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48.2.4 Peripheral Control and State functions.....

60.2 SPI Firmware driver API description

62.2.7 Time One P

1 Acronyms and definitions

Table 1: Acronyms and definitions

Acronym	Definition
ADC	Analog-to-

IP/Module	STM32F405xx	STM32F415xx	STM32F407xx	STM32F417xx	STM32F427xx	STM32F437xx

Overview

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2.8 File inclusion model

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Overview

Overview of HAL drivers

Overview

HAL_CAN_ERROR_ACK	Acknowledgment error
HAL_CAN_ERROR_BR	Bit recessive
HAL_CAN_ERROR_BD	LEC dominant
HAL_CAN_ERROR_CRC	

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HAL CAN Generic Driver

HAL CAN Generic Driver

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HAL CEC Generic Driver

HAL CEC Generic Driver

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HAL CRC Generic Driver

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10.2.8 Peripheral State functions

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HAL CRYP Gene

Return value:

- The: new state of __FLAG__ (TRUE or FALSE).

[__HAL_CRYP_GET_IT](#)

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HAL_CRYPEx_AESGCM_Encrypt_DMA

Function Name

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HAL CRYP Exte25

HAL DAC Generic Driver

HAL DAC Generic Driver

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DAC Data Alignment

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13 HAL DAC Extension Driver

13.1 DACEx Firmware driver API description

13.1.1

HAL DAC Extension Driver

DAC_LFSRUNMASK_BITS11_0	Unmask DAC channel LFSR bit[11:0] for noise wave generation
DAC_TRIANGLEAMPLITUDE_1	Select max triangle amplitude of 1

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14.2.3 IO operation functions

This section provides functions allowing to:

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DCMI_IT_LINE Line interrupt

DCMI MODE JPEG

DCMI_JPEG_DISABLE Mode JPEG Disabled

DCMI_JPEG_ENABLE Mode JPEG Enabled

DCMI PIXCK Polarity

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16.1.3 DFSDM_Channel_SerialInterfaceTypeDef

Data Fields

- *uint32_t Type*
- *uint32_t SpiClock*

Field Documentation

- *uint32_t DFSDM_Channel_SerialInterfaceTypeDef::Type*
SPI or Manchester modes. This parameter can be a value of
DFSDM_Channel_SerialInterfaceType
- *uint32_t DFSDM_Channel_SerialInterfaceTypeDef::SpiClock*

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Field Documentation

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HAL DFSDM Generic Driver

HAL_DFSDM_ChannelPollF_.4 16rSc(l)d TET/G/F0 0 1 25299.3354.3 Tm/G

HAL_DFSDM_FilterDeInit

Function Name

HAL_StatusTypeDef HAL_DFSDM_FilterDeInit

HAL DFSD

- | | |
|---------------|--|
| Parameters | • hdfsdm_filter: : DFSDM filter handle. |
| Return values | • DFSDM: filter error code. |

HAL DMA2D Generic Driver

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18.3 DMA Firmware driver defines

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HAL_DMAEx_MultiBufferStart_IT

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HAL DSI Generic Driver

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HAL DSI Generic Driver

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HAL DSI Generic Driver

HAL DSI Generic Driver

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HAL ETH Generic Driver

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HAL ETH Generic Driver

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HAL FMPI2C Generic Driver

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HAL GPIO Generic Driver

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- *HAL_HASH_SHA1_Finish()*

HAL_HASH_IRQHandler

Function Name

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HAL I2C Generic Driver

HAL I2C Generic Driver

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HAL_I2C_IsDeviceReady

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HAL I2C Extension Driver

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HAL I2S Generic Driv

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HAL IRDA Generic Driver

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HAL IRDA Generic Driver

_HAL_IRDA_CLEAR_FLAG**Return value:**

- The: new state of __FLAG__ (TRUE or FALSE).

Description:

- Clears the specified IRDA pending flag.

Parameters:

- __HANDLE__: specifies the USART Handle. This parameter can be USARTx where x: 1, 2, 3, 4, 5, 6, 7 or 8 to select the USART or UART peripheral.
- __FLAG__: specifies the flag to check. This parameter can be any combination of the following values:
 - IRDA_FLAG_TC: Transmission Complete flag.
 - IRDA_FLAG_RXNE: Receive data register not empty flag.

Return value:

- None

Notes:IR8 /P </MCID 8/Lang (en-US)>> B

- PE (Parity error), FE (Framing error), NE (Noise error), ORE (OverRun error) and IDLE (Idle line detected)

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HAL IWDG Generic Driver

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HAL LPTIM Generic Driver

Field Documentation

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HAL_LPTIM_Counter_Stop_IT

HAL LPTIM Generic Driver

HAL LTDC Ge

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HAL LTDC Generic Driver

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Return values

- **HAL:** status

HAL_NOR_WriteOperation_Enable

Function Name

**HAL_StatusTypeDef HAL_NOR_WriteOperation_Enable
(NOR_HandleTypeDef * hnor)**

Function Description

Enables dynamically NOR write operation.

Parameters

- **hnor:** pointer to the NOR handle

Return values

- **HAL:** status

HAL_NOR_WriteOperation_Disable

Function Name

HAL_StatusTypeDef HAL_NOR_WriteOperation_Disable(

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HAL PCD Generic Driver

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HAL PCD E

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Wake-up pin configuration

- Wake-up pin is used to wake up the system from Standby mode. This pin is forced in input pull

HAL PWR Generic Driver

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HAL PWR Generic Driver

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HAL PWR Generic Driver

HAL PWR Extension Driver

- The new voltage scale is active only when the PLL is ON.

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HAL_QSPI_Receive_IT

HAL QSPI Generic Driver

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HAL QSPI Generic Driver

49 HAL RCC Generic Driver

49.1 RCC Firmware driver registers structures

49.1.1 RCC_OscInitTypeDef

Data Fields

- *uint32_t OscillatorType* (r)yp10(e)TJETBT/F1 0 Tf1 0 0 1 17256.13198 Tm[()] TJETBTMC /P AMCID

`_HAL_RCC_USART1_CLK_DISABLE`
`_HAL_RCC_USART6RT1_CLK_DISAB`

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HAL RCC Extension Driver

`_HAL_RCC_TIM13_RELEASE_RESET`
`_HAL_RCC_TIM14IM13_RELEASE_RESET`

APB2 Force Release Reset

[_HAL_RCC_TIM8_FORCE_RESET](#)

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`__HAL_RCC_GET_CLK48_SOURCE`

Description:

- Macro to Get the CLK48 clock.

Return value:

- The: clock source can be one of the following values:
 - `RCC_CLK48CLKSOURCE_PLLQ`: PLL VCO Output divided by PLLQ used as CLK48 clock.
 - `RCC_CLK48CLKSOURCE_PLLSAIP`: PLLSAI VCO Output divided by PLLSAIP used as CLK48 clock.

`__HAL_RCC_SDIO_CONFIG`

Description:

- Macro to configure the SDIO clock.

Parameters:

- `__SOURCE__`: specif:BT6098.28 Tm0 g0 G[

HAL RCC Extension Driver

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HAL_RNG_GenerateRandomNumber_IT

Function Name

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HAL RTC Generic Driver

- **4444**

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HAL_RTCEx_SetSmoothCalib

HAL_RTCEx_EnableBypassShadow

process.

Parameters:

- HANDLE: specifies the

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RTC Tamper Pull Up Definitions

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Note:If master clock MCLK_x pin is declared as an output, the frame length should be

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SAI Error Code

[HAL_SAI_ERROR_NONE](#)

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HAL SDRAM Generic Driver

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HAL SD Generic Driver

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HAL SD Generic Driver

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HAL SMARTCARD Generic Driver

Parameters

- **hspdif:** SPDIFRX handle
- **pData:**

HAL SPDI

HAL SPI Generic Driver

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HAL SPI Generic Driver

Return values

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HAL TIM Generic Driver

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HAL TIM Generic Driver

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TIM_CLOCKSOURCE_ITR2

TIM_CLOCKSOURCE_ITR3

TIM DMA Burst Length**TIM_DMABURSTLENGTH_1TRANSFER**

HAL TIM Extension Driver

64 HAL UART Generic Driver

64.1 UART Firmware driver registers structures

64.1.1 UART_InitTypeDef

Data Fields

- *uint32_t BaudRate*
- *uint32_t WordLength*
- *uint32_t StopBits*
- *uint32_t Parity*
- *uint32_t Mode*
- *uint32_t HwFlowCtl*
-

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HAL UART Generic Driver

64.2.5 Peripheral State and Errors functions

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HAL UART Generic Driver

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031225 757.28 235.37 430.00ver~ HALUART 5.30.711 0 0 1 94.944 56.28 68.05 10000.00f 2000f 21000 f002f 21000 f002f 757.29 235.37 430.00ver~ HALUART 5.30.711 0 0 1 94.944 56.28 68.05 TH031 554f 2000f 60425 757.29 235.37 430.00ver~ HALUART 5.30.711 0 0 1 94.944 56.28 68.05 TH030 6300f 21000 f002f 756.01 7771 0 174 1 70.4° 2.0999f 756.01 7771 0 4150s.54° 2.001 756.01 7771 0 4150s.54° n3.65f65.01 7771 0 1 94.944 56.28 68.05

HAL

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HAL USART Generic Driver

HAL USART Generic Driver

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HAL USART Generic Driver

- None

`_HAL_USART_CLEAR_FEFLAG`

Description:

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FAQs

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