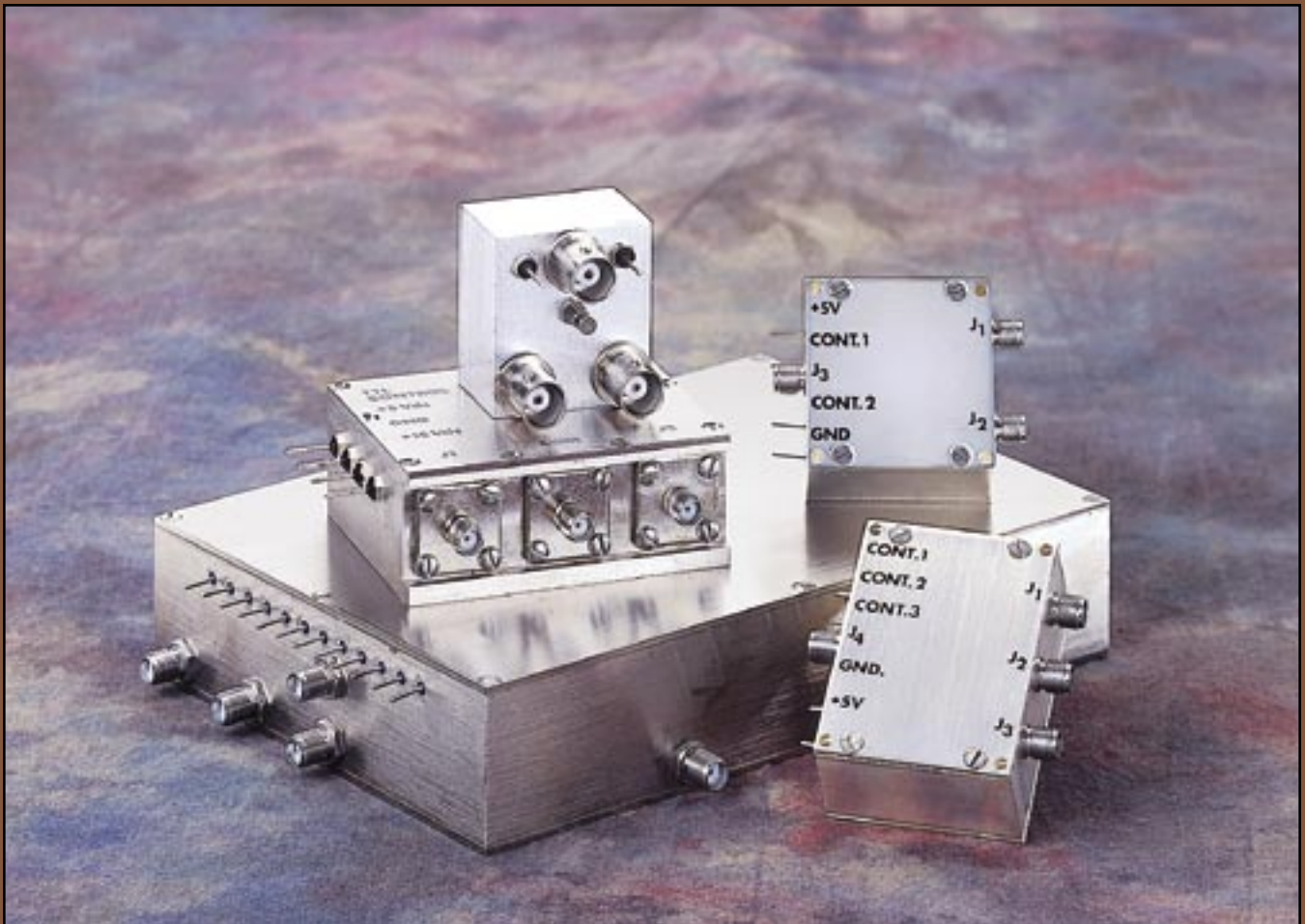


RF Coaxial Switches

Solid State

ElectroMechanical

High Power



Switches

Model Number Index

Please add connector type to the end of part number to complete model number ie; 50S-494 SMA.

Solid State

	Frequency Range	Configuration	Page
<u>50 Ohm</u>			
50S-348	5-2000 MHz	1P2T	5-6
50S-349	5-2000 MHz	1P3T	5-6
50S-381	100-1250 MHz	1P8T	5-8
50S-534	20-1000 MHz	1P2T	5-4
50S-535	20-1000 MHz	1P3T	5-4
50S-536	20-1000 MHz	1P4T	5-4
50S-642	5-3000 MHz	1P1T	5-6
50S-785	20-2000 MHz	1P1T	5-6
50S-847	50-2000 MHz	1P6T	5-8
50S-884	50-2000 MHz	1P4T	5-8
50S-960	800-2200 MHz	1P12T	5-10
50S-963	800-2200 MHz	1P4T	5-10
50S-964	800-2200 MHz	1P8T	5-10
50S-976	750-4300 MHz	1P2T	5-6
50S-979	5-2500 MHz	1P2T	5-6
50S-1011	400-2000 MHz	1P8T	5-8
50S-1035	20-4300 MHz	1P4T	5-12
50S-1075	20-4300 MHz	1P4T	5-12
50S-1090	800-3000 MHz	1P8T	5-10
50S-1163	20-4300 MHz	1P2T	5-12
50S-1173	800-3000 MHz	1P4T	5-10
50S-1199	20-4300 MHz	1P8T	5-12
50S-1220	20-4300 MHz	1P2T	5-12
50S-1310	20-4300 MHz	1P8T	5-12
50S-1312	800-2500 MHz	1P12T	5-10
50S-1324	800-2200 MHz	1P1T	5-6
50S-1337	800-3000 MHz	1P1T	5-6
<u>75 Ohm</u>			
75S-081	5-1000 MHz	1P2T	5-16
75S-181	5-1000 MHz	1P8T	5-16
75S-225	5-1000 MHz	1P4T	5-16
75S-264	20-1000 MHz	1P16T	5-16

ElectroMechanical

	Frequency Range	Configuration	Page
<u>50 Ohm</u>			
50S-1313	DC-18 GHz	1P2T	5-20
50S-1315	DC-18 GHz	1P4T	5-20
50S-1316	DC-18 GHz	1P6T	5-20
50S-1360	DC-18 GHz	1P3T	5-20
50S-1361	DC-18 GHz	Transfer	5-20
<u>75 Ohm</u>			
75S-072	DC-1450 MHz	1P2T	5-18
75S-073	DC-1450 MHz	1P4T	5-18
75S-087	DC-1450 MHz	1P3T	5-18
75S-111	DC-2000 MHz	1P2T	5-18
75S-214	DC-1000 MHz	1P8T	5-18
75S-221	DC-2150 MHz	1P8T	5-18

High Power Solid State

	Frequency Range	Configuration	Page
<u>50 Ohm</u>			
50S-494	100-500 MHz	1P2T	5-14
50S-788	500-1000 MHz	1P2T	5-14
50S-1077	50-500 MHz	1P2T	5-15
50S-1191	800-2000 MHz	1P2T	5-15
50S-1268	100-500 MHz	1P2T	5-15
50S-1352	800-2500 MHz	1P2T	5-15

Switches

Index by Configuration

Solid State

Configuration	Frequency Range	Model	Page
<u>50 Ohm</u>			
1P1T	5-3000 MHz	50S-642	5-6
1P1T	20-2000 MHz	50S-785	5-6
1P1T	800-2200 MHz	50S-1324	5-6
1P1T	800-3000 MHz	50S-1337	5-6
1P2T	5-2000 MHz	50S-348	5-6
1P2T	5-2500 MHz	50S-979	5-6
1P2T	20-1000 MHz	50S-534	5-4
1P2T	20-4300 MHz	50S-1163	5-12
1P2T	20-4300 MHz	50S-1220	5-12
1P2T	750-4300 MHz	50S-976	5-6
1P3T	5-2000 MHz	50S-349	5-6
1P3T	20-1000 MHz	50S-535	5-4
1P4T	20-1000 MHz	50S-536	5-4
1P4T	20-4300 MHz	50S-1035	5-12
1P4T	20-4300 MHz	50S-1075	5-12
1P4T	50-2000 MHz	50S-884	5-8
1P4T	800-2200 MHz	50S-963	5-10
1P4T	800-3000 MHz	50S-1173	5-10
1P6T	50-2000 MHz	50S-847	5-8
1P8T	20-4300 MHz	50S-1199	5-12
1P8T	20-4300 MHz	50S-1310	5-12
1P8T	100-1250 MHz	50S-381	5-8
1P8T	400-2000 MHz	50S-1011	5-8
1P8T	800-2200 MHz	50S-964	5-10
1P8T	800-3000 MHz	50S-1090	5-10
1P12T	800-2200 MHz	50S-960	5-10
1P12T	800-2500 MHz	50S-1312	5-10
<u>75 Ohm</u>			
1P2T	5-1000 MHz	75S-081	5-16
1P4T	5-1000 MHz	75S-225	5-16
1P8T	5-1000 MHz	75S-181	5-16
1P16T	20-1000 MHz	75S-264	5-16

ElectroMechanical

Configuration	Frequency Range	Model	Page
<u>50 Ohm</u>			
1P2T	DC-18 GHz	50S-1313	5-20
1P3T	DC-18 GHz	50S-1360	5-20
1P4T	DC-18 GHz	50S-1315	5-20
1P6T	DC-18 GHz	50S-1316	5-20
Transfer	DC-18 GHz	50S-1361	5-20
<u>75 Ohm</u>			
1P2T	DC-1450 MHz	75S-072	5-18
1P2T	DC-2000 MHz	75S-111	5-18
1P3T	DC-1450 MHz	75S-087	5-18
1P4T	DC-1450 MHz	75S-073	5-18
1P8T	DC-1000 MHz	75S-214	5-18
1P8T	DC-2150 MHz	75S-221	5-18

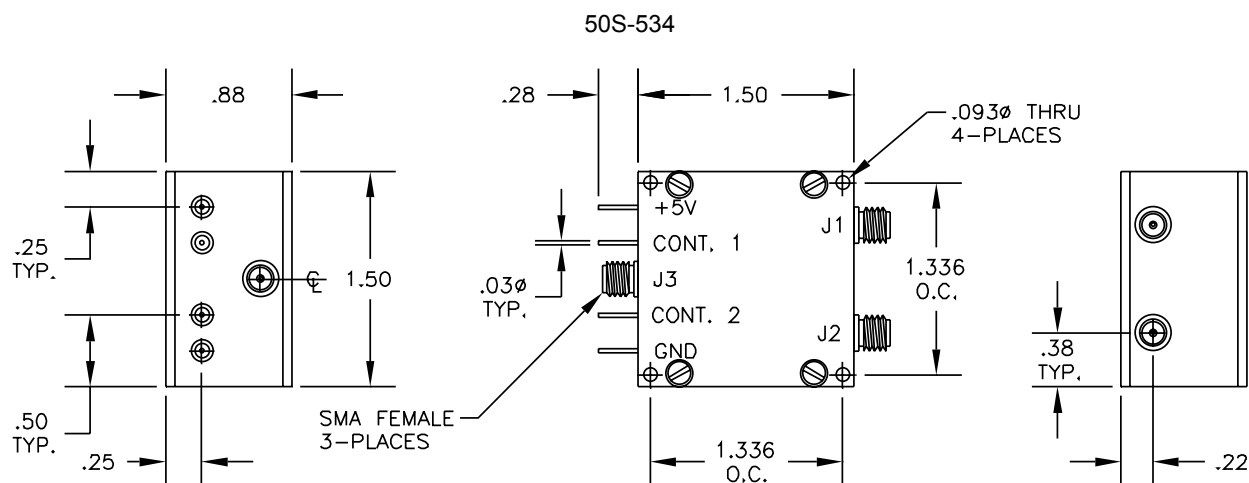
High Power Solid State

Configuration	Frequency Range	Model	Page
<u>50 Ohm</u>			
1P2T	50-500 MHz	50S-1077	5-15
1P2T	100-500 MHz	50S-494	5-14
1P2T	100-500 MHz	50S-1268	5-15
1P2T	500-1000 MHz	50S-788	5-14
1P2T	800-2000 MHz	50S-1191	5-15
1P2T	800-2500 MHz	50S-1352	5-15

VHF/UHF Solid State Coaxial Switches

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-534	1P2T	20-1000 MHz	70 dB	1.4:1	1.5 dB 20-500 MHz 2 dB 500-1000 MHz	solder terminals	SMA female
50S-535	1P3T	20-1000 MHz	70 dB	1.4:1	1.5 dB 20-500 MHz 2 dB 500-1000 MHz	solder terminals	SMA female
50S-536	1P4T	20-1000 MHz	70 dB	1.4:1	1.5 dB 20-500 MHz 2 dB 500-1000 MHz	solder terminals	SMA female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-534	50 Ohms	5 microseconds	+13 dBm	+5 Vdc @ 150 mA	(2 lines) TTL low-off (reflective) TTL high-on	-20° C to +85° C
50S-535	50 Ohms	5 microseconds	+13 dBm	+5 Vdc @ 150 mA	(3 lines) TTL low-off (reflective) TTL high-on	-20° C to +85° C
50S-536	50 Ohms	5 microseconds	+13 dBm	+5 Vdc @ 150 mA	(4 lines) TTL low-off (reflective) TTL high-on	-20° C to +85° C

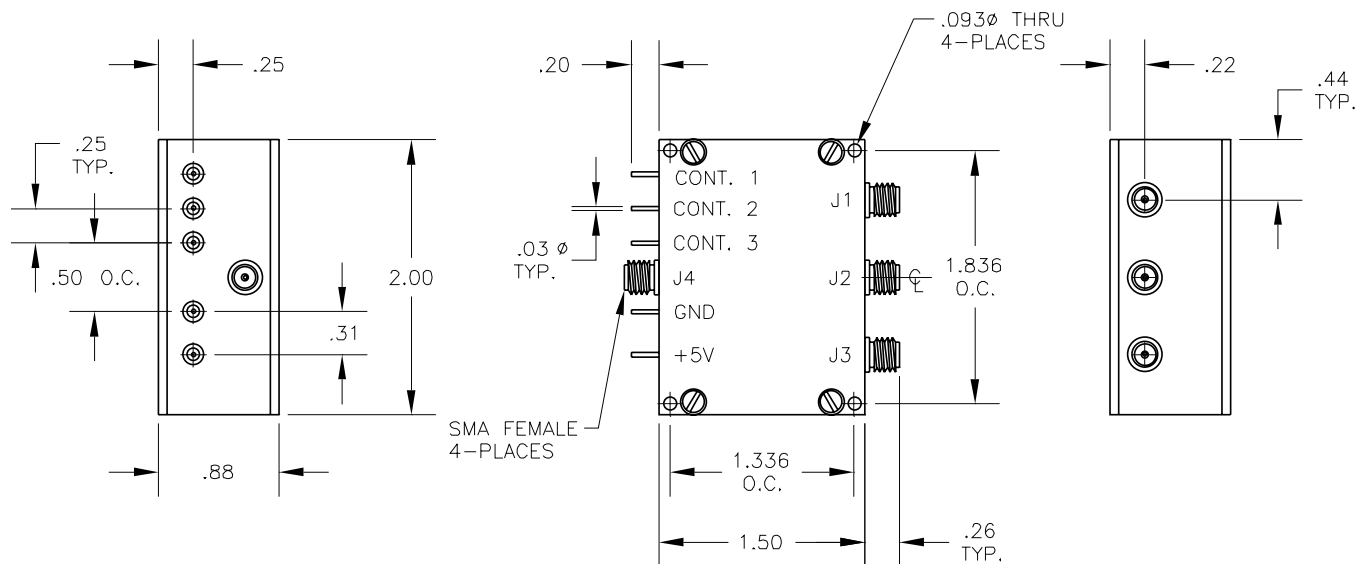


J3 TO	C1	C2
J1	1	0
J2	0	1
OFF	0	0

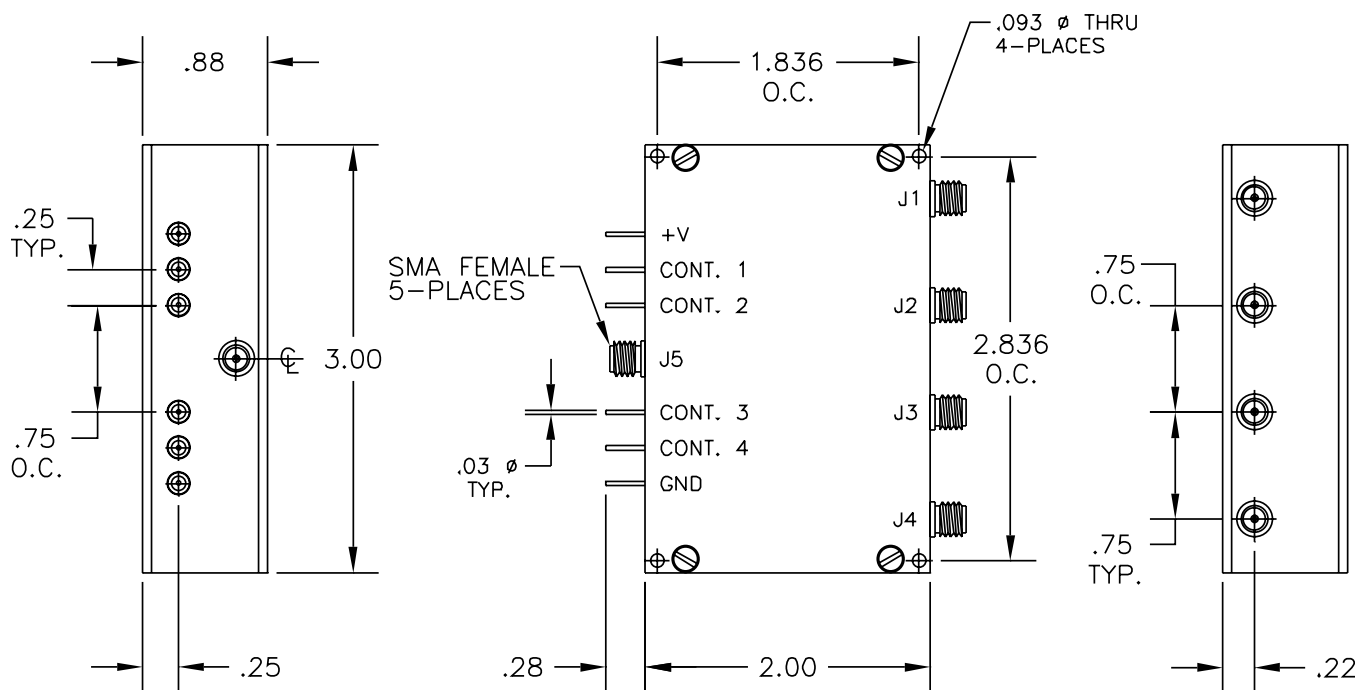
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VHF/UHF Solid State Coaxial Switches

50S-535



50S-536



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Wideband Solid State Coaxial Switches

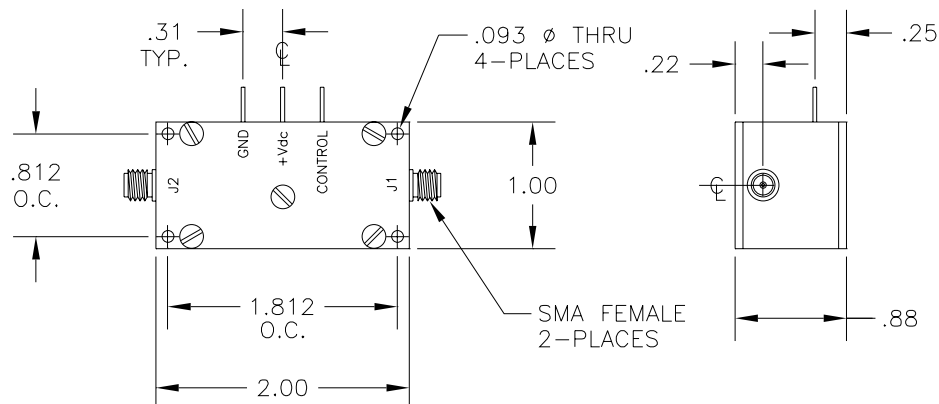
Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-642	1P1T	5-3000 MHz	80 dB 5-500 MHz 60 dB 500-3000 MHz	1.4:1	2 dB	solder terminals	SMA female
50S-785	1P1T	20-2000 MHz	60 dB	1.4:1	1.5 dB	solder terminals	SMA female
50S-1324	1P1T	800-2200 MHz	55 dB	1.4:1	1.5 dB	solder terminals	SMA female
50S-1337	1P1T	800-3000 MHz	50 dB	1.5:1	1.25 dB 800-1000 MHz 2.25 dB 1000-3000 MHz	solder terminals	SMA female
50S-348	1P2T	5-2000 MHz	60 dB 5-1000 MHz 50 dB 1000-2000 MHz	1.4:1	1 dB 5-1000 MHz 1.5 dB 1000-2000 MHz	solder terminals	SMA female
50S-979	1P2T	5-2500 MHz	60 dB 5-1000 MHz 50 dB 1000-2200 MHz 45 dB 2200-2500 MHz	1.4:1	1 dB 5-1000 MHz 1.5 dB 1000-2200 MHz 2 dB 2200-2500 MHz	solder terminals	SMA female
50S-976	1P2T	750-4300 MHz	50 dB 750-2000 MHz 40 dB 2000-3500 MHz 30 dB 3500-4300 MHz	1.4:1	1.5 dB	solder terminals	SMA female
50S-349	1P3T	5-2000 MHz	60 dB 5-1000 MHz 50 dB 1000-2000 MHz	1.4:1	1 dB 5-1000 MHz 1.5 dB 1000-2000 MHz	solder terminals	SMA female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-642	50 Ohms	20 microseconds	+10 dBm 5-1500 MHz +20 dBm 1500-3000 MHz	+5 Vdc @ 100 mA	(1 line) TTL low-off (reflective) TTL high-on	0° C to +70° C
50S-785	50 Ohms	500 nanoseconds	+10 dBm	+5 Vdc @ 125 mA	(1 line) TTL low-off (reflective) TTL high-on	0° C to +70° C
50S-1324	50 Ohms	10 microseconds	+20 dBm	+5 Vdc @ 150 mA	(1 line) TTL low-on ports are internally terminated into 50 Ohms (both ports) TTL high-off	0° C to +70° C
50S-1337	50 Ohms	500 nanoseconds	+20 dBm	+5 Vdc @ 100 mA	(1 line) TTL low-off ports are internally terminated into 50 Ohms (both ports) TTL high-on	0° C to +70° C
50S-348	50 Ohms	5 microseconds	+5 dBm	+5 Vdc @ 150 mA	(2 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C
50S-979	50 Ohms	5 microseconds	+10 dBm	+5 Vdc @ 150 mA	(2 lines) TTL low-off ports are internally terminated into 50 Ohms TTL high-on	0° C to +70° C
50S-976	50 Ohms	5 microseconds	+10 dBm	+5 Vdc @ 150 mA	(2 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C
50S-349	50 Ohms	5 microseconds	+5 dBm	+5 Vdc @ 150 mA	(3 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C

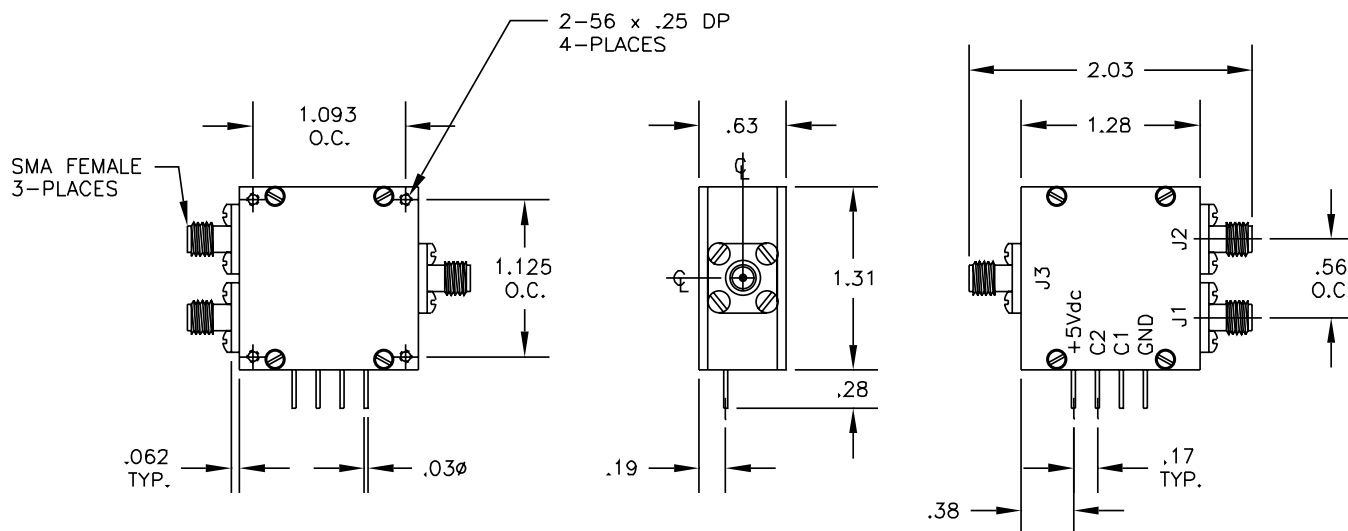
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Wideband Solid State Coaxial Switches

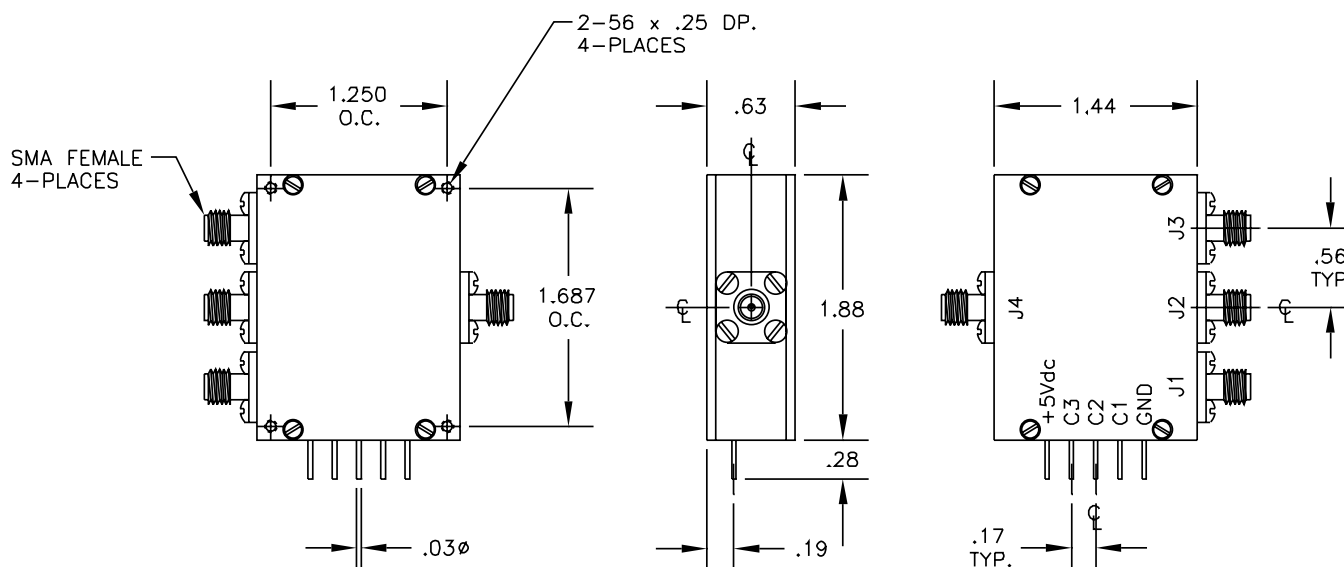
50S-642 / 50S-785 / 50S-1324 / 50S-1337



50S-348 / 50S-976 / 50S-979



50S-349



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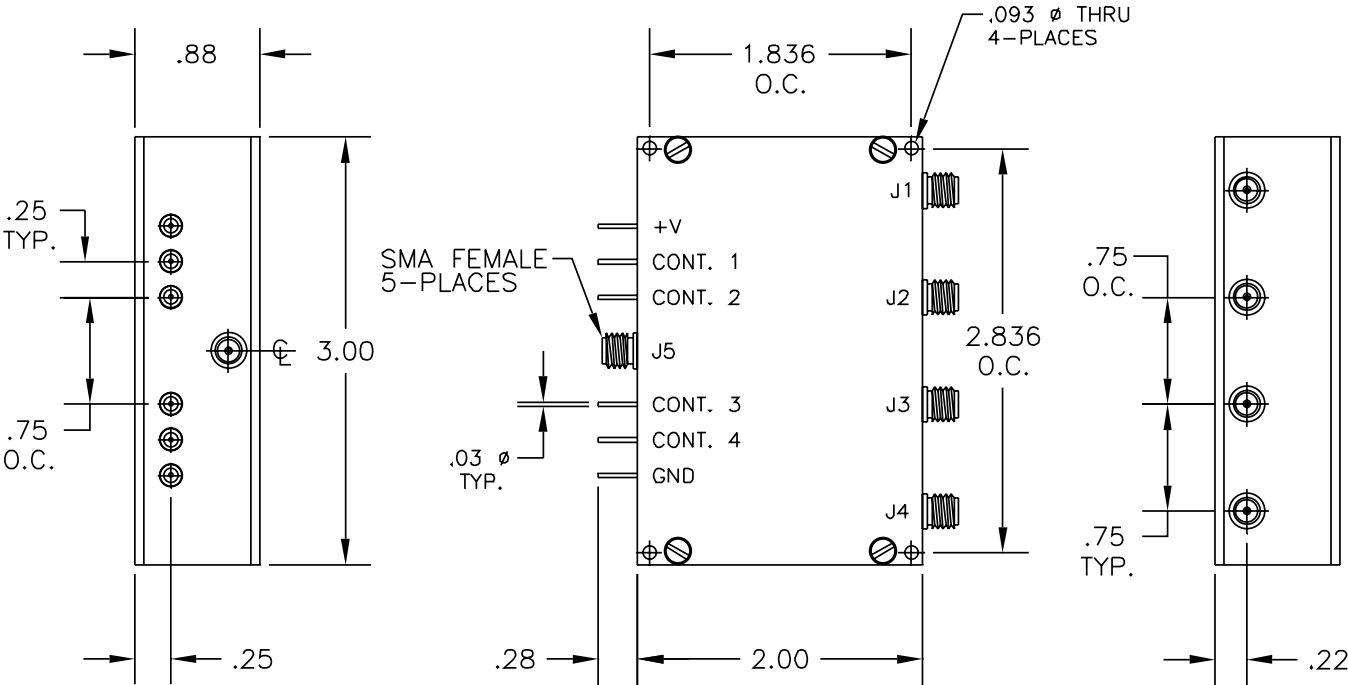
Wideband Solid State Coaxial Switch

Absorptive
Absorptive
Absorptive

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-884	1P4T	50-2000 MHz	65 dB 50-1000 MHz 55 dB 1000-2000 MHz	1.4:1	1.5 dB 50-500 MHz 2 dB 500-1000 MHz 2.5 dB 1000-2000 MHz	solder terminals	SMA female
50S-847	1P6T	50-2000 MHz	70 dB 50-1500 MHz 55 dB 1500-2000 MHz	1.3:1 50-750 MHz 1.4:1 750-1500 MHz 1.5:1 1500-2000 MHz	1.5 dB 50-750 MHz 2 dB 750-1500 MHz 3 dB 1500-2000 MHz	solder terminals	SMA female
50S-381	1P8T	100-1250 MHz	65 dB 100-750 MHz 60 dB 750-1250 MHz	1.3:1 100-750 MHz 1.4:1 750-1250 MHz	1.5 dB 100-750 MHz 2 dB 750-1250 MHz	solder terminals	SMA female
50S-1011	1P8T	400-2000 MHz	65 dB 400-1000 MHz 55 dB 1000-2000 MHz	1.5:1	2 dB 400-1000 MHz 3 dB 1000-2000 MHz	solder terminals	SMA female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-884	50 Ohms	5 microseconds	+13 dBm	+5 Vdc @ 150 mA	(4 lines) TTL low-off (reflective) TTL high-on	-20° C to +85° C
50S-847	50 Ohms	1 microsecond	+10 dBm	+5 Vdc @ 250 mA	(3 lines) TTL low-off ports are internally terminated into 50 Ohms TTL high-on	0° C to +70° C
50S-381	50 Ohms	1 microsecond	+10 dBm	+5 Vdc @ 150 mA	(8 lines) TTL low-off ports terminated into 50 Ohms TTL high-on	0° C to +70° C
50S-1011	50 Ohms	10 microseconds	+20 dBm	+5 Vdc @ 150 mA	(8 lines) TTL low-off ports terminated into 50 Ohms TTL high-on	0° C to +70° C

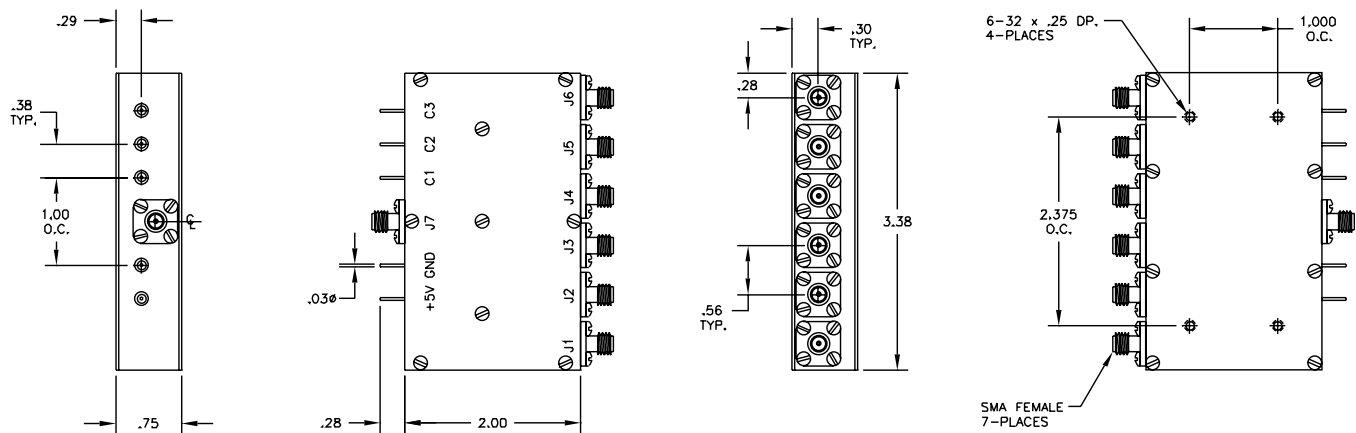
50S-884



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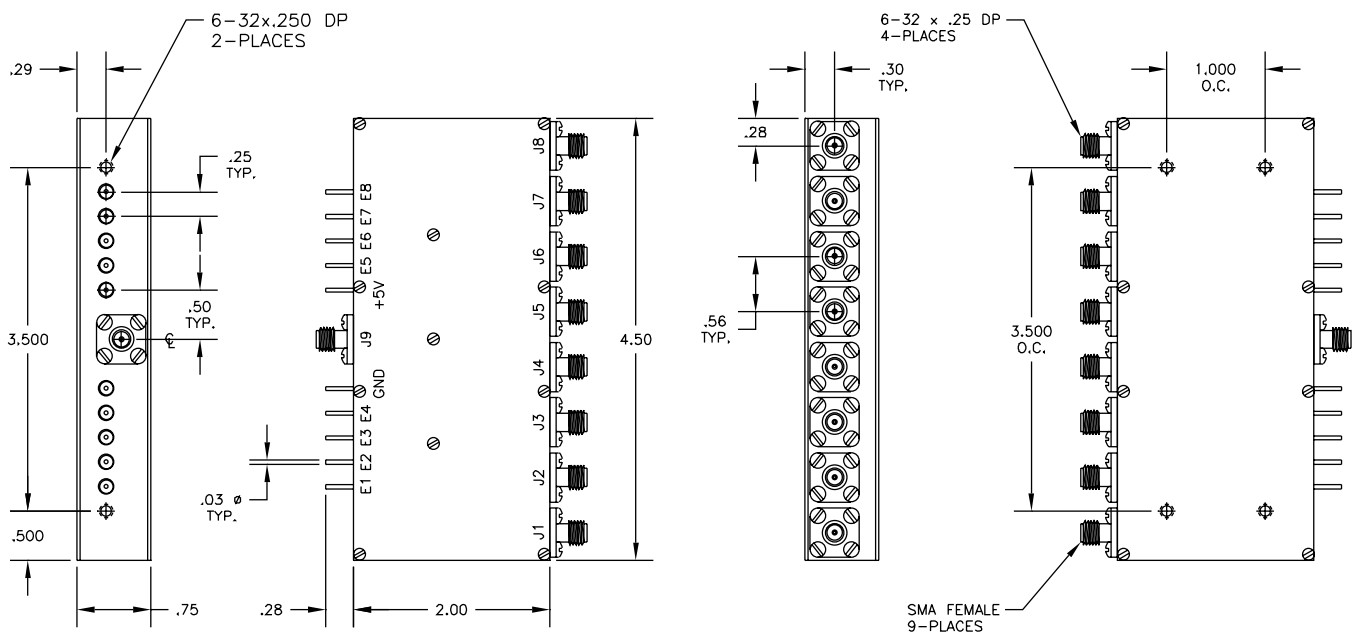
Wide Band Solid State Coaxial Switches

50S-847



J7 TO	C1	C2	C3
NONE	0	0	0
J1	1	0	0
J2	0	1	0
J3	1	1	0
J4	0	0	1
J5	1	0	1
J6	0	1	1

50S-381 / 50S-1011



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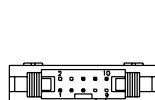
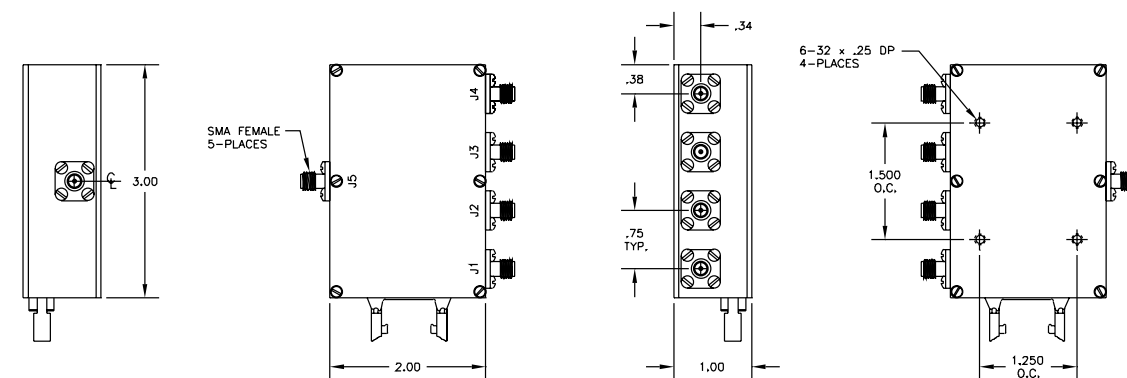
Cellular Band Solid State Coaxial Switches

All models are Absorptive

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-963	1P4T	800-2200 MHz	50 dB	1.4:1 800-1000 MHz 1.5:1 1000-2200 MHz	2.5 dB 800-1000 MHz 3.5 dB 1000-2200 MHz	3M# 3793-5303	SMA female
50S-1173	1P4T	800-3000 MHz	50 dB	1.4:1	3 dB 800-1000 MHz 4 dB 1000-3000 MHz	3M# 3793-5303	SMA female
50S-964	1P8T	800-2200 MHz	50 dB	1.4:1 800-1000 MHz 1.5:1 1000-2200 MHz	3 dB 800-1000 MHz 4 dB 1000-2200 MHz	3M# 3793-5303	SMA female
50S-1090	1P8T	800-3000 MHz	60 dB 800-1000 MHz 55 dB 1000-2000 MHz 50 dB 2000-3000 MHz	1.5:1	3 dB 800-2000 MHz 4 dB 2000-3000 MHz	3M# 3793-5303	SMA female
50S-960	1P12T	800-2200 MHz	50 dB	1.5:1	3 dB 800-1500 MHz 4.5 dB 1500-2200 MHz	3M# 3793-5303	SMA female
50S-1312	1P12T	800-2500 MHz	50 dB	1.5:1	3 dB 800-1500 MHz 4.5 dB 1500-2500 MHz	3M# 3793-5303	SMA female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-963	50 Ohms	10 microseconds	+20 dBm	+5 Vdc @ 200 mA -5 Vdc @ 200 mA	(3 lines) TTL, off ports are internally terminated into 50 Ohms	0° C to +70° C
50S-1173	50 Ohms	10 microseconds	+10 dBm	+5 Vdc @ 200 mA -5 Vdc @ 200 mA	(3 lines) TTL, off ports are internally terminated into 50 Ohms	0° C to +70° C
50S-964	50 Ohms	10 microseconds	+20 dBm	+5 Vdc @ 400 mA -5 Vdc @ 400 mA	(4 lines) TTL, off ports are internally terminated into 50 Ohms	0° C to +70° C
50S-1090	50 Ohms	10 microseconds	+20 dBm	+5 Vdc @ 200 mA -5 Vdc @ 400 mA	(4 lines) TTL, off ports are internally terminated into 50 Ohms	0° C to +70° C
50S-960	50 Ohms	10 microseconds	+20 dBm	+5 Vdc @ 200 mA -5 Vdc @ 500 mA	(4 lines) TTL, off ports are internally terminated into 50 Ohms	0° C to +70° C
50S-1312	50 Ohms	10 microseconds	+20 dBm	+5 Vdc @ 200 mA -5 Vdc @ 500 mA	(4 lines) TTL, off ports are internally terminated into 50 Ohms	0° C to +70° C

50S-963 / 50S-1173



DETAIL A
3M# 3793-5303

PIN	FUNCTION
1	CONTROL 1
2	NO CONNECTION
3	CONTROL 2
4	NO CONNECTION
5	CONTROL 3
6	+5 Vdc
7	NO CONNECTION
8	-5 Vdc
9	NO CONNECTION
10	GROUND

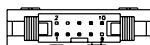
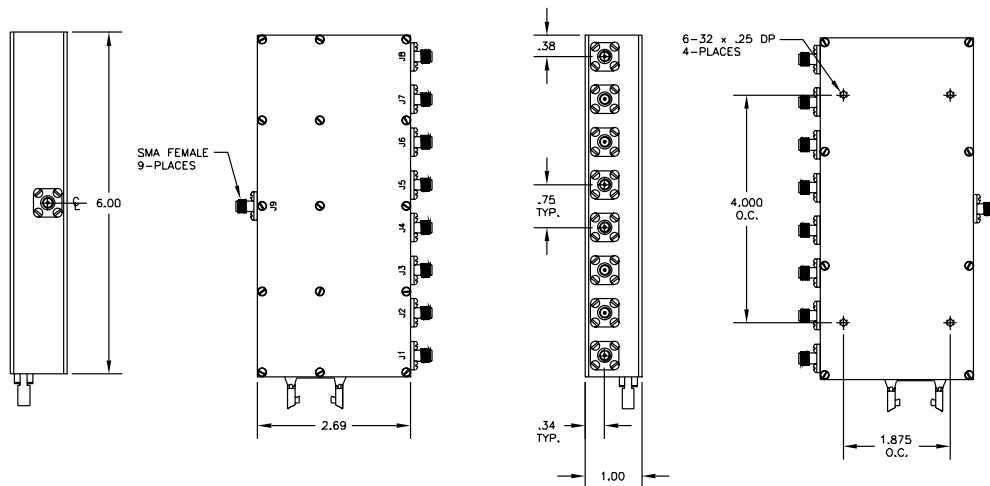
J5 TO:	CONT. 1	CONT. 2	CONT. 3
NONE	0	0	0
J1	1	0	0
J2	0	1	0
J3	1	1	0
J4	0	0	1

For a DC mating cable,
see page 7-12

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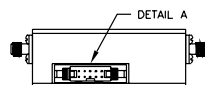
Cellular Band Solid State Coaxial Switches

50S-964 / 50S-1090



DETAIL A
3M# 3793-5303

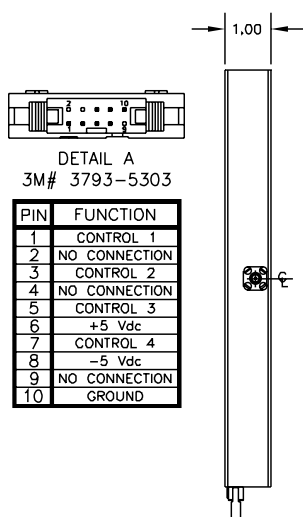
PIN	FUNCTION
1	CONTROL 1
2	NO CONNECTION
3	CONTROL 2
4	NO CONNECTION
5	CONTROL 3
6	+5 Vdc
7	CONTROL 4
8	-5 Vdc
9	NO CONNECTION
10	GROUND



J9 TO:	CONT. 1	CONT. 2	CONT. 3	CONT. 4
NONE	0	0	0	0
J1	1	0	0	0
J2	0	1	0	0
J3	1	1	0	0
J4	0	0	1	0
J5	1	0	1	0
J6	0	1	1	0
J7	1	1	1	0
J8	0	0	0	1

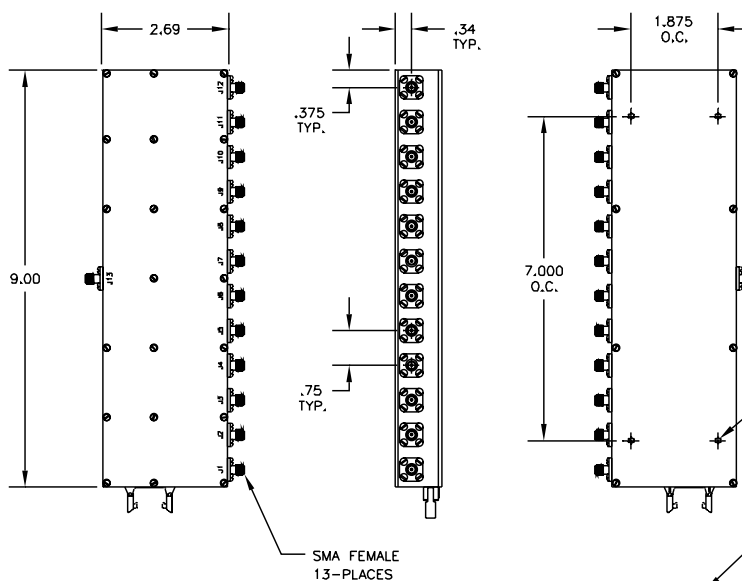
For a DC mating cable,
see page 7-12

50S-960 / 50S-1312

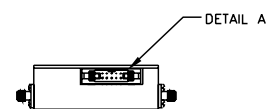


DETAIL A
3M# 3793-5303

PIN	FUNCTION
1	CONTROL 1
2	NO CONNECTION
3	CONTROL 2
4	NO CONNECTION
5	CONTROL 3
6	+5 Vdc
7	CONTROL 4
8	-5 Vdc
9	NO CONNECTION
10	GROUND



J13 TO:	C1	C2	C3	C4
NONE	0	0	0	0
J1	1	0	0	0
J2	0	1	0	0
J3	1	1	0	0
J4	0	0	1	0
J5	1	0	1	0
J6	0	1	1	0
J7	1	1	1	0
J8	0	0	0	1
J9	1	0	0	1
J10	0	1	0	1
J11	1	1	0	1
J12	0	0	1	1



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4.3 GHz Wide Band Solid State Coaxial Switches

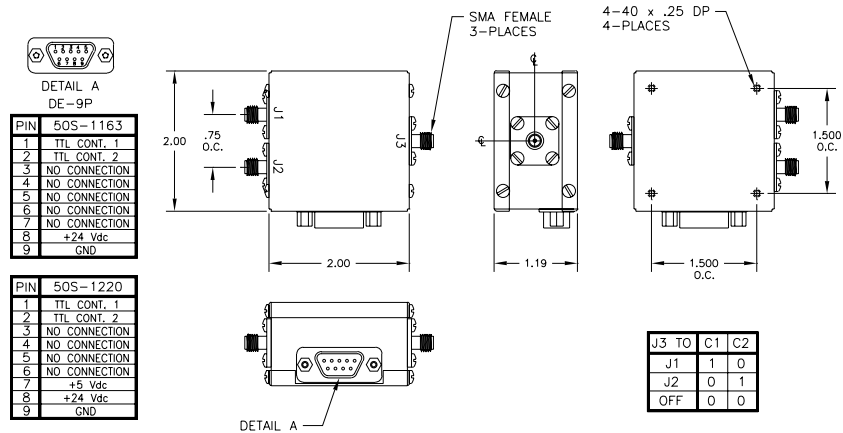
Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-1163	1P2T	20-4300 MHz	80 dB 20-1000 MHz 70 dB 1000-2000 MHz 60 dB 2000-4000 MHz 55 dB 4000-4300 MHz	1.5:1	1.5 dB 20-1000 MHz 3 dB 1000-4300 MHz	DE-9P	SMA female
50S-1220	1P2T	20-4300 MHz	80 dB 20-1000 MHz 70 dB 1000-2000 MHz 60 dB 2000-4000 MHz 55 dB 4000-4300 MHz	1.5:1	1.5 dB 20-1000 MHz 3 dB 1000-4300 MHz	DE-9P	SMA female
50S-1035	1P4T	20-4300 MHz	80 dB 20-1000 MHz 70 dB 1000-2000 MHz 60 dB 2000-4000 MHz 55 dB 4000-4300 MHz	1.5:1	2 dB 20-1000 MHz 4 dB 1000-4300 MHz	DE-9P	SMA female
50S-1075	1P4T	20-4300 MHz	75 dB 20-1000 MHz 65 dB 1000-2000 MHz 55 dB 2000-4300 MHz	1.5:1	2 dB 20-1000 MHz 4 dB 1000-4300 MHz	DE-9P	SMA female
50S-1199	1P8T	20-4300 MHz	70 dB to 2000 MHz 50 dB to 4300 MHz	1.5:1	2 dB 20-1000 MHz 2.5 dB 1000-2000 MHz 3 dB 2000-3000 MHz 4 dB 3000-4300 MHz	3M# 3793-5303	SMA female
50S-1310	1P8T	20-4300 MHz	70 dB to 2000 MHz 50 dB to 4300 MHz	1.5:1	2 dB 20-1000 MHz 2.5 dB 1000-2000 MHz 3 dB 2000-3000 MHz 4 dB 3000-4300 MHz	3M# 3793-5303	SMA female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-1163	50 Ohms	10 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Volts @ 50 mA	(2 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C operating -55° C to +90° C storage
50S-1220	50 Ohms	10 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Volts @ 50 mA +5 Vdc @ 50 mA	(2 lines) TTL low-off ports are internally terminated into 50 Ohms TTL high-on	0° C to +70° C operating -55° C to +90° C storage
50S-1035	50 Ohms	10 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 50 mA	(4 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C operating -55° C to +90° C storage
50S-1075	50 Ohms	10 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 150 mA +5 Vdc @ 100 mA	(4 lines) TTL low-off ports are internally terminated into 50 Ohms TTL high-on	0° C to +70° C operating -55° C to +90° C storage
50S-1199	50 Ohms	10 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 100 mA +5 Vdc @ 100 mA	(4 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C operating -55° C to +90° C storage
50S-1310	50 Ohms	10 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 200 mA +5 Vdc @ 150 mA	(4 lines) TTL low-off ports are internally terminated into 50 Ohms TTL high-on	0° C to +70° C operating -55° C to +90° C storage

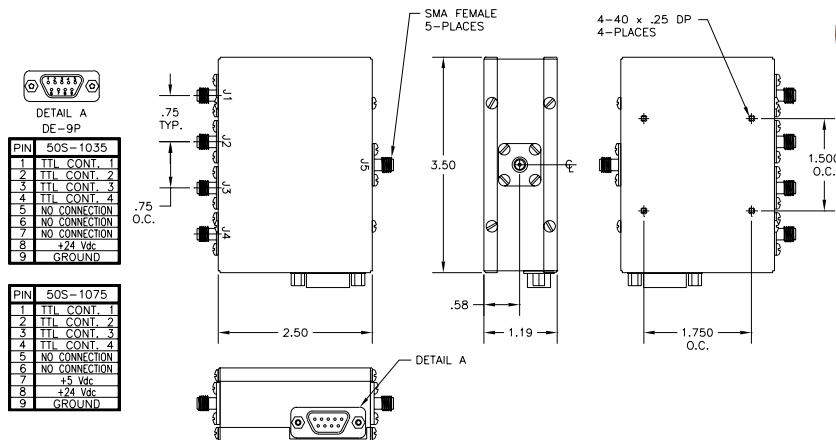
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4.3 GHz Wide Band Solid State Coaxial Switches

50S-1163 / 50S-1220

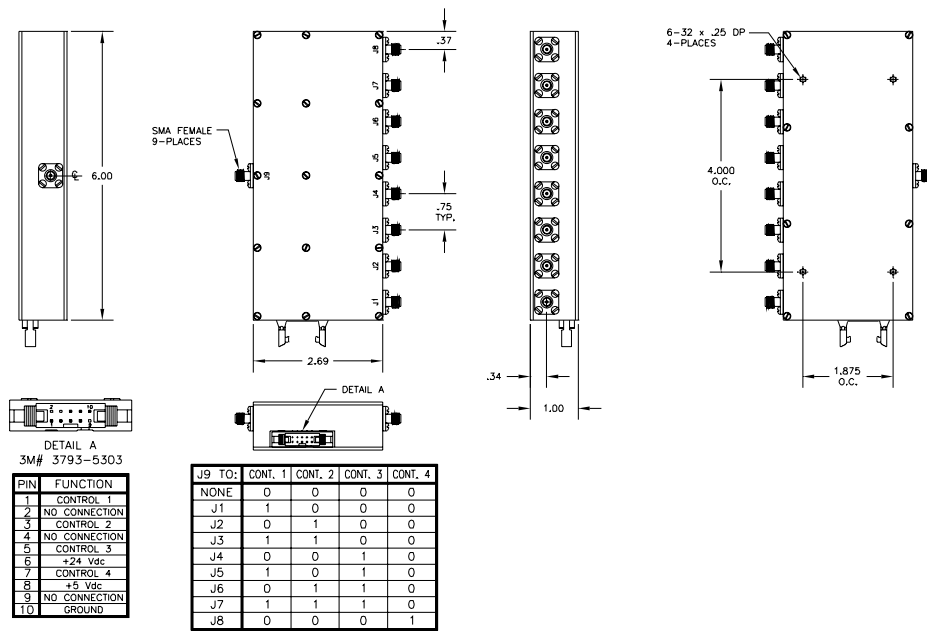


50S-1035 / 50S-1075



For a DC mating cable,
see page 7-12

50S-1199 / 50S-1310

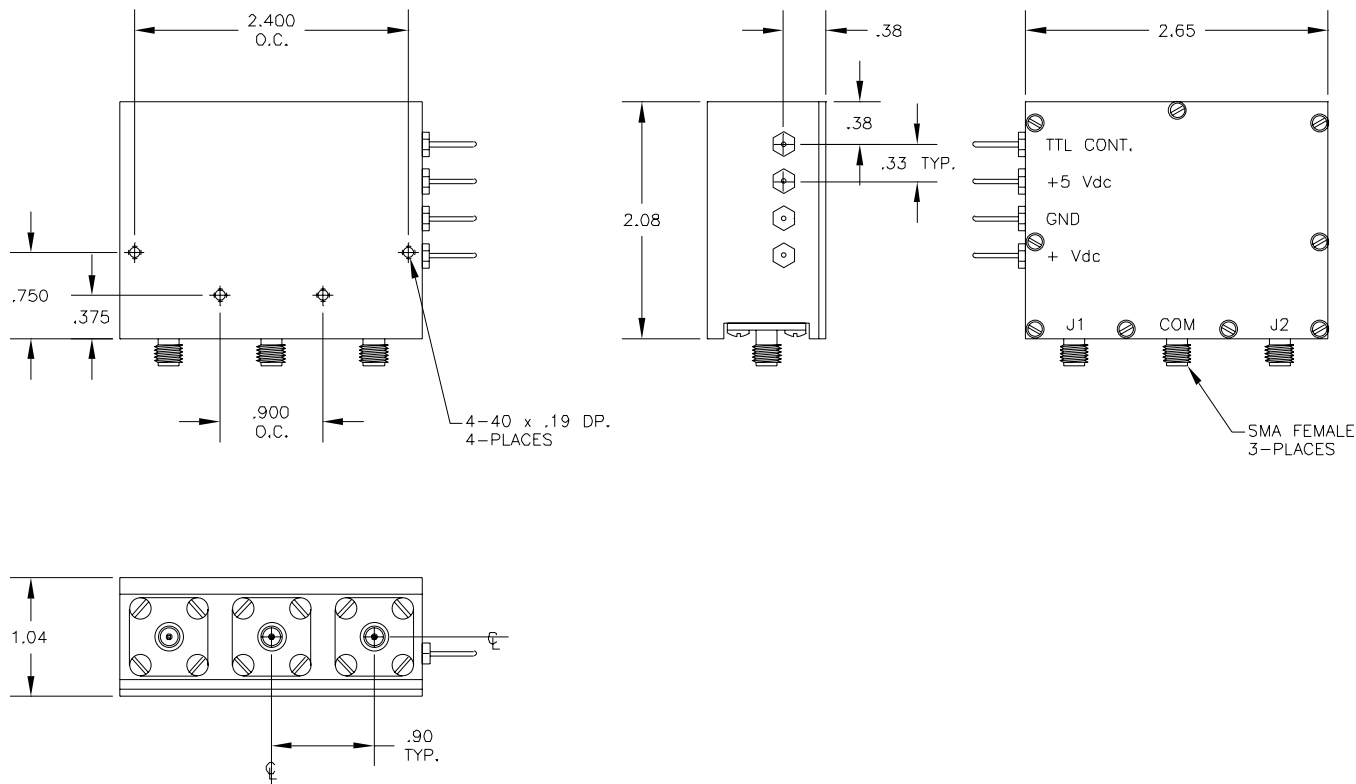


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High Power Solid State Coaxial Switch

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-494	1P2T	100-500 MHz	50 dB	1.3:1	.4 dB	solder terminals	N, SMA or TNC
50S-788	1P2T	500-1000 MHz	50 dB	1.3:1	.7 dB	solder terminals	BNC, SMA, TNC or N female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-494	50 Ohms	100 microseconds	100 Watts average 500 Watts peak Hot Switch: 20 Watts average	+15 Vdc @ 250 mA +5 Vdc @ 40 mA	(1 line) TTL Low J1-Com TTL High J2-Com, (off port is reflective)	-20° C to +70° C operating -20° C to +85° C storage
50S-788	50 Ohms	10 microseconds	Cold Switch: 20 Watts average 100 Watts peak Hot Switch: 20 Watts average	+15 Vdc @ 250 mA +5 Vdc @ 40 mA	(1 line) TTL Low J1-Com TTL High J2-Com (off port is reflective)	-20° C to +70° C operating -55° C to +85° C storage

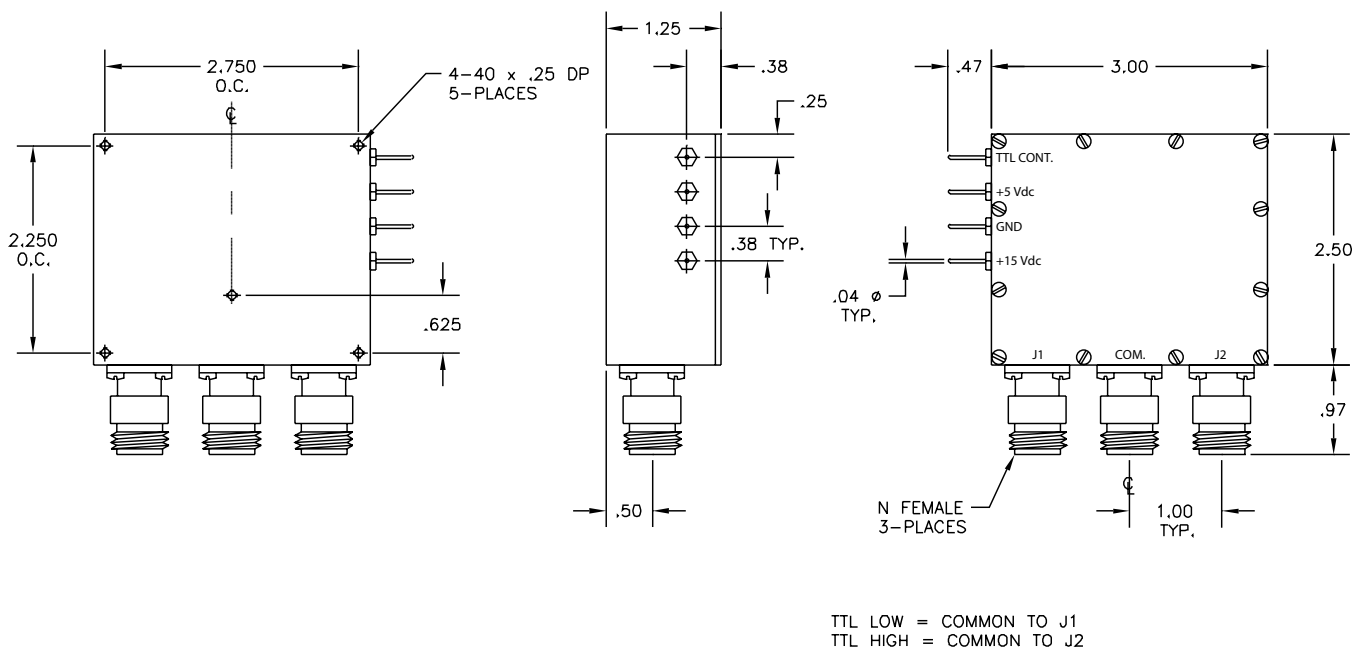


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High Power Solid State Coaxial Switch

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-1077	1P2T	50-500 MHz	55 dB	1.3:1	.5 dB	solder terminals	BNC, SMA, TNC or N female
50S-1191	1P2T	800-2000 MHz	40 dB 800-1000 MHz 38 dB 1000-2000 MHz	1.4:1	.6 dB 800-1000 MHz .9 dB 1000-2000 MHz	solder terminals	SMA, TNC or N female
50S-1352	1P2T	800-2500 MHz	45 dB 800-1000 MHz 36 dB 1000-2500 MHz	1.3:1 800-1000 MHz 1.4:1 1000-2500 MHz	.5 dB 800-1000 MHz .7 dB 1000-2000 MHz .9 dB 2000-2500 MHz	solder terminals	SMA, TNC or N female
50S-1268	1P2T	100-500 MHz	55 dB	1.25:1	.5 dB	solder terminals	BNC, SMA, TNC or N female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-1077	50 Ohms	40 μ Secs (50% TTL to specified isolation) 30 μ Secs (50% TTL to -50 dBc ON-OFF)	250 Watts average 500 Watts peak Hot Switch: 20 Watts average	+15 Vdc @ 250 mA +5 Vdc @ 40 mA	(1 line) TTL Low J1-Com TTL High J2-Com (off port is reflective)	-20° C to +70° C operating -55° C to +85° C storage
50S-1191	50 Ohms	80 μ Secs (50% TTL to 10 % or 90% RF)	100 Watts average 200 Watts peak (1 μ Sec pulse) Hot Switch: 10 Watts average	+15 Vdc @ 325 mA +5 Vdc @ 40 mA	(1 line) TTL Low J1-Com TTL High J2-Com (off port is reflective)	-20° C to +70° C operating -55° C to +85° C storage
50S-1352	50 Ohms	10 μ Secs (50% TTL to 10 % or 90% RF) 30 μ Secs (50% TTL to full Isolation)	50 Watts average 200 Watts peak (1 μ Sec pulse) Hot Switch: 50 Watts average	+15 Vdc @ 325 mA +5 Vdc @ 40 mA	(1 line) TTL Low J1-Com TTL High J2-Com (off port is reflective)	-20° C to +70° C operating -55° C to +85° C storage
50S-1268	50 Ohms	40 μ Secs (50% TTL to 10 % or 90% RF)	100 Watts average 500 Watts peak (1 μ Sec pulse) Hot Switch: 100 Watts average	+15 Vdc @ 250 mA +5 Vdc @ 40 mA	(1 line) TTL Low J1-Com TTL High J2-Com (off port is reflective)	-20° C to +70° C operating -55° C to +85° C storage



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S-6-F
12-16-04
Cat 2004

75 Ohm Solid State Coaxial Switches

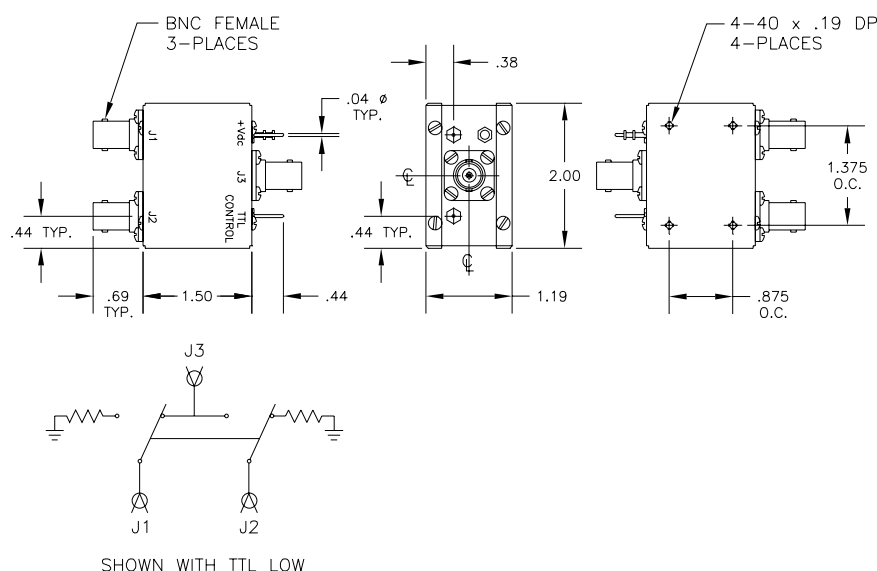
Absorptive

Absorptive

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
75S-081	1P2T	5-1000 MHz	60 dB 5-500 MHz 55 dB 500-1000 MHz	1.2:1 5-300 MHz 1.3:1 300-600 MHz 1.4:1 600-1000 MHz	1.5 dB 5-500 MHz 2.5 dB 500-1000 MHz	solder terminals	BNC, F or N female
75S-225	1P4T	5-1000 MHz	60 dB	1.2:1	2.25 dB	solder terminals	BNC or F female
75S-181	1P8T	5-1000 MHz	70 dB 5-50 MHz 60 dB 50-500 MHz 55 dB 500-1000 MHz	1.3:1 5-500 MHz 1.4:1 500-1000 MHz	1.5 dB 5-500 MHz 2 dB 500-1000 MHz	DA-15P	BNC or F female
75S-264	1P16T	20-1000 MHz	55 dB	1.4:1	2.0 dB	3M# 3793-5303	F female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
75S-081	75 Ohms	20 microseconds	+20 dBm (1 dB compression)	+5 Vdc @ 100 mA	(2 lines) TTL low for J3 to J1 TTL high for J3 to J2 off ports terminated into 75 Ohms	0° C to +70° C
75S-225	75 Ohms	10 microseconds	+20 dBm (1 dB compression)	+24 Vdc @ 50 mA nominal	(4 lines) TTL low-off C1 TTL high for J1 to J5 C2 TTL high for J2 to J5 C3 TTL high for J3 to J5 C4 TTL high for J4 to J5	0° C to +70° C
75S-181	75 Ohms	200 microseconds	+10 dBm	+28 Vdc @ 250 mA maximum	(8 lines) TTL low-off TTL high-on	0° C to +70° C
75S-264	75 Ohms	50 microseconds	+20 dBm	+5 Vdc @ 100 mA +15 Vdc @ 200 mA -15 Vdc @ 500 mA	(5 lines) TTL per drawing off ports terminated into 75 Ohms	0° C to +70° C

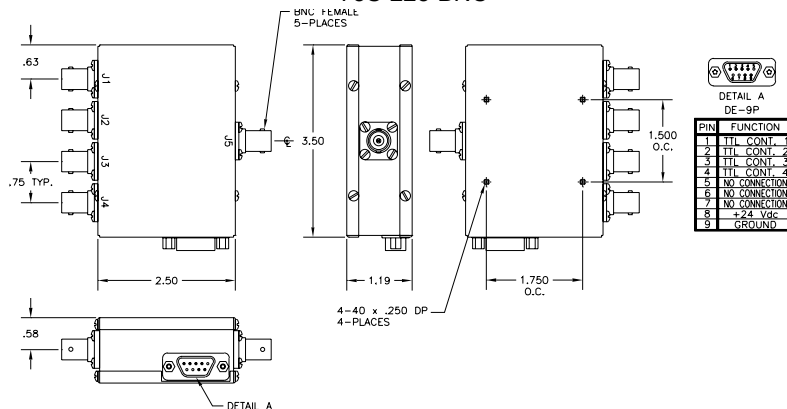
75S-081 BNC



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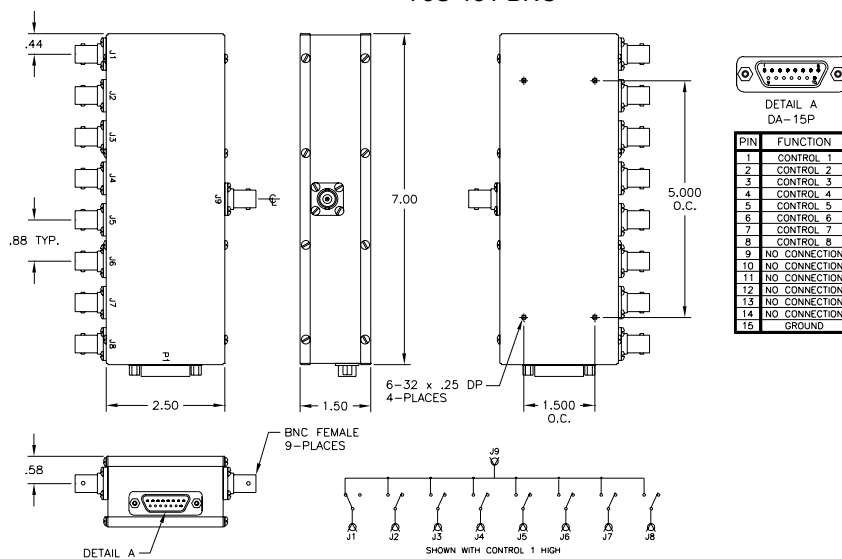
75 Ohm Solid State Coaxial Switches

75S-225 BNC

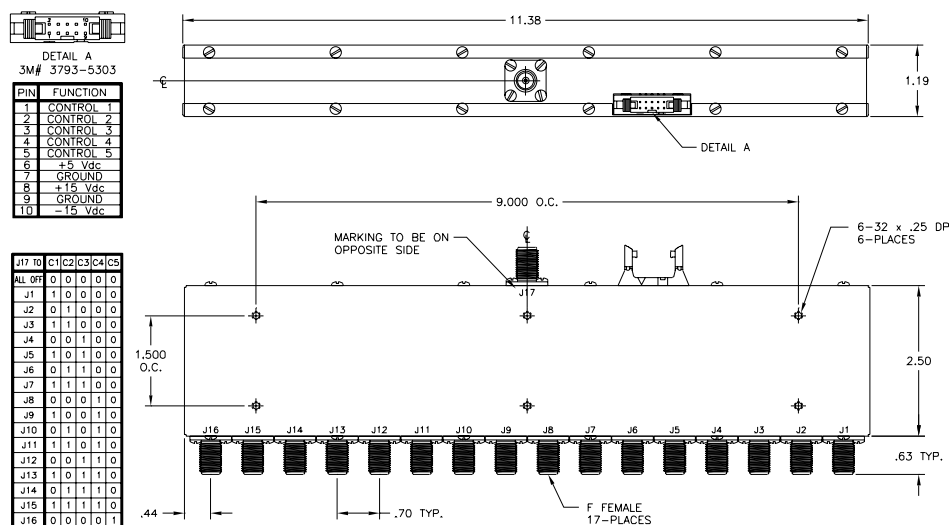


For a DC mating cable,
see page 7-12

75S-181 BNC



75S-264 F



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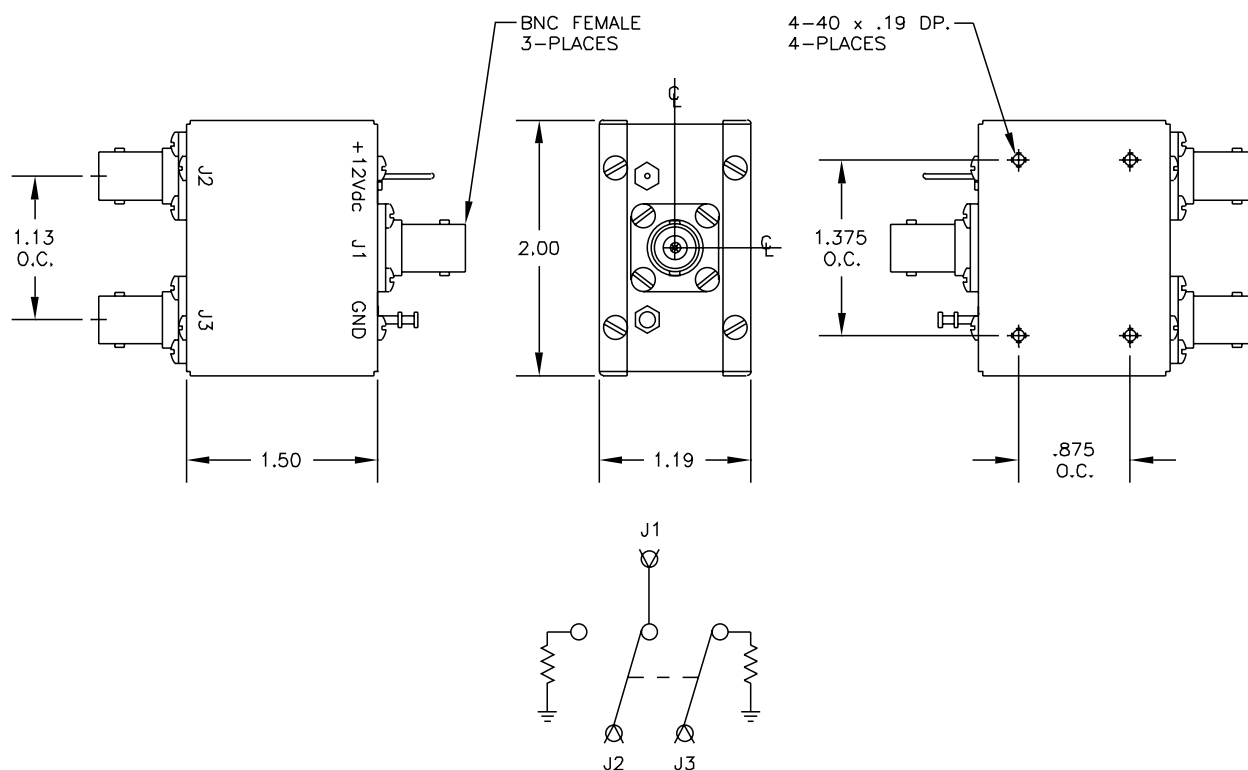
75 Ohm ElectroMechanical Coaxial Switches

All models are Absorptive

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
75S-072	1P2T (failsafe)	DC-1450 MHz	50 dB DC-500 MHz 45 dB 500-1450 MHz	1.3:1 DC-500 MHz 1.5:1 500-1450 MHz	.5 dB	solder terminals	BNC or F female
75S-111	1P2T (failsafe)	DC-2000 MHz	50 dB DC-1000 MHz 45 dB 1000-2000 MHz	1.3:1 DC-1000 MHz 1.5:1 1000-2000 MHz	.75 dB DC-1000 MHz 1 dB 1000-2000 MHz	solder terminals	BNC female
75S-087	1P3T (N.O.)	DC-1450 MHz	50 dB DC-500 MHz 45 dB 500-1450 MHz	1.3:1 DC-500 MHz 1.5:1 500-1450 MHz	.5 dB DC-500 MHz .75 dB 500-1450 MHz	solder terminals	BNC or F female
75S-073	1P4T (N.O.)	DC-1450 MHz	50 dB DC-500 MHz 45 dB 500-1450 MHz	1.3:1 DC-500 MHz 1.5:1 500-1450 MHz	.5 dB DC-500 MHz .75 dB 500-1450 MHz	solder terminals	BNC or F female
75S-214	1P8T (failsafe)	DC-1000 MHz	60 dB DC-500 MHz 55 dB 500-1000 MHz	1.25:1	.5 dB	DE-9P	BNC or F female
75S-221	1P8T (failsafe)	DC-2150 MHz	60 dB DC-500 MHz 50 dB 1000-2150 MHz	1.3:1 DC-1000 MHz 1.5:1 1000-2150 MHz	1 dB DC-1000 MHz 2 dB 1000-2150 MHz	DE-9P	BNC or F female

Model	Impedance	Switching Speed	RF Input Power	Control Voltage	Operating Temperature
75S-072	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 35 mA	-20° C to +85° C
75S-111	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 90 mA	-20° C to +85° C
75S-087	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 60 mA	-20° C to +85° C
75S-073	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 60 mA	-20° C to +85° C
75S-214	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 80 mA	-20° C to +85° C
75S-221	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 60 mA	-20° C to +85° C

75S-072 / 75S-111

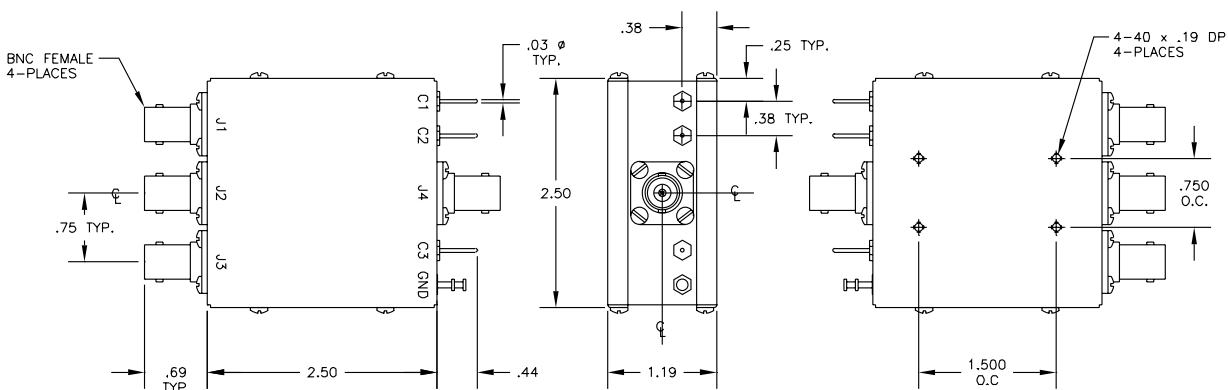


SHOWN WITH NO POWER APPLIED

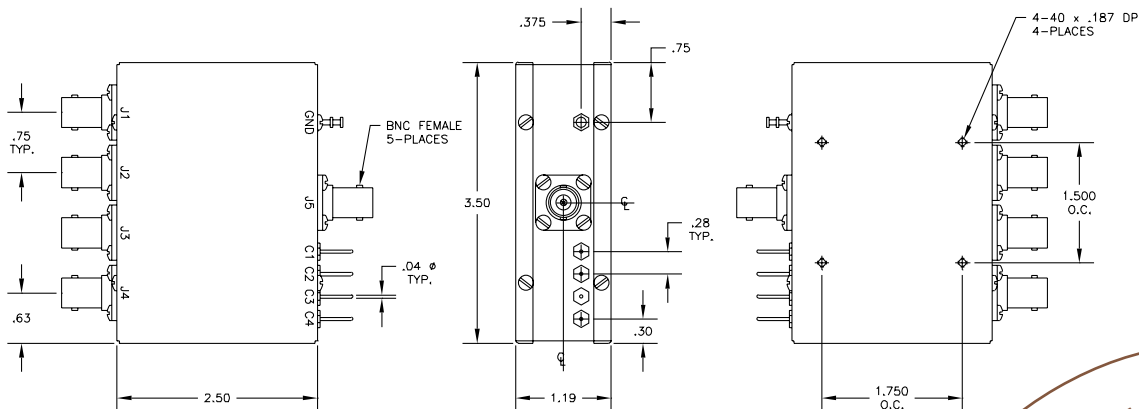
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75 Ohm ElectroMechanical Coaxial Switches

75S-087

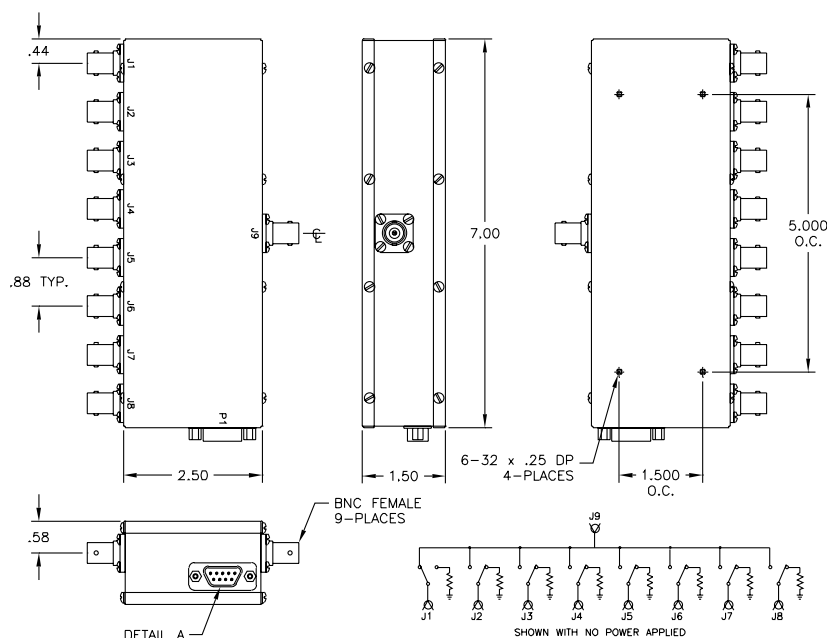


75S-073



For a DC mating cable,
see page 7-12

75S-214 / 75S-221



PIN	50S-214
1	CONTROL 1
2	CONTROL 2
3	CONTROL 3
4	NO CONNECTION
5	NO CONNECTION
6	NO CONNECTION
7	NO CONNECTION
8	+12 Vdc
9	GROUND

J9 TO	CONT.		
	1	2	3
J1	0	0	0
J2	1	0	0
J3	0	1	0
J4	1	1	0
J5	0	0	1
J6	1	0	1
J7	0	1	1
J8	1	1	1



PIN	50S-221
1	GROUND
2	CONTROL 2
3	CONTROL 3
4	CONTROL 4
5	CONTROL 5
6	CONTROL 6
7	CONTROL 7
8	CONTROL 8
9	GROUND

J9 TO	PIN NUMBER							
	2	3	4	5	6	7	8	
J2	1	0	0	0	0	0	0	
J3	0	1	0	0	0	0	0	
J4	0	0	1	0	0	0	0	
J5	0	0	0	1	0	0	0	
J6	0	0	0	0	1	0	0	
J7	0	0	0	0	0	1	0	
J8	0	0	0	0	0	0	1	

NOTE:
WITH NO POWER APPLIED
TO DE-9 CONNECTOR
COMMON IS FAILSAFE
CONNECTED TO J-1

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18 GHz ElectroMechanical Coaxial Switches

Model	Configuration	Frequency Range	Isolation Minimum	VSWR Maximum	Insertion Loss Maximum	Control Connector	RF Connectors
50S-1313	1P2T (failsafe)	DC-18 GHz	85 dB DC-1 GHz 80 dB 1-4 GHz 70 dB 4-8 GHz 65 dB 8-12 GHz 60 dB 12-18 GHz	1.1:1 DC-1 GHz 1.15:1 1-4 GHz 1.2:1 4-8 GHz 1.3:1 8-12 GHz 1.35:1 12-18 GHz	.1 dB DC-1 GHz .15 dB 1-4 GHz .2 dB 4-8 GHz .3 dB 8-12 GHz .35 dB 12-18 GHz	solder terminals	SMA female
50S-1360	1P3T (N.O.)	DC-18 GHz	70 dB DC-4 GHz 65 dB 4-8 GHz 60 dB 8-12 GHz 60 dB 12-18 GHz	1.2:1 DC-4 GHz 1.3:1 4-8 GHz 1.4:1 8-12 GHz 1.5:1 12-18 GHz	.2 dB DC-4 GHz .3 dB 4-8 GHz .4 dB 8-12 GHz .5 dB 12-18 GHz	solder terminals	SMA female
50S-1315	1P4T (N.O.)	DC-18 GHz	70 dB DC-4 GHz 65 dB 4-8 GHz 60 dB 8-12 GHz 60 dB 12-18 GHz	1.2:1 DC-4 GHz 1.3:1 4-8 GHz 1.4:1 8-12 GHz 1.5:1 12-18 GHz	.2 dB DC-4 GHz .3 dB 4-8 GHz .4 dB 8-12 GHz .5 dB 12-18 GHz	solder terminals	SMA female
50S-1316	1P6T (N.O.)	DC-18 GHz	70 dB DC-4 GHz 65 dB 4-8 GHz 60 dB 8-12 GHz 60 dB 12-18 GHz	1.2:1 DC-4 GHz 1.3:1 4-8 GHz 1.4:1 8-12 GHz 1.5:1 12-18 GHz	.2 dB DC-4 GHz .3 dB 4-8 GHz .4 dB 8-12 GHz .5 dB 12-18 GHz	solder terminals	SMA female
50S-1361	Transfer Switch	DC-18 GHz	85 dB DC-1 GHz 80 dB 1-4 GHz 70 dB 4-8 GHz 65 dB 8-12 GHz 60 dB 12-18 GHz	1.1:1 DC-1 GHz 1.2:1 1-4 GHz 1.3:1 4-8 GHz 1.4:1 8-12 GHz 1.5:1 12-18 GHz	.1 dB DC-1 GHz .2 dB 1-4 GHz .3 dB 4-8 GHz .4 dB 8-12 GHz .5 dB 12-18 GHz	solder terminals	SMA female

Model	Impedance	Switching Speed	RF Input Power (average)	Control Voltage	Operating Temperature	Lifetime (minimum)
50S-1313	50 Ohms	15 milliseconds	See Power Table Below	+12 Vdc @ 185 mA nominal	-25° C to +65° C	1 million cycles
50S-1360	50 Ohms	20 milliseconds	See Power Table Below	+12 Vdc @ 325 mA nominal	-25° C to +65° C	1 million cycles
50S-1315	50 Ohms	20 milliseconds	See Power Table Below	+12 Vdc @ 325 mA nominal	-25° C to +65° C	1 million cycles
50S-1316	50 Ohms	20 milliseconds	See Power Table Below	+12 Vdc @ 325 mA nominal	-25° C to +65° C	1 million cycles
50S-1361	50 Ohms	20 milliseconds	See Power Table Below	+12 Vdc @ 365 mA nominal	-25° C to +65° C	1 million cycles

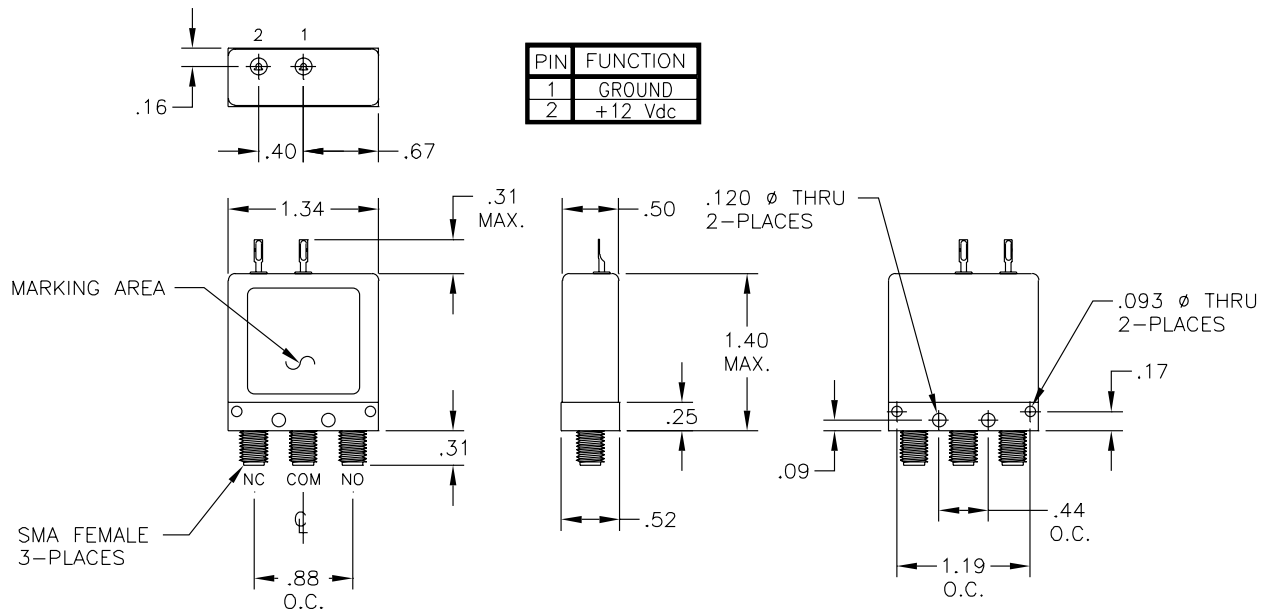
Power Table

Frequency Range	DC-100 MHz	100-200 MHz	200-500 MHz	500-1000 MHz	1-4 GHz	4-8 GHz	8-12 GHz	12-18 GHz
Maximum Average RF Power	500 Watts	400 Watts	300 Watts	200 Watts	100 Watts	90 Watts	70 Watts	60 Watts

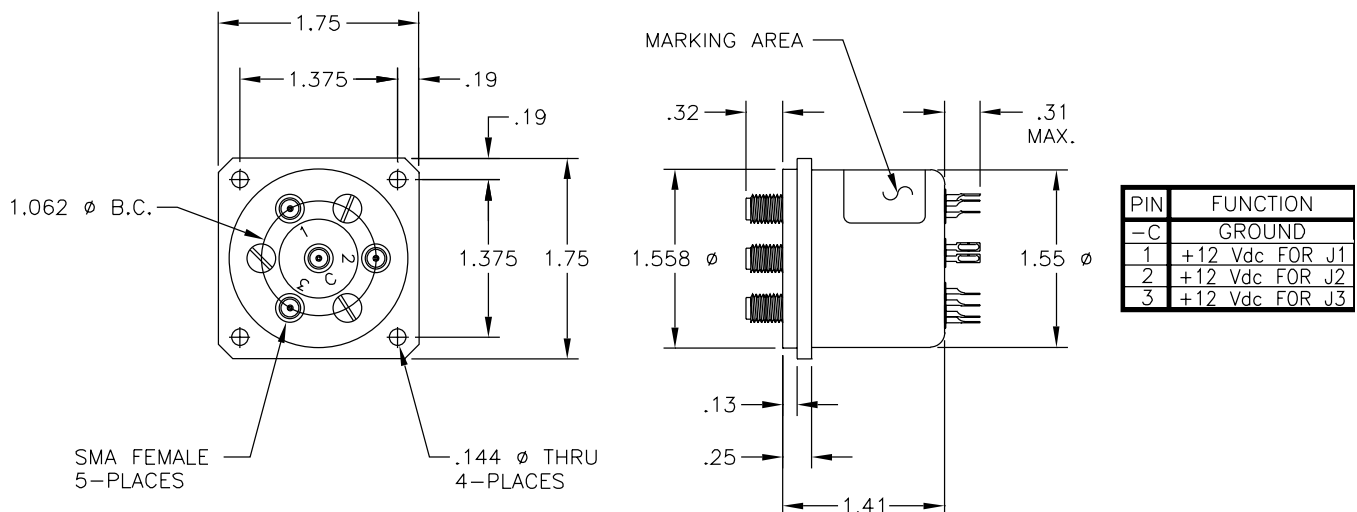
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18 GHz ElectroMechanical Coaxial Switches

50S-1313



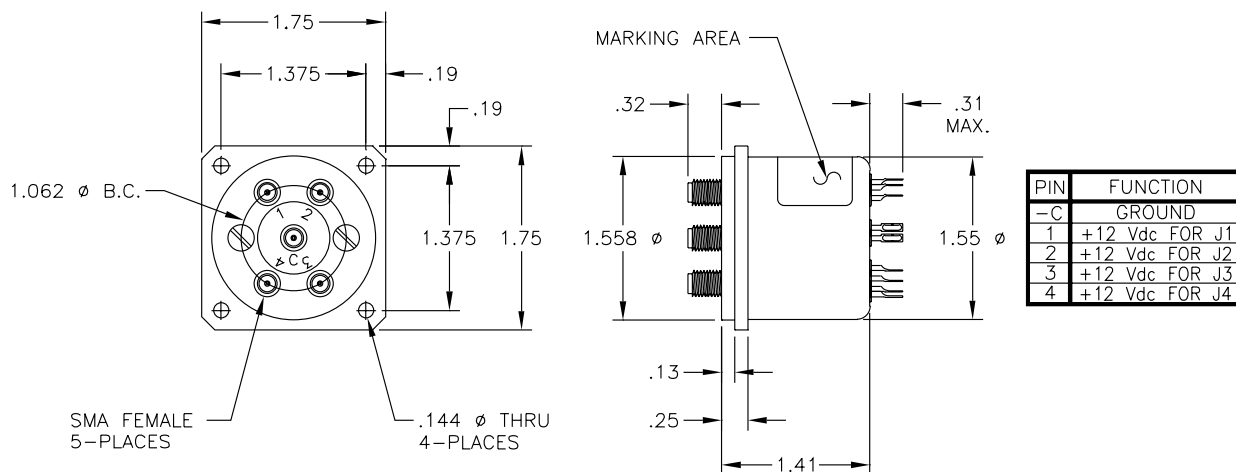
50S-1360



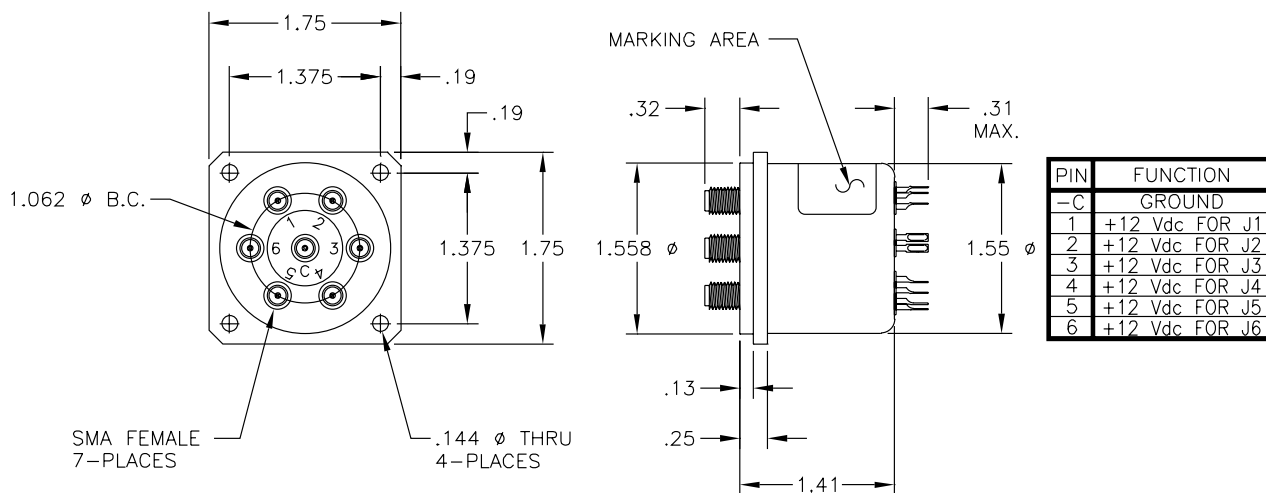
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18 GHz ElectroMechanical Coaxial Switches

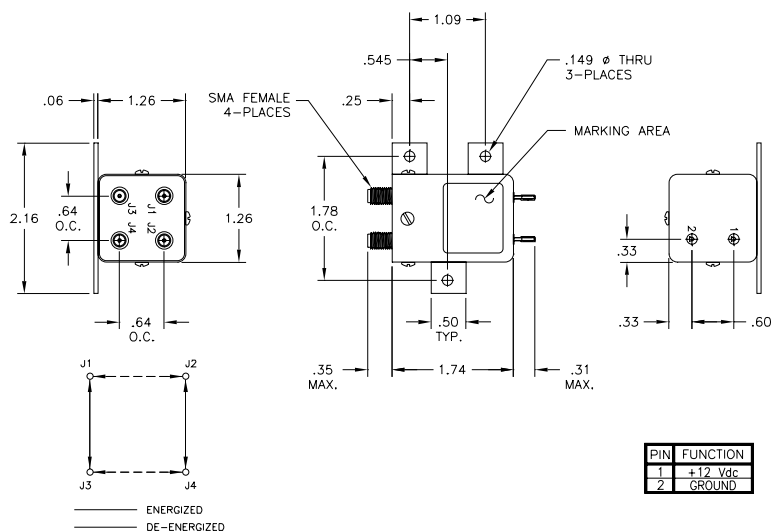
50S-1315



50S-1316



50S-1361



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