

CWUK
畅网微控

CW-W680-NAS-V20

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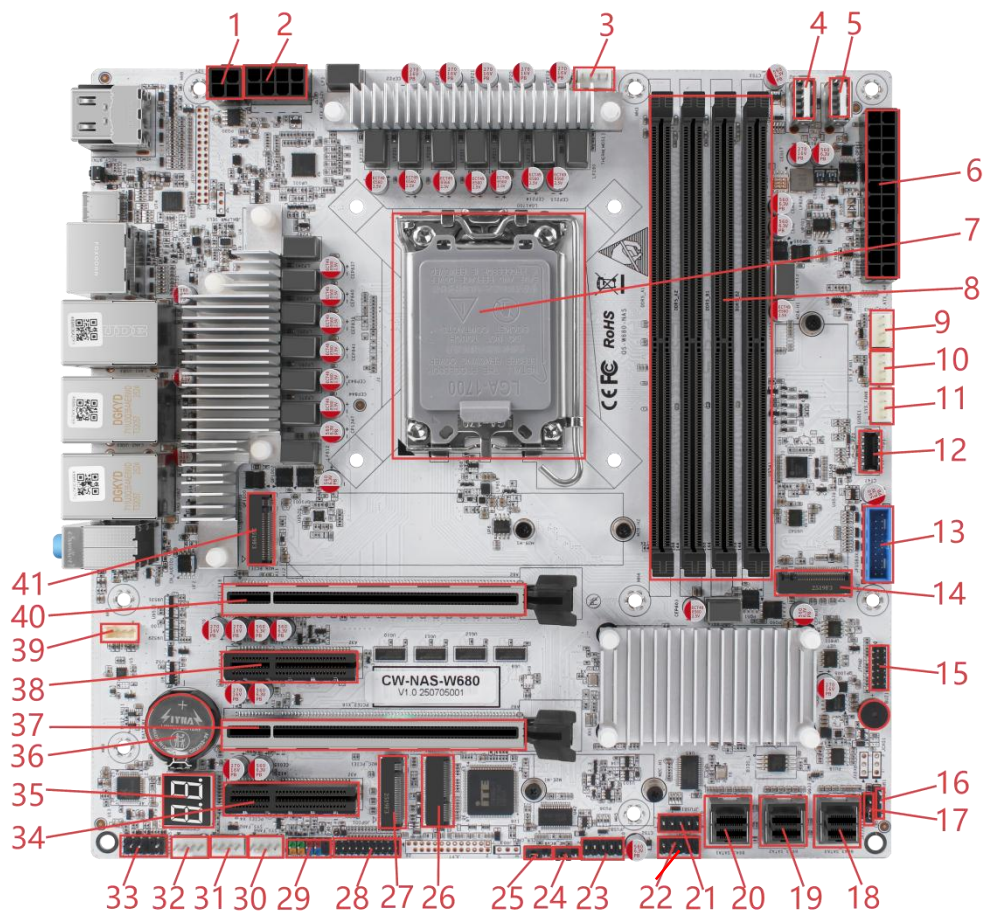
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1.1、Motherboard Specifications

1	Dimensions	m-atx 244 x 244 mm
2	Processor	Intel Core 12th/13th/14th Generation Processor TDP 125W, Maximum 250W
3	Platform	W680
4	Display	CPU Integrated Graphics or dGPU
5	Memory	4 x DDR5 5600 DIMM, up to 64G (180° straight insertion) 4 x UDIMM 4800MHz, 2 x UDIMM 5600MHz, XMP2.0(Supports adjustable memory voltage)
6	Storage	1 x nvme M2 (PCIe GEN4 x 4) (2280) (Chipset lanes) 1 x nvme M2 (PCIe GEN3 x 4) (2280) (Chipset lanes) 1 x nvme M2 (PCIe GEN4 x 4) (2280/22110) (Direct CPU lanes)
7	PCI-E	2 x PCIe x 16 slot, supports network/NVMe/raid card expansion, supports x16 graphics card, Supports Gen5 x16 signal in single-slot configuration, and Gen4 x8 signal in dual-slot configuration 2 x PCIe x 4, supports 10GbE network card expansion
8	Power Supply	ATX power interface 24P+8P+4P
9	Network	1 x Marvell AQC113CS 10G Ethernet port 1 x intel i226-LM 2.5G supports vPro 1 x intel i226-V 2.5G 1 x M.2 WIFI & BT (CNVI only)
10	Audio	Realtek ALC897 HD, default 3 port
11	External Ports	2 x USB3.2
12		2 x USB3.2
13		2 x USB2.0
14		1 x LAN 2.5G - vPro
15		1 x LAN 2.5G
16		1 x LAN 10G
17		2 x HDMI
18		2 x DP
19		1 x TYPE-C 10G (DP ALT)
20		1 x AUDIO 3PORT
21	Internal Devices	1 x CPU FAN(4PIN) (1 x PWM + 1 x TACH)
22		3 x SYS FAN(4PIN) (3 x PWM + 1 x TACH)
23		3 x SYS FAN(4PIN) (3 x PWM + 1 x TACH)
24		2 x USB2.0 connectors (TYPE-A 180° straight insertion)
25		2 x USB3.0 5GB headers (19P 2.0mm)
26		4 x USB2.0 headers (2 x 5P, 2.54mm)
27		1 x GPIO 20 pin headers
28		1 x USB Type-E 20G
29		1 x 8643 connectors
30		1 x 8643 connectors
31		1 x 8643 connectors
32		2 x PCIE X16
33		2 x PCIE X4
34		1 x COM
35		1 x Power on display digital tube (DEBUG diagnostic card)

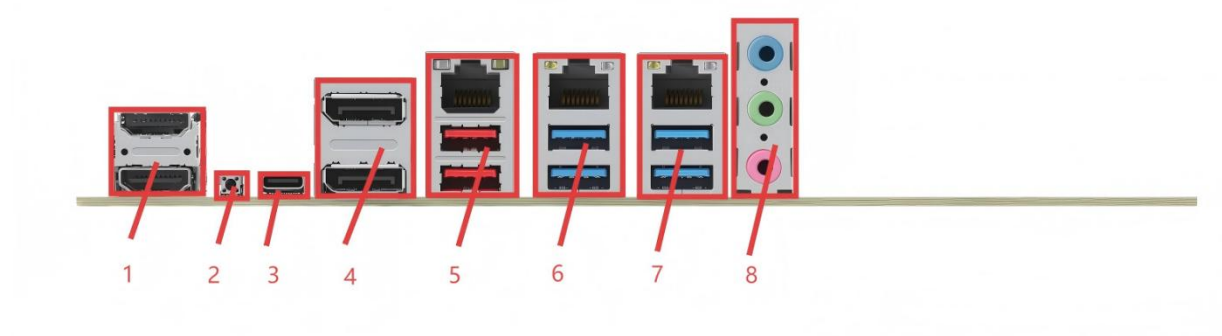
36	Internal Devices	20 x GPIO (2X10P, 2.0 headers)
37		1 x BIOS Recovery Button
38		1 x TPM compatible with ASUS 13PIN vertical header
39		1 x F-PANEL
40		1 x EDP
41		1 x F-AUDIO
42		1 x CLR-CMOS
43	Operating System	Linux/Windows
44	BIOS	Flash ROM
45	Operating Environment	Temperature: 0°C-60°C Humidity: 10%-85% non-condensing
46	Static Temperature	Contact 4K/Air 6K
47	Cooling Method	Fan cooling, 1700 78 x 78mm heatsink mounting holes

1.2、 Mainboard layout diagram



Item		Description
1	ATX_4P_12V	ATX 4P 12V Power Connector
2	ATX_8P_12V	ATX 8P 12V Power Connector
3	CPU_FAN1	4PIN CPU fan
4	USB-H2	Built-in USB 2.0 Connector
5	USB-H1	Built-in USB 2.0 Connector
6	ATX_24P	ATX 24P Power Connector
7	J1	LGA1700 CPU Socket
8	DDR5_A1、DDR5_A2、 DDR5_B1、DDR5_B2	DDR5 Memory Slots
9	SYS_FAN3	4PIN System Fan
10	SYS_FAN1	4PIN System Fan
11	SYS_FAN6	4PIN System Fan
12	USB_E1	Type-E USB3.2 Expansion Port
13	JFUSB3X2	19PIN USB3.0 Expansion Port
14	M2A_PCIE1	M.2 PCIe 4.0 x4 Slot
15	JTPM2	13PIN TPM Slot
16	JRGB1	4PIN JRGB Jumper
17	JAT/ATX	3PIN ATX Jumper
18	8643_SATA3	Built-in SATA3.0x4
19	8643_SATA2	Built-in SATA3.0x4
20	8643_SATA1	Built-in SATA3.0x4
21	JFUSB1	9PIN USB2.0 Header
22	JCOM1	9PIN COM Header
23	JFUSB2	9PIN USB2.0 Header
24	ME_RCVR	4PIN ME_RCVR Jumper
25	CLR_COMS	3PIN CLR_COMS Jumper
26	M2E_WIFI1	M.2 WIFI CNVi Slot
27	M2C_PCIE1	M.2 PCIe 3.0 x4 Slot
28	JGPIO1	20PIN GPIO Header
29	F_PANEL	9PIN Front Panel Header
30	SYS_FAN4	4PIN System Fan
31	SYS_FAN2	4PIN System Fan
32	SYS_FAN5	4PIN System Fan
33	F_AUDIO1	9PIN Audio Header
34	PCIE1_X4	PCIe 3.0 x4 Slot
35	POST_LED1	Power-on Self-Test (POST) Indicator LED
36	BATTERY	RTC Battery Socket
37	PCIE2_X16	PCIe 4.0 X8 Slot
38	PCIE2_X4	PCIe 3.0 X4 Slot
39	JSPK1	4PIN Speaker Connector
40	PCIE1_X16	PCIe 5.0 X16 Slot
41	M2B_PCIE1	M.2 PCIe 4.0 x4 Slot

1.3、Rear I/O Ports



Item		Description
1	HDMI1	HDMI2.0 Display Connector
2	RECY_BTN1	BIOS Recovery Button
3	USB32_C1	USB3.2_TYPE_C Connector
4	JDDP1	DP1.4a Display Connector
5	LAN1-USB3	RJ45 10G Network Connector, USB3.2 10Gb Connector
6	LAN2-USB3	RJ45 2.5G Network Connector, USB3.0 5Gb Connector
7	LAN3-USB2	RJ45 2.5G Network Connector, USB2.0 Connector
8	CN_AUDIO1	Audio Connector

1.4 PIN Definition:

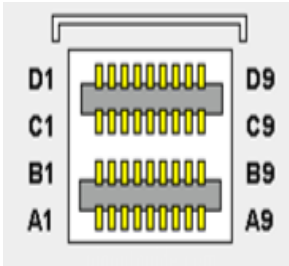
JFUSB3X2:

NAME	PIN	Graphic	PIN	NAME
None	20		1	VCC
VCC	19		2	USB3RX_N3
USB3RX_N4	18		3	USB3RX_P3
USB3RX_P4	17		4	GND
GND	16		5	USB3TX_N3_C
USB3TX_N4_C	15		6	USB3TX_P3_C
USB3TX_P4_C	14		7	GND
GND	13		8	USB2_N3
USB2_N4	12		9	USB2_P3
USB2_P4	11		10	NC

JSPK1:

Graphic	PIN	NAME
	1	SPKOUT_L+
	2	SPKOUT_L-
	3	SPKOUT_R+
	4	SPKOUT_R-

8643 SATA1:

NAME	PIN	Graphic	PIN	NAME
NC	A1		B1	NC
NC	A2		B2	NC
GND	A3		B3	GND
SATA_RX_P1	A4		B4	SATA_RX_P0
SATA_RX_N1	A5		B5	SATA_RX_N0
GND	A6		B6	GND
SATA_RX_P3	A7		B7	SATA_RX_P2
SATA_RX_N3	A8		B8	SATA_RX_N2
GND	A9		B9	GND
NC	C1		D1	NC
NC	C2		D2	NC
GND	C3		D3	GND
SATA_TX_P1	C4		D4	SATA_TX_P0
SATA_TX_N1	C5		D5	SATA_TX_N0
GND	C6		D6	GND
SATA_TX_P3	C7		D7	SATA_TX_P2
SATA_TX_N3	C8		D8	SATA_TX_N2
GND	C9		D9	GND

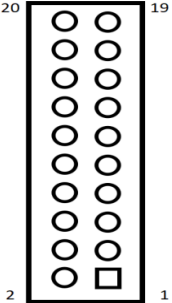
CPU_FAN1:

Graphic	PIN	NAME
	1	GND
	2	+12VS
	3	CPU1_FAN_IN
	4	CPU1_FAN_PWM

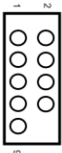
SYS_FAN1:

Graphic	PIN	NAME
	1	GND
	2	+12VS
	3	SYS1_FAN_IN
	4	SYS1_FAN_PWM

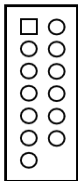
GPIO1:

NAME	PIN	Graphic	PIN	NAME
+5VS	20		19	GND
GND	18		17	GND
N GPO7	16		15	N GPI7
N GPO6	14		13	N GPI6
N GPO5	12		11	N GPI5
N GPO4	10		9	N GPI4
N GPO3	8		7	N GPI3
N GPO2	6		5	N GPI2
N GPO1	4		3	N GPI1
N GPO0	2		1	N GPI0

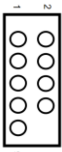
F PANEL

NAME	PIN	Graphic	PIN	NAME
HDD_LED+	1		2	PWR_LED+
HDDLED-	3		4	PWR_LED-
GROUND	5		6	PWR_SW
HWRST#	7		8	GND
NC	9		10	无

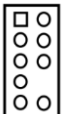
JTPM2:

NAME	PIN	Graphic	PIN	NAME
+3VSB	1		2	PCH_TPM_IRQ_N
PLT_RST_N	3		4	NC
NC	5		6	SPI_WP-
+3VSB	7		8	GND
SPI_CS2-	9		10	SPI_CLK
SPI_MISO	11		12	SPI_MOSI
SPI_HOLD-	13			

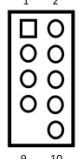
JCOM1:

NAME	PIN	Graphic	PIN	NAME
DCD	1		2	RXD
TXD	3		4	DTR
GND	5		6	DSR
RTS	7		8	CTS
RI	9		10	无

F AUDIO1:

NAME	PIN	Graphic	PIN	NAME
MICxL	1		2	AGND
MICxR	3		4	PRESENT
FP_OUT_R	5		6	MIC_DET
LINE_OUTxR	7		8	CUT AWAY
AGND	9		10	LINE DET

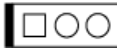
JFUSB1:

NAME	PIN	Graphic	PIN	NAME
+5.0V	1		2	+5.0V
D0-	3		4	D1-
D0+	5		6	D1+
GND	7		8	GND
无	9		10	GND

ME_RCVR:

Graphic	PIN	NAME
1 	1	NC
	2	FM_ME_RCVR_N
	3	+3VSB

CLR_CMOS:

Graphic	PIN	NAME
1 	1	NC
	2	PCH_RTCRST
	3	GND

JAT/ATX:

Graphic	PIN	NAME
1 	1	NC
	2	GND
	3	PWRBTSW