Left header pinout table:

Signal	Pin	#	#	Pin	Signal
	3.3V	0	1	GND	
	H12	2	3	B12	
	B13	4	5	B14	
	B15	6	7	D8	
	D9	8	9	D10	
	D11	10	11	D12	
	D13	12	13	D14	
	D15	14	15	G2	
	G3	16	17	G4	
	G5	18	19	G6	
	G7	20	21	G8	
	C6	22	23	C7	
	C8	24	25	C9	
	A8	26	27	A9	
	A10	28	29	A11	USB_OTG_FS_DM
USB_OTG_FS_DP	A12	30	31	A13	
	H14	32	33	H13	
	I0	34	35	H15	
	3.3V	36	37	I1	
	3.3V	38	39	GND	
	I2	40	41	GND	
	I3	42	43	A14	MOTOR4_CTRL1
	A15	44	45	C10	MOTOR4_CTRL2
	C11	46	47	C12	MOTOR3_CTRL1
	D0	48	49	D1	MOTOR3_CTRL2
	D2	50	51	D3	MOTOR2_CTRL1
	D4	52	53	D5	MOTOR2_CTRL2
	D6	54	55	D7	MOTOR1_CTRL1
	G9	56	57	G10	MOTOR1_CTRL2
	G11	58	59	G12	
	G13	60	61	G14	
	G15	62	63	B3	
MOTOR2_ENC_A	B4	64	65	B5	MOTOR2_ENC_B
MOTOR1_PWM	B6	66	67	B7	MOTOR2_PWM
	BOOT0	68	69	B8	MOTOR3_PWM
MOTOR4_PWM	B9	70	71	E0	
	E1	72	73	PDR	
	I4	74	75	I5	MOTOR1_ENC_A
MOTOR1_ENC_B	I6	76	77	I7	
	GND	78	79	5VOUT	

Unit: mm

57.62 2.00 2.00 83.00 2.50 4.75

CoreH7XXI — Waveshare — JTAG/SWD — POWER JMP — BOOT CONFIG — OTG JMP — FLASH — SYSTEM — USB — RESET — PWR LED — VBUS LED — 5Vin

Right header pinout table:
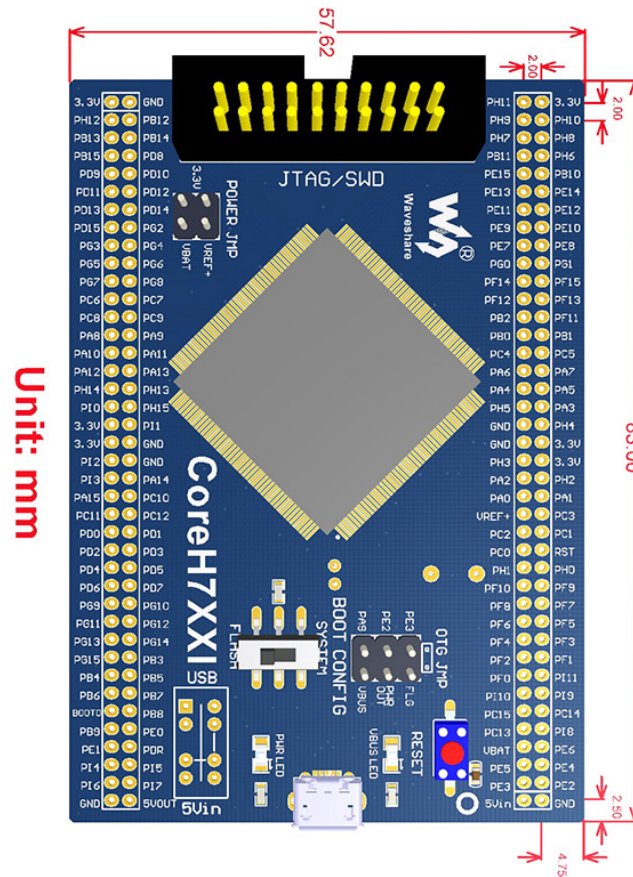
Signal	Pin	#	#	Pin	Signal
BTN4	H11	0	1	3.3V	
BTN2	H9	2	3	H10	BTN3
	H7	4	5	H8	BTN1
	B11	6	7	H6	
	E15	8	9	B10	
	E13	10	11	E14	
MOTOR4_ENC_B	E11	12	13	E12	
MOTOR4_ENC_A	E9	14	15	E10	
	E7	16	17	E8	
	G0	18	19	G1	
	F14	20	21	F15	
ADC1_IMP6	F12	22	23	F13	
	B2	24	25	F11	
ADC1_IMP9	B0	26	27	B10	
	C4	28	29	C5	ADC1_IMP8
	A6	30	31	A7	ADC1_INP7
	A4	32	33	A5	
	H5	34	35	A3	
	GND	36	37	H4	
	GND	38	39	3.3V	
	H3	40	41	3.3V	
	A2	42	43	H2	
MOTOR3_ENC_A	A0	44	45	A1	MOTOR3_ENC_B
	VREF+	46	47	C3	
	C2	48	49	C1	
	C0	50	51	RST	
RCC_OSC_OUT	H1	52	53	H0	RCC_OSC_IN
	F10	54	55	F9	
	F8	56	57	F7	
	F6	58	59	F5	
	F4	60	61	F3	
	F2	62	63	F1	LED4_BLUE
LED4_GREEN	F0	64	65	I11	LED4_RED
LED3_GREEN	I10	66	67	I9	LED3_BLUE
LED3_RED	C15	68	69	C14	LED2_BLUE
LED2_GREEN	C13	70	71	I8	LED2_RED
	VBAT	72	73	E6	
	E5	74	75	E4	LED1_BLUE
LED1_GREEN	E3	76	77	E2	LED1_RED
	5VIN	78	79	GND	