

Enables short-range wireless communication

## Wi-SUN-Compatible Module

BP35A1

ROHM  
SEMICONDUCTOR

**Class-leading reception sensitivity**

**Wi-SUN firmware included**

- **Compatible with international wireless communication standards**
- **Wi-SUN compliant**  
(Wireless Smart Utility Network)



### ■ Industry-leading receiver sensitivity

-103dBm (100kbps Typ., BER<0.1%)  
Easy-to-connect specified low power module provides high communication quality.

### ■ Built-in antenna eliminates the need for high-frequency designs

### ■ MAC address included

### ■ Integrated Wi-SUN firmware

32bit high power MCU with Wi-SUN-compatible firmware ideal for HEMS applications.

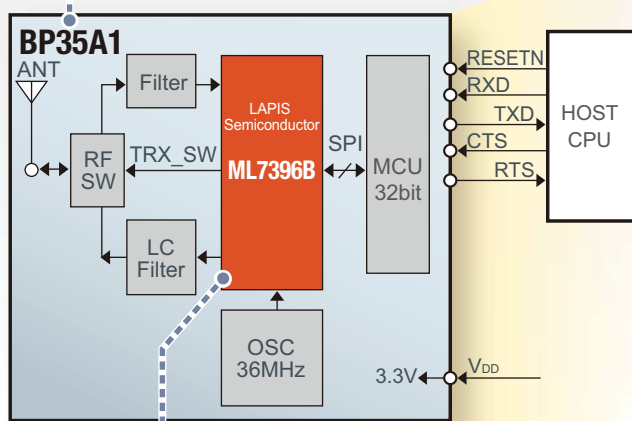
### ■ Japan Radio Law certified

### ■ Pre-adjusted transmitting power

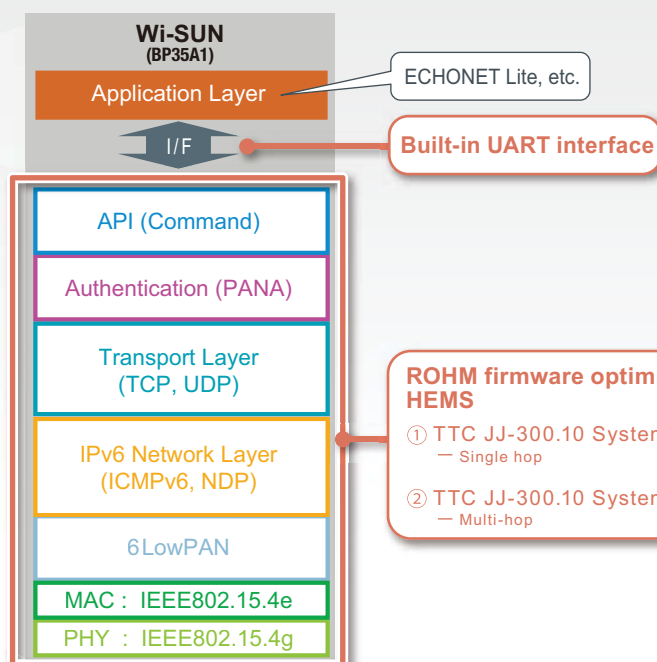


High-performance MCU enables compatibility with a variety of HEMS equipment (via the user-programmable region)

All-in-one design with built-in antenna/ RF/MCU simplify implementation

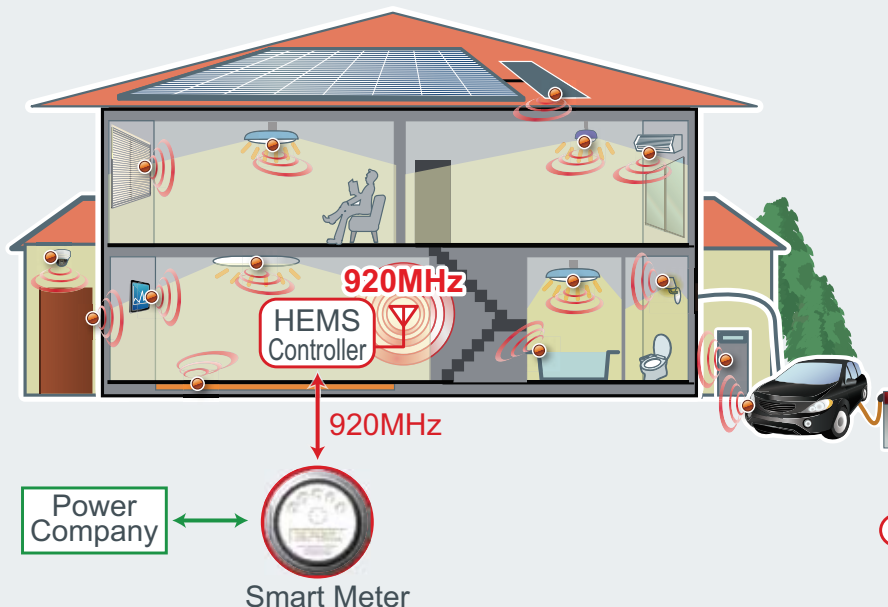


LAPIS Semiconductor LSI provides class-leading reception sensitivity for superior communication quality





Ideal for communication not only between HEMS and Wi-SUN recommended smart meters but with HEMS-compatible devices as well.



## Application Examples

- Solar Panels
- LED Lighting
- Controller for Blinds
- AC
- Security Cameras
- Monitor Tablets
- Floor Heaters
- Hot Water System
- Alarms
- Home Chargers
- HEV/EV Chargers

HEMS

Smart Meter



## Lineup

### Specified Low Power Wireless Module

Part No.	Supply Voltage (V)	Operating Temp. (°C)	Host CPU Interface	Compatible Standards	Wi-SUN Firmware Support	Antenna Diversity Compatibility	Built-in Antenna	Radio Law Certified	Integrated System IC	External Dimensions (mm)	Package*
<b>BP35A1</b>	2.7 to 3.6 (Single)	-20 to +80	• UART (115,200bps)	• ARIB STD-T108 • IEEE802.15.4g/e	✓	–	✓	✓	ML7396B (LAPIS Semiconductor)	22.0×33.5×4.0	Connector Type 0.4mm pitch (20pin)

### Wireless LAN Modules

Part No.	Supply Voltage (V)	Operating Temp. (°C)	Host CPU Interface	Compatible Standards	Antenna Diversity Compatibility	Built-in Antenna	Internal WPS, TCP/IP	Integrated Flash Memory	Radio Law Certified	Integrated System IC	External Dimensions (mm)	Package*
<b>BP3580</b>	3.1 to 3.5 (Single)	-40 to +85	• USB • SDIO • UART	• IEEE802.11b/g/n (Ch1 to Ch13) • IEEE802.11i (Security)	✓	–	✓	–	✓	BU1805GU	17.0×17.0×2.3	Surface Mount Type 1.27mm pitch (48pin)
<b>BP3591</b>	3.1 to 3.5 (Single)	-40 to +85	• USB • SDIO • UART	• IEEE802.11b/g/n (Ch1 to Ch13) • IEEE802.11i (Security)	–	✓	✓	–	✓	BU1805GU	24.0×33.1×4.7	Connector Type 0.5mm pitch (34pin)
<b>BP3595</b>	3.1 to 3.5 (Single)	-40 to +85	• USB • SDIO • UART	• IEEE802.11b/g/n (Ch1 to Ch13) • IEEE802.11i (Security)	–	✓	✓	–	✓	BU1805GU	15.3×27.6×2.6	Connector Type 0.4mm pitch (30pin)
<b>BP3599</b>	3.1 to 3.5 (Single)	-40 to +85	• USB • SDIO • UART	• Firmware included	–	✓	✓	✓	✓	BU1805GU	24.0×33.1×4.7	Connector Type 0.5mm pitch (34pin)

\*All packages are original power module designs

The content specified herein is for the purpose of introducing ROHM's products (hereinafter "Products"). If you wish to use any such Product, please be sure to refer to the specifications, which can be obtained from ROHM upon request. Great care was taken in ensuring the accuracy of the information specified in this document. However, should you incur any damage arising from any inaccuracy or misprint of such information, ROHM shall bear no responsibility for such damage. The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM and other parties. ROHM shall bear no responsibility whatsoever for any dispute arising from the use of such technical information. If you intend to export or ship overseas any Product or technology specified herein that may be controlled under the Foreign Exchange and the Foreign Trade Law, you will be required to obtain a license or permit under the Law.

The contents specified in this document are correct as of September 1st, 2014.



**ROHM Co., Ltd.**

21 Sain Mizosaki-cho, Ukyo-ku,  
Kyoto 615-8585 Japan

www.rohm.com