

COMMERCIAL TECHNOLOGIES

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DEFENSE ELECTRONICS

Defense Electronics> Microwave Products> Switches

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Model 2553 series - SP8T, SP10T and SP12T. All ports in line Phase and Amplitude matched multi through switch with Integrated Driver. 2553-B90, 2553-B39, 2553-B48

How to Buy



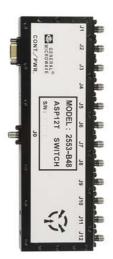


- Frequency range: 6 to 18 GHz
- Phase matched
- Amplitude matched
- All in line ports

MODEL 2553 SERIES

Model 2553 is a series of SP6T, SP8T, SP10T and SP12Tmulti through switches. In this series of switches, all output ports are in line and the ports are Phase and Amplitude matched. It operates over the full instantaneous bandwidth of 6 to 18 GHz with ON and OFF times of 700 nsec.

The 2553 series of the following multi through switches:



Type Model No.

SP8T 2553-B90

SP10T 2553-B39

SP12T 2553-B48

The Model 2553 series is equipped with an integrated driver that is powered by + 5 and - 12 volt supplies. The proper currents required to switch the ports ON or OFF are provided by the driver, which is controlled by external logic signals.

PERFORMANCE CHARACTERISTICS

CHARACTERISTIC	6.0 to 12.0	12.0 to 18.0
Min Isolation (dB)	70	70
Max Insertion Loss (dB)	4.3	5.6
Max VSWR one port ON	2.0:1	2.0:1

Amplitude Matching (between ports) - ±1.2 dB

Phase Matching (between ports) - ±30°

Switching Time Power Supply Requirments

ON Time 700 nsec max. $+5V \pm 5\%$, 350 mA OFF Time 700 nsec max. $-12V \pm 5\%$, 100 mA

Power Handling Control Characteristics

Capability 600 mW cw or Control Input

Without Performance peak Impedance Schottky JTL, two unit Degradation loads.

Survival Power 1.5 W CW (A unit load is 2 mA

ENVIRONMENTAL RATINGS sink current and 50 μA source current.)

Operating Control Logic "O"

 Temperature
 (-0.3 to + 0.8Vfor "ON" state. Logic" 1 " (+ 2.0 to + 0.5° C to + 125° C)

 Non-Operating
 -65° C to + 125° C
 +5.0V) for "OFF" state.

Temperature

Range Application Notes

Humidity MIL-STD-202F, Method 103B, Cond.

B (96 hrs. at 95%)

Shock MIL-STD-202F,

Method 213B, Cond. B (75G, 6

msec)

Vibration MIL-STD-202F, Method 204D,

Cond. B (.06" double

amplitude

or 15G, whichever is

less)

Altitude MIL-STD-202F,

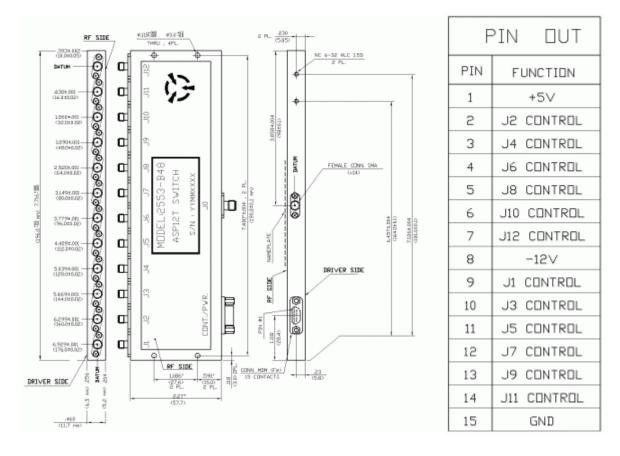
Method 105C, Cond. B (50,000 ft.)

Temp. Cycling MIL-STD-202F,

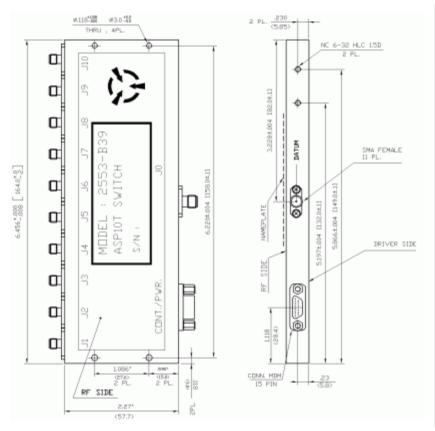
Method 107D, Cond. A, 5 cycles

MODEL 2553-B48 SP12T SWITCH -

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Model 2553-B39 SP10T SWITCH



F	PIN DUT	
PIN	FUNCTION	
1	+5∨	
2	J2 CONTROL	
3	J4 CONTROL	
4	J6 CONTROL	
5	J8 CONTROL	
6	J10 CONTROL	
7	N.U.	
8	-12V	
9	J1 CONTROL	
10	J3 CONTROL	
11	J5 CONTROL	
12	J7 CONTROL	
13	J9 CONTROL	
14	N.U.	
15	GND	

Dimensional Tolerances, unless otherwise indicated: $.xx \pm .02; xxx + - .005$