

# BSEC Binary Size Information

## 1. Platform Supported Currently

Platform	Compiler	TYPE
Cortex-ARM	ARMCC	Cortex-M0, M0+, M3, M4, M4_FPU, M7
Cortex-ARM	GCC	Cortex-M0, M0+, M3, M4, M4_FPU, M7
Cortex-A*	GCC	Cortex-A7
AVR_8bit	AVR-GCC	MegaAVR, XMEGA
AVR_32bit	AVR-GCC	32-bit AVR UC3
ESP	xtensa-lx106-elf-gcc / xtensa-esp32-elf-gcc	ESP8266/ESP32
MSP430	msp430-elf-gcc	MSP430
Android system	gcc	x86, x86_64, arm, arm64
Mikroe	MikroC-PIC/STM	PIC32MX, PIC32MZ, Cortext M0, M3, M4, M7
IAR	IAR compiler	Cortex-M0, M0+, M3, M4, M4_FPU, M7
Raspberry pi	Arm-linux-gnueabi-hf-gcc	Pi0-armv6 32bits, pi3-armv8-a 64bits

## 2. Binary Size on different platform

**The BSEC lite version is an abbreviated version of BSEC with reduced code size & memory requirements. It does not include functions to save the state of BSEC, if the device powers down.**

Platform Type	Compiler	Size in bytes (normal version / lite version)		
		ROM(.text)	RAM(.data+.bss)	File Size*
Cortex-M0	ARMCC	19689 / 12697	1000 / 984	211k / 137k
Cortex-M0+		19689 / 12697	1000 / 984	211k / 137k
Cortex-M3		18961 / 12175	1000 / 984	207k / 134k
Cortex-M4		18961 / 12175	1000 / 984	207k / 134k
Cortex-M4_FPU		20071 / 13167	1000 / 984	214k / 137k
Cortex-M7		18979 / 12193	1000 / 984	207k / 134k
Cortex-M0	GCC	22631 / 14023	1000 / 984	88k / 58k
Cortex-M0+		22631 / 14023	1000 / 984	88k / 58k
Cortex-M3		20631 / 12631	1000 / 984	84k / 56k
Cortex-M4		20623 / 12619	1000 / 984	83k / 56k
Cortex-M4_FPU		20879 / 12775	1000 / 984	80k / 52k
Cortex-M7		20731 / 12599	1000 / 984	79k / 51k
Cortex-A7		21207 / 13095	1000 / 984	84k / 56k
AVR8bit-MegaAVR	AVR-GCC	42367/26543	922/916	138k/87k
AVR8bit-XMEGA		41661/26333	922/916	138k/87k

AVR 32bit		24056/13970	1240/1216	135k/80k
ESP 8266	xtensa-lx106-elf-gcc	28227 /17714	1008/984	193k/119k
ESP32	xtensa-esp32-elf-gcc	23931/14721	1008/984	182k/107k
Msp430	msp430-elf-gcc	35301/22675	948/936	126k/83k
Android-x86	gcc	47124/26646	980/956	497k/308k
Android-x86_64		38637/22129	1008/984	789k/494k
Android-arm		21110/13070	1008/984	502k/307k
Android-arm64		36160/19804	1008/984	783k/469k
Cortex-M0	IAR	20462/12768	1000/984	155k/103k
Cortex-M0+		20462/12768	1000/984	155k/103k
Cortex-M3		19752/11996	1000/984	154k/100k
Cortex-M4		19760/12004	1000/984	154k/100k
Cortex-M4_FPU		20430/12634	1000/984	157k/100k
Cortex-M7		19780/12016	1000/984	154k/100k
Raspberry-pi0	Arm-linux-gnueabi-hf-gcc	73192/61332	1008/984	147k/126k
Raspberry-pi3		73836/61876	1008/984	145k /124k

\*Note: ROM/RAM size is basic requirement of BSEC. File size doesn't count.