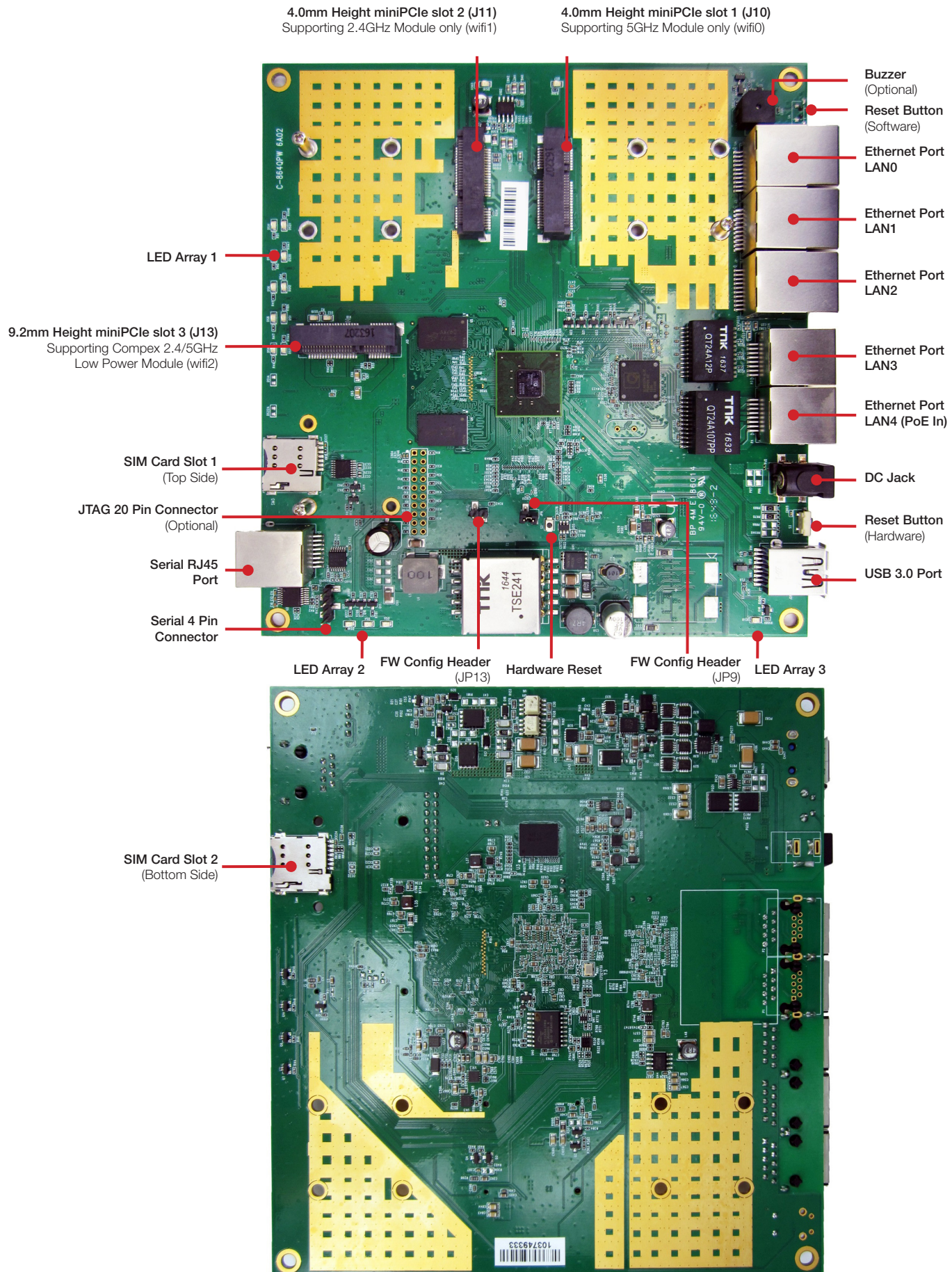


Component Map



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Power Requirements

Power Over Ethernet 1x IEEE 802.3af/at POE Standard Port, 48-57V, up to 70W (4-pair power feed) on LAN4

DC Power 1x DC Jack Connector: 12V, 4A

Power Consumption TBA

LED Pin GPIO Mapping

LED array 1			LED array 2		
DS22A	ETH_LED4		DS3	STATUS_LED_PASS	GPIO_53
DS1A	ETH_LED0		DS4	STATUS_LED_FAIL	GPIO_9
DS22	ETH_LED4		DS16	VDD_1P8	
DS1	ETH_LED0				
DS12	ETH_LED1		LED array 3		
DS20	ETH_LED2		DS18	LED_USB	GPIO_7
DS21	ETH_LED3				
DS9	RSS4	GPIO_23			
DS8	RSS3	GPIO_24			
DS6	RSS2	GPIO_25			
DS5	RSS1	GPIO_22			
DS11	POWER				

miniPCIe Slot 1 (J10) Pin Assignment

Top side		Bottom side	
1	WAKE_L	2	+3.3V
3	NC	4	GND
5	NC	6	NC
7	CLKREQ_L	8	NC
9	GND	10	NC
11	REFCLK-	12	NC
13	REFCLK+	14	NC
15	GND	16	NC
Mechanical key			
17	NC	18	GND
19	NC	20	NC
21	GND	22	PERST_L
23	PERn0	24	+3.3V
25	PERp0	26	GND
27	GND	28	NC
29	GND	30	NC
31	PETn0	32	NC
33	PETp0	34	GND
35	GND	36	NC
37	NC	38	NC
39	+3.3V	40	GND
41	+3.3V	42	NC
43	NC	44	LED_WLAN_L
45	+5V	46	NC
47	+5V	48	NC
49	+5V	50	GND
51	+5V	52	+3.3V

SIM Slot Pin Assignment

SIM Slot 3 (Top Side)		SIM Slot 4 (Bottom Side)		SIM Signal
1	VCC	1	VCC	VCC
2	RST	2	RST	SIM_RST
3	CLK	3	CLK	SIM_CLK
4	CD	4	CD	SIM_CARD_IN
5	GND	5	GND	GND
6	VPP	6	VPP	VPP
7	I/O	7	I/O	SIM_DATA

JTAG Interface Pin Assignment

Pin	Signal	Pin	Signal
1	VDD_1P8	2	VDD_1P8
3	JTAG_TRST_N	4	NC
5	JTAG_TDI	6	GND
7	JTAG_TMS	8	GND
9	JTAG_TCK	10	GND
11	JTAG_RTCK	12	GND
13	JTAG_TDO	14	GND
15	JTAG_RST_N	16	GND
17	GND	18	GND
19	GND	20	GND

Serial Port Pin Assignment

Serial Port from Pin Header		Serial Port from RJ45 Port	
J23 Pin	Signal	P5 Pin	Signal
1	VCC – 3.3V		
2	UART Transmit Data	3	UART Transmit Data
3	UART Receive Data	6	UART Receive Data
4	GND	4,5,11,12	GND

FW Config Flash

Head	Config	Location
1	NAND Flash	JP13
2	NOR Flash	JP9

WAN/PoE Pin Assignment

Pin	Signal
1	TX+/POE+
2	TX-/POE+
3	RX+/POE-
4	TX+/POE+
5	TX-/POE+
6	RX-/POE-
7	RX+/POE-
8	RX-/POE-

miniPCIe Slot 3 (J13) Pin Assignment

Top side		Bottom side	
1	(GPIO64)WAKE_L	2	+3.3V
3	NC	4	GND
5	NC	6	UIM_PWR
7	(GPIO56)CLKREQ_L	8	UIM_DATA
9	GND	10	UIM_CLK
11	REFCLK-	12	UIM_RST
13	REFCLK+	14	UIM_VPP
15	GND	16	+3.3V
Mechanical key			
17	NC	18	GND
19	NC	20	NC
21	GND	22	PERST_L
23	PERn0	24	+3.3V
25	PERp0	26	GND
27	GND	28	NC
29	GND	30	NC
31	PETn0	32	NC
33	PETp0	34	GND
35	GND	36	USB_D-
37	NC	38	USB_D+
39	+3.3V	40	GND
41	+3.3V	42	NC
43	NC	44	LED_WLAN_L
45	NC	46	NC
47	NC	48	NC
49	NC	50	GND
51	NC	52	+3.3V

miniPCIe Slot 2 (J11) Pin Assignment

Top side		Bottom side	
1	WAKE_L	2	+3.3V
3	NC	4	GND
5	NC	6	NC
7	CLKREQ_L	8	NC
9	GND	10	NC
11	REFCLK-	12	NC
13	REFCLK+	14	NC
15	GND	16	NC
Mechanical key			
17	NC	18	GND
19	NC	20	NC
21	GND	22	PERST_L
23	PERn0	24	+3.3V
25	PERp0	26	GND
27	GND	28	NC
29	GND	30	NC
31	PETn0	32	NC
33	PETp0	34	GND
35	GND	36	NC
37	NC	38	NC
39	+3.3V	40	GND
41	+3.3V	42	NC
43	NC	44	LED_WLAN_L
45	+5V	46	NC
47	+5V	48	NC
49	+5V	50	GND
51	+5V	52	+3.3V

GPIO Pin Mapping

Pin	Signal
GPIO_0	AKR_MDIO
GPIO_1	AKR_MDC
GPIO_2	1P8_S17c_INT_N
GPIO_3	1P8_PCIE1_PERST_L
GPIO_4	PCIE1_WAKE_L
GPIO_5	PCIE1_CLKREQ_L
GPIO_6	N/A
GPIO_7	LED_USB1
GPIO_8	LED_USB3
GPIO_9	STATUS_LED_FAIL
GPIO_10	1P8_UART_2_TX
GPIO_11	1P8_UART_2_RX
GPIO_12	1P8_I2C_1_SDA
GPIO_13	1P8_I2C_1_SCL
GPIO_14	BOOT_FROM_ROM
GPIO_15	EEPROM_CLK
GPIO_16	1P8_PCIE3_PERST_L
GPIO_17	EEPROM_DATA
GPIO_18	BOOT_SPI_MOSI
GPIO_19	BOOT_SPI_MISO
GPIO_20	BOOT_SPI_CS
GPIO_21	BOOT_SPI_CLK
GPIO_22	RSSI 1 LED
GPIO_23	RSSI 2 LED
GPIO_24	RSSI 3 LED
GPIO_25	RSSI 4 LED
GPIO_26	N/A
GPIO_27	RGMIITX_CLK
GPIO_28	RGMIITX_3
GPIO_29	RGMIITX_2
GPIO_30	RGMIITX_1
GPIO_31	RGMIITX_0
GPIO_32	RGMIITX_CTL
GPIO_33	BOOT_CONFIG4
GPIO_34	NFLASH_CS_N/BOOT_CONFIG3

Pin	Signal
GPIO_35	NFLASH_CLE/BOOT_CONFIG2
GPIO_36	NFLASH_ALE/BOOT_CONFIG1
GPIO_37	NFLASH_WE_N/BOOT_CONFIG6
GPIO_38	NFLASH_OE_N/BOOT_CONFIG5
GPIO_39	NFLASH_BUSY_N
GPIO_40	NFLASH_DATA_7
GPIO_41	NFLASH_DATA_6
GPIO_42	NFLASH_DATA_5
GPIO_43	NFLASH_DATA_4
GPIO_44	NFLASH_DATA_3
GPIO_45	NFLASH_DATA_2
GPIO_46	NFLASH_DATA_1
GPIO_47	NFLASH_DATA_0
GPIO_48	1P8_PCIE2_PERST_L/BOOT_CONFIG0
GPIO_49	PCIE2_WAKE_L
GPIO_50	PCIE2_CLKREQ_L
GPIO_51	RGMIIRX_CLK
GPIO_52	RGMIIRX_3
GPIO_53	STATUS_LED_PASS
GPIO_54	SW_SWITCH
GPIO_55	BUZZER
GPIO_56	PCIE3_CLKREQ_L
GPIO_57	3V/5V Switch for 5G SLOT
GPIO_58	3V/5V Switch for 2.4G SLOT
GPIO_59	RGMIIRX_2
GPIO_60	RGMIIRX_1
GPIO_61	RGMIIRX_0
GPIO_62	RGMIIRX_CTL
GPIO_63	SW_RESET
GPIO_64	PCIE2_WAKE_L
GPIO_65	WPS_SWITCH
GPIO_66	QFPROM_EN
GPIO_67	SLIC_FF_RST
GPIO_68	N/A