

# XFS1 Transfer Switch

Double Pole, Double Throw

**COBHAM**

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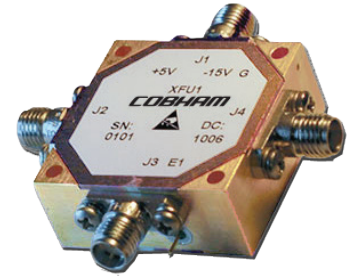
The most important thing we build is trust

## DESCRIPTION:

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.

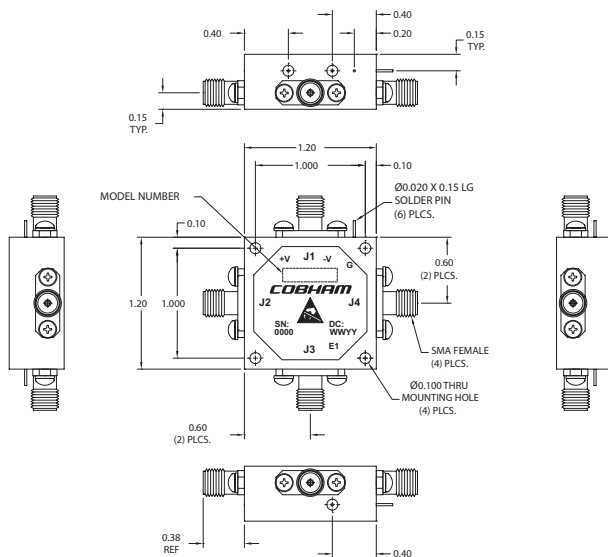


## SPECIFICATIONS:

Parameter	Specification	Unit of Measure
Frequency Range	2 – 4	GHz
Insertion Loss (max)	1.2	dB
VSWR (max) (50 ohms)	1.6	ratio
Isolation (min)	75	dB
Switching Speed (max)	100	nsec
CW RF Power, Survival	30	dBm
P1dB*	27	dBm

\*Standard bias configuration

## OUTLINE DRAWING:



OUTLINE CASE STYLE XF

## FEATURES:

- TTL-compatible drivers for convenient system integration
- Operates on +5V or +15V and -5V or -15V DC power supplies (see ordering information)
- DC blocks at all RF ports
- Ruggedized construction
- Hermetic versions available
- All parts receive internal visual (per MIL-STD-883) and temp cycle (-40 °C to 100 °C, 10 cycles)
- Hi-Rel screening available upon request
- 30-day lead time on some configurations (contact factory for details)

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## NOTES:

DC Bias: (Standard)	+5 V +/- 0.5 V @ 100 mA max -15 V +/- 3 V @ 100 mA max
DC Bias: (-5 option)	+5 V +/- 0.5 V @ 120 mA max -5 V +/- 0.5 V @ 100 mA max
DC Bias: (-12 option)	+15 V +/- 3 V @ 120 mA max -15 V +/- 3 V @ 100 mA 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% RF (t-on) and 50% TTL to 10% RF (t-off).

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

Weight: 35 g max

## ENVIRONMENTAL SPECIFICATIONS\*:

MIL-E-5400, MIL-STD-202, MIL-E-16400
Operating Temp: -40 °C to +71 °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

\* Compliant by design, verification optional

## PART NUMBER ORDERING INFORMATION:

- Add "-RC" suffix: RoHS-compliant
- Add "-H" suffix: Hermetic seal
- Add "-5" suffix: +/- 5V DC supplies
- Add "-5-RC" suffix: +/- 5V DC supplies, RoHS-compliant
- Add "-5-H" suffix: +/- 5V DC supplies, Hermetic seal
- Add "-12" suffix: +/- 15V DC supplies
- Add "-12-RC" suffix: +/- 15V DC supplies, RoHS-compliant
- Add "-12-H" suffix: +/- 15V DC supplies, Hermetic seal

## ISO 9001:2008 and AS9100 certified

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