

## 产品型号 SBM-M202F

飞腾  
PHYTIUM



UOS

## 产品特性

- ▶ CPU: 飞腾FT2000/4核CPU 主频2.6GHz,功耗低至18W (可选D2000/8核)
- ▶ 内存: 2\*SODIMM,DDR4,最大支持32GB
- ▶ 存储: 2\*SATA3.0,1\*M.2 (SSD)
- ▶ 声卡: ALC662 2\*Line out,2\*Mic in
- ▶ 以太网: 2\*Realtek RTL8111H千兆网卡
- ▶ 显示: 主板集成显卡, 1\*VGA, 1\*DVI, 1\*LVDS
- ▶ COM接口: 12\*RS232 (COM1~COM4可选RS422)
- ▶ MiniPCIE接口: 1\*MiniPCIE (4G/WIFI)
- ▶ PCIE接口: 1\*PCIE3.0 X16槽 (X8信号)
- ▶ 尺寸: 170\*170mm (Mini-ITX)
- ▶ BIOS:UEFI
- ▶ 工作温度: -10~50°C,存储温度: -20~60°C

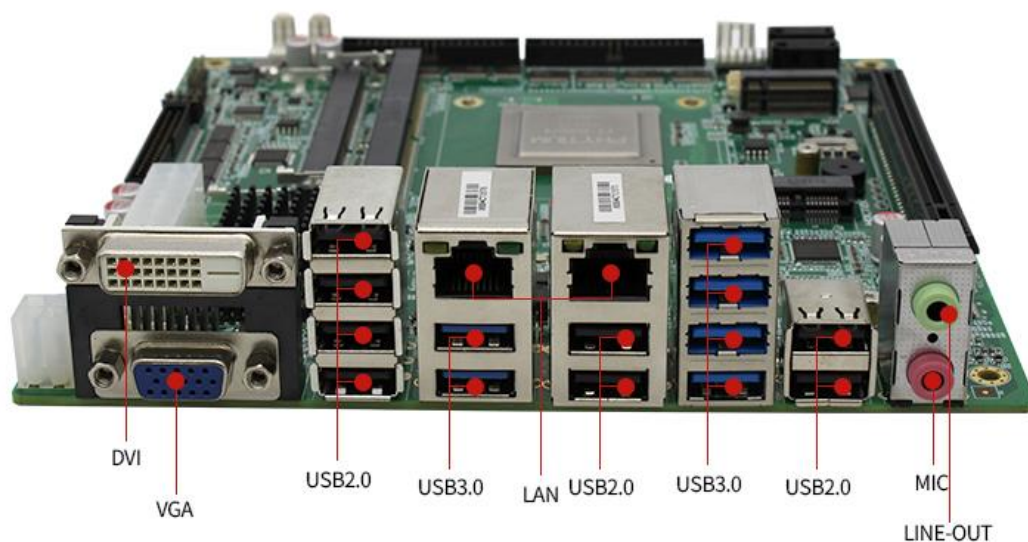
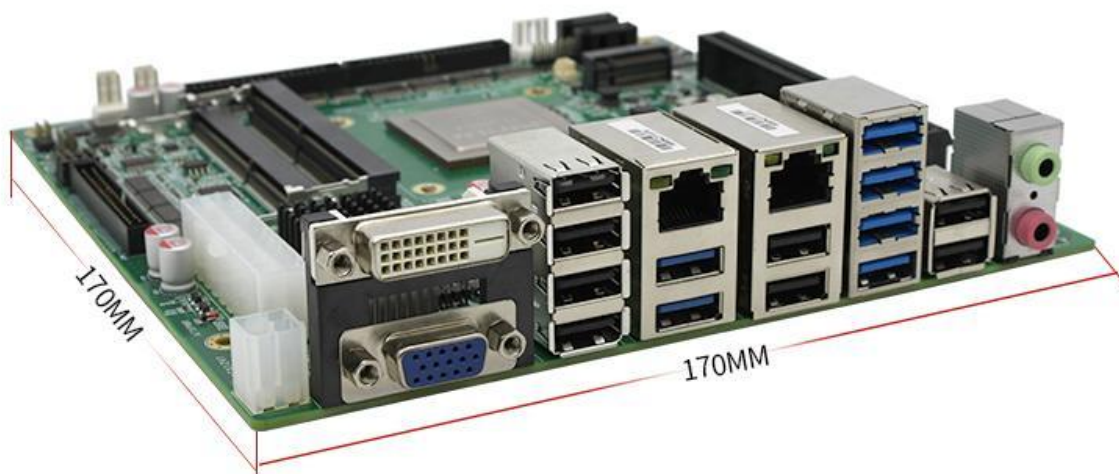
 **技术参数**

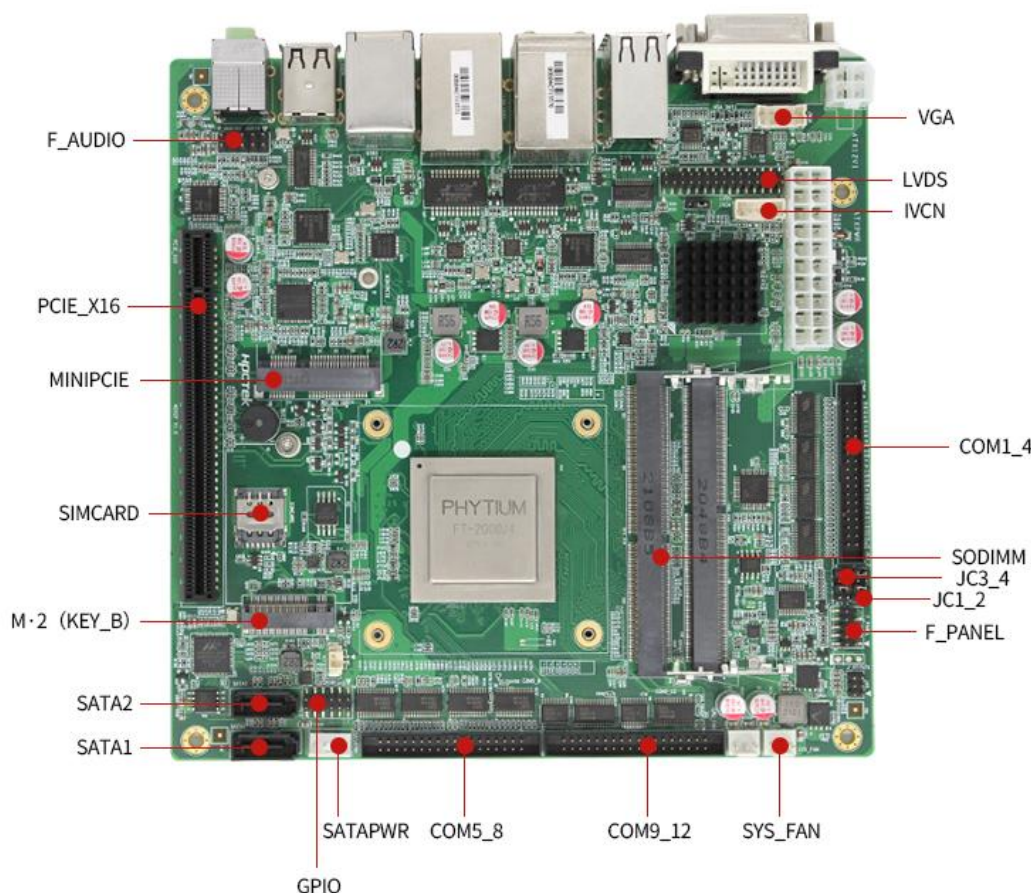
**SBM-M202F**

CPU	飞腾FT-2000/4 CPU, 主频2.6GHz, 功耗低至18W
内存	2* SODIMM, DDR4,最大支持32GB
存储	2* SATA3.0, 1* M.2 (SSD)
声卡	ALC662 2 * Line out, 2* Mic in
以太网	2 * Realtek RTL8111H千兆网卡
显示	主板集成显卡, 1* VGA, 1 * DVI, 1 * LVDS
COM	12 * RS232串口(COM1-4可选RS422)
I/O接口	2 * RJ45网口
	6 * USB3.0 Type-A接口
	8 * USB2.0 Type-A接口
	1 * 3.5mm音频插座(Line out, Mic in)
	1 * 2x5 PIN排针(Line out2, Mic in2)
	1 * Mini PCIE(4G/WIFI)
	3 * 2x18 PIN排针(12个RS232,4个可选RS422)
	1* Key-B(SSD)
	1* PCI-E3.0 X16槽 (X8信号)
	1 * 1x3 PIN系统风扇座子
	1 * 1x3 PIN CPU风扇座子
	1* 2x5PIN排针 (开机+复位+LED)
	1* 2x6PIN排针 (8路GPIO)
	1* 2x15PIN排针(LVDS接口)
版型	170*170mm (Mini-ITX)

BIOS	UEFI
系统	Kylin/UOS
供电	ATX供电, 20+4PIN输入
工作温度	-10~50 °C
存储温度	-20~60°C

## 外形尺寸





## ■ 内部接口定义

SYS\_FAN,1x3,PH=2.54MM,系统风扇座子

NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	GND		3	NC	
2	+12V				

CPU\_FAN,1x3,PH=2.54MM,CPU风扇座子

NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	GND		3	NC	
2	+12V				

F\_PANEL,2x5,PH=2.0MM

NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	PWRBTN+	开关+	2	SATA_LED	硬盘灯+
3	PWRBTN-	开关-	4	GND	硬盘灯-
5	RESET_SW	复位+	6	经1K电阻上拉至	电源灯+

				+3.3V	
7	GND	复位-	8	GND	电源灯-
9	空PIN		10	GND	

JC1\_2, 2x5,PH=2.0MM,COM1, COM2模式选择PIN

NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	M1_1	COM1设置PIN M1	2	GND	短接1-2: RS232 短接3-4: RS485
3	M2_1	COM1设置PIN M2	4	GND	同时短接1-2和3-4: RS422
5	M1_2	COM2设置PIN M1	6	GND	短接5-6: RS232 短接7-8: RS485
7	M2_2	COM2设置PIN M2	8	GND	同时短接5-6和7-8: RS422

JC3\_4, 2x5,PH=2.0MM,COM3,COM4模式选择PIN

NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	M1_3	COM3设置PIN M1	2	GND	短接1-2: RS232 短接3-4: RS485
3	M2_3	COM3设置PIN M2	4	GND	同时短接1-2和3-4: RS422
5	M1_4	COM4设置PIN M1	6	GND	短接5-6: RS232 短接7-8: RS485
7	M2_4	COM4设置PIN M2	8	GND	同时短接5-6和7-8: RS422

COM1\_4, 2x18,PH=2.0MM

NO.	SYMBOL	DESCRIPTION	N O.	SYMBOL	DESCRIPTION
1	DCD1	232模式:DCD1 422模式:TX1(B) 485模式 :T1/R1(B)	2	RXD1	232模式:RXD1 422模式:TX1(A) 485模式:T1/R1(A)
3	TXD1	232模式:TXD1 422模式:RX1(A)	4	DTR1	232模式:DTR1 422模式:RX1(B)
5	GND		6	DSR1	
7	RTS1		8	CTS1	
9	RI1		10	DCD2	232模式:DCD2 422模式:TX2(B) 485模式

					:T2/R2(B)
11	RXD2	232模式:RXD2 422模式:TX2(A) 485模式:T2/R2(A)	12	TXD2	232模式:TXD2 422模式:RX2(A)
13	DTR2	232模式:DTR2 422模式:RX2(B)	14	GND	
15	DSR2		16	RTS2	
17	CTS2		18	RI2	
19	DCD3	232模式:DCD3 422模式:TX3(B) 485模式 :T3/R3(B)	20	RXD3	232模式:RXD3 422模式:TX3(A) 485模式:T3/R3(A)
21	TXD3	232模式:TXD3 422模式:RX3(A)	22	DTR3	232模式:DTR3 422模式:RX3(B)
23	GND		24	DSR3	
25	RTS3		26	CTS3	
27	RI3		28	DCD4	232模式:DCD4 422模式:TX4(B) 485模式 :T4/R4(B)
29	RXD4	232模式:RXD4 422模式:TX4(A) 485模式:T4/R4(A)	30	TXD4	232模式:TXD4 422模式:RX4(A)
31	DTR4	232模式:DTR4 422模式:X4(B)	32	GND	
33	DSR4		34	RTS4	
35	CTS4		36	RI4	

COM5_8, 2x18,PH=2.0MM					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	DCD5		2	RXD5	
3	TXD5		4	DTR5	
5	GND		6	DSR5	
7	RTS5		8	CTS5	
9	RI5		10	DCD6	
11	RXD6		12	TXD6	
13	DTR6		14	GND	
15	DSR6		16	RTS6	
17	CTS6		18	RI6	
19	DCD7		20	RXD7	
21	TXD7		22	DTR7	
23	GND		24	DSR7	
25	RTS7		26	CTS7	
27	RI7		28	DCD8	
29	RXD8		30	TXD8	
31	DTR8		32	GND	
33	DSR8		34	RTS8	

35	CTS8		36	RI8	
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COM9_12, 2x18,PH=2.0MM					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	NC		2	RXD9	
3	TXD9		4	NC	
5	GND		6	NC	
7	NC		8	NC	
9	NC		10	DCD10	
11	RXD10		12	TXD10	
13	DTR10		14	GND	
15	DSR10		16	RTS10	
17	CTS10		18	RI10	
19	NC		20	RXD11	
21	TXD11		22	NC	
23	GND		24	NC	
25	NC		26	NC	
27	NC		28	NC	
29	RXD12		30	TXD12	
31	NC		32	GND	
33	NC		34	NC	
35	NC		36	NC	

GPIO,2x4,PH=2.0MM					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	+5V		2	+3.3V	
3	GPIOB1	+3V GPIO	4	GPIOB5	+3V GPIO
5	GPIOB2	+3V GPIO	6	GPIOB6	+3V GPIO
7	GPIOB3	+3V GPIO	8	GPIOA5	+3V GPIO
9	GPIOB4	+3V GPIO	10	GPIOA6	+3V GPIO
11	GND		12	GND	

F_AUDIO,2x5,PH=2.54MM, 1*Line Out, 1*Mic In					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	MIC_L		2	GND	
3	MIC_R		4	3.3V上拉	
5	LINE_OUT_R		6	MIC_JD	设备插入检测
7	GND		8	空PIN	
9	LINE_OUT_L		10	LINE_JD	设备插入检测

SATAPWR,1x4,SATA电源座子					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	+12V		3	GND	
2	GND		4	+5V	

LVDS:2x15,PH=2.0MM, 1*LVDS					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	LCDVDD	可选+5V/+3V, 默认+3V(通过JLV跳选)	2	LCDVDD	可选+5V/+3V, 默认+3V(通过JLV跳选)
3	LCDVDD		4	NC	
5	GND		6	GND	
7	A0M		8	A0P	
9	A1M		10	A1P	
11	A2M		12	A2P	
13	GND		14	GND	
15	CLK1M		16	CLK1P	
17	A3M		18	A3P	
19	A4M		20	A4P	
21	A5M		22	A5P	
23	A6M		24	A6P	
25	GND		26	GND	
27	CLK2M		28	CLK2P	
29	A7M		30	A7P	

JLV:1x3,PH=2.0MM, LVDS电压选择PIN					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	+V3.3S		2	LCDVDD	1-2:+3.3V
3	+V5S				2-3:+5V

IVCN:1x5,PH=2.0MM, LVDS背光排针					
NO.	SYMBOL	DESCRIPTION	NO.	SYMBOL	DESCRIPTION
1	+V12S		4	BKLT_PWM	亮度调节
2	GND		5	+V5S	
3	ENABKL	背光使能			

SODIMM: DDR4插槽  
 SIMCARD: SIM卡插槽  
 M.2 Key-B: 支持SATA信号的SSD



 **北京总部**

公司电话: +86(0)10 -82331878/82331875

服务热线: 400-800-1871

办公地址: 北京市海淀区双清路3号鸿运大厦1层31078室

工厂地址: 河北省廊坊市三河市燕郊开发区留山大街

创智谷产业园-1#地块-一期-4#-2-101

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