

PE44951

Document Category: Product Brief



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

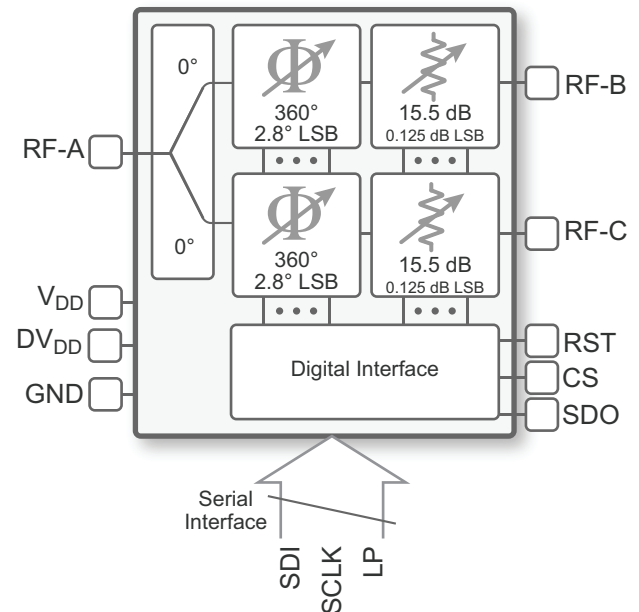
Features

- Highly integrated two-way splitter, phase shift with digital step attenuation
- 7-bit digital phase shifter, phase shift range of 360°, 2.8° resolution
- 7-bit digital step attenuator, 15.5-dB range, 0.125-dB resolution
- Low insertion loss
- High channel isolation
- Fast switching time of 320 ns
- Input IP3 +55 dBm
- +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 cells/small cells (micro, pico)
- 5G massive MIMO system
- Distributed antenna systems (DAS)
- Precision phase shifter
- Dual polarization antenna alignment
- Analog linearization techniques

Figure 1 • PE44951 Functional Diagram



Product Description

The PE44951 is a highly integrated two-way phase shifter with digitally controlled step attenuators for use across the 6.025 to 7.525 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 and next-generation 5G solutions and small cell applications.

This phase shifter and attenuation are manufactured on the pSemi 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 • PE44951 Order Codes and Shipping Methods

| 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.

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