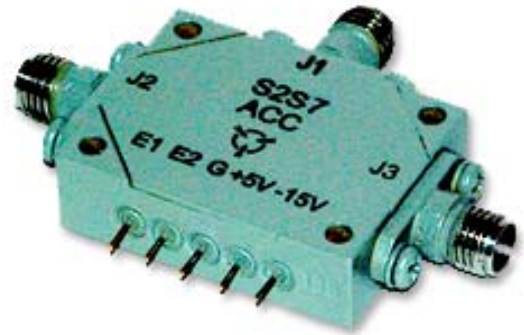


The S2 series of single pole, two throw PIN diode switches span the frequency range of 10MHz to 18GHz and are available with absorptive or reflective inputs. The switches are available in a wide variety of standard frequency ranges from cost-effective narrowband to high-performance broadband. Each switch incorporates a TTL-compatible driver for convenient system integration and operates from +5V and -12V to -18VDC power supplies. All switches incorporate DC blocks at the RF ports. Standard screened switches incorporate epoxy sealed lids and undergo a stringent yet cost effective screening cycle. The switches are also available with hermetic seal and high-rel screening for mil and space applications.



Applications:

- EW Systems
- Communications Systems
- Antenna Selectors
- Test Equipment
- Electronic Simulators
- Filter Selectors

Frequency Range (GHz)	REFLECTIVE SWITCHES				ABSORPTIVE SWITCHES				Switching	
	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Speed (nsec max)	MAX RF (W CW)
0.01 – 0.1	S2H1R	0.8	1.5	75	S2H1	0.9	1.5	80	250	1
0.01 – 0.5	S2H2R	0.9	1.5	75	S2H2	1.0	1.5	80	250	1
0.01 – 1	S2H3R	1.2	1.5	75	S2H3	1.3	1.5	80	250	1
0.01 – 2	S2H4R	1.8	1.6	75	S2H4	1.9	1.6	80	250	1
0.01 – 4	S2H5R	2.6	1.8	75	S2H5	2.7	1.8	80	250	1
0.1 – 0.5	S2V1R	0.9	1.5	80	S2V1	1.0	1.5	80	250	1
0.1 – 1	S2V2R	1.2	1.5	80	S2V2	1.3	1.5	80	250	1
0.1 – 2	S2V3R	1.8	1.6	80	S2V3	1.9	1.6	80	250	1
0.1 – 4	S2V4R	2.6	1.8	75	S2V4	2.9	1.8	80	250	1
0.1 – 8	S2V5R	3.2	2.0	70	S2V5	3.3	2.0	75	250	1
0.1 – 10	S2V6R	3.5	2.0	70	S2V6	3.6	2.0	75	250	1
0.5 – 1	S2U1R	1.0	1.5	80	S2U1	1.1	1.5	80	100	1
0.5 – 2	S2U2R	1.4	1.6	80	S2U2	1.5	1.6	80	100	1
0.5 – 4	S2U3R	2.0	1.8	75	S2U3	2.1	1.8	80	100	1
0.5 – 6	S2U4R	2.2	1.9	75	S2U4	2.3	1.9	75	100	1
0.5 – 12	S2U5R	2.6	2.0	70	S2U5	2.8	2.0	70	100	1
0.5 – 18	S2U6R	3.0	2.0	65	S2U6	3.2	2.0	65	100	0.5
1 – 2	S2L1R	0.9	1.5	80	S2L1	1.0	1.5	85	100	1
1 – 4	S2L2R	1.2	1.6	80	S2L2	1.3	1.6	85	100	1
1 – 8	S2L3R	1.9	1.8	75	S2L3	2.0	1.8	80	100	1
1 – 10	S2L4R	2.0	2.0	70	S2L4	2.1	2.0	75	100	1
1 – 12	S2L5R	2.1	2.0	65	S2L5	2.2	2.0	70	100	1
1 – 14	S2L6R	2.4	2.0	65	S2L6	2.6	2.0	70	100	0.5
1 – 18	S2L7R	2.9	2.0	60	S2L7	3.1	2.0	65	100	0.5
2 – 4	S2S1R	1.1	1.6	70	S2S1	1.2	1.6	75	100	1
2 – 6	S2S2R	1.4	1.7	70	S2S2	1.5	1.7	75	100	1
2 – 8	S2S3R	1.8	1.8	70	S2S3	1.9	1.8	75	100	1
2 – 10	S2S4R	1.9	1.8	65	S2S4	2.1	1.8	70	100	1
2 – 12	S2S5R	2.1	1.9	65	S2S5	2.2	1.9	70	100	1
2 – 16	S2S6R	2.7	2.0	60	S2S6	2.9	2.0	65	100	0.5
2 – 18	S2S7R	2.9	2.0	60	S2S7	3.1	2.0	65	100	0.5
4 – 8	S2C1R	1.7	1.6	70	S2C1	1.9	1.6	75	100	1
4 – 10	S2C2R	1.8	1.7	65	S2C2	2.1	1.7	70	100	1
4 – 12	S2C3R	2.0	1.8	65	S2C3	2.2	1.8	70	100	1
4 – 16	S2C4R	2.6	2.0	60	S2C4	2.9	2.0	65	100	0.5
4 – 18	S2C5R	2.8	2.0	60	S2C5	3.0	2.0	65	100	0.5
6 – 10	S2C6R	1.9	1.7	65	S2C6	2.1	1.7	70	100	1
6 – 12	S2C7R	2.0	1.8	65	S2C7	2.2	1.8	70	100	1
6 – 18	S2C8R	2.8	2.0	60	S2C8	3.0	2.0	65	100	0.5
8 – 10	S2X1R	1.8	1.7	65	S2X1	2.1	1.7	70	100	1
8 – 12	S2X2R	1.9	1.8	65	S2X2	2.2	1.8	70	100	1
8 – 18	S2X3R	2.8	2.0	60	S2X3	3.0	2.0	65	100	0.5
10 – 18	S2K1R	2.8	2.0	60	S2K1	3.0	2.0	65	100	0.5
12 – 18	S2K2R	2.8	2.0	60	S2K2	3.0	2.0	65	100	0.5



NOTES:

DC Bias: +5V +/-0.5V @ 80mA max
 -15V +/-3V @ 50mA max
 DC Bias: +5V +/-0.5V @ 100mA max
 (-5 option) -5V +/-0.5V @ 60mA max
 Control: TTL 0 = Low Loss
 TTL 1 = Isolation
 Two Input Control: E1 controls J2 – J1
 (Standard) E2 controls J3 – J1
 Single Control: E1=0: J2 – J1 low loss, J3 – J1 isolation
 (-1 option) E1=1: J3 – J1 low loss, J2 – J1 isolation

ENVIRONMENTAL SPECIFICATIONS:

MIL-E-5400, MIL-STD-202, MIL-E-16400
 Operating Temp: -55°C to +85°C
 Storage Temp: -65°C to +125°C
 Humidity: MIL-STD-202F, M103, Cond B
 Shock: MIL-STD-202F, M213, Cond B
 Altitude: MIL-STD-202F, M105, Cond B
 Vibration : MIL-STD-202F, M204, Cond B
 Thermal Shock: MIL-STD-202F, M107, Cond A
 Temperature Cycle: MIL-STD-202F, M105C, Cond D

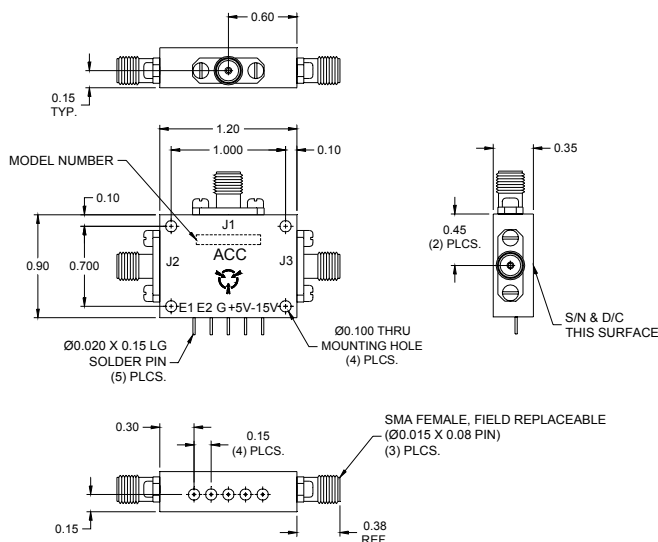
MECHANICAL SPECIFICATIONS:

Case Styles: S2 Outline (Two input control)
 S2-1 Outline (Single control)
 Finish: Gray Epoxy Paint per MIL-C-22750
 Connectors: SMA Female per MIL-C-39012
 Bias & Control Pins: $\varnothing 0.02"$ x 0.15" long
 Weight: 20g max
 Mounting: $\varnothing 0.10"$ through holes (4) places

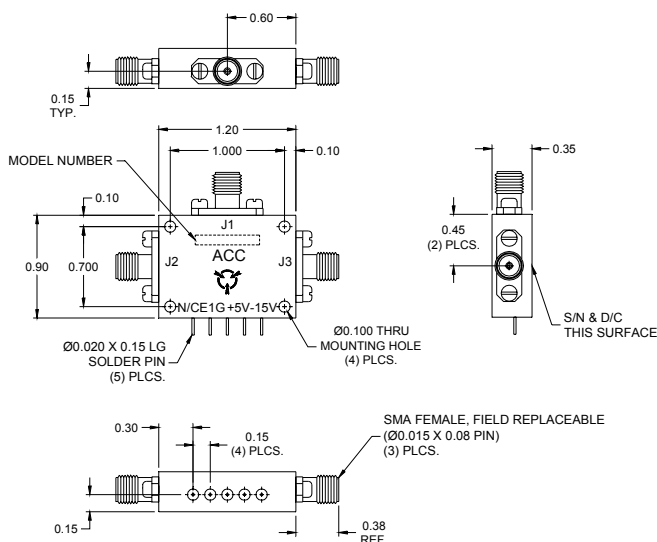
SCREENING :

Standard Screening:

Internal Visual per MIL-STD-883, Method 2017
 Temperature Cycle: -65°C to +100°C, 10 cycles
Optional High-Rel Screening (Ref MIL-PRF-38534):
 Internal Visual per MIL-STD-883, Method 2017
 Stabilization Bake per MIL-STD-883, Method 1008
 Temperature Cycle per MIL-STD-883, Method 1010
 Constant Acceleration per MIL-STD-883, Method 2001
 Burn-in per MIL-STD-883, Method 1015
 Leak Test per MIL-STD-883, Method 1014
 External Visual per MIL-STD-883, Method 2009



OUTLINE CASE STYLE S2



OUTLINE CASE STYLE S2-1

OPTIONS:

- Other frequency ranges available from 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- Hermetic seal (Add "H" to part number)
- Single Input Control Option: Add "-1" to part number
- Supply voltage options: +/-5V, +/-12V, +/-15V
- Video transient suppression
- GPO connectors
- ECL logic inputs
- Port-to-port and/or unit-to-unit phase and amplitude tracking

* Contact the factory for price and delivery or to discuss custom requirements

S2-0205

611 Industrial Way West, Eatontown, NJ 07724 tel: 732-460-0212 fax: 732-460-0214 sales@advanced-control.com www.advanced-control.com