ADS630-R680E/Q670E

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Board Layout and Jumper Settings

CPU FAN

+12V Power

DDR4_1 DDR4_3

▸VGA
▸HDMI

System
Fan 3

▸DP++
▸DP++

Socket LGA1700

Battery

▸LAN 1
▸USB3_1/2
USB2_1/2

ATX Power

▸LAN 2
▸USB3_3/4
USB2_3/4

▸10G LAN 3
▸10G LAN 4

Front
Panel

USB

▸USB3 7/8/9/10

M2CN4

M.2 M Key

▸Mic-in
▸Line-out
▸Line-in (opt.)

JP31
PCIe 1 (PCIe x16)

DDR4_2 DDR4_4

System
Fan 2

PCIe 2 (PCIe x4)

LAN LED

J36

eSPI

SMBus

PCIe 3 (PCIe x4)

Intel

JP5

SOJ1

R680E/Q670E

DIO
Power

Front Audio

PCIe 4 (PCIe x4)

JP28
JP30
JP29

SPI

DIO

JP25
S/PDIF

PCIe 5 (PCIe x4)

PS2

JP32

M.2 M Key

M2CN3

PCI 1

JP33

COM3
COM4
COM5
COM6

PCI 2

M2CN2
M.2 E Key

System
Fan 1

COM1

TSJP4,3,2 COM2 TSJP5,8,7,6

USB2_14
11/12

USB2_14

SATA0 SATA1 SATA2 SATA3

TSJP1

Clear CMOS Data	JP5
Normal (default)	1-2 On
Clear CMOS Data	2-3 On

PS/2 and USB Wake up select	JP25
Control by BIOS (default)	1-2 On
Wake up disable	2-3 On

Power Selection COM 1	TSJP1
RS232 Standard (default)	1-3 / 2-4
RS232 with Power	3-5 / 4-6

DIO power select(5V_DIO)	JP28
5VDU(default)	1-2 On
5V	2-3 On

DIO0~3 power select	JP29
5V_DIO(default)	1-2 On
GND	2-3 On

DIO4~7 power select	JP30
5V_DIO(default)	1-2 On
GND	2-3 On

M2CN4 power select	JP31
3V3(default)	1-2 On
3V3DU	2-3 On

M2CN3 power select	JP32
3V3(default)	1-2 On
3V3DU	2-3 On

M2CN2 power select	JP33
3V3DU(default)	1-2 On
3V3	2-3 On

Selection for COM 1	TSJP2
RS232 (default)	1-3 / 4-6
RS422	3-5 / 4-6
RS485	3-5 / 2-4

Selection for COM 1	TSJP3
RS232 (default)	1-3 / 2-4
RS422	3-5 / 4-6
RS485	3-5 / 4-6

Selection for COM 1	TSJP4
RS232 (default)	1-3 / 2-4
RS422	3-5 / 4-6
RS485	3-5 / 4-6

Power Selection COM 2	TSJP5
RS232 Standard (default)	1-3 / 2-4
RS232 with Power	3-5 / 4-6

Selection for COM 2	TSJP6
RS232 (default)	1-3 / 4-6
RS422	3-5 / 4-6
RS485	3-5 / 2-4

Selection for COM 2	TSJP7
RS232 (default)	1-3 / 2-4
RS422	3-5 / 4-6
RS485	3-5 / 4-6

Selection for COM 2	TSJP8
RS232 (default)	1-3 / 2-4
RS422	3-5 / 4-6
RS485	3-5 / 4-6
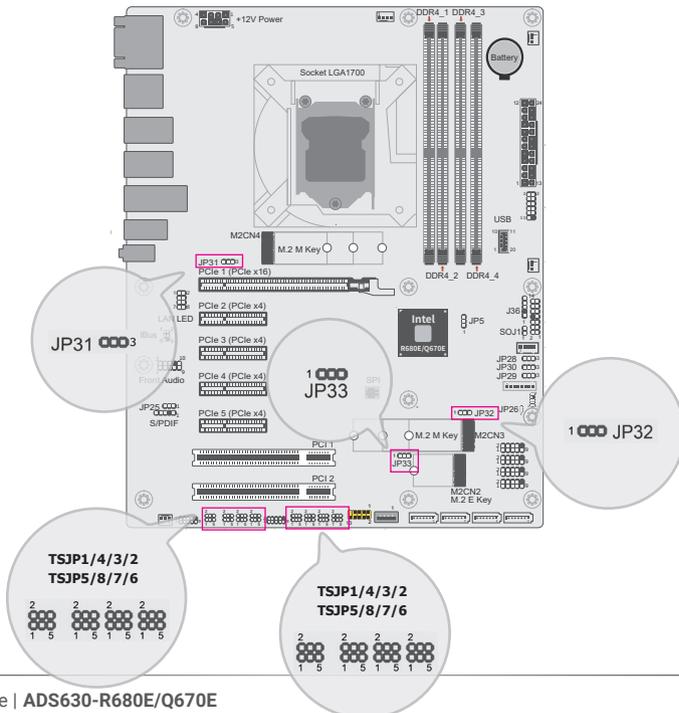
Pin Assignment

J34 Digital I/O (DIO)

Pin	Function
1	DIO0
2	DIO1
3	DIO2
4	DIO3
5	DIO4
6	DIO5
7	DIO6
8	DIO7

J33 Digital I/O (DIO) Power

Pin	Function
1	12V
2	GND
3	5VDU
4	5V

J7 SYSTEM FAN1

Pin	Function
1	GND
2	PWM
3	TACH

J22 SYSTEM FAN2

Pin	Function
1	GND
2	PWM
3	TACH

J30 SYSTEM FAN3

Pin	Function
1	GND
2	PWM
3	TACH

J8 CPU FAN

Pin	Function
1	GND
2	12V
3	RPM
4	CTRL

J12 SMBus Header

Pin	Function	Pin	Function
1	3V3DU	2	GND
3	SMB_CLK	4	SMB_DATA
5	SMB_ALERT-		
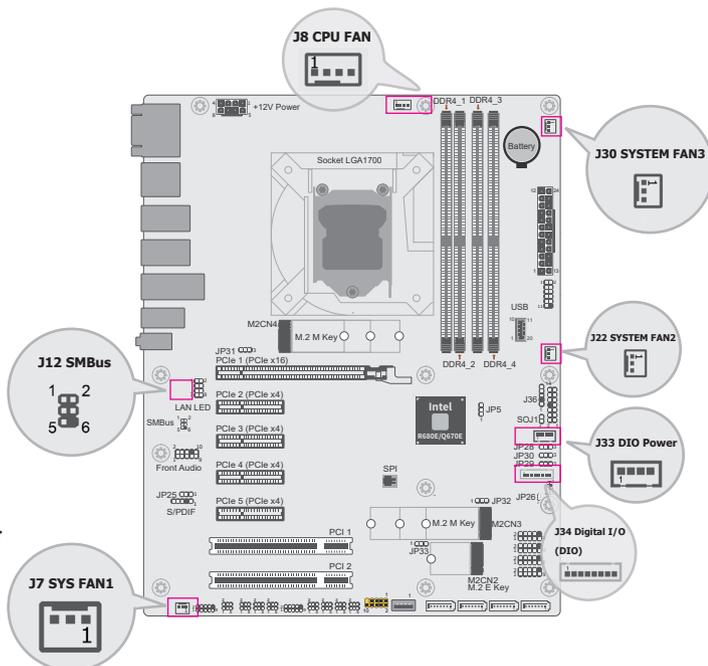
J11 COM3

Pin	Function	Pin	Function
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-		

J13 COM4

Pin	Function	Pin	Function
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-		

J15 COM5

Pin	Function	Pin	Function
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-		

J16 COM6

Pin	Function	Pin	Function
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-		
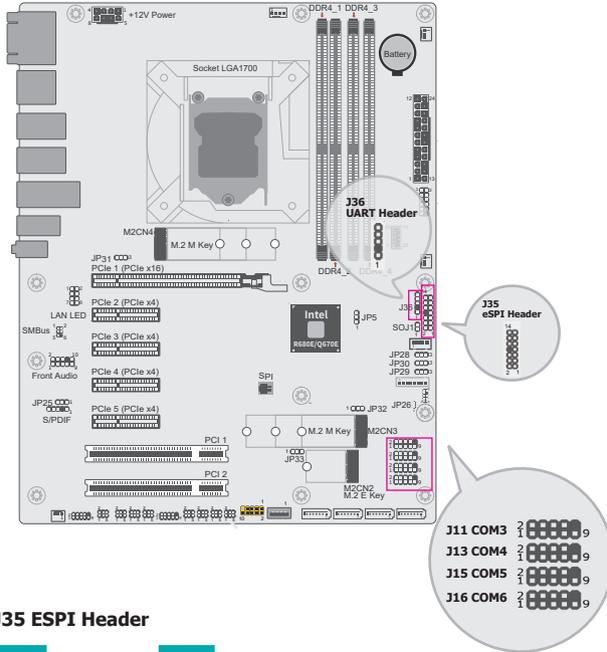
J35 ESPI Header

Pin	Function	Pin	Function
1	3V3SB	2	ESPI_CLK
3	ESPI_RESET#	4	GND
5	ESPI_ALT#	6	GND
7	ESPI_D0		
9	ESPI_D1	10	ESPI_CS
11	ESPI_D2	12	3V3SB
13	ESPI_D3	14	3V3SB

J36 UART Header

Pin	Function
1	GND
2	NC
3	3V3SB
4	UART_TX
5	UART_RX

J31 SATA0

Pin	Function
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

J17 SATA2

Pin	Function
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

J32 SATA1

Pin	Function
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

J23 SATA3

Pin	Function
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND
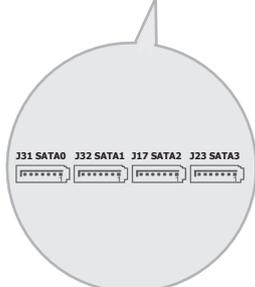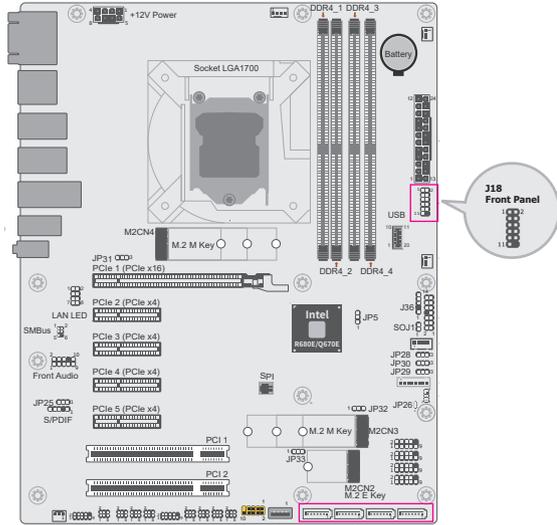
J18 Front Panel

	Pin	Assignment		Pin	Assignment
HDD-LED	1	NC	PWR-LED	2	V_SUS_LED
	3	3V3		4	V_SUS_LED
	5	HDD_LED		6	SUS_LED
RESET	7	GND	ATX-SW	8	GND
	9	SYS_RST-		10	PWR_BTN-
	11	NC		12	---

AUJ1 S/PDIF

Pin	Function
1	5V
2	--
3	SPDIF-OUT
4	GND
5	SPDIF-IN

AUJ2 Front Audio

Pin	Function	Pin	Function
1	MIC2-L	2	A_GND
3	MIC2-R	4	NC
5	LINE2-R	6	MIC2-JD
7	A_GND		--
9	LINE2-L	10	LINE2-JD
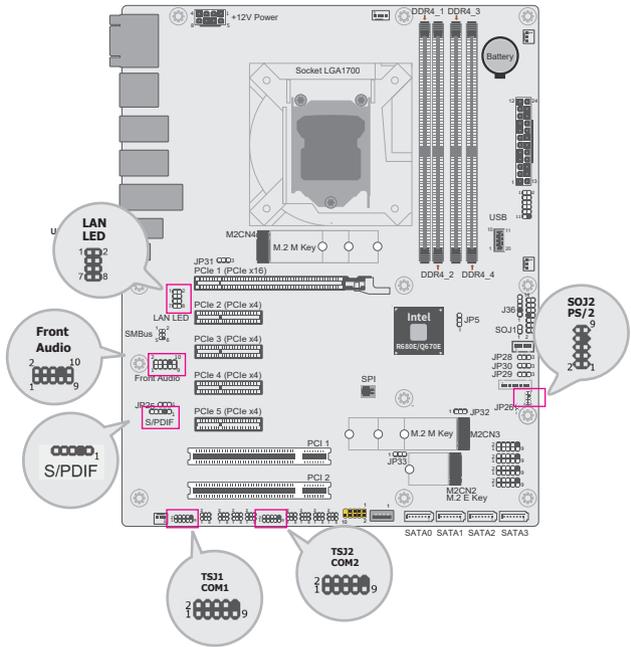
ETJ2 Front LAN LED

Pin	Function	Pin	Function
1	LED_SPEED_2500#	2	LED_SPEED_1000#
3	GBE_LED_LINK_ACT#	4	3V3DU
5	LED_SPEED_2500#_2	6	LED_SPEED_1000#_2
7	GBE_LED_LINK_ACT#_2	8	3V3DU

SOJ2 PS/2

Pin	Function	Pin	Function
1	PS2_KCLK	2	PS2_MCLK
3	PS2_KDAT	4	PS2_MDAT
5	GND	6	GND
7	--	8	GND
9	PS/2 POWER	10	PS/2 POWER

TSJ1 COM1 /TSJ2 COM2

Pin	RS232	RS232 with PWR	RS422 Full Duplex	RS485
1	DCD-	+12V	RX+	Data+
2	SIN-	SIN-	RX-	Data-
3	SO-	SO-	TX+	---
4	DTR-	DTR-	TX-	---
5	GND	GND	GND	GND
6	DSR-	DSR-	---	---
7	RTS-	RTS-	---	---
8	CTS-	CTS-	---	---
9	RI-	+5V	---	---

UBJ1 USB 3.2 Gen2 Key B

Pin	Function	Pin	Function
1	GND	11	GND
2	SSTXP1	12	SSTXN2
3	SSTXN1	13	SSTXP2
4	GND	14	GND
5	SSRXP1	15	SSRXN2
6	SSRXN1	16	SSRXP2
7	GND	17	GND
8	DP1	18	DP2
9	DN1	19	DN2
10	VBUS	20	VBUS

UBJ2 USB 2.0

Pin	Function	Pin	Function
1	VBUS	2	VBUS
3	DN1	4	DN2
5	DP1	6	DP2
7	GND	8	GND
		10	NC

UBJ3 USB 2.0

Pin	Function
1	VBUS
2	DN1
3	DP1
4	GND
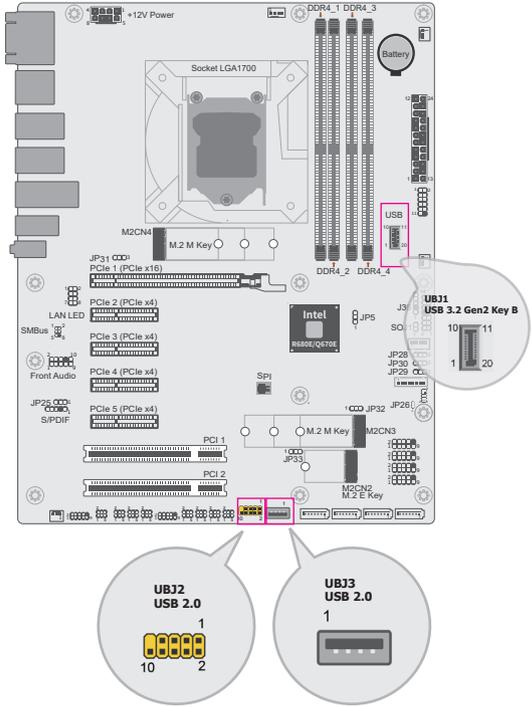
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