

## 2.6.5. GD32F405xx pin alternate functions

Table 2-7. Port A alternate functions summary

Pin Name	AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
PA0		TIMER1_CH0/TIMER1_ETI	TIMER4_CH0	TIMER7_ETI				USART1_CTS	UART3_TX							EVENT OUT
PA1		TIMER1_CH1	TIMER4_CH1					USART1_RTS	UART3_RX							EVENT OUT
PA2		TIMER1_CH2	TIMER4_CH2	TIMER8_CH0		I2S1_CKIN		USART1_TX								EVENT OUT
PA3		TIMER1_CH3	TIMER4_CH3	TIMER8_CH1		I2S1_MCK		USART1_RX			USBHS_ULPI_D0					EVENT OUT
PA4						SPI0_NSS/I2S2_WS		USART1_CLK					USBHS_SOF	DCI_HSYNC		EVENT OUT
PA5		TIMER1_CH0/TIMER1_ETI		TIMER7_CH0_ON		SPI0_SCK					USBHS_ULPI_CLK					EVENT OUT
PA6		TIMER0_BRKIN	TIMER2_CH0	TIMER7_BRKIN		SPI0_MISO	I2S1_MCK			TIMER12_CH0			SDIO_CMD	DCI_PIXCLK		EVENT OUT
PA7		TIMER0_CH0_ON	TIMER2_CH1	TIMER7_CH0_ON		SPI0_MOSI				TIMER13_CH0						EVENT OUT
PA8	CK_OT0	TIMER0_CH0			I2C2_SCL			USART0_CK		CTC_SYNC	USBFS_SOF		SDIO_D1			EVENT OUT
PA9		TIMER0_CH1			I2C2_SMBA	SPI1_SCK/I2S1_CLK		USART0_TX					SDIO_D2	DCI_D0		EVENT OUT
PA10		TIMER0_CH2			I2C2_TXFRAME			USART0_RX			USBFS_ID			DCI_D1		EVENT OUT
PA11		TIMER0_CH3						USART0_CTS	USART5_TX	CAN0_RX	USBFS_DM					EVENT OUT
PA12		TIMER0_ETI						USART0_RTS	USART5_RX	CAN0_TX	USBFS_DP					EVENT OUT
PA13	JTMS/SWDIO															EVENT OUT
PA14	JTCK/SWCLK															EVENT OUT
PA15	JTDI	TIMER1_CH0/TIMER1_ETI				SPI0_NSS	SPI2_NSS/I2S2_WS	USART0_TX								EVENT OUT

Table 2-8. Port B alternate functions summary

Pin Name	AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
PB0		TIMER0_C H1_ON	TIMER2_C H2	TIMER7_C H1_ON				SPI2_MOSI /I2S2_SD			USBHS_U LPI_D1		SDIO_D 1			EVENTOUT
PB1		TIMER0_C H2_ON	TIMER2_C H3	TIMER7_C H2_ON							USBHS_U LPI_D2		SDIO_D 2			EVENTOUT
PB2		TIMER1_C H3						SPI2_MOSI /I2S2_SD			USBHS_U LPI_D4		SDIO_C K			EVENTOUT
PB3	JTDO/TRAC ESWO	TIMER1_C H1				SPI0_SCK	SPI2_SCK /I2S2_CK	USART0_R X		I2C1_SDA						EVENTOUT
PB4	NJTRST		TIMER2_C H0		I2C0_TXF RAME	SPI0_MIS O	SPI2_MIS O	I2S2_ADD_ SD		I2C2_SDA			SDIO_D 0			EVENTOUT
PB5			TIMER2_C H1		I2C0_SMB A	SPI0_MO SI	SPI2_MO SI/I2S2_S D			CAN1_RX	USBHS_U LPI_D7			DCI_D10		EVENTOUT
PB6			TIMER3_C H0		I2C0_SCL			USART0_T X		CAN1_TX				DCI_D5		EVENTOUT
PB7			TIMER3_C H1		I2C0_SDA			USART0_R X						DCI_VSY NC		EVENTOUT
PB8		TIMER1_C H0/TIMER 1_ETI	TIMER3_C H2	TIMER9_C H0	I2C0_SCL					CAN0_RX			SDIO_D 4	DCI_D6		EVENTOUT
PB9		TIMER1_C H1	TIMER3_C H3	TIMER10_ CH0	I2C0_SDA	SPI1_NSS /I2S1_WS				CAN0_TX			SDIO_D 5	DCI_D7		EVENTOUT
PB10		TIMER1_C H2			I2C1_SCL	SPI1_SCK /I2S1_CK	I2S2_MCK	USART2_T X			USBHS_U LPI_D3		SDIO_D 7			EVENTOUT
PB11		TIMER1_C H3			I2C1_SDA	I2S_CKIN		USART2_R X			USBHS_U LPI_D4					EVENTOUT
PB12		TIMER0_B RKIN			I2C1_SMB A	SPI1_NSS /I2S1_WS		USART2_C K		CAN1_RX	USBHS_U LPI_D5		USBHS_ ID			EVENTOUT
PB13		TIMER0_C H0_ON			I2C1_TXF RAME	SPI1_SCK /I2S1_CK		USART2_C TS		CAN1_TX	USBHS_U LPI_D6					EVENTOUT
PB14		TIMER0_C H1_ON		TIMER7_C H1_ON		SPI1_MIS O	I2S1_ADD SD	USART2_R TS		TIMER11_ CH0			USBHS_ DM			EVENTOUT
PB15	RTC_REFI N	TIMER0_C H2_ON		TIMER7_C H2_ON		SPI1_MO SI/I2S1_S D				TIMER11_ CH1			USBHS_ DP			EVENTOUT

Table 2-9. Port C alternate functions summary

Pin Name	AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
PC0											USBHS_ULPI_STP					EVENTOUT
PC1						SPI2_MOSI/I2S2_SD		SPI1_MOSI/I2S1_SD								EVENTOUT
PC2						SPI1_MISO	I2S1_ADD_SD				USBHS_ULPI_DIR					EVENTOUT
PC3						SPI1_MOSI/I2S1_SD					USBHS_ULPI_NXT					EVENTOUT
PC4																EVENTOUT
PC5								USART2_RX								EVENTOUT
PC6			TIMER2_CH0	TIMER7_CH0		I2S1_MCK			USART5_TX				SDIO_D6	DCI_D0		EVENTOUT
PC7			TIMER2_CH1	TIMER7_CH1		SPI1_SCK/I2S1_CLK	I2S2_MCK		USART5_RX				SDIO_D7	DCI_D1		EVENTOUT
PC8	TRACED0		TIMER2_CH2	TIMER7_CH2					USART5_CK				SDIO_D0	DCI_D2		EVENTOUT
PC9	CK_OUT1		TIMER2_CH3	TIMER7_CH3	I2C2_SDA	I2S1_CKIN							SDIO_D1	DCI_D3		EVENTOUT
PC10							SPI2_SCK/I2S2_CK	USART2_TX	UART3_TX				SDIO_D2	DCI_D8		EVENTOUT
PC11						I2S2_ADD_SD	SPI2_MISO	USART2_RX	UART3_RX				SDIO_D3	DCI_D4		EVENTOUT
PC12					I2C1_SDA		SPI2_MOSI/I2S2_SD	USART2_CK	UART4_TX				SDIO_CK	DCI_D9		EVENTOUT
PC13																EVENTOUT
PC14																EVENTOUT
PC15																EVENTOUT

**Table 2-10. Port D alternate functions summary**

Pin Name	AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
PD0							SPI2_MOSI/ I2S2_SD			CAN0_RX						EVENTOUT
PD1								SPI1_NSS/ I2S1_WS		CAN0_TX						EVENTOUT
PD2			TIMER2_ETI						UART4_RX				SDIO_CMD	DCI_D11		EVENTOUT
PD3	TRACED1					SPI1_SCK/ I2S1_CK		USART1_CTS						DCI_D5		EVENTOUT
PD4								USART1_RTS								EVENTOUT
PD5								USART1_TX								EVENTOUT
PD6						SPI2_MOSI/ I2S2_SD		USART1_RX						DCI_D10		EVENTOUT
PD7								USART1_CK								EVENTOUT
PD8								USART2_TX								EVENTOUT
PD9								USART2_RX								EVENTOUT
PD10								USART2_CK								EVENTOUT
PD11								USART2_CTS								EVENTOUT
PD12			TIMER3_CH0					USART2_RTS								EVENTOUT
PD13			TIMER3_CH1													EVENTOUT
PD14			TIMER3_CH2													EVENTOUT
PD15	CTC_SYNC		TIMER3_CH3													EVENTOUT

Table 2-11. Port E alternate functions summary

Pin Name	AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
PE0			TIMER3_ETI											DCI_D2		EVENTOUT
PE1		TIMER0_CH1_ON												DCI_D3		EVENTOUT
PE2	TRACECK															EVENTOUT
PE3	TRACED0															EVENTOUT
PE4	TRACED1													DCI_D4		EVENTOUT
PE5	TRACED2			TIMER8_CH0										DCI_D6		EVENTOUT
PE6	TRACED3			TIMER8_CH1										DCI_D7		EVENTOUT
PE7		TIMER0_ETI														EVENTOUT
PE8		TIMER0_CH0_ON														EVENTOUT
PE9		TIMER0_CH0														EVENTOUT
PE10		TIMER0_CH1_ON														EVENTOUT
PE11		TIMER0_CH1														EVENTOUT
PE12		TIMER0_CH2_ON														EVENTOUT
PE13		TIMER0_CH2														EVENTOUT
PE14		TIMER0_CH3														EVENTOUT
PE15		TIMER0_BRKIN														EVENTOUT

Table 2-12. Port F alternate functions summary

Pin Name	AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
PF0	CTC_SYN C				I2C1_SDA											EVENTOUT
PF1					I2C1_SCL											EVENTOUT
PF2					I2C1_SMB A											EVENTOUT
PF3					I2C1_TXF RAME											EVENTOUT
PF4																EVENTOUT
PF5																EVENTOUT
PF6				TIMER9_C H0												EVENTOUT
PF7				TIMER10_ CH0												EVENTOUT
PF8										TIMER12_ CH0						EVENTOUT
PF9										TIMER13_ CH0						EVENTOUT
PF10														DCI_D11		EVENTOUT
PF11														DCI_D12		EVENTOUT
PF12																EVENTOUT
PF13																EVENTOUT
PF14																EVENTOUT
PF15																EVENTOUT

### Table 2-13. Port G alternate functions summary

Pin Name	AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
PG0																EVENTOUT
PG1																EVENTOUT
PG2																EVENTOUT
PG3																EVENTOUT
PG4																EVENTOUT
PG5																EVENTOUT
PG6														DCI_D12		EVENTOUT
PG7									USART5_					DCI_D13		EVENTOUT
PG8									CK							EVENTOUT
PG9									RTS							EVENTOUT
PG10									RX					DCI_VSY		EVENTOUT
PG11														NC		EVENTOUT
PG12														DCI_D2		EVENTOUT
PG13														DCI_D3		EVENTOUT
PG14									USART5_							EVENTOUT
PG15									RTS							EVENTOUT
PG16	TRACED2								CTS							EVENTOUT
PG17	TRACED3								TX							EVENTOUT
PG18									USART5_					DCI_D13		EVENTOUT
PG19									CTS							EVENTOUT