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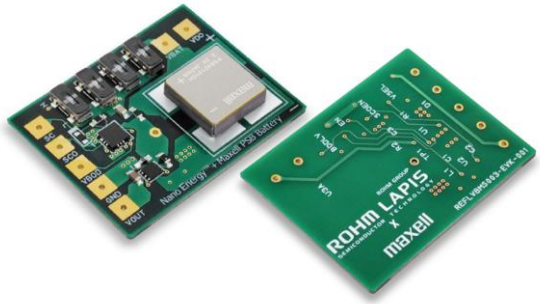
News Release

September 17, 2025
Maxell, Ltd.

Maxell to Launch Power Modules and Energy Harvesting-Compatible Evaluation Kits Featuring All-Solid-State Batteries "PSB401010H" in September

Power Module Equipped with All-Solid-State Batteries
"SBM-DEMOBOARD-011"



Energy Harvesting-Compatible Evaluation Kit
with All-Solid-State Battery "EH-DEMOBOARD"

Maxell, Ltd. (President and Representative Director: Keiji Nakamura / hereinafter "Maxell") will start in September the sales for both the power modules and the energy harvesting-compatible evaluation kits, which utilize the all-solid-state batteries "PSB401010H" as the power source.

The all-solid-state battery "PSB401010H" currently mass-produced by Maxell features a wide discharge temperature range, high reliability, large capacity and output, and high safety[*1].
In recent days, labor shortages have long posed a significant challenge in reducing the manpower required to monitor manufacturing equipment and infrastructure. As one possible solution, the use of IoT devices combined with energy harvesting technology has been under consideration. Our customers have also expressed a need to easily evaluate the highly reliable and long-life all-solid-state batteries to store energy-harvested power in such IoT devices.
To meet such needs, Maxell co-developed with the ROHM group the "Energy Harvesting-Compatible Evaluation Kit" in July 2023[*2], using ROHM Co., Ltd.'s charging control IC for energy harvesting and a boost DC-DC converter IC equipped with ultra-low power consumption technology "Nano Energy™".
Meanwhile, we have also received requests from customers who wish to utilize the unique features of the all-solid-state battery as a main power source[*3] or for long-term backup power. To meet these needs, it was necessary to increase the battery capacity.

To address this need, Maxell developed the “All-Solid-State Battery Power Module” in November 2024[*4], which can be equipped with up to five all-solid-state batteries, making it suitable for applications requiring larger capacity.

This module comes pre-integrated with charging and boosting circuits, eliminating the need for dedicated circuit design and allowing for easy integration into existing systems. Furthermore, this module is capable of discharging at temperatures of up to 125°C, enabling it to support a broader range of applications.

By providing these products to companies considering the adoption of all-solid-state battery power sources, Maxell believes it will streamline evaluation process and ultimately lead to the expansion of applications for all-solid-state batteries.

Maxell will continue to utilize analog core technology to solve many social issues, and we will proceed with the development of all-solid-state batteries and modules, leveraging four key features[*5]: a wide discharge temperature range, high reliability, high capacity and high output, and high safety, to be applicable in areas not usable with existing batteries.

*1 High safety: see details on Maxell’s all solid- state batteries web page.
https://biz.maxell.com/en/rechargeable_batteries/allsolidstate.html
*2 “Energy Harvesting-Compatible Evaluation Kit” in July 2023:Maxell News Release dated July 20, 2023,“Maxell develops energy harvesting-compatible evaluation kit using an all-solid-state battery in conjunction with the ROHM group” https://ssl4.eir-parts.net/doc/6810/ir_material4/211161/00.pdf
*3 Main Power source: Please consult us if you are considering these products for main power source applications.
*4 “All-Solid-State Battery Power Module” in November 2024:Maxell News Release dated November 28, 2024, “Maxell Developed All-Solid-State-Battery-based Power Backup Module for Industrial Equipment” https://ssl4.eir-parts.net/doc/6810/ir_material4/241329/00.pdf
*5 Four features：see details on Maxell’s all-solid- state batteries web page.

Trademarks

All-solid-state battery webpage

https://biz.maxell.com/en/rechargeable_batteries/allsolidstate.html

Contacts

New Business Producing Division Div., Maxell, Ltd.
https://biz.maxell.com/en/rechargeable_batteries/inquiry_form_input1.html

Appendix

Outline Specifications of Power module

Item	Content	Remarks
Product name	Power Module Equipped with All-Solid-State Battery	
Model	SBM-DEMOBOARD-011	
Input Voltage	DC 4.5～26.4 V	
Output Voltage	DC 3.6 V	
Batteries installed	PSB401010H	Equipped with 5 units
Standard cell capacity	40 mAh	The total capacity of the battery measured at an output of 0.05mA per cell and an ambient temperature of +23°C.
Operating Temperature	Charging ：-20 ～ +115 ℃ Discharging：-40 ～ +125 ℃	

For details on the specifications of each evaluation kit, please contact us.

Outline Specifications of Energy Harvesting-compatible evaluation kit

Item	Content	Remarks
Product name	Energy Harvesting-compatible evaluation kit with All-Solid-State Battery	
Model	EH-DEMOBOARD	
Input Voltage	DC 0～3.6 V	
Output Voltage	DC 3.0 / 3.3 V	Switchable with a switch
Battery installed	PSB401010H	Equipped with one unit
Normal capacity	8 mAh	The total capacity of the battery measured at an output of 0.05mA per cell and an ambient temperature of +23°C.
Operating Temperature	Charging ：-20 ～ +70 ℃ Discharging ：-20 ～ +70 ℃	

For details on the specifications of each evaluation kit, please contact us.

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