SUPERIOR PERFORMANCE SINCE 1965

MtronPTI®

SA0071 Switched LC Filter Assembly

FEATURES

Switch Filter Bank

High Power Handling

APPLICATIONS

Avionics

Electronic Warfare

SPECIFICATIONS

Parameter	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
Lower Passband Frequency	30MHz	43MHz	62MHz	118MHz	143MHz	225MHz	340MHz
Upper Passband Frequency	43MHz	62MHz	88MHz	143MHz	174MHz	340MHz	512MHz
Insertion Loss (dB)	≤ 1.4dB						
Amplitude Ripple (dB)							
Over Any 25kHz Segment Within the Passbands	< 0.05						
Over Any 1.2MHz Segment (225MHz to 400MHz)						<0.1	
Over Any 5MHz Segment (280MHz to 320MHz)						<0.1	
Over Any 5MHz Segment (400MHz to 450MHz)							< 0.1
Group Delay Variation (*ηsec*)							
Over Any 25kHz Segment Within the Passbands	< 1*ηsec*						
Over Any 1.2MHz Segment (225MHz to 400MHz)							< 1*ηsec*
Over Any 5MHz Segment (280MHz to 320MHz)						< 1*ηsec*	
Over Any 5MHz Segment (400MHz to 450MHz)							< 1*ηsec*
Rejection 2nd Harmonic thru 5th Harmonic	≥ 50dBc						
5th Harmonic thru 2500MHz	≥ 25dBc						
5th Harmonic thru 4000MHz						≥ 25dBc	
Peak Power (@ 70000-ft, dBm)							
Over 30MHz to 88MHz	+50, 1-sec pulse, 17% Duty Cycle						
Over 118MHz to 174MHz				+50, 50*μsec* pulse, 1% Duty Cycle			
Over 225MHz to 400MHz						+50, 50*μsec* pulse, 1% Duty Cycle	
Over 400MHz to 512MHz							+57, 50*μsec* pulse, 1% Duty Cycle
Average Power (@ 70000-ft, dBm)							
Over 30MHz to 88MHz	+42						
Over 118MHz to 174MHz				+42			
Over 225MHz to 400MHz						+42	
Over 400MHz to 450MHz							+42
Over 450MHz to 512MHz							+38
Switching Time	≤ 50*μsec*						
Z_S/Z_L, nominal	50Ω						

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Temperature Range

Operating: -40°C to +105°C

Storage: -55°C to +125°C

Altitude: ≤ 70,000-ft

Power:

+90V_{DC} @ 15*mA* maximum

+3V_{DC} @ 150*mA* maximum

Package:

Size: 3.20” (L) x 2.95” (W) x 0.35” (H) nominal

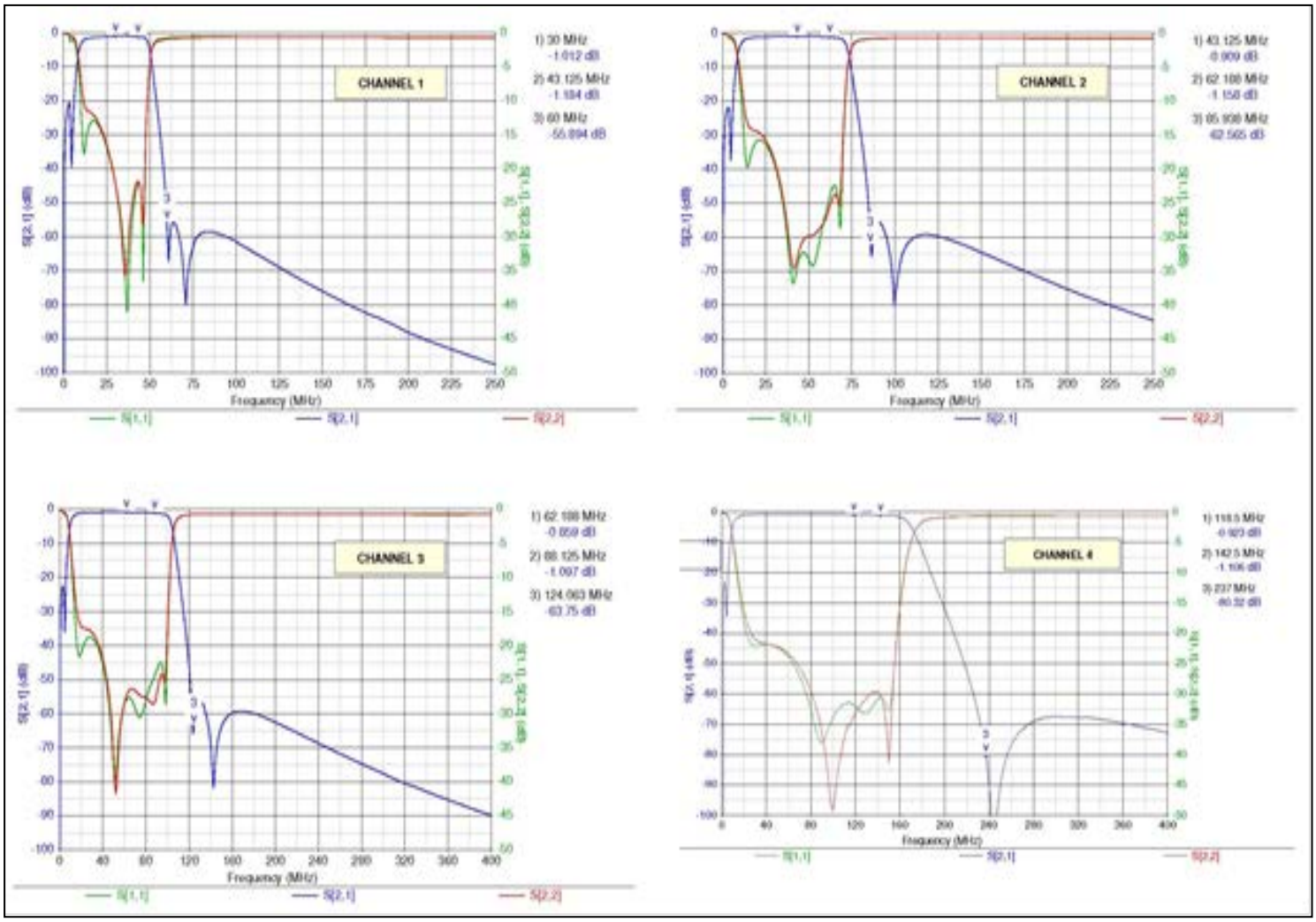
Type: Chassis Mount

Control Interface: Seven (7) control lines, only one (1) can be on (0V) at any one time.

On: 0V @ 150*mA* maximum

Off: +90V @ 2*mA* maximum

Representative Plots



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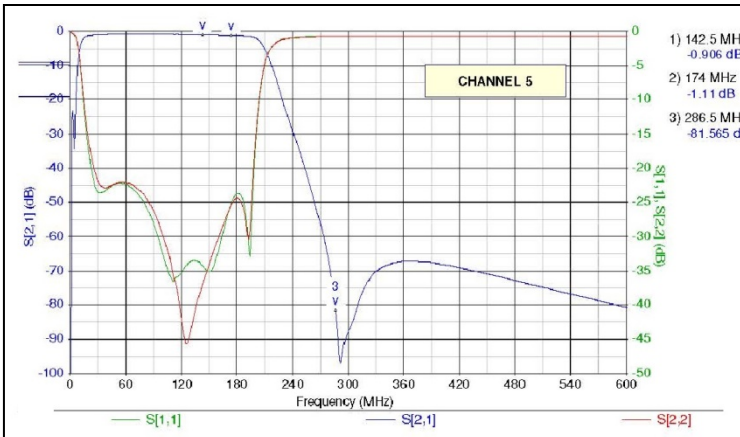

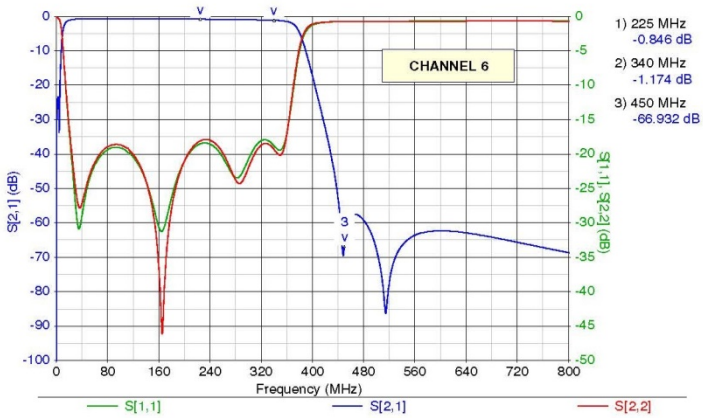

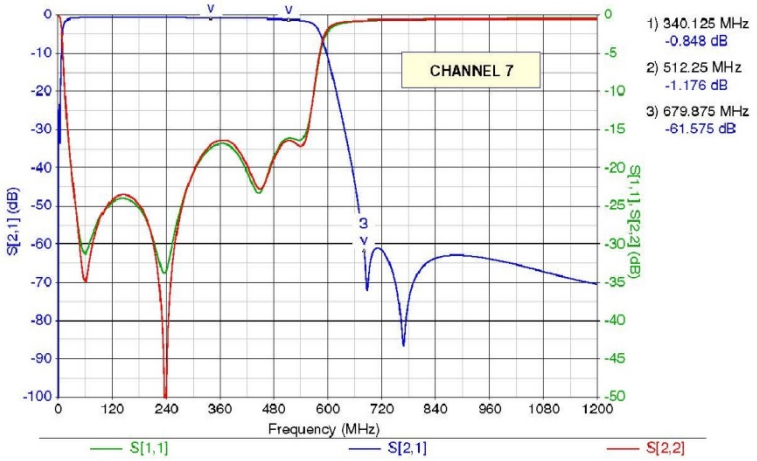

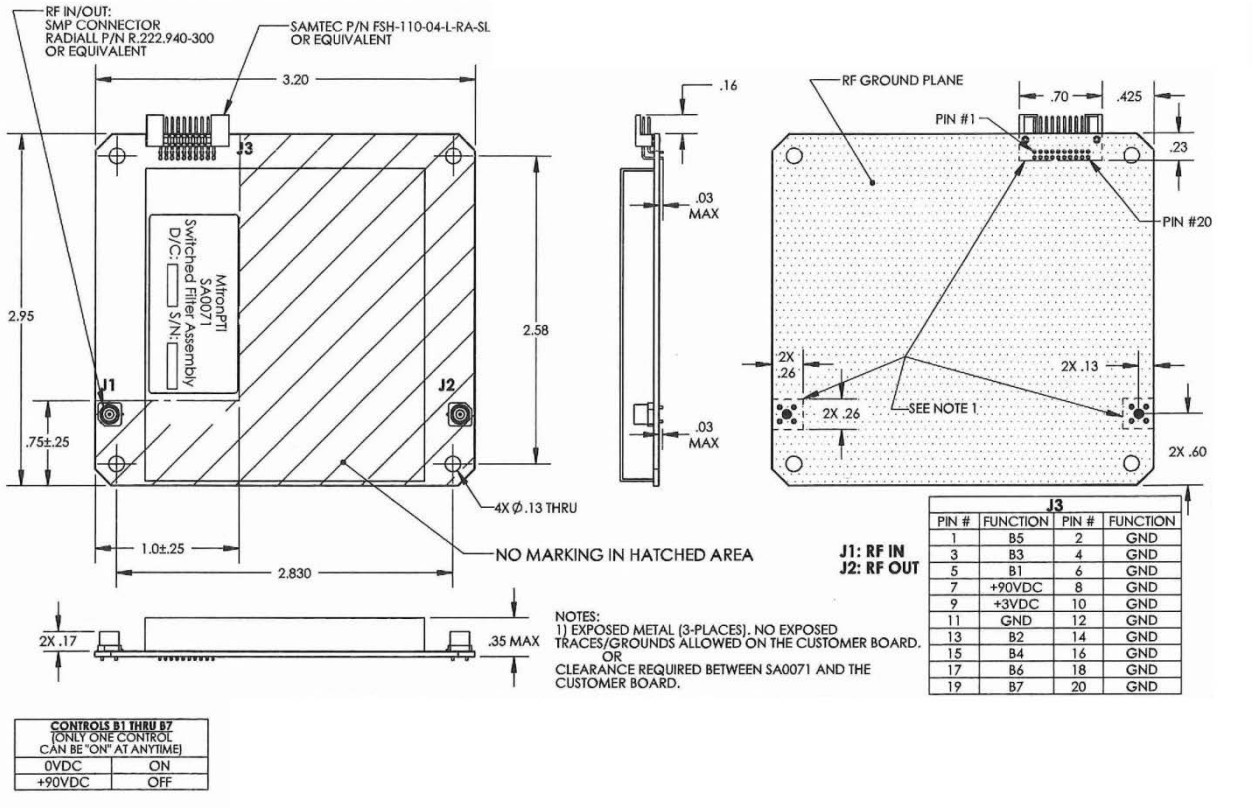

J3			
PIN #	FUNCTION	PIN #	FUNCTION
1	B5	2	GND
3	B3	4	GND
5	B1	6	GND
7	+90VDC	8	GND
9	+3VDC	10	GND
11	GND	12	GND
13	B2	14	GND
15	B4	16	GND
17	B6	18	GND
19	B7	20	GND

CONTROLS B1 THRU B7 (ONLY ONE CONTROL CAN BE "ON" AT ANYTIME)	
0VDC	ON
+90VDC	OFF