

Table 1

port	signal	type	function block	pins	
<b>cmd</b>	12	spi_miso, usart_rx, tim_ch, gpio	(spi1_miso, )u sart1_rx, tim2_ch1	(pb4, )pa10, pa15	
	12_EN	gpio			
	36	spi_sck, usart_ck, tim_ch, gpio	(spi1_sck, )ti m2_ch2, usart1_ck	(pb3, )pa8	
	36_EN	gpio			
	45	spi_mosi, usart_tx, gpio	(spi1_mosi, )u sart1_tx	(pb5, )pa9	
	45_EN	gpio			
	78	gpio			
	78_EN	gpio			
	LED_0	gpio			
	LED_1	gpio			
<b>fb0</b>	12	spi_miso, usart_rx, tim_ch, gpio	spi2_miso, usart3_rx, tim1_ch1	pb14, pd9, pe9	
	12_EN	gpio			
	36	spi_sck, usart_ck, tim_ch, gpio	spi2_sck, usart3_ck, tim1_ch2	pb13, pd10, pe11	
	36_EN	gpio			
	45	spi_mosi, usart_tx, gpio	spi2_mosi, usart3_tx	pb15, pd8	
	45_EN	gpio			
	SIN	adc			
	COS	adc			
	CUR	adc			
	LED_0	gpio			
LED_1	gpio				
<b>fb1</b>	12	spi_miso, usart_rx, tim_ch, gpio	spi3_miso, usart6_rx, tim4_ch1	pc11, pc7, pd12	
	12_EN	gpio			
	36	spi_sck, usart_ck, tim_ch, gpio	spi3_sck, usart6_ck, tim4_ch2	pc10, pc8, pd13	
	36_EN	gpio			
	45	spi_mosi, usart_tx, gpio	spi3_mosi, usart6_tx	pc12, pc6	
	45_EN	gpio			
	SIN	adc			
	COS	adc			
	CUR	adc			
	LED_0	gpio			
LED_1	gpio				
<b>usb</b>	USB_DP	usb_dp	usb_fs_dp	pa12	
	USB_DM	usb_dm	usb_fs_dm	pa11	
<b>swd</b>	SWDIO	swdio		pa13	
	SWCLK	swclk		pa14	
<b>i2s</b>	i2s_ck	i2s_ck	i2s2_ck	pb10	
	i2s_ws	i2s_ws	i2s2_ws	pb12	
	i2s_di	i2s_di	i2s2_sd	pc3	
	i2s_mc		tim9_ch2	pe6	
<b>hv uart</b>	hv_tx	uart_tx	uart4_tx	pa0	
	hv_rx	uart_rx	uart4_rx	pa1	
<b>crystal</b>	osc_in			ph0	
	osc_out			ph1	
<b>supply sense</b>	24V	adc			
	12V	adc			
	5V	adc			
<b>ain</b>	AIN0	adc			
	AIN1	adc			
<b>out</b>	FAN	gpio			
	BRAKE	gpio			
	OUT0	gpio			
	OUT1	gpio			
<b>io_can</b>	can_tx	can_tx	can1_tx	pb9	
	can_rx	can_rx	can1_rx	pb8	
<b>io_i2c</b>	i2c_scl	i2c_scl	i2c1_scl	pb6	
	i2c_sda	i2c_sda	i2c1_sda	pb7	
<b>io_usart</b>	usart_rx	usart_rx	usart2_rx	pd6	
	usart_tx	usart_tx	usart2_tx	pd5	
	usart_ck	usart_ck	usart2_ck	pd7	
<b>io_spi</b>	spi_miso	spi_miso	spi1_miso	pb4	
	spi_mosi	spi_mosi	spi1_mosi	pb5	
	spi_sck	spi_sck	spi1_sck	pb3	