



# RF Switches

## Space Qualified

## SW-58X Series

### Electrical Specifications

Part #	SW-580 SPDT Switch	SW-582 Transfer Switch	SW-584 SP3T Switch	SW-581 Pulse Modulator	SW-583 Pulse Modulator
<b>Frequency Range</b>	5-1000 MHz	2-100 MHz	5-100 MHz	70-900 MHz	900-1000 MHz
<b>Insertion Loss</b>	1.3 dB Max	1.8 dB Max	1.4 dB Max	4.5 dB Max	4.5 dB Max
<b>VSWR</b>	1.6:1 Max	1.5:1 Max	1.6:1 Max	1.7:1 Max	1.7:1 Max
<b>Isolation</b>	40 dB Max	50 dB Max	40 dB Max	60 dB Max	55 dB Max
<b>Switching Characteristics</b>					
t On	2.0 mSec	—	2.0 mSec	—	—
t Off	1.0 mSec	—	1.0 mSec	—	—
Rise Time	—	—	—	2.4 mSec	2.0 mSec
<b>Input Power</b>	+13 dBm	0 dBm Max	+13 dBm	0 dBm Max	0 dBm Max
<b>Bias Power</b>	35 mA @ +9 to +15 V 35 mA @ -5 V	25 mA @ +12 to +15 V —	45 mA @ +9 to +15 V 25 mA @ -5 V	ON: +20 mA Max OFF: -20 mA Max	ON: +20 mA Max OFF: 0 to -20 mA Max
<b>Package</b>	14 Pin DIP	24 Pin DIP	16 Pin DIP	0.7 x 1.10 Flatpak	0.74 x 1.10 Flatpak

Specifications Subject to Change Without Notice.

M/A-COM Inc. ■

1011 Pawtucket Boulevard, Lowell, MA 01853 USA ■

Telephone: 800-366-2266

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Test Step	Mil Spec	Method	Condition
<b>100% Screening</b>			
Initial Electrical	Per Detail Spec		
Stabilization Bake	Mil-Std-883C	1008	B
Temperature Cycling	Mil-Std-883C	1010	B
Constant Acceleration	Mil-Std-883C	2001	B
PIND	Mil-Std-883C	2020	A or B
Interim Electrical	Per Detail Spec		
High Temp Burn-In (240 Hours)	Mil-Std-883C	1015	B, D, or E
Final Electrical	Per Detail Spec		
Radiographic	Mil-Std-883C	2012	
Seal Test			
Fine Leak	Mil-Std-883C	1014	A
Gross Leak	Mil-Std-883C	1014	C
External Visual	Mil-Std-883C	2009	

<b>Quality Conformance Tests*</b>			
<b>Group IIC</b>			
Thermal Shock	Mil-Std-202	204	D
Temperature Cycling	Mil-Std-883C	1010	B
Moisture Resistance	Mil-Std-883C	1004	
Seal Test			
Fine Leak	Mil-Std-883C	1014	A
Gross Leak	Mil-Std-883C	1014	C
Acceleration	Mil-Std-883C	2001	B
Vibration	Mil-Std-883C	2007	A
Seal Test			
Fine Leak	Mil-Std-883C	1014	A
Gross Leak	Mil-Std-883C	1014	C
External Visual	Mil-Std-883C	2009	
<b>Group IIIC</b>			
Resistance to Solvents	Mil-Std-883C	2015	
Solderability	Mil-Std-883C	2003	
Leads Integrity	Mil-Std-883C	2004	B2
Seal Test			
Fine Leak	Mil-Std-883C	1014	A
Gross Leak	Mil-Std-883C	1014	C
External Visual	Mil-Std-883C	2009	
<b>Group IV</b>			
Operating Life (1000 Hours)	Mil-Std-883C	1015	B, D, or E

\* Qualification Testing was successfully performed on the SW-582.  
The SW-580, SW-581, SW-583 and SW-584 were qualified by similarity to the SW-582.

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