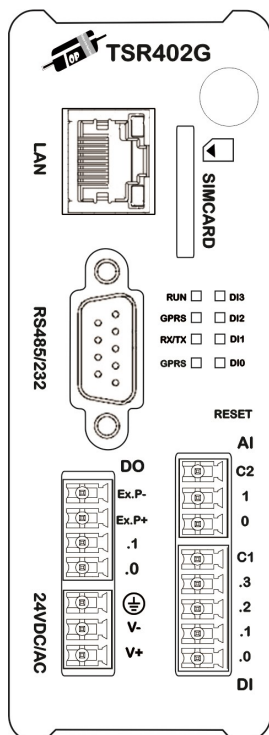


System Specification

System		
CPU	ARM Cortex M4	
SRAM	192Kbyte	
Flash Memory	Internal	1MB High Speed Flash
	External	32Mb
Watchdog Timer	Yes	
LED Indicator	8LEDs (RUN, GPRS, RX/TX, GPRS,4DI)	
Communication		
Ethernet Port	10/100 Base-TX and automatic MDI/MDI-X	
Serial Port	RS485	Modbus master Modbus slave (ASCII – RTU)
	RS232	Modbus master Modbus slave (ASCII – RTU) DNP3 Slave IEC60870-101
LED Indicators		
RUN	System Running	
GPRS	4G/3G/2G	
RX/TX	Serial	
GPRS	NET(RED)	
DI00-03	Digital Input (Yellow)	
Power Requirements		
Protection	Power reverse polarity protection	
Frame Ground Protection	ESD , Surge, EFT, Hi-Pot	
Required Supply Voltage	18 to 30VDC/AC	
Power Consumption	4.8W(200mA@24VDC)	
Mechanical		
Casting	Metal	
Dimension (W x L x H)	40mm x 104mm x 112mm	
Installation	DIN-Rail or Wall mounting	

Cellular Interface		
Standards	LTE-TDD/LTE-FDD/HSPA+	
Band Option	Multi-band GSM/GPRS/EDGE 900/1800 MHz	
	LTE-TDD B38/B40/B41 FDD-LTE B1/B3/B5/B7/B8/B20	
HSPA+ Data Rate	Max. 42Mbps(DL), 5.76Mbps(UL)	
GPRS Data Rate	85.6Kbps (DL/UL)	
LTE cat1 Data Rate	10Mbps(DL), 5Mbps (UL)	
GPRS Multi-Slot Class	Class 12	
Analog Input		
Input Channels	2 (Single)	
Input Type	0 ~ 3 v , 0~20mA , 4~20mA	
Resolution	12 bit	
Sampling Rate	43 K Sample/Sec. (Total)	
Accuracy	±1 LSB	
Overcurrent Protection	40mA Max.	
Individual Channel Configuration	Yes	
Input Impedance	Voltage	2MΩ
	Current	150Ω
Digital Input		
Input Channels	4 (Sink & Source)	
Contact	Isolated Contact	
On Voltage Level	+10 VDC ~ +40 VDC	
Off Voltage Level	+4 VDC Max.	
Input Impedance	10 KΩ , 0.5W	
Overvoltage Protection	+40 VDC	
Digital Output		
Channels	2	
Type	Transistor Type	
Environment		
Operating Temperature	-20 °C ~ +70 °C	
Storage Temperature	-40 °C ~ +85 °C	
Humidity	10 ~ 90% RH, Non-condensing	

Pin Assignment



Power & Communication		
Power Supply	V+	DC +24v
	V-	DC GND
COM1	2	RXD
	3	TXD
	5	GND
	7	RTS
	8	CTS
	1	RS485+
LAN	6	RS485-
	Ethernet 10/100	

Inputs And Outputs		
Analog Inputs	0	AIN1
	1	AIN2
	C2	AGND
Digital Inputs	.0	DI1
	.1	DI2
	.2	DI3
	.3	DI4
	C1	COM-DI
Digital Outputs	.0	DO1
	.1	DO2
	Ex .P+	+24V External power
	Ex .P-	GND External power