

BSEC Binary Size Information

BSEC version: 3.3.0.0

1. Platform Supported Currently

| Platform | Compiler | TYPE |
|--------------|-----------------------|---|
| Cortex-M | Keil5 ARMCC | Cortex-M0, M0+, M3, M4, M4F, M7 |
| Cortex-M | arm-none-eabi-gcc | Cortex-M0, M0+, M3, M33, M33F, M4, M4F, M7, ARMv8-m |
| Cortex-A | arm-none-eabi-gcc | Cortex-A7, A73 |
| AVR_32bit | Atmel Studio AVR-GCC | 32-bit AVR UC3 |
| ESP | xtensa-lx106-elf-gcc | ESP8266, ESP32 , ESP32-S2, ESP32-S3 |
| | riscv32-esp-elf-gcc | ESP32-C2, ESP32-C3 |
| IAR | IAR compiler | Cortex-M0, M0+, M3, M4, M4F, M7 |
| Raspberry pi | Arm-linux-gnueabi-gcc | Pi 3 armv6, Pi 3 armv8-a |
| | Aarch64-linux-gnu-gcc | Pi 4 armv8-a |
| Windows | TDM-GCC | x86, x64 |
| Linux | GCC | x86, x64 |

2. Binary Size on different platform

| Platform Type | Compiler | ROM(.text+.data) in bytes IAQ_Sel/IAQ | RAM(.data+.bss) in bytes IAQ_Sel/IAQ |
|---------------|-----------------------------|--|---|
| Cortex-M0 | Keil5.29 ARMCC v5.29 | 29781/24227 | 3976/1376 |
| Cortex-M0+ | | 29781/24227 | 3976/1376 |
| Cortex-M3 | | 28423/23117 | 3976/1376 |
| Cortex-M4 | | 28423/23117 | 3976/1376 |
| Cortex-M4F | | 30393/24761 | 3976/1376 |
| Cortex-M7 | | 28407/23105 | 3976/1376 |
| Cortex-M0 | | arm-none-eabi-gcc v9.2.1 | 35896/28856 |
| Cortex-M0+ | 35896/28856 | | 3976/1376 |
| Cortex-M3 | 32760/26596 | | 3976/1376 |
| Cortex-M33 | 32780/26600 | | 3976/1376 |
| Cortex-M33F | 33216/26232 | | 3976/1376 |
| Cortex-M4 | 32704/26544 | | 3976/1376 |

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|---------------|-----------------------------------|-------------|-----------|
| Cortex-M4F | | 33320/26320 | 3976/1376 |
| Cortex-M7 | | 33196/26720 | 3976/1376 |
| ARMv8 | | 35476/28860 | 3976/1376 |
| Cortex-A7 | | 33740/27264 | 3976/1376 |
| Cortex-A73 | | 39364/32140 | 3984/1392 |
| AVR32 | Atmel Studio AVR-GCC v7.0.2397 | 37574/30678 | 4528/1760 |
| ESP32 | xtensa-esp32-elf-gcc v4.8.5 | 38603/31113 | 3984/1392 |
| ESP32-S2 | xtensa-esp32s2-elf-gcc v11.2.0 | 40903/32617 | 3984/1392 |
| ESP32-S3 | xtensa-esp32s3-elf v11.2.0 | 38102/30421 | 3984/1392 |
| ESP32-C2/C3 | riscv32-esp-elf-gcc v11.2.0 | 45024/36316 | 3984/1392 |
| ESP8266 | xtensa-lx106-elf-gcc v4.8.2 | 43685/35361 | 3984/1392 |
| PiThree_Armv6 | Arm-linux-gnueabi-hf-gcc | 85376/69464 | 3984/1392 |
| PiThree_Armv8 | v4.9.3 | 86008/70044 | 3984/1392 |
| PiFour_Armv8 | Aarch64-linux-gnu-gcc v11.3 | 53560/43716 | 3984/1392 |
| Cortex-M0 | | 32356/26312 | 3976/1376 |
| Cortex-M0+ | | 32356/26312 | 3976/1376 |
| Cortex-M3 | | 32212/26332 | 3976/1376 |
| Cortex-M4 | IAR7 v7.80.4.12462 | 32216/26332 | 3976/1376 |
| Cortex-M4F | | 32830/26918 | 3976/1376 |
| Cortex-M7 | | 32216/26332 | 3976/1376 |
| Cortex-M0 | | 32674/26636 | 3976/1376 |
| Cortex-M0+ | | 32674/26636 | 3976/1376 |
| Cortex-M3 | | 31832/26054 | 3976/1376 |
| Cortex-M4 | IAR8 v8.40.1.212 | 31832/26054 | 3976/1376 |
| Cortex-M4F | | 32630/26692 | 3976/1376 |
| Cortex-M7 | | 31832/26054 | 3976/1376 |
| Windows_x64 | TDM-GCC | 55376/45172 | 4032/1408 |
| Windows_x86 | v5.3.0 | 52572/42244 | 4032/1408 |

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| Linux_m64 | GCC | 62436/51194 | 4000/1392 |
| Linux_m32 | v11.4.0 | 75660/60839 | 3972/1356 |

*Note:

1. ROM/RAM size is basic requirement of BSEC. Static Lib File size doesn't count.
2. M4F/M33F means the MCU with FPU.