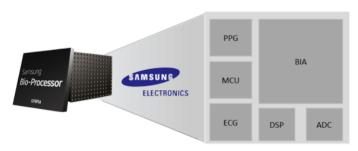


## ■ Bio-processor EVM: Multi-channel biosignal dedicated development board for developers and educators

### \* What is Bio-processor?



- Bio-processor is a chip made by Samsung and is a healthcare chip solution in which various biosignal measurement/ processing functions are integrated into one chip.
- Bio-processor has a built in application that can measure BIA(Body Impedance Analysis), ECG(Electro Cardio Gram), PPG(PhotoPlethysmoGraph) including 32-bit microprocessor, so it is possible to provide various biosignal related services
- 32-bit microprocessor built-in and an application it supports communications that follows standard protocol, so it is very easy to expand other sensors. and while providing various function, the chip size is 4.8X4.6X0.26(mm), which is the smallest among the existing biosignal providing processors.
- As a compact and high-performance processor, it is possible to provide a solution optimized for wearable devices and biosignal measuring device.

# \* Development board using Bio-processor

- In order to activate the sales of Bio-processors, developers need a development board that allow them to easily use Bioprocessor. (We called "open source hardware")



#### \* Market

• As the healthcare market grows, there are more competitors, as the product release cycle tends to be shortened, the open source hardware market is also growing in terms of shortening the development period and accessibility.



• There are only Bio-processor in the world that can process various biosignal with one chip, and as the healthcare market grows, it is expected that more developers who require development boards for Bio-processor will increase.

### \* Possibility

- In November 2020, Life Science Technology Inc. was allowed to register Bio-processor open sources hardware in ARM Mbed(<a href="https://os.mbed.com">https://os.mbed.com</a>), which open platform is used by 400,000 developers around the world through Samsung Electronics.
- By registering the development board in ARM Mbed, developers around the world can easily purchase the development board for Bio-processor and use various function in ARM Mbed.
- Life Science Technology Inc. will prepare 1,000sets of Bioprocessor development boards and start selling them from Jan, 2021 through ARM Mbed, and we plan to gradually increase the quantity according to the sales trend. (We are expected sold out in the Q2,2021)

## \* Scalability - Education

- The Bio-processor development board we made can be used as an excellent educational kit for students studying biosignal.
- Currently, the number of universities and graduate school in Korea is about 1,600 and most schools are conducted classes related to biosignal.
- Life Science Technology Inc. is preparing educational kits and textbooks using Bio−processor development boards with professors who teach biosignal, and will be released in the Q3, 2021.

# ■ Expected financial sheet

(Unit: 1K dollars)

		2021(E)	2022(E)	2023(E)	2024(E)	2025(E)	Total	
Expected Sales	Development Board(Mbed)	990	1,980	4,950	4,950	9,900	22,770	
	Educational kit	495	990	990	2,970	2,970	8,415	
Total		1,485	2,970	5,940	7,920	12,870	31,185	
	Remarks	in overseas The cost of Developme	Sales unit price is set at \$990/set, and sales separately for education in Korea and for developers in overseas The cost of sales is expected to be about $30 \sim 40\%$ Development board for developer are being conducted in cooperation with Samsung electronics/System LSI					