PE562212

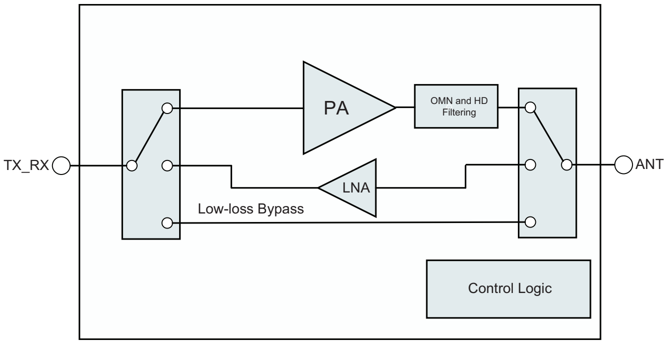
Document Category: Product Brief

2.4 GHz SOI Front-End Module for Thread/Zigbee®/ Bluetooth®/Wi-Fi® IoT Applications

Features

- Fully monolithic high-performance PA, LNA, SW
- Linear PA with up to +21 dBm output power
- Tx digital gain control with 15-dB range, 1-dB steps
- Excellent Rx NF (1.6 dB, typ.) with low-loss bypass path (0.6 dB, typ.)
- Bluetooth BDR (+21 dBm) and EDR (+15 dBm) operation
- Low-to-medium throughput Wi-Fi® (MCS7) capability
- Minimal external components required (bypass cap on VCC and VDD)
- Packaging: Ultra-compact 14-lead 1.8 × 1.8 × 0.63 mm LGA (MSL3)
- GPIO control interface

Figure 1 • PE562212 Functional Diagram



Applications

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

Product Description

The PE562212 is a high-performance, fully integrated FEM designed for Thread and Zigbee applications and Bluetooth, including Bluetooth Low Energy. The PE562212 is also capable of low-to-medium Wi-Fi throughput for devices that require FW upgrades or applications with the need for increased data traffic.

The PE562212 is manufactured on pSemi's UltraCMOS® process, a patented advanced form of silicon-on-insulator (SOI) technology.

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Ordering Information

Table 1 lists the PE562212 order codes and shipping methods.

Table 1 • PE562212 Order Codes and Shipping Methods

Order Codes	Description	Packaging	Shipping Method
PE562212A-R	2.4 GHz IoT FEM	Green 14-lead 1.8 × 1.8 × 0.63 mm LGA	5000 units T/R
EK562212-01	PE562212 Evaluation board	Evaluation board	1/Box

Document Categories

Advance Information

The product is in a formative or design stage. The datasheet contains design target specifications for product development. Specifications and features may change in any manner without notice.

Preliminary Specification

The datasheet contains preliminary data. Additional data may be added at a later date. pSemi reserves the right to change specifications at any time without notice in order to supply the best possible product.

Product Specification

The datasheet contains final data. In the event pSemi decides to change the specifications, pSemi will notify customers of the intended changes by issuing a CNF (Customer Notification Form).

Product Brief

This document contains a shortened version of the datasheet. For the full datasheet, contact sales@psemi.com.

Sales Contact

For additional information, contact Sales at sales@psemi.com.

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