

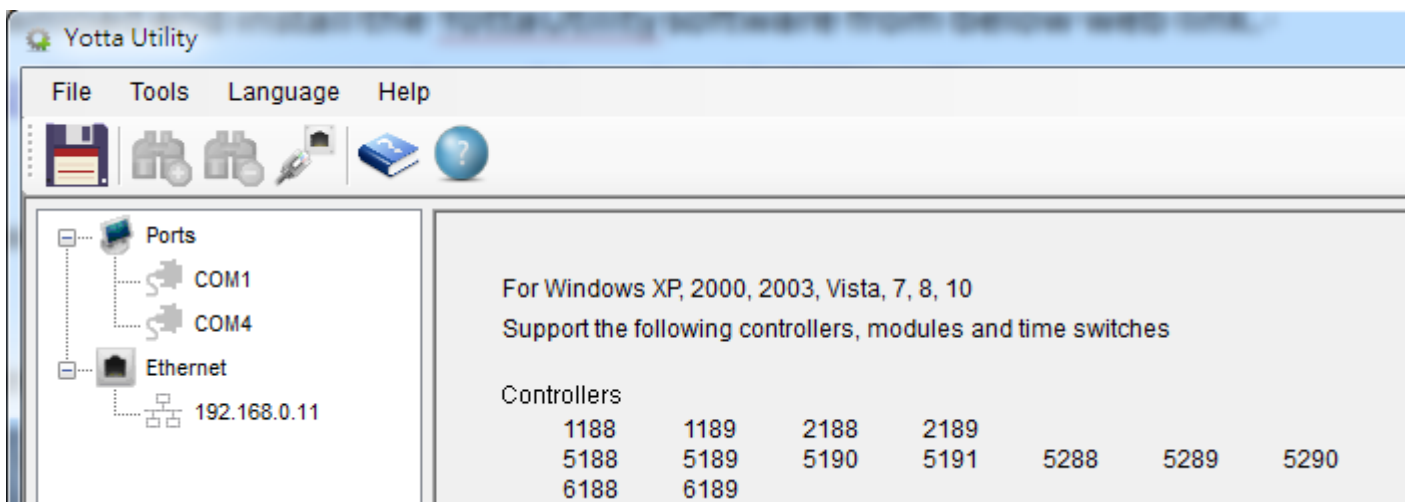
Yottacontrol A-1019 Analog/Digital Input module Quick Start


Yottacontrol A-1019 build-in 8AI, 4DI, the Analog Input can support 0/4-20 mA, Thermocouple Type J, K, T, E, R,S,B and Thermistor Type 10K-2, 10K-3, 6.8K, 4.7K, 3.3K, 3K, 2.7K, 2.2252K, 2.1K, 2K, 1.5K, 1K. The A-1019 initial AI specification is setup for 0/4-20mA mode. And the communication parameter is ID: 1, Baud Rate: 9600, Parity: None, Stop bit:1. If would like to modify the communication parameter and Analog Input mode, can over the A-1019's USB port or RS-485 port to implement it.



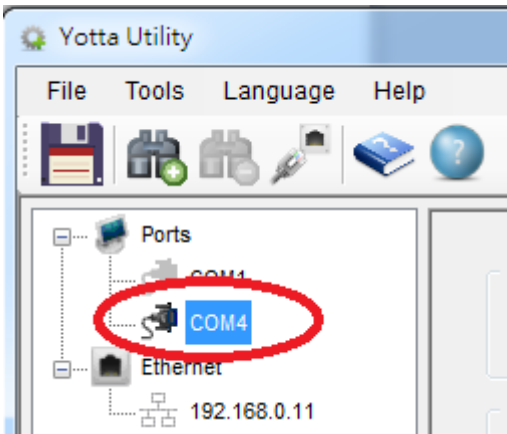
Before the regular use, must finish the related setup process. And prepare below items to finish the setup.

1. Download and install the USB driver from below web link.
http://www.yottacontrol.com/download/A5X_USB_DRIVER.rar
2. Download and install the YottaUtility software from below web link.
http://www.yottacontrol.com/download/YOTTA_UTY.rar
3. Power on the A-1019 and turn the back switch to Init mode. Over the USB or RS-485 to link A-1019 and PC.。
4. Open the YottaUtility software.

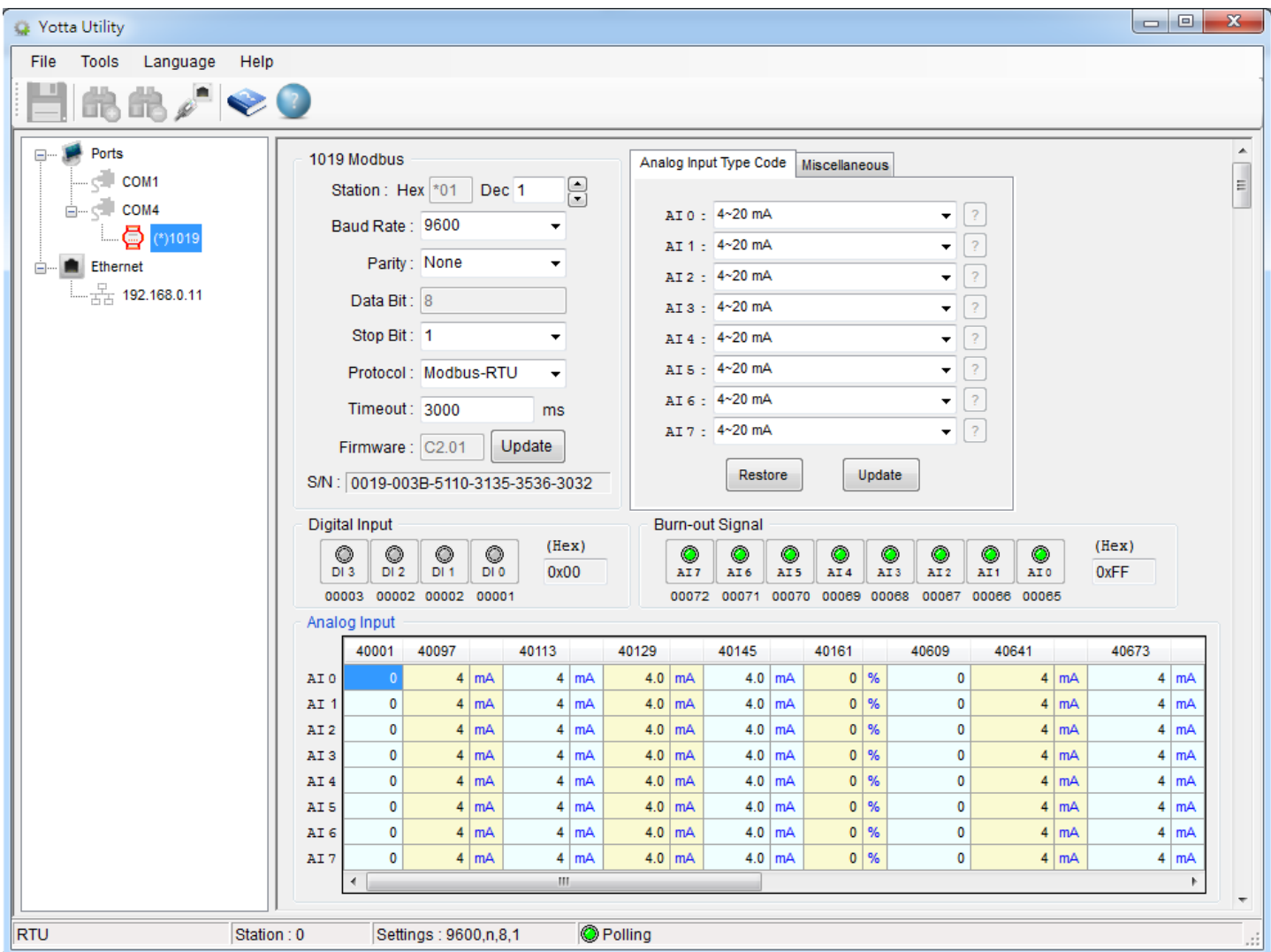


5. Click the  to refresh the COM port.

6. Click the related COM port.



7. Click the  to search module.



The screenshot shows the Yotta Utility application window with the '1019 Modbus' configuration page. The 'Ports' section on the left shows 'COM4' selected. The main configuration area includes the following settings:

- Station: Hex *01, Dec 1
- Baud Rate: 9600
- Parity: None
- Data Bit: 8
- Stop Bit: 1
- Protocol: Modbus-RTU
- Timeout: 3000 ms
- Firmware: C2.01 (Update)
- S/N: 0019-003B-5110-3135-3536-3032

The 'Analog Input Type Code' section is set to 'Miscellaneous' and shows 8 AI channels, each configured for 4~20 mA. The 'Digital Input' section shows 4 DI channels (DI 3, DI 2, DI 1, DI 0) with values 00003, 00002, 00002, 00001 (Hex 0x00). The 'Burn-out Signal' section shows 8 AI channels (AI 7, AI 6, AI 5, AI 4, AI 3, AI 2, AI 1, AI 0) with values 00072, 00071, 00070, 00069, 00068, 00067, 00066, 00065 (Hex 0xFF).

The 'Analog Input' table shows the following data:

	40001	40097	40113	40129	40145	40161	40609	40641	40673
AI 0	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA
AI 1	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA
AI 2	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA
AI 3	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA
AI 4	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA
AI 5	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA
AI 6	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA
AI 7	0	4 mA	4 mA	4.0 mA	4.0 mA	0 %	0	4 mA	4 mA

The status bar at the bottom shows: RTU, Station : 0, Settings : 9600,n,8,1, and Polling (checked).

8. Can setup the communication parameter from below photo. When finish the setup, must click the Update button.

1019 Modbus

Station : Hex *01 Dec 1

Baud Rate : 9600

Parity : None

Data Bit : 8

Stop Bit : 1

Protocol : Modbus-RTU

Timeout : 3000 ms

Firmware : C2.01 Update

S/N : 0019-003B-5110-3135-3536-3032

9. Can setup the Analog Input mode from below photo. When finish the setup, must click the Update button.

Analog Input Type Code Miscellaneous

AI 0 : 4~20 mA

AI 1 : 4~20 mA

AI 2 : J (-210~760 °C)

AI 3 : K (-270~1370 °C)

AI 4 : T (-270~400 °C)

AI 5 : E (-270~1000 °C)

AI 6 : R (0~1750 °C)

AI 7 : S (0~1750 °C)

Burn-out


AI 7 2.52K Thermistor (-20~+100 °C)

AI 7 2.1K Thermistor (-30~+100 °C)

AI 7 2K Thermistor (-30~+100 °C)

AI 7 1.5K Thermistor (-40~+100 °C)

AI 7 1K Thermistor (-40~+100 °C)

10. When complete above step 9 Analog Input mode modify and click the Update button, can click  to refer Analag Input mode specifaion table.

Type E Thermocouple Reference Ta...

Range : -270 ~ 1,000 °C

°C	°F	mV
-270	-454	-9.835
-269	-452.2	-9.833
-268	-450.4	-9.831
-267	-448.6	-9.828
-266	-446.8	-9.825
-265	-445	-9.821
-264	-443.2	-9.817
-263	-441.4	-9.813
-262	-439.6	-9.808
-261	-437.8	-9.802
-260	-436	-9.797
-259	-434.2	-9.790
-258	-432.4	-9.784
-257	-430.6	-9.777
-256	-428.8	-9.770
-255	-427	-9.762
-254	-425.2	-9.754
-253	-423.4	-9.746
-252	-421.6	-9.737
-251	-419.8	-9.728
-250	-418	-9.718
-249	-416.2	-9.709
-248	-414.4	-9.698
-247	-412.6	-9.688
-246	-410.8	-9.677
-245	-409	-9.666
-244	-407.2	-9.654
-243	-405.4	-9.642
-242	-403.6	-9.630

11. Can setup the temperature compensation when choose the Thermocouple mode. When finish the setup, must click the Update button.

Analog Input Type Code Miscellaneous

CJC 24.93 °C CJC Offset 0.00 °C

AI Offset Value

AI0 0.00 °C	AI4 0.00 °C
AI1 0.00 °C	AI5 0.00 °C
AI2 0.00 °C	AI6 0.00 °C
AI3 0.00 °C	AI7 0.00 °C

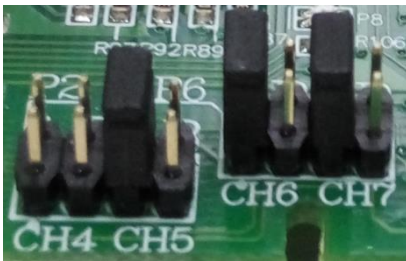
Restore Update

12. The A-1019 can support multiple Analog Input mode. When complete above PC software setup, unscrew the device housing screws and remove the internal circuit board to setup the Analog Input Jumper Wire. Each Analog Input channel had its Jumper Wire Pin. The initial setup is for 0/4-20 mA. The jumper indication is as below.

0/4-20 mA: Pin A short.

Thermistor: Pin B short.

Thermocouple: Empty Pin A & B.



13. When complete above Jumper Wire setup, place the circuit board back into the device housing and lock it. Turn the device back switch to Normal mode and power on.

14. Done

Note: If the Analog Input mode PC software setup and Jumper Wire not synchronized, the data will be mistake.