

PE42548

Document Category: Product Brief

UltraCMOS® SP4T RF Switch, 9 kHz–30 GHz



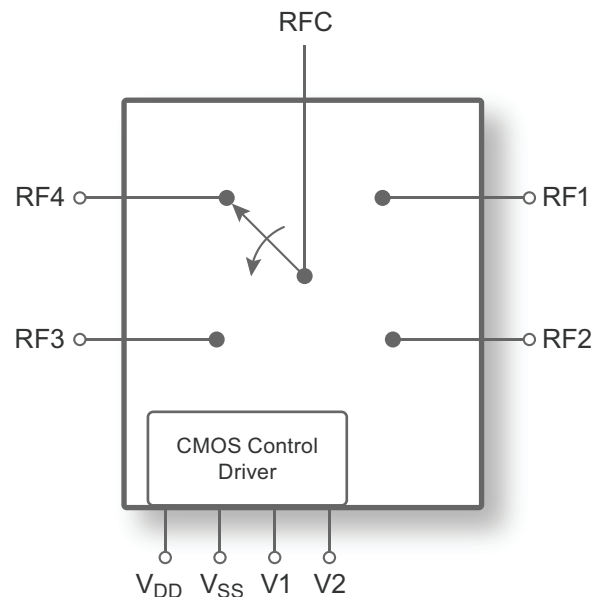
Features

- Wideband support up to 30 GHz
- Low insertion loss of 2.0 dB @ 26.0 GHz
- Fast switching time of 60 ns
- High input P1dB of 32 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 ■ PE42548 Functional Diagram



Product Description

The PE42548 is a HaRP™ technology-enhanced reflective SP4T RF switch that supports a wide frequency range from 9 kHz to 30 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 PE42548 is manufactured on pSemi's UltraCMOS® process, a patented variation of silicon-on-insulator (SOI) technology.

Revision History

Table 1 ■ Revision History

Document Revision	Date	Change Description
DOC-119060-1	May 2024	Initial release
DOC-119060-2	June 2024	Features

Ordering Information

Table 2 lists the available ordering codes for the PE42548 as well as available shipping methods.

Table 2 ■ Order Codes for PE42548

Order Codes	Description	Packaging	Shipping Method
PE42548A-X	PE42548 SP4T RF Switch	20-lead 3×3 mm LGA	500 IC/T&R
PE42548A-Z	PE42548 SP4T RF Switch	20-lead 3×3 mm LGA	3000 IC/T&R
EK42548-88	PE42548 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).

Sales Contact

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

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