POWER LED USB-C® Power Button POWER

WCBN3536A
ANX7625

JCTL

MPU Pin			MPU Pin
	VBUS_DISABLE	OUT +1V8	
	PMIC_RESET	GND	
GPIO_13	SOC_SE4_RX	VOL_UP	GPIO_96
GPIO_12	SOC_SE4_TX	VOL_DOWN	GPIO_36
GPIO_95	USB_BOOT	GND	

Default Debugging Shell Serial

ⓘ MPU Pins
ⓘ 1.8V Logic Level

ⓘ MCU Pins

Digital	MCU Pin	I2C2	SPI2	CAN	OPAMP2	UART/USART	Timer
D21	PB10	SCL					TIM2_CH3
D20	PB11	SDA					TIM2_CH4
AREF							
GND							
D13	PB13		D SCK				TIM1_CH1N
D12	PB14		D MISO				TIM1_CH2N
~D11	PB15		D MOSI				TIM1_CH3N
~D10	PB9		D SS				TIM4_CH4
~D9	PB8						TIM4_CH3
D8	PB4						TIM3_CH1
D7	PB2						TIM8_CH4N
~D6	PB1						TIM3_CH4
~D5	PA11			FDCAN1_RX			TIM1_CH4
D4	PA12			FDCAN1_TX			TIM1_ETR
~D3	PB0				OUTPUT		TIM3_CH3
D2	PB3						TIM2_CH2
D1	PB6					USART1_TX	TIM4_CH1
D0	PB7					USART1_RX	TIM4_CH2

QRB2210 LPDDR4 RAM PM4125

BOOT
IOREF
RESET
+3V3 OUT
+5V OUT
GND
GND
+7-24 VDC VIN IN

MCU Pins ⓘ

Timer	I2C3	OPAMP2	DAC	MCU Pin	Analog	
			DAC0	PA4	A0	D14
TIM2_CH1			DAC1	PA5	A1	D15
TIM3_CH1		INPUT+		PA6	A2	D16
TIM3_CH2		INPUT-		PA7	A3	D17
LPTIM1_CH1	SDA D			PC1	A4	D18
LPTIM1_IN1	SCL D			PC0	A5	D19

MCU Pin	QWIIC	
	GND	1
	+3V3 OUT	2
PD13	I2C4_SDA	3
PD12	I2C4_SCL	4

MCU Pin	SPI2	
PC2	MISO	1
	+5V OUT	2
PD1	SCK	3
PC3	MOSI	4
	RESET	5
	GND	6

⚠ **WARNING** All MCU GPIOs are 3.3 V logic and 5 V tolerant, except A0 and A1 (not 5 V tolerant).

RGB LED 1	MPU PIN
red:user	GPIO_41
green:user	GPIO_42
blue:user	GPIO_60

RGB LED 2	MPU PIN
red:panic	GPIO_39
green:wlan	GPIO_40
blue:bt	GPIO_47

Connected to the Microprocessor /sys/class/leds/

RGB LED 3	MCU PIN
LED3_R	PH10
LED3_G	PH11
LED3_B	PH12

RGB LED 4	MCU PIN
LED4_R	PH13
LED4_G	PH14
LED4_B	PH15

Connected to the Microcontroller

Legend:

- Power
- Ground
- IN Power Input
- OUT Power Output
- GPIO Digital External
- Analog External
- Main Part
- Secondary Part
- Internal Component
- Other Pins (Reset, System Control, Debugging)
- I2C
- SPI
- UART/USART
- Other SERIAL
- Analog
- PWM/Timer
- D Default
- D Default
- D Default
- D Default
- LED
- RGB LED

ⓘ CIPO/COPI have previously been referred ot as MISO/MOSI

ⓘ JSPI and JDIGITAL SPI share the SPI2 MCU peripheral (Can not be used simultaneously as SPI)

⚠ **WARNING** A0 and A1 are not 5V tolerant

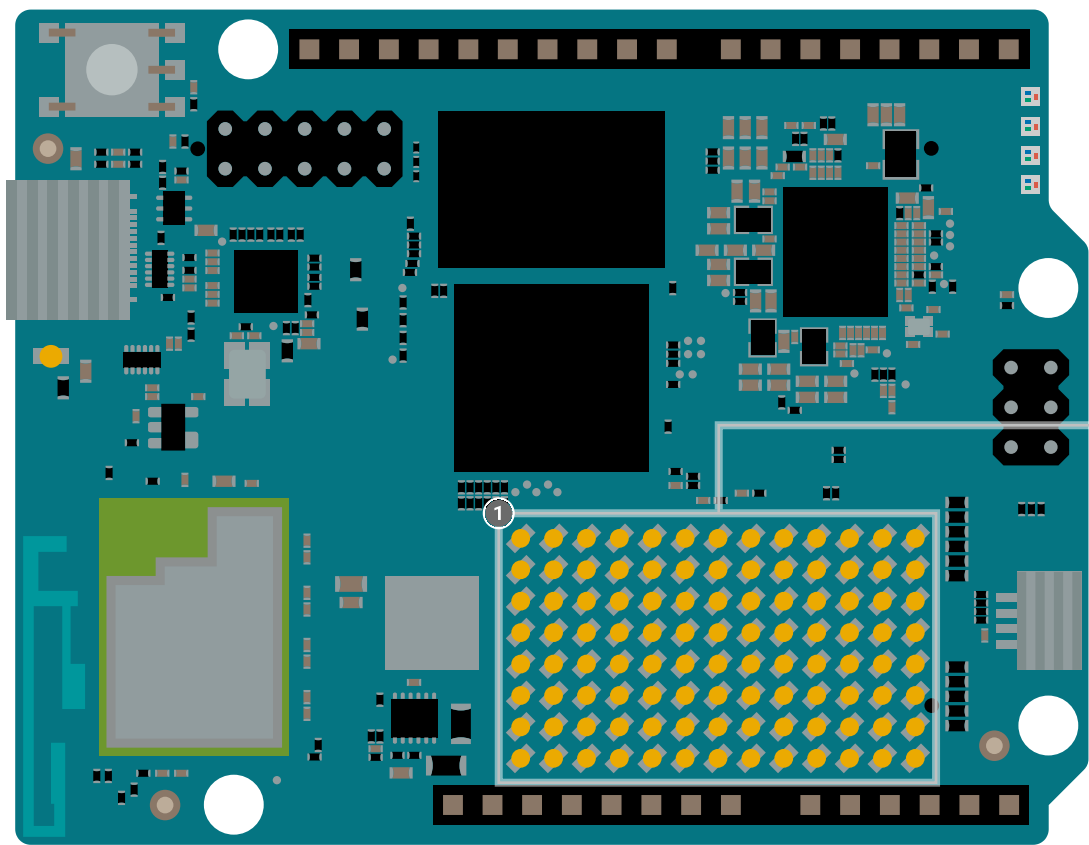⚠ **WARNING** JCTL pins are 1.8V logic only

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WARNING!

Advanced Section

The following information is for advanced use only and may not be officially supported by Arduino software

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LED Matrix 8x13

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26
27	28	29	30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49	50	51	52
53	54	55	56	57	58	59	60	61	62	63	64	65
66	67	68	69	70	71	72	73	74	75	76	77	78
79	80	81	82	83	84	85	86	87	88	89	90	91
92	93	94	95	96	97	98	99	100	101	102	103	104

Legend:

- **Power** (Power)
- **Ground** (Ground)
- **IN** Power Input
- **OUT** Power Output
- **GPIO Digital External**
- **Analog External**
- **Main Part**
- **Secondary Part**
- **Internal Component**
- **Other Pins (Reset, System Control, Debugging)**
- **I2C**
- **SPI**
- **UART/USART**
- **Other SERIAL**
- **Analog**
- **PWM/Timer**
- **D** Default
- **D** Default
- **D** Default
- **D** Default
- **LED**
- **RGB LED**

JMISC

Left Label	Signal	Pin	Pin	Signal	Right Label
PC6	MCU_PSSI_D0	1	2	MCU_SDMMC1_CMD	PD2
PC7	MCU_PSSI_D1	3	4	MCU_TRACE_CLK	PE2
PC8	MCU_PSSI_D2	5	6	MCU_TRACE_D0	PE3
PC9	MCU_PSSI_D3	7	8	MCU_TRACE_D2	PE5
PE4	MCU_PSSI_D4	9	10	MCU_TRACE_D3	PE6
PI4	MCU_PSSI_D5	11	12	MCU_PE7	PE7
PI6	MCU_PSSI_D6	13	14	MCU_PE8	PE8
PI7	MCU_PSSI_D7	15	16	MCU_I2C4_SCL	PF14
PD9	MCU_PSSI_PDCK	17	18	MCU_I2C4_SDA	PF15
PI5	MCU_PSSI_RDY	19	20	MCU_OPAMP1_VOUT	PA3
PD8	MCU_PSSI_DE	21	22	MCU_OPAMP1_VINP	PA0
PA8	MCU_MCO	23	24	MCU_OPAMP1_VINM	PA1
PA10	MCU_CRS_SYNC	25	26	GND	
	GND	27	28	EAR_P_R	
	MIC2_INP	29	30	EAR_M_R	
	MIC2_INM	31	32	LINEOUT_P	
	MIC2_BIAS	33	34	LINEOUT_M	
	GND	35	36	HPH_L	
	SOC_GPIO_0_SE0	37	38	HPH_R	
	SOC_GPIO_1_SE0	39	40	HPH_REF	
	SOC_GPIO_2_SE0	41	42	HS_DET	
	SOC_GPIO_3_SE0	43	44	GND	
	SOC_GPIO_86_SE0	45	46	SOC_GPIO_98	
	SOC_GPIO_82_SE0	47	48	SOC_GPIO_99	
	SOC_GPIO_18	49	50	SOC_GPIO_100	
	SOC_GPIO_28	51	52	SOC_GPIO_101	
	+3V3 (OUT)	53	54	(OUT) +5V USB	
	+3V3 (OUT)	55	56	(OUT) +5V USB	
	+1V8 (OUT)	57	58	GND	
	VCOIN (IN)	59	60	(IN) VBAT	

MCU Pins — 3.3V Logic

MPU Pins — 1.8V Logic

eMMC Storage

STM32U585

⚠ These pins can not be used as regular GPIOs.

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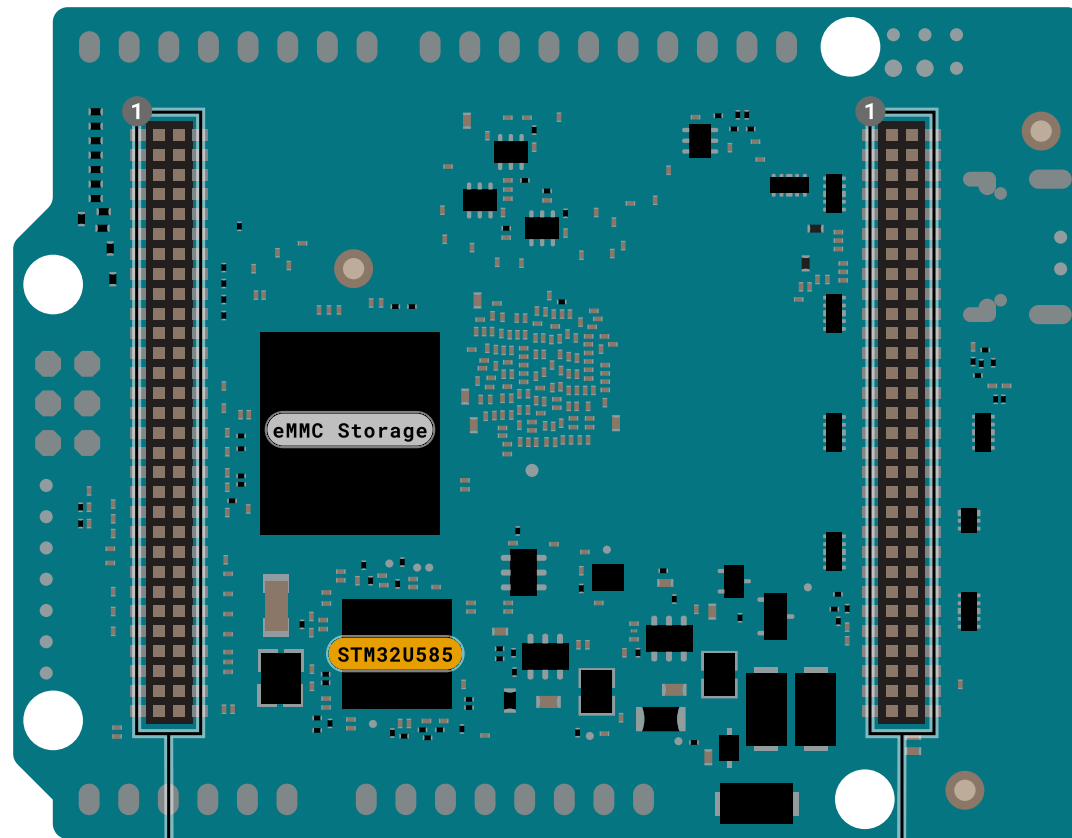
Left Label	Signal	Pin	Pin	Signal	Right Label
	GND	1	2	GND	
	MIPI_DSI0_CLK_M	3	4	MIPI_DSI0_L1_P	
	MIPI_DSI0_CLK_P	5	6	MIPI_DSI0_L1_M	
	GND	7	8	GND	
	MIPI_DSI0_L2_M	9	10	MIPI_DSI0_L0_P	
	MIPI_DSI0_L2_P	11	12	MIPI_DSI0_L0_M	
	GND	13	14	GND	
	MIPI_DSI0_L3_M	15	16	SOC_CAM_MCLK0	GPIO_20
	MIPI_DSI0_L3_P	17	18	SOC_CAM_MCLK1	GPIO_21
	GND	19	20	GND	
	CSI0_C0_LN0_M	21	22	CCI_I2C_SDA1	GPIO_29
	CSI0_B0_LN0_P	23	24	CCI_I2C_SCL1	GPIO_30
	GND	25	26	GND	
	CSI0_B1_LN1_M	27	28	CSI1_B2_LN3_P	
	CSI0_A1_LN1_P	29	30	CSI1_C2_LN3_M	
	GND	31	32	GND	
	CSI0_A0_CLK_M	33	34	CSI1_C1_LN2_P	
	CSI0_NC_CLK_P	35	36	CSI1_A2_LN2_M	
	GND	37	38	GND	
	CSI0_A2_LN2_M	39	40	CSI1_NC_CLK_P	
	CSI0_C1_LN2_P	41	42	CSI1_A0_CLK_M	
	GND	43	44	GND	
	CSI0_C2_LN3_M	45	46	CSI1_A1_LN1_P	
	CSI0_B2_LN3_P	47	48	CSI1_B1_LN1_M	
	GND	49	50	GND	
GPIO_23	CCI_I2C_SCL0	51	52	CSI1_B0_LN0_P	
GPIO_22	CCI_I2C_SDA0	53	54	CSI1_C0_LN0_M	
	GND	55	56	GND	
	VIN (IN)	57	58	(OUT) +3V3	
	VIN (IN)	59	60	(OUT) +3V3	

⚠ These pins can not be used as regular GPIOs.

Legend:

- Power (Power)
- Ground (Ground)
- (IN) Power Input
- (OUT) Power Output
- GPIO Digital External
- Analog External
- Main Part
- Secondary Part
- Internal Component
- Other Pins (Reset, System Control, Debugging)
- I2C — D Default
- SPI — D Default
- UART/USART — D Default
- Other SERIAL
- Analog Audio — D Default
- PWM/Timer
- LED
- RGB LED

⚠ **WARNING** Be aware of the pins logic level.

ⓘ Analog Audio functionality is provided by the PMIC

ⓘ CIPO/COPI have previously been referred ot as MISO/MOSI

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