Release Notes for SPC1158 Standard Peripherals Library Drivers

V1.8.0/ 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_DACBufferInit(), 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()
- spc1168_reg.h/spc1168_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()
- spc1168_reg.h/spc1168_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 SPC1168.svd, SPC1168.SFR, SPC1168.FLM and SPC1168_NVR.FLM files
- iar/startup_spc1168.s
  - Add code comment
- hv.h/.c
  - Add macro definition *HV_TIMEOUT_MAX*
  - Modify HV_Command()
  - Modify HV_InitReg()
- Example Code
  - Modify Flash_M_Access_User
  - Modify Flash_User_FuncWrap
  - Modify AES/main.c

V1.7.0/ 26-May-2021

Main Changes

- spc1168.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().
- spc1168_bitfield.h
  - Update TZBCTL.DCBEVT1D bit-field macro definitions.
- 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_CaptureModeInit().
  - Rename function ECAP_SetInputPin() to ECAP_SetInput().
  - Update function ECAP_SetInput().
- pwm.c
  - Update function PWM_ComplementaryPairChannelInit() and PWM_SingleChannelInit().
- hv.h/hv.c
  - Remove function HV_WriteRegBits() and add function HV_WriteRegField().
- 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 Flash_With_INT\main.c
- Update Flash_EEPROM_Emulation\EWARM\spc1168.icf
- Update Flash_Frequency_Reduction\EWARM\spc1168.icf
- Update Flash_M_Access_User\EWARM\spc1168.icf
- Update Flash_Operation\EWARM\spc1168.icf
- Update Flash_Sector_Protect\EWARM\spc1168.icf
- Update Flash_User_FuncWrap\EWARM\spc1168.icf
- Update Flash_With_INT\EWARM\spc1168.icf
- Update DAC\main.c
- Update Flash_Frequency_Reduction\main.c

V1.6.0/ 30-April-2020

Main Changes

- adc.h
  - Update comments on ADC_GetResult(), ADC_GetTrimResult1() and ADC_GetTrimResult2().
- clock.h/clock.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
  - Rename function COMP_EnableOutputInvert() to COMP_SetOutputActiveLow().
  - Rename function COMP_DisableOutputInvert() to COMP_SetOutputActiveHigh().
- pwm.h
  - Rename macro function PWM_SetTimeEventTiming() to PWM_SetTimeEventIntTiming().
  - Rename macro function PWM_SetTimeEventPeriod() to PWM_SetTimeEventIntPeriod().
  - Add member value *ON_SYNC_PERIOD* to definition *PWM_LoadTimingEnum*.
- system_spc1168.c
  - Remove macro definition *__SYSTEM_CLOCK*.
- timer.h
  - Add macro function TIMER_SetCounterValue().
- wdt.c
  - Update function WDT_Init() for enabling watchdog halted-run and lockup-run mode.
- epwr.h
  - Rename macro function EPWR_DisableTripEventInputInvert() to EPWR_SetTripEventInputActiveHigh().
  - Rename macro function EPWR_EnableTripEventInputInvert() to EPWR_SetTripEventInputActiveLow().
  - Rename macro function EPWR_DisableTripEventOutputInvert() to EPWR_SetTripEventOutputActiveHigh().
  - Rename macro function EPWR_EnableTripEventOutputInvert() to EPWR_SetTripEventOutputActiveLow().
- hv.h/.c
  - Add function HV_EnableVDDGAnalogTest().

V1.5.0/ 18-November-2019

Main Changes

- epwr.h/.c
  - Add 17 new functions
    - 2 new functions for getting trip-zone event status: EPWR_GetFilteredTripEventStatus() and EPWR_GetTripEventStatus().
    - 1 new function for clearing trip-zone event status: EPWR_ClearTripEventStatus().
    - 4 new functions for controlling filters: EPWR_ResetFilter(),EPWR_SetFilterClkDiv(), EPWR_SetFilterWindow() and EPWR_SetFilterWindowTimeNs().
    - 3 new functions for controlling PWMSYNC clearing trip-zone event status: EPWR_SetSyncEvent(), EPWR_EnablePWMSyncClearTripEventStatus() and EPWR_DisablePWMSyncClearTripEventStatus().
    - 4 new functions for controlling trip-zone event input: EPWR_EnableTripEventInputInvert(), EPWR_DisableTripEventInputInvert(), EPWR_EnableTripEvent() and EPWR_DisableTripEvent().
    - 3 new functions for controlling trip-zone event output: EPWR_EnableTripEventOutputInvert(), EPWR_DisableTripEventOutputInvert() and EPWR_SetTripEventOutputType().
  - Add definition *EPWR_TripEventEnum* for EPWR trip-zone event selection.
  - Add definition *EPWR_OutputSelEnum* for EPWR trip-zone event output selection.
- 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().
- spc1168_bitfield.h
  - Update UARTISR.XMITIR bit-field macro definitions.
- Remove buck.h/.c and buck_bitfield.h files.
- Add hv.h/.c and hv_bitfield.h files.

V1.4.0/ 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
  - 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
- 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().

■ spc1168.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().

■ spc1168_reg.h/spc1168_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.

■ Add IAR for ARM project support for examples.

V1.3/ 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
  - Add 1 new function declaration: CLOCK_SetModuleDiv().
  - 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().
- 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_EnableCntEqualCmpInt() to ECAP_EnableCounterEqualCMPInt().
- Rename function ECAP_DisableCntEqualCmpInt() to ECAP_DisableCounterEqualCMPInt().
- Rename function ECAP_GetCntOverflowIntFlag() to ECAP_GetCounterOverflowIntFlag().
- Rename function ECAP_GetCntEqualPrdIntFlag() to ECAP_GetCounterEqualPRDIntFlag().
- Rename function ECAP_GetCntEqualCmpIntFlag() to ECAP_GetCounterEqualCMPIntFlag().
- Rename function ECAP_ForceCntOverflowInt() to ECAP_ForceCounterOverflowInt().
- Rename function ECAP_ForceCntEqualPrdInt() to ECAP_ForceCounterEqualPRDInt().
- Rename function ECAP_ForceCntEqualCmpInt() to ECAP_ForceCounterEqualCMPInt().
- Rename function ECAP_ClearCntOverflowInt() to ECAP_ClearCounterOverflowInt().
- Rename function ECAP_ClearCntEqualPrdInt() to ECAP_ClearCounterEqualPRDInt().
- Rename function ECAP_ClearCntEqualCmpInt() to ECAP_ClearCounterEqualCMPInt().
- Rename function ECAP_APwmModeInit() to ECAP_APWMModeInit().
- 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().
- Update 3 functions: I2C_SpeedInit(), I2C_MasterInit() and I2C_SlaveInit().
- Remove definition *I2C_SpeedModeEnum*.

■ 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.
- buck.h
  - Add 1 function declaration: BUCK_ComInit().

V1.2.0/ 15-April-2019

Main Changes

- adc.h/.c
  - Add 30 new functions
    - 1 new function to clear ADC interrupt overflow flag: ADC_ClearOverflowInt().
    - 1 new function to get ADC interrupt overflow flag: ADC_GetOverflowIntFlag().
    - 3 new functions controlling ADC interrupt trigger SOC: ADC_EnableIntTriggerSOC(), ADC_DisableIntTriggerSOC() and ADC_SelectIntTriggerSOC().
    - 1 new function to set external SOC trigger: ADC_SetExternalSOC().
    - 2 new functions controlling ADC SOC priority: ADC_SetSOCPriority() and ADC_GetSOCPriority().
    - 1 new function to set the average counts for ADC result: ADC_SetAverageCnt().
    - 1 new function to select S/H for SOC channel: ADC_SetSOCSH().
    - 1 new function to get ADC result register value: ADC_GetResult().
    - 1 new function to get ADC PPU result register value: ADC_GetPPUResult().
    - 2 new functions controlling SOC delay capture: ADC_SetSOCDelayCapture() and ADC_GetSOCDelay().
    - 4 new functions controlling ADC PPU unit: ADC_PPUInit(), ADC_EnablePPU(), ADC_DisablePPU() and ADC_SetPPURef().
    - 6 new functions controlling ADC PPU interrupt: ADC_EnablePPUInt(), ADC_DisablePPUInt(), ADC_ClearPPUInt(), ADC_ClearPPUGlobalInt(), ADC_GetPPUIntFlag() and ADC_GetPPUGlobalIntFlag().
    - 4 new functions controlling ADC PPU trip-zone event: ADC_EnablePPUTripEvent(), ADC_DisablePPUTripEvent(), ADC_SetPPUTooHighThreshold() and ADC_SetPPUTooLowThreshold().
    - 2 new functions to get temperature using T-Sensor: ADC_CalculateTemperature() and ADC_CalculatePreciseTemperature().
  - ADC_SetGainAndOffset() function updated to support simultaneous sampling mode.
  - Add new macro definition *TSENSOR_SLOPE* and *TSENSOR_OFFSET* for T-Sensor.
  - Add new definition *ADC_SHSelEnum* for SOC S/H selection.
  - Add new definition *ADC_PPUEnum*, *ADC_PPUEvtEnum* and *ADC_PPUPolEnum* for ADC PPU unit.
  - The value of macro definition *ADC_DEFAULT_SAMPLE_TIME_NS* updated to 150.
  - Remove 1 function
    - Remove function: ADC_GetRawResult().
- aes.h/.c
  - Add 6 new functions
    - 1 new function to set AES running mode: AES_SetRunningMode().
    - 1 new function to set the counter modular of CTR mode: AES_SetCTRModular().
    - 2 new functions controlling AES CCM MIC value output: AES_EnableMICOutput() and AES_DisableMICOutput().
    - 2 new functions controlling AES stream output: AES_EnableStreamOutput() and AES_DisableStreamOutput().
  - AES_EncryptData() and AES_DecryptData() functions updated for removing AES_Rese() function.

- Remove 1 function
  - Remove function: AES_Reset().

- clock.h/.c
  - CLOCK_PLLConfig() and CLOCK_PLLQuickConfigWithRCO() functions updated to support all SPC1168 series.
  - CLOCK_Init() and CLOCK_InitWithRCO() functions updated to change UART clock divider.
  - Update definition *CLOCK_HCLKSelEnum* and *CLOCK_RefSelEnum*.
- comp.h/.c
  - Add 11 new functions
    - 1 new function to disable comparator output invert: COMP_DisableOutputInvert().
    - 2 new functions controlling PWMSYNC clearing latched filter output status: COMP_EnablePWMSyncClearFilterOutputStatus() and COMP_DisablePWMSyncClearFilterOutputStatus().
    - 1 new function to select the synchronous output from PWM: COMP_SetSyncEvent().
    - 1 new function to clear latched filter output status: COMP_ClearFilterOutputStatus().
    - 1 new function to disable DAC: COMP_DisableDAC().
    - 1 new function to select the PWM synchronous output signal for DAC: COMP_SetDACSyncEvent().
    - 1 new function to set DAC code loading mode: COMP_SetDACCodeLoadTiming().
    - 3 new functions controlling DAC buffer: COMP_DACBufferInit(), COMP_EnableDACBuffer() and COMP_DisableDACBuffer().
  - Rename function COMP_InvertOutput() to COMP_EnableOutputInvert().
  - Rename function COMP_ClearAllLatchedOutputStatus() to COMP_ClearAllFilterOutputStatus().
  - Rename function COMP_GetLatchedOutputStatus() to COMP_GetFilterOutputStatus().
  - Rename function COMP_GetFilterOutputStatus() to COMP_GetRawFilterOutputStatus().
  - Rename function COMP_SetFilterClkDIV() to COMP_SetFilterClkDiv().
  - COMP_Init() function updated to set new value for filter window size and threshold.
  - COMP_SetFilterWindowTimeNs() function updated to make sure the filter threshold value is bigger than the half of window size.
- ecap.h/.c
  - Add 14 new functions
    - 5 new functions controlling ECAP synchronization: ECAP_EnableSync(), ECAP_DisableSync(), ECAP_SetSyncReloadValue(),ECAP_ForceSync() and ECAP_SetSyncFromGPIO().
    - 1 new function to enable on-shot re-arming: ECAP_OneshotReArm().
    - 2 new functions controlling capture operating mode: ECAP_EnableOneshotMode() and ECAP_DisableOneshotMode().
    - 1 new function to set event filter prescale: ECAP_SetEventDiv().
    - 2 new functions controlling counter reset on capture event: ECAP_EnableEventResetCounter() and ECAP_DisableEventResetCounter().
    - 2 new functions selecting capture event polarity: ECAP_EventTriggeredOnRisingEdge() and ECAP_EventTriggeredOnFallingEdge().
    - 5 new functions controlling capture event interrupt: ECAP_EnableInt(), ECAP_DisableInt(), ECAP_GetIntFlag(), ECAP_ForceInt() and ECAP_ClearInt().
  - ECAP_SetInputPin() function updated to set input pin as GPIO input.

- Rename function ECAP_SetCouterVal() to ECAP_SetCounterVal().
- Remove function ECAP_SetSyncInputPin().
- Add *ECAP_EvtEnum* definition.
- Add *ECAP_IntEnum* definition.

■ flash.h/.c
- 1 new function to set Flash write protection: FLASH_WriteProtect().
- 5 functions updated to add Flash XIP module handling scheme: FLASH_Read(), FLASH_ProgramWord(), FLASH_Program(), FLASH_EraseSector() and FLASH_EraseChip().
- Remove 2 functions: FLASH_PowerUp() and FLASH_PowerDown().
- Remove macro definitions: FLASH_CMD_POWER_UP, FLASH_CMD_VREAD0, FLASH_CMD_VREAD1, FLASH_CMD_PRE_PROG_WORD, FLASH_CMD_PRE_PROG_PAGE, FLASH_CMD_PROG_PAGE, FLASH_CMD_ERASE_BLOCK, FLASH_CMD_RECALL_READ, FLASH_CMD_SET_CONFIG and FLASH_CMD_POWER_DOWN.

■ gpio.h
- Add 3 new function
  - 1 new function to set Pin output strength: GPIO_SetOutStrength().
  - 1 new function to get edge-triggered interrupt flag: GPIO_GetGlobalEdgeIntStatus().
  - 1 new function to get level-triggered interrupt flag: GPIO_GetGlobalLevelIntStatus().
- Rename function GPIO_ClearEdgeIntAll() to GPIO_ClearGlobalEdgeInt().
- Rename function GPIO_ClearLevelIntAll() to GPIO_ClearGlobalLevelInt().
- Add new definition *GPIO_OutStrengthEnum* for selecting GPIO output strength.

■ i2c.h/.c
- Add 9 new functions
  - 4 new functions controlling I2C master sending and receiving data: I2C_MasterWrite(), I2C_MasterRead(), I2C_MasterBulkWrite() and I2C_MasterBulkRead().
  - 4 new functions controlling I2C slave sending and receiving data: I2C_SlaveWrite(), I2C_SlaveRead(), I2C_SlaveBulkWrite() and I2C_SlaveBulkRead().
  - 1 new function to initialize I2C speed setting: I2C_SpeedInit().
- I2C_MasterInit() function updated to support multi-slave controlling.
- Rename function I2C_SendByte() to I2C_WriteByte().
- Rename function I2C_ReceiveByte() to I2C_ReadByte().

■ power.h/.c
- Add 11 new functions
  - 6 new functions controlling BOD interrupt: POWER_EnableBODInt(), POWER_DisableBODInt(), POWER_ClearBODInt(), POWER_ClearBODGlobalInt(), POWER_GetBODIntFlag() and POWER_GetBODGlobalIntFlag().
  - 3 new functions to initialize BOD for 1.2V power: POWER_VDD12HBODInit(), POWER_VDD12L0BODInit() and POWER_VDD12L1BODInit().
  - 2 new functions to initialize BOD for 3.3V power: POWER_VDD33HBODInit() and POWER_VDD33LBODInit().
- Remove BOD interrupt control functions:
  - POWER_EnableVDD12TooLow0Int()
  - POWER_DisableVDD12TooLow0Int()
  - POWER_EnableVDD12TooLow1Int()

  - POWER_DisableVDD12TooLow1Int()
  - POWER_EnableVDD12TooHighInt()
  - POWER_DisableVDD12TooHighInt()
  - POWER_ClearVDD12TooLow0Int()
  - POWER_ClearVDD12TooLow1Int()
  - POWER_ClearVDD12TooHighInt()
  - POWER_GetVDD12TooLow0IntFlag()
  - POWER_GetVDD12TooLow1IntFlag()
  - POWER_GetVDD12TooHighIntFlag()
  - POWER_EnableVDD33TooLowInt()
  - POWER_DisableVDD33TooLowInt()
  - POWER_EnableVDD33TooHighInt()
  - POWER_DisableVDD33TooHighInt()
  - POWER_ClearVDD33TooLowInt()
  - POWER_ClearVDD33TooHighInt()
  - POWER_GetVDD33TooLowIntFlag()
  - POWER_GetVDD33TooHighIntFlag()
  - POWER_ClearBODInt()
  - POWER_GetBODIntFlag()
- Remove BOD initialize functions: POWER_VDD12BODInit() and POWER_VDD33BODInit().
- Add new definitions: *POWER_BODIntEnum*, *POWER_VDD33HEnum*, *POWER_VDD33LEnum*, *POWER_VDD12HEnum* and *POWER_VDD12LEnum*.

■ pwm.h/.c

- Add 111 new functions
  - 16 new functions controlling PWM register link: PWM_UnlinkTBPRD(), PWM_UnlinkCMPA(), PWM_UnlinkCMPB(), PWM_UnlinkCMPC(), PWM_UnlinkCMPD(), PWM_UnlinkDBRED(), PWM_UnlinkDBFED(), PWM_UnlinkGLDCTL1(), PWM_LinkTBPRD(), PWM_LinkCMPA(), PWM_LinkCMPB(), PWM_LinkCMPC(), PWM_LinkCMPD(), PWM_LinkDBRED(), PWM_LinkDBFED() and PWM_LinkGLDCTL1().
  - 2 new functions controlling PWM period value: PWM_SetPeriod() and PWM_GetPeriod().
  - 4 new functions for PWM synchronization controlling: PWM_EnableSync(), PWM_DisableSync(), PWM_SetSyncOutEvent() and PWM_SetCounterDirAfterSync().
  - 4 new functions for getting Compare register value: PWM_GetCMPA(),PWM_GetCMPB(), PWM_GetCMPC() and PWM_GetCMPD().
  - 9 new functions controlling Dead-Band register loading: PWM_SetDBCTLLoadTiming(), PWM_SetDBREDLoadTiming(), PWM_SetDBFEDLoadTiming(), PWM_UnlockDBCTL(), PWM_UnlockDBRED(), PWM_UnlockDBFED(), PWM_LockDBCTL(), PWM_LockDBRED() and PWM_LockDBFED().
  - 2 new functions for getting Dead-Band delay: PWM_GetDeadBandRisingDelay() and PWM_GetDeadBandFallingDelay().
  - 2 new functions selecting Trip-zone events: PWM_SetOneShotTripEvent() and PWM_SetCBCTripEvent().
  - 16 new functions controlling Digital-Compare trip interrupt: PWM_EnableDCAEVT0TripInt(), PWM_DisableDCAEVT0TripInt(), PWM_EnableDCAEVT1TripInt(),

PWM_DisableDCAEVT1TripInt(), PWM_EnableDCBEVT0TripInt(), PWM_DisableDCBEVT0TripInt(), PWM_EnableDCBEVT1TripInt(), PWM_DisableDCBEVT1TripInt(), PWM_GetDCAEVT0TripIntFlag(), PWM_GetDCAEVT1TripIntFlag(), PWM_GetDCBEVT0TripIntFlag(), PWM_GetDCBEVT1TripIntFlag(), PWM_ClearDCAEVT0TripInt(), PWM_ClearDCAEVT1TripInt(), PWM_ClearDCBEVT0TripInt() and PWM_ClearDCBEVT1TripInt().

- 1 new function to clear CBC trip interrupt flag by hardware: PWM_ClearCBCTripIntByHardware().
- 8 new functions controlling Digital-Compare trip events: PWM_EnableDCAHTripEvent(), PWM_EnableDCALTripEvent(), PWM_EnableDCBHTripEvent(), PWM_EnableDCBLTripEvent(), PWM_DisableDCAHTripEvent(), PWM_DisableDCALTripEvent(), PWM_DisableDCBHTripEvent() and PWM_DisableDCBLTripEvent().
- 8 new functions setting Digital-Compare events: PWM_SetRawDCAEVT0(), PWM_SetRawDCAEVT1(), PWM_SetRawDCBEVT0(), PWM_SetRawDCBEVT1(), PWM_SetDCAEVT0(), PWM_SetDCAEVT1(), PWM_SetDCBEVT0() and PWM_SetDCBEVT1().
- 4 new functions controlling Digital-Compare events trigger synchronization: PWM_EnableDCAEVT0TriggerSync(), PWM_DisableDCAEVT0TriggerSync(), PWM_EnableDCBEVT0TriggerSync() and PWM_DisableDCBEVT0TriggerSync().
- 4 new functions controlling Digital-Compare events trigger ADC SOC: PWM_EnableDCAEVT0TriggerSOC(), PWM_DisableDCAEVT0TriggerSOC(), PWM_EnableDCBEVT0TriggerSOC() and PWM_DisableDCBEVT0TriggerSOC().
- 8 new functions controlling Digital Filter: PWM_SetDCFilter(), PWM_EnableDCFilterBlank(), PWM_DisableDCFilterBlank(), PWM_EnableDCFilterFromOtherPWM(), PWM_DisableDCFilterFromOtherPWM(), PWM_EnableDCFilterBlankInvert(), PWM_DisableDCFilterBlankInvert() and PWM_SetDCFilterBlankWindow().
- 6 new functions for clearing and getting SOC event flag: PWM_ClearSOCAEvent(), PWM_ClearSOCBEvent(), PWM_ClearSOCCEvent(), PWM_GetSOCAEventFlag(), PWM_GetSOCBEventFlag() and PWM_GetSOCCEventFlag().
- 1 new function to software force clock synchronization for all PWM modules: PWM_ForceClockSync().
- 1 new function to software force PWM synchronization: PWM_ForceSync().
- 3 new function controlling PWM synchronization by GPIO: PWM_EnableSyncFromGPIO(), PWM_DisableSyncFromGPIO() and PWM_SetSyncFromGPIO().
- 6 new functions controlling PWM synchronization by Timers: PWM_EnableSyncFromTimer0(), PWM_EnableSyncFromTimer1(), PWM_EnableSyncFromTimer2(), PWM_DisableSyncFromTimer0(), PWM_DisableSyncFromTimer1() and PWM_DisableSyncFromTimer2().
- 5 new functions setting Trip-zone event from GPIO: PWM_SetTZ0FromGPIO(), PWM_SetTZ1FromGPIO(), PWM_SetTZ2FromGPIO(), PWM_SetTZ3FromGPIO() and PWM_SetTZ4FromGPIO().
- 1 new function to calculate actual Time-Base Phase Register value: PWM_CalSyncReloadValue().

- Rename function PWM_EnableCMPALoad() to PWM_UnlockCMPA().

- Rename function PWM_EnableCMPBLoad() to PWM_UnlockCMPB().
- Rename function PWM_EnableCMPCLoad() to PWM_UnlockCMPC().
- Rename function PWM_EnableCMPDLoad() to PWM_UnlockCMPD().
- Rename function PWM_DisableCMPALoad() to PWM_LockCMPA().
- Rename function PWM_DisableCMPBLoad() to PWM_LockCMPB().
- Rename function PWM_DisableCMPCLoad() to PWM_LockCMPC().
- Rename function PWM_DisableCMPDLoad() to PWM_LockCMPD().
- Rename function PWM_EnableAQCTLALoad() to PWM_UnlockAQCTLA().
- Rename function PWM_EnableAQCTLBLoad() to PWM_UnlockAQCTLB().
- Rename function PWM_DisableAQCTLALoad() to PWM_LockAQCTLA().
- Rename function PWM_DisableAQCTLBLoad() to PWM_LockAQCTLB().
- Rename function PWM_SetT0EventSource() to PWM_SetT0Event().
- Rename function PWM_SetT1EventSource() to PWM_SetT1Event().
- Rename function PWM_DeadBandRisingDelay() to PWM_SetDeadBandRisingDelay().
- Rename function PWM_DeadBandFallingDelay() to PWM_SetDeadBandFallingDelay();
- Rename function PWM_GetGlobalTripIntFlag() to PWM_GetTripGlobalIntFlag().
- Rename function PWM_ClearGlobalTripInt() to PWM_ClearTripGlobalInt().
- Rename function PWM_EnableSOCATrig() to PWM_EnableSOCA().
- Rename function PWM_DisableSOCATrig() to PWM_DisableSOCA().
- Rename function PWM_EnableSOCBTrig() to PWM_EnableSOCB().
- Rename function PWM_DisableSOCBTrig() to PWM_DisableSOCB().
- Rename function PWM_EnableSOCCTrig() to PWM_EnableSOCC().
- Rename function PWM_DisableSOCCTrig() to PWM_DisableSOCC().
- Rename function PWM_EnableTimeEvtINT() to PWM_EnableTimeEventInt().
- Rename function PWM_DisableTimeEvtINT() to PWM_DisableTimeEventInt().
- Rename function PWM_SetTimeEvtTiming() to PWM_SetTimeEventTiming().
- Rename function PWM_SetTimeEvtPeriod() to PWM_SetTimeEventPeriod().
- Rename function PWM_ClearTimeEvtInt() to PWM_ClearTimeEventInt().
- Rename function PWM_GetTimeEvtIntFlag() to PWM_GetTimeEventIntFlag().
- Remove function PWM_GetTripSelCompIndex().
- Remove function PWM_SetOneshotTripFromExtPin().
- Remove function PWM_EnableOneShotTripFromComp().
- Add definition *PWM_SelEnum* and *PWM_IncEnum* for selecting PWM modules.
- Add definition *PWM_TripEventEnum* for selecting trip events.
- Add definition *PWM_TripOutputEnum* for trip-zone output type.
- Add definition *PWM_DCTripEventEnum* for Digital-Compare trip events.
- Add definition *PWM_DCEventEnum* for Digital-Compare events.
- Add definition *PWM_RawDCEventEnum* for raw Digital-Compare events.
- Add definition *PWM_DCFilterInputEnum* for Digital-Compare filter input.
- Add definition *PWM_DCFilterAlignEnum* for Digital-Compare filter alignment.
- Add definition *PWM_SyncEventEnum* for synchronization events.
- Rename definition *PWM_TripZoneOutputEnum* to *PWM_TripActionEnum*.
- Update the member name in definition *PWM_TxEventEnum*.
- Remove definition *PWM_PWMOutputTripEnum*.

- ssp.h/.c
  - Add 5 new functions
    - 2 new functions controlling FIFO pack mode: SSP_EnableFifoPackMode() and SSP_DisableFifoPackMode().
    - 2 new functions controlling SSP master full duplex transfer: SSP_MasterTransceive() and SSP_MasterB2BTransceive().
    - 1 new functions controlling SSP slave full duplex transfer: SSP_SlaveTransceive().
  - SSP_Send () function updated to support single frame mode.
  - Rename function SSP_Recv() to SSP_Receive().
  - Remove functions controlling Bit Count Error:
    - SSP_EnableBitCountErrorInt()
    - SSP_DisableBitCountErrorInt()
    - SSP_IsBitCountError()
    - SSP_ClearBitCountErrorInt().
- system.h/.c
  - Add 10 new functions
    - 4 new functions controlling memory error interrupt: SYSTEM_EnableMemErrorInt(), SYSTEM_DisableMemErrorInt(), SYSTEM_ClearMemErrorInt() and SYSTEM_GetMemErrorIntFlag().
    - 4 new functions controlling reset event: SYSTEM_EnableAllResetEvent(), SYSTEM_DisableAllResetEvent(), SYSTEM_ClearResetEventStatus() and SYSTEM_GetResetEventStatus().
    - 1 new function to get chip unique ID: SYSTEM_GetUID().
    - 1 new function to get chip random number: SYSTEM_GetRandomNum().
  - SYSTEM_EnableResetEvent() function updated using macro define.
  - SYSTEM_DisableResetEvent() function updated using macro define.
  - Rename function SYSTEM_EnableMemErrorIntAll () to SYSTEM_EnableAllMemErrorInt().
  - Rename function SYSTEM_DisableMemErrorIntAll () to SYSTEM_DisableAllMemErrorInt().
  - Rename function SYSTEM_ClearMemErrorInt() to SYSTEM_ClearMemErrorGlobalInt().
  - Rename function SYSTEM_GetMemErrorIntFlag() to SYSTEM_GetMemErrorGlobalIntFlag().
  - Rename function SYSTEM_ClearResetOnWDT0RSTEvent() to SYSTEM_ClearWDT0ResetStatus().
  - Rename function SYSTEM_ClearResetOnWDT1RSTEvent() to SYSTEM_ClearWDT1ResetStatus().
  - Rename function SYSTEM_ClearResetOnSystemRSTEvent () to SYSTEM_ClearSystemResetStatus().
  - Rename function SYSTEM_IsResetTriggeredByWDT0RSTEvent() to SYSTEM_GetWDT0ResetStatus().
  - Rename function SYSTEM_IsResetTriggeredByWDT1RSTEvent() to SYSTEM_GetWDT1ResetStatus().
  - Rename function SYSTEM_IsResetTriggeredBySystemRSTEvent() to SYSTEM_GetSystemResetStatus().
  - Remove some memory error controlling functions:
    - SYSTEM_EnableROM1BitErrorInt()
    - SYSTEM_DisableROM1BitErrorInt()
    - SYSTEM_EnableROM2BitErrorInt()
    - SYSTEM_DisableROM2BitErrorInt()

  - SYSTEM_EnableFlash1BitErrorInt()
  - SYSTEM_DisableFlash1BitErrorInt()
  - SYSTEM_EnableFlash2BitErrorInt()
  - SYSTEM_DisableFlash2BitErrorInt()
  - SYSTEM_EnableIRAMErrorInt()
  - SYSTEM_DisableIRAMErrorInt()
  - SYSTEM_EnableDRAMErrorInt()
  - SYSTEM_DisableDRAMErrorInt()
  - SYSTEM_EnableSIOErrorInt()
  - SYSTEM_DisableSIOErrorInt()
  - SYSTEM_ClearROM1BitErrorInt()
  - SYSTEM_ClearROM2BitErrorInt()
  - SYSTEM_ClearFlash1BitErrorInt()
  - SYSTEM_ClearFlash2BitErrorInt()
  - SYSTEM_ClearIRAMErrorInt()
  - SYSTEM_ClearDRAMErrorInt()
  - SYSTEM_ClearSIOErrorInt()
  - SYSTEM_GetROM1BitErrorIntFlag()
  - SYSTEM_GetROM2BitErrorIntFlag()
  - SYSTEM_GetFlash1BitErrorIntFlag()
  - SYSTEM_GetFlash2BitErrorIntFlag()
  - SYSTEM_GetIRAMErrorIntFlag()
  - SYSTEM_GetDRAMErrorIntFlag()
  - SYSTEM_GetSIOErrorIntFlag()
- Remove some reset event controlling functions:
  - SYSTEM_ClearResetOnROMError()
  - SYSTEM_ClearResetOnFlashError()
  - SYSTEM_ClearResetOnIRAMError()
  - SYSTEM_ClearResetOnDRAMError()
  - SYSTEM_ClearResetOnSIOError()
  - SYSTEM_ClearResetOnVDD12L0()
  - SYSTEM_ClearResetOnVDD12L1()
  - SYSTEM_ClearResetOnVDD12H()
  - SYSTEM_ClearResetOnVDD33L()
  - SYSTEM_ClearResetOnVDD33H()
  - SYSTEM_ClearResetOnPLLUnlock()
  - SYSTEM_ClearResetOnClkDetectError()
  - SYSTEM_IsResetTriggeredByROMError()
  - SYSTEM_IsResetTriggeredByFlashError()
  - SYSTEM_IsResetTriggeredByIRAMError()
  - SYSTEM_IsResetTriggeredByDRAMError()
  - SYSTEM_IsResetTriggeredBySIOError()
  - SYSTEM_IsResetTriggeredByVDD12L0()
  - SYSTEM_IsResetTriggeredByVDD12L1()

  - SYSTEM_IsResetTriggeredByVDD12H()
  - SYSTEM_IsResetTriggeredByVDD33L()
  - SYSTEM_IsResetTriggeredByVDD33H()
  - SYSTEM_IsResetTriggeredByPLLUnlock()
  - SYSTEM_IsResetTriggeredByClkDetectError()
- Add definition *SYSTEM_MemErrorEnum* for memory error events.
- Update a member name from *RESET_EVENT_SIO_ERROR* to *RESET_EVENT_SIO0_ERROR* in definition *SYSTEM_ResetEvtEnum*.

■ timer.h
- Add 6 new functions
  - 2 new functions controlling hold counter mode: TIMER_EnableCounterHold() and TIMER_DisableCounterHold().
  - 2 new functions controlling ADC SOC generation: TIMER_EnableADCSOC() and TIMER_DisableADCSOC().
  - 2 new functions controlling PWMSYNC signal generation: TIMER_EnablePWMSync() and TIMER_DisablePWMSync().

■ wdt.h
- Add new functions
  - 1 new function to stop WDT counter: WDT_Stop().
  - 4 new functions controlling WDT running when core halted or lockup: WDT_EnableRunWhenCoreHalt(), WDT_DisableRunWhenCoreHalt(), WDT_EnableRunWhenCoreLockup() and WDT_DisableRunWhenCoreLockup().
  - 1 new function to get WDT load register value: WDT_GetLoadVal().
  - 1 new function to get WDT current counter value: WDT_GetCounterVal().

■ spc1168_reg.h/spc1168_bitfield.h
- Rename bit definition CNTMOD to CTRMOD in AESCTL0 register.
- Remove register AESCTL1.
- Remove bit definition BITCNTERRIE in SSPCTL1 register.
- Remove bit definition BITCNTERR in SSPSTS register.
- Update TZDCSEL Bit-Filed macro definition in spc1168_bitfield.h.