

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8763B

The Keysight 8763B is a high-performance electromechanical coaxial bypass/transfer switch designed for RF and microwave applications up to 18 GHz. Featuring four RF ports and an internal 50-ohm termination, it is optimized for applications requiring transfer switching, device-under-test bypass, or signal path routing with superior isolation, low insertion loss, and outstanding repeatability over a long operating life.

SPECIFICATIONS

General

Interfaces	Solder terminals
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Physical

Power Supply	5 Vdc / 15 Vdc / 24 Vdc (option dependent)
Operating Temperature	-25 to +75 °C °C
Dimensions (W×H×D)	64.3 mm × 52.3 mm × 30.5 mm mm
Weight	0.17 kg

RF Performance

Frequency Range	DC to 18 GHz
Nominal Impedance	50 Ω
Insertion Loss (DC to 2 GHz)	< 0.15 dB
Insertion Loss (DC to 18 GHz)	< 0.50 dB
Isolation (DC to 18 GHz)	> 90 dB
SWR (DC to 2 GHz)	< 1.1
SWR (2 to 12.4 GHz)	< 1.2
SWR (12.4 to 18 GHz)	< 1.3
Average RF Input Power	1 W
Peak RF Input Power	100 W
Number of RF Ports	4
Insertion Loss (2 to 12.4 GHz)	< 0.25 dB
Isolation (DC to 2 GHz)	100 dB
Isolation (2 to 12.4 GHz)	90 dB
Insertion Loss Repeatability	0.03 dB max (to 1,000,000 cycles)

Switching & Actuation

Switch Configuration	4-Port Bypass with One 50 Ω Internal Termination
Actuation Mechanism	Electromechanical Solenoid
Actuation Type	Latching (with self-interrupting contacts)
Switching Speed	30 ms
Switching Life Cycle Rating	1,000,000 cycles

Physical & Mechanical

RF Connector Type	SMA
RF Connector Gender	Female

Environmental & Reliability

Storage Temperature Range	-55 to +85 °C
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Electrical Drive

Solenoid Voltage (Option 011)	4.5 - 7 VDC (5 VDC nominal)
Solenoid Voltage (Option 015)	12 - 20 VDC (15 VDC nominal)
Solenoid Voltage (Option 024)	20 - 30 VDC (24 VDC nominal)
Coil Resistance (Option 011)	16 Ω
Coil Resistance (Option 015)	125 Ω
Coil Resistance (Option 024)	320 Ω
Solenoid Current (Option 011)	315 mA (at 5 VDC)
Solenoid Current (Option 015)	120 mA (at 15 VDC)
Solenoid Current (Option 024)	75 mA (at 24 VDC)

Auxiliary Contacts (Option 010)

Auxiliary Contact Current Rating	100 mA maximum
Auxiliary Contact Voltage Rating	30 V maximum

Control & Connectivity

Drive Connection Options	Solder terminals (Option 100) or 16-pin ribbon cable connector (Option 016)
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Electrical

Solenoid Voltage Range (Option 011)	4.5 to 7 VDC
Solenoid Voltage Range (Option 015)	12 to 20 VDC
Solenoid Voltage Range (Option 024)	20 to 30 VDC

TECHNOLOGY

Electromechanical Coaxial Switch

APPLICATIONS

RF and Microwave Signal Routing, Bypass and Transfer Switching

