

## Evaluation Kit

The 2-bit DSA evaluation kit board was designed to ease customer evaluation of pSemi's PE43205.

To evaluate the PE43205, apply 3.3V to the  $V_{DD}$  header pin and Ground to the GND header pin. The DUT can be controlled two ways:

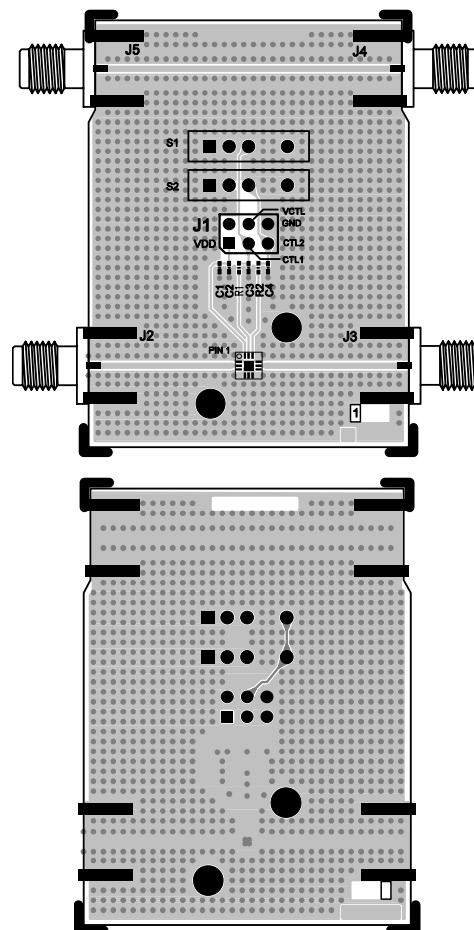
1. *The mechanical switches in conjunction with the VCTL pin can be used.* Apply desired control voltage to VCTL header pin. The top mechanical switch controls the 6 dB stage, the bottom mechanical switch controls the 12 dB stage. For each switch, the left position is the 0V condition, while the right position is the  $V_{CTRL}$  condition. The middle position leaves the control pin floating.
2. *The CTL1 and CTL2 pins on the header can be used.* Each pin directly controls the 6 dB and 12 dB stage respectively. The VCTL pin on the header is left open. The mechanical switches may be left uninstalled or must be kept in the middle position.

Note: To accurately measure the fast switching performance of the PE43205, C3 and C4 should be removed.

## Power-up Control Settings

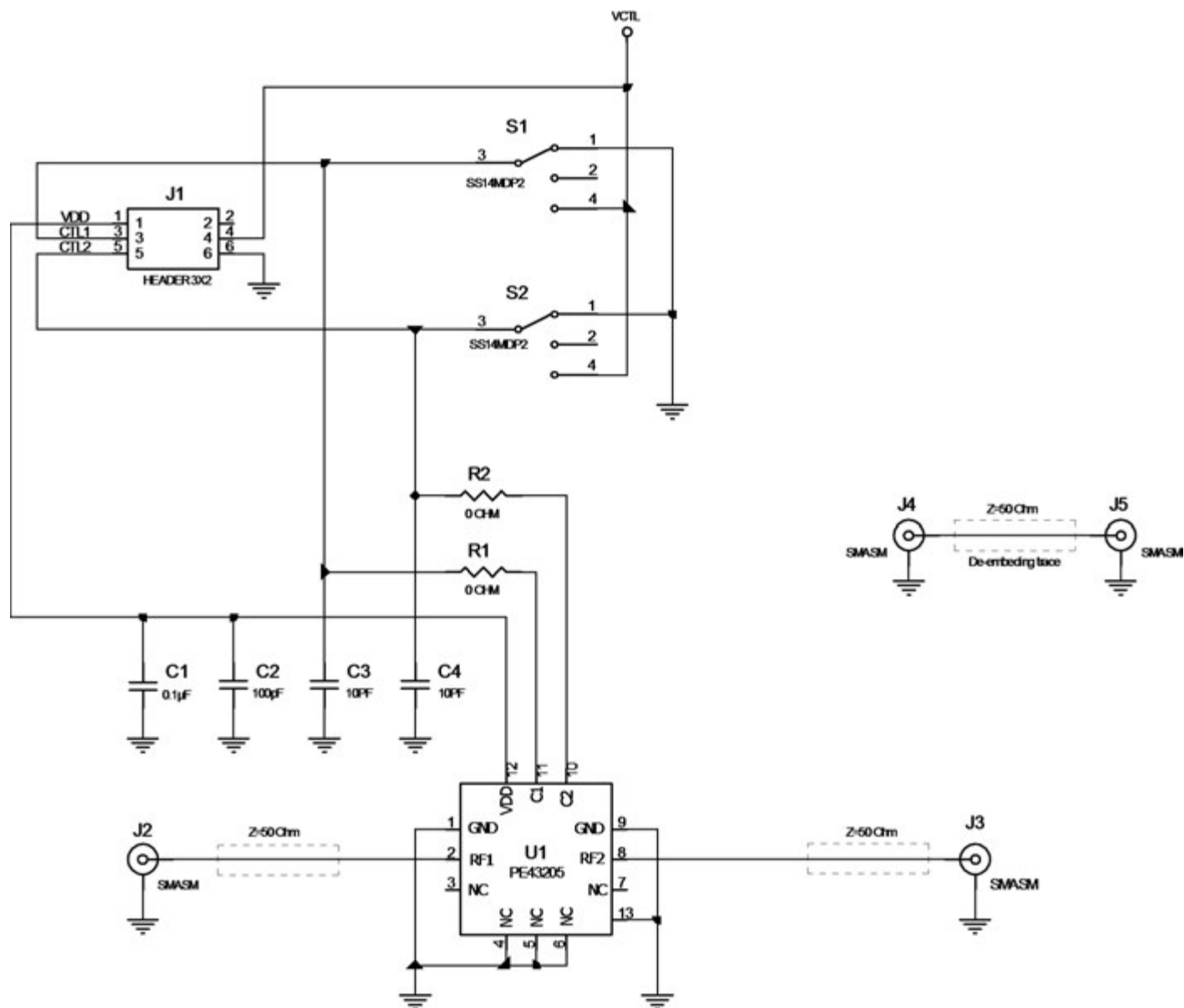
The PE43205 will always power up into the state determined by the voltages on the two control pins. The DSA can be preset to any state within the 18 dB range by pre-setting the parallel control pins prior to power-up. There is a 10  $\mu$ s delay between the time the DSA is powered-up to the time the desired state is set. If the control pins are left floating during power-up, the device will default to the minimum attenuation setting (insertion loss state).

**Figure 13. Evaluation Board Layout**



PRT-53374

**Figure 14. Evaluation Board Schematic**



- Notes: 1. Use PCB part number PRT-53374.  
2. CAUTION: Contains parts and assemblies susceptible to damage by electrostatic discharge (ESD).

DOC-30927