



Model: SW-U510-4S

Description: SP4T, Absorptive, PIN-Switch
Operating Frequency: 0.5 – 18 GHz
Insertion Loss: 3.2 dB Max
Isolation (Arm-to-Arm):

Table with 2 columns: 0.5 – 9 GHz, 9 – 18 GHz. Row 1: 70 dB Min, 60 dB Min.

VSWR (RF Path "ON" or "OFF"): 1.9:1 Max
Rise/Fall time (10% to 90% RF, 90% to 10% RF): 20 ns Max
On/Off time (50% TTL to 90% RF, 50%TTL to 10% RF): 50 ns Max
Phase Balance (Deviation from Median): ±4° max
Operating Power: CW & AVG: +27dBm Max \*
Peak: (+24dBm Max into "JX" Port @ Off-State)
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 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

- 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) ]

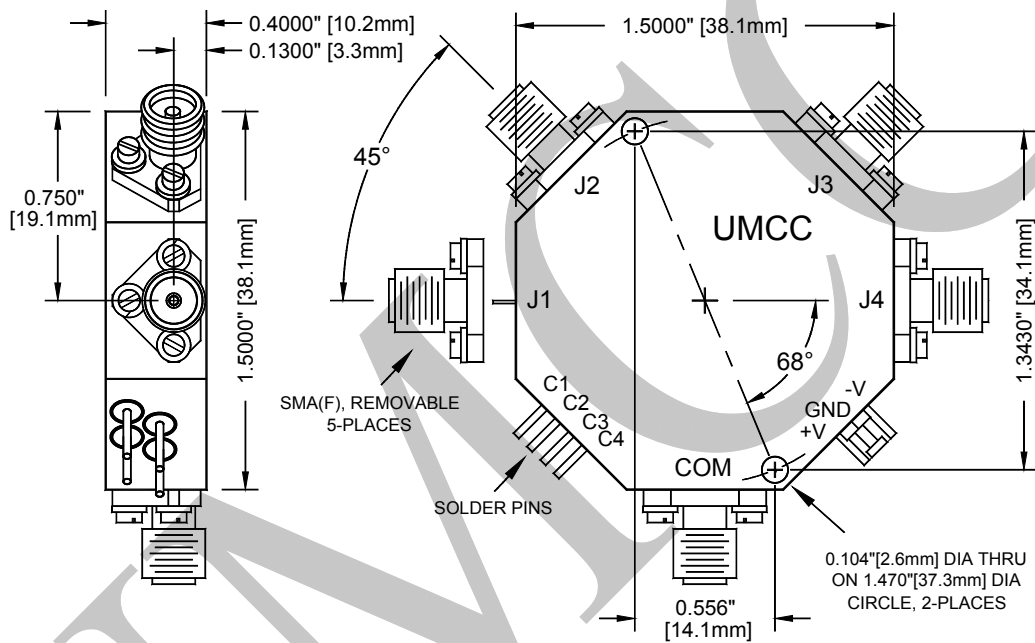
Video Suppression Filter

- 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 ]



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**Outline**

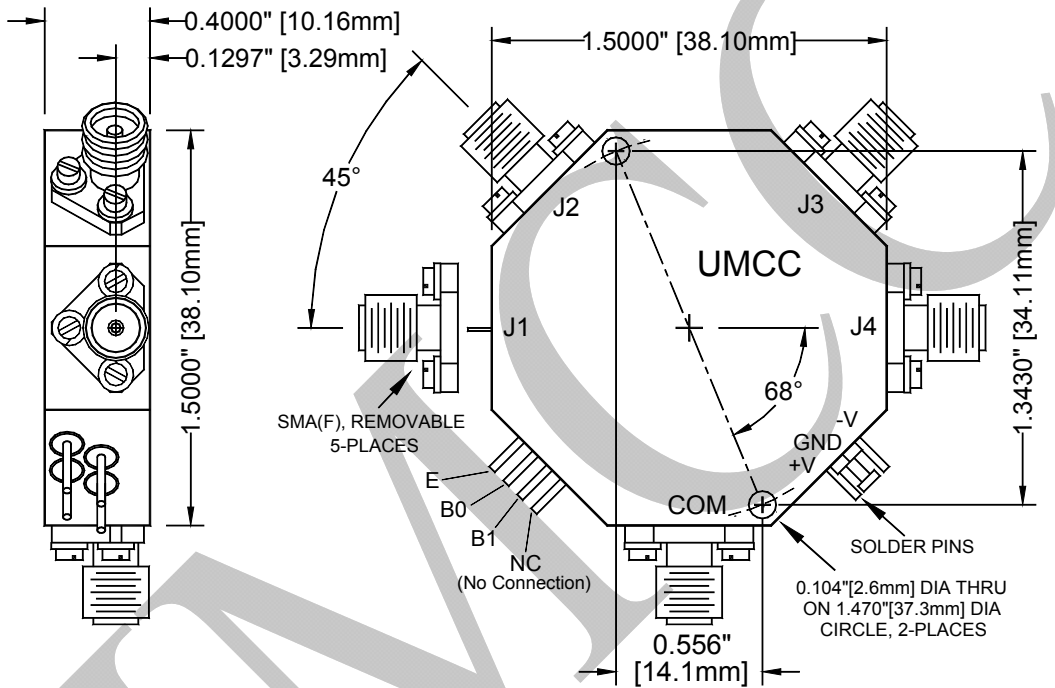


Weight	Tolerances
1.2 oz [34.0g]	±0.015" [±0.38mm]



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



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

**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