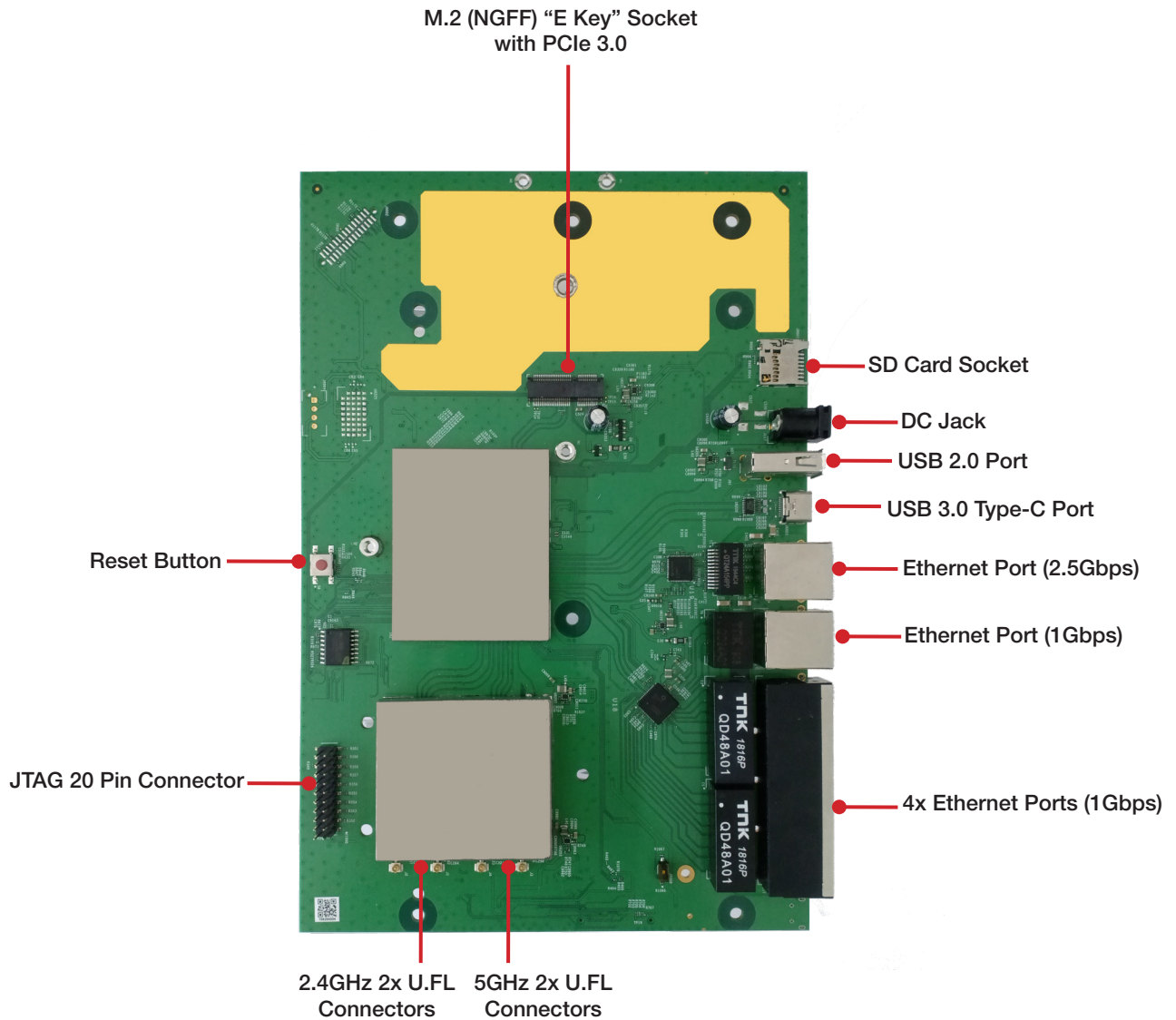
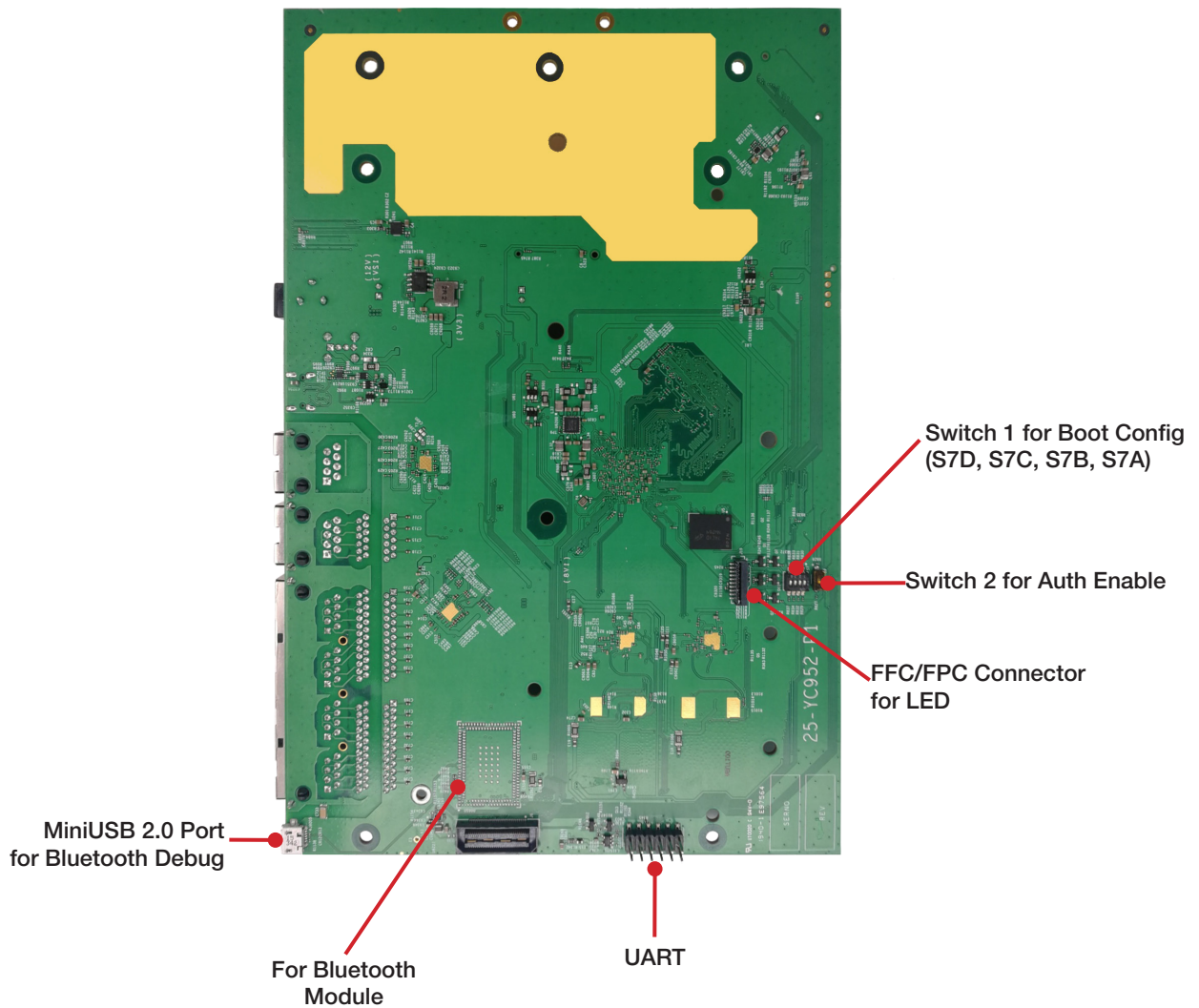


## Component and Connector Map



## Component and Connector Map



## Power Requirements

DC Power	1x DC 12V for Main Board
Power Consumption	17W (Max)

## UART Pin Assignment

UART Interface			
Pin	Signal	Pin	Signal
1	DVDD_3V3	2	NC
3	UART_RXD_CONN	4	NC
5	NC	6	NC
7	NC	8	NC
9	UART_TXD_CONN	10	NC
11	GND	12	NC

## JTAG Interface Pin Assignment

JTAG Interface			
Pin	Signal	Pin	Signal
1	VDD_1V8	2	VDD_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 2.0 Port Pin Assignment

USB 2.0 Port			
Pin	Signal	Pin	Signal
1	VDD_5V_USB	2	CONN_USB1_DM
3	CONN_USB1_DP	4	GND

## USB 3.0 Type-C Port Pin Assignment

USB 3.0 Type-C Port			
Pin	Signal	Pin	Signal
1	GND	2	GND
3	USBC_CONN_SSTX1_P	4	USBC_CONN_SSRX1_P
5	USBC_CONN_SSTX1_N	6	USBC_CONN_SSRX1_N
7	VBus_C_5V	8	VBus_C_5V
9	USBC_CONN_CC1	10	NC
11	USB0_DP	12	USB0_DM
13	USB0_DM	14	USB0_DP
15	NC	16	USBC_CONN_CC2
17	VBus_C_5V	18	VBus_C_5V
19	USBC_CONN_SSRX2_N	20	USBC_CONN_SSTX2_N
21	USBC_CONN_SSRX2_P	22	USBC_CONN_SSTX2_P
23	GND	24	GND

## MiniUSB 2.0 Port Pin Assignment

MiniUSB 2.0 Port	
Pin	Signal
1	NC
2	Q_USB_DM
3	Q_USB_DP
4	NC
5	GND

## FFC/FPC Connector for LED Pin Assignment

FFC/FPC Connector for LED			
Pin	Signal	Pin	Signal
1	VDD_1V8	2	VDD_3V3
3	P0_1000_LED	4	VDD_3V3
5	P1_1000_CONN	6	NAPA_LED
7	P2_1000_LED	8	NC
9	P3_1000_LED	10	USB0_LED
11	P4_1000_LED	12	WPS
13	PCIE_LED1	14	RESET_IN
15	5GM_LED	16	POWER_LED
17	2G_LED	18	NC
19	GND	20	GND

## NGFF Slot Pin Assignment

NGFF Slot			
Pin	Top Side	Pin	Bottom Side
1	GND	2	VDD_3V3
3	NC	4	VDD_3V3
5	NC	6	PCIE_LED1
7	GND	8	NC
9	NC	10	NC
11	NC	12	NC
13	NC	14	NC
15	VDD_5V	16	NC
17	VDD_5V	18	GND
19	VDD_5V	20	NC
21	VDD_5V	22	NC
23	VDD_5V		
Mechanical Key E			
33	GND	32	NC
35	PCIE_TX_P	34	NC
37	PCIE_TX_N	36	NC
39	GND	38	NC
41	PCIE_RX_P	40	NC
43	PCIE_RX_N	42	NC
45	GND	44	NC
47	PCIE_REFCLKP	46	NC
49	PCIE_REFCLKN	48	NC
51	GND	50	NC
53	PCIE_CLK_REQ	52	PCIE_PERST_N_3V3
55	PCIE_WAKE_3V3	54	NC
57	GND	56	NC
59	NC	58	NC
61	NC	60	NC
63	GND	62	NC
65	NC	64	NC
67	NC	66	NC
69	GND	68	NC
71	NC	70	NC
73	NC	72	VDD_3V3
75	GND	74	VDD_3V3

## SD Card Socket Pin Assignment

SD Card Socket	
Pin	Signal
1	SDC1_DATA_2
2	SDC1_DATA_3
3	SDC1_CMD
4	VDD_3V3
5	SDC1_CLK
6	GND
7	SDC1_DATA_0
8	SDC1_DATA_1
9	SDC1_DETECT
10	GND

## GPIO Pin Mapping

GPIO Pin Mapping			
Pin	Signal	Pin	Signal
GPIO_0	AUDIO_MUTE_BUT	GPIO_1	QPIC_BUSY_N
GPIO_2	MIC_VOL_M	GPIO_3	QPIC_WE_N
GPIO_4	QPIC_RE_N	GPIO_5	QPIC_DAT4
GPIO_6	QPIC_DAT5	GPIO_7	QPIC_DAT6
GPIO_8	QPIC_DAT7	GPIO_9	WPS
GPIO_10	QPIC_CLE_N	GPIO_11	QPIC_NAND_CE_N
GPIO_12	QPIC_DAT1	GPIO_13	QPIC_DAT2
GPIO_14	QPIC_DAT3	GPIO_15	QPIC_DAT0
GPIO_16	MIC_KPD_PWR_N	GPIO_17	QPIC_ALE
GPIO_18	KYPD_HOME_N	GPIO_19	GND
GPIO_20	Boot_Config(PULL_DOWN)	GPIO_21	MUTE_ON
GPIO_22	ADC_RST	GPIO_23	WSA_SWR_CLK
GPIO_24	WSA_SWR_DATA	GPIO_25	PWM_LED_RST
GPIO_26	Boot_Config(PULL_DOWN)	GPIO_27	WSA_EN_R
GPIO_28	WSA_EN_L	GPIO_29	PDM_CLK0
GPIO_30	PDM_DATA0	GPIO_31	PDM_CLK1
GPIO_32	PDM_DATA1	GPIO_33	EXT_MCLK2_ADC
GPIO_34	MIC_VOL_P	GPIO_35	LED_5G
GPIO_36	PCIE0_WAKE	GPIO_37	LED_2GS
GPIO_38	SPI0_CLK	GPIO_39	SPI0_CS_NI
GPIO_40	SPI0_MISO	GPIO_41	SPI0_MOSI
GPIO_42	BLSP2_SCL	GPIO_43	BLSP2_SDA
GPIO_44	BLSP2_UART_RX	GPIO_45	BLSP2_UART_TX
GPIO_46	BLSP5_SCL	GPIO_47	BLSP5_SDA
GPIO_48	NC	GPIO_49	Boot_Config(PULL_DOWN)
GPIO_50	LED_USB0	GPIO_51	BT_PRIORITY_PTA11
GPIO_52	WLA_ACTI_PTA12	GPIO_53	BT_ACT_PTA10
GPIO_54	Boot_Config(PULL_DOWN)	GPIO_55	NC
GPIO_56	NC	GPIO_57	NC
GPIO_58	NC	GPIO_59	PCIE0_CLK_REQ
GPIO_60	PCIE0_RSTn	GPIO_61	NC
GPIO_62	SD_DET	GPIO_63	SD_WP
GPIO_64	MDC	GPIO_65	MDIO
GPIO_66	SD_LDO_EN	GPIO_67	NC
GPIO_68	NC	GPIO_69	SPI_CLK_UART_RTSn
GPIO_70	SPI_CS_UART_CTSn	GPIO_71	SPI_MISO_UART_RX
GPIO_72	SPI_MOSI_UART_TX	GPIO_73	USB_OTG
GPIO_74	NC	GPIO_75	Malibu_RESET
GPIO_76	NAPA_INT0	GPIO_77	NAPA_RESET
GPIO_78	QTZ_INT	GPIO_79	QTZ_RESET

## Boot Config Switch

Boot_Config Switch1(S7)			
Boot_Config			Boot up Interface Select
S7A	S7B	S7C	
0	0	0	SPI NOR. (Default)
0	0	1	eMMC
0	1	0	QPIC, Parallel NAND
0	1	1	USB2.0
1	0	0	SPI-NOR-GPT
S7D			Boot up Interface Select
0			Boot from code ram.(Default)
1			Boot from ROM
Boot_Config Switch2(S9)			
Boot_Config		Boot up Interface Select	
0		No auth.(Default)	
1		Auth is required.	

## Ethernet LAN/WAN Port Pin Assignment

Ethernet WAN /LAN Port (RJ45 1Gbps)			
Pin	Signal	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 LAN Port Pin Assignment

Ethernet LAN Port (RJ45 2.5Gbps)			
Pin	Signal	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