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Category Wireless Modules

Modules

Wireless Modules

Includes LAPIS Technology products

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Wireless Modules

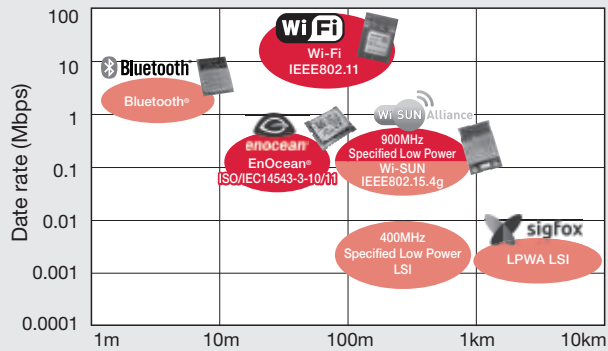
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ROHM Wireless Module Technologies

■ Wireless Communication

ROHM group is developing Wireless Communication devices in a broad range of fields.

The correspondence of various wireless specifications



Wi-SUN Communication Modules (Specified Low Power Radio Modules)

- 920MHz specified low-power wireless module
- Excellent receiver sensitivity
- Built-in antenna eliminates the need for high-frequency designs
- Transmitting power pre-adjusted
- MAC address included
- Japan radio law certified
- Built-in system LSI that made in LAPIS Technology

Built-in antenna	Surface mount	USB dongle
BP35A1	BP35C0 BP35C0-J11 BP35C5	BP35C2

Wi-SUN Communication Modules (Specified Low Power Radio Modules)

Part No.	Supply Voltage (V)	Operating Temperature (°C)	Host I/F	Compatible Standards	Radio law Certification	Dimensions (mm)	Package
BP35A1	2.7 to 3.6 (Single power)	-20 to +80	UART	Wi-SUN Route-B	TELEC	22.0×33.5×3.9	Connector joint type 0.5mm pitch, 20pin
BP35C0	2.6 to 3.6 (Single power)	-30 to +85	UART	Wi-SUN Route-B/HAN	TELEC	15.0×19.0×2.6	SMD 1.27mm pitch, 28pin
BP35C0-J11	2.6 to 3.6 (Single power)	-30 to +85	UART	Wi-SUN Route-B/HAN/Enhanced HAN	TELEC	15.0×19.0×2.6	SMD 1.27mm pitch, 28pin
BP35C2	5.0 (Single power)	-20 to +50	USB	Wi-SUN Route-B/HAN	TELEC	21.4×49.7×8.5	USB Dongle
BP35C5	2.6 to 3.6 (Single power)	-30 to +85	UART	Wi-SUN FAN	TELEC/FCC	15.0×19.0×2.6	SMD 1.27mm pitch, 30pin

Wireless LAN Modules

- IEEE802.11b/g/n compliant Wireless LAN Module
- Built-in baseband IC that made in ROHM
- Transmitting power pre-adjusted
- Japan radio law certified

Surface mount	Built-in antenna	Built-in antenna and small size	Built-in antenna and flash memory	Built-in antenna and MCU
BP3580	BP3591	BP3595	BP3599	BP359B

Wireless LAN Modules

Part No.	Supply Voltage (V)	Operating Temperature (°C)	Host I/F	Compatible Standards/Module Specifications	Onboard IC	Dimensions (mm)	Package*
BP3580	3.1 to 3.5 (Single power)	-40 to +85	USB/SDIO/UART	-IEEE802.11b/g/n	BU1805AGU	17.0×17.0×2.3	SMD 1.27mm pitch, 48pin
BP3591	3.1 to 3.5 (Single power)	-40 to +85	USB/SDIO/UART	-IEEE802.11b/g/n ·BP3580 and chip-antenna into 1 module	BU1805AGU	24.0×33.1×4.7	Connector joint type 0.5mm pitch, 34pin
BP3595	3.1 to 3.5 (Single power)	-40 to +85	USB/SDIO/UART	-IEEE802.11b/g/n ·The small size type of BP3591	BU1805AGU	15.3×27.6×2.6	Connector joint type 0.4mm pitch, 30pin
BP3599	3.1 to 3.5 (Single power)	-40 to +85	USB/SDIO/UART	-IEEE802.11b/g/n ·Type with flash memory mounted on BP3591 ·Firmware is written in a flash memory	BU1805AGU	24.0×33.1×4.7	Connector joint type 0.5mm pitch, 34pin
BP359B	3.1 to 3.5 (Single power)	-40 to +70	UART	-IEEE802.11b/g/n ·Type with MCU and flash memory mounted on BP3591 ·Firmware is written in a flash memory	BU1805AGU	24.0×33.1×4.7	Connector joint type 0.5mm pitch, 34pin

*Original ROHM package used.

Bluetooth® Modules Bluetooth®

- Low power consumption and the best solution for the instruments required a long-life of coin type/button battery
- Bluetooth® low energy single mode module
- Built-in pattern antenna and RF characteristic adjusted before shipment
- Certified radio regulation: TELEC, FCC, ISED (IC), CE



Bluetooth® low energy Modules (LAPIS Technology products)											
Part No.	Supply Voltage (V)	Operating Temperature (°C)	Host I/F	Bluetooth Certification	Radio law Certification	Module Specification	Include Flash/RAM	Include Crystal Oscillator	Include Antenna	Dimension (mm)	Package
MK71511-NNN	1.7 to 3.6	-40 to +85	UART SPI	Ver5.2 (Single mode) QDID: 146733 (RF-PHY Component)	TELEC/FCC/ISED/CE	Role: Master/Slave Application: Blank	Flash: 192KB RAM: 24KB	32MHz 32.768kHz	Pattern	9.7x13.4x2.0	M-FLGA54-9.7X13.4-0.80-9Y
MK71511A-NNN								32MHz			M-FLGA54-9.7X13.4-0.80-9Y
MK71521-NNN							Flash: 512KB RAM: 64KB	32MHz 32.768kHz			M-FLGA54-9.7X13.4-0.80-9Y
MK71521A-NNN							32MHz	M-FLGA54-9.7X13.4-0.80-9Y			

Bluetooth® is a registered trademark of Bluetooth® SIG.

EnOcean® Communication Modules

EnOcean® products are based on energy harvesting battery-less/wireless telecommunication technology.

- Feature**
- EnOcean® Wireless Standard (ISO/IEC 14543-3-10/11)
 - Built-in antenna eliminates the need for high-frequency designs
 - Japan radio law certified

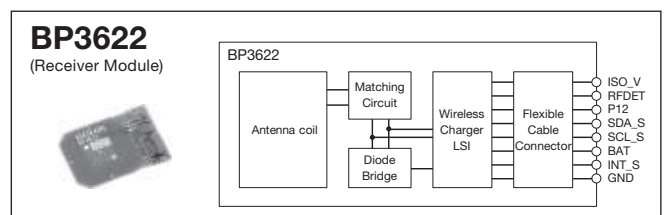
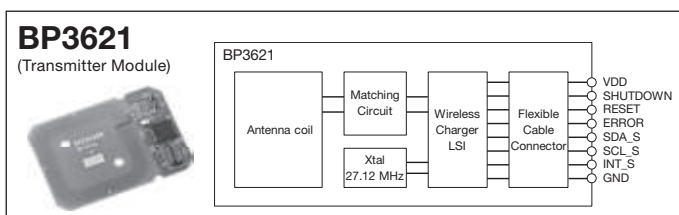
*This product (928MHz frequency band) is permitted as "specified low-power radio station" in Japanese radio law.

EnOcean® Communication Modules/Devices											
Frequency Band	Use Target Area	Products									
		Energy converter for motion energy harvesting (for the switch module)	Transmitter module (for switch module)	Push button multi-channel switch module	Energy harvesting wireless transceiver module	Programmable transceiver module	Energy harvesting magnet contact module	Energy harvesting temperature sensor module	Humidity sensor module	Receiver USB module	Development kit
928MHz	Japan	ECO 200	PTM 535J	PTM 215J	STM 400J	TCM 410J	STM 429J	STM 431J	HSM 100	USB 400J	EDK 400J*
868MHz	Europe/China	ECO 200	PTM 535	PTM210/PTM215	STM 300	TCM 310	STM 329	STM 331	HSM 100	USB 300	EDK 350
902MHz	North America	ECO 200	PTM 535U	PTM 215U	STM 300U	TCM 310U	STM 320U	STM 331U	HSM 100	USB 500U	
921MHz	Asia	ECO 200	-	-	-	-	-	STM 431T	HSM 100	USB 500T	

*Contents: PTM 215J (Switch Module)/USB 400J (USB Dongle)/PTM 535J (Circuit Board for Switch Module)/ECO 200 (Electromagnetic Induction Generator for Switch Module)/STM 431J (Temperature Sensor Module)/STM 400J (Energy Harvesting Wireless Module)/EOP 350 (Programming Board: it's for rewriting of STM 431J, STM 400J)/USB Cable ... Connection cable of EOP 350 and PC
 ●STM 400J in EDK 400J is mounted on the exclusive Substrate to connect to EOP 350
 *EnOcean® is a registered trademark of EnOcean GmbH.

13.56MHz (NFC) Wireless Charger Modules

ROHM's 13.56MHz wireless charger module is a board-integrated module with an antenna. Since the development man-hours for antenna design and matching adjustment can be significantly reduced, the wireless charging function can be easily realized. It contributes to the compact, connectorless, waterproof and dustproof housing design required for wearable devices and IoT devices.



Extensive feeding type 13.56MHz Power Transmitter Wireless Charger Modules									
Part No.	Transmitter/Receiver	Module type	Module size (mm)	Weight (g)	Supply Voltage (V)	Output Power (Max) (mW)	Feeding Distance (d) (mm)	Operating Temperature (°C)	Interface
New BP3621	Power Transmitter	Wide Range type	35.0x26.0x1.5	0.80	4.5 to 5.5	-	10	-10 to +50	8pin, 0.5mm pitch, FPC connector
Extensive feeding type 13.56MHz Power Receiver Wireless Charger Modules									
New BP3622	Power Receiver	Wide Range type	24.0x17.0x1.5	0.38	-	200	10	-10 to +50	8pin, 0.5mm pitch, FPC connector