PE42546

Document Category: Product Brief

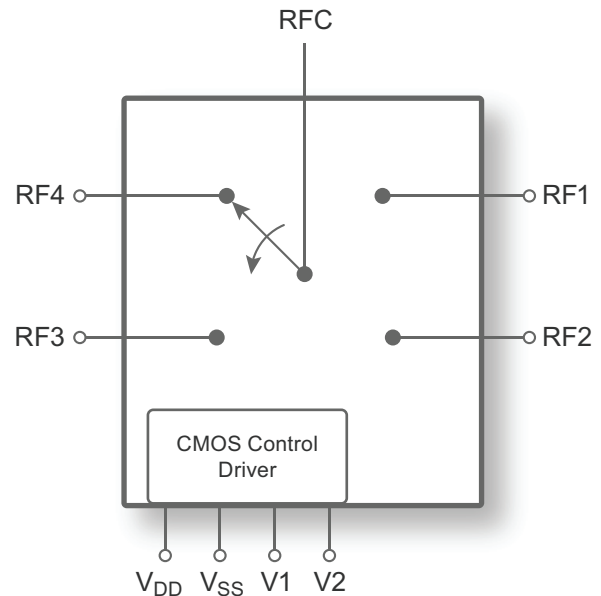### UltraCMOS® SP4T RF Switch, 9 kHz–52 GHz

Features

- Wideband support up to 52GHz
- Low insertion loss of 2.9 dB @ 45 GHz
- Fast switching time of 60 ns
- High input P1dB of 35 dBm
- High port-to-port isolation of 41 dB
- -40 °C to +105 °C operating temperature support
- Package: 20-lead 3×3 mm LGA

Applications

- Test and measurement (T&M)
- 5G mmWave
- Microwave backhaul
- Radar
- Satellite communications

Figure 1 ▪ PE42546 Functional Diagram

Product Description

The PE42546 is a HaRP™ technology-enhanced reflective SP4T RF switch die that supports a wide frequency range from 9 kHz to 52 GHz. It delivers low insertion loss, fast switching time and high isolation performance, making this device ideal for test and measurement (T&M), 5G mmWave, microwave backhaul, radar and satellite communication applications. No blocking capacitors are required if DC voltage is not present on the RF ports.

The PE42546 is manufactured on pSemi's UltraCMOS® process, a patented variation of silicon-on-insulator (SOI) technology.

Ordering Information

Table 1 lists the available ordering codes for the PE42546 as well as available shipping methods.

Table 1 ▪ Order Codes for PE42546

Order Codes	Description	Packaging	Shipping Method
PE42546A-Z	PE42546 SP4T RF Switch	20-lead 3×3 mm LGA	3000 die/T&R
EK42546-88	PE42546 SP4T RF Switch Connectorized EVK	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

The product brief contains summary product information.

Sales Contact

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

Disclaimers

The information in this document is believed to be reliable. However, pSemi assumes no liability for the use of this information. Use shall be entirely at the user's own risk. No patent rights or licenses to any circuits described in this document are implied or granted to any third party. pSemi's products are not designed or intended for use in devices or systems intended for surgical implant, or in other applications intended to support or sustain life, or in any application in which the failure of the pSemi product could create a situation in which personal injury or death might occur. pSemi assumes no liability for damages, including consequential or incidental damages, arising out of the use of its products in such applications.

Patent Statement

pSemi products are protected under one or more of the following U.S. patents: patents.psemi.com

Copyright and Trademark