



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):

| | |
|-------------|------------|
| 0.5 – 9 GHz | 9 – 18 GHz |
| 70 dB Min | 60 dB Min |

VSWR (RF Path “ON” or “OFF”): 2:1 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 *
..... * (+24dBm Max into “JX” Port @ Off-State)
..... Peak:..... 5W @ 1µS 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 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)]

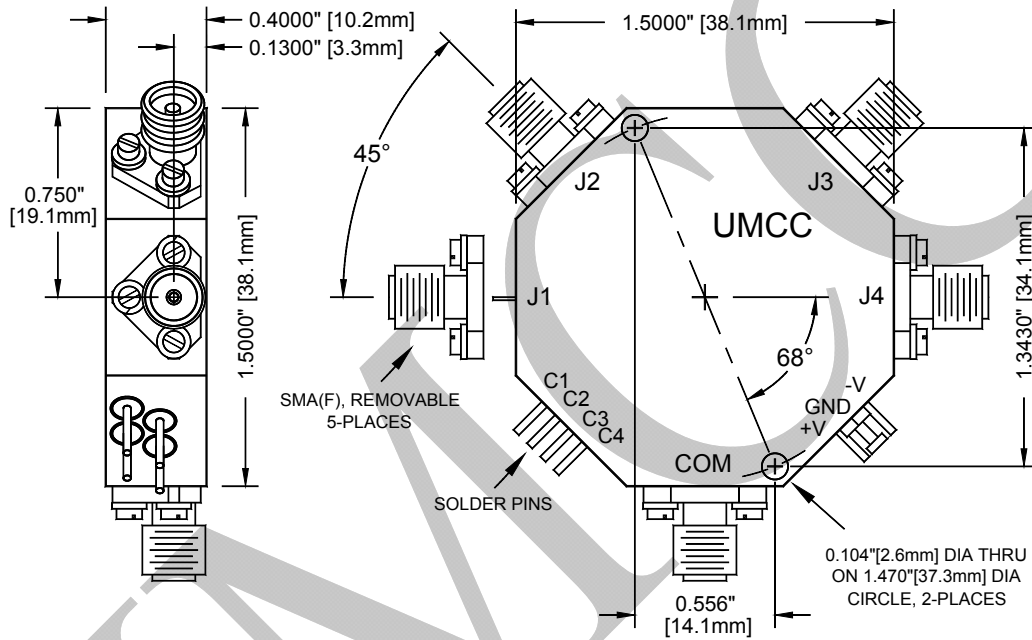
■ **Video Suppression Filter**

- 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]



Model: SW-U510-4S

Outline

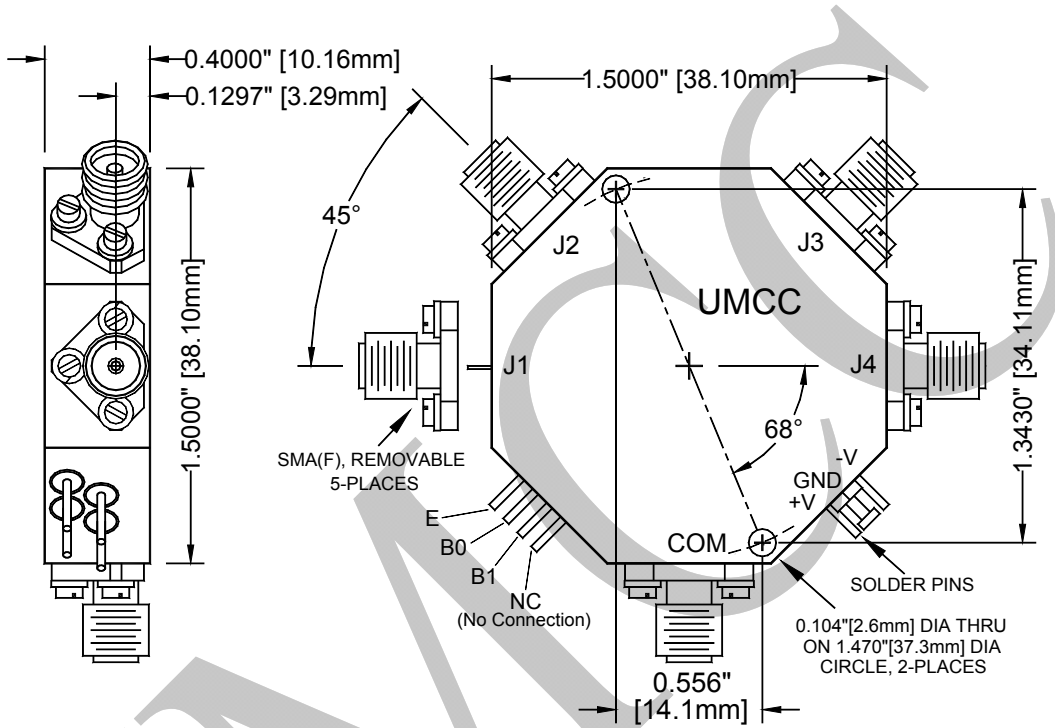


| Weight | Tolerances |
|----------------|-------------------|
| 1.2 oz [34.0g] | ±0.015" [±0.38mm] |



Model: SW-U510-4S

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 |