

**SPECIFICATION SHEET**

**JFW MODEL 50S-2144**

**1P4T SELF TERMINATING SOLID STATE RF SWITCH**

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Frequency Range 20-8400 MHz  
Configuration 1P4T Self Terminating  
Impedance 50 Ohms nominal  
VSWR 1.30:1 typical 20-4000 MHz  
1.50:1 typical 4000-8400 MHz  
1.80:1 maximum 20-8400 MHz

Insertion Loss 1.4 dB typical @ 20 MHz  
1.8 dB typical @ 2000 MHz  
2.2 dB typical @ 4000 MHz  
2.7 dB typical @ 6000 MHz  
3.9 dB typical @ 8400 MHz  
4.5 dB maximum 20-8400 MHz

Isolation 100 dB typical @ 20 MHz  
81 dB typical @ 2000 MHz  
72 dB typical @ 4000 MHz  
69 dB typical @ 6000 MHz  
57 dB typical @ 8400 MHz  
50 dB minimum 20-8400 MHz

RF Input Power +26 dBm average (Hot Switchable)

Switching Speed 10 microseconds maximum  
(50% TTL to 10% or 90% RF) 7.0 microseconds typical (OFF-ON)  
0.3 microseconds typical (ON-OFF)

Control Logic (3 Binary Coded TTL Lines)	State	C1	C2	C3
J1-COM	0	0	0	0
J2-COM	1	0	0	0
J3-COM	0	1	0	0
J4-COM	1	1	0	0
ALL OFF	0	0	0	1

TTL "Low" (0-0.8 Vdc)  
TTL "High" (2.0-5.0 Vdc)

DC Supply +5 Vdc @ 10 mA nominal

DC Connector MOLEX #22-11-2052  
(mates to MOLEX #22-01-3057)

RF Connector SMA female

Temperature Ranges -40°C to +85°C (operating)  
-55°C to +90°C (storage)

Physical Size See outline drawing 092-9986

ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
	05/20/2021		BAC 05/20/2021				
32214	11/03/2022	A	BAC 11/04/2022				
32684	06/28/2023	B	BAC 06/28/2023				