

MCU: AT32F403ACGT7

External crystal oscillator: 8MHz

NAME	IO	Function	Ext_PU_R	Ext_PD_R	Ext_CAP	Description
M0_IC	PA0	ADC12_IN0	/	/	100nF	ADC12_IN0_Val*13200/4096 = M0_C Current(uint: mA)
M0_IB	PA1	ADC12_IN1	/	/	100nF	ADC12_IN1_Val*13200/4096 = M0_B Current(uint: mA)
MAIN_I	PB0	ADC12_IN8	/	/	100nF	ADC12_IN8_Val*33000/4096 = MAIN Current(uint: mA)
MAIN_V	PB1	ADC12_IN9	/	/	100nF	ADC12_IN9_Val*3300*16/4096 = MAIN Voltage(uint: mV)
M0_VC	PA4	ADC12_IN4	/	/	100nF	ADC12_IN4_Val*3300*16/4096 = M0_C Voltage(uint: mV)
M0_VB	PA5	ADC12_IN5	/	/	100nF	ADC12_IN5_Val*3300*16/4096 = M0_B Voltage(uint: mV)
M0_VA	PA6	ADC12_IN6	/	/	100nF	ADC12_IN6_Val*3300*16/4096 = M0_A Voltage(uint: mV)
M0_TE	PA7	ADC12_IN7	/	/	2.2uF	NTC Temperature Detect: 3.3V→CMFB103F3950FANT→3.3KΩ→GND
M0_BK	PB12	TIM1_BKIN	10K	/	1uF	Connect to "EMG" Connector BK Pin
M0_AL	PB13	TIM1_CH1N	/	/	/	Connect to 1st Half-Bridge Drive Chip Negative PWM Input Pin
M0_BL	PB14	TIM1_CH2N	/	/	/	Connect to 2nd Half-Bridge Drive Chip Negative PWM Input Pin
M0_CL	PB15	TIM1_CH3N	/	/	/	Connect to 3rd Half-Bridge Drive Chip Negative PWM Input Pin
M0_AH	PA8	TIM1_CH1	/	/	/	Connect to 1st Half-Bridge Drive Chip Positive PWM Input Pin
M0_BH	PA9	TIM1_CH2	/	/	/	Connect to 2nd Half-Bridge Drive Chip Positive PWM Input Pin
M0_CH	PA10	TIM1_CH3	/	/	/	Connect to 3rd Half-Bridge Drive Chip Positive PWM Input Pin
M0_ENC_Z	PB3	TIM2_CH2	3.6K	/	100nF	Connect to "ENC" Connector Z Pin
M0_ENC_A	PB4	TIM3_CH1	3.6K	/	100nF	Connect to "ENC" Connector A Pin
M0_ENC_B	PB5	TIM3_CH2	3.6K	/	100nF	Connect to "ENC" Connector B Pin
ADDR_SEL1	PC14	GPIO	/	10K	/	Connect to "ADDR_SEL" switch's No.2 Pin
ADDR_SEL0	PC15	GPIO	/	10K	/	Connect to "ADDR_SEL" switch's No.1 Pin
MCU_TIO1	PB6	TIM4_CH1	/	/	/	Connect to "PWM" Connector TIO1 Pin Through 3.3V To 5V Converter
MCU_TIO2	PB7	TIM4_CH2	/	/	/	Connect to "PWM" Connector TIO2 Pin Through 3.3V To 5V Converter
MCU_TIO3	PB8	TIM4_CH3	/	/	/	Connect to "PWM" Connector TIO3 Pin Through 3.3V To 5V Converter
MCU_TIO4	PB9	TIM4_CH4	/	/	/	Connect to "PWM" Connector TIO4 Pin Through 3.3V To 5V Converter
USART3_TX	PB10	USART3_TX	/	/	/	Connect to "UART" Connector TXD Pin
USART3_RX	PB11	USART3_RX	/	/	/	Connect to "UART" Connector RXD Pin
USART2_TX	PA2	USART2_TX	/	/	/	Connect to "485 Transceiver" TX Pin
USART2_RX	PA3	USART2_RX	/	/	/	Connect to "485 Transceiver" RX Pin
CAN_RX	PA11	CAN1_RX	/	/	/	Connect to "CAN Transceiver" RX Pin
CAN_TX	PA12	CAN1_TX	/	/	/	Connect to "CAN Transceiver" TX Pin
EN_12V	PB2	GPIO	/	10K	/	Set Low--->12V OFF Set High--->12V ON
M485_DE	PC13	GPIO	/	/	/	Set Low--->485 on RX Set High--->485 on TX
SYS_LED	PA15	GPIO	/	/	/	Set Low--->LED ON Set High--->LED OFF
SWCLK	PA14	SWCLK	/	/	/	Connect to "SWD" Connector CLK Pin
SWDIO	PA13	SWDIO	/	/	/	Connect to "SWD" Connector DIO Pin
NRST	NRST	NRST	10K	/	100nF	Connect to "SWD" Connector RST Pin
BOOT0	BOOT0	BOOT0	/	10K	/	Connect to "UART" Connector BOOT Pin
BOOT1	PB2	BOOT1	/	10K	/	

注意： 如果电机工作电流≥5A，请确保顶层和底层的MOS管和二极管具有良好的散热，  
例如覆盖导热硅胶，或者安装散热风扇！

Caution : If Motor Current Consumption ≥5A, please make sure the top-layer and bottom-layer's MOS and Diode have good heat dissipation,  
Such as cover with thermal conductive silica gel, or install the colling fan!