**PE423211**

**Document Category: Product Brief**

*UltraCMOS® SPDT RF Switch, 300 MHz–10.6 GHz*

**Features**
- AEC-Q100 Grade 2-qualified
- Broadband frequency support: 0.3 to 10.6 GHz
- Suitable for ISM band, Bluetooth®, 802.11 a/b/g/n/ac/ax and ultra-wideband (UWB)
- Low power consumption of 90 nA
- Low insertion loss
  - 0.3 dB @ 6 GHz
  - 0.5 dB @ 8.5 GHz
  - 0.6 dB @ 10.6 GHz
- High isolation
  - 30 dB @ 6 GHz
  - 15 dB @ 8.5 GHz
  - 15 dB @ 10.6 GHz
- P1dB = +25 dBm
- Operating temperature range: -40 to +105 °C
- ESD performance
  - 2000V HBM
  - 500V CDM
- Packaging – 6-lead 1.6 × 1.6 mm DFN

**Applications**
- 802.11 a/b/g/n/ac/ax and Bluetooth
- Ultra-wideband (UWB)
- Remote keyless entry
- Telematics
- Infotainment
- In-cabin monitoring system (ICMS)
- General-purpose switching

**Figure 1 • PE423211 Functional Diagram**

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**Product Description**

The PE423211 is a HaRP™ technology-enhanced reflective 50Ω SPDT RF switch designed for use in high-performance ISM, WLAN 802.11 a/b/g/n/ac/ax, Bluetooth and UWB applications supporting bandwidths up to 10.6 GHz.

This switch features low power consumption, low insertion loss, high port-to-port isolation, fast switching speed, and high-power handling, all in a compact 6-lead 1.6 × 1.6 mm DFN package. The PE423211 device also has robust ESD and temperature performance.

The PE423211 is manufactured on pSemi’s UltraCMOS® process, a patented silicon-on-insulator (SOI) technology.
# Revision History

<table>
<thead>
<tr>
<th>Document Revision</th>
<th>Date</th>
<th>Change Description</th>
</tr>
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<tbody>
<tr>
<td>DOC-116694-1</td>
<td>November 2023</td>
<td>Initial release</td>
</tr>
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</table>
**Ordering Information**

Table 2 lists the available ordering codes for the PE423211 as well as available shipping methods.

**Table 2 - Order Codes for PE423211**

<table>
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<tr>
<th>Order Codes</th>
<th>Description</th>
<th>Packaging</th>
<th>Shipping Method</th>
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</thead>
<tbody>
<tr>
<td>PE423211A-Z</td>
<td>PE423211 SPDT RF switch</td>
<td>Green 6-lead 1.6 × 1.6 mm DFN</td>
<td>3000 units/T&amp;R</td>
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<tr>
<td>EK423211-01</td>
<td>PE423211 Evaluation kit</td>
<td>Evaluation kit</td>
<td>1/Box</td>
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**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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**Patent Statement**

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