

## Release Notes for SPC2168 Standard Peripherals Library Drivers

**V1.6.0/ 31- Dec -2021**

### Main Changes

#### 1. Bug Fix

- gpio.c
  - Modify GPIO\_ResetAllPin()
- comp.h/.c
  - Modify COMP\_Init(), add code to enable bandgap
  - Modify COMP\_EnableDAC(), add code to enable bandgap
  - Modify COMP\_DACBuffer0Init() and COMP\_DACBuffer1Init(), add code to enable bandgap
- adc.c
  - Modify ADC\_SetSampleAndConvertTime()
  - Modify ADC\_PowerUp(), add code to enable bandgap
- pga.c
  - Modify PGA\_DifferentialInit(), add code to enable bandgap
- clock.c
  - Modify CLOCK\_ConfigurePLL()
- timer.h
  - Delete TIMER\_EnableCounterHold() and TIMER\_DisableCounterHold()
- uart.h
  - Modify UART\_ClearRxFIFO() and UART\_ClearTxFIFO()
- spc2168\_reg.h/spc2168\_bitfield.h
  - Reserve TMRCTL.HOLD register bit-field
  - Modify the width of UARTFOR.BYTECNT register bit-field

#### 2. Other Change

- pga.c
  - Add PGA\_EnableSensorMode() and PGA\_DisableSensorMode()
- flash.h/.c
  - Add FLASH\_EraseBlock()
  - Modify FLASH\_ProgramWord()
  - Add macro definition *FLASH\_CMD\_ERASE\_BLOCK*
- clock.c
  - Add note for CLOCK\_TrimPLL()
  - Modify CLOCK\_Init()
- adc.h/.c
  - Modify ADC\_CalculatePreciseTemperature() and ADC\_CalculateTemperature()
  - Add ADC\_EnableBandgap() and ADC\_DisableBandgap()
- spc2168\_reg.h/spc2168\_bitfield.h
  - Reserve XOCTL.FREQSEL register bit-field

- Rename XOCTL.FEEDXOUT register bit-field to XOCTL. FEEDXIO
- `crc.h`
  - Modify `CRC_ModeEnum`
- `gpio.h`
  - Modify the post-fix of const number
- Update `SPC2168.svd`, `SPC2168.SFR`, `SPC2168.FLM` and `SPC2168_NVR.FLM` files
- `iar/startup_spc2168.s`
  - Add code comment
- Example Code
  - Modify `Flash_M_Access_User`
  - Modify `Flash_User_FuncWrap`
  - Modify `AES/main.c`
  - Modify `TSenser/main.c`

**V1.5.0/ 26-May-2021****Main Changes**

- Spc2168.h
  - Add macro function READ\_BITS().
  - Add macro function WRITE\_FIELD(), READ\_FIELD() and CLEAR\_FIELD().
  - Add macro function POSITION\_VAL().
  - Add macro function UNUSED().
- flash.c
  - Update function FLASH\_SetTiming().
- i2c.c
  - Update function I2C\_MasterWrite(), I2C\_MasterRead(), I2C\_MasterBulkWrite() and I2C\_MasterBulkRead().
  - Update function I2C\_SlaveBulkWrite().
- clock.c
  - Update CLOCK\_Init(), CLOCK\_InitWithRCO(), CLOCK\_ConfigurePLL() and CLOCK\_ConfigurePLLWithRCO().
  - Update CLOCK\_HCLKSelEnum, CLOCK\_RefSelEnum definitions.
- comp.c
  - Update function COMP\_Init() and COMP\_SetFilterWindowTimeNs().
- delay.h/delay.c
  - Update Delay method control macros.
- ssp.c
  - Update function SSP\_MasterB2BTransceive() and SSP\_SlaveTransceive().
- ecap.c
  - Update function ECAP\_CaptureModelInit().
  - Rename function ECAP\_SetInputPin() to ECAP\_SetInput().
  - Update function ECAP\_SetInput().
- pwm.c
  - Update function PWM\_ComplementaryPairChannellInit() and PWM\_SingleChannellInit().
- Demo code
  - Update ECAP\_Continue\_Absolute\main.c
  - Update ECAP\_Continue\_Delta\main.c
  - Update ECAP\_Oneshot\_Absolute\main.c
  - Update UART\_TX\_and\_CheckRX\main.c
  - Update UART\_RX\_and\_SentBack\main.c
  - Update SSP\_Master\_B2B\_TxRx\_Polling\main.c
  - Update SSP\_Master\_TxRx\_INT\main.c
  - Update SSP\_Master\_TxRx\_Polling\main.c
  - Update SSP\_Slave\_B2B\_TxRx\_Polling\main.c
  - Update SSP\_Slave\_TxRx\_INT\main.c
  - Update SSP\_Slave\_TxRx\_Polling\main.c
  - Update PWM\_Trigger\_ADC\_Sample\main.c
  - Update PWM\_Current\_Protect\_Trigger\_TZ\main.c

- Update PGA\_Calibration\main.c
- Update I2C\_Master\_Polling\_TxRx\main.c
- Update I2C\_Master\_Bulk\_Polling\_TxRx\main.c
- Update I2C\_Master\_INT\_Rx\main.c
- Update GPIO\_Edge\_Detect\main.c
- Update DAC\main.c

**V1.4.0/ 06-May-2020****Main Changes**

- **adc.h**
  - Update comments on `ADC_GetResult()`, `ADC_GetTrimResult1()` and `ADC_GetTrimResult2()`.
- **clock.h/.c**
  - Add macro definition `__RCO0_CLOCK` and `__RCO1_CLOCK` for RCO clocks.
  - Remove macro definition `__RCO_CLOCK` and `__XO_CLOCK`.
  - Update 3 functions `CLOCK_Init()`, `CLOCK_InitWithRCO()` and `CLOCK_GetModuleClock()` for configuring WDT clock.
- **comp.h**
  - Fix bug in function `COMP_Init()`.
  - Fix bug in function `COMP_ClearAllFilterOutputStatus()`.
  - Rename function `COMP_EnableOutputInvert()` to `COMP_SetOutputActiveLow()`.
  - Rename function `COMP_DisableOutputInvert()` to `COMP_SetOutputActiveHigh()`.
- **pwm.h**
  - Rename function `PWM_SetTimeEventTiming()` to `PWM_SetTimeEventIntTiming()`.
  - Rename function `PWM_SetTimeEventPeriod()` to `PWM_SetTimeEventIntPeriod()`.
  - Add member value `ON_SYNC_PERIOD` to definition `PWM_LoadTimingEnum`.
- **system\_spc2168.c**
  - Remove macro definition `__SYSTEM_CLOCK`.
- **timer.h**
  - Add function `TIMER_SetCounterValue()`.
- **wdt.c**
  - Update function `WDT_Init()` for enabling watchdog halted-run and lockup-run mode.
- **dma.h/.c**
  - Update function `DMA_EnableTransferCompleteInt()`.
  - Fix bug in function `DMA_DisableTransferCompleteInt()`.
  - Update function `DMA_EnableErrorInt()`.
  - Fix bug in function `DMA_DisableErrorInt()`.
  - Update function `DMA_EnableChannelTransfer()`.
  - Remove definition `DMA_SourcePerEnum` and `DMA_DestinationPerEnum`.
  - Add definition `DMA_PeripheralEnum`.
  - Replace functions `DMA_SetHandShakeWithSSPTx()`, `DMA_SetHandShakeWithSSPRx()`, `DMA_SetHandShakeWithUARTTx()` and `DMA_SetHandShakeWithUARTRx()` with function `DMA_SetHandShakeWithPeripheral()`.

**V1.3.0/ 18-November-2019****Main Changes**

- **adc.c**
  - Update function `ADC_ConfigureSimultaneousTiming()`.
- **comp.c**
  - Update function `COMP_DACBuffer0Init()`.
  - Update function `COMP_DACBuffer1Init()`.
- **ecap.h**
  - Rename definition `ECAP_EvtEnum` to `ECAP_EventEnum`.
  - Update function `ECAP_APWMSetDuty()`.
- **flash.c**
  - Update function `FLASH_WriteProtect()`.
- **pwm.h**
  - Update macro function `PWM_SetOneShotTripEvent()`.
  - Update macro function `PWM_SetCBCTripEvent()`.
  - Update member values of definition `PWM_TripActionEnum`.
- **system.h**
  - Rename definition `SYSTEM_ResetEvtEnum` to `SYSTEM_ResetEventEnum`.
- **wdt.h**
  - Rename macro function `WDT_GetRawIntFlag()` to `WDT_GetIntRawFlag()`.
- **spc1068\_reg.h/spc1168\_bitfield.h**
  - Update `UARTISR.XMITIR` bit-field macro definitions.
  - Remove `UARTFCR.TRAIL` bit-field.
  - Rename `DMACHCTL2.FIFODAV` to `DMACHCTL2.FIFOEMPTY`.
- Add FreeRTOS middle-wares.

**V1.2.0/ 18-July-2019****Main Changes**

- aes.h
  - Rename function AES\_EnableInputFIFOFullInt() to AES\_EnableInputFullInt().
  - Rename function AES\_DisableInputFIFOFullInt() to AES\_DisableInputFullInt().
  - Rename function AES\_EnableOutputFIFOEmptyInt() to AES\_EnableOutputEmptyInt().
  - Rename function AES\_DisableOutputFIFOEmptyInt() to AES\_DisableOutputEmptyInt().
  - Rename function AES\_ClearInputFIFOFullInt() to AES\_ClearInputFullInt().
  - Rename function AES\_ClearOutputFIFOEmptyInt() to AES\_ClearOutputEmptyInt().
  - Rename function AES\_GetInputFIFOFullIntFlag() to AES\_GetInputFullIntFlag().
  - Rename function AES\_GetOutputFIFOEmptyIntFlag() to AES\_GetOutputEmptyIntFlag().
  - Rename function AES\_GetInputFIFOFullIntRawFlag() to AES\_GetInputFullIntRawFlag().
  - Rename function AES\_GetOutputFIFOEmptyIntRawFlag() to AES\_GetOutputEmptyIntRawFlag().
  - Rename function AES\_IsInputFIFOFull() to AES\_IsInputFull().
  - Rename function AES\_IsOutputFIFOReady() to AES\_IsOutputReady().
  - Rename function AES\_IsOutputFIFOEmpty() to AES\_IsOutputEmpty().
- comp.h
  - Rename function COMP\_SetFilterClkDiv() to COMP\_SetFilterClockDiv().
- i2c.h
  - Rename function I2C\_EnableRxFullInt() to I2C\_EnableRxDataAvailableInt().
  - Rename function I2C\_DisableRxFullInt() to I2C\_DisableRxDataAvailableInt().
  - Rename function I2C\_EnableTxEmptyInt() to I2C\_EnableTxDataRequestInt().
  - Rename function I2C\_DisableTxEmptyInt() to I2C\_DisableTxDataRequestInt().
  - Rename function I2C\_GetRxFullIntFlag() to I2C\_GetRxDataAvailableIntFlag().
  - Rename function I2C\_GetTxEmptyIntFlag() to I2C\_GetTxDataRequestIntFlag().
  - Rename function I2C\_GetRxFullIntRawFlag() to I2C\_GetRxDataAvailableIntRawFlag().
  - Rename function I2C\_GetTxEmptyIntRawFlag() to I2C\_GetTxDataRequestIntRawFlag().
  - Rename function I2C\_IsTxFIFONotFull() to I2C\_IsTxNotFull().
  - Rename function I2C\_IsTxFIFOEmpty() to I2C\_IsTxEmpty().
  - Rename function I2C\_IsRxFIFONotEmpty() to I2C\_IsRxNotEmpty().
  - Rename function I2C\_IsRxFIFOFull() to I2C\_IsRxFull().
- ssp.h
  - Add 4 new functions for controlling DMA service requests: SSP\_EnableDMATransmitService(), SSP\_DisableDMATransmitService(), SSP\_EnableDMAReceiveService() and SSP\_DisableDMAReceiveService().
  - Rename function SSP\_EnableRxFIFOOverflowInt() to SSP\_EnableRxOverflowInt().
  - Rename function SSP\_DisableRxFIFOOverflowInt() to SSP\_DisableRxOverflowInt().
  - Rename function SSP\_EnableTxFIFOUnderflowInt() to SSP\_EnableTxUnderflowInt().
  - Rename function SSP\_DisableTxFIFOUnderflowInt() to SSP\_DisableTxUnderflowInt().
  - Rename function SSP\_EnableTxFIFOEmptyInt() to SSP\_EnableTxDataRequestInt().
  - Rename function SSP\_DisableTxFIFOEmptyInt() to SSP\_DisableTxDataRequestInt().
  - Rename function SSP\_EnableRxFIFOFullInt() to SSP\_EnableRxDataAvailableInt().
  - Rename function SSP\_DisableRxFIFOFullInt() to SSP\_DisableRxDataAvailableInt().

- Rename function `SSP_SetRxFIFOTriggerLevel()` to `SSP_SetRxFIFOTriggerThreshold()`.
- Rename function `SSP_SetTxFIFOTriggerLevel()` to `SSP_SetTxFIFOTriggerThreshold()`.
- Rename function `SSP_IsTxFIFONotFull()` to `SSP_IsTxNotFull()`.
- Rename function `SSP_IsRxFIFONotEmpty()` to `SSP_IsRxNotEmpty()`.
- Rename function `SSP_IsTxFIFOServiceRequest()` to `SSP_IsTxServiceRequest()`.
- Rename function `SSP_IsRxFIFOServiceRequest()` to `SSP_IsRxServiceRequest()`.
- Rename function `SSP_IsRxFIFOOverflow()` to `SSP_IsRxOverflow()`.
- Rename function `SSP_IsTxFIFOUnderflow()` to `SSP_IsTxUnderflow()`.
- Rename function `SSP_IsTxFIFOHasOddSample()` to `SSP_IsTxHasOddSample()`.
- Rename function `SSP_IsRxFIFOHasOddSample()` to `SSP_IsRxHasOddSample()`.
- Rename function `SSP_ClearRxFIFOOverflowInt()` to `SSP_ClearRxOverflowInt()`.
- Rename function `SSP_ClearTxFIFOUnderflowInt()` to `SSP_ClearTxUnderflowInt()`.

#### ■ `uart.h/.c`

- Add 2 new functions for controlling DMA service requests: `UART_EnabledDMAService()` and `UART_DisableDMAService()`.
- Rename definition `UART_TxTriggerLevelEnum` to `UART_TxThresholdEnum`.
- Rename definition `UART_RxTriggerLevelEnum` to `UART_RxThresholdEnum`.
- Rename function `UART_ResetRxFIFO()` to `UART_ClearRxFIFO()`.
- Rename function `UART_ResetTxFIFO()` to `UART_ClearTxFIFO()`.
- Rename function `UART_IsTxFIFOEmpty()` to `UART_IsTxDone()`.
- Rename function `UART_IsBreakReceived()` to `UART_IsRxBreak()`.
- Rename function `UART_IsFrameError()` to `UART_IsRxFrameError()`.
- Rename function `UART_IsParityError()` to `UART_IsRxParityError()`.
- Rename function `UART_IsRxDataLost()` to `UART_IsRxOverflow()`.
- Rename function `UART_IsRxDataReady()` to `UART_IsRxNotEmpty()`.
- Rename function `UART_SetFIFOTriggerLevel()` to `UART_SetFIFOTriggerThreshold()`.

#### ■ `spc2168.h`

- Add 9 new functions
  - 2 new functions to set register bits: `SET_BIT()` and `SET_BITS()`.
  - 2 new functions to clear register bits: `CLEAR_BIT()` and `CLEAR_BITS()`.
  - 1 new function to read register bit value: `READ_BIT()`.
  - 1 new function to clear register: `CLEAR_REG()`.
  - 1 new function to write value to register: `WRITE_REG()`.
  - 1 new function to read register value: `READ_REG()`.
  - 1 new function to modify register value: `MODIFY_REG()`.

#### ■ `spc2168_reg.h/spc2168_bitfield.h`

- Rename bit definition `NRZE` to `NRZME` in `UARTIER` register.
- Rename bit definition `RSTRF` to `CLRRF` in `UARTFCR` register.
- Rename bit definition `RSTTF` to `CLRTF` in `UARTFCR` register.
- Rename bit definition `ITL` to `RXTH` in `UARTFCR` register.
- Rename bit definition `TIL` to `TXTH` in `UARTFCR` register.
- Rename bit definition `BUS` to `BUS32` in `UARTFCR` register.
- Rename bit definition `TXEMPTY` to `TXDONE` in `UARTLSR` register.
- Rename bit definition `RXFULL` to `RXDAV` in `I2CIF/I2CRAWIF/I2CIE` register.



- Rename bit definition TXEMPTY to TXDREQ in I2CIF/I2CRAWIF/I2CIE register.
- Rename bit definition TTFC to TT in DMACHCTL0 register.
- Rename bit definition FIFOEMPTY to FIFODAV in DMACHCTL2 register.
- Rename bit definition FIFOMODE to FIFOTH in DMACHCTL3 register.
- Rename register DMATCSTS to DMATCRAWIF.
- Rename register DMAERRSTS to DMAERRRAWIF.
- dma.h/.c
  - Rename function DMA\_SetFIFOMode() to DMA\_SetFIFOThreshold().
  - Rename function DMA\_GetTransferCompleteStatus() to DMA\_GetTransferCompleteIntRawFlag().
  - Rename function DMA\_GetErrorStatus() to DMA\_GetErrorIntRawFlag().
  - Rename function DMA\_GetGlobalErrorIntFlag() to DMA\_GetErrorGlobalIntFlag().
  - Rename function DMA\_GetGlobalTransferCompleteIntFlag() to DMA\_GetTransferCompleteGlobalIntFlag().
  - Add 4 new functions: DMA\_SetHandShakeWithSSPTx(), DMA\_SetHandShakeWithSSPRx(), DMA\_SetHandShakeWithUARTTx and DMA\_SetHandShakeWithUARTRx().
- Add IAR for ARM project support for examples.

**V1.1.0/ 02-July-2019****Main Changes**

- **adc.h/.c**
  - Rename function ADC\_PowerUP() to ADC\_PowerUp().
  - Rename function ADC\_SetSampleAndConvTime() to ADC\_SetSampleAndConvertTime().
  - Rename function ADC\_SelectPinSingleEnd() to ADC\_SelectPinSingleEnded().
- **aes.h**
  - Rename function AES\_ClearInputFifo() to AES\_ClearInputFIFO().
  - Rename function AES\_ClearOutputFifo() to AES\_ClearOutputFIFO().
  - Rename function AES\_EnableInputFifoFullInt() to AES\_EnableInputFIFOFullInt().
  - Rename function AES\_DisableInputFifoFullInt() to AES\_DisableInputFIFOFullInt().
  - Rename function AES\_EnableOutputFifoEmptyInt() to AES\_EnableOutputFIFOEmptyInt().
  - Rename function AES\_DisableOutputFifoEmptyInt() to AES\_DisableOutputFIFOEmptyInt().
  - Rename function AES\_ClearInputFifoFullInt() to AES\_ClearInputFIFOFullInt().
  - Rename function AES\_ClearOutputFifoEmptyInt() to AES\_ClearOutputFIFOEmptyInt().
  - Rename function AES\_GetInputFifoFullIntFlag() to AES\_GetInputFIFOFullIntFlag().
  - Rename function AES\_GetOutputFifoEmptyIntFlag() to AES\_GetOutputFIFOEmptyIntFlag().
  - Rename function AES\_GetInputFifoFullIntRawFlag() to AES\_GetInputFIFOFullIntRawFlag().
  - Rename function AES\_GetOutputFifoEmptyIntRawFlag() to AES\_GetOutputFIFOEmptyIntRawFlag().
  - Rename function AES\_IsInputFifoFull() to AES\_IsInputFIFOFull().
  - Rename function AES\_IsOutputFifoReady() to AES\_IsOutputFIFOReady().
  - Rename function AES\_IsOutputFifoEmpty() to AES\_IsOutputFIFOEmpty().
- **clock.h/.c**
  - Rename macro function CLOCK\_NstoCounter() to CLOCK\_NsToCounter().
  - Rename function CLOCK\_PLLConfig() to CLOCK\_ConfigurePLL().
  - Rename function CLOCK\_PLLQuickConfigWithRCO() to CLOCK\_ConfigurePLLWithRCO().
  - Rename function CLOCK\_GetModuleClk() to CLOCK\_GetModuleClock().
- **comp.h**
  - Update function COMP\_ResetFilter().
  - Rename function COMP\_SetDACValueMV() to COMP\_SetDACVoltage().
- **dma.h**
  - Rename function DMA\_IsFifoEmpty() to DMA\_IsFIFOEmpty().
  - Rename function DMA\_SetFifoMode() to DMA\_SetFIFOMode().
- **ecap.h/.c**
  - Rename function ECAP\_APwmActiveHigh() to ECAP\_APWMSetActiveHigh().
  - Rename function ECAP\_APwmActiveLow() to ECAP\_APWMSetActiveLow().
  - Rename function ECAP\_CounterRun() to ECAP\_RunCounter().
  - Rename function ECAP\_CounterStop() to ECAP\_StopCounter().
  - Rename function ECAP\_EventTriggeredOnRisingEdge() to ECAP\_SetEventTriggeredOnRisingEdge().
  - Rename function ECAP\_EventTriggeredOnFallingEdge() to ECAP\_SetEventTriggeredOnFallingEdge().

- Rename function ECAP\_SetCounterVal() to ECAP\_SetCounterValue().
- Rename function ECAP\_EnableCntOverflowInt() to ECAP\_EnableCounterOverflowInt().
- Rename function ECAP\_DisableCntOverflowInt() to ECAP\_DisableCounterOverflowInt().
- Rename function ECAP\_EnableCntEqualPrdInt() to ECAP\_EnableCounterEqualPRDInt().
- Rename function ECAP\_DisableCntEqualPrdInt() to ECAP\_DisableCounterEqualPRDInt().
- Rename function ECAP\_EnableCntEqualCmplInt() to ECAP\_EnableCounterEqualCMPInt().
- Rename function ECAP\_DisableCntEqualCmplInt() to ECAP\_DisableCounterEqualCMPInt().
- Rename function ECAP\_GetCntOverflowIntFlag() to ECAP\_GetCounterOverflowIntFlag().
- Rename function ECAP\_GetCntEqualPrdIntFlag() to ECAP\_GetCounterEqualPRDIntFlag().
- Rename function ECAP\_GetCntEqualCmplIntFlag() to ECAP\_GetCounterEqualCMPIntFlag().
- Rename function ECAP\_ForceCntOverflowInt() to ECAP\_ForceCounterOverflowInt().
- Rename function ECAP\_ForceCntEqualPrdInt() to ECAP\_ForceCounterEqualPRDInt().
- Rename function ECAP\_ForceCntEqualCmplInt() to ECAP\_ForceCounterEqualCMPInt().
- Rename function ECAP\_ClearCntOverflowInt() to ECAP\_ClearCounterOverflowInt().
- Rename function ECAP\_ClearCntEqualPrdInt() to ECAP\_ClearCounterEqualPRDInt().
- Rename function ECAP\_ClearCntEqualCmplInt() to ECAP\_ClearCounterEqualCMPInt().
- Rename function ECAP\_APwmModelInit() to ECAP\_APWMMModelInit().
- Rename function ECAP\_APwmSetDuty() to ECAP\_APWMSetDuty().

#### ■ gpio.h

- Rename macro function GpioPinPort() to \_\_GPIO\_PIN\_PORT().
- Rename macro function GpioPinIndex() to \_\_GPIO\_PIN\_INDEX().
- Rename macro function GPIO\_OUTPUT\_REG\_ADDR() to \_\_GPIO\_OUTPUT\_REG\_ADDR().
- Rename macro function GpioGplrAddr() to \_\_GPIO\_GPLR\_ADDR().
- Rename function GPIO\_LevelIntActiveHigh() to GPIO\_SetLevelIntActiveHigh().
- Rename function GPIO\_LevelIntActiveLow() to GPIO\_SetLevelIntActiveLow().

#### ■ i2c.h/.c

- Rename function I2C\_IsTxFifoNotFull() to I2C\_IsTxFIFONotFull().
- Rename function I2C\_IsTxFifoEmpty() to I2C\_IsTxFIFOEmpty().
- Rename function I2C\_IsRxFifoNotEmpty() to I2C\_IsRxFIFONotEmpty().
- Rename function I2C\_IsRxFifoFull() to I2C\_IsRxFIFOFull().
- Rename function I2C\_SetTxFifoThreshold() to I2C\_SetTxFIFOThreshold().
- Rename function I2C\_SetRxFifoThreshold() to I2C\_SetRxFIFOThreshold().
- Rename function I2C\_GetTxFifoLevel() to I2C\_GetTxFIFOLevel().
- Rename function I2C\_GetRxFifoLevel() to I2C\_GetRxFIFOLevel().

#### ■ pga.h/.c

- Rename function PGA\_DiffInit() to PGA\_DifferentialInit().
- Rename function PGA\_SelecPositiveCHAsComInput() to PGA\_SelectPositiveChannelAsCommonInput().
- Rename function PGA\_SelecNegativeCHAsComInput() to PGA\_SelectNegativeChannelAsCommonInput().

#### ■ pwm.h/.c

- Rename function PWM\_GetPeriodValue() to PWM\_GetPRD().
- Rename function PWM\_SetPeriodValue() to PWM\_SetPRD().
- Rename function PWM\_EnableSyncFromTimer0() to PWM\_EnableSyncFromTIMER0().

- Rename function PWM\_EnableSyncFromTimer1() to PWM\_EnableSyncFromTIMER1().
- Rename function PWM\_EnableSyncFromTimer2() to PWM\_EnableSyncFromTIMER2().
- Rename function PWM\_DisableSyncFromTimer0() to PWM\_DisableSyncFromTIMER0().
- Rename function PWM\_DisableSyncFromTimer1() to PWM\_DisableSyncFromTIMER1().
- Rename function PWM\_DisableSyncFromTimer2() to PWM\_DisableSyncFromTIMER2().
- Rename function PWM\_CalSyncReloadValue() to PWM\_CalculateSyncReloadValue().

#### ■ ssp.h/.c

- Rename function SSP\_EnableFifoPackMode() to SSP\_EnableFIFOPackMode().
- Rename function SSP\_DisableFifoPackMode() to SSP\_DisableFIFOPackMode().
- Rename function SSP\_EnableRxFifoOverflowInt() to SSP\_EnableRxFIFOOverflowInt().
- Rename function SSP\_DisableRxFifoOverflowInt() to SSP\_DisableRxFIFOOverflowInt().
- Rename function SSP\_EnableTxFifoUnderflowInt() to SSP\_EnableTxFIFOUnderflowInt().
- Rename function SSP\_DisableTxFifoUnderflowInt() to SSP\_DisableTxFIFOUnderflowInt().
- Rename function SSP\_EnableTxFifoEmptyInt() to SSP\_EnableTxFIFOEmptyInt().
- Rename function SSP\_DisableTxFifoEmptyInt() to SSP\_DisableTxFIFOEmptyInt().
- Rename function SSP\_EnableRxFifoFullInt() to SSP\_EnableRxFIFOFullInt().
- Rename function SSP\_DisableRxFifoFullInt() to SSP\_DisableRxFIFOFullInt().
- Rename function SSP\_GetTxFifoLevel() to SSP\_GetTxFIFOLevel().
- Rename function SSP\_GetRxFifoLevel() to SSP\_GetRxFIFOLevel().
- Rename function SSP\_SetRxFifoTriggerLevel() to SSP\_SetRxFIFOTriggerLevel().
- Rename function SSP\_SetTxFifoTriggerLevel() to SSP\_SetTxFIFOTriggerLevel().
- Rename function SSP\_IsTxFifoNotFull() to SSP\_IsTxFIFONotFull().
- Rename function SSP\_IsRxFifoNotEmpty() to SSP\_IsRxFIFONotEmpty().
- Rename function SSP\_IsTxFifoServiceRequest() to SSP\_IsTxFIFOServiceRequest().
- Rename function SSP\_IsRxFifoServiceRequest() to SSP\_IsRxFIFOServiceRequest().
- Rename function SSP\_IsRxFifoOverflow() to SSP\_IsRxFIFOOverflow().
- Rename function SSP\_IsTxFifoUnderflow() to SSP\_IsTxFIFOUnderflow().
- Rename function SSP\_IsBusySyncSlaveClk() to SSP\_IsBusySyncSlaveClock().
- Rename function SSP\_IsTxFifoHasOddSample() to SSP\_IsTxFIFOHasOddSample().
- Rename function SSP\_IsRxFifoHasOddSample() to SSP\_IsRxFIFOHasOddSample().
- Rename function SSP\_ClearRxFifoOverflowInt() to SSP\_ClearRxFIFOOverflowInt().
- Rename function SSP\_ClearTxFifoUnderflowInt() to SSP\_ClearTxFIFOUnderflowInt().
- Update 2 functions: SSP\_Init() and SSP\_MasterB2BTransceive().

#### ■ uart.h/.c

- Rename function UART\_DisableFifo() to UART\_DisableFIFO().
- Rename function UART\_ResetRxFifo() to UART\_ResetRxFIFO().
- Rename function UART\_ResetTxFifo() to UART\_ResetTxFIFO().
- Rename function UART\_GetRxFifoLevel() to UART\_GetRxFIFOLevel().
- Rename function UART\_IsFifoError() to UART\_IsFIFOError().
- Rename function UART\_IsTxFifoEmpty() to UART\_IsTxFIFOEmpty().
- Rename function UART\_SetFifoTriggerLevel() to UART\_SetFIFOTriggerLevel().

#### ■ wdt.h

- Rename function WDT\_SetLoadVal() to WDT\_SetReloadValue().
- Rename function WDT\_GetLoadVal() to WDT\_GetReloadValue().

- Rename function WDT\_GetCounterVal() to WDT\_GetCounterValue().
- Add IAR for ARM tool-chain support.

**V1.0.0/ 24-May-2019**

- Created.