

Type C Multi-Position Coaxial Switches (3 to 6 Position)



RLC Electronics' Basic Mid-size Multi-Position Coaxial Switch line provides up to 6 positions in an extremely high reliability, long life and outstanding electrical performance by utilizing high density packaging. The "Multi-Min" electrical characteristics features extremely low in-

sertion loss and VSWR over the entire DC-18 GHz range while maintaining high isolation. The switch is available in the following configurations-manual or remote, 12 Vdc, 28 Vdc or 115 Vac operation, with or without indicator terminals, failsafe or latching cutthroat.

Specifications

S1-2C-3,4,5,6,7

RF POSITIONS	3-6	3-6	3 TO 6 FOR OPTION 40	
Switch type:	SP-3T...6T	SP-3T...6T	SP-3T-40 SP-6T-40	
Frequency Range	DC-18 GHz	DC-26.5 GHz	DC-40 GHz	
Ins. Loss (dB max)			Ins. Loss: (dB max)	
DC-4.0 GHz	0.20	0.20	DC-6.0 GHz	0.25
4.0-12.4 GHz	0.30	0.30	6.0-12 GHz	0.40
12.4-18 GHz	0.50	0.50	12-18.5 GHz	0.50
18-26.5 GHz (Opt. 26)	—	0.75	18.5-26.5 GHz	0.75
			26.5-40 GHz	0.90
VSWR: (Max)			VSWR: (Max)	
DC-4.0 GHz	1.25	1.25	DC-6.0 GHz	1.30
4.0-12.4 GHz	1.40	1.40	6.0-12 GHz	1.40
12.4-18 GHz	1.50	1.50	12-18.5 GHz	1.50
18-26.5 GHz (Opt. 26)	—	1.80	18.5-26.5 GHz	1.70
			26.5-40 GHz	2.00
Isolation: (dB Min)			Isolation: (dB Min)	
DC-18 GHz	60	60	DC-18.5 GHz	60
18-26.5 GHz (Opt. 26)	—	40	18.5-26.5 GHz	55
			26.5-40 GHz	45

Power Rating, RF, Cold Switching: See page 2.

Impedance: 50 ohms.

Operating Power 25°C:

(Failsafe): 12 Vdc at 400 ma nom.

28 Vdc at 150 ma nom.

115 Vac at 50 ma nom.

(Latching): 12 Vdc at 462 ma nom. 28 Vdc

at 400 ma nom. 115 Vac at 225 ma nom.

Cutthroat circuitry (standard), recovery time,

100 ms nom.

Connectors, RF: SMA Female

Connectors, Power: Feed through solder lugs.

Life: 1,000,000 operations.

Switching Time: 15 ms max. Failsafe,

125 ms latching.

Weight: 10 oz.

Environmental Conditions: MIL-S-3928

Operating Mode: Manual, failsafe or latching.

Switching Sequence: Break before make.

To designate the switch desired use:

(1) "M" for Manual or "R" for Remote

(2) "3C", "4C", "5C", or "6C" throw operation.

(3) "A" for 115 Vac, "D" for 28 Vdc power
or "H" for 12 Vdc.

(4) "I" for indicators if desired.

(5) "L" for latching cutthroat if desired.

(6) "TL" for TTL Driver if desired.

(7) "26" for 26.5 GHz option, "40" for 40 GHz option.

Example: SR-6C-D-I-L is remote, 6 position, 28 Vdc, with indicators, latching cutthroat switch.

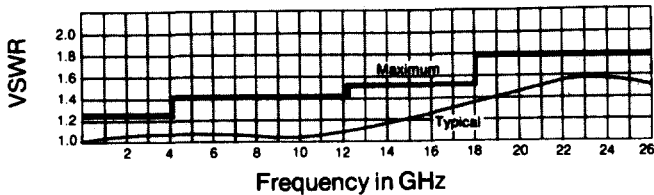
Specials requiring closer tolerances, different frequency ranges, special connectors, different materials, finishes, etc., can be furnished upon request. Specifications subject to change without notice.



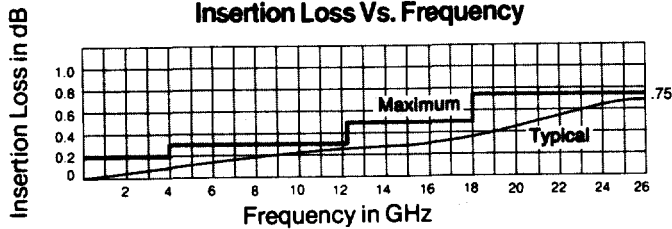
Typical Operating Curves

DC-18 & DC-26 GHz Switches

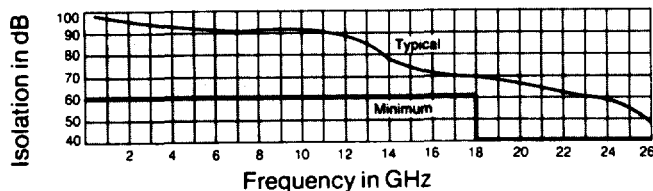
VSWR Vs. Frequency



Insertion Loss Vs. Frequency

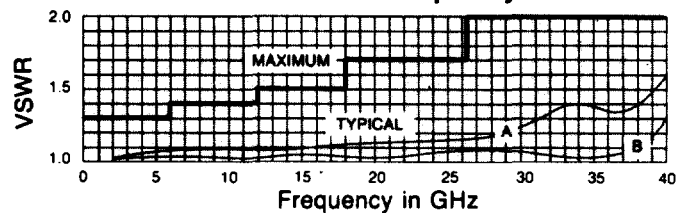


Isolation Vs. Frequency

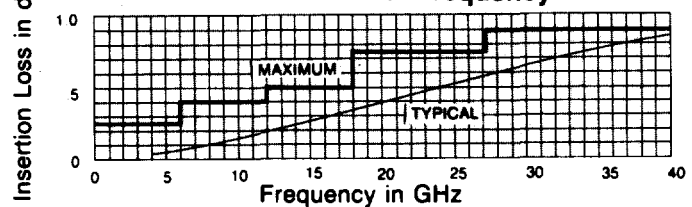


DC-40 GHz Switches

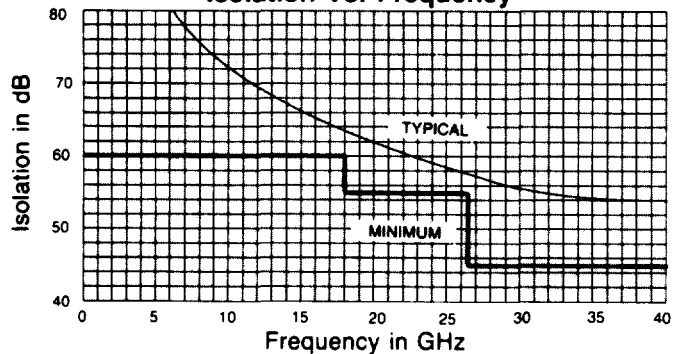
VSWR Vs. Frequency



Insertion Loss Vs. Frequency



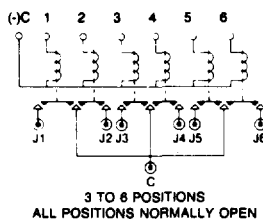
Isolation Vs. Frequency



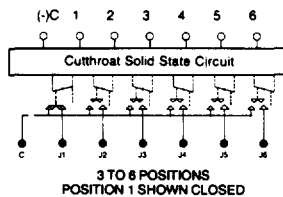
A= Typical switchport B= Two connectors back to back

Schematics

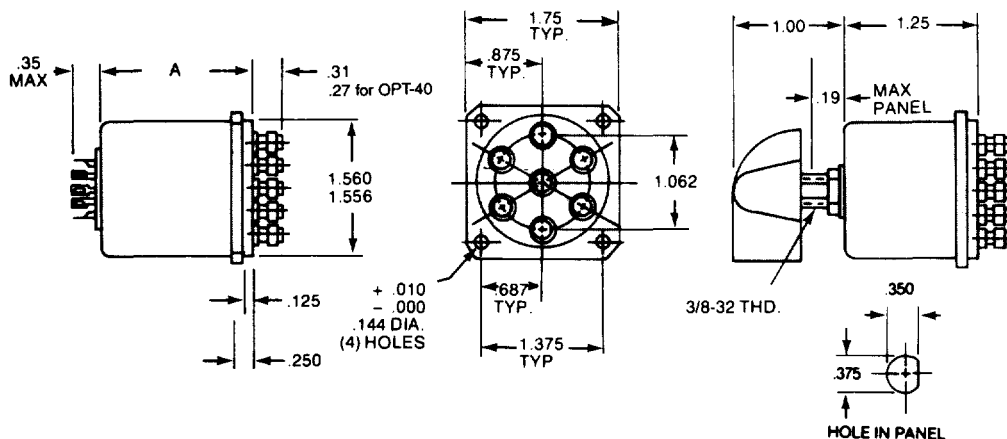
Failsafe



Latching



Outlines



MODEL NO.	A
SR- C-D	1.58
SR- C-D-I	2.25
SR- C-D-L	3.73
SR- C-D-I-L	4.00
SR- C-D-TL	2.25
SR- C-D-I-TL	2.25
SR- C-D-L-TL	4.40
SR- C-D-I-L-TL	4.40
SR- C-H same as SR- C-D	

Tolerances unless otherwise specified are: .xx, $\pm .02$; .xxx, $\pm .005$.

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