

PE566212

Product Brief

2.4 GHz SOI Front-end Module for Bluetooth®/Zigbee®/Thread IoT Applications



Features

- Fully monolithic high-performance PA, LNA, and SW
- Power-efficient Tx up to +20 dBm output power
- Tx digital gain control with 22.5-dB range, 1.5-dB steps
- Excellent Rx NF (1.8 dB, typ.) with low-loss bypass path (0.8 dB, typ.)
- Bluetooth BDR and Bluetooth Low Energy (+20 dBm P_{OUT})
- Minimal external components required
- GPIO control interface
- Packaging: Ultra-compact 14-lead 1.8 × 1.8 × 0.63 mm LGA (MSL3)

Applications

- Smart speakers
- Smart lighting
- Smart thermostats
- In-home appliances
- Internet-of-Things (IoT) devices
- Range extenders
- Wireless audio
- Wearables
- Sensors

Product description

The PE566212 is a high-performance, fully integrated front-end module (FEM) designed for Thread, Zigbee, and Bluetooth applications, including Bluetooth Low Energy. With excellent wireless range due to high-performance Tx and Rx paths, the PE566212 is excellent for applications that power efficient link robustness, minimizing dropped packets and maximizing power savings.

The PE566212 is manufactured on pSemi's UltraCMOS+™ process, a patented advanced form of silicon-on-insulator (SOI) technology.

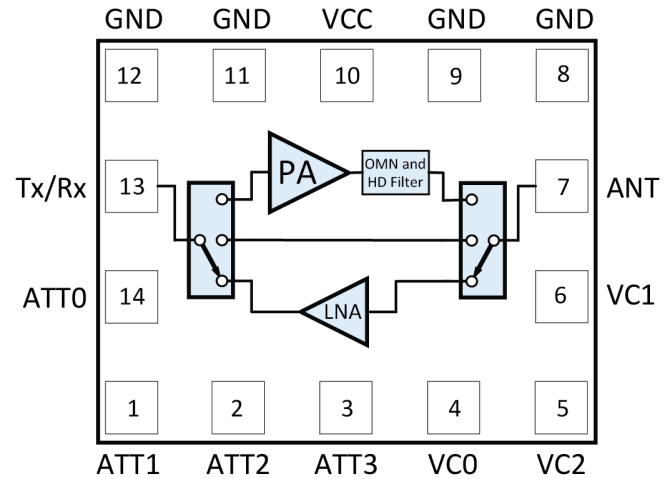


Figure 1. PE566212 functional diagram



Ordering information

Order code	Description	Packaging	Shipping method
PE566212A-R	PE566212 2.4 GHz IoT FEM	Green 14-lead 1.8 × 1.8 × 0.63 mm LGA	5000 units/T&R
EK566212-01	PE566212 evaluation board	Evaluation board	1/box

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