Table 9. Legend/abbreviations used in the pinout table

Name	Abbreviation	Definition
Pin name		specified in brackets below the pin name, the pin function during and after as the actual pin name
	S	Supply pin
Pin type	I	Input only pin
	I/O	Input / output pin
	FT	5 V tolerant I/O
	FTf	5V tolerant IO, I2C FM+ option
I/O structure	TTa	3.3 V tolerant I/O directly connected to ADC
	В	Dedicated BOOT0 pin
	RST	Bidirectional reset pin with weak pull-up resistor
Notes	Unless otherwise	specified by a note, all I/Os are set as floating inputs during and after reset
Alternate functions	Functions selected	d through GPIOx_AFR registers
Additional functions	Functions directly	selected/enabled through peripheral registers

Table 10. STM32F446xx pin and ball descriptions

	Pi	n nun	nber							
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
-	1	D7	А3	1	PE2	I/O	FT	-	TRACECLK, SPI4_SCK, SAI1_MCLK_A, QUADSPI_BK1_IO2, FMC_A23, EVENTOUT	-
-	2	D6	A2	2	PE3	I/O	FT	-	TRACED0, SAI1_SD_B, FMC_A19, EVENTOUT	-
-	3	A9	B2	3	PE4	I/O	FT	-	TRACED1, SPI4_NSS, SAI1_FS_A, FMC_A20, DCMI_D4, EVENTOUT	-
-	4	-	ВЗ	4	PE5	I/O	FT	-	TRACED2, TIM9_CH1, SPI4_MISO, SAI1_SCK_A, FMC_A21, DCMI_D6, EVENTOUT	-

Table 10. STM32F446xx pin and ball descriptions (continued)

	Pin number									
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
-	5	1	B4	5	PE6	I/O	FT	-	TRACED3, TIM9_CH2, SPI4_MOSI, SAI1_SD_A, FMC_A22, DCMI_D7, EVENTOUT	-
1	6	В9	C2	6	VBAT	S	-	-	-	-
2	7	C8	A1	7	PC13	I/O	FT	-	EVENTOUT	TAMP_1/WKUP1
3	8	С9	B1	8	PC14- OSC32_IN(PC14)	I/O	FT	-	EVENTOUT	OSC32_IN
4	9	D9	C1	9	PC15- OSC32_OUT(PC15)	I/O	FT	-	EVENTOUT	OSC32_OUT
-	ı	ı	C3	10	PF0	I/O	FT	-	I2C2_SDA, FMC_A0, EVENTOUT	-
-	1	ı	C4	11	PF1	I/O	FT	-	I2C2_SCL, FMC_A1, EVENTOUT	-
-	ı	ı	D4	12	PF2	I/O	FT	ı	I2C2_SMBA, FMC_A2, EVENTOUT	-
-	1		E2	13	PF3	I/O	FT	-	FMC_A3, EVENTOUT	ADC3_IN9
-	-	-	E3	14	PF4	I/O	FT	-	FMC_A4, EVENTOUT	ADC3_IN14
-	-	1	E4	15	PF5	I/O	FT	-	FMC_A5, EVENTOUT	ADC3_IN15
-	10		D2	16	VSS	S	-	-	-	-
-	11	1	D3	17	VDD	S	-	-	-	-
-	1	1	F3	18	PF6	I/O	FT	1	TIM10_CH1, SAI1_SD_B, QUADSPI_BK1_IO3, EVENTOUT	ADC3_IN4
-	-	-	F2	19	PF7	I/O	FT	-	TIM11_CH1, SAI1_MCLK_B, QUADSPI_BK1_IO2, EVENTOUT	ADC3_IN5
-	1	1	G3	20	PF8	I/O	FT	-	SAI1_SCK_B, TIM13_CH1, QUADSPI_BK1_IO0, EVENTOUT	ADC3_IN6
-	-	-	G2	21	PF9	I/O	FT	-	SAI1_FS_B, TIM14_CH1, QUADSPI_BK1_IO1, EVENTOUT	ADC3_IN7
-	-	-	G1	22	PF10	I/O	FT	-	DCMI_D11, EVENTOUT	ADC3_IN8
5	12	E9	D1	23	PH0-OSC_IN(PH0)	I/O	FT	-	EVENTOUT	OSC_IN



Table 10. STM32F446xx pin and ball descriptions (continued)

	Pi	n nun							escriptions (continued)	
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
6	13	F9	E1	24	PH1- OSC_OUT(PH1)	I/O	FT	-	EVENTOUT	OSC_OUT
7	14	D8	F1	25	NRST	I/O	RST	-	-	-
8	15	G9	H1	26	PC0	I/O	FT	-	SAI1_MCLK_B, OTG_HS_ULPI_STP, FMC_SDNWE, EVENTOUT	ADC123_IN10
9	16	1	H2	27	PC1	I/O	FT	ı	SPI3_MOSI/I2S3_SD, SAI1_SD_A, SPI2_MOSI/I2S2_SD, EVENTOUT	ADC123_IN11
10	17	E8	НЗ	28	PC2	I/O	FT	-	SPI2_MISO, OTG_HS_ULPI_DIR, FMC_SDNE0, EVENTOUT	ADC123_IN12
11	18	F8	H4	29	PC3	I/O	FT	-	SPI2_MOSI/I2S2_SD, OTG_HS_ULPI_NXT, FMC_SDCKE0, EVENTOUT	ADC123_IN13
-	19	H9	-	30	VDD	S	-	-	-	-
-	-	G8	-	-	VSS	S	-	-	-	-
12	20	F7	J1	31	VSSA	S	-	-	-	-
-	ı	1	K1	-	VREF-	S	-	-	-	-
-	21	1	L1	32	VREF+	S	-	-	-	-
13	22	H8	M1	33	VDDA	S	-	-	-	-
14	23	J9	J2	34	PA0-WKUP(PA0)	I/O	FT	1	TIM2_CH1/TIM2_ETR, TIM5_CH1, TIM8_ETR, USART2_CTS, UART4_TX, EVENTOUT	ADC123_IN0, WKUP0/TAMP_2
15	24	G7	K2	35	PA1	I/O	FT	-	TIM2_CH2, TIM5_CH2, USART2_RTS, UART4_RX, QUADSPI_BK1_IO3, SAI2_MCLK_B, EVENTOUT	ADC123_IN1
16	25	E7	L2	36	PA2	I/O	FT	-	TIM2_CH3, TIM5_CH3, TIM9_CH1, USART2_TX, SAI2_SCK_B, EVENTOUT	ADC123_IN2

Table 10. STM32F446xx pin and ball descriptions (continued)

	Pin number									
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
17	26	E6	M2	37	PA3	I/O	FT	1	TIM2_CH4, TIM5_CH4, TIM9_CH2, SAI1_FS_A, USART2_RX, OTG_HS_ULPI_D0, EVENTOUT	ADC123_IN3
18	27	-	G4	38	VSS	S	-	-	-	-
-	ı	J8	H5	-	BYPASS_REG	I	FT	-	-	-
19	28	ı	F4	39	VDD	S	-	ı	-	-
20	29	Н7	J3	40	PA4	I/O	ТТа	1	SPI1_NSS/I2S1_WS, SPI3_NSS/I2S3_WS, USART2_CK, OTG_HS_SOF, DCMI_HSYNC, EVENTOUT	ADC12_IN4, DAC_OUT1
21	30	F6	K3	41	PA5	I/O	ТТа	1	TIM2_CH1/TIM2_ETR, TIM8_CH1N, SPI1_SCK/I2S1_CK, OTG_HS_ULPI_CK, EVENTOUT	ADC12_IN5, DAC_OUT2
22	31	G6	L3	42	PA6	I/O	FT	ı	TIM1_BKIN, TIM3_CH1, TIM8_BKIN, SPI1_MISO, I2S2_MCK, TIM13_CH1, DCMI_PIXCLK, EVENTOUT	ADC12_IN6
23	32	E5	M3	43	PA7	I/O	FT	-	TIM1_CH1N, TIM3_CH2, TIM8_CH1N, SPI1_MOSI/I2S1_SD, TIM14_CH1, FMC_SDNWE, EVENTOUT	ADC12_IN7
24	33	J7	J4	44	PC4	I/O	FT	-	I2S1_MCK, SPDIFRX_IN2, FMC_SDNE0, EVENTOUT	ADC12_IN14
25	34	-	K4	45	PC5	I/O	FT	-	USART3_RX, SPDIFRX_IN3, FMC_SDCKE0, EVENTOUT	ADC12_IN15



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Table 10. STM32F446xx pin and ball descriptions (continued)

	Pin number				-					
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
26	35	F5	L4	46	PB0	I/O	FT	-	TIM1_CH2N, TIM3_CH3, TIM8_CH2N, SPI3_MOSI/I2S3_SD, UART4_CTS, OTG_HS_ULPI_D1, SDIO_D1, EVENTOUT	ADC12_IN8
27	36	Н6	M4	47	PB1	I/O	FT	-	TIM1_CH3N, TIM3_CH4, TIM8_CH3N, OTG_HS_ULPI_D2, SDIO_D2, EVENTOUT	ADC12_IN9
28	37	J6	J5	48	PB2-BOOT1 (PB2)	I/O	FT	-	TIM2_CH4, SAI1_SD_A, SPI3_MOSI/I2S3_SD, QUADSPI_CLK, OTG_HS_ULPI_D4, SDIO_CK, EVENTOUT	-
-	1	-	M5	49	PF11	I/O	FT	1	SAI2_SD_B, FMC_SDNRAS, DCMI_D12, EVENTOUT	-
-	-	-	L5	50	PF12	I/O	FT	-	FMC_A6, EVENTOUT	-
-	ı	-	-	51	VSS	S	1	-	-	-
-	-	-	G5	52	VDD	S	-	-	-	-
-	-	-	K5	53	PF13	I/O	FT	-	FMPI2C1_SMBA, FMC_A7, EVENTOUT	-
-	-	-	M6	54	PF14	I/O	FTf	-	FMPI2C1_SCL, FMC_A8, EVENTOUT	-
-	1	-	L6	55	PF15	I/O	FTf	-	FMPI2C1_SDA, FMC_A9, EVENTOUT	-
-	-	-	K6	56	PG0	I/O	FT	-	FMC_A10, EVENTOUT	-
-	_	-	J6	57	PG1	I/O	FT	-	FMC_A11, EVENTOUT	_
-	38	J5	M7	58	PE7	I/O	FT	-	TIM1_ETR, UART5_RX, QUADSPI_BK2_IO0, FMC_D4, EVENTOUT	-
-	39	H5	L7	59	PE8	I/O	FT	-	TIM1_CH1N, UART5_TX, QUADSPI_BK2_IO1, FMC_D5, EVENTOUT	-
-	40	G5	K7	60	PE9	I/O	FT	-	TIM1_CH1, QUADSPI_BK2_IO2, FMC_D6, EVENTOUT	-

Table 10. STM32F446xx pin and ball descriptions (continued)

	Pi	n nur	nber		-					
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
-	-	-	H6	61	VSS	S	1	-	-	-
-	-	-	G6	62	VDD	S	-	-	-	-
-	41	J4	J7	63	PE10	I/O	FT	1	TIM1_CH2N, QUADSPI_BK2_IO3, FMC_D7, EVENTOUT	-
-	42	1	Н8	64	PE11	I/O	FT	1	TIM1_CH2, SPI4_NSS, SAI2_SD_B, FMC_D8, EVENTOUT	-
-	43	-	J8	65	PE12	I/O	FT	1	TIM1_CH3N, SPI4_SCK, SAI2_SCK_B, FMC_D9, EVENTOUT	-
-	44	-	K8	66	PE13	I/O	FT	1	TIM1_CH3, SPI4_MISO, SAI2_FS_B, FMC_D10, EVENTOUT	-
-	45	-	L8	67	PE14	I/O	FT	1	TIM1_CH4, SPI4_MOSI, SAI2_MCLK_B, FMC_D11, EVENTOUT	-
-	46	-	M8	68	PE15	I/O	FT	1	TIM1_BKIN, FMC_D12, EVENTOUT	-
29	47	H4	M9	69	PB10	I/O	FT	1	TIM2_CH3, I2C2_SCL, SPI2_SCK/I2S2_CK, SAI1_SCK_A, USART3_TX, OTG_HS_ULPI_D3, EVENTOUT	-
-	-	-	M10	70	PB11	I/O	FT	-	TIM2_CH4, I2C2_SDA, USART3_RX, SAI2_SD_A, EVENTOUT	-
30	48	J3	H7	71	VCAP_1	S	-	-	-	-
31	49	НЗ	-	-	VSS	S	-	-	-	-
32	50	J2	G7	72	VDD	S	-	-	-	-
33	51	G4	M11	73	PB12	I/O	FT	1	TIM1_BKIN, I2C2_SMBA, SPI2_NSS/I2S2_WS, SAI1_SCK_B, USART3_CK, CAN2_RX, OTG_HS_ULPI_D5, OTG_HS_ID, EVENTOUT	-



Table 10. STM32F446xx pin and ball descriptions (continued)

	Pi	n nun							sacriptions (continued)	
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
34	52	H2	M12	74	PB13	I/O	FT	1	TIM1_CH1N, SPI2_SCK/I2S2_CK, USART3_CTS, CAN2_TX, OTG_HS_ULPI_D6, EVENTOUT	OTG_HS_VBUS
35	53	J1	L11	75	PB14 <sup>(1)</sup>	I/O	FT	ı	TIM1_CH2N, TIM8_CH2N, SPI2_MISO, USART3_RTS, TIM12_CH1, OTG_HS_DM, EVENTOUT	-
36	54	G3	L12	76	PB15 <sup>(1)</sup>	I/O	FT	ı	RTC_REFIN, TIM1_CH3N, TIM8_CH3N, SPI2_MOSI/I2S2_SD, TIM12_CH2, OTG_HS_DP, EVENTOUT	-
-	55	-	L9	77	PD8	I/O	FT	1	USART3_TX, SPDIFRX_IN1, FMC_D13, EVENTOUT	-
-	56	-	K9	78	PD9	I/O	FT	-	USART3_RX, FMC_D14, EVENTOUT	-
-	57	-	J9	79	PD10	I/O	FT	-	USART3_CK, FMC_D15, EVENTOUT	-
-	58	H1	Н9	80	PD11	I/O	FT	-	FMPI2C1_SMBA, USART3_CTS, QUADSPI_BK1_IO0, SAI2_SD_A, FMC_A16, EVENTOUT	-
-	59	G2	L10	81	PD12	I/O	FTf	-	TIM4_CH1, FMPI2C1_SCL, USART3_RTS, QUADSPI_BK1_IO1, SAI2_FS_A, FMC_A17, EVENTOUT	-
-	60	G1	K10	82	PD13	I/O	FTf	-	TIM4_CH2, FMPI2C1_SDA, QUADSPI_BK1_IO3, SAI2_SCK_A, FMC_A18, EVENTOUT	-
-	-	-	G8	83	VSS	S	-	-	-	-
-	-	-	F8	84	VDD	S	-	-	-	-

Table 10. STM32F446xx pin and ball descriptions (continued)

	Pin number									
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
-	61	-	K11	85	PD14	I/O	FTf	-	TIM4_CH3, FMPI2C1_SCL, SAI2_SCK_A, FMC_D0, EVENTOUT	-
-	62	-	K12	86	PD15	I/O	FTf	1	TIM4_CH4, FMPI2C1_SDA, FMC_D1, EVENTOUT	-
-	-	-	J12	87	PG2	I/O	FT	-	FMC_A12, EVENTOUT	-
-	-	-	J11	88	PG3	I/O	FT	-	FMC_A13, EVENTOUT	-
-	1	1	J10	89	PG4	I/O	FT	1	FMC_A14/FMC_BA0, EVENTOUT	-
-	1	ı	H12	90	PG5	I/O	FT	ı	FMC_A15/FMC_BA1, EVENTOUT	-
-	-	-	H11	91	PG6	I/O	FT	-	QUADSPI_BK1_NCS, DCMI_D12, EVENTOUT	-
-	-	-	H10	92	PG7	I/O	FT	-	USART6_CK, FMC_INT, DCMI_D13, EVENTOUT	-
-	1	-	G11	93	PG8	I/O	FT	-	SPDIFRX_IN2, USART6_RTS, FMC_SDCLK, EVENTOUT	-
-	-	-	-	94	VSS	S	-	-	-	-
-	-	ı	F10	-	VDD	S	-	ı	-	-
-	1	E1	C11	95	VDDUSB	S	-	-	-	-
37	63	F1	G12	96	PC6	I/O	FTf	1	TIM3_CH1, TIM8_CH1, FMPI2C1_SCL, I2S2_MCK, USART6_TX, SDIO_D6, DCMI_D0, EVENTOUT	-
38	64	F2	F12	97	PC7	I/O	FTf	-	TIM3_CH2, TIM8_CH2, FMPI2C1_SDA, SPI2_SCK/I2S2_CK, I2S3_MCK, SPDIFRX_IN1, USART6_RX, SDIO_D7, DCMI_D1, EVENTOUT	-
39	65	F3	F11	98	PC8	I/O	FT	-	TRACED0, TIM3_CH3, TIM8_CH3, UART5_RTS, USART6_CK, SDIO_D0, DCMI_D2, EVENTOUT	-



Table 10. STM32F446xx pin and ball descriptions (continued)

	Pi	n nun			, , , , , , , , , , , , , , , , , , ,				escriptions (continued)	
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
40	66	D1	E11	99	PC9	I/O	FT	ı	MCO2, TIM3_CH4, TIM8_CH4, I2C3_SDA, I2S_CKIN, UART5_CTS, QUADSPI_BK1_IO0, SDIO_D1, DCMI_D3, EVENTOUT	-
41	67	E2	E12	100	PA8	I/O	FT	-	MCO1, TIM1_CH1, I2C3_SCL, USART1_CK, OTG_FS_SOF, EVENTOUT	-
42	68	F4	D12	101	PA9	I/O	FT	-	TIM1_CH2, I2C3_SMBA, SPI2_SCK/I2S2_CK, SAI1_SD_B, USART1_TX, DCMI_D0, EVENTOUT	OTG_FS_VBUS
43	69	E3	D11	102	PA10	I/O	FT	ı	TIM1_CH3, USART1_RX, OTG_FS_ID, DCMI_D1, EVENTOUT	-
44	70	C1	C12	103	PA11 <sup>(1)</sup>	I/O	FT	-	TIM1_CH4, USART1_CTS, CAN1_RX, OTG_FS_DM, EVENTOUT	-
45	71	E4	B12	104	PA12 <sup>(1)</sup>	I/O	FT	1	TIM1_ETR, USART1_RTS, SAI2_FS_B, CAN1_TX, OTG_FS_DP, EVENTOUT	-
46	72	D2	A12	105	PA13(JTMS-SWDIO)	I/O	FT	-	JTMS-SWDIO, EVENTOUT	-
-	73	C2	G9	106	VCAP_2	S	-	-	-	-
47	74	B1	G10	107	VSS	S	-	_	-	
48	75	A1	F9	108	VDD	S	-	-	-	-
49	76	C3	A11	109	PA14(JTCK-SWCLK)	I/O	FT	-	JTCK-SWCLK, EVENTOUT	-
50	77	B2	A10	110	PA15(JTDI)	I/O	FT	-	JTDI, TIM2_CH1/TIM2_ETR, HDMI_CEC, SPI1_NSS/I2S1_WS, SPI3_NSS/I2S3_WS, UART4_RTS, EVENTOUT	-

Table 10. STM32F446xx pin and ball descriptions (continued)

	Pin number									
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
51	78	D3	B11	111	PC10	I/O	FT	1	SPI3_SCK/I2S3_CK, USART3_TX, UART4_TX, QUADSPI_BK1_IO1, SDIO_D2, DCMI_D8, EVENTOUT	-
52	79	D4	B10	112	PC11	I/O	FT	ı	SPI3_MISO, USART3_RX, UART4_RX, QUADSPI_BK2_NCS, SDIO_D3, DCMI_D4, EVENTOUT	-
53	80	A2	C10	113	PC12	I/O	FT	1	I2C2_SDA, SPI3_MOSI/I2S3_SD, USART3_CK, UART5_TX, SDIO_CK, DCMI_D9, EVENTOUT	-
-	81	ВЗ	E10	114	PD0	I/O	FT	-	SPI4_MISO, SPI3_MOSI/I2S3_SD, CAN1_RX, FMC_D2, EVENTOUT	-
-	82	C4	D10	115	PD1	I/O	FT	-	SPI2_NSS/I2S2_WS, CAN1_TX, FMC_D3, EVENTOUT	-
54	83	D5	E9	116	PD2	I/O	FT	-	TIM3_ETR, UART5_RX, SDIO_CMD, DCMI_D11, EVENTOUT	-
-	84	ı	D9	117	PD3	I/O	FT	1	TRACED1, SPI2_SCK/I2S2_CK, USART2_CTS, QUADSPI_CLK, FMC_CLK, DCMI_D5, EVENTOUT	-
-	85	A3	C9	118	PD4	I/O	FT	-	USART2_RTS, FMC_NOE, EVENTOUT	-
-	86	-	В9	119	PD5	I/O	FT	-	USART2_TX, FMC_NWE, EVENTOUT	-
-	-	-	E7	120	VSS	S	-	-	-	-
	-	-	F7	121	VDD	S	-	-	_	-



Table 10. STM32F446xx pin and ball descriptions (continued)

	Pi	n nun							sacriptions (continued)	
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
-	87	B4	A8	122	PD6	I/O	FT	-	SPI3_MOSI/I2S3_SD, SAI1_SD_A, USART2_RX, FMC_NWAIT, DCMI_D10, EVENTOUT	-
-	88	A4	A9	123	PD7	I/O	FT	-	USART2_CK, SPDIFRX_IN0, FMC_NE1, EVENTOUT	-
-	-	-	E8	124	PG9	I/O	FT	-	SPDIFRX_IN3, USART6_RX, QUADSPI_BK2_IO2, SAI2_FS_B, FMC_NE2/FMC_NCE3, DCMI_VSYNC, EVENTOUT	-
-	1	1	D8	125	PG10	I/O	FT	-	SAI2_SD_B, FMC_NE3, DCMI_D2, EVENTOUT	-
-	-	-	C8	126	PG11	I/O	FT	-	SPI4_SCK, SPDIFRX_IN0, DCMI_D3, EVENTOUT	-
-	-	-	B8	127	PG12	I/O	FT	-	SPI4_MISO, SPDIFRX_IN1, USART6_RTS, FMC_NE4, EVENTOUT	-
-	-	-	D7	128	PG13	I/O	FT	-	TRACED2, SPI4_MOSI, USART6_CTS, FMC_A24, EVENTOUT	-
-	1	-	C7	129	PG14	I/O	FT	-	TRACED3, SPI4_NSS, USART6_TX, QUADSPI_BK2_IO3, FMC_A25, EVENTOUT	-
-	-	-	-	130	VSS	S	-	-	-	-
-	-	-	F6	131	VDD	S	-	-	-	-
-	-	-	В7	132	PG15	I/O	FT	-	USART6_CTS, FMC_SDNCAS, DCMI_D13, EVENTOUT	-
55	89	A5	A7	133	PB3(JTDO/TRACES WO)	I/O	FT	-	JTDO/TRACESWO, TIM2_CH2, I2C2_SDA, SPI1_SCK/I2S1_CK, SPI3_SCK/I2S3_CK, EVENTOUT	-

Table 10. STM32F446xx pin and ball descriptions (continued)

	Pi	n nun	nber		-					
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
56	90	B5	A6	134	PB4(NJTRST)	I/O	FT	-	NJTRST, TIM3_CH1, I2C3_SDA, SPI1_MISO, SPI3_MISO, SPI2_NSS/I2S2_WS, EVENTOUT	-
57	91	A6	В6	135	PB5	I/O	FT	-	TIM3_CH2, I2C1_SMBA, SPI1_MOSI/I2S1_SD, SPI3_MOSI/I2S3_SD, CAN2_RX, OTG_HS_ULPI_D7, FMC_SDCKE1, DCMI_D10, EVENTOUT	-
58	92	C5	C6	136	PB6	I/O	FT	-	TIM4_CH1, HDMI_CEC, I2C1_SCL, USART1_TX, CAN2_TX, QUADSPI_BK1_NCS, FMC_SDNE1, DCMI_D5, EVENTOUT	-
59	93	В6	D6	137	PB7	I/O	FT	-	TIM4_CH2, I2C1_SDA, USART1_RX, SPDIFRX_IN0, FMC_NL, DCMI_VSYNC, EVENTOUT	-
60	94	A7	D5	138	BOOT0	I	В	-	-	VPP
61	95	C6	C5	139	PB8	I/O	FT	ı	TIM2_CH1/TIM2_ETR, TIM4_CH3, TIM10_CH1, I2C1_SCL, CAN1_RX, SDIO_D4, DCMI_D6, EVENTOUT	-
62	96	C7	B5	140	PB9	I/O	FT	-	TIM2_CH2, TIM4_CH4, TIM11_CH1, I2C1_SDA, SPI2_NSS/I2S2_WS, SAI1_FS_B, CAN1_TX, SDIO_D5, DCMI_D7, EVENTOUT	-
-	97	-	A5	141	PE0	I/O	FT	-	TIM4_ETR, SAI2_MCLK_A, FMC_NBL0, DCMI_D2, EVENTOUT	-
-	98	ı	A4	142	PE1	I/O	FT	-	FMC_NBL1, DCMI_D3, EVENTOUT	-



Table 10. STM32F446xx pin and ball descriptions (continued)

	Pi	n nun	nber							
LQFP64	LQFP100	WLCSP 81	UFBGA144	LQFP144	Pin name (function after reset)	Pin type	I/O structure	Notes	Alternate functions	Additional functions
63	99	В7	E6	-	VSS	S	-	-	-	-
-	-	B8	E5	143	PDR_ON	S	-	-	-	-
64	100	A8	F5	144	VDD	S	-	-	-	-

<sup>1.</sup> PA11, PA12, PB14 and PB15 I/Os are supplied by VDDUSB



## Table 11. Alternate function

		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
P	ort	SYS	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	SYS
	PA0	-	TIM2_CH1/ TIM2_ETR	TIM5_CH1	TIM8_ETR	-	-	-	USART2_ CTS	UART4_ TX	-	-	-	-	-	-	EVENT OUT
	PA1	-	TIM2_CH2	TIM5_CH2	-	-	-	-	USART2_ RTS	UART4_ RX	QUADSPI_ BK1_IO3	SAI2_ MCLK_B	-	-	-	-	EVENT OUT
	PA2	-	TIM2_CH3	TIM5_CH3	TIM9_CH1	-	-	-	USART2_ TX	SAI2_ SCK_B	-	-	-	-	-	-	EVENT OUT
	PA3	-	TIM2_CH4	TIM5_CH4	TIM9_CH2	-	-	SAI1_ FS_A	USART2_ RX	-	-	OTG_HS_ ULPI_D0	-	-	-	-	EVENT OUT
	PA4	-	-	-	-	-	SPI1_NSS/I 2S1_WS	SPI3_NSS / I2S3_WS	USART2_ CK	-	-	-	-	OTG_HS_ SOF	DCMI_ HSYNC	-	EVENT OUT
	PA5	-	TIM2_CH1/ TIM2_ETR	-	TIM8_ CH1N	-	SPI1_SCK/I 2S1_CK	-	-	-	-	OTG_HS_ ULPI_CK	-	-	-	-	EVENT OUT
	PA6	-	TIM1_ BKIN	TIM3_CH1	TIM8_ BKIN	-	SPI1_MISO	I2S2_ MCK	-	-	TIM13_CH1	-	-	-	DCMI_ PIXCLK	-	EVENT OUT
A	PA7	-	TIM1_ CH1N	TIM3_CH2	TIM8_ CH1N	-	SPI1_MOSI / I2S1_SD	-	-	-	TIM14_CH1	-	-	FMC_ SDNWE	-	-	EVENT OUT
	PA8	MCO1	TIM1_CH1	-	-	I2C3_ SCL	-	-	USART1_ CK	-	-	OTG_FS_ SOF	-	-	-	-	EVENT OUT
	PA9	-	TIM1_CH2	-	-	I2C3_ SMBA	SPI2_SCK /I2S2_CK	SAI1_ SD_B	USART1_ TX	-	-	-	-	-	DCMI_D0	-	EVENT OUT
	PA10	-	TIM1_CH3	-	-	-	-	-	USART1_ RX	-	-	OTG_FS_ ID	-	-	DCMI_D1	-	EVENT OUT
	PA11	-	TIM1_CH4	-	-	-	-	-	USART1_ CTS	-	CAN1_RX	OTG_FS_ DM	-	-	-	-	EVENT OUT
	PA12	1	TIM1_ETR	-	-	-	-	-	USART1_ RTS	SAI2_ FS_B	CAN1_TX	OTG_FS_ DP	-	-	-	-	EVENT OUT
	PA13	JTMS- SWDIO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EVENT OUT
	PA14	JTCK- SWCLK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EVENT OUT
	PA15	JTDI	TIM2_CH1/ TIM2_ETR	-	-	HDMI_ CEC	SPI1_NSS/ I2S1_WS	SPI3_ NSS/ I2S3_WS	-	UART4_RT S	-	-	-	-	-	-	EVENT OUT

							Table 11	I. Altern	ate functi	on (cont	tinued)						
		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
	Port	SYS	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	sys
	PB0	-	TIM1_CH2N	TIM3_CH3	TIM8_ CH2N	-	-	-	SPI3_MOSI/ I2S3_SD	UART4_ CTS	-	OTG_HS_ ULPI_D1	-	SDIO_D1	-	-	EVENT OUT
	PB1	-	TIM1_CH3N	TIM3_CH4	TIM8_ CH3N	-	-	-	-	-	-	OTG_HS_ ULPI_D2	-	SDIO_D2	-	-	EVENT OUT
	PB2	1	TIM2_CH4	-	-	-	-	SAI1_ SD_A	SPI3_MOSI/ I2S3_SD	-	QUADSPI_ CLK	OTG_HS_ ULPI_D4	-	SDIO_CK	-	-	EVENT OUT
	PB3	JTDO/ TRACE SWO	TIM2_CH2	-	-	I2C2_ SDA	SPI1_SCK /I2S1_CK	SPI3_SCK / I2S3_CK	-	-	-	-	-	-	-	-	EVENT OUT
	PB4	NJTRS T	-	TIM3_CH1	-	I2C3_ SDA	SPI1_MISO	SPI3_ MISO	SPI2_NSS/ I2S2_WS	-	-	-	-	-	-	-	EVENT OUT
	PB5	-	-	TIM3_CH2	-	I2C1_ SMBA	SPI1_MOSI /I2S1_SD	SPI3_ MOSI/ I2S3_SD	-	-	CAN2_RX	OTG_HS_ ULPI_D7	-	FMC_ SDCKE1	DCMI_ D10	-	EVENT OUT
	PB6	-	-	TIM4_CH1	HDMI_ CEC	I2C1_ SCL	-	-	USART1_ TX	-	CAN2_TX	QUADSPI_ BK1_NCS	-	FMC_ SDNE1	DCMI_D5	-	EVENT OUT
В	PB7	-	-	TIM4_CH2	-	I2C1_ SDA	-	-	USART1_ RX	SPDIF_ RX0	-	-	-	FMC_NL	DCMI_ VSYNC	-	EVENT OUT
В	PB8	-	TIM2_CH1/ TIM2_ETR	TIM4_CH3	TIM10_ CH1	I2C1_ SCL	-	-	-	-	CAN1_RX	-	-	SDIO_D4	DCMI_D6	-	EVENT OUT
	PB9	-	TIM2_CH2	TIM4_CH4	TIM11_ CH1	I2C1_ SDA	SPI2_NSS/ I2S2_WS	SAI1_ FS_B	-	-	CAN1_TX	-	-	SDIO_D5	DCMI_D7	-	EVENT OUT
	PB10	-	TIM2_CH3	-	-	I2C2_ SCL	SPI2_SCK/ I2S2_CK	SAI1_ SCK_A	USART3_ TX	-	-	OTG_HS_ ULPI_D3	-	-	-	-	EVENT OUT
	PB11	-	TIM2_CH4	-	-	I2C2_ SDA	-	-	USART3_ RX	SAI2_ SD_A	-	-	-	-	-	-	EVENT OUT
	PB12	-	TIM1_BKIN	-	-	I2C2_ SMBA	SPI2_NSS/ I2S2_WS	SAI1_ SCK_B	USART3_ CK	-	CAN2_RX	OTG_HS_ ULPI_D5	-	OTG_ HS_ID	-	-	EVENT OUT
	PB13	-	TIM1_CH1N	-	-	-	SPI2_SCK/ I2S2_CK	-	USART3_ CTS	-	CAN2_TX	OTG_HS_ ULPI_D6	-	-	-	-	EVENT OUT
	PB14	-	TIM1_CH2N	-	TIM8_ CH2N	-	SPI2_MISO	-	USART3_ RTS	-	TIM12_CH1	-	-	OTG_ HS_DM	-	-	EVENT OUT
	PB15	RTC_ REFIN	TIM1_CH3N	-	TIM8_ CH3N	-	SPI2_MOSI /I2S2_SD	-	-	-	TIM12_CH2	-	-	OTG_ HS_DP	-	-	EVENT OUT



## **Table 11. Alternate function (continued)**

		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
ı	Port	sys	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	sys
	PC0	-	-	-	-	-	-	SAI1_ MCLK_B	=	-	-	OTG_HS_ ULPI_STP	=	FMC_ SDNWE	-	-	EVENT OUT
	PC1	-	-	-	-	-	SPI3_MOSI /I2S3_SD	SAI1_ SD_A	SPI2_MOSI /I2S2_SD	-	-	=	=	-	-	-	EVENT OUT
	PC2	-	-	-	-	-	SPI2_MISO	-	-	-	-	OTG_HS_ ULPI_DIR	-	FMC_ SDNE0	-	-	EVENT OUT
	PC3	-	-	-	-	-	SPI2_MOS II2S2_SD	-	-	-	-	OTG_HS_ ULPI_NXT	-	FMC_ SDCKE0	-	-	EVENT OUT
	PC4	-	-	-	-	-	I2S1_MCK	-	-	SPDIF_ RX2	-	-	-	FMC_ SDNE0	-	-	EVENT OUT
	PC5	-	-	-	-	-	-	-	USART3_RX	SPDIF_ RX3	-	-	-	FMC_ SDCKE0	-	-	EVENT OUT
	PC6	-	-	TIM3_CH1	TIM8_CH1	FMPI2C1 _SCL	I2S2_MCK	-	-	USART6 _TX	-	-	-	SDIO_D6	DCMI_D0	-	EVENT OUT
С	PC7	-	-	TIM3_CH2	TIM8_CH2	FMPI2C1 _SDA	SPI2_SCK/ I2S2_CK	I2S3_MCK	SPDIF_RX1	USART6 _RX	-	-	-	SDIO_D7	DCMI_D1	-	EVENT OUT
	PC8	TRACE D0	-	TIM3_CH3	TIM8_CH3	-	-	-	UART5_RTS	USART6 _CK	-	-	-	SDIO_D0	DCMI_D2	-	EVENT OUT
	PC9	MCO2	-	TIM3_CH4	TIM8_CH4	I2C3_ SDA	I2S_CKIN	-	UART5_CTS	-	QUADSPI_ BK1_IO0	-	-	SDIO_D1	DCMI_D3	-	EVENT OUT
	PC10	-	-	-	-	-	-	SPI3_SCK /I2S3_CK	USART3_TX	UART4_TX	QUADSPI_ BK1_IO1	-	-	SDIO_D2	DCMI_D8	-	EVENT OUT
	PC11	-	-	-	-	-	-	SPI3_ MISO	USART3_RX	UART4_RX	QUADSPI_ BK2_NCS	-	-	SDIO_D3	DCMI_D4	-	EVENT OUT
	PC12	-	-	-	-	I2C2_ SDA	-	SPI3_ MOSI/ I2S3_SD	USART3_CK	UART5_TX	-	-	-	SDIO_CK	DCMI_D9	-	EVENT OUT
	PC13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EVENT OUT
	PC14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EVENT OUT
	PC15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EVENT OUT

**Table 11. Alternate function (continued)** 

		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
	Port	sys	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	sys
	PD0	-	-	-	-	-	SPI4_MISO	SPI3_ MOSI/ I2S3_SD	-	-	CAN1_RX	-	-	FMC_D2	-	-	EVENT OUT
	PD1	-	-	-	-	-	-	-	SPI2_NSS/ I2S2_WS	-	CAN1_TX	-	-	FMC_D3	-	-	EVENT OUT
	PD2	-	-	TIM3_ETR	-	-	-	-	-	UART5_RX	-	-	-	SDIO_CMD	DCMI_ D11	-	EVENT OUT
	PD3	TRACE D1	-	-	-	-	SPI2_SCK/ I2S2_CK	-	USART2_ CTS	-	QUADSPI_ CLK	-	-	FMC_CLK	DCMI_ D5	-	EVENT OUT
	PD4	-	-	-	-	-	-	-	USART2_ RTS	-	-	-	-	FMC_NOE	-	-	EVENT OUT
	PD5	-	-	-	-	-	-	-	USART2_ TX	-	-	-	-	FMC_NWE	-	-	EVENT OUT
	PD6	-	-	-	-	-	SPI3_ MOSI/ I2S3_SD	SAI1_ SD_A	USART2_ RX	-	-	-	-	FMC_ NWAIT	DCMI_ D10	-	EVENT OUT
D	PD7	-	-	-	-	-	-	-	USART2_ CK	SPDIF_ RX0	-	-	-	FMC_NE1	-	-	EVENT OUT
	PD8	-	-	-	-	-	-	-	USART3_ TX	SPDIF_ RX1	-	-	-	FMC_D13	-	-	EVENT OUT
	PD9	-	-	-	-	-	-	-	USART3_ RX	-	-	-	-	FMC_D14	-	-	EVENT OUT
	PD10	-	-	-	-	-	-	-	USART3_ CK	-	-	-	-	FMC_D15	-	-	EVENT OUT
	PD11	-	-	-	-	FMPI2C1 _SMBA	-	-	USART3_ CTS	-	QUADSPI_ BK1_IO0	SAI2_SD_A	-	FMC_A16	-	-	EVENT OUT
	PD12	-	-	TIM4_CH1	-	FMPI2C1 _SCL	-	-	USART3_ RTS	-	QUADSPI_ BK1_IO1	SAI2_FS_A	-	FMC_A17	-	-	EVENT OUT
	PD13	-	-	TIM4_CH2	-	FMPI2C1 _SDA	-	-	-	-	QUADSPI_ BK1_IO3	SAI2_SCK_A	-	FMC_A18	-	-	EVENT OUT
	PD14	-	-	TIM4_CH3	-	FMPI2C1 _SCL	-	-	-	SAI2_ SCK_A	-	-	-	FMC_D0	-	-	EVENT OUT
	PD15	-	-	TIM4_CH4	-	FMPI2C1 _SDA	-	-	-	-	-	-	-	FMC_D1	-	-	EVENT OUT





## **Table 11. Alternate function (continued)**

		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
	Port	sys	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	sys
	PE0	-	=	TIM4_ETR	-	-	-	-	-	=	-	SAI2_ MCLK_A	=	FMC_ NBL0	DCMI_D2	-	EVENT OUT
	PE1	-	-	-	-	-	-	-	-	-	-	-	-	FMC_ NBL1	DCMI_D3	-	EVENT OUT
	PE2	TRACE CLK	-	-	-	-	SPI4_SCK	SAI1_ MCLK_A	-	-	QUADSPI_ BK1_IO2	-	-	FMC_A23	-	-	EVENT OUT
	PE3	TRACE D0	-	-	-	-	-	SAI1_ SD_B	-	-	-	-	-	FMC_A19	-	-	EVENT OUT
	PE4	TRACE D1	-	-	-	-	SPI4_NSS	SAI1_ FS_A	-	-	-	-	-	FMC_A20	DCMI_D4	-	EVENT OUT
	PE5	TRACE D2	-	-	TIM9_CH1	-	SPI4_MISO	SAI1_ SCK_A	-	-	-	-	-	FMC_A21	DCMI_D6	-	EVENT OUT
	PE6	TRACE D3	-	-	TIM9_CH2	-	SPI4_MOSI	SAI1_ SD_A	-	-	-	-	-	FMC_A22	DCMI_D7	-	EVENT OUT
	PE7	-	TIM1_ETR	-	-	-	-	-	-	UART5_RX	-	QUADSPI_ BK2_IO0	-	FMC_D4	-	-	EVENT OUT
E	PE8	-	TIM1_CH1N	-	-	-	-	-	-	UART5_TX	-	QUADSPI_ BK2_IO1	-	FMC_D5	-	-	EVENT OUT
	PE9	-	TIM1_CH1	-	-	-	-	-	-	-	-	QUADSPI_ BK2_IO2	-	FMC_D6	-	-	EVENT OUT
	PE10	-	TIM1_CH2N	-	-	-	-	-	-	-	-	QUADSPI_ BK2_IO3	-	FMC_D7	-	-	EVENT OUT
	PE11	-	TIM1_CH2	-	-	-	SPI4_NSS	-	-	-	-	SAI2_ SD_B	-	FMC_D8	-	-	EVENT OUT
	PE12	-	TIM1_CH3N	-	-	-	SPI4_SCK	-	-	-	-	SAI2_ SCK_B	-	FMC_D9	-	-	EVENT OUT
	PE13	-	TIM1_CH3	-	-	-	SPI4_MISO	-	-	-	-	SAI2_ FS_B	-	FMC_D10	-	-	EVENT OUT
	PE14	-	TIM1_CH4	-	-	-	SPI4_MOSI	-	-	-	-	SAI2_ MCLK_B	-	FMC_D11	-	-	EVENT OUT
	PE15	-	TIM1_BKIN	-	-	-	-	-	-	-	-	-	-	FMC_D12	-	-	EVENT OUT

**Table 11. Alternate function (continued)** 

		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
	Port	sys	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	SYS
	PF0	-	-	-	-	I2C2_ SDA	-	-	-	-	-	-	-	FMC_A0	-	-	EVENT OUT
	PF1	-	-	-	-	I2C2_ SCL	-	-	-	-	-	-	-	FMC_A1	-	-	EVENT OUT
	PF2	-	-	-	-	I2C2_ SMBA	-	-	-	-	-	-	-	FMC_A2	-	-	EVENT OUT
	PF3	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A3	-	-	EVENT OUT
	PF4	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A4	-	-	EVENT OUT
	PF5	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A5	-	-	EVENT OUT
	PF6	-	-	-	TIM10_ CH1	-	-	SAI1_ SD_B	-	-	QUADSPI_ BK1_IO3	-	-	-	-	-	EVENT OUT
	PF7	-	-	-	TIM11_ CH1	-	-	SAI1_ MCLK_B	-	-	QUADSPI_ BK1_IO2	-	-	-	-	-	EVENT OUT
F	PF8	-	-	-	-	-	-	SAI1_ SCK_B	-	-	TIM13_CH1	QUADSPI_ BK1_IO0	-	-	-	-	EVENT OUT
	PF9	-	-	-	-	-	-	SAI1_ FS_B	-	-	TIM14_CH1	QUADSPI_ BK1_IO1	-	-	-	-	EVENT OUT
	PF10	-	-	-	-	-	-	-	-	-	-	-	-	-	DCMI_ D11	-	EVENT OUT
	PF11	-	-	-	-	-	-	-	-	-	-	SAI2_SD_B	-	FMC_ SDNRAS	DCMI_ D12	-	EVENT OUT
	PF12	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A6	-	-	EVENT OUT
	PF13	-	-	-	-	FMPI2C1 _SMBA	-	-	-	-	-	-	-	FMC_A7	-	-	EVENT OUT
	PF14	-	-	-	-	FMPI2C1 _SCL	-	-	-	-	-	-	-	FMC_A8	-	-	EVENT OUT
	PF15	-	-	-	-	FMPI2C1 _SDA	-	-	-	-	-	-	-	FMC_A9	-	-	EVENT OUT



## **Table 11. Alternate function (continued)**

		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
	Port	SYS	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	sys
	PG0	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A10	-	-	EVENT OUT
	PG1	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A11	-	-	EVENT OUT
	PG2	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A12	-	-	EVENT OUT
	PG3	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A13	-	-	EVENT OUT
	PG4	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A14/ FMC_BA0	-	-	EVENT OUT
	PG5	-	-	-	-	-	-	-	-	-	-	-	-	FMC_A15/ FMC_BA1	-	-	EVENT OUT
	PG6	-	-	-	-	-	-	-	-	-	-	QUADSPI_ BK1_NCS	-	-	DCMI_ D12	-	EVENT OUT
	PG7	-	-	-	-	-	-	-	-	USART6_C K	-	-	-	FMC_INT	DCMI_ D13	-	EVENT OUT
G	PG8	-	-	-	-	-	-	-	SPDIFRX_ IN2	USART6_R TS	-	-	-	FMC_ SDCLK	-	-	EVENT OUT
	PG9	-	-	-	-	-	-	-	SPDIFRX_ IN3	USART6_R X	QUADSPI_ BK2_IO2	SAI2_FS_B	-	FMC_NE2/ FMC_NCE3	DCMI_ VSYNC <sup>(1)</sup>	-	EVENT OUT
	PG10	-	-	-	-	-	-	-	-	-	-	SAI2_SD_B	-	FMC_NE3	DCMI_D2	-	EVENT OUT
	PG11	-	-	-	-	-	-	SPI4_ SCK	SPDIFRX_ IN0	-	-	-	-	-	DCMI_D3	-	EVENT OUT
	PG12	-	-	-	-	-	-	SPI4_ MISO	SPDIFRX_ IN1	USART6_R TS	-	-	-	FMC_NE4	-	-	EVENT OUT
	PG13	TRACE D2	-	-	-	-	-	SPI4_ MOSI	-	USART6_C TS	-	-	-	FMC_A24	-	-	EVENT OUT
	PG14	TRACE D3	-	-	-	-	-	SPI4_ NSS	-	USART6_T	QUADSPI_ BK2_IO3	-	-	FMC_A25	-	-	EVENT OUT
	PG15	-	-	-	-	-	-	-	-	USART6_C TS	-	-	-	FMC_ SDNCAS	DCMI_ D13	-	EVENT OUT

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**Table 11. Alternate function (continued)** 

		AF0	AF1	AF2	AF3	AF4	AF5	AF6	AF7	AF8	AF9	AF10	AF11	AF12	AF13	AF14	AF15
	Port	sys	TIM1/2	TIM3/4/5	TIM8/9/10/11 CEC	I2C1/2/3 /4/CEC	SPI1/2/3/4	SPI2/3/4/ SAI1	SPI2/3/ USART1/2/3 /UART5/ SPDIFRX	SAI/ USART6/ UART4/5/ SPDIFRX	CAN1/2 TIM12/13/ 14/ QUADSPI	SAI2/ QUADSPI/ OTG2_HS/ OTG1_FS	OTG1_FS	FMC/ SDIO/ OTG2_FS	DCMI	-	sys
	PH0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EVENT OUT
П	PH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EVENT OUT

<sup>1.</sup> The DCMI\_VSYNC alternate function on PG9 is only available on silicon revision 3.