



SP2T ULTRA-FAST PIN DIODE SWITCHES

Description

The LNx Ultra-Fast PIN diode SP2T switch family spans the frequency range of .5 – 18 GHz. It offers high performance and an integrated high speed driver controlled by TTL signals. This switch will maintain high performance as a drop in device for system or subsystem requirements. The LNx family of high performance switches is available in military or non military versions, hermetic and non-hermetic.



Applications

- EW Systems
- Communications Systems
- Antenna/Filter Selectors

Features

- Broadband Units
- Environmentally Sealed
- -55°C to +95°C Operation
- Shock/Vibration/Acceleration Capable

Table 1 SP2T Specifications

Band	Frequency GHz	Reflective			Absorptive			Switching Speed (nS MAX)	Rise/Fall Time (nS MAX)
		Insertion Loss (dB MAX)	VSWR (MAX)	Isolation (dB MIN)	Insertion Loss (dB MAX)	VSWR (MAX)	Isolation (dB MIN)		
1	.5 – 2	1.4	1.6	80	1.5	1.6	80	15	5
2	2 – 6	1.4	1.7	70	1.5	1.7	75	15	5
3	6 – 18	2.8	2.0	60	3.0	2.0	65	15	5
4	2 – 18	2.9	2.0	60	3.1	2.0	65	15	5
5	.5 – 18	3.0	2.0	60	3.2	2.0	65	15	5

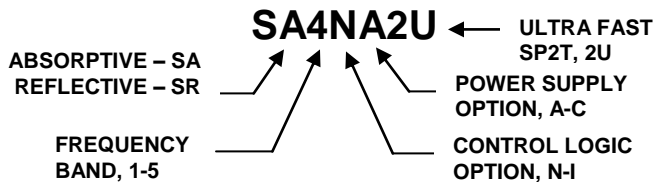
Table 2 Control Logic Option

Control Logic	Switch State	
	Normal N	Inverting I
TTL 0	Ins. Loss	Isolation
TTL 1	Isolation	Ins. Loss

Table 3 Power Supply Option

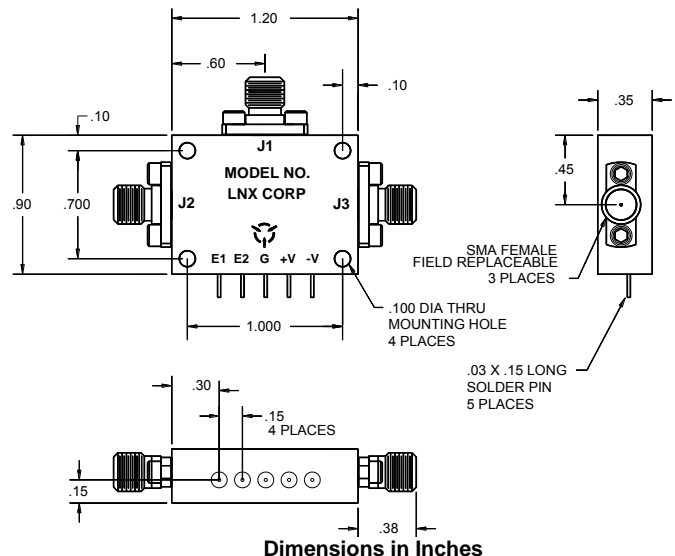
Code ± 5%	A	B	C	Current (mA MAX)
+ V	+5V	+5V	+12 to +15V	60
- V	-5V	-12 to -15V	-12 to -15V	50

Ordering Information



Environmental/Electrical Specifications

Switching Speed Measured from 50% Control to 10/90% RF
 Rise/Fall Times Measured from 10/90% & 90/10% RF
 Max RF Power, Operational/Survival: .5W/1W
 Storage Temp: -65°C to +150°C
 Finish: Grey Epoxy Paint per MIL-C-22750
 Weight: 1 oz MAX
 Control: E1 Controls J1-J2
 E2 Controls J1-J3



Custom Switches

LNx offers custom switch designs for requirements not covered in this specification. Options include LVTTTL, LVDS, or ECL control, Video Filtering, MIL-PRF-38534 Screening, and alternate RF connectors. Contact the factory to discuss specific requirements.