

Keysight Solid State Switches

Superior performance with high isolation

Fast switching speed across a broad operating frequency range

Safe, accurate test for sensitive RFIC components

Exceptional long operating life



FET SPDT Switch



FET Hybrid SPDT



Transfer PIN Switch

There are three types of solid state switches

- PIN diode switches
- Field-effect transistor (FET) switches
- Hybrid switches (FET and PIN diode)

Typical performance

- **Fast switching speed**
350 μ s (typical)
- **High isolation**
> 100 dB at 8 GHz
- **Low video leakage**
Prevent damage to sensitive components
- **Broad frequency range**
From kHz to 8, 18, or 50 GHz and low frequency testing
- **Exceptional long operating life**

Product specifications

Solid state switches

Model	Frequency	Termination	Isolation (dB)	Insertion loss (dB)	Return loss for ON port (dB)	Switching speed rise/fall (Typ)	Typical video leakage (mVpp)	Connector	Input power (average)	Driving voltage (V)
PIN SPDT										
P9402A	100 MHz to 8 GHz	Absortive	80	3.2	15	380 ns	3400	SMA (f)	23 dB	5
P9402C	100 MHz to 18 GHz	Absortive	80	4	10	380 ns	3400	SMA (f)	23 dB	5
85331B	45 MHz to 50 GHz	Absortive	75	15.5 at 26.5 GHz	4.5	1.5 μ s	7000	2.4 mm (f)	27 dB	7
PIN SP4T										
P9404A	100 MHz to 8 GHz	Absortive	80	3.5	15	350 ns	2800	SMA (f)	27 dB	5
P9404C	100 MHz to 18 GHz	Absortive	80	4.5	10	350 ns	2800	SMA (f)	27 dB	5
85332B	45 MHz to 50 GHz	Absortive	75	15.5 at 26.5 GHz	4.5	1.5 μ s	7000	2.4 mm (f)	27 dB	7
PIN transfer										
P9400A	100 MHz to 8 GHz	NA	80	3.5	15	200 ns	600	SMA (f)	23 dB	5
P9400C	100 MHz to 18 GHz	NA	80	4.2	10	200 ns	600	SMA (f)	23 dB	5
FET SPDT										
U9397A	300 kHz to 8 GHz	Absortive	100	3.5	15	5/0.51 μ s	10	SMA (f)	29 dB	12 to 24
U9397C	300 kHz to 18 GHz	Absortive	90	6.5	10	5/0.51 μ s	10	SMA (f)	27 dB	12 to 24
FET transfer										
U9400A	300 kHz to 8 GHz	NA	100	3.5	15	4/0.51 μ s	5	SMA (f)	29 dB	11 to 26
U9400C	300 kHz to 18 GHz	NA	90	6.5	10	5/1 μ s	5	SMA (f)	27 dB	11 to 26

Three-Year Warranty

www.keysight.com/find/ThreeYearWarranty

Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

Keysight Assurance Plans

www.keysight.com/find/AssurancePlans

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

Solid state switches are standard and do not require option selection.

For more details on the Keysight solid state switches and ordering information see the "Keysight RF and Microwave Switch Selection Guide", literature number 5989-6031EN

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