



Model: SW-P01W-4S

Description: SP4T, Absorptive, PIN-Switch

Operating Frequency: 2 – 20 GHz

Insertion Loss: 3.2 dB Max

Isolation (Arm-to-Arm):

2 – 6 GHz	6 – 12 GHz	12 – 20 GHz
90 dB Min	80 dB Min	70 dB Min

VSWR (RF Path “ON” or “OFF”): 1.8:1 Max

Rise/Fall time (10% to 90% RF, 90% to 10% RF): 150 ns Max

On/Off time (50% TTL to 90% RF, 50%TTL to 10% RF): 250 ns Max

Phase Balance (Deviation from Median): $\pm 5^\circ$ max

Operating Power: CW & AVG +27dBm Max *

..... * (+24dBm Max into “JX” Port @ Off-State)

..... Peak: 5W @ 1 μ S PW & 10% Duty-Cycle Max

Control Input Characteristics: Std. TTL / Unit-Load / Floating-High

Control Logic: 4-Controls, Logic “0” = RF Path “ON”

Power Supplies: +5(± 0.25)V @ 120mA Max

..... -12(± 0.5)V @ 60mA Max

Connectors (RF): SMA (f), Removable

Connectors (Supplies/Controls) Solder Pins

Impedance: 50 Ohms Nominal

Quality: Best-Commercial-Grade

Environmental Ratings:

Temperature: {Operating: -55°C to +95°C} & {Storage: -60°C to +110°C}

Humidity: MIL-STD-202F, Method 103B, Cond. B (96 hours at 95% R.H.)

Shock: MIL-STD-202F, Method 213B, Cond. B (75G, 6mSec)

Vibration: MIL-STD-202F, Method 204D, Cond. B (.06” double amplitude, or 15G)

Altitude: MIL-STD-202F, Method 105C, Cond. B (50,000 Feet)

Temp. Shock: MIL-STD-202F, Method 107D, Cond. A (5 cycles)

Available Options:

(Units with listed options here may be subject to some specification tradeoffs from the standard, consult factory)

■ **Supply Voltages**

A1 [+5(± 0.25)V / -5(± 0.25)V] *

A2 [+5(± 0.25)V / -15(± 0.5)V]

A3 [+12(± 0.5)V / -12(± 0.5)V]

A4 [+15(± 0.5)V / -15(± 0.5)V]

■ **RF Connectors**

B1 [J1 – J4 Ports with SMA(M)]

B2 [All SMA (M)]

B3 [COM Port with SMA(M)]

■ **Control Function**

F1 [Inverse Logic, (“1” = Path “ON”)]

F2 [2-Bit Binary Controls + Enable] ; see below for
“Outline Drawing” and “Function Table”

■ **Video Suppression Filter**

G1 [VF @ COM Port <> 0.25 dB additional Loss]

G2 [VF @ J1 – J4 Ports <> 0.25 dB additional Loss]

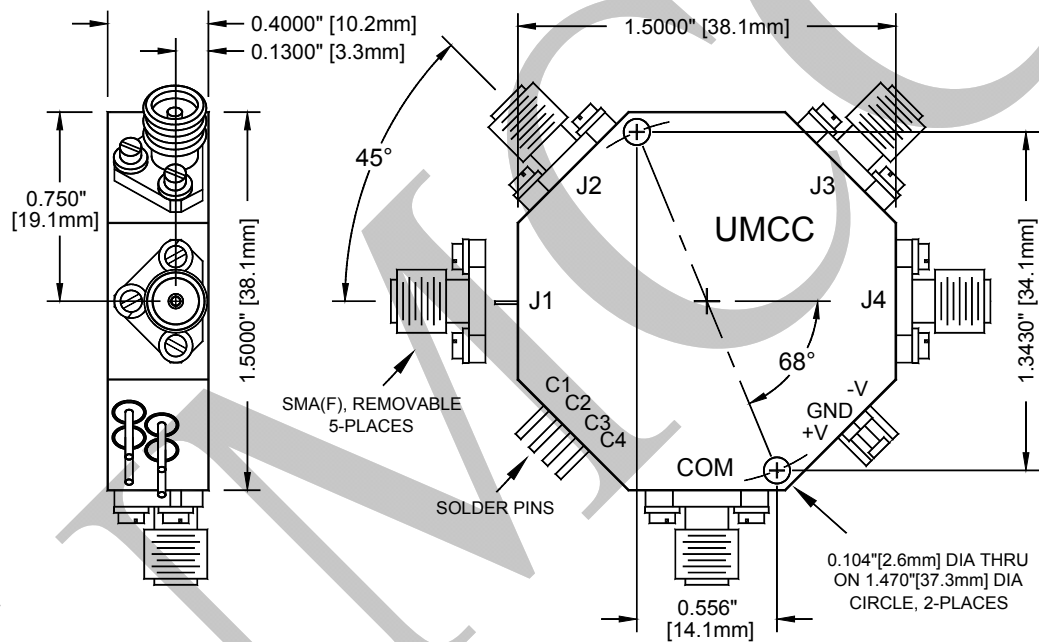
G3 [VF @ All Ports <> 0.5 dB additional Loss]

* Recommended for Low Power Consumption <> Additional Switching Delay (ON/OFF time)



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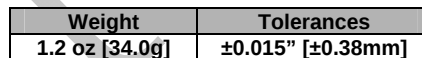
Outline



Weight	Tolerances
1.2 oz [34.0g]	±0.015" [±0.38mm]



Outline Drawing (SP4T Radial with Option "F2")



INPUTS			RF PATH			
E	B1	B0	J1	J2	J3	J4
1	0	0	ON	OFF	OFF	OFF
1	0	1	OFF	ON	OFF	OFF
1	1	0	OFF	OFF	ON	OFF
1	1	1	OFF	OFF	OFF	ON
0	X	X	OFF	OFF	OFF	OFF