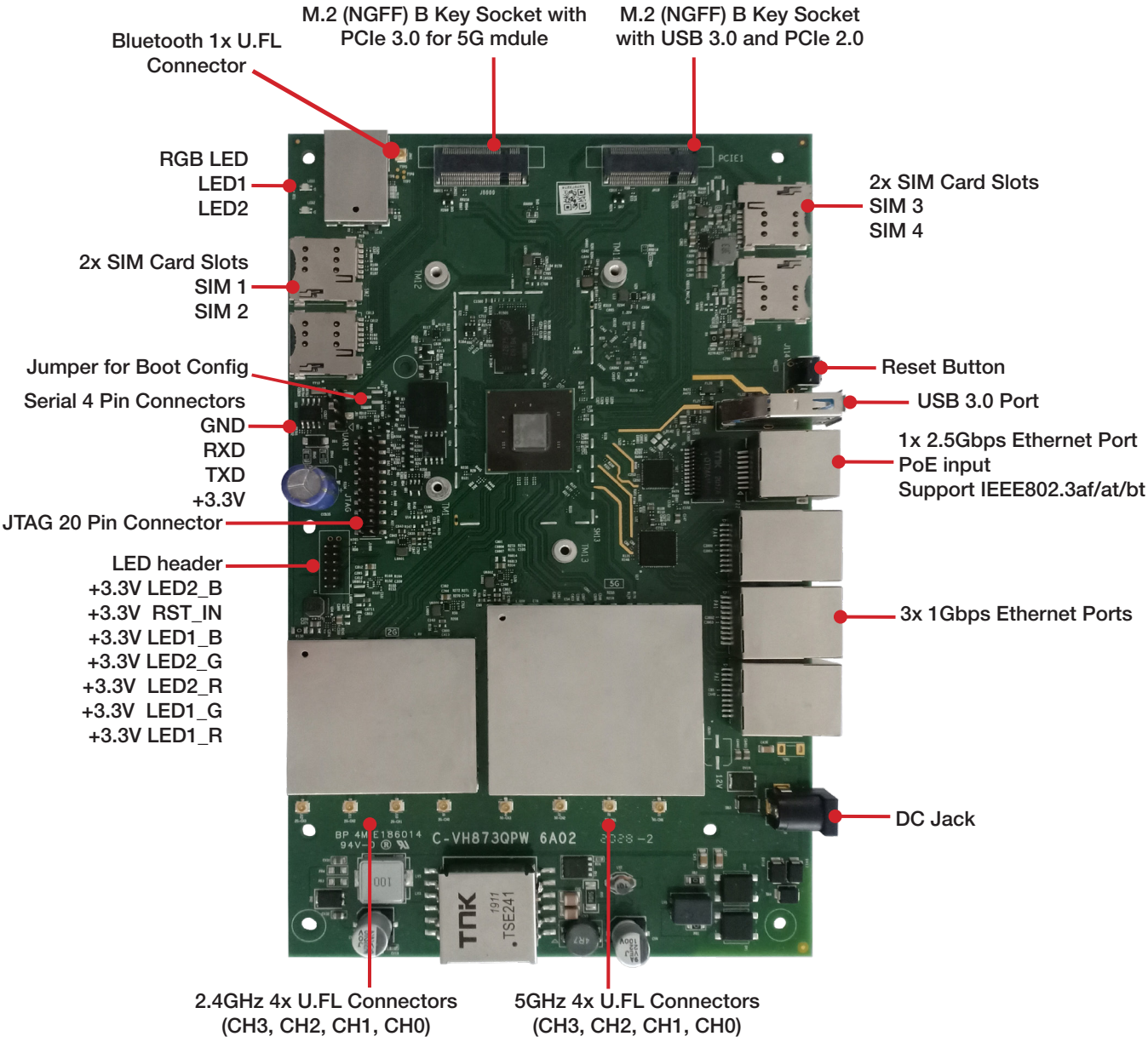
Component Map



Power Requirements

DC power	1x DC 12V for Main Board
Power Consumption	22.5W

Serial Interface Pin Assignment

Pin	Signal
1	DVDD_3V3
2	UART_TXD
3	UART_RXD
4	GND

JTAG Interface Pin Assignment

Pin	Signal	Pin	Signal
1	DVDD_1V8	2	DVDD_1V8
3	JTAG_TRSTN	4	NC
5	JTAG_TDI	6	GND
7	JTAG_TMS	8	GND
9	JTAG_TCK	10	GND
11	PULL UP_1V8	12	GND
13	JTAG_TDO	14	GND
15	JTAG_SRSTN	16	GND
17	GND	18	GND
19	GND	20	GND

USB 3.0 Port Pin Assignment

Pin	Signal	Pin	Signal
1	DVDD_5V_USB1	2	USB1_HS_DM
3	USB1_HS_DP	4	GND
5	USB1_SS_RX_N	6	USB1_SS_RX_P
7	GND	8	CONN_USB1_SS_TX_N
9	CONN_USB1_SS_TX_P		

LED Assignment

LED Array			
Location	Signal		
	Red	Green	Blue
LED1	Power		
LED2	GPIO_28	GPIO_18	GPIO_19

LED Header Pin Assignment

LED Header			
Pin	Signal	Pin	Signal
1	LED1_R_L	2	DVDD_3V3
3	LED1_G_L	4	DVDD_3V3
5	LED2_R_L	6	DVDD_3V3
7	LED2_G_L	8	DVDD_3V3
9	LED1_B_L	10	DVDD_3V3
11	RST_IN	12	GND
13	LED2_B_L	14	DVDD_3V3

GPIO Pin Mapping

Pin	Signal	Pin	Signal
GPIO_0	RTC_SCL	GPIO_1	QPIC_BUSY_N
GPIO_2	RTC_SDA	GPIO_3	QPIC_WE_N
GPIO_4	QPIC_OE_N	GPIO_5	QPIC_DATA
GPIO_6	QPIC_DATA	GPIO_7	QPIC_DATA
GPIO_8	QPIC_DATA	GPIO_9	LTE_RST
GPIO_10	BOOT/QPIC_CLE	GPIO_11	QPIC_NAND_CS_N
GPIO_12	QPIC_DATA	GPIO_13	QPIC_DATA
GPIO_14	QPIC_DATA	GPIO_15	QPIC_DATA
GPIO_16	5G_MOUDLE_RST	GPIO_17	BOOT/QPIC_ALE
GPIO_18	BOOT/LED2_G	GPIO_19	BOOT/LED2_B
GPIO_20	BOOT	GPIO_21	BT_RESET
GPIO_22	QTZ_SPI_CS_BLSP3	GPIO_23	UART_RXD
GPIO_24	BOOT/UART_TXD	GPIO_25	NAPA2_RESET
GPIO_26	NAPA2_INT	GPIO_27	NC
GPIO_28	BOOT/LED2_R	GPIO_29	NC
GPIO_30	EEPROM_SDA	GPIO_31	5G_PWR_ON
GPIO_32	EEPROM_SCL	GPIO_33	QTZ_GPIO_22
GPIO_34	5G_FULL_CARD_PWRON	GPIO_35	BOOT/NC
GPIO_36	BOOT/PULL DOWN(boot from NOR)	GPIO_37	MALIBU_RESET
GPIO_38	SPI0_CLK	GPIO_39	SPI0_CS
GPIO_40	SPI0_MISO	GPIO_41	SPI0_MOSI
GPIO_42	LED1_R	GPIO_43	LED1_B
GPIO_44	W_DISABLE1/LED1_G	GPIO_45	BOOT/W_DISABLE2
GPIO_46	IOT_UART_RTS	GPIO_47	IOT_UART_CTS
GPIO_48	IOT_UART_RX	GPIO_49	BOOT/IOT_UART_TX
GPIO_50	SPI2_CLK	GPIO_51	NC
GPIO_52	SPI2_MISO	GPIO_53	BOOT/SPI2_MOSI
GPIO_54	DC_DET	GPIO_55	T2P_POE
GPIO_56	SW_RST	GPIO_57	PCIE0_CLK_REQ
GPIO_58	PCIE0_PERST_N	GPIO_59	PCIE0_WAKE_N
GPIO_60	PCIE1_CLK_REQ	GPIO_61	PCIE1_PERST_N
GPIO_62	PCIE1_WAKE_N	GPIO_63	NC
GPIO_64	PTA1_1	GPIO_65	BOOT/PTA1_2
GPIO_66	PTA1_0	GPIO_67	NC
GPIO_68	BOOT/MDC	GPIO_69	MDIO

NGFF Slot 1 Pin Assignment

Top side		Bottom side	
1	NC	2	VDD_3V3
3	GND	4	VDD_3V3
5	GND	6	FULL1_CARD_PWRD
7	USB0_HS_DP_L	8	W1_DISABLE1
9	USB0_HS_DM_L	10	NC
11	GND		
Mechanical Key B			
21	NC	20	NC
23	NC	22	NC
25	NC	24	NC
27	GND	26	W1_DISABLE2
29	USB0_SS_RX_N_L	28	NC
31	USB0_SS_RX_P_L	30	SIM3_RST
33	GND	32	SIM3_CLK
35	USB0_SS_TX_N_L	34	SIM3_IO
37	USB0_SS_TX_P_L	36	SIM3_VCC
39	GND	38	NC
41	PCIE1_RX_N	40	SIM4_DET
43	PCIE1_RX_P	42	SIM4_IO
45	GND	44	SIM4_CLK
47	PCIE1_TX_N	46	SIM4_RST
49	PCIE1_TX_P	48	SIM4_VCC
51	GND	50	PCIE1_PERST_L
53	PCIE1_REFCLK_N	52	PCIE1_CLK_REQ_N_3V3
55	PCIE1_REFCLK_P	54	PCIE1_WAKE_3V3
57	GND	56	NC
59	NC	58	NC
61	NC	60	NC
63	NC	62	NC
65	NC	64	NC
67	LTE_RST	66	SIM3_DET
69	NC	68	NC
71	GND	70	VDD_3V3
73	GND	72	VDD_3V3
75	NC	74	VDD_3V3

NGFF Slot 2 Pin Assignment

Top side		Bottom side	
1	NC	2	VDD_3V7
3	GND	4	VDD_3V7
5	GND	6	FULL_CARD_PWRD
7	NC	8	W_DISABLE1
9	NC	10	CON_PCIE0_LED
11	GND		
Mechanical Key B			
21	NC	20	NC
23	NC	22	NC
25	NC	24	NC
27	GND	26	W_DISABLE2
29	NC	28	NC
31	NC	30	SIM1_RST
33	GND	32	SIM1_CLK
35	NC	34	SIM1_IO
37	NC	36	SIM1_VCC
39	GND	38	NC
41	PCIE0_RX_N	40	SIM2_DET
43	PCIE0_RX_P	42	SIM2_IO
45	GND	44	SIM2_CLK
47	PCIE0_TX_N	46	SIM2_RST
49	PCIE0_TX_P	48	SIM2_VCC
51	GND	50	PCIE0_PERST_L
53	PCIE0_REFCLK_N	52	PCIE0_CLK_REQ_N_3V3
55	PCIE0_REFCLK_P	54	PCIE0_WAKE_3V3
57	GND	56	I2C_CLK
59	NC	58	I2C_DATA
61	NC	60	NC
63	NC	62	NC
65	NC	64	NC
67	MODULE_RST	66	SIM1_DET
69	NC	68	NC
71	GND	70	VDD_3V7
73	GND	72	VDD_3V7
75	NC	74	VDD_3V7

Configuration of Jumper

Configuration of Jumper		
Pin	Signal	Jumper Location
1	Force boot from USB	JA17
2		
3	Select NOR (default)	
4		

Ethernet LAN Port Pin Assignment

Ethernet LAN Port (RJ45 1Gbps)	
Pin	Signal
1	1G_CH0_P
2	1G_CH0_N
3	1G_CH1_P
4	1G_CH2_P
5	1G_CH2_N
6	1G_CH1_N
7	1G_CH3_P
8	1G_CH3_N

Ethernet WAN Port Pin Assignment

Ethernet LAN Port1 (RJ45 2.5Gbps)	
Pin	Signal
1	2.5G_CH0_P
2	2.5G_CH0_N
3	2.5G_CH1_P
4	2.5G_CH2_P
5	2.5G_CH2_N
6	2.5G_CH1_N
7	2.5G_CH3_P
8	2.5G_CH3_N