

PE44951

Document Category: Product Brief



Two-Way Phase Shifter with DSA, 6.025–7.525 GHz

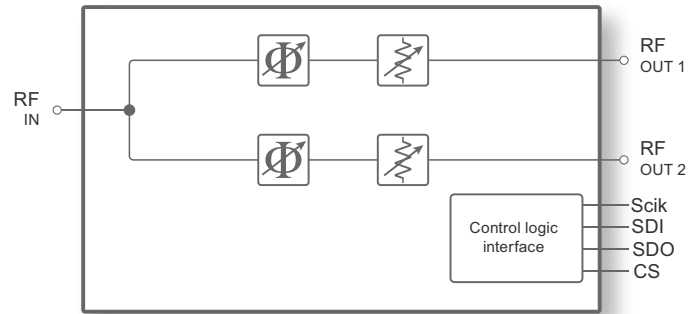
Features

- Highly integrated two-way phase shift with digital step attenuation
- Phase shift range of 357°
- Low insertion loss
- High channel isolation
- +115 °C operating temperature
- Packaging – 32-lead 5 × 5 × 0.7 mm FCLGA

Applications

- Input signals phase and magnitude control for power amplifier
- 4G macro/micro cell
- 5G massive MIMO system

Figure 1 ■ PE44951 Functional Diagram



Product Description

The PE44951 is a highly integrated two-way phase shifter with digitally controlled step attenuators that can be used across the 6.42 to 7.21 GHz frequency range. Each path is controlled through its SPI control pins. The PE44951 is ideal for wireless infrastructure applications such as massive MIMO (mMIMO) macro and micro base stations as well as next-generation 5G solutions and small cell applications.

This phase shifter and attenuation are manufactured on pSemi's UltraCMOS® process, a patented variation of silicon-on-insulator (SOI) technology on a sapphire substrate, which features high compactness, excellent isolation and low insertion loss.

Ordering Information

Table 1 lists the available ordering codes for the PE44951 as well as available shipping methods.

Table 1 ■ Order Codes for PE44951

Order Codes	Description	Packaging	Shipping Method
PE44951A-Z	Monolithic phase shifter with DSA	32-lead 5 × 5 × 0.7 mm FCLGA	3000 units / T&R
EK44951-01	PE44951 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.

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

©2023, pSemi Corporation. All rights reserved. The Peregrine Semiconductor name, Peregrine Semiconductor logo and UltraCMOS are registered trademarks and the pSemi name, pSemi logo, HaRP and DuNE are trademarks of pSemi Corporation in the U.S. and other countries.