BSEC Binary Size Information

BSEC version: 1.4.8.0

1. Platform Supported Currently

Platform	Compiler	TYPE
Cortex-ARM	Keil5 ARMCC	Cortex-M0, M0+, M3, M4, M4F, M7
Cortex-ARM	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_8bit	Atmel Studio AVR-GCC	MegaAVR, XMEGA
AVR_32bit	Atmel Studio AVR-GCC	32-bit AVR UC3
ESP	xtensa-lx106-elf-gcc	ESP8266, ESP32
MSP430	msp430-elf-gcc	MSP430
IAR	IAR compiler	Cortex-M0, M0+, M3, M4, M4F, M7
Raspberry pi	Arm-linux-gnueabihf-gcc	Pi0-armv6, pi3-armv8-a
Windows	TDM-GCC	x86, x64
Linux	GCC	x86, x64
MacOS	Clang LLVM GCC	x64

2. Binary Size on different platform

Platform Type	Compiler	ROM size of API in bytes	ROM(.text+.data) in bytes Normal/lite	RAM(.data+.bss) in bytes Normal/lite
Cortex-M0	Keil5 ARMCC	3.3k	19469 / 12163	1248 / 1216
Cortex-M0+		3.3k	19469 / 12163	1248 / 1216
Cortex-M3		3.1k	18721 / 11719	1248 / 1216
Cortex-M4		3.1k	18721 / 11719	1248 / 1216
Cortex-M4F		3.1k	19767 / 12655	1248 / 1216
Cortex-M7		3.1k	18749 / 11735	1248 / 1216
Cortex-M0	arm-none-eabi-gcc	3.6k	22932 / 13764	1248 / 1216
Cortex-M0+		3.6k	22932 / 13764	1248 / 1216
Cortex-M3		3.7k	21036 / 12288	1248 / 1216
Cortex-M33		3.7k	21044 / 12288	1248 / 1216
Cortex-M33F		6.1k	37182 / 23988	1248 / 1216
Cortex-M4		3.7k	20944 / 12328	1248 / 1216

Cortex-M4F		3.7k	21132 / 12444	1248 / 1216
Cortex-M7		3.8k	21216 / 12400	1248 / 1216
ARMv8-m		3.5k	22796 / 13924 (with FPIC)	1248 / 1216 (with FPIC)
			22936/13860 (without FPIC)	1248/1216 (without FPIC)
Cortex-A7		3.8k	21828 / 12912 (with FPIC)	1248 / 1216 (with FPIC)
			21580/12856 (without FPIC)	1248/1216 (without FPIC)
AVR8bit-MegaAVR	Atmel Studio AVR-GCC	7.8k	45000 / 27776	1192 / 1176
AVR8bit-XMEGA		7.7k	44212 / 27572	1192 / 1176
AVR 32bit		4.4k	24410 / 13786	1588 / 1556
ESP32	Elf-gcc	4.1k	24446 / 14710	1248 / 1216
ESP8266		4.7k	27954 / 17003	1248 / 1216
Msp430		5.5k	34916 / 21590	1198 / 1182
Raspberry-pi0	Arm-linux-gnueabihf-gcc	10.2k	57648 / 35568	1248 / 1216
Raspberry-pi3		10.1k	57816 / 35740	1248 / 1216
Cortex-M0	IAR7	3.5k	21276 / 12944	1248 / 1216
Cortex-M0+		3.5k	21276 / 12944	1248 / 1216
Cortex-M3		3.5k	20902 / 12536	1248 / 1216
Cortex-M4		3.5k	20918 / 12552	1248 / 1216
Cortex-M4F		3.5k	21458 / 13062	1248 / 1216
Cortex-M7		3.5k	20918 / 12552	1248 / 1216
Cortex-M0	IAR8	3.5k	21414 / 12952	1248 / 1216
Cortex-M0+		3.5k	21414 / 12952	1248 / 1216
Cortex-M3		3.5k	20780 / 12426	1248 / 1216
Cortex-M4		3.5k	20776 / 12420	1248 / 1216
Cortex-M4F		3.5k	21224 / 12858	1248 / 1216
Cortex-M7		3.5k	20776 / 12420	1248 / 1216
Windows_x64	TDM-GCC	5.4k	36120 / 21428	1248 / 1216
Windows_x86		5.6k	33512 / 18920	1248 / 1216
Linux_x64	GCC	5.6k	39535 / 20609	1248 / 1216
Linux_x86		5.8k	49266 / 24871	1228 / 1200

*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.