# PE42448

## Document Category: Product Brief

*UltraCMOS® SP4T RF Switch, 2.3 GHz–5 GHz*

## Features

- Low insertion loss:
  - 0.6 dB at 2.6 GHz
  - 0.7 dB at 3.8 GHz
- High linearity IIP3: 88.5 dBm
- High power handling: 39.5 dBm RMS with 11 dB PAR
- Operating temperature: +115 °C
- Packaging: 20-lead 4 × 4 mm LGA

## Applications

- Analog hybrid beamforming RF front end
- 5G massive MIMO active antenna system (AAS)
- 4G/4.5G TD-LTE macro/micro cell/RRH



*Figure 1 • PE42448 Functional Diagram*
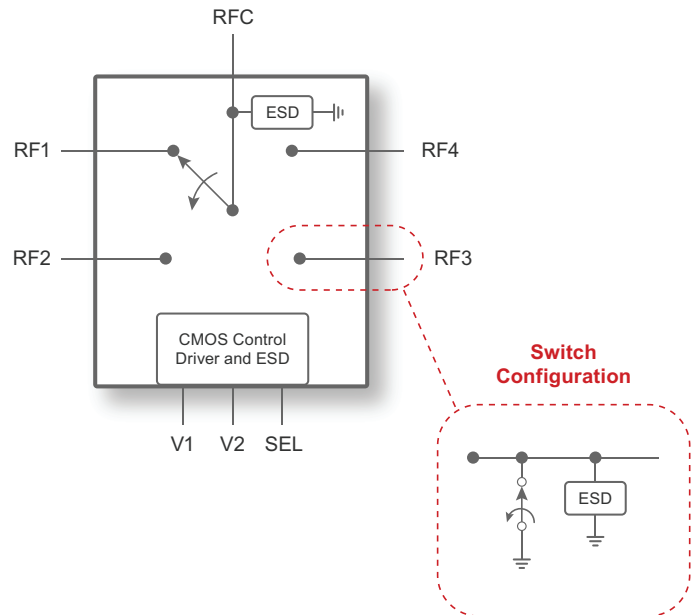
## Product Description

The PE42448 is a HaRP™ technology-enhanced SP4T RF switch that supports a frequency range from 2.3 GHz to 5 GHz. It delivers extremely low insertion loss and high linearity with high input power handling capability making this device ideal for hybrid analog beamforming and in 5G massive MIMO (multi-input multi-output) applications. No blocking capacitors are required if DC voltage is not present on the RF ports.

The PE42448 is manufactured on pSemi's UltraCMOS® process, a patented advanced form of silicon-on-insulator (SOI) technology.

# Ordering Information

*Table 1 • PE42448 Order Codes and Shipping Methods*

| Order Codes | Description | Packaging | Shipping Method |
|---|---|---|---|
| PE42448A-Z | PE42448 SP4T switch | Green 20-lead 4 × 4 mm LGA | 3000 units/T&R |
| EK42448-01 | PE42448 evaluation kit | Evaluation kit | 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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