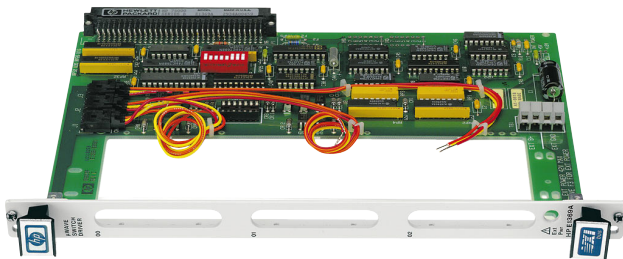

Microwave Switch Driver HP E1369A

Technical Specifications

- Signal switching from DC to 26.5 GHz
- Drive three internal 50 Ω terminated switches
- Drive two additional external switches
- Select internal or use external energizing voltages
- Use equivalent switches of other manufacturers



Description

The HP E1369A microwave switch driver is a **B-size, 1-slot, register-based VXI module**. It provides room for you to install up to three HP 8762B/C, 8763B/C, and 8764B/C (3-port, 4-port, and 5-port) series of microwave switches to match your application needs up to 25.6 GHz. These switches must be ordered separately.

The HP E1369A can power and control a total of five switches, two of which must be mounted externally with ribbon cable and DIN connector. Additionally, you can select internal energizing voltages +5 and +12 Vdc, or supply your own external energizing voltage up to 45 Vdc if more power is needed.

Refer to the HP Website for instrument driver availability and downloading instructions.

Other Manufacturers

These manufacturers supply equivalent switches that can be installed in the HP E1369A:

K&L Microwave Inc.
Dynatech Microwave Tech Inc.
RLC Electronics Inc.

Switches can be used if they require less than 42 V, draw less than 1 A per switch, and are of the split-coil (separate for each contact) design. Maximum current also depends on the mainframe or external supply capacity.

The following coaxial switch series will not function in the HP E1369A microwave switch module because the switch coils are not split: HP 8761, HP 8766, HP 8767, HP 8768, and HP 8769.

C-size Adapter

For C-size installation, see the HP E1403B active adapter.

Specifications

Microwave Switches (+5 V, 50 Ω) for mounting in the HP E1368/69A Microwave Switch Modules						
Switch:	33311B or 8762B	33311C or 8762C	33312B or 8763B	33312C or 8763C	33313B or 8764B	33313C or 8764C
Frequency:	dc to 18 GHz	dc to 26.5 GHz	dc to 18 GHz	dc to 26.5 GHz	dc to 18 GHz	dc to 26.5 GHz
Ports:	3	3	4	4	5	5
Internal termination:	Terminated	Terminated	Terminated (one port)	Terminated (one port)	Unterminated	Unterminated
Insertion loss (dB):	<0.20 to 2 GHz <0.25 to 4 GHz <0.50 to 18 GHz	<0.20 to 2 GHz <0.50 to 18 GHz <1.25 to 26.5 GHz	<0.20 to 2 GHz <0.50 to 18 GHz	<0.20 to 2 GHz <0.50 to 18 GHz	<0.20 to 2 GHz <0.50 to 18 GHz <1.25 to 26.5 GHz	<0.20 to 2 GHz <0.50 to 18 GHz <1.25 to 26.5 GHz
SWR (into termination or through line):	<1.1 to 2 GHz <1.2 to 4 GHz <1.3 to 18 GHz	<1.15 to 2 GHz <1.25 to 12.4 GHz <1.40 to 18 GHz <1.8 to 26.5 GHz	<1.1 to 2 GHz <1.2 to 4 GHz <1.3 to 18 GHz	<1.15 to 2 GHz <1.25 to 12.4 GHz <1.40 to 18 GHz <1.8 to 26.5 GHz	Into Termination: NA Through Line: same as HP 8763B	Into Termination: NA Through Line: same as HP 8763C
Isolation (dB):	>90 to 18 GHz	>90 to 18 GHz >50 to 26.5 GHz	>90 to 18 GHz	>90 to 18 GHz >50 to 26.5 GHz	>90 to 18 GHz	>90 to 18 GHz >50 to 26.5 GHz
Life and repeatability (typical):	1,000,000 cycles 0.03 dB					
Power (peak power is nonswitching):	1 Watt average 100 Watts peak (+7 Vdc)					
Switching speed:	30 ms					
RF connectors:	SMA (female)	3.5 mm (female)	SMA (female)	3.5 mm (female)	SMA (female)	3.5 mm (female)
Switching dwell time:	35 ms					
Driver output voltage (1 A max per switch):	5 V or 12 V					
Maximum external energizing voltage:	30 V					

VXI Characteristics

VXI device type:	Register-based, A16, slave only
Size:	B
Slots:	1
Connectors:	P1
Shared memory:	None
VXI busses:	None
C-size compatibility:	Requires E1403B

Instrument Drivers

See the HP Website (http://www.hp.com/go/inst_drivers) for driver availability and downloading.

Command module firmware:	ROM
Command module firmware rev:	A.01
I-SCPI Win 3.1:	Yes
I-SCPI Series 700:	Yes
C-SCPI LynxOS:	Yes
C-SCPI Series 700:	Yes
HP VEE Drivers:	Yes
VXI plug&play Win Framework:	No
VXI plug&play Win95/NT Framework:	No
VXI plug&play HP-UX Framework:	No (not available at time of publication)

Module Current

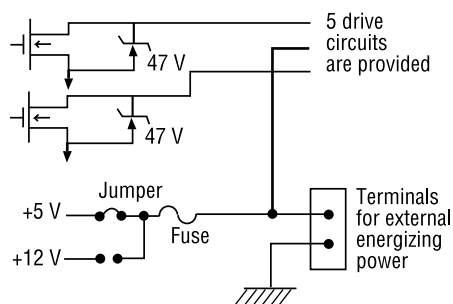
	I_{PM}	I_{DM}
+5 V:	0.1	0
+12 V:	0	0
−12 V:	0	0
+24 V:	0	0
−24 V:	0	0
−5.2 V:	0	0
−2 V:	0	0

Cooling/Slot

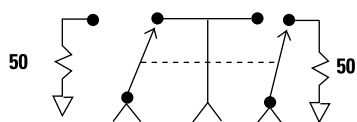
Watts/slot:	5.00
ΔP mm H ₂ O:	0.08
Air Flow liter/s:	0.50

Ordering Information

Description	Product No.
Microwave switch driver	HP E1369A
3 yr. retn. to HP to 1 yr. OnSite warr.	HP E1369A W01
Coaxial SPDT switch, dc-18 GHz; 50 ohm	HP 8762B
5 V solenoids instead of 24 V solenoids	HP 8762B 011
15 V solenoids instead of 24 V solenoids	HP 8762B 015
Commercial cal. certificate w/ test data	HP 8762B UK6
Certificate of calibration	HP 8762B UKS
Coaxial SPDT switch, dc-26.5 GHz; 50 ohm	HP 8762C
5 V solenoids instead of 24 V solenoids	HP 8762C 011
15 V solenoids instead of 24 V solenoids	HP 8762C 015
Commercial cal. certificate w/ test data	HP 8762C UK6
Certificate of calibration	HP 8762C UKS
Switch, Coaxial, Transfer Switch, 4 Port	HP 8763B
5 Volt Solenoids	HP 8763B 011
15 Volt Solenoids	HP 8763B 015
Commercial cal. certificate w/ test data	HP 8763B UK6
Certificate of calibration	HP 8763B UKS
Switch, Coaxial, Transfer Switch, 4 Port	HP 8763C
5 Volt Solenoids	HP 8763C 011
15 Volt Solenoids	HP 8763C 015
Commercial cal. certificate w/ test data	HP 8763C UK6
Certificate of calibration	HP 8763C UKS
Switch, Coaxial, Signal Reversal, 5 Port	HP 8764B
5 Volt Solenoids	HP 8764B 011
15 Volt Solenoids	HP 8764B 015
Commercial cal. certificate w/ test data	HP 8764B UK6
Certificate of calibration	HP 8764B UKS
Switch, Coaxial, Signal Reversal, 5 Port	HP 8764C
5 Volt Solenoids	HP 8764C 011
15 Volt Solenoids	HP 8764C 015
Commercial cal. certificate w/ test data	HP 8764C UK6
Certificate of calibration	HP 8764C UKS
Drive Cable, 40GHz Attn 14pin DIP 16in	HP 11764D



HP E1368A/E1369A/1370A Drive Circuits



HP E1369A Switch Configurations

Data Subject to Change
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