

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8761B

The Keysight (formerly Agilent HP) 8761B is a high-performance, single-pole double-throw (SPDT) electromechanical coaxial switch operating from DC to 18 GHz. Designed for 50-ohm transmission systems, this unterminated switch features magnetic latching solenoids, exceptionally low SWR, and superb RF repeatability, making it highly suitable for automated testing and systems applications where space is at a premium. It supports an extensive array of user-specified RF connector configurations.

SPECIFICATIONS

Physical

Power Supply	24 to 30 VDC solenoid drive
Operating Temperature	-55 to +85 °C °C
Dimensions (W×H×D)	38.1 mm × 52.3 mm × 47.8 mm mm
Weight	0.14 kg kg

RF Performance

Frequency Range	DC to 18 GHz
Nominal Impedance	50 ohms
Insertion Loss (DC to 12.4 GHz)	< 0.5 dB
Insertion Loss (12.4 to 18 GHz)	< 0.8 dB
Isolation (DC to 12.4 GHz)	> 50 dB
Isolation (12.4 to 18 GHz)	> 45 dB
Maximum RF Input Power - Average (CW)	10 W (standard) / 2 W (with option 7 50-ohm termination)
Maximum RF Input Power - Peak	5 kW (standard) / 100 W (with option 7 50-ohm termination)
RF Repeatability	0.03 dB typical
VSWR (DC to 4 GHz)	< 1.15
VSWR (4 to 12.4 GHz)	< 1.25
VSWR (12.4 to 18 GHz)	< 1.40

Switching & Actuation

Switch Configuration	SPDT (Single-Pole, Double-Throw)
Actuator Type	Magnetic latching solenoids
Termination	Unterminated (standard) / 50-ohm terminated (Option 7)
Switching Speed	50 ms maximum
Switching Life	> 1,000,000 cycles
Contact Sequence	Break-before-make

Electrical Control

Solenoid Drive Voltage	24 to 30 VDC
------------------------	--------------

Physical & Mechanical

RF Connector Options	User-specified (over 250 combinations possible)
----------------------	---

Electrical

Solenoid Coil Resistance	200 Ω
Solenoid Current	120 mA @ 24 Vdc

Environmental

Non-Operating Temperature Range	-55 °C to +100 °C
Moisture Resistance	95% RH at 40 °C
Shock Resistance	50 g, 11 ms
Vibration Resistance	0.06 inches double amplitude, 10 to 55 Hz

TECHNOLOGY

Electromechanical Coaxial Switch

APPLICATIONS

RF/Microwave Signal Routing, Automated Test Systems

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.