SYSTIC CDD

for

LCD\_LED\_UART

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**Contents**

[**1.** **Global Variables** 1](#_Toc36228983)

[**2.** **Configurations** 1](#_Toc36228984)

[**3.** **SYSTIC APIs** 2](#_Toc36228985)

# **Global Variables**

**N/A**

# **Configurations**

|  |  |
| --- | --- |
| **Name** | SYSTIC\_PRESCALER\_INIT |
| **Description** | To configure the SYSTIC prescaler |
| **Element** | SYSTIC\_PRESCALER\_NONE  SYSTIC\_PRESCALER\_BY8 |
| **Range** | 1 – 1/8 |

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| --- | --- |
| **Name** | SYSTIC\_EXCEPTION\_INIT |
| **Description** | To configure the SYSTIC exception |
| **Element** | SYSTIC\_EXCEPTION\_EN  SYSTIC\_EXCEPTION\_DIS |
| **Range** | 0 - 1 |

1. **SYSTIC APIs**

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| --- | --- | --- | --- |
| **Component Name** | SYSTIC | | |
| **API Name** | STD\_ERROR SYSTICK\_u8Init(void) | | |
| **Return type** | It’s u8 Error\_Status, it returns OK or NOT\_OK   |  |  | | --- | --- | | OK | 0 | | NOT\_OK | 1 | | | |
| **Input signal** | N/A | Output signal | N/A |
| **Description** | The functionality of this API is to enable/disable SYSTIC exception and sets the prescaler value based on the default configurations . | | |
| **Type (Public/Private)** | Public | | |

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| --- | --- | --- | --- |
| **Component Name** | SYSTIC | | |
| **API Name** | STD\_ERROR SYSTICK\_u8SetTime(u32 Copy\_Time\_us) | | |
| **Return type** | It’s u8 Error\_Status, it returns OK or NOT\_OK   |  |  | | --- | --- | | OK | 0 | | NOT\_OK | 1 | | | |
| **Input signal** | Copy\_Time\_us :   * Type: u32 * Description: Time for the systic to count in us | Output signal | N/A |
| **Description** | The functionality of this API is to set the time for the SysTick timer in microseconds . | | |
| **Type (Public/Private)** | Public | | |

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| --- | --- | --- | --- |
| **Component Name** | SYSTIC | | |
| **API Name** | STD\_ERROR SYSTICK\_u8SetPrescaler(u32 Copy\_Prescaler) | | |
| **Return type** | It’s u8 Error\_Status, it returns OK or NOT\_OK   |  |  | | --- | --- | | OK | 0 | | NOT\_OK | 1 | | | |
| **Input signal** | Copy\_Prescaler :   * Type: u32 * Description: Systick prescaler value  [SYSTIC\_PRESCALER\_NONE - SYSTIC\_PRESCALER\_BY8] | Output signal | N/A |
| **Description** | The functionality of this API is to change the prescaler. | | |
| **Type (Public/Private)** | Public | | |

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| --- | --- | --- | --- |
| **Component Name** | SYSTIC | | |
| **API Name** | STD\_ERROR SYSTICK\_u8Start(void) | | |
| **Return type** | It’s u8 Error\_Status, it returns OK or NOT\_OK   |  |  | | --- | --- | | OK | 0 | | NOT\_OK | 1 | | | |
| **Input signal** | N/A | Output signal | N/A |
| **Description** | The functionality of this API is to start the Systick timer. | | |
| **Type (Public/Private)** | Public | | |

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| --- | --- | --- | --- |
| **Component Name** | SYSTIC | | |
| **API Name** | STD\_ERROR SYSTICK\_u8Stop(void) | | |
| **Return type** | It’s u8 Error\_Status, it returns OK or NOT\_OK   |  |  | | --- | --- | | OK | 0 | | NOT\_OK | 1 | | | |
| **Input signal** | * N/A | **Input signal** | N/A |
| **Description** | The functionality of this API is to stop the Systick timer. | | |
| **Type (Public/Private)** | Public | | |

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| --- | --- | --- | --- |
| **Component Name** | SYSTIC | | |
| **API Name** | STD\_ERROR SYSTICK\_u8SetCallback(void(\*Copy\_ptr)(void)) | | |
| **Return type** | It’s u8 Error\_Status, it returns OK or NOT\_OK   |  |  | | --- | --- | | OK | 0 | | NOT\_OK | 1 | | | |
| **Input signal** | Copy\_ptr :   * Type: pointer to function that takes void returns void * Description: The function to run when the systic finishes counting | Output signal | N/A |
| **Description** | The functionality of this API is to set the Callback function for the Systic timer . | | |
| **Type (Public/Private)** | Public | | |

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| --- | --- | --- | --- |
| **Component Name** | SYSTIC | | |
| **API Name** | void SysTick\_Handler(void) | | |
| **Return type** | N/A | | |
| **Input signal** | N/A | Output signal | N/A |
| **Description** | The functionality of this API is to act as an Interrupt for the SysTick timer which in return calls the call back function. | | |
| **Type (Public/Private)** | Public | | |