MB4C911-0321 Motherboard V1.0

CATALOGUE

1. Product Description

1. Brief Introduction

MB4C911-0321 is a 3.5 inch Mini-ITX motherboard designed based on the Intel Atom® Processor C Series, with the size of 165mm x115mm.

2. Version Specification

Version	Motherboard NO	Network Card	USB2.0 Ports	USB3.0 Ports	Serial Ports
V1.0	MB4C911-0321	9	2	2	1

3. Characteristics & Performances

1) Great Reliability

With the adoption of the Intel Atom® Processor C Series low power consumption processor and switching mode power supply, MB4C911-0321 motherboard can provide stable, sufficient and efficient power. The stability of the motherboard is further guaranteed with the switching mode of power supply applied in memory, too. All of the external devices of the motherboard is composed of some anti-static and jam-proof components which ensured the operation of a stable and efficient system.

2) High Performance

It considerably increases performance of the platform by employing the Intel Atom® Processor C Series of Intel and SATA3.0, DDR4, M.2 NVME, M.2 5G.

3) Full Support of BIOS

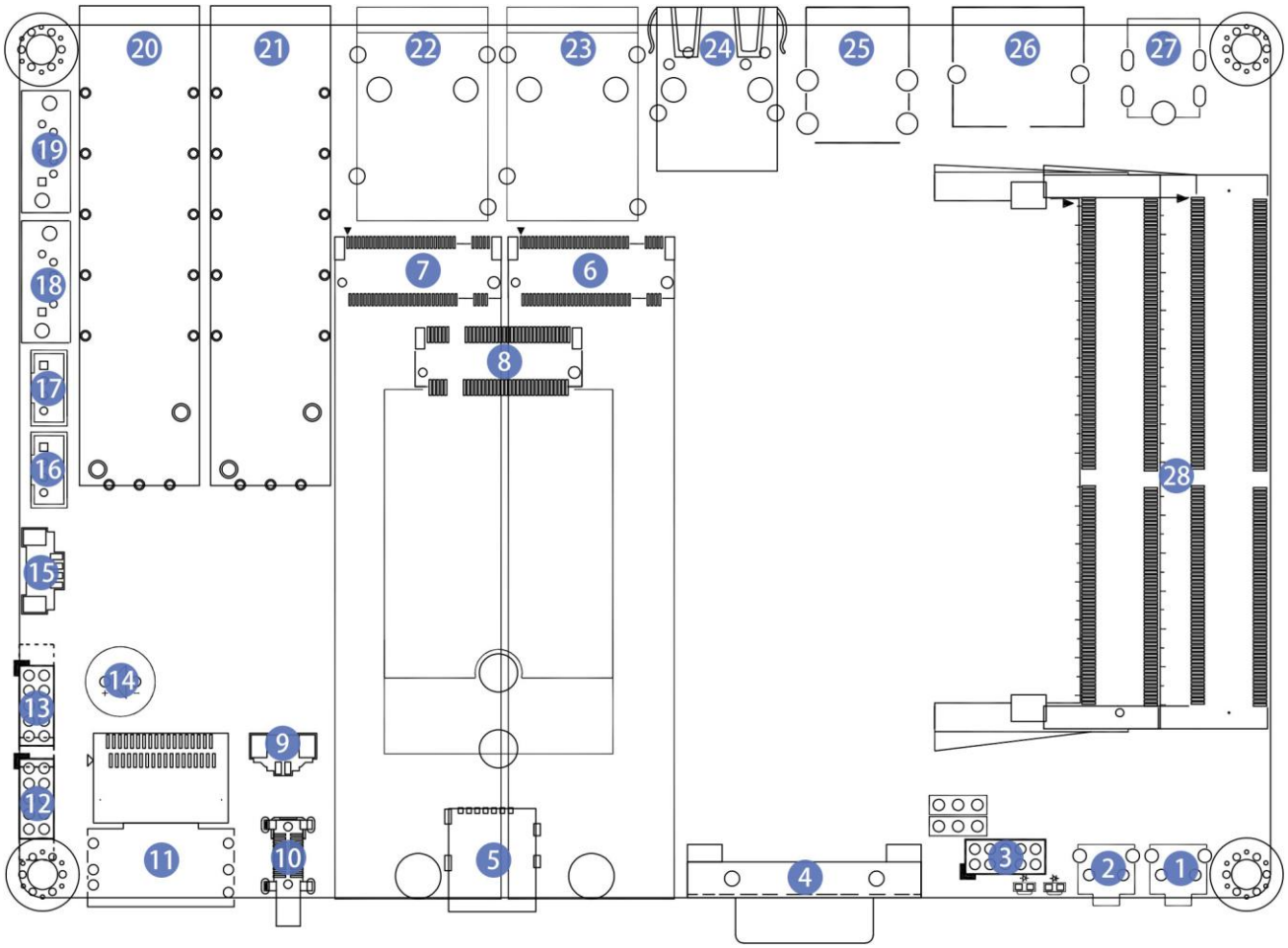
Support Diskless booting and Wake on LAN

4) Working Condition

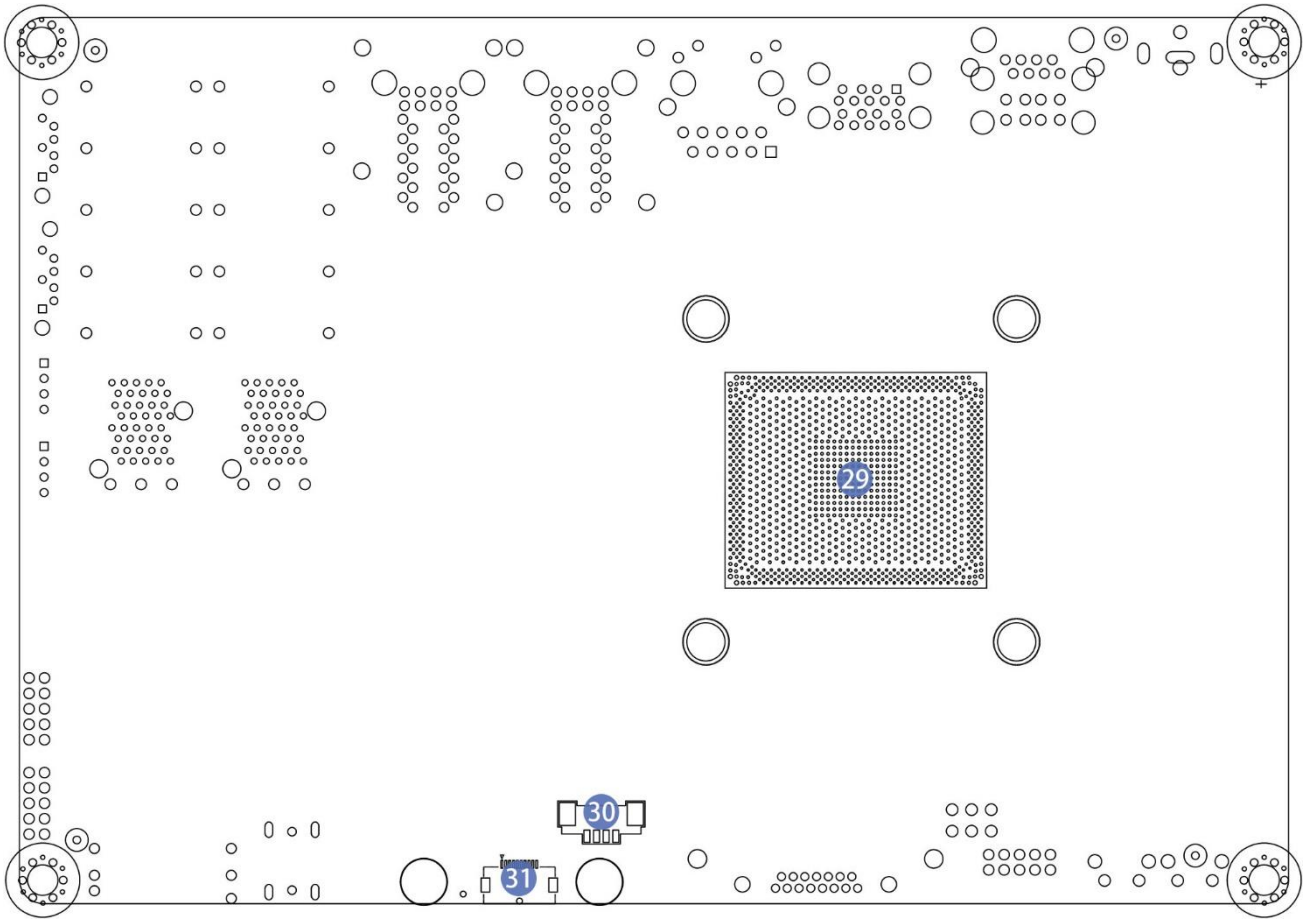
Working Temperature: -10℃～50℃
Working Humidity: 5%～95% (Non-gel)

2. Product Overview

1. Front View



2. Back View



3. Connectors and Headers

No.	Description	Signal Name
1	Power Switch	PWR_SW
2	Reset Switch	RST_SW
3	VGA Expansion Header	VGA2
4	VGA	VGA1
5	NANO SIM Solt	SIM1
6	M.2 For SSD	M.2_NVME1
7	M.2 For SSD	M.2_NVME2
8	M.2 For 5G	M.2_B_5G
9	RTC BAT Connector	RTC_CONN1
10	Type-C	TYPEC
11	Mini SAS	MINISAS
12	Front Panel Expansion Header	FPANEL1
13	USB2.0 Expansion Header	USB2
14	BUZZER	
15	SYS FAN	SYS_FAN
16	SATA2PWR	SATA_PWR2
17	SATA1 PWR	SATA_PWR1

18	SATA2	SATA2
19	SATA1	SATA1
20	SPF+ x 2	SFP1
21	SPF x 2	SFP2
22	2.5GLAN x 2	LAN1
23	2.5GLAN x 2	LAN3
24	2.5GLAN	LAN5
25	USB3.0	USB3_1
26	COM	COM1
27	12V DC in Connector	DC_IN1
28	DDR4 x 2	SODIMM
29	Intel Processor	
30	SYS FAN	SYS_FAN2
31	TPM Expansion	LPC_TPM

3. Detailed Description of Connection Ports

1. Power Switch

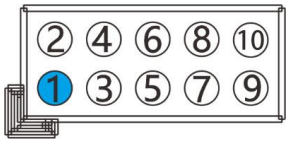
Power switch button.

2. Reset Switch

Reset switch button.

3. VGA Expansion Header

Pin for accessing extended VGA port, standard VGA Signal output.



Pin#	Signal	Pin#	Signal
1	VCC_PWR	2	RED
3	DDC_DATA	4	GREEN
5	DDC_CLK	6	BLUE
7	VSYNC	8	GND
9	HSYNC	10	GND

4. VGA Port

VGA standard interface. Multiplexed with NO.3 function

5. SIM Card Slot

Coordinate with Item No. 8, the function of 4G/5G can be supported.

6. M.2 2280 Port

M.2 Key M 2280 Port for SSD, Support NVME.

7. M.2 2280 Port

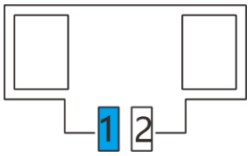
Refer to NO.6.

8. M.2 5G Socket

M.2 port for extending 5G.

9. CRT Battery Connector

CR2032 Battery Connector.



Pin#	Signal
1	+
2	-

10. Type-C Port

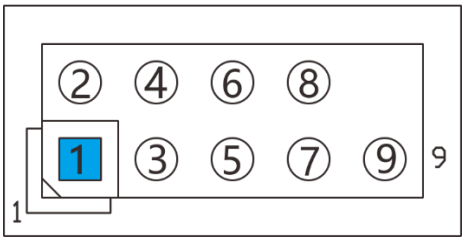
USB2.0 x 1, USB3.0 x 1(C3338R no Support).

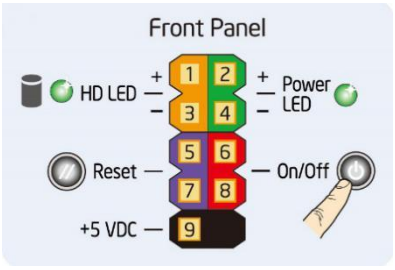
11. MiniSAS Port

MINI SAS SFF-8087 to 4SATA.

12. Extended Pin for External Panel

For accessing the power switch, power LED, HDD LED, reset switch, Pin spacing: 2.54mm.

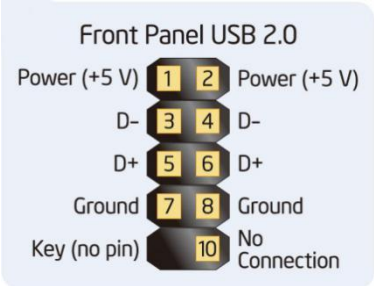




Function	Pin#	Signal	Function	Pin#	Signal
HDD LED	1	+	Reset	5	/
	3	-		7	/
Power LED	2	+	Power	6	/
	4	-		8	/

13. USB2.0 Extended

Pin for accessing extended USB2.0. Pin spacing: 2.0mm



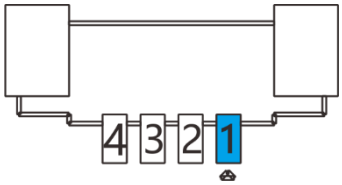
Pin#	Signal	Pin#	Signal
1	+5V DC	2	+5V DC
3	D-	4	D-
5	D+	6	D+
7	Ground	8	Ground
9	KEY (No Pin)	10	No Connect

14. Buzzer

DIP passive Buzzer 5V/80Ma 42Ω H=5.5mm D=9mm,P4.0mm.

15. SYS Fan Header

For connecting fan of the CPU.

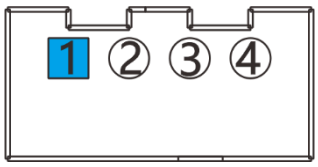


Pin#	Signal
1	GND
2	+5V
3	Detection
4	Control

16. SATA2 Power Connector

Special power interface, please ask for matching wire from the distributor.

When Power adaptor is 12V, 3.5" HDD can be supported.



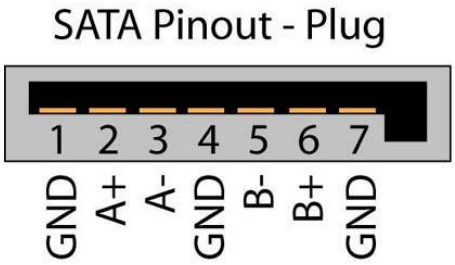
Pin#	1	2	3	4
Signal	+5V	+12V	GND	GND

17. SATA1 Power Connector

Refer No.16.

18. SATA 3.0（6.0 GB/s）

Universal SATA3.0 port.



19. SATA 3.0（6.0 GB/s）

Refer No.18.

20. SFP+ Port

2 x Intel X553 10GbE SFP+ Ethernet.

21. SFP Port

2 x Intel X553 1GbE SFP Ethernet (Configurable to 2.5GB/s).

22. LAN Port

2 x Intel I225-V 2.5 Gigabit Network, Support diskless booting and Wake on LAN.

23. LAN Port

Refer No.22.

24. LAN Port

Refer No.22.

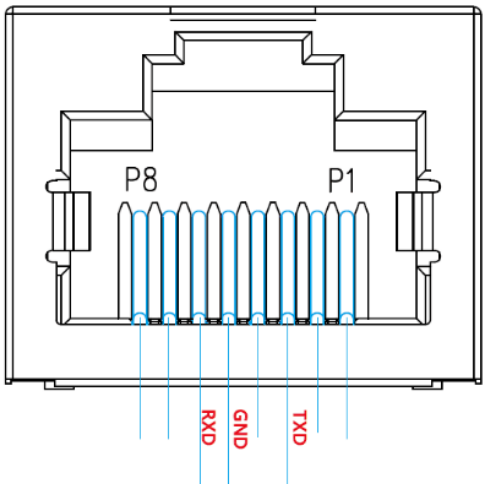
25. USB3.0 Ports

1 x USB3.0 Port.

1 x USB2.0 Port.

26. RJ45 Serial Port

Standard RJ45 Serial Port COM1.



27. 12V DC input

1) Increased reliability with intensive electrical socket outlet.

2) 12V power supply input. Suitable for power adapter (Internal: the positive pole, external: the negative pole) which has the outside diameter of 5.5mm and inside diameter of 2.5mm.

28. Memory Slot

Only suitable for SO-DIMM of 2133/2400 MHz working frequency, maximum 32 GB DDR4 single-sided module.

29. Intel Processor

Support Intel Atom® Processor C Series. Products formerly Denverton. Default C3558R.

30. SYS FAN

Refer No.15

31. TPM Expansion

Hardware TPM extension cable slot.