



电子元器件系列 (中国.厦门)

www.rf-china.com F-Micom co.,Ltd

厦门销售电话:0592-5713956

EMail:sales@rf-china.com

Tel:0086-592-5713956 Fax:0592-5201617



ADVANCED
CONTROL
COMPONENTS



DELIVERY IN A FLASH
30 DAYS ON ALL
STANDARD SWITCH PRODUCTS

ACC SWITCH PRODUCTS

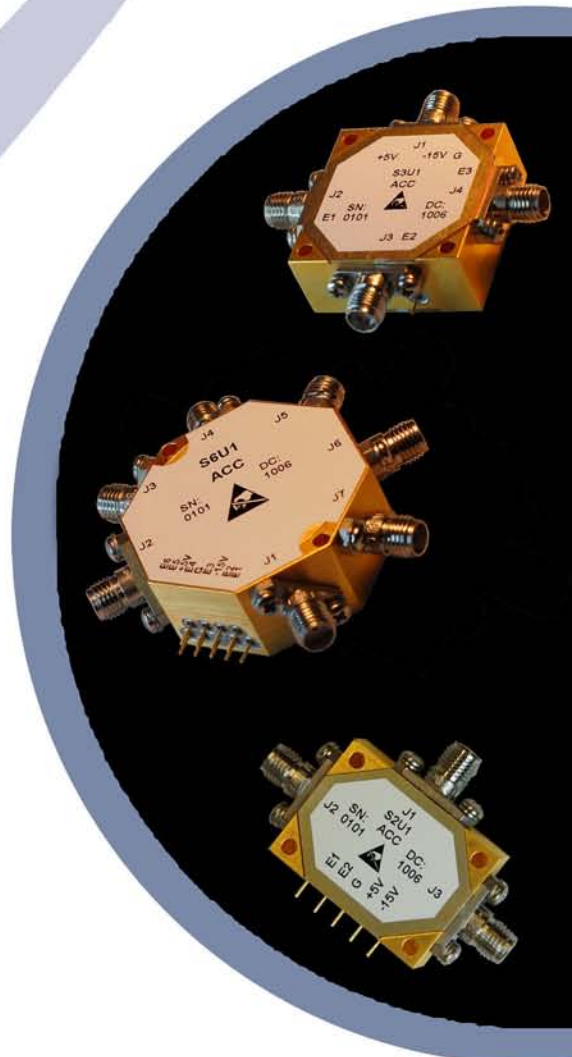
A Product Overview





TABLE OF CONTENTS

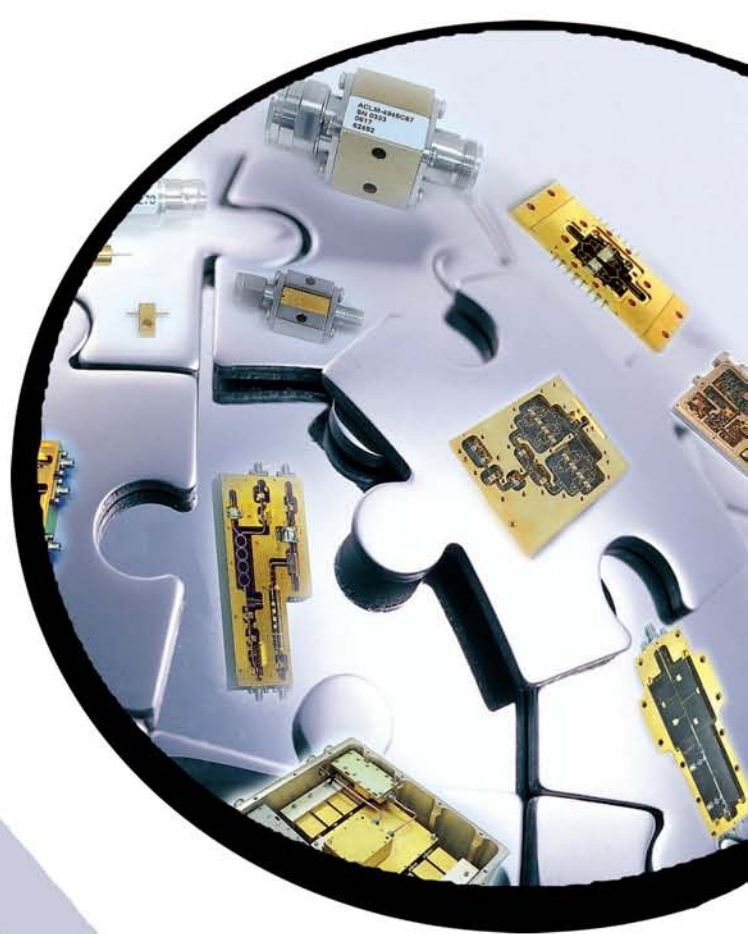
SINGLE POLE SINGLE THROW	PAGE 2,3
SINGLE POLE TWO THROW	PAGE 4,5
SINGLE POLE THREE THROW	PAGE 6,7
SINGLE POLE FOUR THROW	PAGE 8,9
SINGLE POLE FIVE THROW	PAGE 10, 11
SINGLE POLE SIX THROW	PAGE 12, 13
TRANSFER	PAGE 14, 15
OTHER SERVICES OFFERED	PAGE 16, 17



Advanced Control Components, Inc. was founded in 1982 by industry leading engineers and entrepreneurs. We are a world leading supplier of high performance solid-state RF and microwave components and sub-systems serving military, aerospace, commercial and instrumentation markets.

Our 30,000 square foot facility is located in Eatontown, New Jersey, at the famed and beautiful Jersey Shore. We are conveniently situated between the New York and Philadelphia metropolitan areas. Resources include comprehensive in-house design, manufacturing and test capabilities to 40 GHz. All manufacturing and test operations are performed in our state-of-the-art Class 100,000 clean room.

Product selection ranges from a vast array of standard components to custom, fully integrated sub-systems. All products are designed and manufactured to the highest standards. We have achieved approved-supplier status on many military and space programs.



Advanced Control Components continuously reviews and updates all in-house procedures with the goal of exceeding customer expectations. We have implemented and maintained an ISO-9001:2008 accredited quality system. As part of our commitment to continuous improvement, all employees participate in comprehensive training programs, keeping pace with industry innovations.

Our team of design engineers has extensive experience in passive and active component design and sub-system integration. Utilizing the latest and most advanced CAD software, we offer comprehensive design solutions. We welcome your inquiries and look forward to discussing your designs and applications.

Advanced Control Components is your source for custom PIN diode and GAASFET based switches and switch assemblies. With complete design and test capability to 40GHz, we have the resources to develop and realize a new design, build to an existing specification or replace an obsolete component. From commercial to space qualified applications, we can help. Contact the factory for custom design solutions and applications.



SINGLE - POLE, SINGLE - THROW SWITCHES

The S1 series of single pole, single 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 -18V DC 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 military and aerospace applications.



Frequency Range (GHz)	REFLECTIVE SWITCHES				ABSORPTIVE SWITCHES				Switching	
	Part Number	Loss (dB max)	VSWR (max)	Isolation (dB min)	Part Number	Loss (dB max)	VSWR (max)	Isolation (dB min)	Speed (nsec max)	MAX RF (W CW)
0.01 – 0.1	S1H1R	0.8	1.5	75	S1H1	0.9	1.5	80	250	1
0.01 – 0.5	S1H2R	0.9	1.5	75	S1H2	1.0	1.5	80	250	1
0.01 – 1	S1H3R	1.2	1.5	75	S1H3	1.3	1.5	80	250	1
0.01 – 2	S1H4R	1.8	1.6	75	S1H4	1.9	1.6	80	250	1
0.01 – 4	S1H5R	2.5	1.8	75	S1H5	2.6	1.8	80	250	1
0.1 – 0.5	S1V1R	0.9	1.5	80	S1V1	1.0	1.5	80	250	1
0.1 – 1	S1V2R	1.2	1.5	80	S1V2	1.3	1.5	80	250	1
0.1 – 2	S1V3R	1.8	1.6	80	S1V3	1.9	1.6	80	250	1
0.1 – 4	S1V4R	2.5	1.8	75	S1V4	2.8	1.8	80	250	1
0.1 – 8	S1V5R	3.2	2.0	70	S1V5	3.3	2.0	75	250	1
0.1 – 10	S1V6R	3.5	2.0	70	S1V6	3.6	2.0	75	250	1
0.5 – 1	S1U1R	1.0	1.5	80	S1U1	1.1	1.5	80	100	1
0.5 – 2	S1U2R	1.4	1.6	80	S1U2	1.5	1.6	80	100	1
0.5 – 4	S1U3R	2.0	1.8	75	S1U3	2.1	1.8	80	100	1
0.5 – 6	S1U4R	2.2	1.9	70	S1U4	2.3	2.0	75	100	1
0.5 – 12	S1U5R	2.5	2.0	65	S1U5	2.7	2.0	70	100	0.5
0.5 – 18	S1U6R	2.8	2.0	60	S1U6	3.0	1.9	65	100	0.5
1 – 2	S1L1R	0.8	1.5	80	S1L1	0.9	1.5	85	100	1
1 – 4	S1L2R	1.1	1.6	80	S1L2	1.2	1.6	85	100	1
1 – 8	S1L3R	1.8	1.8	75	S1L3	1.9	1.8	80	100	1
1 – 10	S1L4R	1.9	2.0	70	S1L4	2.0	2.0	75	100	1
1 – 12	S1L5R	2.0	2.0	65	S1L5	2.2	2.0	70	100	0.5
1 – 14	S1L6R	2.2	2.0	65	S1L6	2.4	2.0	70	100	0.5
1 – 18	S1L7R	2.7	2.0	60	S1L7	3.0	2.0	65	100	0.5
2 – 4	S1S1R	1.0	1.6	70	S1S1	1.1	1.6	75	100	1
2 – 6	S1S2R	1.3	1.7	70	S1S2	1.4	1.7	75	100	1
2 – 8	S1S3R	1.7	1.8	70	S1S3	1.8	1.8	75	100	1
2 – 10	S1S4R	1.8	1.8	70	S1S4	2.0	1.8	70	100	1
2 – 12	S1S5R	2.0	1.9	65	S1S5	2.2	1.9	70	100	0.5
2 – 16	S1S6R	2.5	2.0	60	S1S6	2.7	2.0	65	100	0.5
2 – 18	S1S7R	2.7	2.0	60	S1S7	3.0	2.0	65	100	0.5
4 – 8	S1C1R	1.1	1.6	70	S1C1	1.8	1.6	75	100	1
4 – 10	S1C2R	1.2	1.7	70	S1C2	2.0	1.7	70	100	1
4 – 12	S1C3R	1.5	1.8	65	S1C3	2.2	1.8	70	100	0.5
4 – 16	S1C4R	1.9	2.0	60	S1C4	2.7	2.0	65	100	0.5
4 – 18	S1C5R	2.0	2.0	60	S1C5	2.8	2.0	65	100	0.5
6 – 10	S1C6R	1.2	1.7	70	S1C6	2.0	1.7	70	100	1
6 – 12	S1C7R	1.5	1.8	65	S1C7	2.2	1.8	70	100	0.5
6 – 18	S1C8R	2.0	2.0	60	S1C8	2.8	2.0	65	100	0.5
8 – 10	S1X1R	1.2	1.7	70	S1X1	1.9	1.7	70	100	0.5
8 – 12	S1X2R	1.5	1.8	65	S1X2	2.2	1.8	70	100	0.5
8 – 18	S1X3R	2.0	2.0	60	S1X3	2.8	2.0	65	100	0.5
10 – 18	S1K1R	2.0	2.0	60	S1K1	2.8	2.0	65	100	0.5
12 – 18	S1K2R	2.0	2.0	60	S1K2	2.8	2.0	65	100	0.5

Applications:

- EW Systems
- Test Equipment
- Electronic Simulators
- Communications Systems
- Modulators

NOTES:

DC Bias: +5V +/-0.5V @ 50mA max
(Standard) -15V +/-3V @ 50mA max

DC Bias: +5V +/-0.5V @ 60mA max
(-5 option) -5V +/-0.5V @ 60mA max

DC Bias: +15V +/-3V @ 50mA max
(-12 option) -15V +/-3V @ 50mA max

Control: TTL 0 = Low Loss
TTL 1 = Isolation

Absorptive switch: 50Ω terminations at both RF ports (in isolation mode).

Switching speed is defined as 50%TTL to 90% (t-on) and 50%TTL to 10%RF (t-off).

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:

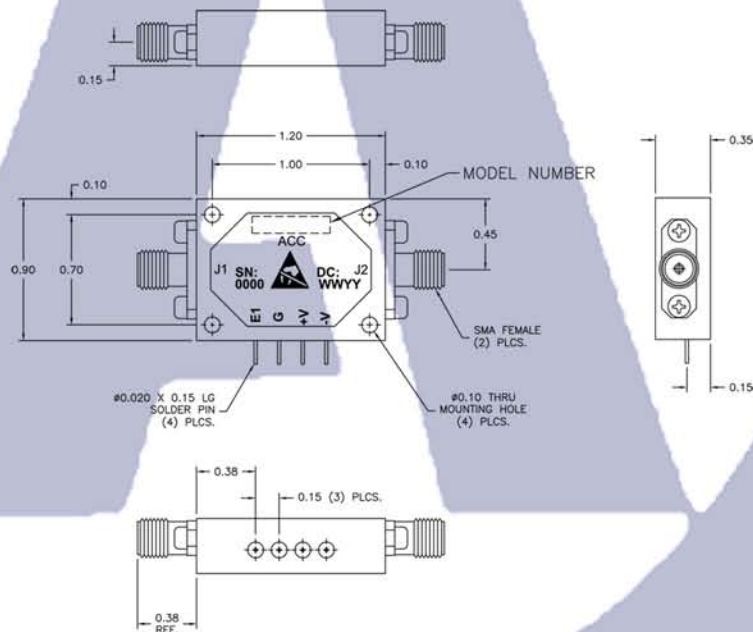
Case Style: S1 Outline
Finish: Gold Plate per MIL-G-45204
Bias & Control Pins: ø0.02" x 0.15" long
Weight: 20g max
Mounting: ø0.10" through holes (4) places

SCREENING:

Internal Visual per MIL-STD-883, Method 2017
Temperature Cycle: -65°C to +100°C, 10 cycles

Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request.
Contact the factory to discuss your screening requirements.



PART NUMBER ORDERING INFORMATION:

- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-H" suffix: Hermetic seal (does not apply to RoHS-compliant models)

CUSTOM OPTIONS - CONTACT FACTORY:

- Gray epoxy paint per MIL-C-22750
- Video transient suppression
- GPO connectors
- ECL logic input
- Phase and amplitude matching
- Other frequency ranges available from 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening

SINGLE - POLE, TWO - THROW SWITCHES

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 military and aerospace applications.



Frequency Range (GHz)	REFLECTIVE SWITCHES				ABSORPTIVE SWITCHES				Switching Speed (nsec max)	MAX RF (W CW)
	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)		
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	0.5
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	0.5
1 - 12	S2L5R	2.1	2.0	65	S2L5	2.2	2.0	70	100	0.5
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	0.5
2 - 12	S2S5R	2.1	1.9	65	S2S5	2.2	1.9	70	100	0.5
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	0.5
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	0.5
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	0.5
8 - 12	S2X2R	1.9	1.8	65	S2X2	2.2	1.8	70	100	0.5
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

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

NOTES:

DC Bias: +5V +/-0.5V @ 80mA max
(Standard) -15V +/-3V @ 50mA max

DC Bias: +5V +/-0.5V @ 100mA max
(-5 option) -5V +/-0.5V @ 60mA max

DC Bias: +15V +/-3V @ 80mA max
(-12 option) -15V +/-3V @ 50mA max

Control: TTL 0 = Low Loss
(Standard) TTL 1 = Isolation

E1 controls J2 - J1
E2 controls J3 - J1

Single Bit Control: E1=0: J2 - J1 low loss, J3 - J1 isolation (E2=N/C)
(-1 option) E1=1: J3 - J1 low loss, J2 - J1 isolation (E2=N/C)

Switching speed is defined as 50%TTL to 90% (t-on) and 50%TTL to 10%RF (t-off).

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: Gold plate per MIL-G-45204, Chem film per MIL-C-5541

Connectors: SMA Female per MIL-C-39012

Bias & Control Pins: ø0.02" x 0.15" long

Weight: 20g max

Mounting: ø0.10" through holes (4) places

SCREENING:

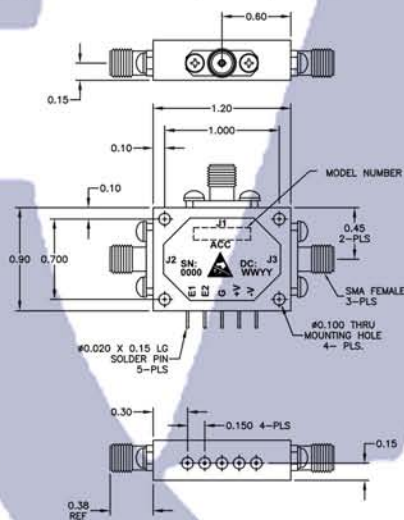
Internal Visual per MIL-STD-883, Method 2017

Temperature Cycle: -65°C to +100°C, 10 cycles

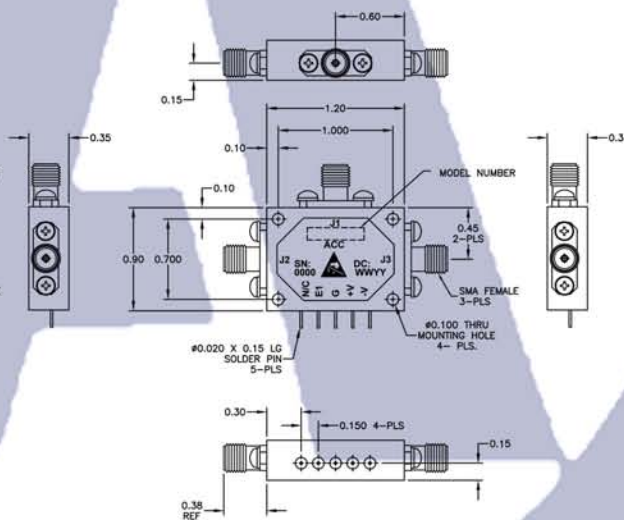
Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request.

Contact the factory to discuss your screening requirements.



OUTLINE CASE STYLE S2



OUTLINE CASE STYLE S2-1

PART NUMBER ORDERING INFORMATION:

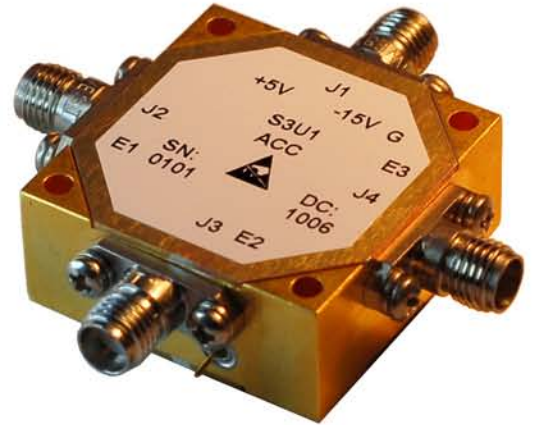
- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-1": Single logic control
- Add "-1-RC" suffix: Single logic control, RoHS-compliant
- Add "-1-5" suffix: Single logic control, +/-5V DC supplies
- Add "-1-5-RC" suffix: Single logic control, +/-5V DC supplies, RoHS-compliant
- Add "-1-12" suffix: Single logic control, +/-12V to 18V DC supplies
- Add "-1-12-RC" suffix: Single logic control, +/-12V to 18V DC supplies, RoHS-compliant
- Add "-H" suffix: Hermetic seal (does not apply to RoHS-compliant models)

CUSTOM OPTIONS - CONTACT FACTORY:

- Gray epoxy paint per MIL-C-22750
- Video transient suppression
- GPO connectors
- ECL logic input
- Phase and amplitude matching
- Other frequency ranges available from 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening

SINGLE - POLE, THREE - THROW SWITCHES

The S3 series of single pole, three 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 -18V DC 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 military and aerospace applications.



Frequency Range (GHz)	REFLECTIVE SWITCHES				ABSORPTIVE SWITCHES				Switching Speed (nsec max)	MAX RF (W CW)
	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)		
0.01 – 0.1	S3H1R	0.9	1.5	75	S3H1	1.0	1.5	80	250	1
0.01 – 0.5	S3H2R	1.0	1.5	75	S3H2	1.1	1.5	80	250	1
0.01 – 1	S3H3R	1.3	1.5	75	S3H3	1.4	1.5	80	250	1
0.01 – 2	S3H4R	1.9	1.6	75	S3H4	2.0	1.6	80	250	1
0.01 – 4	S3H5R	2.7	1.8	75	S3H5	2.8	1.8	80	250	1
0.1 – 0.5	S3V1R	1.0	1.5	80	S3V1	1.1	1.5	80	250	1
0.1 – 1	S3V2R	1.3	1.5	80	S3V2	1.4	1.5	80	250	1
0.1 – 2	S3V3R	1.9	1.6	80	S3V3	2.0	1.6	80	250	1
0.1 – 4	S3V4R	2.7	1.8	75	S3V4	3.0	1.8	80	250	1
0.1 – 8	S3V5R	3.4	2.0	70	S3V5	3.5	2.0	75	250	0.5
0.1 – 10	S3V6R	3.7	2.0	70	S3V6	3.8	2.0	75	250	0.5
0.5 – 1	S3U1R	1.1	1.5	80	S3U1	1.2	1.5	80	100	1
0.5 – 2	S3U2R	1.5	1.6	80	S3U2	1.6	1.6	80	100	1
0.5 – 4	S3U3R	2.1	1.8	75	S3U3	2.2	1.8	80	100	1
0.5 – 6	S3U4R	2.3	1.9	70	S3U4	2.4	1.9	75	100	1
0.5 – 12	S3U5R	2.7	2.0	65	S3U5	2.8	2.0	70	100	0.5
0.5 – 18	S3U6R	3.2	2.0	60	S3U6	3.4	2.0	65	100	0.5
1 – 2	S3L1R	1.0	1.5	80	S3L1	1.1	1.5	85	100	1
1 – 4	S3L2R	1.3	1.6	80	S3L2	1.4	1.6	85	100	1
1 – 8	S3L3R	2.0	1.8	75	S3L3	2.1	1.8	80	100	0.5
1 – 10	S3L4R	2.1	2.0	70	S3L4	2.2	2.0	75	100	0.5
1 – 12	S3L5R	2.3	2.0	65	S3L5	2.4	2.0	70	100	0.5
1 – 14	S3L6R	2.6	2.0	65	S3L6	2.8	2.0	70	100	0.5
1 – 18	S3L7R	3.1	2.0	60	S3L7	3.3	2.0	65	100	0.5
2 – 4	S3S1R	1.2	1.6	70	S3S1	1.4	1.6	75	100	1
2 – 6	S3S2R	1.5	1.7	70	S3S2	1.6	1.7	75	100	1
2 – 8	S3S3R	1.9	1.8	70	S3S3	2.0	1.8	75	100	0.5
2 – 10	S3S4R	2.0	1.8	65	S3S4	2.2	1.8	70	100	0.5
2 – 12	S3S5R	2.3	1.9	65	S3S5	2.4	1.9	70	100	0.5
2 – 16	S3S6R	2.9	2.0	60	S3S6	3.1	2.0	65	100	0.5
2 – 18	S3S7R	3.1	2.0	60	S3S7	3.3	2.0	65	100	0.5
4 – 8	S3C1R	1.8	1.6	70	S3C1	2.0	1.6	75	100	0.5
4 – 10	S3C2R	1.9	1.7	65	S3C2	2.2	1.7	70	100	0.5
4 – 12	S3C3R	2.2	1.8	65	S3C3	2.4	1.8	70	100	0.5
4 – 16	S3C4R	2.8	2.0	60	S3C4	3.1	2.0	65	100	0.5
4 – 18	S3C5R	3.0	2.0	60	S3C5	3.2	2.0	65	100	0.5
6 – 10	S3C6R	2.0	1.7	65	S3C6	2.2	1.7	70	100	0.5
6 – 12	S3C7R	2.2	1.8	65	S3C7	2.4	1.8	70	100	0.5
6 – 18	S3C8R	3.0	2.0	60	S3C8	3.2	2.0	65	100	0.5
8 – 10	S3X1R	1.9	1.7	65	S3X1	2.2	1.7	70	100	0.5
8 – 12	S3X2R	2.1	1.8	65	S3X2	2.4	1.8	70	100	0.5
8 – 18	S3X3R	3.0	2.0	60	S3X3	3.2	2.0	65	100	0.5
10 – 18	S3K1R	3.0	2.0	60	S3K1	3.2	2.0	65	100	0.5
12 – 18	S3K2R	3.0	2.0	60	S3K2	3.2	2.0	65	100	0.5

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

NOTES:

DC Bias: +5V +/-0.5V @ 120mA max
(Standard) -15V +/-3V @ 50mA max

DC Bias: +5V +/-0.5V @ 150mA max
(-5 option) -5V +/-0.5V @ 60mA max

DC Bias: +15V +/-3V @ 120mA max
(-12 option) -15V +/-3V @ 50mA max

Control: TTL 0 = Low Loss
TTL 1 = Isolation

E1 controls J2 - J1
E2 controls J3 - J1
E3 controls J4 - J1

Switching speed is defined as 50%TTL to 90% (t-on) and 50%TTL to 10%RF (t-off).

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:

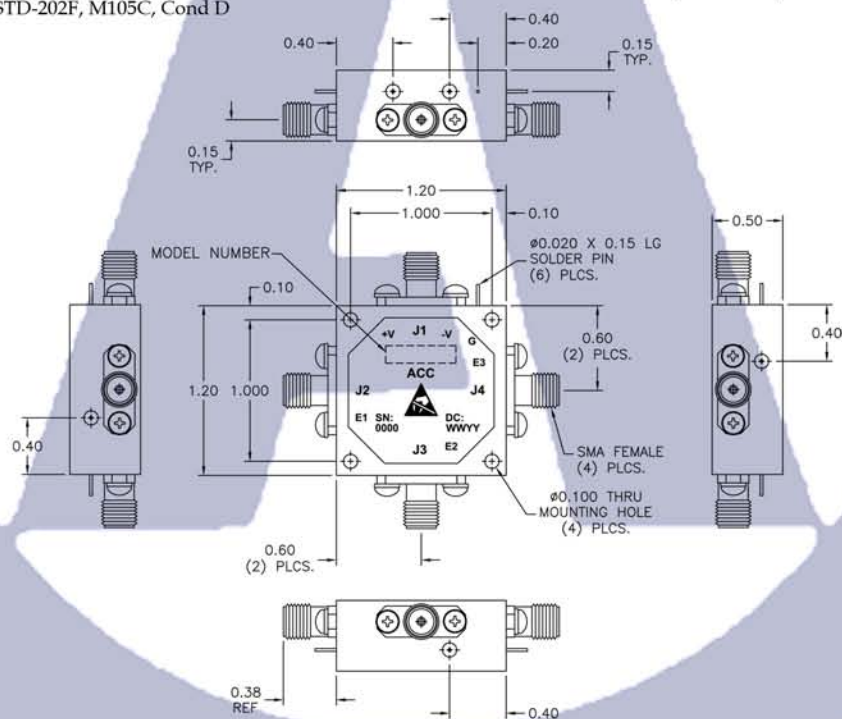
Case Style: S3 Outline
Finish: Gold plate per MIL-G-45204, Chem film per MIL-C-5541
Connectors: SMA Female per MIL-C-39012
Bias & Control Pins: $\phi 0.02'' \times 0.15''$ long
Weight: 35g max
Mounting: $\phi 0.10''$ through holes (4) places

SCREENING:

Internal Visual per MIL-STD-883, Method 2017
Temperature Cycle: -65°C to +100°C, 10 cycles

Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request.
Contact the factory to discuss your screening requirements.



PART NUMBER ORDERING INFORMATION:

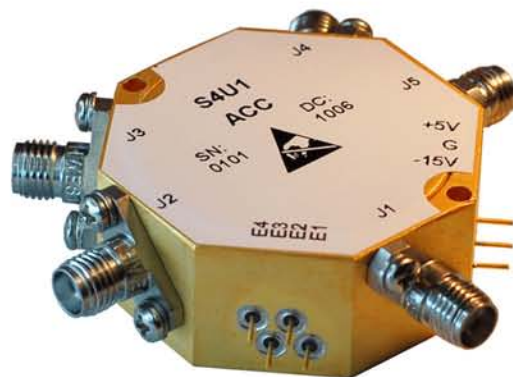
- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-H" suffix: Hermetic seal (does not apply to RoHS-compliant models)

CUSTOM OPTIONS - CONTACT FACTORY:

- Gray epoxy paint per MIL-C-22750
- Video transient suppression
- GPO connectors
- ECL logic input
- Phase and amplitude matching
- Other frequency ranges available from 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening

SINGLE - POLE, FOUR - THROW SWITCHES

The S4 series of single pole, four 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 -18V DC 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 military and aerospace applications.



Frequency Range (GHz)	REFLECTIVE SWITCHES				ABSORPTIVE SWITCHES				Switching Speed (nsec max)	MAX RF (W CW)
	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)		
0.01 - 0.1	S4H1R	1.0	1.5	75	S4H1	1.1	1.5	80	250	1
0.01 - 0.5	S4H2R	1.1	1.5	75	S4H2	1.2	1.5	80	250	1
0.01 - 1	S4H3R	1.4	1.5	75	S4H3	1.5	1.5	80	250	1
0.01 - 2	S4H4R	2.0	1.6	75	S4H4	2.1	1.6	80	250	1
0.01 - 4	S4H5R	2.8	1.8	75	S4H5	2.9	1.8	80	250	1
0.1 - 0.5	S4V1R	1.1	1.5	80	S4V1	1.2	1.5	80	250	1
0.1 - 1	S4V2R	1.4	1.5	80	S4V2	1.5	1.5	80	250	1
0.1 - 2	S4V3R	2.0	1.6	80	S4V3	2.1	1.6	80	250	1
0.1 - 4	S4V4R	2.8	1.8	75	S4V4	2.9	1.8	80	250	1
0.1 - 8	S4V5R	3.5	2.0	70	S4V5	3.6	2.0	75	250	0.5
0.1 - 10	S4V6R	3.8	2.0	70	S4V6	3.9	2.0	75	250	0.5
0.5 - 1	S4U1R	1.2	1.5	80	S4U1	1.3	1.5	80	100	1
0.5 - 2	S4U2R	1.6	1.6	80	S4U2	1.7	1.6	80	100	1
0.5 - 4	S4U3R	2.2	1.8	75	S4U3	2.3	1.8	80	100	1
0.5 - 6	S4U4R	2.5	1.9	70	S4U4	2.6	1.9	75	100	0.5
0.5 - 12	S4U5R	2.8	2.0	65	S4U5	3.0	2.0	70	100	0.5
0.5 - 18	S4U6R	3.4	2.0	60	S4U6	3.6	2.0	65	100	0.5
1 - 2	S4L1R	1.1	1.5	80	S4L1	1.2	1.5	85	100	1
1 - 4	S4L2R	1.4	1.6	80	S4L2	1.5	1.6	85	100	1
1 - 8	S4L3R	2.1	1.8	75	S4L3	2.2	1.8	80	100	0.5
1 - 10	S4L4R	2.2	2.0	70	S4L4	2.3	2.0	75	100	0.5
1 - 12	S4L5R	2.5	2.0	65	S4L5	2.6	2.0	70	100	0.5
1 - 14	S4L6R	2.8	2.0	65	S4L6	3.0	2.0	70	100	0.5
1 - 18	S4L7R	3.3	2.0	60	S4L7	3.7	2.0	65	100	0.5
2 - 4	S4S1R	1.3	1.6	70	S4S1	1.4	1.6	75	100	1
2 - 6	S4S2R	1.6	1.7	70	S4S2	1.7	1.7	75	100	0.5
2 - 8	S4S3R	2.0	1.8	70	S4S3	2.2	1.8	75	100	0.5
2 - 10	S4S4R	2.1	1.8	65	S4S4	2.3	1.8	70	100	0.5
2 - 12	S4S5R	2.5	1.9	65	S4S5	2.6	1.9	70	100	0.5
2 - 16	S4S6R	3.1	2.0	60	S4S6	3.3	2.0	65	100	0.5
2 - 18	S4S7R	3.3	2.0	60	S4S7	3.7	2.0	65	100	0.5
4 - 8	S4C1R	1.9	1.6	70	S4C1	2.2	1.6	75	100	0.5
4 - 10	S4C2R	2.0	1.7	65	S4C2	2.3	1.7	70	100	0.5
4 - 12	S4C3R	2.4	1.8	65	S4C3	2.6	1.8	70	100	0.5
4 - 16	S4C4R	3.0	2.0	60	S4C4	3.3	2.0	65	100	0.5
4 - 18	S4C5R	3.2	2.0	60	S4C5	3.4	2.0	65	100	0.5
6 - 10	S4C6R	2.1	1.7	65	S4C6	2.3	1.7	70	100	0.5
6 - 12	S4C7R	2.4	1.8	65	S4C7	2.6	1.8	70	100	0.5
6 - 18	S4C8R	3.2	2.0	60	S4C8	3.4	2.0	65	100	0.5
8 - 10	S4X1R	2.0	1.7	65	S4X1	2.3	1.7	70	100	0.5
8 - 12	S4X2R	2.3	1.8	65	S4X2	2.6	1.8	70	100	0.5
8 - 18	S4X3R	3.2	2.0	60	S4X3	3.4	2.0	65	100	0.5
10 - 18	S4K1R	3.2	2.0	60	S4K1	3.4	2.0	65	100	0.5
12 - 18	S4K2R	3.2	2.0	60	S4K2	3.4	2.0	65	100	0.5

Applications:

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

NOTES:

DC Bias: +5V +/-0.5V @ 160mA max
(Standard) -15V +/-0.5V @ 50mA max

DC Bias: +5V +/-0.5V @ 200mA max
(-5 option) -5V +/-0.5V @ 60mA max

DC Bias: +15V +/-0.5V @ 160mA max
(-12 option) -15V +/-0.5V @ 50mA max

Two-line control:

Control: TTL 0 = Low Loss
(Standard) TTL 1 = Isolation

E1 controls J2 - J1
E2 controls J3 - J1
E3 controls J4 - J1
E4 controls J5 - J1

MECHANICAL SPECIFICATIONS:

Case Style: S4 Outline (Standard logic)

S4-2 Outline (Two-line logic)

Finish: Gold plate per MIL-G-45204, Chem film per MIL-C-5541

Connectors: SMA Female per MIL-C-39012

Bias & Control Pins: $\phi 0.02" \times 0.15"$ long

Weight: 60g max

Mounting: $\phi 0.10"$ through holes (2) places

(-2 option)
E2 E1 Low loss path
0 0 J2 - J1
0 1 J3 - J1
1 0 J4 - J1
1 1 J5 - J1

Absorptive switch: Internal 50 Ω terminations at J2, J3, J4 and J5 (in isolation mode).

Switching speed is defined as 50%TTL to 90% (t-on) and 50%TTL to 10%RF (t-off).

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

SCREENING:

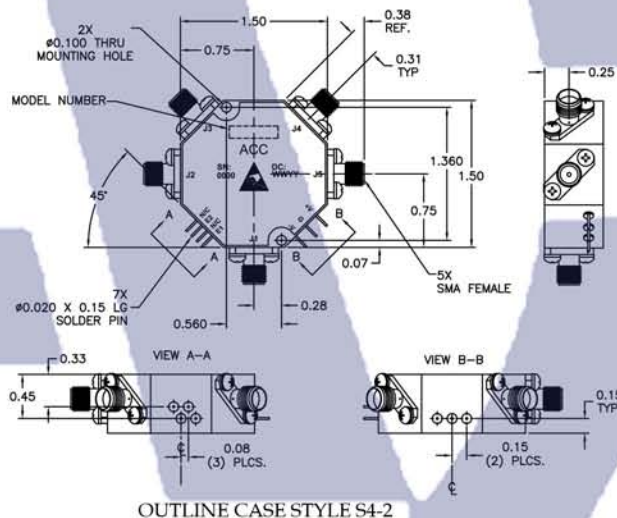
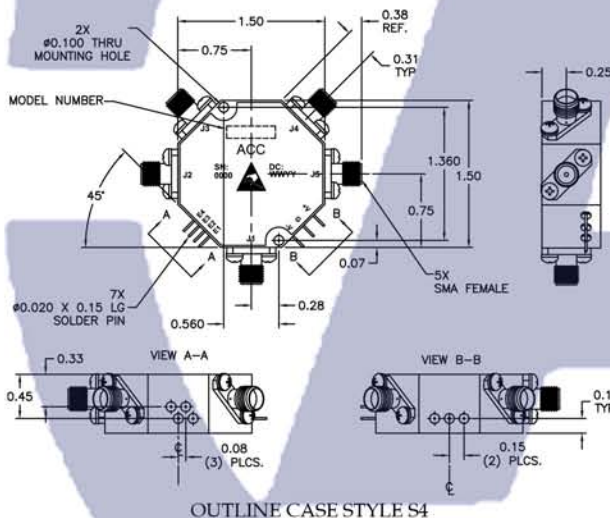
Internal Visual per MIL-STD-883, Method 2017

Temperature Cycle: -65°C to +100°C, 10 cycles

Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request.

Contact the factory to discuss your screening requirements.



PART NUMBER ORDERING INFORMATION:

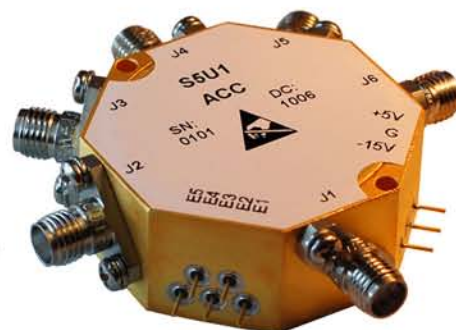
- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-2": Two-line logic control
- Add "-2-RC" suffix: Two-line logic control, RoHS-compliant
- Add "-2-5" suffix: Two-line logic control, +/-5V DC supplies
- Add "-2-5-RC" suffix: Two-line logic control, +/-5V DC supplies, RoHS-compliant
- Add "-2-12" suffix: Two-line logic control, +/-12V to 18V DC supplies
- Add "-2-12-RC" suffix: Two-line logic control, +/-12V to 18V DC supplies, RoHS-compliant
- Add "-H" suffix: Hermetic seal (does not apply to RoHS-compliant models)

CUSTOM OPTIONS - CONTACT FACTORY:

- Gray epoxy paint per MIL-C-22750
- Video transient suppression
- GPO connectors
- ECL logic input
- Phase and amplitude matching
- Other frequency ranges available from 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening

SINGLE - POLE, FIVE - THROW SWITCHES

The S5 series of single pole, five 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 -18V DC 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 military and aerospace applications.



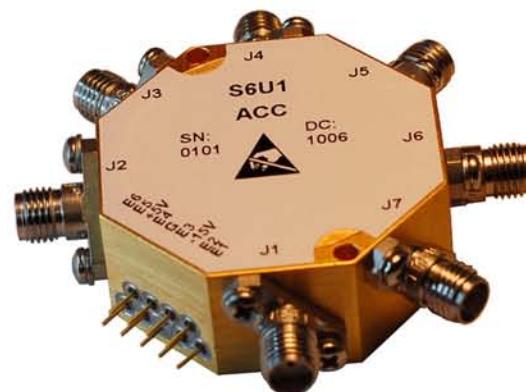
Frequency Range (GHz)	REFLECTIVE SWITCHES				ABSORPTIVE SWITCHES				Switching	
	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Speed (nsec max)	MAX RF (W CW)
0.01 - 0.1	S5H1R	1.1	1.5	75	S5H1	1.2	1.5	80	250	1
0.01 - 0.5	S5H2R	1.2	1.5	75	S5H2	1.3	1.5	80	250	1
0.01 - 1	S5H3R	1.5	1.5	75	S5H3	1.6	1.5	80	250	1
0.01 - 2	S5H4R	2.1	1.6	75	S5H4	2.2	1.6	80	250	1
0.01 - 4	S5H5R	2.9	1.8	75	S5H5	3.0	1.8	80	250	1
0.1 - 0.5	S5V1R	1.2	1.5	80	S5V1	1.3	1.5	80	250	1
0.1 - 1	S5V2R	1.5	1.5	80	S5V2	1.6	1.5	80	250	1
0.1 - 2	S5V3R	2.1	1.6	80	S5V3	2.2	1.6	80	250	1
0.1 - 4	S5V4R	2.9	1.8	75	S5V4	3.0	1.8	80	250	1
0.1 - 8	S5V5R	3.6	2.0	70	S5V5	3.8	2.0	75	250	0.5
0.1 - 10	S5V6R	3.9	2.0	70	S5V6	4.0	2.0	75	250	0.5
0.5 - 1	S5U1R	1.3	1.5	80	S5U1	1.4	1.5	80	100	1
0.5 - 2	S5U2R	1.7	1.6	80	S5U2	1.8	1.6	80	100	1
0.5 - 4	S5U3R	2.3	1.8	75	S5U3	2.4	1.8	80	100	1
0.5 - 6	S5U4R	2.6	1.9	70	S5U4	2.8	1.9	75	100	0.5
0.5 - 12	S5U5R	3.0	2.0	65	S5U5	3.2	2.0	70	100	0.5
0.5 - 18	S5U6R	3.6	2.0	60	S5U6	3.8	2.0	65	100	0.5
1 - 2	S5L1R	1.2	1.5	80	S5L1	1.3	1.5	85	100	1
1 - 4	S5L2R	1.5	1.6	80	S5L2	1.6	1.6	85	100	1
1 - 8	S5L3R	2.2	1.8	75	S5L3	2.3	1.8	80	100	0.5
1 - 10	S5L4R	2.3	2.0	70	S5L4	2.4	2.0	75	100	0.5
1 - 12	S5L5R	2.7	2.0	65	S5L5	2.8	2.0	70	100	0.5
1 - 14	S5L6R	3.0	2.0	65	S5L6	3.2	2.0	70	100	0.5
1 - 18	S5L7R	3.5	2.0	60	S5L7	3.9	2.0	65	100	0.5
2 - 4	S5S1R	1.4	1.6	70	S5S1	1.5	1.6	75	100	1
2 - 6	S5S2R	1.7	1.7	70	S5S2	1.8	1.7	75	100	0.5
2 - 8	S5S3R	2.1	1.8	70	S5S3	2.3	1.8	75	100	0.5
2 - 10	S5S4R	2.2	1.8	65	S5S4	2.4	1.8	70	100	0.5
2 - 12	S5S5R	2.7	1.9	65	S5S5	2.8	1.9	70	100	0.5
2 - 16	S5S6R	3.3	2.0	60	S5S6	3.5	2.0	65	100	0.5
2 - 18	S5S7R	3.5	2.0	60	S5S7	3.9	2.0	65	100	0.5
4 - 8	S5C1R	2.0	1.6	70	S5C1	2.3	1.6	75	100	0.5
4 - 10	S5C2R	2.1	1.7	65	S5C2	2.4	1.7	70	100	0.5
4 - 12	S5C3R	2.6	1.8	65	S5C3	2.8	1.8	70	100	0.5
4 - 16	S5C4R	3.2	2.0	60	S5C4	3.5	2.0	65	100	0.5
4 - 18	S5C5R	3.4	2.0	60	S5C5	3.6	2.0	65	100	0.5
6 - 10	S5C6R	2.2	1.7	65	S5C6	2.4	1.7	70	100	0.5
6 - 12	S5C7R	2.6	1.8	65	S5C7	2.8	1.8	70	100	0.5
6 - 18	S5C8R	3.4	2.0	60	S5C8	3.6	2.0	65	100	0.5
8 - 10	S5X1R	2.1	1.7	65	S5X1	2.4	1.7	70	100	0.5
8 - 12	S5X2R	2.5	1.8	65	S5X2	2.8	1.8	70	100	0.5
8 - 18	S5X3R	3.4	2.0	60	S5X3	3.6	2.0	65	100	0.5
10 - 18	S5K1R	3.4	2.0	60	S5K1	3.6	2.0	65	100	0.5
12 - 18	S5K2R	3.4	2.0	60	S5K2	3.6	2.0	65	100	0.5

Applications:

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

SINGLE - POLE, SIX - THROW SWITCHES

The S6 series of single pole, six 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 -18V DC 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 military and aerospace applications.



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	S6H1R	1.2	1.5	75	S6H1	1.3	1.5	80	250	1
0.01 - 0.5	S6H2R	1.3	1.5	75	S6H2	1.4	1.5	80	250	1
0.01 - 1	S6H3R	1.6	1.5	75	S6H3	1.7	1.5	80	250	1
0.01 - 2	S6H4R	2.2	1.6	75	S6H4	2.3	1.6	80	250	1
0.01 - 4	S6H5R	3.0	1.8	75	S6H5	3.1	1.8	80	250	0.5
0.1 - 0.5	S6V1R	1.3	1.5	80	S6V1	1.4	1.5	80	250	1
0.1 - 1	S6V2R	1.6	1.5	80	S6V2	1.7	1.5	80	250	1
0.1 - 2	S6V3R	2.2	1.6	80	S6V3	2.3	1.6	80	250	1
0.1 - 4	S6V4R	3.0	1.8	75	S6V4	3.1	1.8	80	250	0.5
0.1 - 8	S6V5R	3.7	2.0	70	S6V5	3.8	2.0	75	250	0.5
0.1 - 10	S6V6R	4.0	2.0	70	S6V6	4.1	2.0	75	250	0.5
0.5 - 1	S6U1R	1.5	1.5	80	S6U1	1.5	1.5	80	100	1
0.5 - 2	S6U2R	1.8	1.6	80	S6U2	1.9	1.6	80	100	1
0.5 - 4	S6U3R	2.4	1.8	75	S6U3	2.5	1.8	80	100	0.5
0.5 - 6	S6U4R	2.7	1.9	70	S6U4	3.0	1.9	75	100	0.5
0.5 - 12	S6U5R	3.2	2.0	65	S6U5	3.4	2.0	70	100	0.5
0.5 - 18	S6U6R	3.8	2.0	60	S6U6	4.1	2.0	65	100	0.5
1 - 2	S6L1R	1.3	1.5	80	S6L1	1.4	1.5	85	100	1
1 - 4	S6L2R	1.6	1.6	80	S6L2	1.7	1.6	85	100	0.5
1 - 8	S6L3R	2.3	1.8	75	S6L3	2.4	1.8	80	100	0.5
1 - 10	S6L4R	2.4	2.0	70	S6L4	2.5	2.0	75	100	0.5
1 - 12	S6L5R	2.9	2.0	65	S6L5	3.0	2.0	70	100	0.5
1 - 14	S6L6R	3.2	2.0	65	S6L6	3.4	2.0	70	100	0.5
1 - 18	S6L7R	3.7	2.0	60	S6L7	4.1	2.0	65	100	0.5
2 - 4	S6S1R	1.5	1.6	70	S6S1	1.6	1.6	75	100	0.5
2 - 6	S6S2R	1.8	1.7	70	S6S2	1.9	1.7	75	100	0.5
2 - 8	S6S3R	2.2	1.8	70	S6S3	2.4	1.8	75	100	0.5
2 - 10	S6S4R	2.3	1.8	65	S6S4	2.5	1.8	70	100	0.5
2 - 12	S6S5R	2.9	1.9	65	S6S5	3.0	1.9	70	100	0.5
2 - 16	S6S6R	3.5	2.0	60	S6S6	3.7	2.0	65	100	0.5
2 - 18	S6S7R	3.7	2.0	60	S6S7	4.0	2.0	65	100	0.5
4 - 8	S6C1R	2.1	1.6	70	S6C1	2.4	1.6	75	100	0.5
4 - 10	S6C2R	2.2	1.7	65	S6C2	2.5	1.7	70	100	0.5
4 - 12	S6C3R	2.8	1.8	65	S6C3	3.0	1.8	70	100	0.5
4 - 16	S6C4R	3.4	2.0	60	S6C4	3.7	2.0	65	100	0.5
4 - 18	S6C5R	3.6	2.0	60	S6C5	3.9	2.0	65	100	0.5
6 - 10	S6C6R	2.3	1.7	65	S6C6	2.5	1.7	70	100	0.5
6 - 12	S6C7R	2.8	1.8	65	S6C7	3.0	1.8	70	100	0.5
6 - 18	S6C8R	3.6	2.0	60	S6C8	3.9	2.0	65	100	0.5
8 - 10	S6X1R	2.2	1.7	65	S6X1	2.5	1.7	70	100	0.5
8 - 12	S6X2R	2.7	1.8	65	S6X2	3.0	1.8	70	100	0.5
8 - 18	S6X3R	3.6	2.0	60	S6X3	3.9	2.0	65	100	0.5
10 - 18	S6K1R	3.6	2.0	60	S6K1	3.9	2.0	65	100	0.5
12 - 18	S6K2R	3.6	2.0	60	S6K2	3.9	2.0	65	100	0.5

Applications:

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

NOTES:

DC Bias: +5V +/-0.5V @ 240mA max
(Standard) -15V +/-3V @ 50mA max

DC Bias: +5V +/-0.5V @ 300mA max
(-5 option) -5V +/-0.5V @ 60mA max

DC Bias: +15V +/-3V @ 240mA max
(-12 option) -15V +/-3V @ 50mA max

Control: TTL 0 = Low Loss
(Standard) TTL 1 = Isolation

E1 controls J2 - J1
E2 controls J3 - J1
E3 controls J4 - J1
E4 controls J5 - J1
E5 controls J6 - J1
E6 controls J7 - J1

Absorptive switch: Internal 50Ω terminations at J2, J3, J4, J5, J6 and J7 (in isolation mode).

Switching speed is defined as 50%TTL to 90% (t-on) and 50%TTL to 10%RF (t-off).

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 Style: S6 Outline (Standard logic)

S6-3 Outline (Three-bit logic)

Finish: Gold plate per MIL-G-45204

Connectors: SMA Female per MIL-C-39012

Bias & Control Pins: ø0.02" x 0.15" long

Weight: 65g max

Mounting: ø0.10" through holes (2) places

Three-bit control:
(-3 option)

E3	E2	E1	Low loss path
0	0	0	J2 - J1
0	0	1	J3 - J1
0	1	0	J4 - J1
0	1	1	J5 - J1
1	0	0	J6 - J1
1	0	1	J7 - J1
1	1	0	All off
1	1	1	All off

SCREENING:

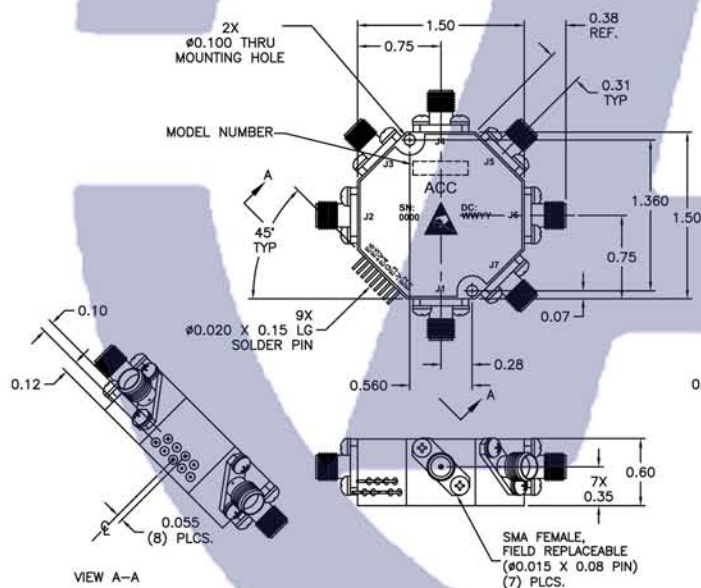
Internal Visual per MIL-STD-883, Method 2017

Temperature Cycle: -65°C to +100°C, 10 cycles

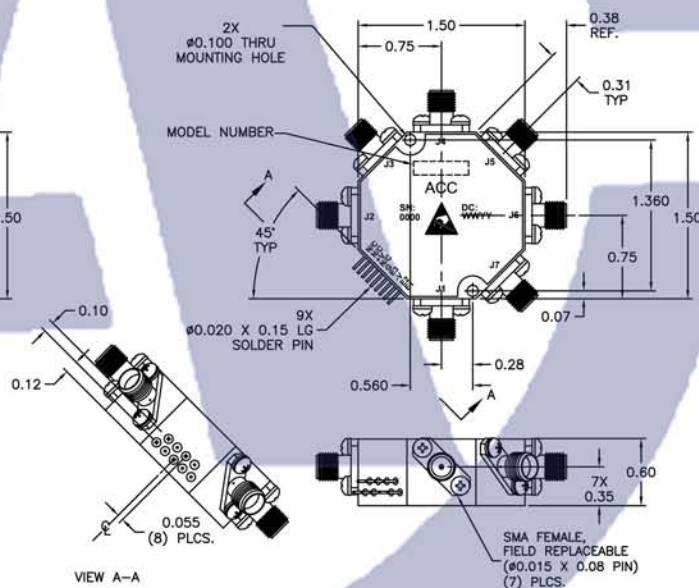
Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request.

Contact the factory to discuss your screening requirements.



OUTLINE CASE STYLE S6



OUTLINE CASE STYLE S6-3

PART NUMBER ORDERING INFORMATION:

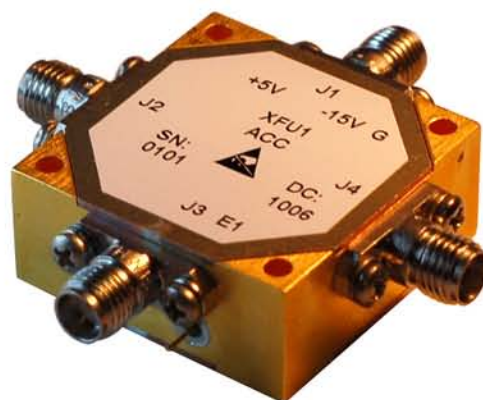
- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-3": Three-line logic control
- Add "-3-RC" suffix: Three-line logic control, RoHS-compliant
- Add "-3-5" suffix: Three-line logic control, +/-5V DC supplies
- Add "-3-5-RC" suffix: Three-line logic control, +/-5V DC supplies, RoHS-compliant
- Add "-3-12" suffix: Three-line logic control, +/-12V to 18V DC supplies
- Add "-3-12-RC" suffix: Three-line logic control, +/-12V to 18V DC supplies, RoHS-compliant

CUSTOM OPTIONS - CONTACT FACTORY:

- Gray epoxy paint per MIL-C-22750
- Video transient suppression
- GPO connectors
- ECL logic input
- Phase and amplitude matching
- Other frequency ranges available from 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening

TRANSFER SWITCHES

The XF series of PIN diode transfer switches span the frequency range of 10MHz to 18GHz. 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 -18V DC 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 military and aerospace applications.



Frequency Range (GHz)	Part Number	Insertion Loss (dB max)	VSWR (max)	Isolation (dB min)	Switching Speed (nsec max)	MAX RF (W CW)
0.01 – 0.1	XFH1	0.8	1.5	80	250	1
0.01 – 0.5	XFH2	1.0	1.5	80	250	1
0.01 – 1	XFH3	1.3	1.5	80	250	1
0.01 – 2	XFH4	1.9	1.6	80	250	1
0.01 – 4	XFH5	2.7	1.8	80	250	1
0.1 – 0.5	XFV1	1.0	1.5	80	250	1
0.1 – 1	XFV2	1.3	1.5	80	250	1
0.1 – 2	XFV3	1.9	1.6	80	250	1
0.1 – 4	XFV4	2.7	1.8	80	250	1
0.1 – 8	XFV5	3.4	2.0	75	250	1
0.1 – 10	XFV6	3.7	2.0	75	250	1
0.5 – 1	XFU1	1.1	1.5	80	100	1
0.5 – 2	XFU2	1.5	1.6	80	100	1
0.5 – 4	XFU3	2.1	1.8	75	100	1
0.5 – 6	XFU4	2.4	1.9	75	100	1
0.5 – 12	XFU5	2.8	2.0	70	100	0.5
0.5 – 18	XFU6	3.3	2.0	65	100	0.5
1 – 2	XFL1	1.0	1.5	80	100	1
1 – 4	XFL2	1.3	1.6	80	100	1
1 – 8	XFL3	2.0	1.8	80	100	1
1 – 10	XFL4	2.1	2.0	75	100	1
1 – 12	XFL5	2.2	2.0	70	100	0.5
1 – 14	XFL6	2.6	2.0	70	100	0.5
1 – 18	XFL7	3.1	2.0	65	100	0.5
2 – 4	XFS1	1.2	1.6	75	100	1
2 – 6	XFS2	1.5	1.7	75	100	1
2 – 8	XFS3	1.9	1.8	75	100	1
2 – 10	XFS4	2.0	1.8	70	100	1
2 – 12	XFS5	2.2	1.9	70	100	0.5
2 – 16	XFS6	2.9	2.0	65	100	0.5
2 – 18	XFS7	3.1	2.0	65	100	0.5
4 – 8	XFC1	1.9	1.6	75	100	1
4 – 10	XFC2	2.1	1.7	70	100	1
4 – 12	XFC3	2.2	1.8	70	100	0.5
4 – 16	XFC4	2.9	2.0	65	100	0.5
4 – 18	XFC5	3.0	2.0	65	100	0.5
6 – 10	XFC6	2.1	1.7	70	100	1
6 – 12	XFC7	2.2	1.8	70	100	0.5
6 – 18	XFC8	3.0	2.0	65	100	0.5
8 – 10	XFX1	2.1	1.7	70	100	0.5
8 – 12	XFX2	2.2	1.8	70	100	0.5
8 – 18	XFX3	3.0	2.0	65	100	0.5
10 – 18	XFK1	3.0	2.0	65	100	0.5
12 – 18	XFK2	3.0	2.0	65	100	0.5

Applications:

- EW Systems
- Communications Systems
- Diversity Control
- Test Equipment
- Electronic Simulators

NOTES:

DC Bias: +5V +/-0.5V @ 100mA max
(Standard) -15V +/-0.3V @ 100mA max

DC Bias: +5V +/-0.5V @ 120mA max
(-5 option) -5V +/-0.5V @ 120mA max

DC Bias: +15V +/-0.3V @ 100mA max
(-12 option) -15V +/-0.3V @ 100mA max

Control: TTL 0: J1-J2, J3-J4 Low Loss
J1-J4, J2-J3 Isolation
TTL 1: J1-J4, J2-J3 Low Loss
J1-J2, J3-J4 Isolation

Switching speed is defined as 50% TTL to 90% (t-on) and 50% TTL to 10% RF (t-off).

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 Style: XF Outline

Finish: Gold plate per MIL-G-45204, Chem film per MIL-C-5541

Connectors: SMA Female per MIL-C-39012

Bias & Control Pins: ø0.02" x 0.15" long

Weight: 35g max

Mounting: ø0.10" through holes (4) places

SCREENING:

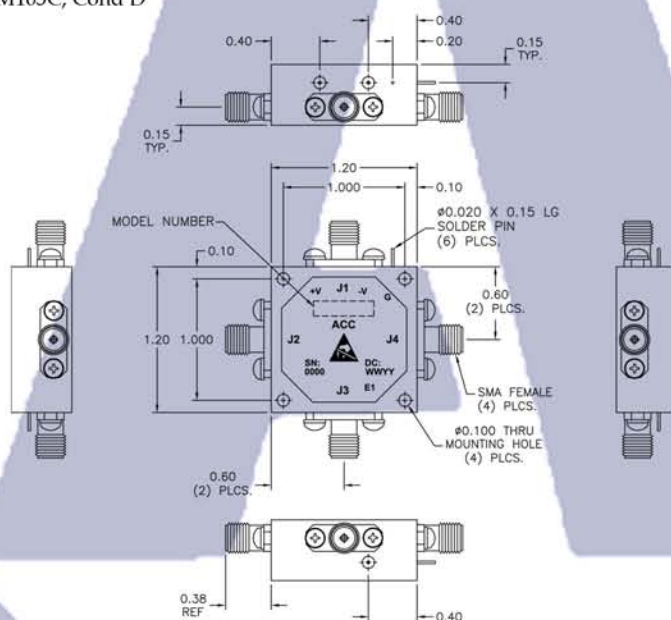
Internal Visual per MIL-STD-883, Method 2017

Temperature Cycle: -65°C to +100°C, 10 cycles

Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request.

Contact the factory to discuss your screening requirements.



OUTLINE CASE STYLE XF

PART NUMBER ORDERING INFORMATION:

- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-H" suffix: Hermetic seal (does not apply to RoHS-compliant models)

CUSTOM OPTIONS - CONTACT FACTORY:

- Gray epoxy paint per MIL-C-22750
- Video transient suppression
- GPO connectors
- ECL logic input
- Phase and amplitude matching
- Other frequency ranges available from 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening



Custom Switch Products
Designed to Meet any
Requirement

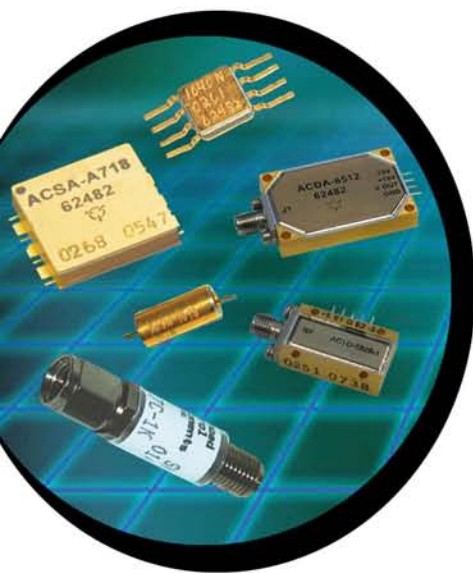
Fully Automated
Component Testing
to 40 GHz

Linear and Non-Linear
Analysis Tools

Complete Design
Capabilities Including
Microwave & 3D Mechanical

ISO-9001:2008 Certified



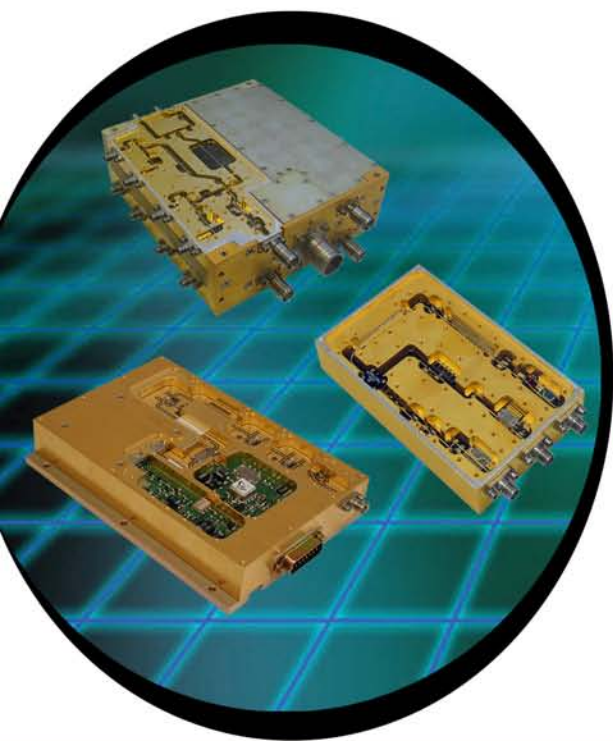
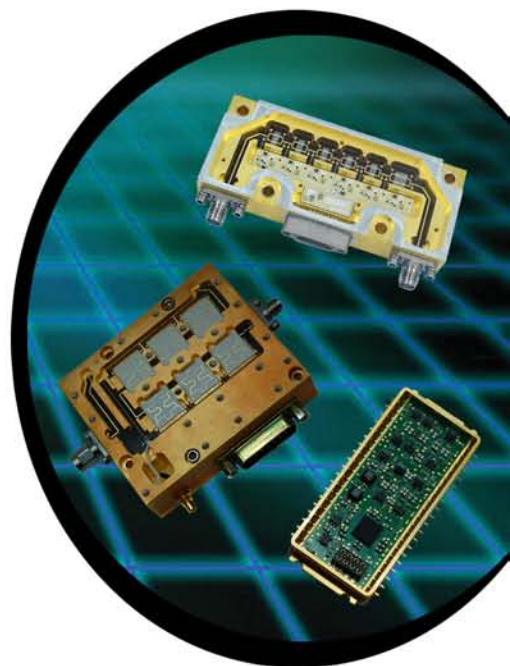


Limiters & Detectors

ACC offers a complete line of Limiter and Detector products from 20 MHz to over 18GHz. Our limiter line includes products from 2W to 100W CW in many package styles including connectorized and surface mount types. We also offer custom limiter and detector designs to fit the exact need and application of our customers.

Attenuators & Phase Shifters

Complimentary to our switch product line, ACC offers standard and custom Solid State Attenuators and Phase Shifters. Our Digital Attenuators are available up to 10 BIT designs and cover attenuation ranges of up to 127dB. In addition to our Digital Attenuators, ACC offers Current and Voltage Controlled Attenuators and Phase Shifters.



Integrated Assemblies

ACC has extensive experience in multifunction microwave assemblies including: High Power T/R Switches, Switch Matrices, Frequency Converters, Multiport Antenna Steering Systems, and Switched Amplifiers

Advanced Control Components reserves the right to change product specifications in this catalog with out notice.



ADVANCED CONTROL COMPONENTS

611 Industrial Way West Eatontown, New Jersey 07724, U.S.A.

<http://www.advanced-control.com/>

Email us at: sales@advanced-control.com

Custom Switch Products

