



**Model: SW-P070-4S**

Description:	SP4T, Absorptive, PIN-Switch
Operating Frequency:	2 – 20 GHz
Insertion Loss:	3.7 dB Max
Isolation (Arm-to-Arm):	75 dB Min
VSWR (RF Path "ON" or "OFF"):	1.9:1 Max
Rise/Fall time (10% to 90% RF, 90% to 10% RF):	30 ns Max
On/Off time (50% TTL to 90% RF, 50%TTL to 10% RF):	70 ns Max
Phase Balance (Deviation from Median):	±8° max
Operating Power:	CW&AVG: +24dBm Max
	Peak: 5W @ 1µS PW Max / 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 @ 160mA Max
	-12(±0.5)V @ 70mA Max
Connectors (RF):	SMA (f), Removable
Connectors (Supplies/Controls)	Solder Pins
Impedance:	50 Ω 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 ]

■ **Control Function**

- F1 [ Inverse Logic, ("1" = Path "ON") ]
- F2 [ 2-Bit Binary Controls + Enable ] ; see below for "Outline Drawing" and "Function Table"

■ **RF Connectors**

- B1 [ J1 – J4 Ports with SMA(M) ]
- B2 [ All SMA (M) ]
- B3 [ COM Port with SMA(M) ]

■ **Video Suppression Filter**

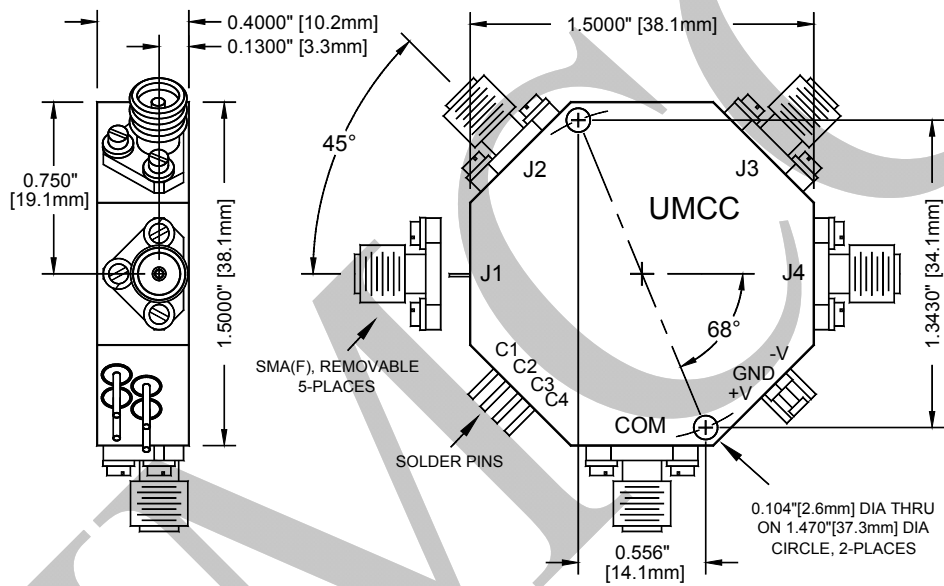
- G1 [ VF @ COM Port <> 0.25 dB additional Loss ]
- G2 [ VF @ J1 – J4 Ports <> 0.25 dB additional Loss ]
- G3 [ VF @ All Ports <> 0.5 dB additional Loss ]

\* Recommended for Low Power Consumption ; Additional switching delay & limited power rating (consult Factory)



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**Outline**

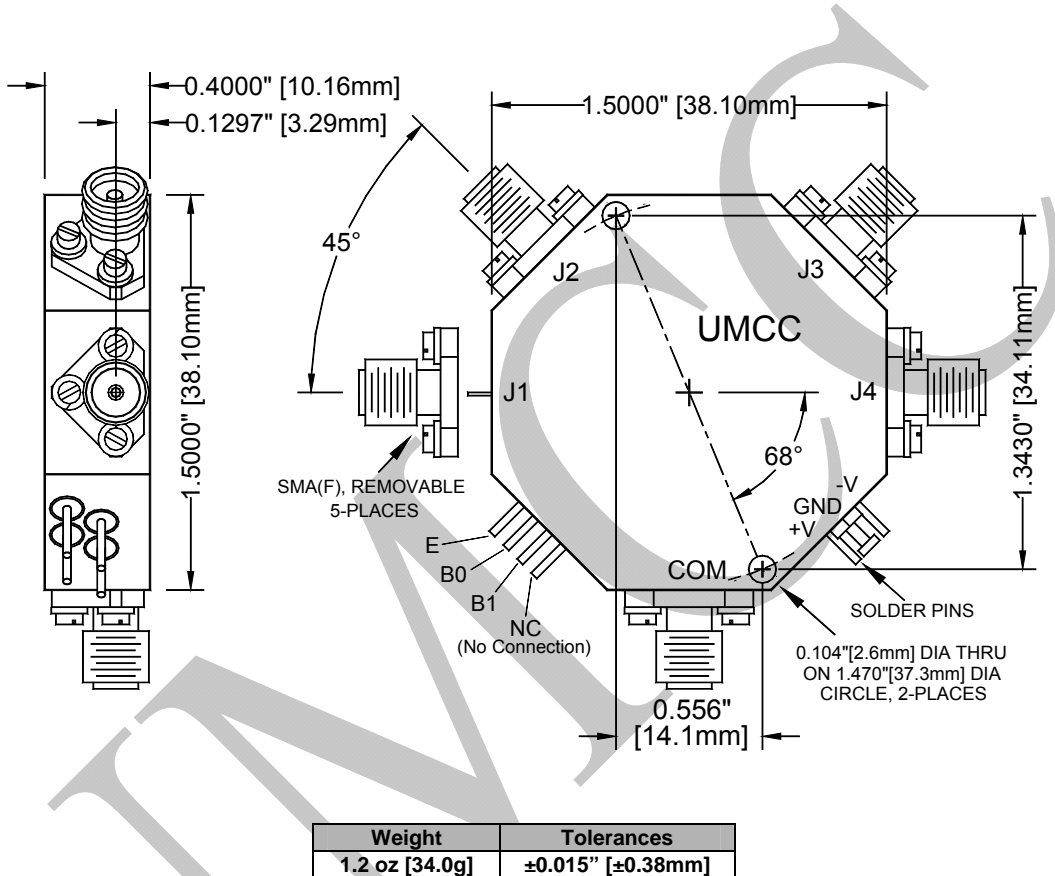


Weight	Tolerances
1.2 oz [34.0g]	±0.015" [±0.38mm]



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**Outline Drawing (SP4T Radial with Option "F2")**



**Function Table for Option "F2" (2-Bit Binary Control + Enable)**

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