

# APPLICATIONS NOTE AN-80-001

## Using model PSW-1211 as a SPST switch

As shown by the functional block diagrams, the PSW-1211 is very similar to the discontinued model PSW-1111. Because of this similarity, with the addition of a 50 ohm resistor at output #1, the PSW-1211 can be used in place of the PSW-1111.

### Functional block diagrams

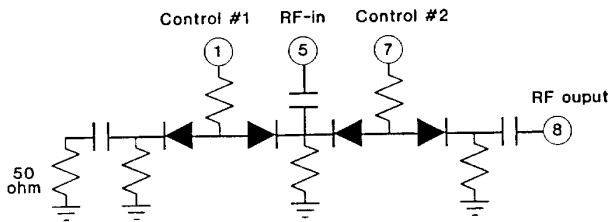


Figure 1: PSW-1111, SPST switch

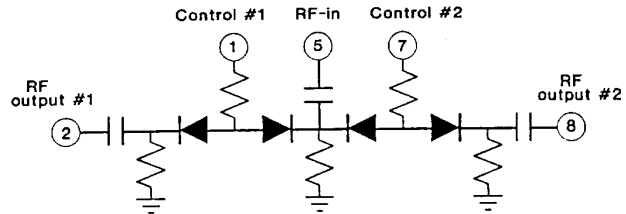


Figure 2: PSW-1211, SPDT switch

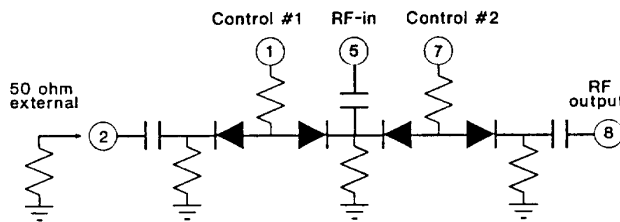


Figure 3: PSW-1211 with 50 ohm resistor at output #1

With output #1 terminated in 50 ohms, the PSW-1211 may be operated as either an absorptive or a reflective SPST switch.

For an absorptive application, both control #1 and #2 must be used. The logic is given in table 1.

	Control #1 (pin 1)	Control #2 (pin 7)	Output (pin 8)
State 1:	0 V	+5 V	ON
State 2:	+5 V	0 V	OFF

Table 1. Logic of PSW-1211 used as SPST absorptive switch

At state 2, the signal path closes from the input (pin 5) to pin 2 and the signal is absorbed at the 50 ohm termination.

For a reflective application, control #1 can be either open or grounded. This will cause the signal to reflect back to the input source when control #2 is 0 volt.

Our discussion has focused on using the PSW-1211 as a replacement for the PSW-1111 with pin 8 as the output. However, if the PC board layout is such that terminating pin 8 in 50 ohms is more convenient, then this may be done and pin 2 can be used as the output with opposite logic.

Please direct any questions or comments on this application note to our Applications Dept.