



Release Notes for EV-SC59x EZ-KIT[®] Board Support Package Rel.2.0.0

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1 Release Notes

Thank you for installing the EV-SC59x EZ-KIT® Board Support Package (BSP) Rel.2.0.0. The BSP provides software and documentation in support of the EV-SC59x EZ-KIT®. The EV-SC59x EZ-KIT is designed for use with CrossCore® Embedded Studio (CCES) for Analog Devices Processors software development tools. The CCES development environment aids advanced application code development and debug, such as:

- Create, compile, assemble, and link application programs written in C++, C, and assembly.
- Load, run, step, halt, and set breakpoints in application programs
- Read and write data and program memory
- Read and write core and peripheral registers
- Plot memory.

For more details on CCES, please visit www.analog.com/cces .

The EV-SC59x EZ-KIT® BSP provides comprehensive software support for the EV-SC59x EZ-KIT® (ADSP-21593, ADSP-SC594, ADSP-SC598) . In this release, various examples are provided to demonstrate the on-chip drivers and services.

2 Release Dependencies:

- Requires CrossCore® Embedded Studio version 2.11.0
- EV-SC598-SOM EZ-KIT® Rev B
- EV-SC594-SOM EZ-KIT® Rev B
- EV-21593-SOM EZ-KIT® Rev A
- EV-SOMCRR-EZ-KIT® Rev A

3 Examples:

3.1 Power_On_Self_Test:

This example allows the user to test many peripherals of the EV-SC59x EZ-KIT®. Readme is provided in the POST example to understand how these tests are run. Power_On_Self_Test is available for both ARM-A55 core and SHARC core in both debug & release mode.

3.2 Device_Programmer:

This example allows the user to program the flash device on the EV-SC59x EZ-KIT® in conjunction with the "Command-Line Device Programmer (cldp)".

Support is now available for ADSP-SC598. A pre-built binary exists so that users can just program the flash device without having to build the example.

- OSPI based, Device Programmer for ISSI flash has been added for ADSP-SC598.
- SPI and OSPI based Device Programmer for Macronix flash has been added.
- EMSI based Device Programmer is added for ADSP-SC598.

3.3 Multi-Core :

The following Multi-Core examples are provided for EV-SC59x EZ-KIT® Board Support Package (BSP):

- SwRaiseInterCoreInt : Demonstrates inter-core handshake using system software interrupts.
- SwTrigInterCoreInt : Demonstrates inter-core handshake using TRU software master trigger and TRU interrupts.

3.4 Drivers/Services:

The following Device Driver and System Service examples are provided for EV-SC59x EZ-KIT® Board Support Package (BSP):

Device Drivers

- ASRC
- ADC-DAC
- CAN-FD

- CRC
- Crypto (PKTE)
- EMAC
- EMSI
- FIR
- HADC
- IIR
- OSPI
- SPDIF
- SPI
- SPORT
- TMU
- TWI
- UART

System Services

- ARM-TMR
- ARM-PMU
- DAI/DRU
- DMA (MDMA, EMDMA)
- FMU
- GIC-PMU
- GPIO
- MDMA
- MCAPI
- PWR
- RCU
- SMPU
- STDIO
- SWU
- TMR

- TRU
- WD

Known Issues:

- Rebuilding the BSP examples without clean build fails for some workspaces with deep paths.
- For the Power_On_Self_Test, the Si5356A(For SC598), usb-qspi, SPI0 MicroSD card, USB3340 PHY interface tests are not integrated. If these tests are executed, the "Test function is not integrated" message will be displayed on the UART console which is expected.
- PKTE examples tested on A55 only with cache disabled.
- EMAC1 test enabled with the macro TEST_EMAC1 may fail in EMACPhyLoopback example code.
- CANFD_Rxfifo_dma example does not function as expected.
- SMPU_Mdma_L2_Global_Access example for SC594 does not work as expected.
- Device programmer for MX66LM1G flash is non functional for SC594.
- DRU example works intermittently and might require occasional resets for them to work correctly.
- It is recommended to run all the OSPI BSP examples on EV-SC598-SOM Rev C board or replace R54 & R56 with 100K resistor on EV-SC598-SOM Rev A and Rev B board.
- OSPI PHY mode example will work only with EV-SC594-SOM/EV-SC598-SOM Rev C alone, without connecting any EV-SOMCRR-EZKIT board. Since the OSPI lines are shared with another flash device in EV-SOMCRR-EZKIT board and since OSPI PHY mode examples are run at High Speed (80Mhz), connecting SOMCRR-EZKIT may cause signal integrity issues and example may fail.