

PE566213

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 15-dB range, 1-dB steps
- Excellent Rx NF (1.8 dB, typ.) with low-loss bypass path (0.8 dB, typ.)
- Bluetooth BDR (+20 dBm) and EDR (+12 dBm)
- Minimal external components required
- GPIO control interface
- Packaging: Ultra-compact 14-lead 1.8 × 1.8 × 0.63 mm LGA (MSL3)

Applications

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

Product description

The PE566213 is a high-performance, fully integrated front-end module (FEM) designed for Thread, Zigbee, and Bluetooth applications, including Bluetooth Low Energy. With Bluetooth EDR support of +12 dBm output power, excellent power efficiency, and extended wireless range, the PE566213 enables applications such as wireless audio, wearables, and other applications requiring enhanced throughput.

The PE566213 is manufactured on pSemi's UltraCMOS+™ process, a patented advanced form of silicon-on-insulator (SOI) technology.

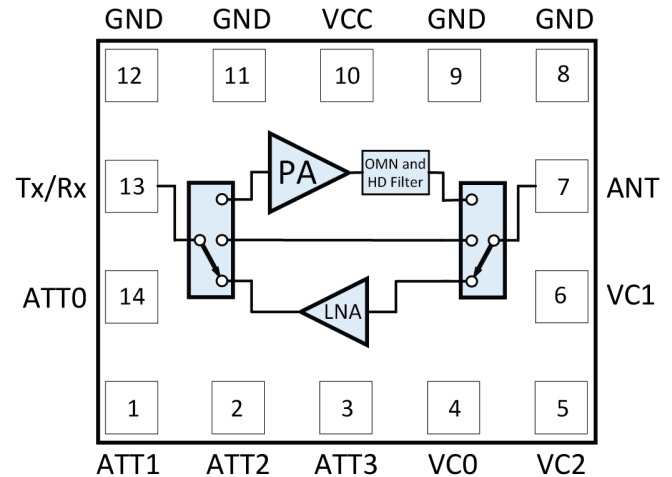


Figure 1. PE566213 functional diagram



Ordering information

Order code	Description	Packaging	Shipping method
PE566213A-R	PE566213 2.4 GHz IoT FEM	Green 14-lead 1.8 × 1.8 × 0.63 mm LGA	5000 units/T&R
EK566213-01	PE566213 evaluation board	Evaluation board	1/box

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