

Featured Products



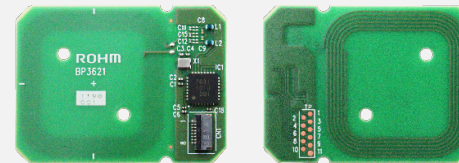
Contributes to compact, connectorless, water-and dust-proof designs

13.56MHz (NFC) Wireless Charger Modules

BP3621 (Transmission Module), BP3622 (Power Receiver Module)

- **Easily adds wireless charging capability**
Capable of supplying up to 200mW at 10mm (face-to-face) distance
- **13.56MHz power supply method facilitates set design**
In addition to a smaller circuit scale with built-in antenna, the modules utilize a backside full flat structure
- **Integrated communication functions**
Supports bidirectional communication without adding a dedicated chip or antenna

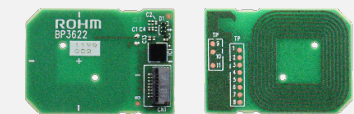
BP3621 (Transmission Module)



Top Bottom

35.0mm x 26.0mm x 1.5mm

BP3622 (Receiver Module)



Top Bottom

24.0mm x 17.0mm x 1.5mm

Comparison with Existing Wireless Charger

	Qi	13.56MHz Wireless Charger
Frequency (f0)	200kHz	13.56MHz
Inductance (L)	20μH	1μH
Power	1W or more	less than 1W
Antenna size	 Φ20 to 50mm	 Several mm ² Cube antenna

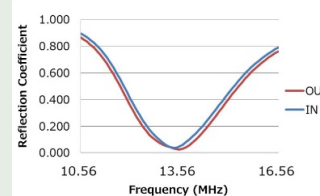
Reduces area by more than 80% vs Qi

Core Technologies of ROHM's Compact Wireless Charger Modules

1. High-frequency design

- Optimized antenna design

Antenna Coil Resonant Frequency Matching Characteristics



Simulates the effects of pattern antennas and design parameters with unique matching adjustments

Matched antenna ensures stable power supply

Integrated board shape achieves greater miniaturization

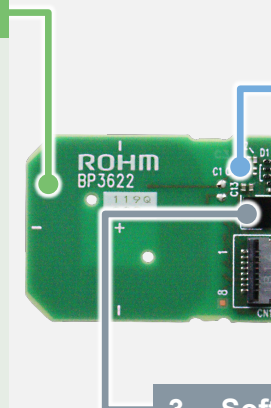
2. Efficient power supply

- Includes a matching capacitor
- Layout design

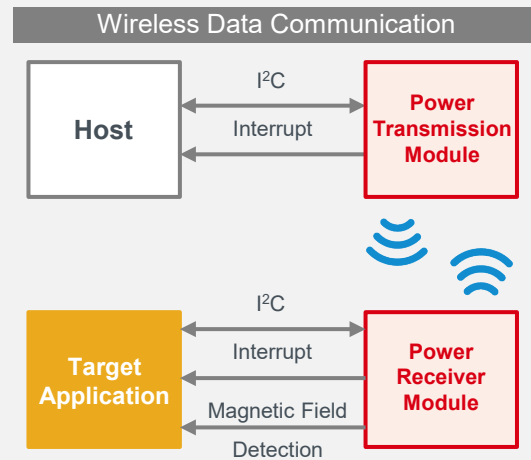
Achieves maximum efficiency through board fabrication that incorporates layout design technology

3. Software

- Built-in NFC tag communication and wireless charger functions



■ 13.56MHz Enables Power Supply and Communication with a Single Antenna

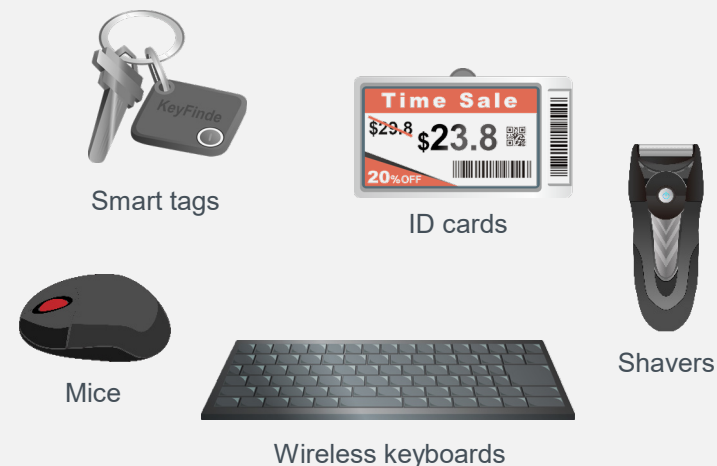


- Bluetooth pairing
- Website navigation
- Application-specific startup
- Reading device-specific and personal authentication information
- Downloading firmware
- Secure transmission of sensor data
- Transferring battery output voltage values
- Secure rewriting of device-specific / personal authentication/manufacturing information

Various types of application communication possible without additional antennas

Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

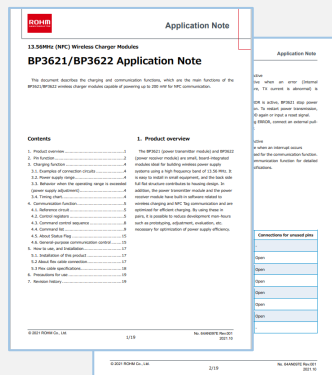
■ Applications



Ideal for thin, compact devices requiring connectorless, water-/dust-proof performance

■ Application Notes

https://fscdn.rohm.com/en/products/databook/applnote/module/wireless/bp3621_bp3622_an-e.pdf



Details on terminals, power supply, and communication functions along with usage and installation methods allow users to immediately verify operation

■ Product Lineup

Part No.	Module Type	Supply Voltage (V)	Output Power (W)	Interface	size (mm)	Weight
New BP3621	Power Transmission Module	4.5 to 5.5	—	8pin 5mm pitch flex connector	35.0×26.0×1.5	0.80
New BP3622	Receiver Module	—	200 (d=10.0mm(Typ))		24.0×17.0×1.5	0.38



What's appealing about this demo unit is that it adds functionality via contact-free operations, when used with devices handled by the general public.

<https://www.youtube.com/watch?v=eyaBxb140zg>

Watch a product demonstration showing the wireless power supply and communication capabilities of ROHM's modules

Online Distributors



BP3621 (Transmission Module)
BP3622 (Receiver Module)



BP3621 (Transmission Module)
BP3622 (Receiver Module)



BP3621 (Transmission Module)
BP3622 (Receiver Module)

The information contained in this document is current as of November 1, 2021.



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