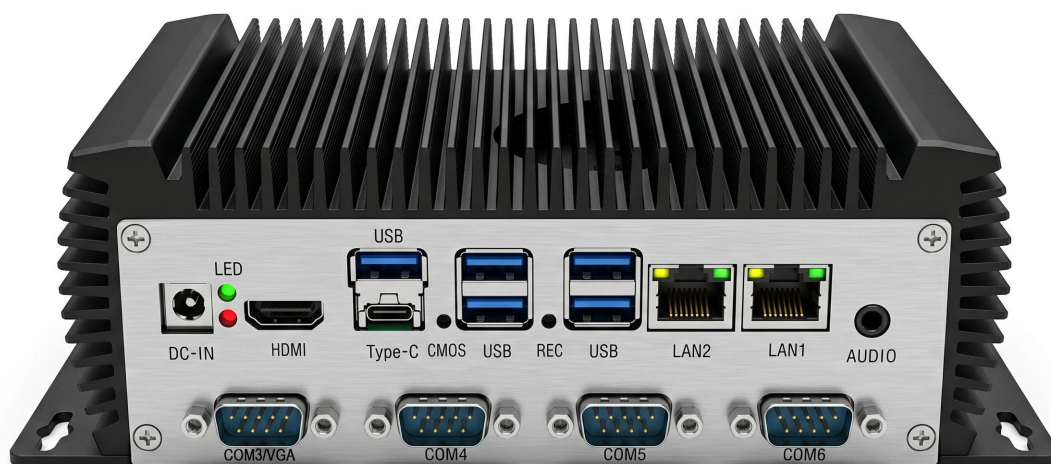


工控机 DY35-M678U IPC

用户使用手册 User Manual



产品型号 Model NO.: DY35-M678U

PCB 版本 PCB_VERSION: V0.1

声明： Statement:

本手册包含的内容并不代表本公司承诺，本公司保留对此手册更改的权力，且不另行通知，对于任何因安装、使用不当而导致的间接、直接、有意或无意的损坏及隐患概不负责。

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警告提示 Warning

为避免电击危险： To avoid the risk of electric shock:

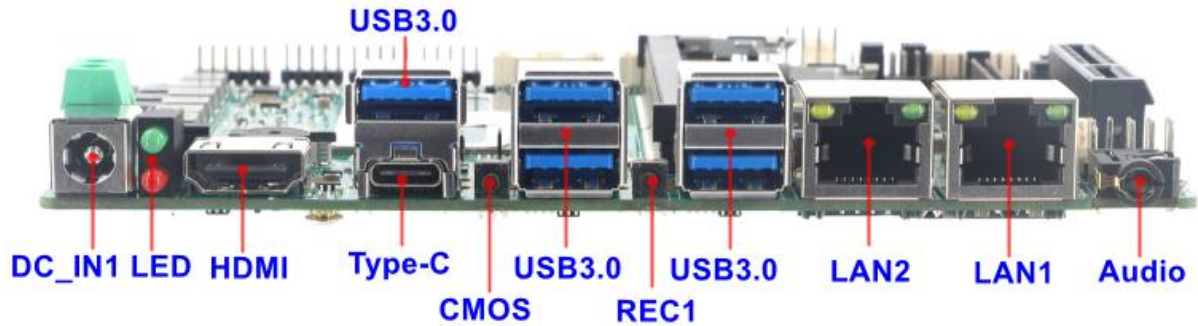
- 请勿在雷暴天气期间连接或断开任何电缆的连接，安装，维护或重新配置本产品。 Do not connect or disconnect any cables, install, maintain or reconfigure this product during a thunderstorm.
- 将所有电源线连接正确且采用接地的电源插座。 Connect all power cords properly and use a grounded electrical outlet.
- 将所有要连接到本产品的设备连接到正确连线的插座。 Connect all devices to be connected to this product to properly wired outlets.
- 尽量仅用单手连接或断开信号电缆的连接。 Try to connect or disconnect signal cables with one hand only.

更换系统电池时，请使用同类电池进行更换。电池含锂，如果使用、操作或处理不当会发生爆炸。
When replacing the system battery, use a comparable battery for replacement. Batteries contain lithium and can explode if used, handled, or disposed of incorrectly.

I. 主板详细规格 Main Board Details Specifications:

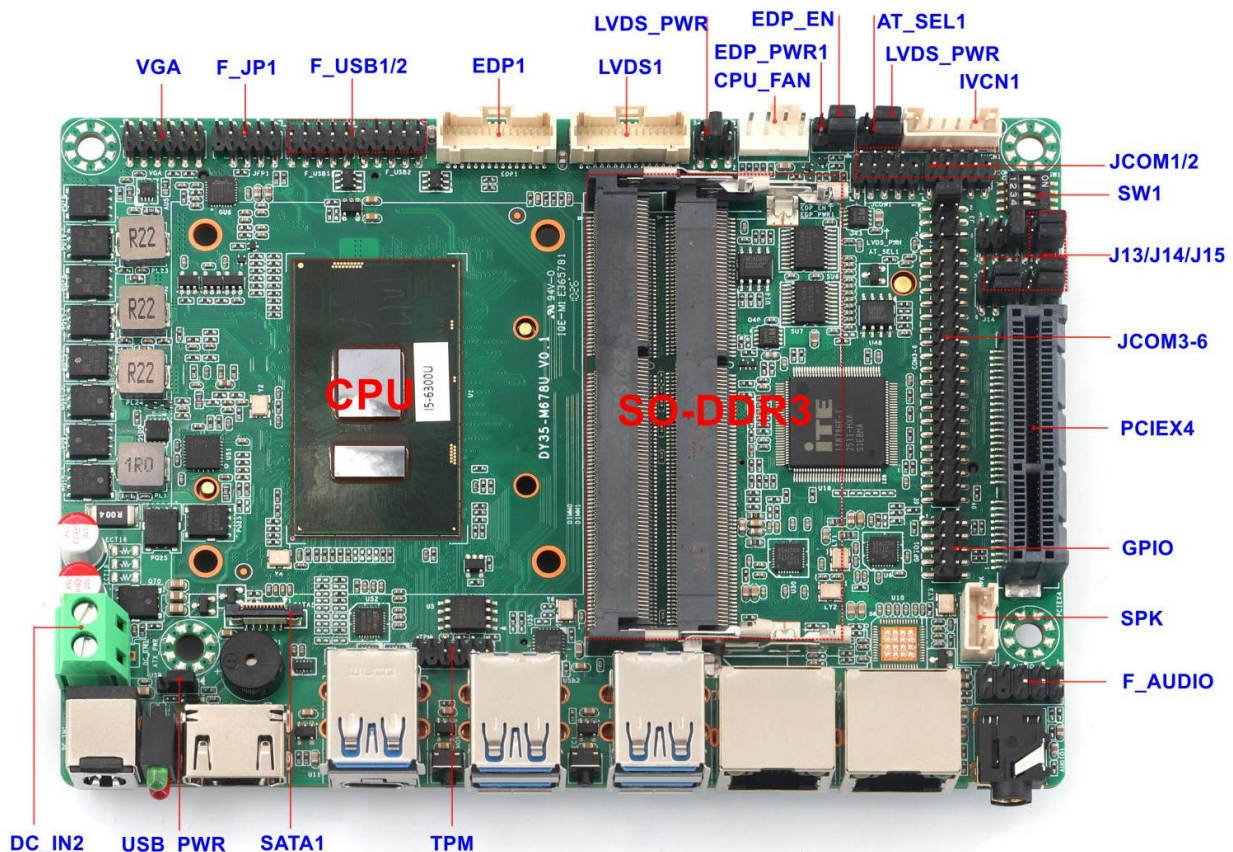
Motherboard Model	● DY35-M678U V0.1
Processor	● Support FCBGA1356, 6-8th Intel® Core™ I3 I5 I7 U series mobile processor
Display chip	● Intel®UHD Graphics integrated graphics
Display output	● IO PORT: HDMI ● VGA (Pin header, 2X6 P2.0mm) ● LVDS (Pin header, default display; supports different resolutions, default 1920x1080) ● EDP (Pin header, optional, remark at order notes) ● EDP / LVDS only one can be displayed (Use the EDP_EN pin to switch)
Memory	● 2*SO-DIMM DDR3 Dual channels, support 1333/1600MHz, MAX: 16G
Storage	● 1*MSATA
Expansion slot	● 1*M.2 E Key 2230 socket, supports WIFI + Bluetooth module ● 1*PCIEx4 (Expansion card that supports its interface)
Audio	● 1*Realtek ALC897 High Definition Audio Driver
Network	● 2*RTL8111H 1G (optional 2*Intel I226-V 2.5Gb Ethernet card, remark at order notes)
USB	● 5*USB3.0 (IO interface) ● 5*USB2.0 (4* internal Pin + 1 Type-C I/O port)
Serial Port	● 6*COM, where COM 1-2 support RS232/RS485 ; COM 3-6 support RS232.
I/O chip	● IT8786E-I HX LQFP-128
BIOS	● AMI BIOS
Powered by	● DC_IN: 12V (11V-27V optional, remark at order notes)
Cooling system	● Built-in CPU cooler [Internal: 1*CPU_FAN 1x4Pin]
Environment	● Operating temperature: 0~60℃; ● Storage temperature: -20℃~ 60 ℃, 0%~95% relative humidity, non-condensing.

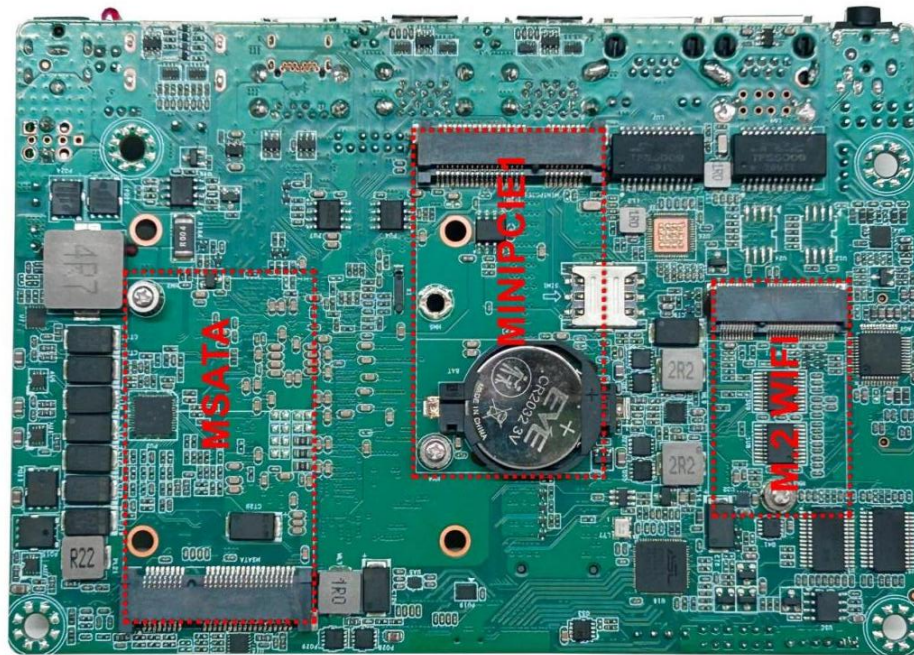
II. 后置 IO 面板: Rear Panel I/O Ports:



I/O Interfaces	● DC_IN1: [DC JACK OD5.5, defaulted DC12V power supply, Optional 11V-27V]
	● LED: [Power/Hard Drive Indicator Light]
	● HDMI: [Default HDMI+LVDS+VGA three display at 1920x1080/60HZ, optional 4K@30Hz Single display]
	● USB3.0: [5*USB3.0]
	● Type-C: [1*USB2.0, no display function]
	● REC1: [One-click restore, achieved with software]
	● LAN1: [1*LAN REALTEK RTL811H 1G network card , optional Intel I226-V 2.5GbE, remark at order notes]
	● LAN2: [1*LAN REALTEK RTL811H 1G network card , optional Intel I226-V 2.5GbE, remark at order notes]
	● AUDIO: [二合一, Line-OUT, MIC IN]
	● CMOS Clear CMOS

III. 主板内置接口: Main Board Inner Interfaces:

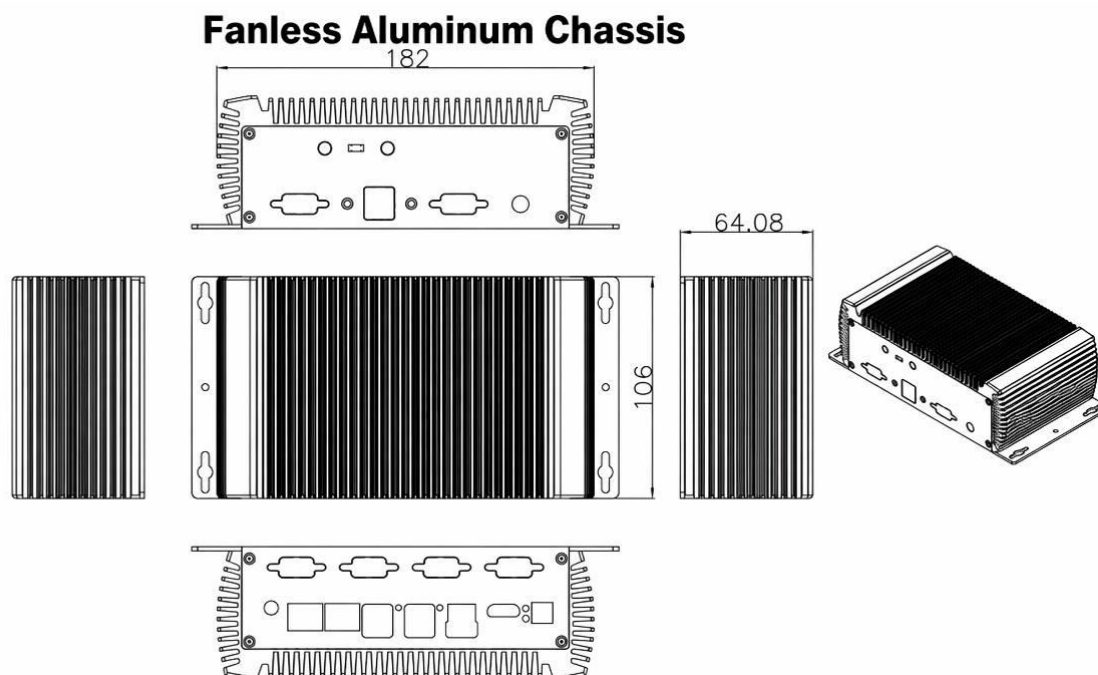




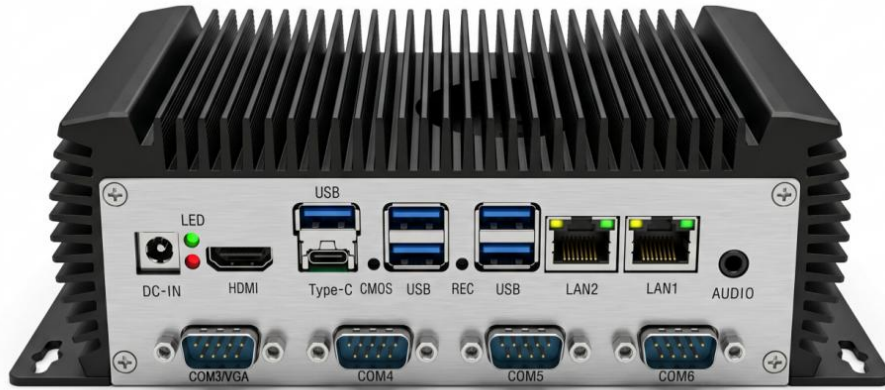
CPU	Support FCBGA1356, 6-8th Intel® Core™ I3 I5 I7 U series mobile processor
SO-DDR5	2*SO-DIMM DDR3Dual Memory Channels 1600MHz, MAX: 16G
M.2 WIFI	M.2 E Key 2230 socket supports Wi-Fi and Bluetooth modules
MSATA	SSD Mini SATA Socket, MAX: 2TB
SATA1	FPC 12P Trans-Socket 2.5inch SSD/HDD
DC_IN2	Default CONN 2PIN 5.08mm Phoenix connector 180° ; Optional Wafer, 4P with 2.54mm lead pitch and ATX 2x2 4P Socket
AT_SEL1	1x3Pin Header JMP, Default 1-2=Disables Auto Power-on, Switching 2-3=Enables Auto Power-on
PCIEX4	PCI EXPRESS X4 64PIN extension slot (expansion cards that support its interface)
CPU_FAN	1x4Pin Wafer CPU_FAN Connector (PWM Control)
F_PP1	2X5 P2.0 Pins, N10
F_USB1/2	4*USB2.0 [2X5 P2.0 Pins, N9]
F_AUDIO	Front MIC/Audio Pins [2x5 P2.54 header, N8]
SPK	1X4 wafer [2x3W, 8 ohms/4 ohms, amplifier speaker interface]
USB_PWR	2x [1x3Pin Header] JMP defaults to 1-2 = VCC5, switching to 2-3 = 5VSB .
VGA	2X6 P2.0 Pins
EDP1	EDP display socket 2*15 Header 1.0mm SMT Pins

EDP_PWR	1*3 Header 2.0mm Pins, 3.3V/5V, Default 3.3V (set to pins1-2)
EDP_EN	1*3 Header 2.0mm Pins,for switching between LVDS and EDP displays. - By default, pins 1 and 2 of the jump cap support LVDS display, and pins 2 and 3 support EDP display.
LVDS1	LVDS display socket 2*15 Header 1.0mm Pins, Default 1920*1080 resolution
LVDS_PWR	2*3 Header 2.0mm Pins, 3.3V/5V/12V, Defalut 5V (Pin3-4)
LVDS_PWM	1*3 Header 2.0mm Pins, default Jumper 1-2
SW1	2X4 digital switch to adjust different LVDS screen resolutions; default resolution is 1920*1080.
IVCN1	1x6Pin Wafer P2.0mm, LVDS screen backlight power supply
JCOM1/2	Supports RS232,RS485, achieved via BIOS and internal Jumper J13/J14/J15.
J13/J14/J15	- Serial ports JCOM1 / JCOM2 , RS232 /485 protocol switching - Default RS232 serial ports: J13(1-3), J13(2-4), J14(1-3), J14(2-4), J15(1-3), J15(2-4) - RS485 serial port: J13(3-5), J13(4-6), J14(3-5), J14(4-6), J15(3-5), J15(4-6) in conjunction with BIOS settings.
JCOM3-6	4 *COM pins , 2*20 Header 2.0 mm
GPIO	2*5 Header 2.0mm Pins , Control Interface
TPM	2*6 Header P2.0mm N10 Pins , for connecting external encryption devices.
MINIPCIE1	MINIPCIE 4G, used with a SIM card

IV. 机箱结构图 Case Structure



V. 无风扇铝合金机箱接口 Full IO Ports



VI. 适配器 Adapter

