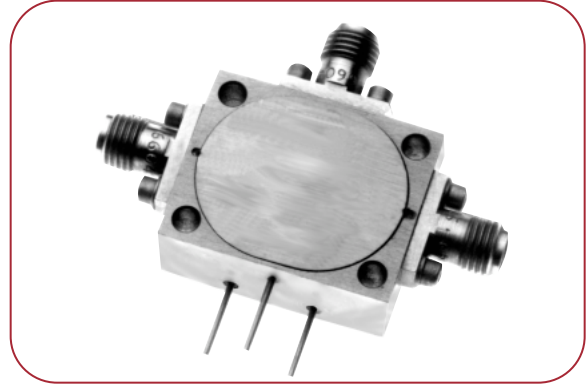


SINGLE-POLE TWO-THROW SWITCHES

FEATURES

- Multioctave bands 0.2 to 18 GHz
- Current or TTL control
- Low insertion loss
- High isolation
- Drop-in models available



Frequency Range (GHz)	Model Number	Insertion Loss (dB, Max.)	Isolation (dB, Min.)	VSWR (Max.)	Type	Rise/Fall Time (ns, Typ.)	On/Off Time (ns, Typ.)	On/Off Time (ns, Max.)	DC Power Positive (mA, Max.)	DC Power Negative (mA, Min.)
STANDARD, MULTIOCTAVE BAND MODELS										
0.2–2	SW2-002020RN1NF	1.5	70	1.6:1	Reflective	10/10	20	35	60	60
	SW2-002020AN1NF	2	75	1.6:1	Absorptive	10/10	20	35	60	60
0.5–2	SW2-005020RN1NF	1.3	80	1.6:1	Reflective	10/10	20	35	60	60
	SW2-005020AN1NF	1.8	75	1.6:1	Absorptive	10/10	20	35	60	60
2–8	SW2-020080RN1NF	1.8	80	1.7:1	Reflective	10/10	20	35	60	60
	SW2-020080AN1NF	2	70	1.7:1	Absorptive	10/10	20	35	60	60
4–12	SW2-040120RN1NF	2.2	80	1.7:1	Reflective	10/10	20	35	60	60
	SW2-040120AN1NF	2.2	65	1.7:1	Absorptive	10/10	20	35	60	60
2–18	SW2-020180RN1NF	2.8	80	2:1	Reflective	10/10	20	35	60	60
	SW2-020180AN1NF	3	60	2:1	Absorptive	10/10	20	35	60	60
1–18	SW2-010180RN1NF	3	70	2:1	Reflective	10/10	20	35	60	60
	SW2-010180AN1NF	3.2	60	2:1	Absorptive	10/10	20	35	60	60
OPTIMIZED PERFORMANCE MODELS										
0.1–10	SW2-001100AN1NF	3.5	60	2:1	Absorptive	20/20	35	40	60	60
0.3–5	SW2-003050AN1NF	2.5	60	2.2:1	Absorptive	20/20	30	35	60	60
0.8–4	SW2-008040RN1NF	1.5	70	1.7:1	Reflective	100/100	200	300	60	60
1.2–2	SW2-012020RN3NF	0.8	90	1.2:1	Reflective	20/50	70	100	250	150
3.1–4.3	SW2-031043AI3NF	1.5	90	1.8:1	Absorptive	20/50	70	100	150	150

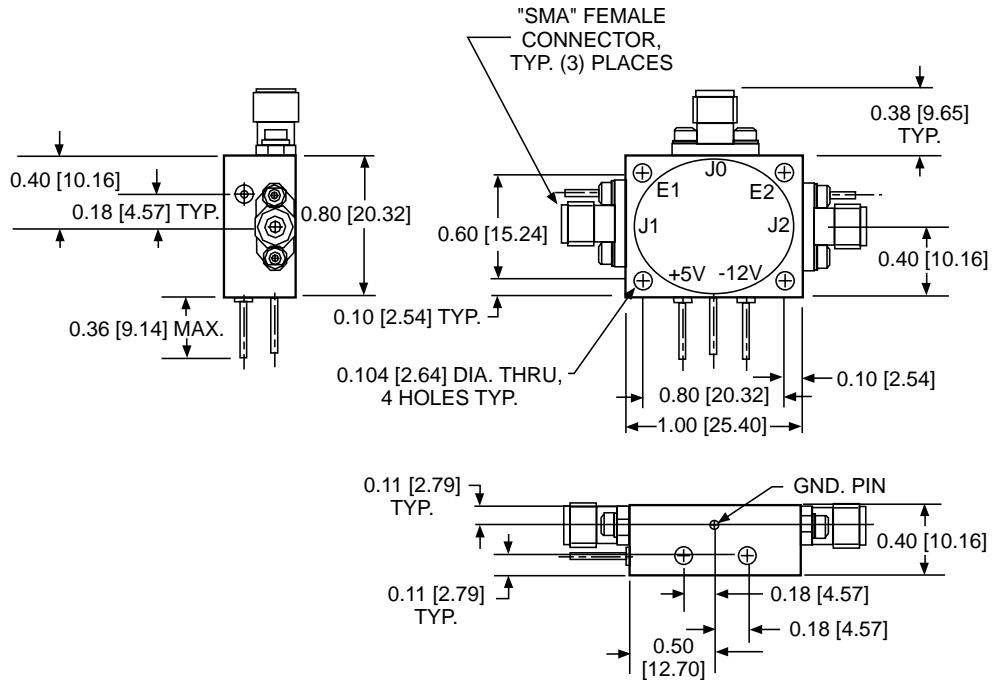
Electrical performance of multioctave models can be optimized over narrower bandwidths, or for a particular parameter. Electrical options include: Lower insertion loss, lower VSWR, higher isolation, high power and flat amplitude response. Mechanical/Control options include: Custom packaging, single supply operation, fast on/off time and BCD decoder. Consult MITEQ for options.

SINGLE-POLE TWO-THROW SWITCHES (CONT.)

TTL CONTROL LOGIC

					Non-inverting			Inverting		
					Control Input		Signal Path	Control Input		Signal Path
Non-inverting	Logic 0 (low) (0 to 0.8 V)	Isolation	SP2T	E1	E2	J0 - J1	E1	E2	J0 - J1	
	Logic 1 (high) (2.4 to 4.7 V)			Isolation	Low	High	J0 - J1	High	Low	J0 - J1
Inverting	Logic 0 (low) (0 to 0.8 V)	Isolation	SP2T	E1	E2	J0 - J1	E1	E2	J0 - J1	
	Logic 1 (high) (2.4 to 4.7 V)			Insertion loss	High	Low	J0 - J2	Low	High	J0 - J2

SP2T OUTLINE DRAWING



GENERAL NOTES:

1. Dimensions shown in brackets [] are in millimeters.
2. Unless specified, all connectors are type SMA female field replaceable. SMA male also available, see ordering options.
3. Tolerance as follows:
 .xx = ±0.01 [.xx = ±0.25]
 .xxx = ±0.005 [.xxx = ±0.13]



SP2T SWITCH ORDERING INFORMATION

To order a switch, please include the model number derived from the following table. If requesting a quotation for a switch not listed in this catalog, please consult MITEQ. Include any additional specifications that are not listed.

	<i>SW</i>	<i>2</i>	<i>-</i>	<i>020</i>	<i>180</i>	<i>A</i>	<i>N</i>	<i>1</i>	<i>N</i>	<i>F</i>
SWITCH _____										
Number of throw(s) _____										
Frequency (100's of MHz)										
Lower frequency _____										
Upper frequency _____										
Type _____										
Absorptive										A
Reflective										R
Logic _____										
Non-inverting										N
Inverting										I
No driver										X (See Note 1)
Power Supply _____										
+5 V, -12 V										1
+5 V, -5 V										2 (See Note 2)
+5 V, -15 V										3
+12 V, -12 V										4
+15 V, -15 V										5
No driver										X
Hermeticity _____										
Non-hermetic										N
Hermetic										H
Connectors _____										
SMA-Female										F
SMA-Male										M

Note 1: For "no driver" option, unit is current controlled through logic control pin, -20 mA for low loss condition and +20 mA for isolation state. Switching speeds are not measured on driverless units.

Note 2: This option has 0.2 dB higher insertion loss, on/off time is 50 ns maximum and rise/fall time is 30 ns typical.

AVAILABLE OPTIONS

- Add suffix AM Amplitude matching port-to-port
- Add suffix PM Phase matching port-to-port
- Add suffix VL1 Common port video filter
- Add suffix VL2 Output port(s) video filter
- Add suffix VL3 Both common port and output port(s) video filter
- Add suffix HP Higher power (alternate package configurations)

Example:

The above illustrated part number SW2-020180AN1NF is for the following:

- Switch SP2T
- 2 to 18 GHz
- Absorptive
- Non-inverting
- +5 V, -12 V
- Non-hermetic
- SMA-F connectors

Consult MITEQ for additional options.

When additional options are ordered, MITEQ will add a 4 digit number (-SXXXX) suffix to the part number.



MITEQ

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