



# S5S3R

## SWITCH

### SINGLE-POLE, FIVE-THROW REFLECTIVE

Frequency Range (min)	2 – 8	GHz
Insertion Loss (max)	2.1	dB
VSWR (max)	1.8	ratio
Isolation (min)	70	dB
Switching speed (max)	100	nsec
CW RF power, operating (max)	1	W

**NOTES:**

DC Bias: (Standard)	+5V +/-0.5V @ 200mA max -15V +/-3V @ 50mA max	Three-line control: (-3 option)	E3 E2 E1 Low loss path
DC Bias: (-5 option)	+5V +/-0.5V @ 250mA max -5V +/-0.5V @ 60mA max		0 0 0 J2 – J1 0 0 1 J3 – J1 0 1 0 J4 – J1
DC Bias: (-12 option)	+15V +/-3V @ 200mA max -15V +/-3V @ 50mA max		0 1 1 J5 – J1 1 0 0 J6 – J1 1 0 1 All off 1 1 0 All off 1 1 1 All off
Control: (Standard)	TTL 0 = Low Loss TTL 1 = Isolation		
	E1 controls J2 – J1 E2 controls J3 – J1 E3 controls J4 – J1 E4 controls J5 – J1 E5 controls J6 – J1		

**MECHANICAL SPECIFICATIONS:**

Case Style: S5 Outline (Standard logic)  
S5-3 Outline (Three-line logic)  
Finish: Gold plate per MIL-G-45204, Chem film per MIL-C-5541  
Connectors: SMA Female per MIL-C-39012  
Bias & Control Pins:  $\varnothing 0.02''$  x 0.15'' long  
Weight: 60g max  
Mounting:  $\varnothing 0.10''$  through holes (2) places

Switching speed is defined as 50%TTL to 90% (t-on) and 50%TTL to 10%RF (t-off).

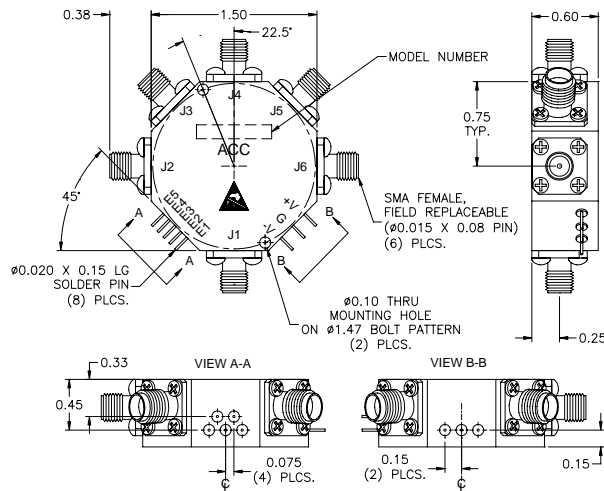
**ENVIRONMENTAL SPECIFICATIONS:**

MIL-E-5400, MIL-STD-202, MIL-E-16400  
Operating Temp: -55°C to +85°C  
Storage Temp: -65°C to +125°C  
Humidity: MIL-STD-202F, M103, Cond B  
Shock: MIL-STD-202F, M213, Cond B  
Altitude: MIL-STD-202F, M105, Cond B  
Vibration : MIL-STD-202F, M204, Cond B  
Thermal Shock: MIL-STD-202F, M107, Cond A  
Temperature Cycle: MIL-STD-202F, M105C, Cond D

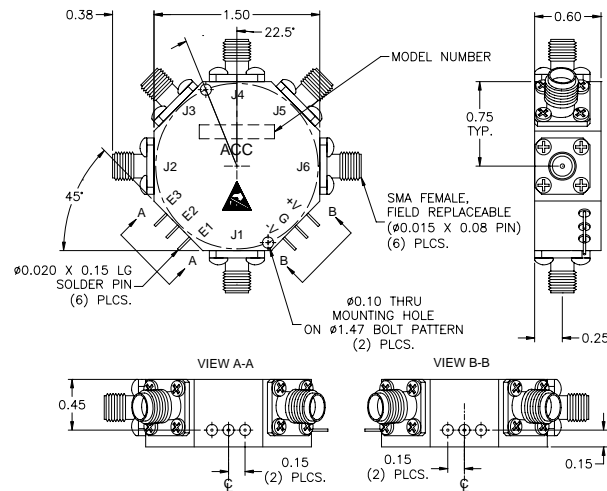
**SCREENING:**

Internal Visual per MIL-STD-883, Method 2017  
Temperature Cycle: -65°C to +100°C, 10 cycles

Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.



**OUTLINE CASE STYLE S5**



**OUTLINE CASE STYLE S5-3**

**PART NUMBER ORDERING INFORMATION:**

- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-3": Three-line logic control
- Add "-3-RC": Three-line logic control, RoHS-compliant
- Add "-3-5" suffix: Three-line logic control, +/-5V DC supplies
- Add "-3-5-RC" suffix: Three-line logic control, +/-5V DC supplies, RoHS-compliant
- Add "-3-12" suffix: Three-line logic control, +/-12V to 18V DC supplies ECL logic input
- Add "-3-12-RC" suffix: Three-line logic control, +/-12V to 18V DC supplies, RoHS-compliant
- Add "-H" suffix: Hermetic seal (does not apply to RoHS-compliant models)