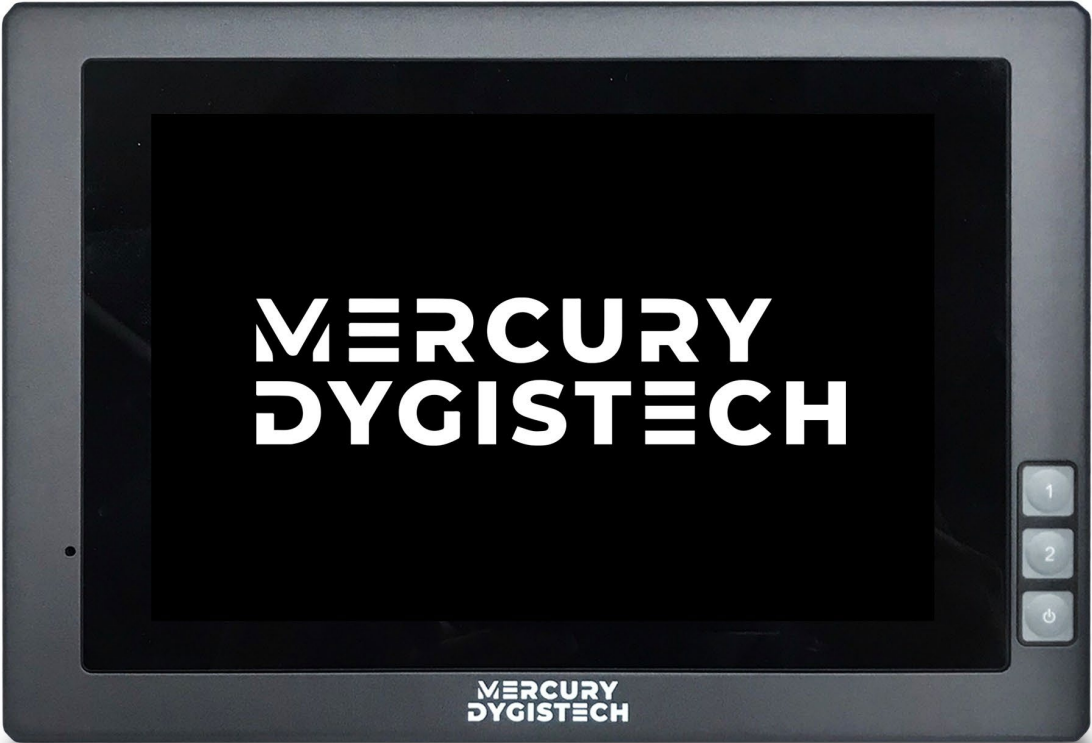


Mercury IoT Gateway

User Manual



คู่มือผู้ใช้ Mercury IoT Gateway User Manual

› Specifications

› Extended Cable Definition

› Memory Card Instructions

› Operation Guide

› Basic Operation

› Network Settings

› Program Malin1 IoT Platform

› Power Off



Configuration	Description
Display	7"
Physical Resolution	1280 x 800
Brightness	400 cd/m ³
Touch Panel	Capacitive
Contrast	800 : 1
Viewing Angle	160°/ 160° (H/V)
System Hardware	CPU : Intel Atom Z8350 1.44GHz
	ROM : 32GB EMMC
	GPU : Intel HD Graphic 400
	OS : Debian 11 32-bit (Linux)
	USB Port 2.0×2 (support USB 3.0)
	GPIO : Input×4, Output×6
	HDMI Output (HDMI V.1.4)
	LAN : LAN Port×2 (10/100Mbps)
	Serial Port : COM3, COM4, COM5, COM6
Optional Function	Bluetooth 4.0 2402MHz~2480MHz
	PoE (built-in) 25W
Input Voltage	DC 9~36V
Power Consumption	Overall ≤ 10W, Standby < 5W
Temperature	Working : -10°C~50°C , Storage : -30°C~70°C
Dimension (L×W×D)	206×144×30.9 mm (790g)



Front Side

- 1 Power Status
- 2 Reset Button
- 3 Power On/Off Button
- 4 Service Button

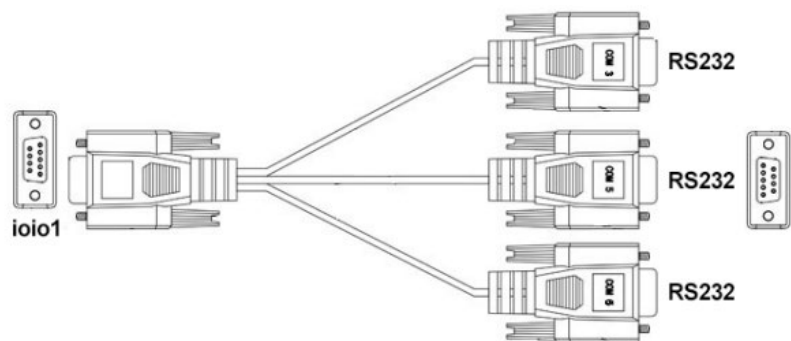


Front Side

- 1 S/N, MAC Address
- 2 Micro SD Slot
- 3 I2C, I2S, I2C2 ports
(See" Extended Cable Definition" for details)
- 4 GPIO
(See" Extended Cable Definition" for details)
- 5 HDMI Output
- 6 USB Port × 2
- 7 LAN Port × 2
- 8 Ear Jack
- 9 Power Input



IOIO1

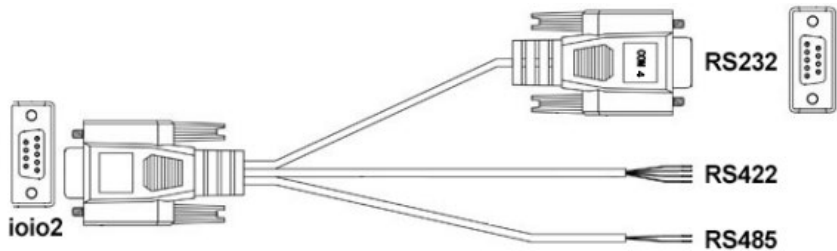


DB9 standard cable

RS232 standard interface, connecting with DB9 standard cable to convert to 3×RS232 ports

Com 3	RS232
Com 4	RS232
Com 5	RS232

IOIO2



DB9 optional cable

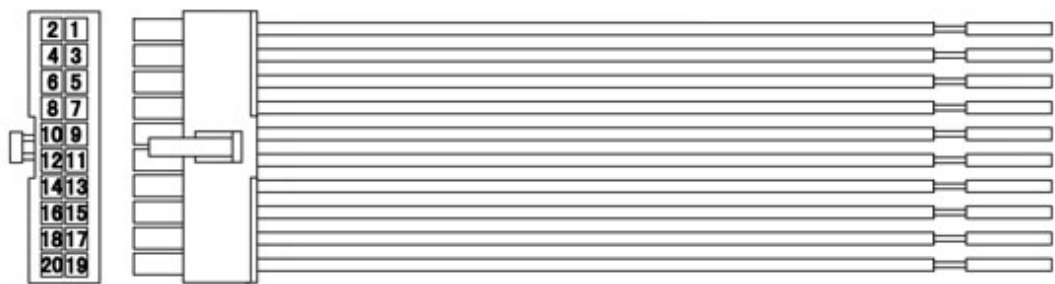
RS232 standard interface, connecting with DB9 optional cable to convert to 1×RS232, 1×RS422 and 1×RS485 ports

Com 6	RS232		
Com 5	RS422	Red A	White Z
		Black B	Green Y
Com 6	RS485	Red Positive Pole	
		Black Negative Pole	

Note: RS232 and RS422 are alternative for COM5.
RS232 and RS485 are alternative for COM6.
It should match with standard cable when using IOIO 1; Otherwise there is a risk of short circuit.



GPIO



GPIO	Definition	
	GPIO Input	GPIO1 GPIO2 GPIO3 GPIO4 Yellow
	GPIO Output	GPIO5 GPIO6 GPIO7 GPIO8 GPIO9 GPIO10 Blue
	GPIO GND	Black



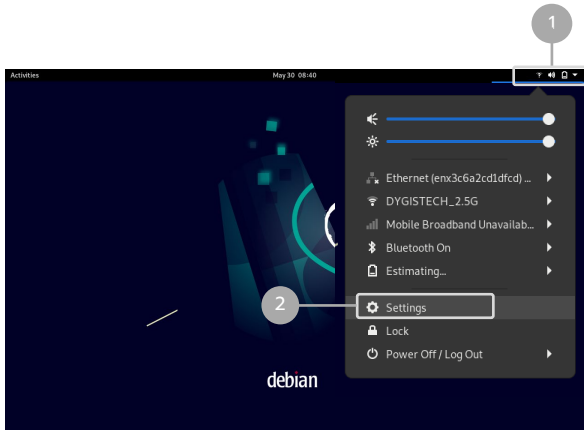
Memory Card Instructions

1. The memory card and the card slot on the device are precision electronic components. Please align to the position accurately when inserting the memory card into the card slot to avoid of damage. Please slightly push the upper edge of the card to loosen it when removing the memory card, then pull it out.
2. It is normal when the memory card getting hot after long time working.
3. The data stored on the memory card may be damaged if the card is not used correctly, even the power is cut off or the card is pulled out when reading data.



Basic Operation Start

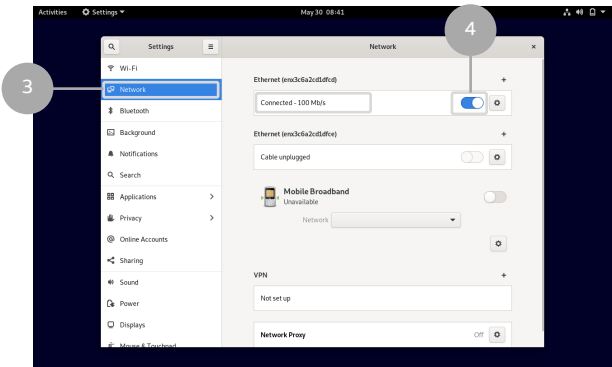
- 1 Press User
- 2 Key Password 123456
- 3 Press Enter



Network Settings


- 1 Press icon

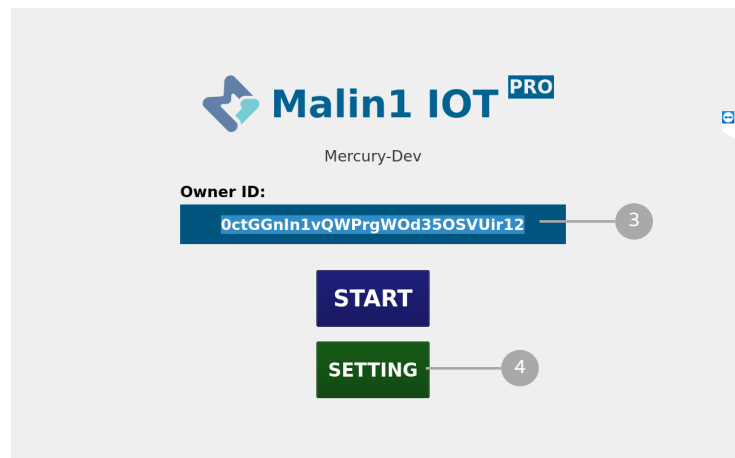
> Settings > Network > Ethernet



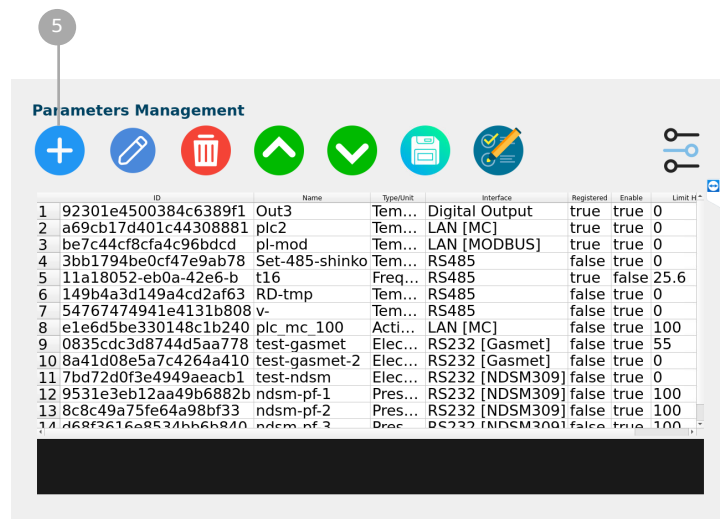


Program Malin1 IoT Platform

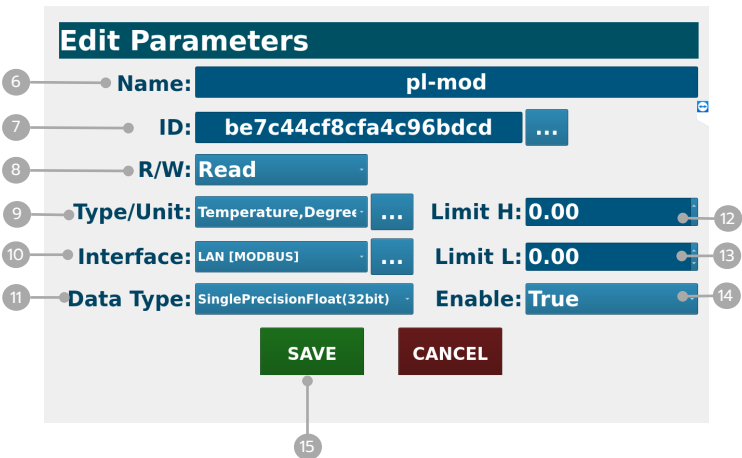
- 1 Press Activities
- 2 Press icon  Malin1 IoT Platform



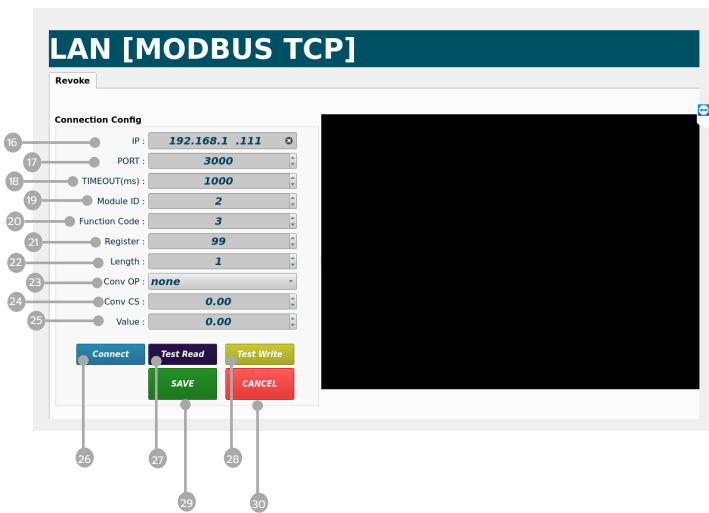
- 3 Key OWNER ID (See " Manual Platform " for details)
- 4 Press Setting Parameter
***Please set up parameter before start



- 5 Press icon  Add Parameter



- 6 Key parameter name
- 7 Auto gen parameter ID
- 8 Select Read or Write
- 9 Select parameter Type/Unit
- 10 Press **...** Setting MODBUS RTU (See " Sensor Manual " for details)
- 11 Select Data Type (See " Sensor Manual " for details)
- 12 Set Value of Limit High
- 13 Set Value of Limit Low
- 14 Select Enable (True) Or Disable (False) parameter
- 15 Press Save Button



- 16 Device IP address.
- 17 Device Port number.
- 18 Connection Timeout (ms).
- 19 Device/Module ID.
- 20 Function Code.
- 21 Register Address.
- 22 Data Length (word).
- 23 Convert Value Operator(+, -, *, /, none).
- 24 Convert Value Constance
- 25 Value for test write.
- 26 Connection Test.
- 27 Test Read.
- 28 Test Write.
- 29 Save.
- 30 Cancel

34

35

36

32



Parameters Management

+

33

	ID	Name	Type/Unit	Interface	Registered	Enable	Limit
1	92301e4500384c6389f1	Out3	Tem...	Digital Output	true	true	0
2	a69cb17d401c44308881	plc2	Tem...	LAN [MC]	true	true	0
3	be7c44cf8cfa4c96bdcd	pl-mod	Tem...	LAN [MODBUS]	true	true	0
4	3bb1794be0cf47e9ab78	Set-485-shinko	Tem...	RS485	false	true	0
5	11a18052-e00a-42e6-b	t16	Freq...	RS485	true	false	25.6
6	149b4a3d149a4cd2af63	RD-tmp	Tem...	RS485	false	true	0
7	54767474941e4131b808	v-	Tem...	RS485	false	true	0
8	e1e6d5be330148c1b240	plc_mc_100	Acti...	LAN [MC]	false	true	100
9	0835cdc3d8744d5aa778	test-gasmet	Elec...	RS232 [Gasmet]	false	true	55
10	8a41d08e5a7c4264a410	test-gasmet-2	Elec...	RS232 [Gasmet]	false	true	0
11	7bd72d0f3e4949aeacb1	test-ndsm	Elec...	RS232 [NDSM309]	false	true	0
12	9531e3eb12aa49b6882b	ndsm-pf-1	Pres...	RS232 [NDSM309]	false	true	100
13	8c8c49a75fe64a98bf33	ndsm-pf-2	Pres...	RS232 [NDSM309]	false	true	100
14	d68f3616c...	ndsm-pf-3	Pres...	RS232 [NDSM309]	false	true	100

31

- 31
- Saved parameters will show in the table.
- 32
- Press icon  to register parameters to M1 Platform
- 33
- Press icon  Back to Menu
- 34
- Move up parameters order.
- 35
- Move down parameters order.
- 36
- Save parameters order.

37

Home

GPIO

Parameters

Service

Setting

Schedule

Exit

- 37
- Press Home

Mercury-Dev

Owner ID:

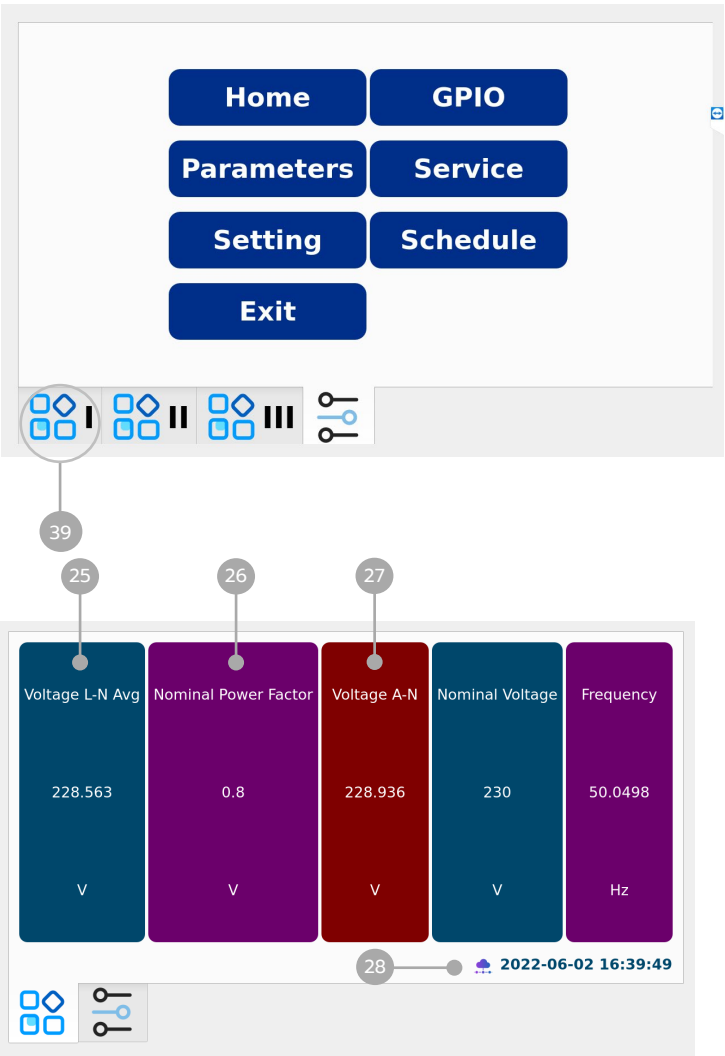
0ctGGnln1vQWPrgWOd35OSVUir12


START

SETTING

38

- 38
- Press Start



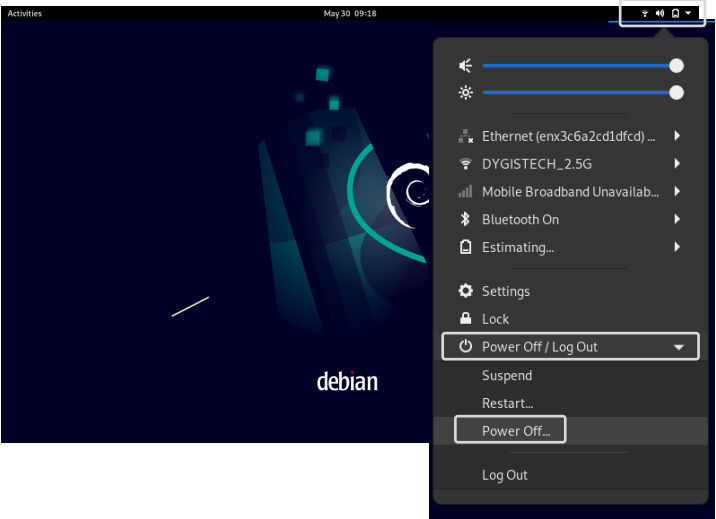
39 Press icon  to see real time parameters value

25 Blue Color = Normal value

26 Purple Color = Under Limit Low value

27 Red Color = Over Limit High value

28 M1 Connection Status



Power Off

Function Select

Restart

Suspend

Power Off...

Log Out