GS11-EI
Embedded EtherNet/IP Module

Product Overview

GS11-EI is an embedded EtherNet/IP module and provides instant EtherNet/IP connectivity via the host interface which is SST defined. Any device that supports the host interface can communicate with GS11-EI through UART.

Technical specifications

[1] Support the EtherNet/IP communication protocol that follow ODVA standard.

[2] GS11-EI provides one Ethernet port and one UART interface (included in the 20-pin connector), can realize the EtherNet / IP data and serial data conversion;

[3] Ethernet is 10/100M adaptive

[4] As an EtherNet / IP slave on the Ethernet side, can support 1 EtherNet / IP master to communicate at the same time, the minimum data update rate is 5ms;

[5] The serial interface is UART(TTL 3.3V), half duplex, 8 data bits, one stop bit, and no parity, and support 2400, 4800,9600, 19200, 38400, 57600, 115200, 230400 baud rate

[6] Serial port use user-defind protocol, easy to realize serial port communication.

[7] Power: +3.3VDC (3.14 ~ 3.45V), 190mA

[8] Environmental temperature: relative humidity 5% ~ 95% (non condensing);

[10]Dimension(W*H*D):0.88in*0.95in*1.46in (22.6mm*24.2mm*37.2mm).

Host Interface

GS11-EI has a 20-pin socket connector (needle-type), including power, UART and GPIO. The pin position and definition are as follows:

Module front

Pin 1 → Pin 2

Pin 19 → Pin 20

Bottom view
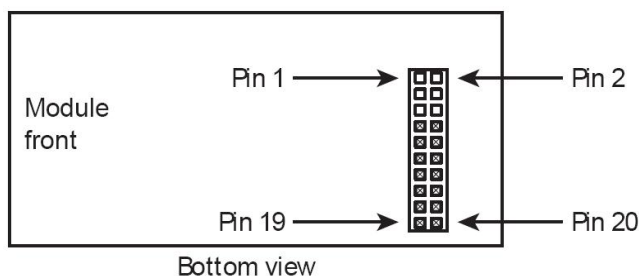
Features

● Upgrade your UART or serial device to EtherNet/IP device expediently

● Ethernet is 10/100M adaptive

● Supports EtherNet/IP Class 1 and Class 3 connections

● Provide dedicated configuration software, User-friendly configuration.

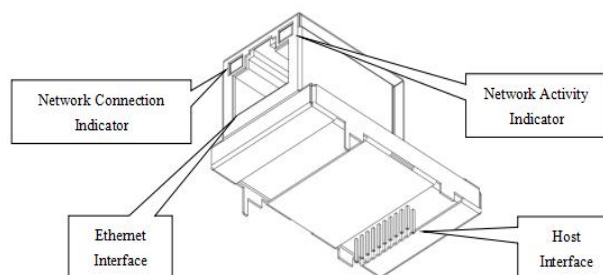● Setting the IP address via the UART(Optional Features)

Development Board
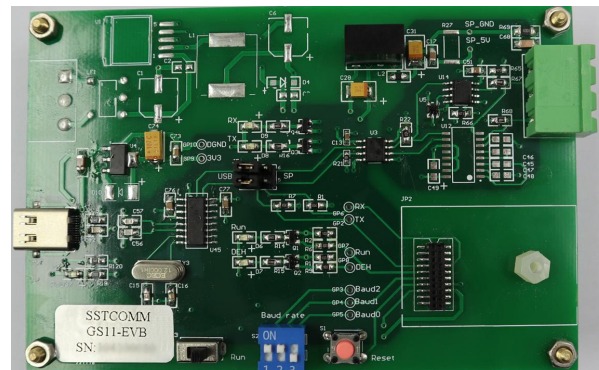
The EV board uses a three-pin pluggable terminal for RS-485, the description show as follow:

Pin	Signal	Function
1	D+	D+, RS485 Data Positive
2	D-	D-, RS485 Data Negative
2	GND	GND

Appearance

Indicators

Indicator	Status	Description
Green	Off	No network connection
	Always on	Have network connection
Yellow	Off	No network data transmitting or receiving
	Blinking	Have network data transmitting or receiving

Pins	Signals	Description
1 ~ 6	NC	Reserved
7	RXD	UART Receive (Input), connect with TXD of host processor or MCU
8	TXD	UART Transmit (Output), connect with RXD of host processor or MCU
9	GPIO	Reserved
10	/RUN	The status of GS11-EI (Output), and need a 10K pull-up resistor on user board.
		Logic 1: The GS11-EI module is in starting.
		Logic 0: The module's start has been completed. (Include waiting for initialization state, start the EtherNet/IP protocol stack and data exchange state, etc.)
		If this pin is pull down to low voltage before starting the module (by using a 1K pull-down resistor), the module will start with default IP address (192.168.0.11), and this mode is only used to update the firmware.
11	BAUD2	Set the UART baud rate (Input)
12	BAUD1	
13	BAUD0	
14	/RESET	Reset signal (Input), Active low.
15	+3.3V	+3.3V DC power Supply
16	GND	GND power Supply
17 ~ 19	NC	Reserved
20	/DATAEXCH	Data Exchange (Output), and need a 10K pull-up resistor on the user board.
		Logic 1: The module is in non-data exchange state (such as start state, waiting for initialization state, start the EtherNet/IP protocol stack, etc.)
		Logic 0: The module is ready for data exchange.