

# BROADBAND SP8T SWITCH

REFLECTIVE AND ABSORPTIVE 0.02-18 GHz

## GENERAL INFORMATION:

Series TL-8 and TB-8-A broadband switches are medium power devices that operate over relatively wide frequency ranges. Carefully selected diodes placed in either series, series-shunt, or shunt configurations produce excellent electrical performance from UHF through KU bands.

## GENERAL SPECIFICATIONS:

- Frequency Coverage:** 0.02 to 18.0 GHz.  
**RF Impedance:** 50 OHMS.  
**RF Power:** +20 dBm operational. Consult factory for high power options.  
**DC Requirements:** For switches without drivers, each path requires +60 mA for the "off" condition and -60 mA for the "on" condition. Switches with drivers require +5 volts at +480 mA and -5 volts at -160 mA supplies. Logic is TTL "0" when "on" and "1" when "off". Different supply voltages and logic available if specified at time of order.  
**Temperature Information:** Operating temperature from -55°C to +85°C.  
**Switching Speed:** 10% to 90% or 90% to 10% of RF. There is an additional 30 nanosec of driver delay.  
**Environment:** MIL-E-5400.  
**Connectors:** RF connectors are SMA. Other connectors available (when specified at time of order) include types N, TNC, and BNC. Mating connector supplied for all units with multipin connector; ITT Cannon MDB1-15SPSL or equiv.

## NOTES:

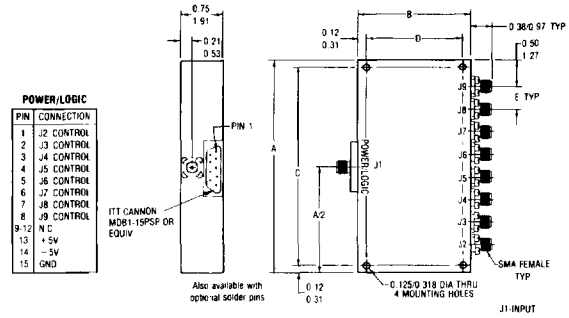
- All switches, with drivers, are available with either solder pins, or a multi-pin connector for the drive connection, when specified at time of order. (See "outlines with driver")
- When ordering, add suffix for configuration desired to the model number. ('S' for rectangular, 'R' for nine sided) i.e. TL-812R.
- If driver is required, add 'D' to the model number when ordering, i.e. Model TL-812R, with driver, becomes TL-812RD.
- When ordering, the complete model number should be given. The model number consists of the model number for a standard switch plus the dash number for any options, i.e. Model TL-831RD-1 is a nine sided SP8T reflective switch with driver whose frequency range is 0.5 to 1.0 GHz and a switching speed of 100 nanosec.
- Any unit listed can be supplied with pins instead of RF connectors. (Consult factory.)

## MECHANICAL OUTLINES

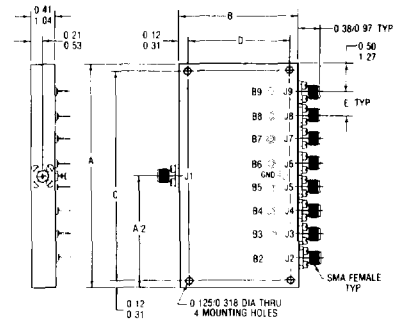
Outline	A Inches cm.	B Inches cm.	C Inches cm.	D Inches cm.	E Inches cm.
1	3.80	2.00	3.550	1.750	0.40
	9.65	5.08	9.017	4.450	1.02
2	4.50	3.00	4.250	2.750	0.50
	11.43	7.62	10.795	6.985	1.27
3	1.02	1.950	—	—	—
	2.59	4.953	—	—	—
4	1.30	2.550	—	—	—
	3.30	6.477	—	—	—
5	4.50	3.50	4.250	3.250	0.50
	11.43	8.89	10.795	8.255	1.27
6	4.50	2.35	4.250	2.100	0.50
	11.43	5.97	10.795	5.334	1.27

Inches/Centimeters  
 xx ± 0.3 xxx ± .010/ xx ± .08 xxx ± .025

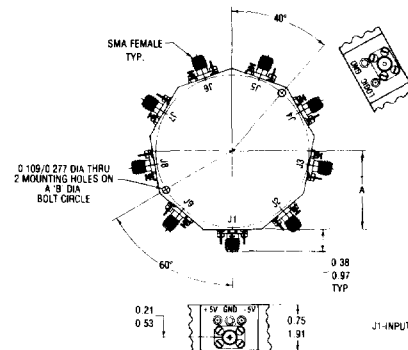
# SERIES TL-8/TB-8-A



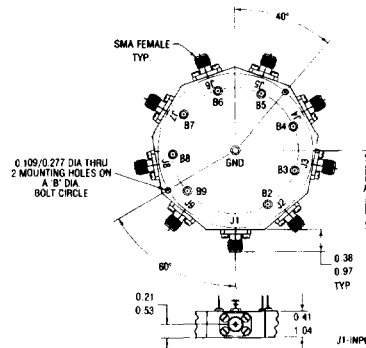
CONFIGURATION S  
OUTLINE WITH DRIVER



CONFIGURATION S  
OUTLINE WITHOUT DRIVER



CONFIGURATION R  
OUTLINE WITH DRIVER



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