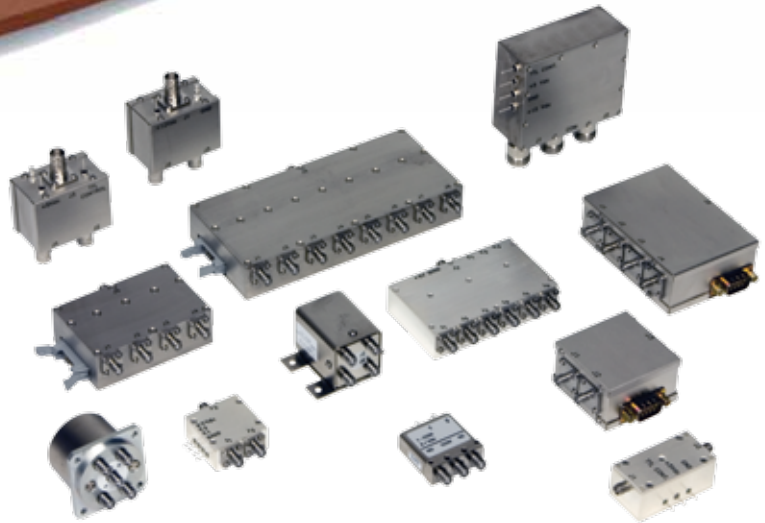


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RF Switches

Model Number Index

Please add connector type to the end of part number to complete model number (Example: 50S-348 SMA).

Solid State - 50 Ohm			
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50S-642	5-3000 MHz	1P1T	6-4
50S-785	20-2000 MHz	1P1T	6-4
50S-847	50-2000 MHz	1P6T	6-6
50S-884	50-2000 MHz	1P4T	6-6
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50S-1524	100-500 MHz	1P6T	6-14
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50S-1559	20-1000 MHz	1P2T	6-12
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RF Switches

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Please add connector type to the end of part number to complete model number (Example: 50S-348 SMA).

Solid State - 50 Ohm			
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Solid State - 75 Ohm			
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Electro-mechanical - 75 Ohm			
Configuration	Frequency Range	Model Number	Page
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1P2T	960-1300 MHz	50S-1832	6-12
1P3T	100-500 MHz	50S-1407	6-14
1P4T	100-500 MHz	50S-1525	6-14
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Wideband Solid State Coaxial Switches

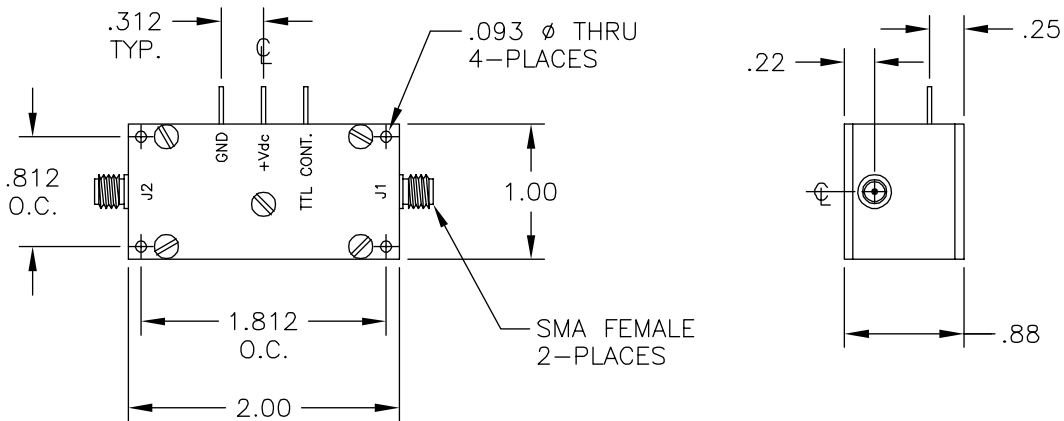
Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-642	1P1T (reflective)	5-3000 MHz	80 dB 5-500 MHz 60 dB 500-3000 MHz	1.4:1	2.0 dB	SMA female
50S-785	1P1T (reflective)	20-2000 MHz	60 dB	1.4:1	1.5 dB	SMA female
50S-1324	1P1T (absorptive)	800-2200 MHz	55 dB	1.4:1	1.5 dB	SMA female
50S-1337	1P1T (absorptive)	800-3000 MHz	50 dB	1.5:1	1.25 dB 800-1000 MHz 2.25 dB 1000-3000 MHz	SMA female
50S-348	1P2T (reflective)	5-2000 MHz	60 dB 5-1000 MHz 50 dB 1000-2000 MHz	1.4:1	1.0 dB 5-1000 MHz 1.5 dB 1000-2000 MHz	SMA female
50S-979	1P2T (absorptive)	5-2500 MHz	60 dB 5-1000 MHz 50 dB 1000-2200 MHz 45 dB 2200-2500 MHz	1.4:1	1.0 dB 5-1000 MHz 1.5 dB 1000-2200 MHz 2.0 dB 2200-2500 MHz	SMA female
50S-976	1P2T (reflective)	750-4300 MHz	50 dB 750-2000 MHz 40 dB 2000-3500 MHz 30 dB 3500-4300 MHz	1.4:1	1.5 dB	SMA female
50S-1382	1P3T (reflective)	5-2500 MHz	55 dB 5-1000 MHz 45 dB 1000-2500 MHz	1.5:1	1.0 dB 5-1000 MHz 1.5 dB 1000-2000 MHz 2.0 dB 2000-2500 MHz	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-off and both ports are internally terminated into 50 Ohms TTL high-on	0° C to +70° C
50S-1337	50 Ohms	500 nanoseconds	+20 dBm	+5 Vdc @ 100 mA	(1 line) TTL low-off and both ports are internally terminated into 50 Ohms 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-1382	50 Ohms	20 microseconds	+5 dBm	+5 Vdc @ 150 mA	(3 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C

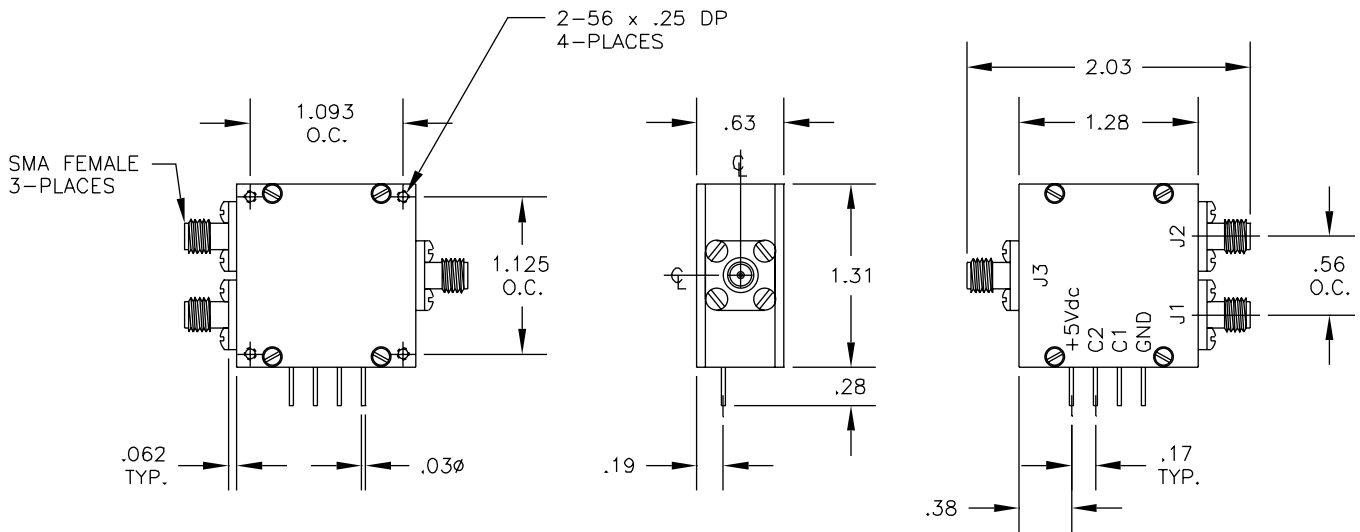
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Wideband Solid State Coaxial Switches

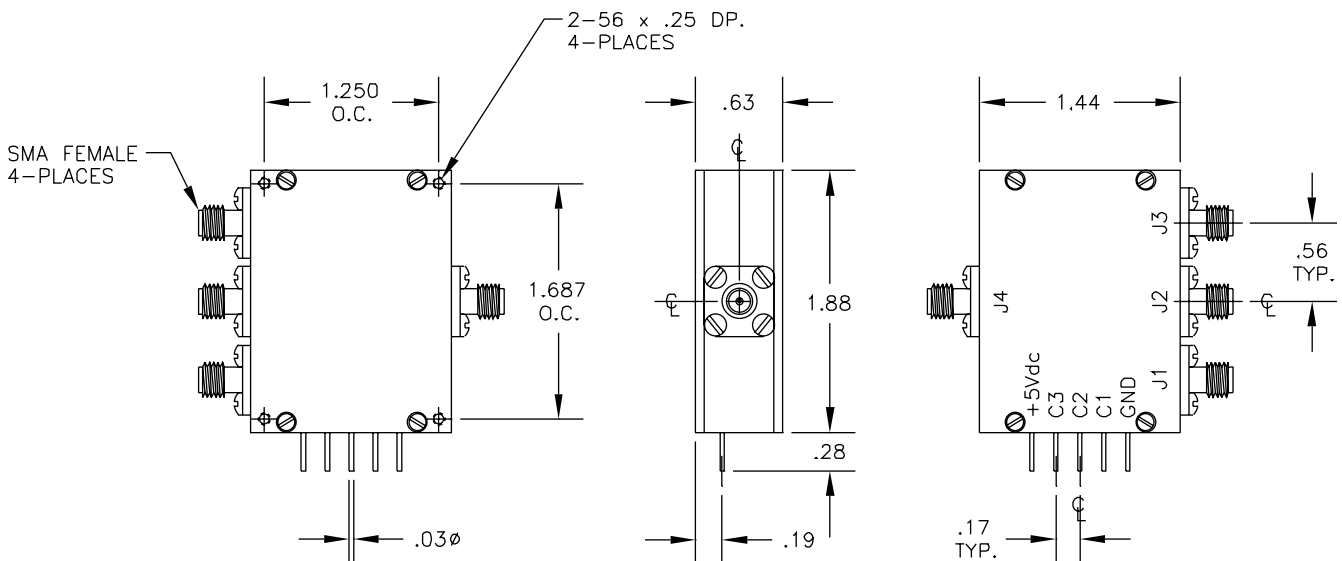
50S-642 / 50S-785 / 50S-1324 / 50S-1337



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



50S-1382

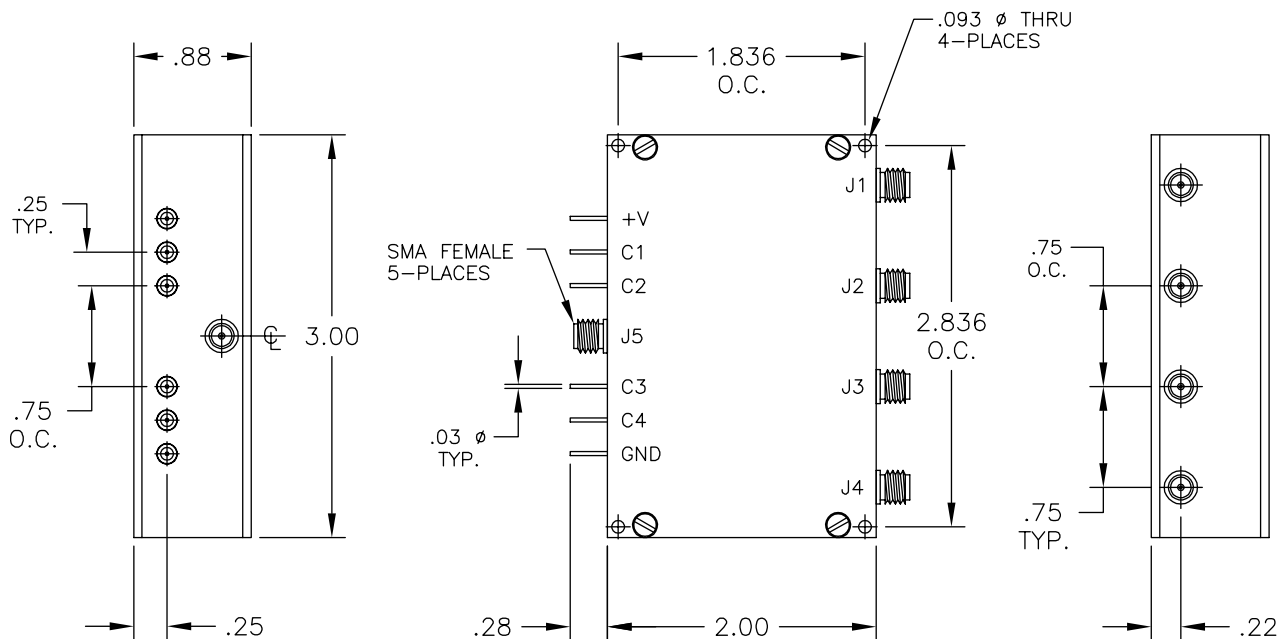


Wideband Solid State Coaxial Switch

Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-884	1P4T (reflective)	50-2000 MHz	65 dB 50-1000 MHz 55 dB 1000-2000 MHz	1.4:1	1.5 dB 50-500 MHz 2.0 dB 500-1000 MHz 2.5 dB 1000-2000 MHz	SMA female
50S-847	1P6T (absorptive)	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 2.0 dB 750-1500 MHz 3.0 dB 1500-2000 MHz	SMA female
50S-381	1P8T (absorptive)	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 2.0 dB 750-1250 MHz	SMA female
50S-1011	1P8T (absorptive)	400-2000 MHz	65 dB 400-1000 MHz 55 dB 1000-2000 MHz	1.5:1	2.0 dB 400-1000 MHz 3.0 dB 1000-2000 MHz	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 per drawing Off ports are internally terminated into 50 Ohms	0° C to +70° C
50S-381	50 Ohms	1 microsecond	+10 dBm	+5 Vdc @ 150 mA	(8 lines) TTL low-off ports are internally 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 are internally terminated into 50 Ohms TTL high-on	0° C to +70° C

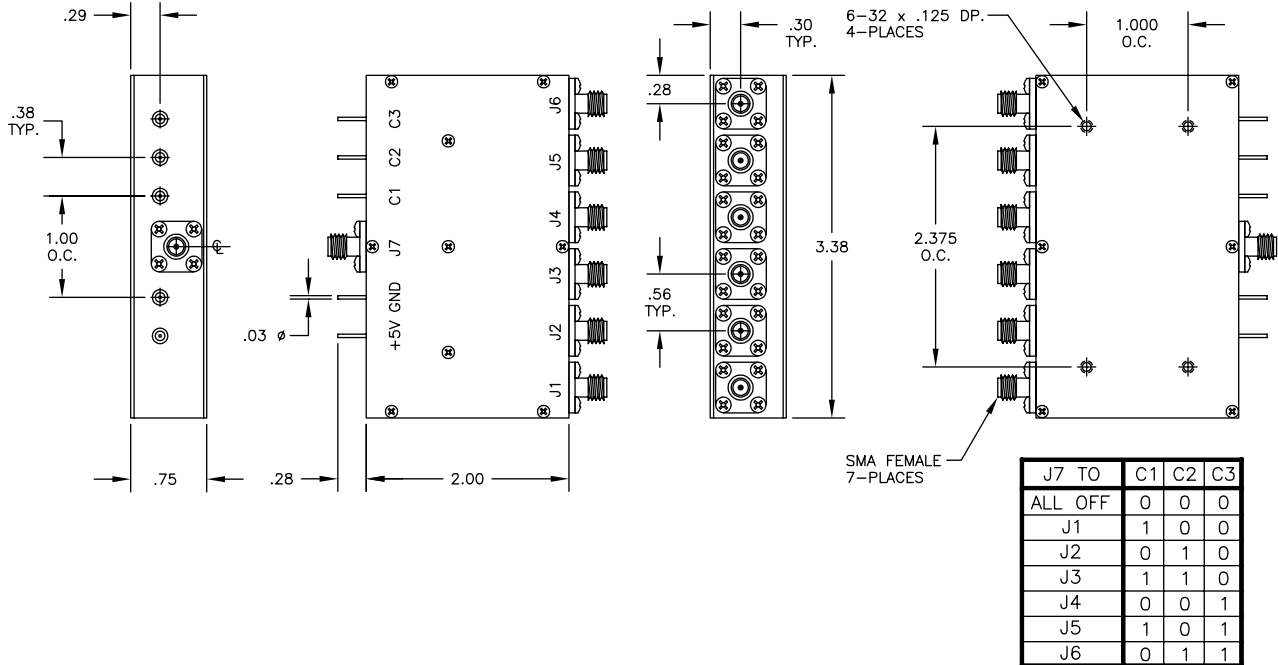
50S-884



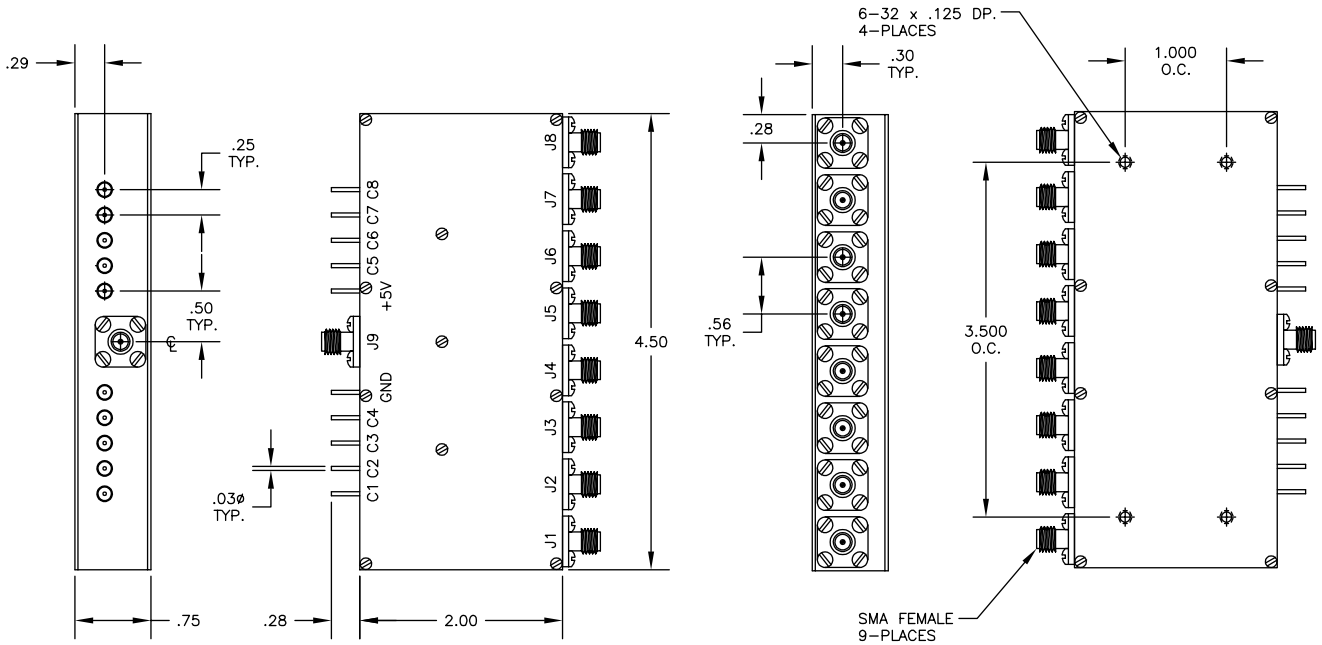
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Wideband Solid State Coaxial Switches

50S-847



50S-381 / 50S-1011



4.3 GHz Wideband Solid State Coaxial Switches

Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-1163	1P2T (reflective)	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	SMA female
50S-1220	1P2T (absorptive)	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	SMA female
50S-1035	1P4T (reflective)	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	SMA female
50S-1075	1P4T (absorptive)	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	SMA female
50S-1199	1P8T (reflective)	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	SMA female
50S-1310	1P8T (absorptive)	20-4300 MHz	70 dB to 2000 MHz 50 dB to 4300 MHz	1.5:1	2.5 dB 20-1000 MHz 3 dB 1000-2000 MHz 3.5 dB 2000-3000 MHz 4.5 dB 3000-4300 MHz	SMA female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-1163	50 Ohms	20 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 50 mA	(2 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C
50S-1220	50 Ohms	10 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 50 mA +5 Vdc @ 50 mA	(2 lines) TTL low-off and port is internally terminated into 50 Ohms TTL high-on	0° C to +70° C
50S-1035	50 Ohms	20 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
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 and port is internally terminated into 50 Ohms TTL high-on	0° C to +70° C
50S-1199	50 Ohms	20 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 100 mA +5 Vdc @ 100 mA	(4 lines) TTL per drawing Off ports reflective	0° C to +70° C
50S-1310	50 Ohms	15 microseconds	+20 dBm 20-100 MHz +30 dBm 100-4300 MHz	+24 Vdc @ 200 mA +5 Vdc @ 150 mA	(4 lines) TTL per drawing Off ports are internally terminated into 50 Ohms	0° C to +70° C

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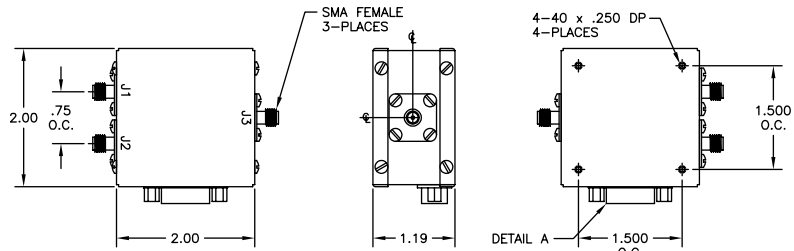
4.3 GHz Wideband Solid State Coaxial Switches

50S-1163 / 50S-1220

DETAIL A
DE-9P

PIN	50S-1163
1	TTL CONT. 1
2	TTL CONT. 2
3	NO CONNECTION
4	NO CONNECTION
5	NO CONNECTION
6	NO CONNECTION
7	NO CONNECTION
8	+24Vdc
9	GND

PIN	50S-1220
1	TTL CONT. 1
2	TTL CONT. 2
3	NO CONNECTION
4	NO CONNECTION
5	NO CONNECTION
6	NO CONNECTION
7	+5 Vdc
8	+24 Vdc
9	GND



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

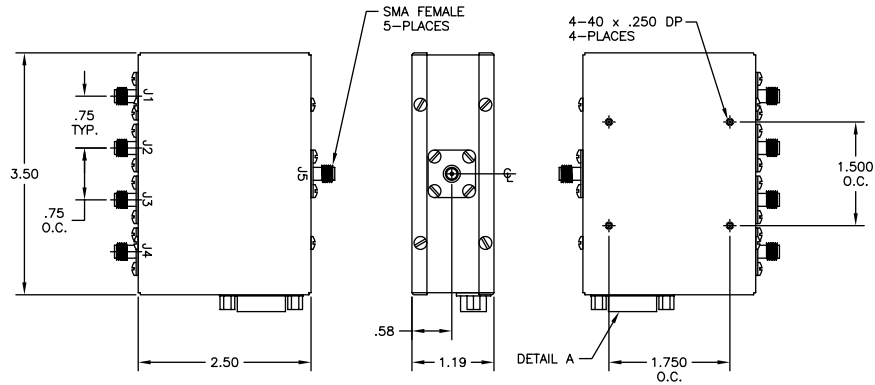
For a DC mating cable, see page 8-11.

50S-1035 / 50S-1075

DETAIL A
DE-9P

PIN	50S-1035
1	TTL CONT. 1
2	TTL CONT. 2
3	TTL CONT. 3
4	TTL CONT. 4
5	NO CONNECTION
6	NO CONNECTION
7	NO CONNECTION
8	+24 Vdc
9	GROUND

PIN	50S-1075
1	TTL CONT. 1
2	TTL CONT. 2
3	TTL CONT. 3
4	TTL CONT. 4
5	NO CONNECTION
6	NO CONNECTION
7	+5 Vdc
8	+24 Vdc
9	GROUND

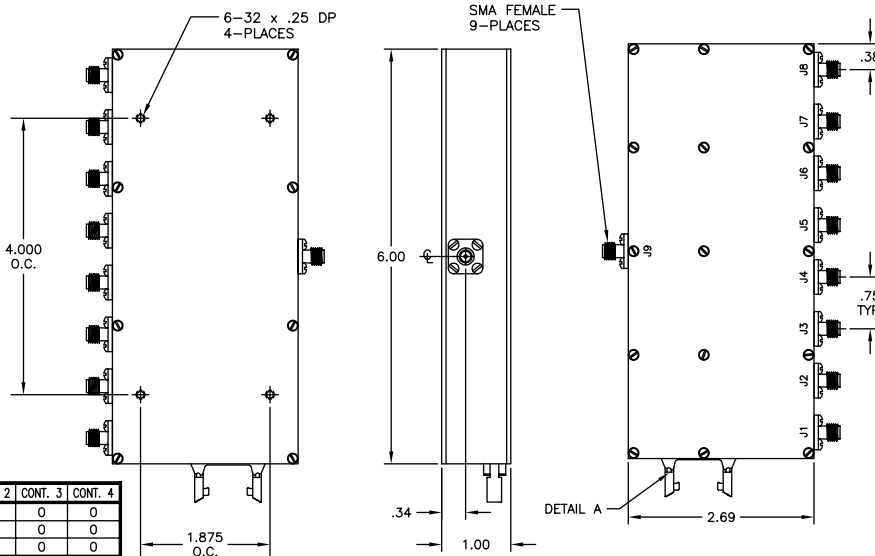


50S-1199 / 50S-1310

DETAIL A
3M# 3793-5303

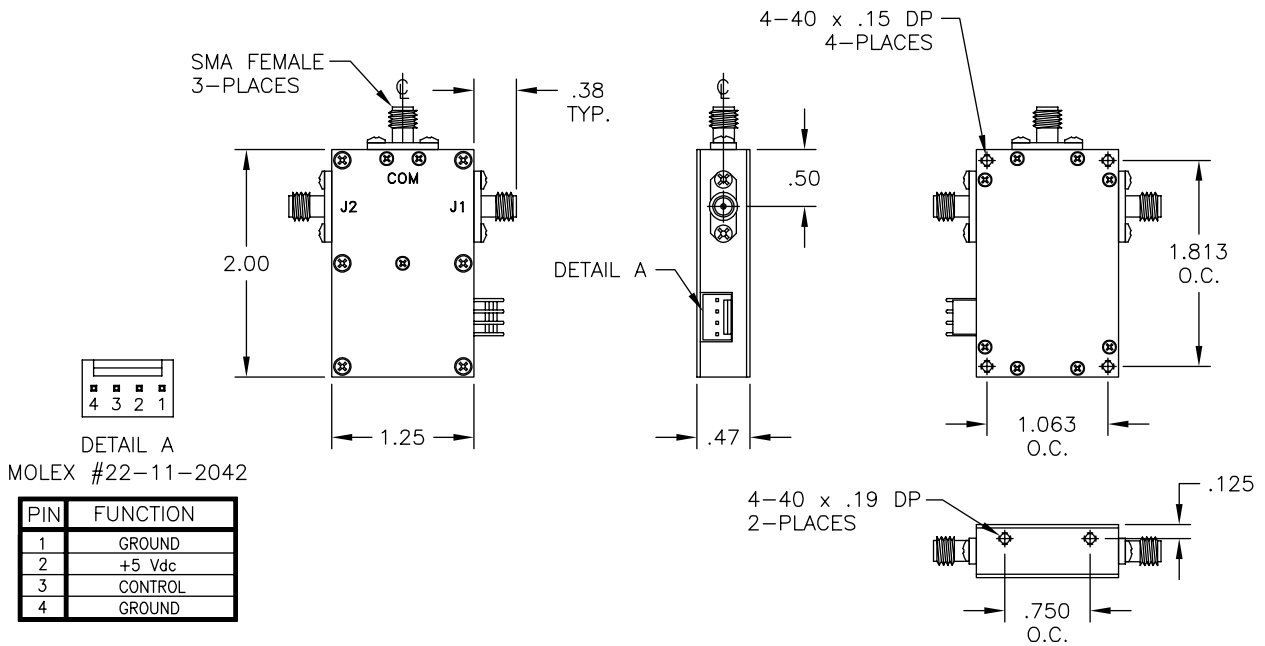
PIN	FUNCTION
1	CONTROL 1
2	NO CONNECTION
3	CONTROL 2
4	NO CONNECTION
5	CONTROL 3
6	+XX Vdc
7	CONTROL 4
8	+5 Vdc
9	NO CONNECTION
10	GROUND

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



6 GHz Solid State Coaxial Switch

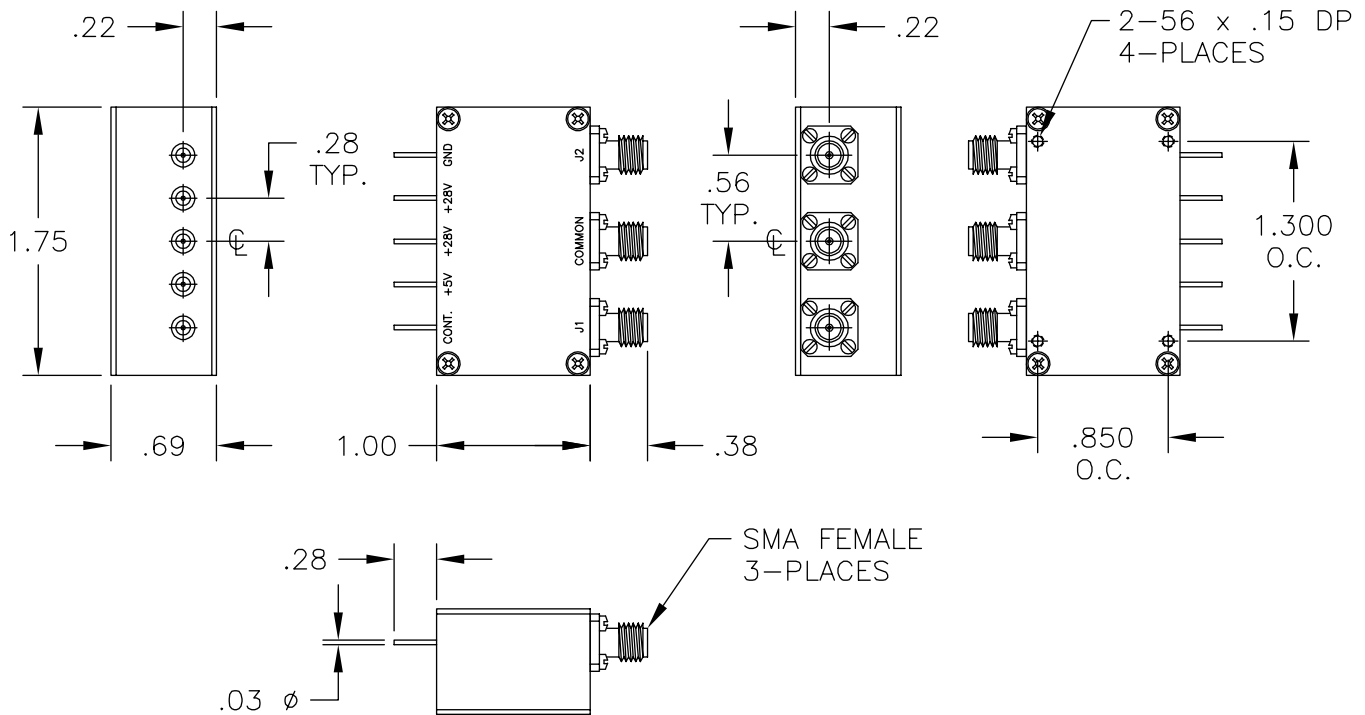
Model	Configuration	Frequency Range	Isolation	VSWR	Insertion Loss	
50S-1876	1P2T (absorptive)	20-6000 MHz	55 dB minimum 75 dB typical 20-2000 MHz 70 dB typical 2000-4000 MHz 65 dB typical 4000-6000 MHz	1.80:1 maximum 1.25:1 typical 20-2000 MHz 1.50:1 typical 2000-6000 MHz	2.50 dB maximum 1.25 dB typical 20-2000 MHz 1.75 dB typical 2000-6000 MHz	
Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature	RF Connectors
50 Ohms	10 microseconds maximum 5 microseconds typical	+26 dBm (Hot switch)	+5 Vdc @ 10 mA	TTL low for COM to J1 and J2 terminated into 50 Ohms TTL high for COM to J2 and J1 terminated into 50 Ohms	-40° C to +85° C	SMA female



Medium Power Solid State Coaxial Switch

Model	Configuration	Frequency Range	Isolation	VSWR	Insertion Loss	RF Connectors
50S-1872	1P2T (reflective)	20-500 MHz	50 dB minimum 65 dB typical @ 20 MHz 55 dB typical @ 500 MHz	1.3:1 maximum 1.2:1 typical	0.6 dB maximum 0.2 dB typical @ 20 MHz 0.4 dB typical @ 500 MHz	SMA female
50S-1873	1P2T (reflective)	800-2200 MHz	45 dB minimum 55 dB typical	1.5:1 maximum 1.3:1 typical	0.9 dB maximum 0.7 dB typical	SMA female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-1872	50 Ohms	10 microseconds maximum 6 microseconds typical	5 Watts average (Hot switch)	+28 Vdc @ 70 mA +5 Vdc @ 40 mA	(1 line) TTL low for Common to J1 TTL high for Common to J2	-20° C to +75° C
50S-1873	50 Ohms	12 microseconds maximum 10 microseconds typical	15 Watts average (Hot switch)	+28 Vdc @ 35 mA +5 Vdc @ 40 mA	(1 line) TTL low for Common to J1 TTL high for Common to J2	-20° C to +75° C



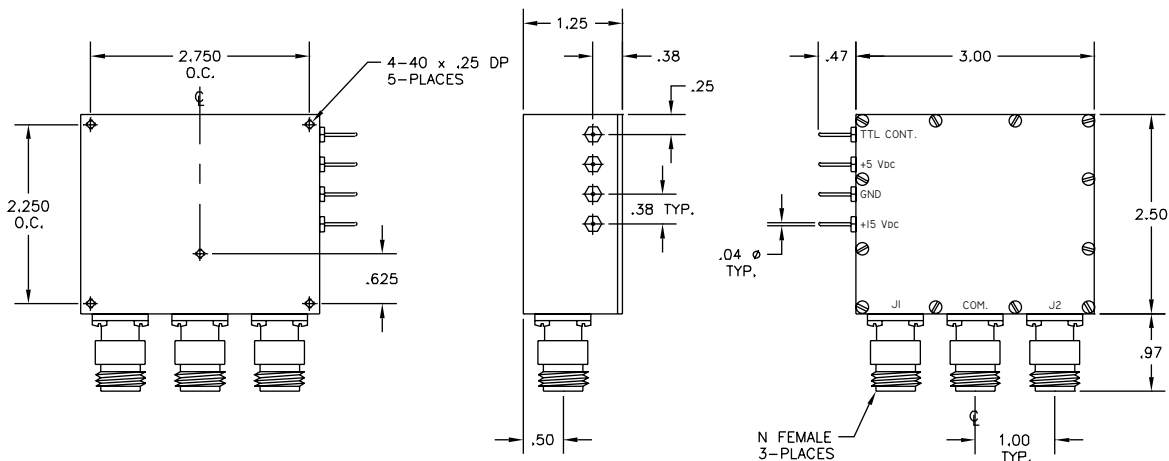
High Power 1P2T Solid State Coaxial Switches

Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-1268	1P2T (reflective)	100-500 MHz	55 dB	1.25:1	0.5 dB	N, SMA or TNC female
50S-1422	1P2T (reflective)	100-500 MHz	55 dB	1.25:1	0.5 dB	BNC, N, SMA or TNC female
50S-1505	1P2T (reflective)	20-2500 MHz	45 dB 20-1000 MHz 35 dB 1000-2500 MHz	1.4:1	0.7 dB 20-1000 MHz 1.0 dB 1000-2000 MHz 1.5 dB 2000-2500 MHz	N, SMA or TNC female
50S-1559	1P2T (reflective)	20-1000 MHz	50 dB 20-500 MHz 40 dB 500-1000 MHz	1.4:1	0.50 dB 20-500 MHz 0.75 dB 500-1000 MHz	BNC, N, SMA or TNC female
50S-1832	1P2T (reflective)	960-1300 MHz	40 dB	1.3:1	0.75 dB	N or SMA female

High Peak Power

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Operating Temperature
50S-1268	50 Ohm	40 microseconds (50% TTL to 10% or 90% RF)	100 Watts average (Cold switch) 500 Watts peak (1 microsecond pulse) 100 Watts average (Hot switch)	+12 Vdc to +15 Vdc @ 250 mA + 5 Vdc @ 40 mA	-20° C to +70° C
50S-1422	50 Ohm	40 microseconds (50% TTL to 10% or 90% RF)	250 Watts average (Cold switch) 500 Watts peak (1 microsecond pulse) 100 Watts average (Hot switch)	+15 Vdc @ 250 mA +5 Vdc @ 40 mA	-20° C to +70° C
50S-1505	50 Ohm	10 microseconds (50% TTL to 10% or 90% RF)	25 Watts average (Cold switch) 200 Watts peak (1 microsecond pulse)	+15 Vdc @ 80 mA +5 Vdc @ 40 mA	-20° C to +70° C
50S-1559	50 Ohm	40 microseconds (50% TTL to 10% or 90% RF)	150 Watts average (Cold switch) 50 Watts average (Hot switch)	+15 Vdc @ 250 mA +5 Vdc @ 40 mA	-20° C to +70° C
50S-1832	50 Ohm	10 microseconds (50% TTL to 10% or 90% RF)	200 Watts average (Cold switch) 1000 Watts Peak (35 microsecond pulse)	+15 Vdc @ 250 mA +5 Vdc @ 40 mA	-20° C to +70° C

High Peak Power



TTL Low = Common to J1
TTL High = Common to J2

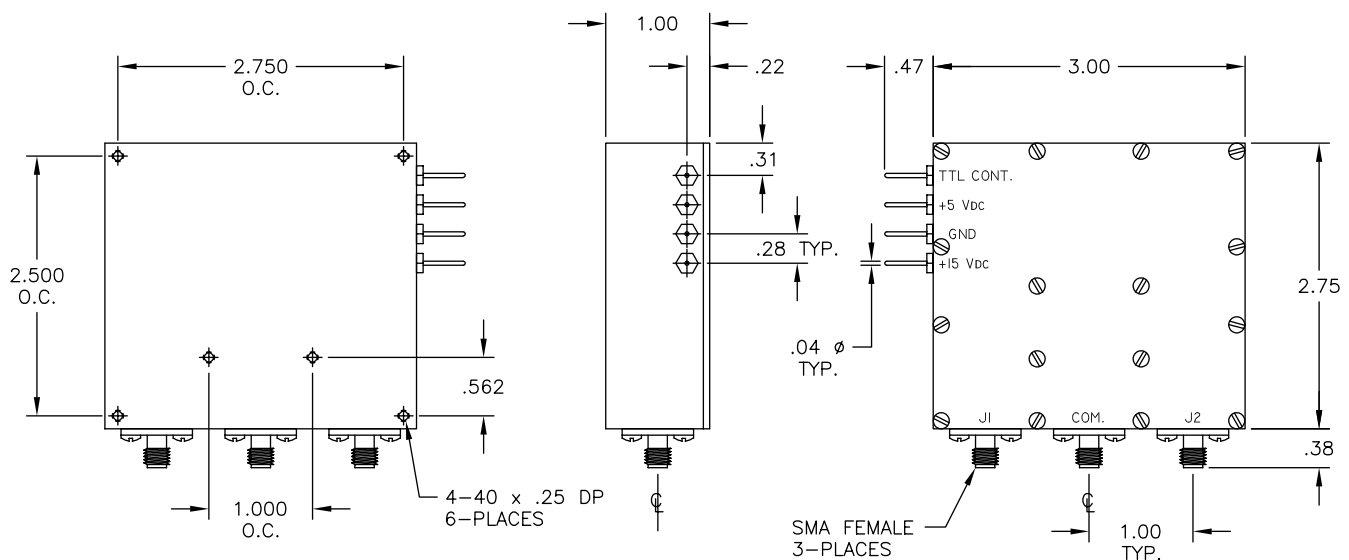
TTL LOW = COMMON TO J1
TTL HIGH = COMMON TO J2

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High Power 1P2T Solid State Coaxial Switches

Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-1820	1P2T (reflective)	800-2700 MHz	65 dB 800-2000 MHz 60 dB 2000-2700 MHz	1.4:1	1.00 dB 800-2000 MHz 1.20 dB 2000-2700 MHz	N, SMA or TNC female
50S-1821	1P2T (reflective)	800-3000 MHz	65 dB 800-2000 MHz 55 dB 2000-3000 MHz	1.4:1	1.00 dB 800-2000 MHz 1.30 dB 2000-3000 MHz	N, SMA or TNC female
50S-1841	1P2T (reflective)	500-3000 MHz	65 dB 500-2000 MHz 55 dB 2000-3000 MHz	1.5:1	0.75 dB 500-1000 MHz 0.90 dB 1000-2000 MHz 1.25 dB 2000-3000 MHz	N, SMA or TNC female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Operating Temperature
50S-1820	50 Ohms	10 microseconds maximum 6 microseconds typical (50% TTL to 10% or 90% RF)	100 Watts average (Cold switch) 30 Watts average (Hot switch)	+15 Vdc @ 80 mA +5 Vdc @ 40 mA	-20° C to +70° C
50S-1821	50 Ohms	10 microseconds maximum 6 microseconds typical (50% TTL to 10% or 90% RF)	75 Watts average (Cold switch) 30 Watts average (Hot switch)	+15 Vdc @ 80 mA +5 Vdc @ 40 mA	-20° C to +70° C
50S-1841	50 Ohms	10 microseconds maximum 6 microseconds typical (50% TTL to 10% or 90% RF)	30 Watts average (Hot switch)	+15 Vdc @ 80 mA +5 Vdc @ 40 mA	-20° C to +70° C



TTL LOW = COMMON TO J1
TTL HIGH = COMMON TO J2

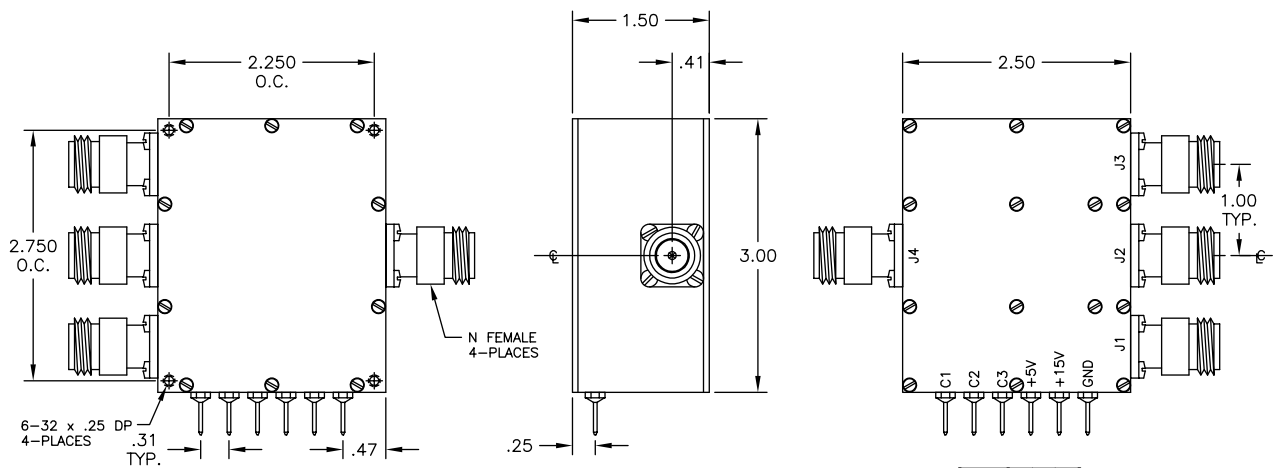
High Power Solid State Coaxial Switches

Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-1407	1P3T (reflective)	100-500 MHz	50 dB	1.3:1	0.5 dB	N, SMA or TNC female
50S-1525	1P4T (reflective)	100-500 MHz	50 dB	1.3:1	0.55 dB	N, SMA or TNC female
50S-1524	1P6T (reflective)	100-500 MHz	50 dB	1.3:1	0.75 dB	N, SMA or TNC female

Model	Impedance	Switching Speed	RF Input Power	Supply Voltage	Control Logic	Operating Temperature
50S-1407	50 Ohms	40 microseconds (50% TTL to specified isolation)	250 Watts average (Cold switch) 500 Watts peak (1 microsecond) 20 Watts average (Hot switch)	+15 Vdc @ 400 mA +5 Vdc @ 80 mA	(3 lines*) TTL (See chart)	-20° C to +70° C
50S-1525	50 Ohms	40 microseconds (50% TTL to 10% or 90% RF)	100 Watts average (Cold switch) 500 Watts peak (1 microsecond) 20 Watts average (Hot switch)	+15 Vdc @ 650 mA +5 Vdc @ 150 mA	(3 lines) TTL (See chart)	-20° C to +70° C
50S-1524	50 Ohms	40 microseconds (50% TTL to 10% or 90% RF)	100 Watts average (Cold switch) 500 Watts peak (1 microsecond) 20 Watts average (Hot switch)	+15 Vdc @ 750 mA +5 Vdc @ 150 mA	(3 lines) TTL (See chart)	-20° C to +70° C

*Only one control line can be TTL high at a time.

50S-1407

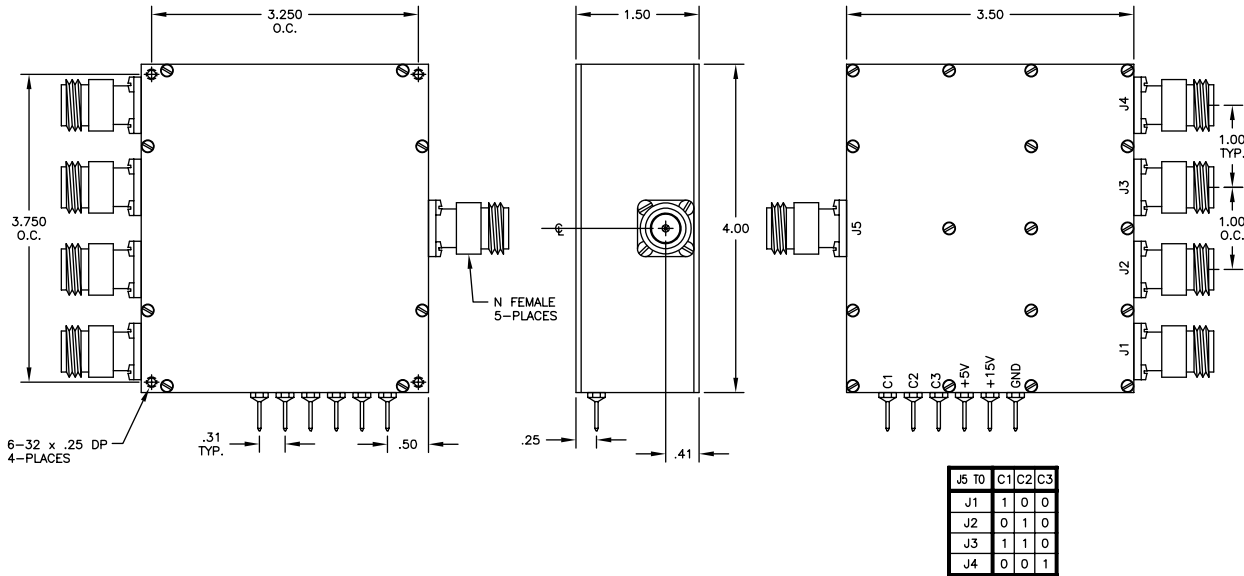


J4	T0	C1	C2	C3
J1	1	0	0	
J2	0	1	0	
J3	0	0	1	

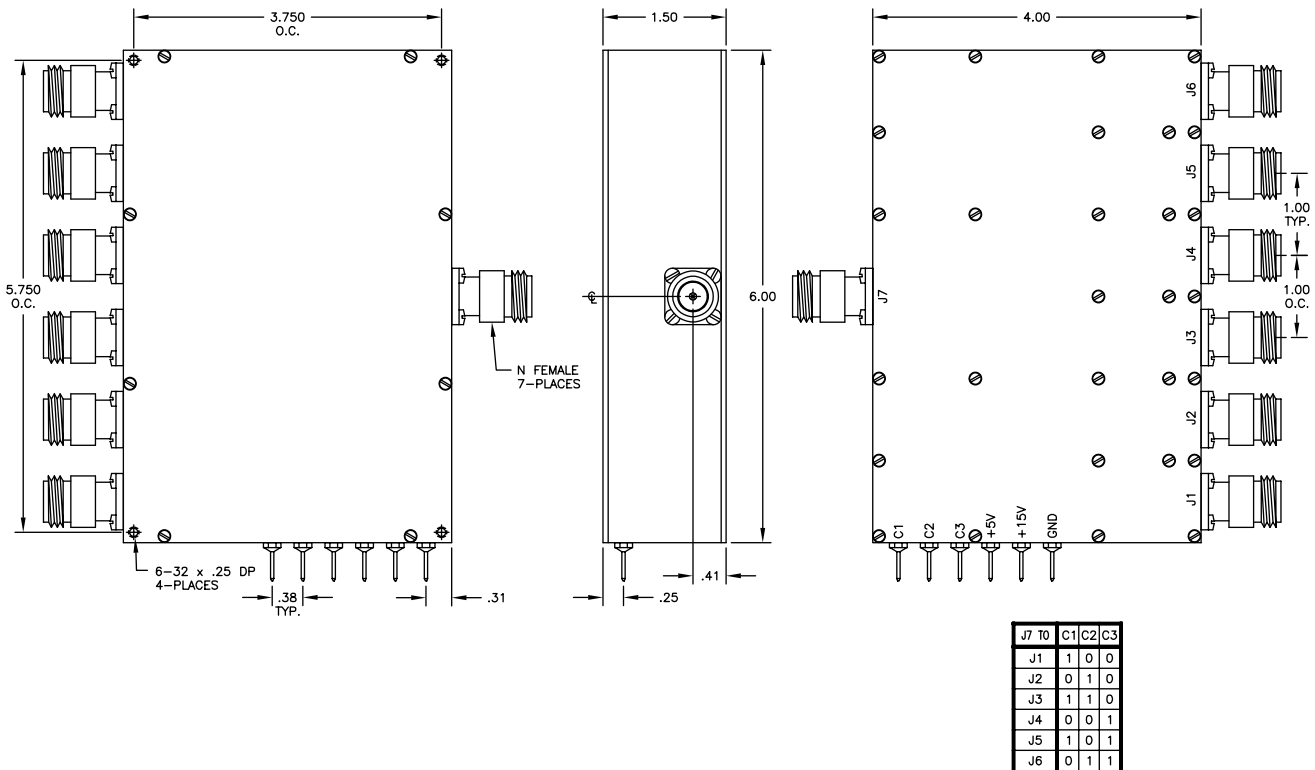
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High Power Solid State Coaxial Switches

50S-1525



50S-1524



75 Ohm Solid State Coaxial Switches

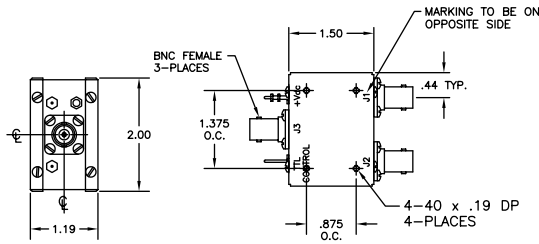
Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
75S-081	1P2T (absorptive)	5-1000 MHz	60 dB 5-500 MHz 55 dB 500-1000 MHz	1.2:1 5-300 MHz 1.3:1 300-600 MHz 1.4:1 600-1000 MHz	1.5 dB 5-500 MHz 2.5 dB 500-1000 MHz	BNC, F or N female
75S-332	1P2T (absorptive)	950-2150 MHz	70 dB	1.4:1	2.5 dB	F female
75S-225	1P4T (reflective)	5-1000 MHz	60 dB	1.2:1	2.25 dB	BNC or F female
75S-333	1P4T (absorptive)	950-2150 MHz	70 dB	1.4:1	2.5 dB	F female
75S-181	1P8T (reflective)	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 2.0 dB 500-1000 MHz	BNC or F female
75S-338	1P8T (absorptive)	900-2200 MHz	65 dB	1.5:1	3.0 dB	F female
75S-264	1P16T (absorptive)	20-1000 MHz	55 dB	1.4:1	2.0 dB	BNC or 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	(1 line) TTL low for J3 to J1 TTL high for J3 to J2 off port terminated into 75 Ohms	0° C to +70° C
75S-332	75 Ohms	10 microseconds	+30 dBm	+12 Vdc @ 150 mA	(2 lines) TTL low - off and port internally terminated into 75 Ohms TTL high - on	0° C to +70° C
75S-225	75 Ohms	10 microseconds	+20 dBm (1 dB compression)	+24 Vdc @ 50 mA	(4 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C
75S-333	75 Ohms	10 microseconds	+30 dBm	+12 Vdc @ 200 mA	(4 lines) TTL low - off and port internally terminated into 75 Ohms TTL high - on	0° C to +70° C
75S-181	75 Ohms	200 microseconds	+10 dBm	+28 Vdc @ 250 mA	(8 lines) TTL low-off (reflective) TTL high-on	0° C to +70° C
75S-338	75 Ohms	10 microseconds	+30 dBm	+12 Vdc @ 200 mA	(8 lines) TTL low - off and port internally terminated into 75 Ohms 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

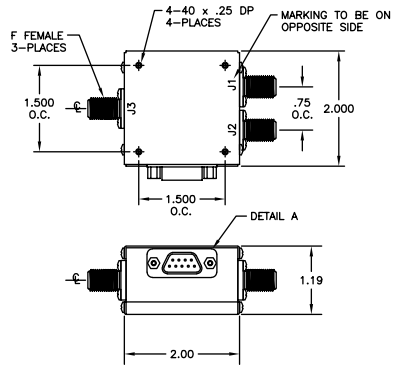
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75 Ohm Solid State Coaxial Switches

75S-081



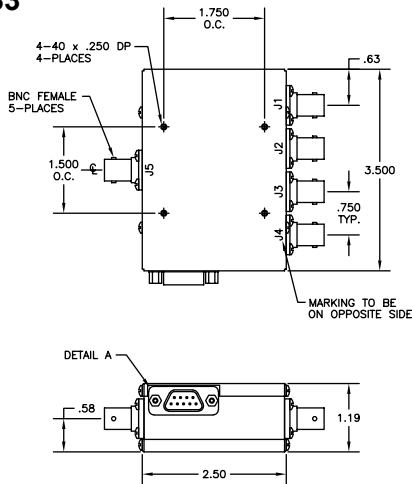
75S-332



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

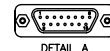
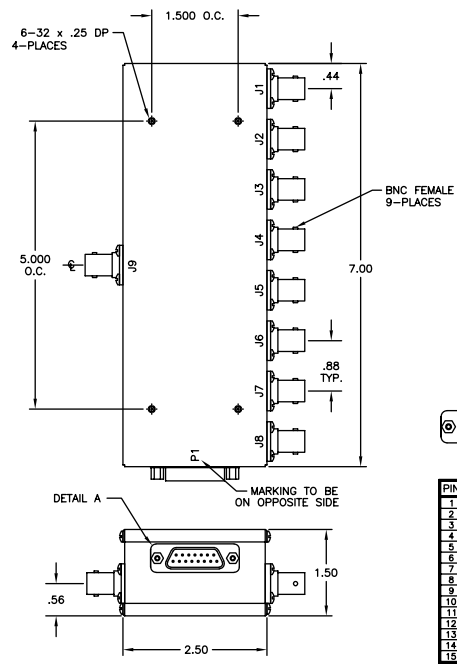
PIN	FUNCTION
1	CONTROL 1
2	CONTROL 2
3	NO CONNECTION
4	NO CONNECTION
5	NO CONNECTION
6	NO CONNECTION
7	NO CONNECTION
8	+12 Vdc
9	GROUND

75S-225
75S-333



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

75S-181
75S-338

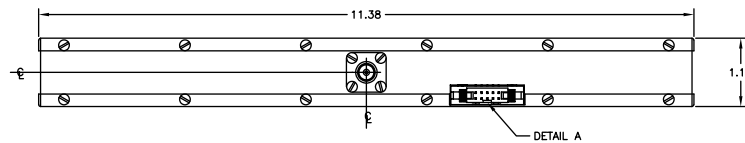


PIN	FUNCTION
1	CONTROL 1
2	CONTROL 2
3	CONTROL 3
4	CONTROL 4
5	CONTROL 5
6	CONTROL 6
7	CONTROL 7
8	CONTROL 8
9	NO CONNECTION
10	NO CONNECTION
11	NO CONNECTION
12	NO CONNECTION
13	NO CONNECTION
14	+XX Vdc
15	GROUND

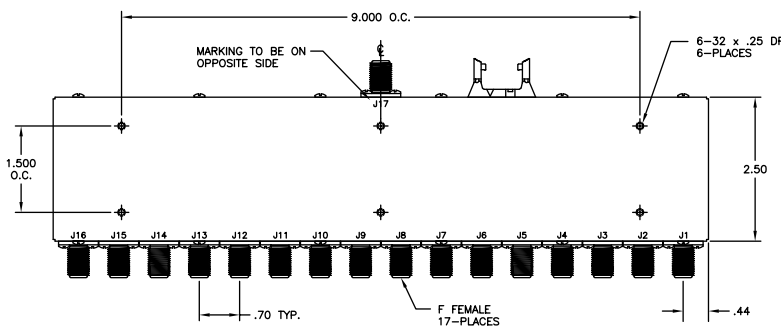


PIN	FUNCTION
1	CONTROL 1
2	CONTROL 2
3	CONTROL 3
4	CONTROL 4
5	CONTROL 5
6	+5 Vdc
7	GROUND
8	+15 Vdc
9	GROUND
10	-15 Vdc

J17 TO J16	C1	C2	C3	C4	C5
ALL OFF	0	0	0	0	0
J1	1	0	0	0	0
J2	0	1	0	0	0
J3	1	1	0	0	0
J4	0	0	1	0	0
J5	1	0	1	0	0
J6	0	1	1	0	0
J7	1	1	1	0	0
J8	0	0	0	1	0
J9	1	0	0	1	0
J10	0	1	0	1	0
J11	1	1	0	1	0
J12	0	0	1	1	0
J13	1	0	1	1	0
J14	0	1	1	1	0
J15	1	1	1	1	0
J16	0	0	0	0	1



75S-264



For a DC mating cable, see page 8-11.

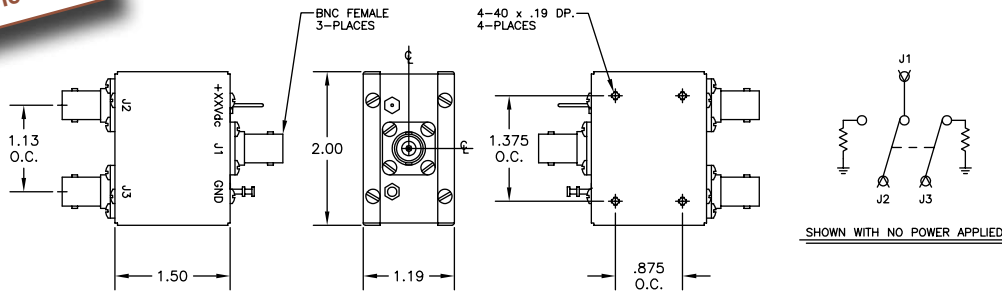
75 Ohm Electro-mechanical Coaxial Switches

Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
75S-111	1P2T (failsafe, absorptive)	DC-2150 MHz	50 dB DC-1000 MHz 45 dB 1000-2150 MHz	1.3:1 DC-1000 MHz 1.5:1 1000-2150 MHz	0.75 dB DC-1000 MHz 1.0 dB 1000-2150 MHz	BNC or F female
75S-306	1P4T (N.O., absorptive)	DC-2150 MHz	70 dB DC-500 MHz 50 dB 500-2150 MHz	1.2:1 DC-500 MHz 1.4:1 500-2150 MHz	0.8 dB	BNC or F female
75S-221	1P8T (failsafe, absorptive)	DC-2150 MHz	60 dB DC-500 MHz 50 dB 500-2150 MHz	1.5:1	1.0 dB DC-1000 MHz 2.0 dB 1000-2150 MHz	BNC or F female
75S-303	1P16T (failsafe, absorptive)	DC-2150 MHz	70 dB DC-1000 MHz 50 dB 1000-2150 MHz	1.5:1	0.75 dB DC-1000 MHz 1.50 dB 1000-2150 MHz	BNC or F female

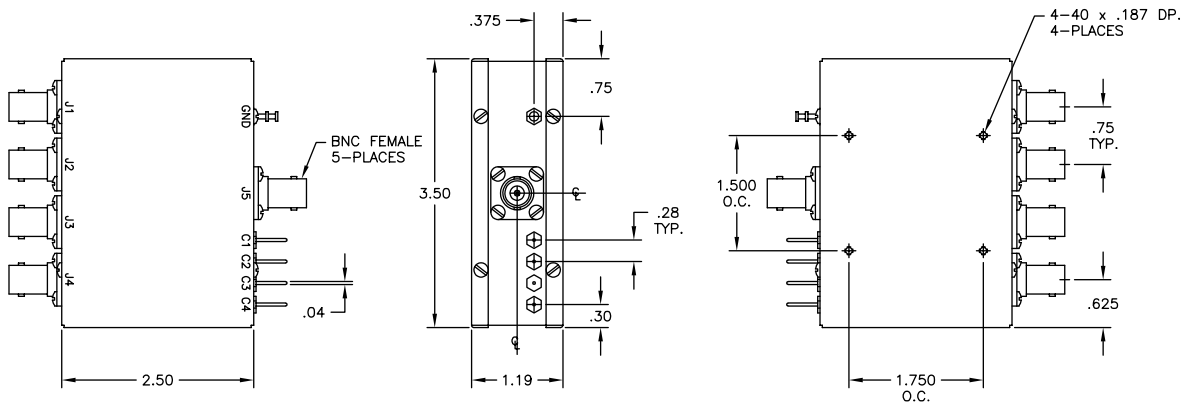
Model	Impedance	Switching Speed	RF Input Power	Control Voltage	Operating Temperature
75S-111	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 90 mA	-20° C to +85° C
75S-306	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 60 mA	-20° C to +85° C
75S-221	75 Ohms	10 milliseconds	+20 dBm	+12 Vdc @ 110 mA	-20° C to +85° C
75S-303	75 Ohms	10 milliseconds	+27 dBm	TTL per table	-20° C to +85° C

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75S-111



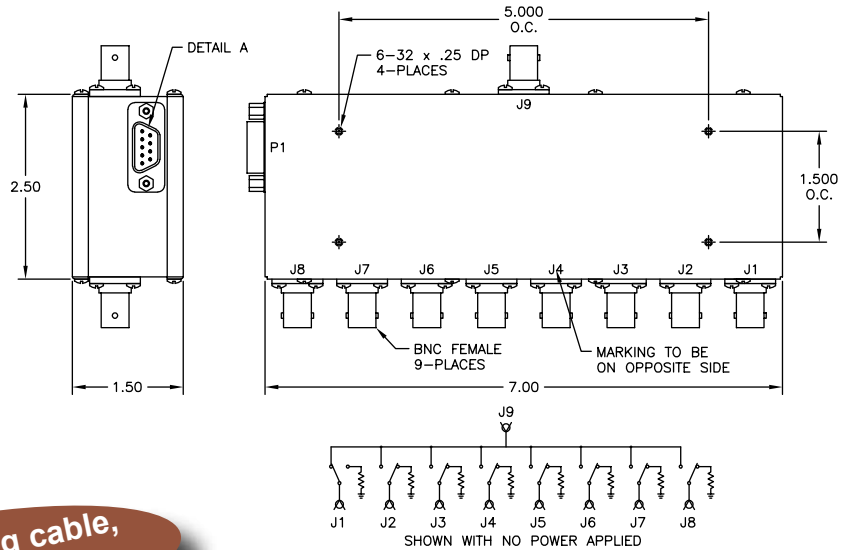
75S-306



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75 Ohm Electro-mechanical Coaxial Switches

75S-221



DETAIL A
DE-9P

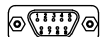
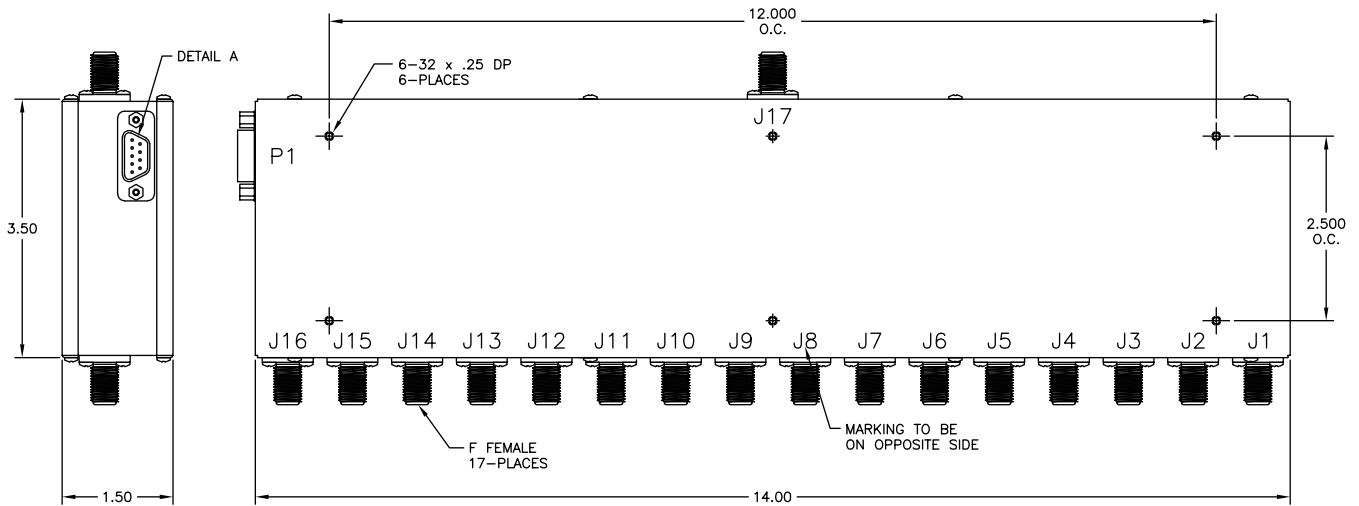
PIN	FUNCTION
1	GROUND
2	CONTROL 2
3	CONTROL 3
4	CONTROL 4
5	CONTROL 5
6	CONTROL 6
7	CONTROL 7
8	CONTROL 8
9	GROUND

J9 TO	PIN NUMBER
J2	2 3 4 5 6 7 8
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

For a DC mating cable, see page 8-11.

NOTE: WITH NO POWER APPLIED TO DE-P CONNECTOR
COMMON IS FAILSAFE CONNECTED TO J1

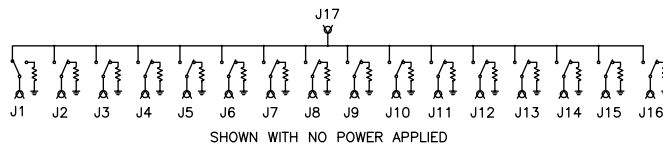
75S-303



DETAIL A
DE-9P

PIN	FUNCTION
1	CONTROL 1
2	CONTROL 2
3	CONTROL 3
4	CONTROL 4
5	NO CONNECTION
6	NO CONNECTION
7	NO CONNECTION
8	+12 Vdc
9	GROUND

J17 TO	CONT.
J1	0 0 0 0 0
J2	1 0 0 0 0
J3	0 1 0 0 0
J4	1 1 0 0 0
J5	0 0 1 0 0
J6	1 0 1 0 0
J7	0 1 1 0 0
J8	1 1 1 0 0
J9	0 0 0 1 1
J10	1 0 0 1 1
J11	0 1 0 1 1
J12	1 1 0 1 1
J13	0 0 1 1 1
J14	1 0 1 1 1
J15	0 1 1 1 1
J16	1 1 1 1 1



NOTE : WITH NO POWER APPLIED TO DE-9 CONNECTOR
COMMON IS FAILSAFE CONNECTED TO J1

18 GHz Electro-mechanical Coaxial Switches

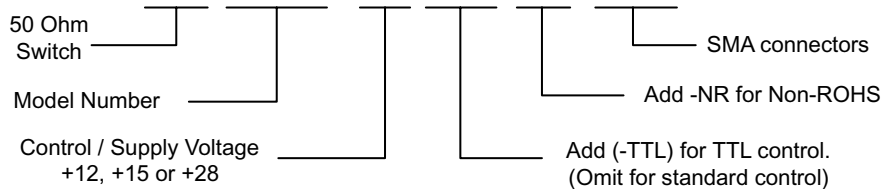
Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-1313	1P2T (failsafe, reflective)	DC-18 GHz	85 dB DC-1 GHz 80 dB 1-4 GHz 70 dB 4-8 GHz 65 dB 8-12 GHz 60 dB 12-18 GHz	1.1:1 DC-1 GHz 1.15:1 1-4 GHz 1.2:1 4-8 GHz 1.3:1 8-12 GHz 1.35:1 12-18 GHz	0.10 dB DC-1 GHz 0.15 dB 1-4 GHz 0.20 dB 4-8 GHz 0.30 dB 8-12 GHz 0.35 dB 12-18 GHz	SMA female
50S-1360	1P3T (N.O., reflective)	DC-18 GHz	70 dB DC-4 GHz 65 dB 4-8 GHz 60 dB 8-18 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	0.20 dB DC-4 GHz 0.30 dB 4-8 GHz 0.40 dB 8-12 GHz 0.50 dB 12-18 GHz	SMA female
50S-1315	1P4T (N.O., reflective)	DC-18 GHz	70 dB DC-4 GHz 65 dB 4-8 GHz 60 dB 8-18 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	0.20 dB DC-4 GHz 0.30 dB 4-8 GHz 0.40 dB 8-12 GHz 0.50 dB 12-18 GHz	SMA female

Model	Impedance	Switching Speed	RF Input Power (average)	Control Voltage / Supply Voltage (Non-TTL) (TTL)	Operating Temperature	Lifetime (minimum)
50S-1313	50 Ohms	15 milliseconds	See Power Table Below	+12 Vdc @ 200 mA nominal +15 Vdc @ 200 mA nominal +28 Vdc @ 100 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 +15 Vdc @ 280 mA nominal +28 Vdc @ 160 mA nominal (only one active port at a time)	-25° C to +65° C	1 million cycles
50S-1315	50 Ohms	20 milliseconds	See Power Table Below	+12 Vdc @ 325 mA nominal +15 Vdc @ 280 mA nominal +28 Vdc @ 160 mA nominal (only one active port at a time)	-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

50S-AAAA+BB-TTL-NR SMA



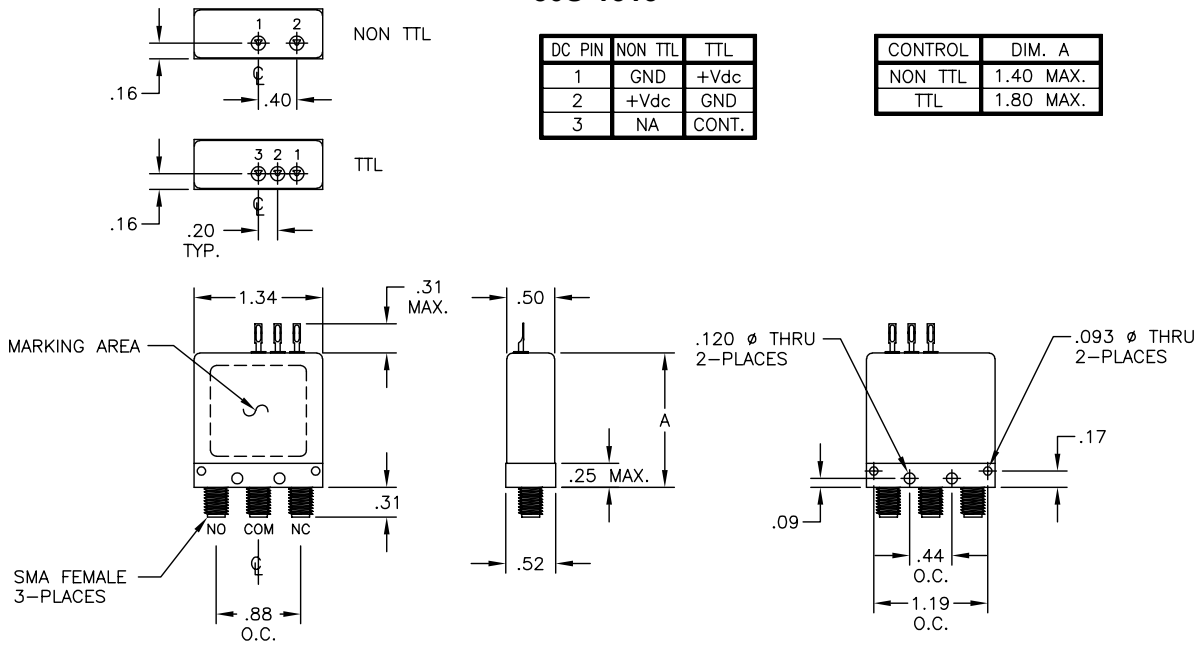
Examples: 50S-1313+12-NR SMA (1P2T / +12 Volt / Non-TTL / Non-ROHS)
50S-1315+28-TTL SMA (1P4T / +28 Volt / TTL)

Contact factory for latching and self-terminating model numbers

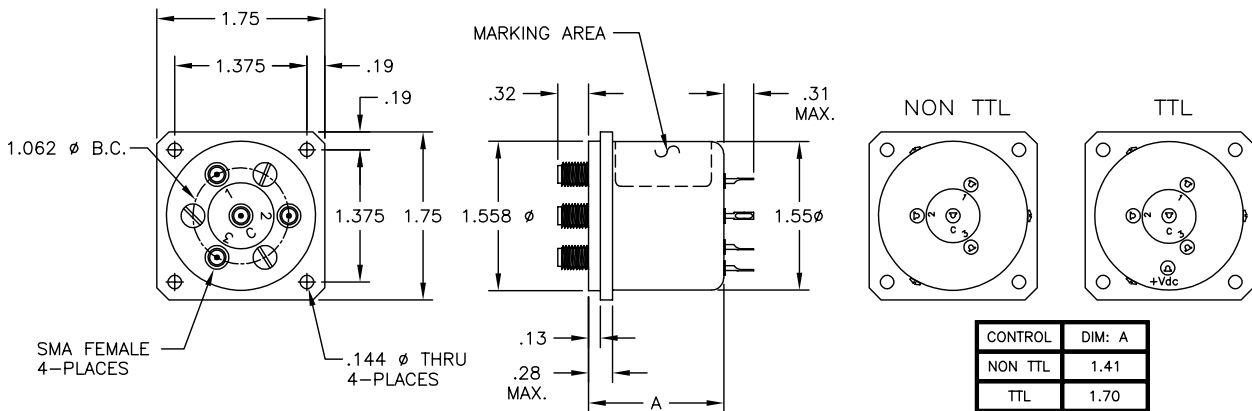
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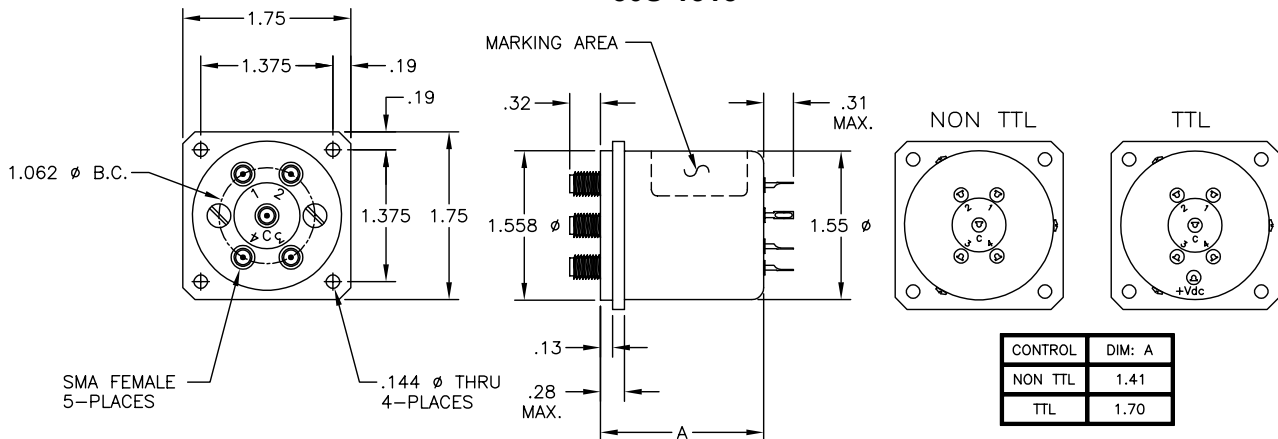
50S-1313



50S-1360



50S-1315



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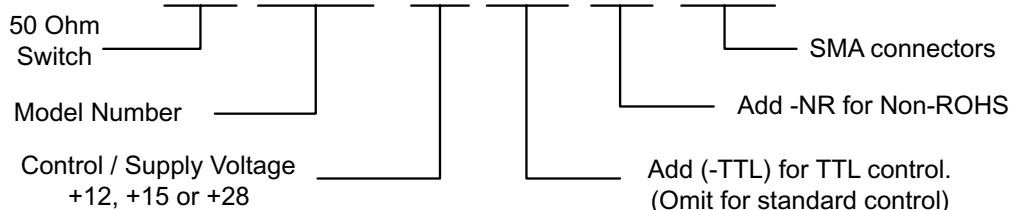
Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-1316	1P6T (N.O., reflective)	DC-18 GHz	70 dB DC-4 GHz 65 dB 4-8 GHz 60 dB 8-18 GHz	1.2:1 DC-4 GHz 1.3:1 4-8 GHz 1.4:1 8-12 GHz 1.5:1 12-18 GHz	0.20 dB DC-4 GHz 0.30 dB 4-8 GHz 0.40 dB 8-12 GHz 0.50 dB 12-18 GHz	SMA female
50S-1317	1P8T (N.O., reflective)	DC-18 GHz	70 dB DC-4 GHz 65 dB 4-8 GHz 60 dB 8-16 GHz 55 dB 16-18 GHz	1.25:1 DC-4 GHz 1.35:1 4-8 GHz 1.40:1 8-12 GHz 1.50:1 12-16 GHz 1.80:1 16-18 GHz	0.20 dB DC-4 GHz 0.30 dB 4-8 GHz 0.40 dB 8-12 GHz 0.50 dB 12-16 GHz 0.80 dB 16-18 GHz	SMA female

Model	Impedance	Switching Speed	RF Input Power (average)	Control Voltage / Supply Voltage (Non-TTL) (TTL)	Operating Temperature	Lifetime (minimum)
50S-1316	50 Ohms	20 milliseconds	See Power Table Below	+12 Vdc @ 325 mA nominal +15 Vdc @ 280 mA nominal +28 Vdc @ 160 mA nominal (only one active port at a time)	-25° C to +65° C	1 million cycles
50S-1317	50 Ohms	15 milliseconds	See Power Table Below	+12 Vdc @ 285 mA nominal +15 Vdc @ 225 mA nominal +28 Vdc @ 120 mA nominal (only one active port at a time)	-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

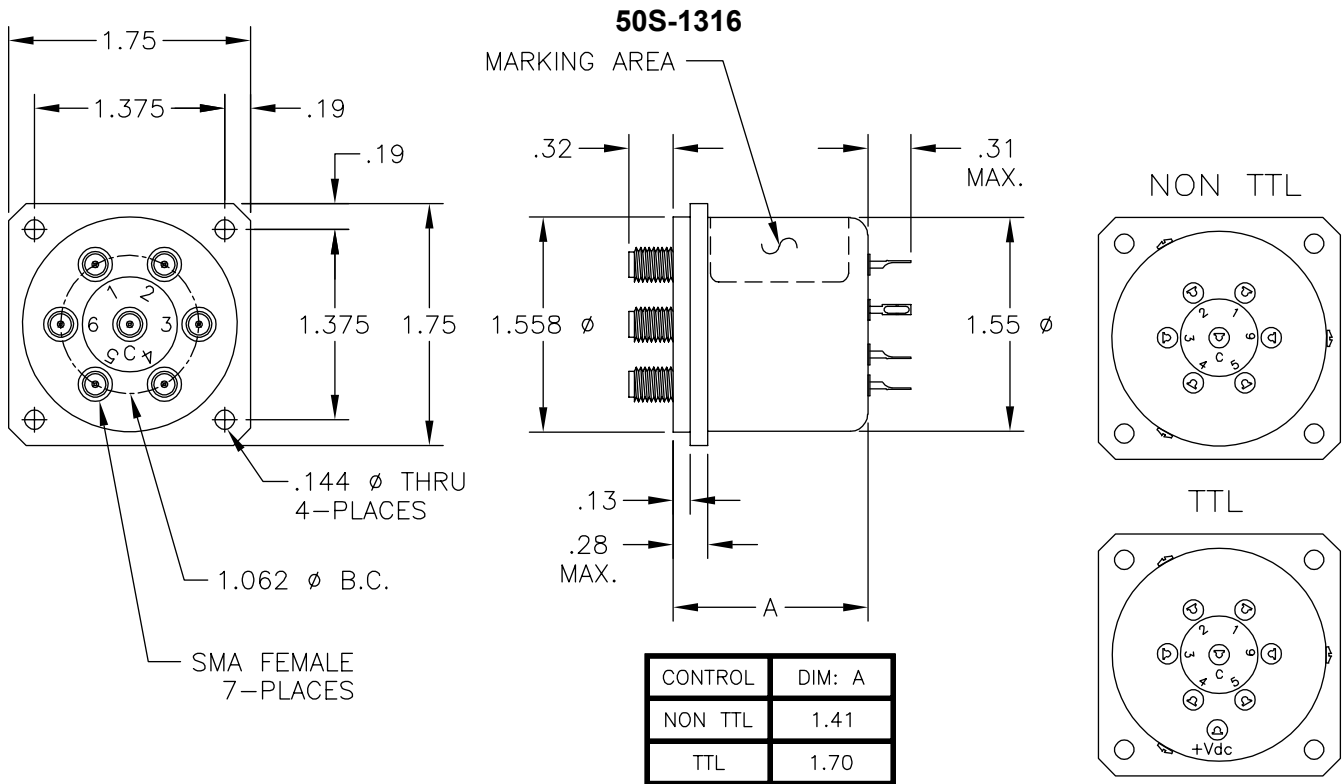
50S-AAAA+BB-TTL-NR SMA



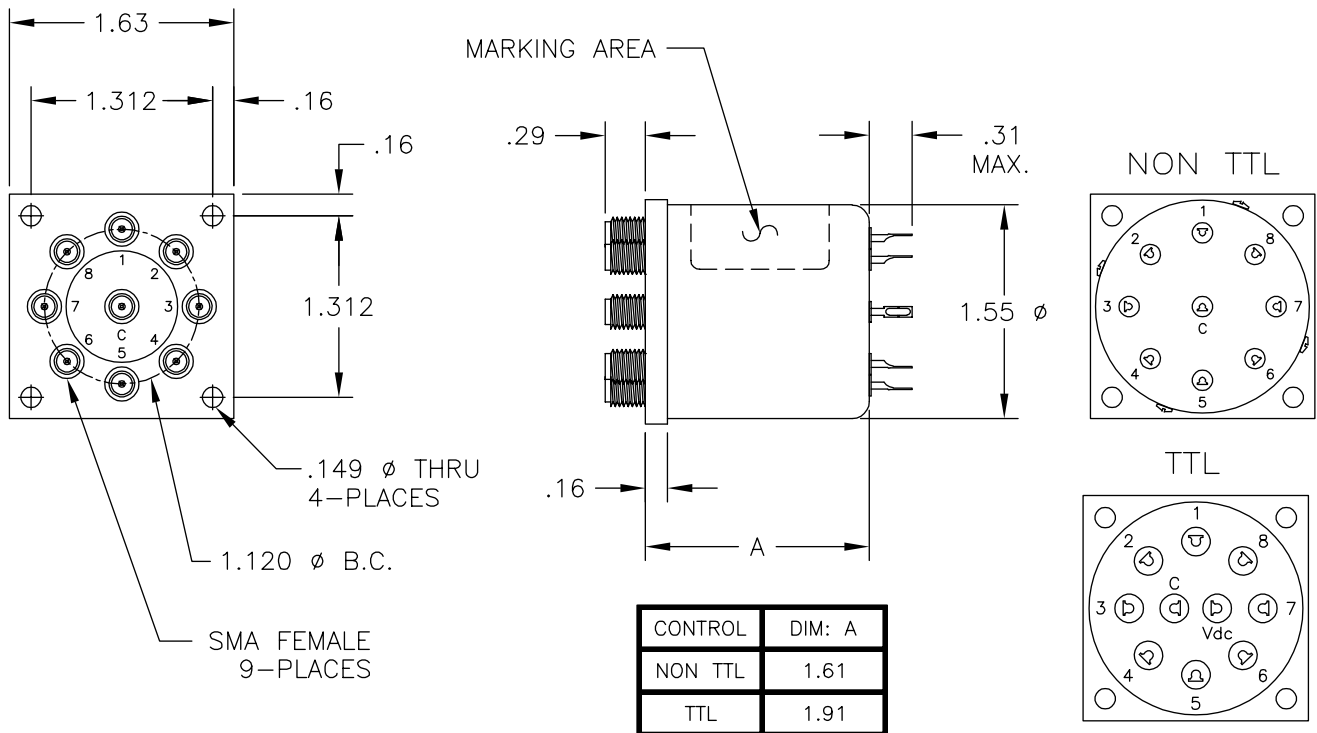
Examples: 50S-1316+12-NR SMA (1P6T / +12 Volt / Non-TTL / Non-ROHS)
 50S-1317+28-TTL SMA (1P8T / +28 Volt / TTL)

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18 GHz Electro-mechanical Coaxial Switches



50S-1317



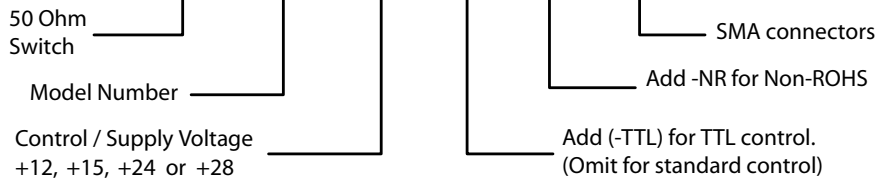
18 GHz Electro-mechanical Coaxial Switches

Model	Configuration	Frequency Range	Isolation (minimum)	VSWR (maximum)	Insertion Loss (maximum)	RF Connectors
50S-1361	Transfer Switch (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 1.2:1 1-4 GHz 1.3:1 4-8 GHz 1.4:1 8-12 GHz 1.5:1 12-18 GHz	0.10 dB DC-1 GHz 0.20 dB 1-4 GHz 0.30 dB 4-8 GHz 0.40 dB 8-12 GHz 0.50 dB 12-18 GHz	SMA female

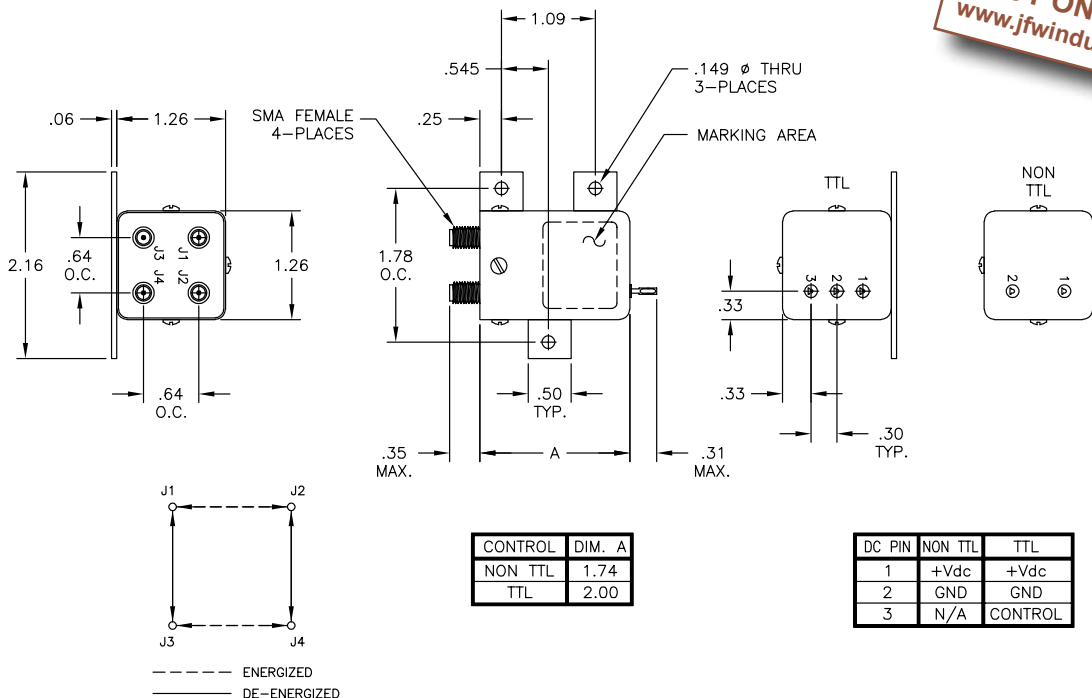
Model	Impedance	Switching Speed	RF Input Power (average)	Control Voltage / Supply Voltage (Non-TTL) (TTL)	Operating Temperature	Lifetime (minimum)
50S-1361	50 Ohms	20 milliseconds	See Power Table Below	+12 Vdc @ 360 mA nominal +15 Vdc @ 285 mA nominal +24 Vdc @ 190 mA nominal +28 Vdc @ 150 mA nominal	-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

50S-1361+BB-TTL-NR SMA



Examples: 50S-1361+12-NR SMA (Transfer / +12 Volt / Non-TTL / Non-ROHS)
50S-1361+28-TTL SMA (Transfer / +28 Volt / TTL)



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