2.6.3.   GD32VF103Cx LQFP48 pin definitions

Table 2-6. GD32VF103Cx LQFP48 pin definitions

Pin Name	Pins	Pin Type[1]	I/O Level[2]	Functions description
V_{BAT}	1	P		Default: V_{BAT}
PC13-TAMPER-RTC	2	I/O		Default: PC13 Alternate: TAMPER-RTC
PC14-OSC32IN	3	I/O		Default: PC14 Alternate: OSC32IN
PC15-OSC32OUT	4	I/O		Default: PC15 Alternate: OSC32OUT
OSCIN	5	I		Default: OSCIN Remap: PD0
OSCOUT	6	O		Default: OSCOUT Remap: PD1
NRST	7	I/O		Default: NRST
V_{SSA}	8	P		Default: V_{SSA}
V_{DDA}	9	P		Default: V_{DDA}
PA0-WKUP	10	I/O		Default: PA0 Alternate: WKUP, USART1_CTS, ADC01_IN0, TIMER1_CH0_ETI, TIMER4_CH0[3]
PA1	11	I/O		Default: PA1 Alternate: USART1_RTS, ADC01_IN1, TIMER4_CH1[3] ,TIMER1_CH1
PA2	12	I/O		Default: PA2 Alternate: USART1_TX, TIMER4_CH2[3],ADC01_IN2, TIMER1_CH2
PA3	13	I/O		Default: PA3 Alternate: USART1_RX, TIMER4_CH3[3], ADC01_IN3, TIMER1_CH3
PA4	14	I/O		Default: PA4 Alternate: SPI0_NSS, USART1_CK, ADC01_IN4 DAC_OUT0 Remap: SPI2_NSS[3]，I2S2_WS[3]
PA5	15	I/O		Default: PA5 Alternate: SPI0_SCK, ADC01_IN5, DAC_OUT1
PA6	16	I/O		Default: PA6 Alternate: SPI0_MISO, ADC01_IN6, TIMER2_CH0 Remap: TIMER0_BRKIN
PA7	17	I/O		Default: PA7

Pin Name	Pins	Pin Type[1]	I/O Level[2]	Functions description
				Alternate: SPI0_MOSI, ADC01_IN7, TIMER2_CH1
				Remap: TIMER0_CH0_ON
PB0	18	I/O		Default: PB0
				Alternate: ADC01_IN8, TIMER2_CH2
				Remap: TIMER0_CH1_ON
PB1	19	I/O		Default: PB1
				Alternate: ADC01_IN9, TIMER2_CH3
				Remap: TIMER0_CH2_ON
PB2	20	I/O	5VT	Default: PB2, BOOT1
PB10	21	I/O	5VT	Default: PB10
				Alternate: I2C1_SCL[3], USART2_TX[3]
				Remap: TIMER1_CH2
PB11	22	I/O	5VT	Default: PB11
				Alternate: I2C1_SDA[3], USART2_RX[3]
				Remap: TIMER1_CH3
V_{SS_1}	23	P		Default: V_{SS_1}
V_{DD_1}	24	P		Default: V_{DD_1}
PB12	25	I/O	5VT	Default: PB12
				Alternate: SPI1_NSS[3], I2S1_WS[3], I2C1_SMBA[3],
				USART2_CK[3], TIMER0_BRKIN, CAN1_RX
PB13	26	I/O	5VT	Default: PB13
				Alternate: SPI1_SCK[3], I2S1_CK[3], USART2_CTS[3],
				TIMER0_CH0_ON, CAN1_TX
PB14	27	I/O	5VT	Default: PB14
				Alternate: SPI1_MISO[3], USART2_RTS[3],
				TIMER0_CH1_ON
PB15	28	I/O	5VT	Default: PB15
				Alternate: SPI1_MOSI[3], TIMER0_CH2_ON, I2S1_SD[3]
PA8	29	I/O	5VT	Default: PA8
				Alternate: USART0_CK, TIMER0_CH0, CK_OUT0,
				USBFS_SOF
PA9	30	I/O	5VT	Default: PA9
				Alternate: USART0_TX, TIMER0_CH1, USBFS_VBUS
PA10	31	I/O	5VT	Default: PA10
				Alternate: USART0_RX, TIMER0_CH2, USBFS_ID
PA11	32	I/O	5VT	Default: PA11
				Alternate: USART0_CTS, CAN0_RX, TIMER0_CH3,
				USBFS_DM
PA12	33	I/O	5VT	Default: PA12
				Alternate: USART0_RTS, CAN0_TX, TIMER0_ETI,

Pin Name	Pins	Pin Type[1]	I/O Level[2]	Functions description
				USBFS_DP
PA13	34	I/O	5VT	Default: JTMS Remap: PA13
V_{SS_2}	35	P		Default: V_{SS_2}
V_{DD_2}	36	P		Default: V_{DD_2}
PA14	37	I/O	5VT	Default: JTCK Remap: PA14
PA15	38	I/O	5VT	Default: JTDI Alternate:SPI2_NSS[3], I2S2_WS[3] Remap: TIMER1_CH0 _ETI, PA15, SPI0_NSS
PB3	39	I/O	5VT	Default: JTDO Alternate:SPI2_SCK[3],I2S2_CK[3] Remap: PB3, TIMER1_CH1, SPI0_SCK
PB4	40	I/O	5VT	Default: NJTRST Alternate:SPI2_MISO[3] Remap: TIMER2_CH0, PB4, SPI0_MISO
PB5	41	I/O		Default: PB5 Alternate: I2C0_SMBA ,SP12_MOSI[3], I2S2_SD[3] Remap: TIMER2_CH1, SPI0_MOSI,CAN1_RX
PB6	42	I/O	5VT	Default: PB6 Alternate: I2C0_SCL, TIMER3_CH0[3] Remap: USART0_TX,CAN1_TX
PB7	43	I/O	5VT	Default: PB7 Alternate: I2C0_SDA , TIMER3_CH1[3] Remap: USART0_RX
BOOT0	44	I		Default: BOOT0
PB8	45	I/O	5VT	Default: PB8 Alternate: TIMER3_CH2[3] Remap: I2C0_SCL, CAN0_RX
PB9	46	I/O	5VT	Default: PB9 Alternate: TIMER3_CH3[3] Remap: I2C0_SDA, CAN0_TX
V_{SS_3}	47	P		Default: V_{SS_3}
V_{DD_3}	48	P		Default: V_{DD_3}

Notes:

(1) Type: I = input, O = output, P = power.

(2) I/O Level: 5VT = 5 V tolerant.

(3) Functions are available in GD32VF103C8/B devices.