

NUC029FAE Board Support Package Directory Introduction

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Directory Information

Document	Driver reference manual and revision history.
Library	Driver header and source files.
SampleCode	Driver sample code.

Document Information

NuMicro NUC029FAE CMSIS BSP Revision History.pdf	This document shows the revision history of NUC029FAE BSP
NuMicro NUC029FAE Driver Reference Guide.chm	This document describes the usage of drivers in NUC029FAE BSP

Library Information

CMSIS	Cortex™ Microcontroller Software Interface Standard (CMSIS) V3.01 definitions by ARM® Corp.
Device	CMSIS compliant device header file.
StdDriver	All peripheral driver header and source files.

Sample Code Information

Hard_Fault_Sample	Show hard fault information when hard fault happened.
NuTiny-NUC029FAE	Sample code for NUC029FAE Tiny Board.
RegBased	Sample code implemented without access standard library but access registers directly.
Semihost	Show how to print and get character with IDE console window.
StdDriver	Demonstrate the usage of NUC029FAE MCU peripheral driver APIs.
Template	A project template for NUC029FAE MCU.

\SampleCode\NuTiny-NUC029FAE

LED	Toggle P2.4 to turn on / off the board LED.
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\SampleCode\RegBased

ACMP	Demonstrate Analog comparator (ACMP) comparison by comparing CPP0 (P1.5) with VBG voltage and shows the result on UART console.
ACMP_TriggerTimerCapture	Show how to use Analog comparator (ACMP) state change to trigger timer capture function. P1.5 is used as comparator positive input and VBG as negative input.
ADC_Convert	Demonstrate ADC function by repeatedly convert the input of ADC channel 5 (P1.5) and shows the result on UART console.
FMC_RW	Show FMC read flash IDs, erase, read, and write functions.
GPIO	Use GPIO driver to control the GPIO pin direction, control their high/low state, and how to use GPIO interrupts.
I2C_Interrupt_EEPROM	Read/write EEPROM via I ² C interface.
PWM_DoubleBuffer	Demonstrate the PWM double buffer feature.
SPI_LoopBack	Demonstrate SPI function by connect MOSI (P0.5) with MISO (P0.6)
Timer_Periodic	Use the timer periodic mode to generate timer interrupt every 1 second.
Timer_TriggerCountingMode	Use the timer pin P3.2 to demonstrate timer trigger counting mode function. And displays the measured input frequency to UART console.
UART_IrDA	Show how to transmit and receive UART data in UART IrDA mode.
UART_TxRx_Function	Transmit and receive data from PC terminal through RS232 interface.

WDT_Polling	Use polling mode to check WDT time-out state and reset WDT after time out occurs.
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\SampleCode\StdDriver

ACMP	Demonstrate Analog comparator (ACMP) comparison by comparing CPP0 (P1.5) with VBG voltage and show the result on UART console.
ADC_Compare	Demonstrate ADC conversion and comparison function by monitoring the conversion result of channel 0.
FMC_IAP	This sample code includes LDROM image (fmc_ld_iap) and APROM image (fmc_ap_main). It shows how to branch between APROM and LDROM. To run this sample code, the boot mode must be "Boot from APROM with IAP".
FMC_RW	Show FMC read flash IDs, erase, read, and write functions.
GPIO	Use GPIO driver to control the GPIO pin direction, control their high/low state, and how to use GPIO interrupts.
I2C_Interrupt_EEPROM	Read/write EEPROM via I2C interface.
PWM_DeadZone	Demonstrate the dead-zone feature with PWM.
SPI_LoopBack	Demonstrate SPI function by connect MOSI (P0.5) with MISO (P0.6)
SYS	Demonstrate how to get PDID, get and clear reset source, configure BOD, and output system clock to CKO pin with the system clock / 4 frequency.
Timer_Delay	Demonstrate the usage of TIMER_Delay() API to generate a 1 second delay.
Timer_EventCounter	Use pin P3.4 to demonstrates timer event counter function.
Timer_FreeCountingMode	Use the timer pin P3.2 to demonstrate timer free counting mode

	function. Also display the measured input frequency to UART console.
Timer_ToggleOut	Demonstrate the timer 0 toggle out function on pin P3.4.
UART_IrDA	Transmit and receive UART data in UART IrDA mode.
UART_TxRx_Function	Transmit and receive data from PC terminal through RS232 interface.
WDT_Wakeup	Use WDT to wake up system from Power-down mode periodically.

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