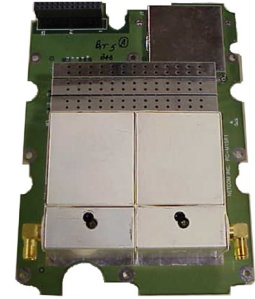


Specifications



FEATURES

Netcom's 5920 is a cavity based tunable bandpass filter covering the frequency range of 225 to 450MHz. This filter is a digitally tuned 2-pole RF filter.

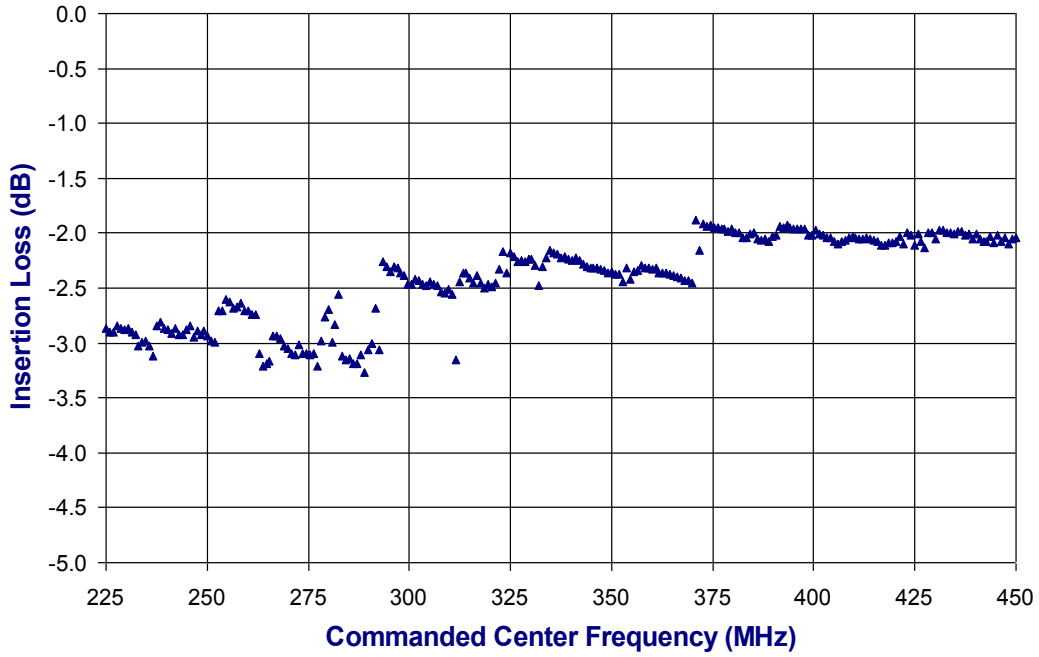
Tunable filters are typically employed in an advanced RF communication system where transmitting and receiving signal frequency varies under a pre-defined or random sequence. This technique is primarily utilized for data and voice security.

Model 5920 meets military requirements for vibration and shock.

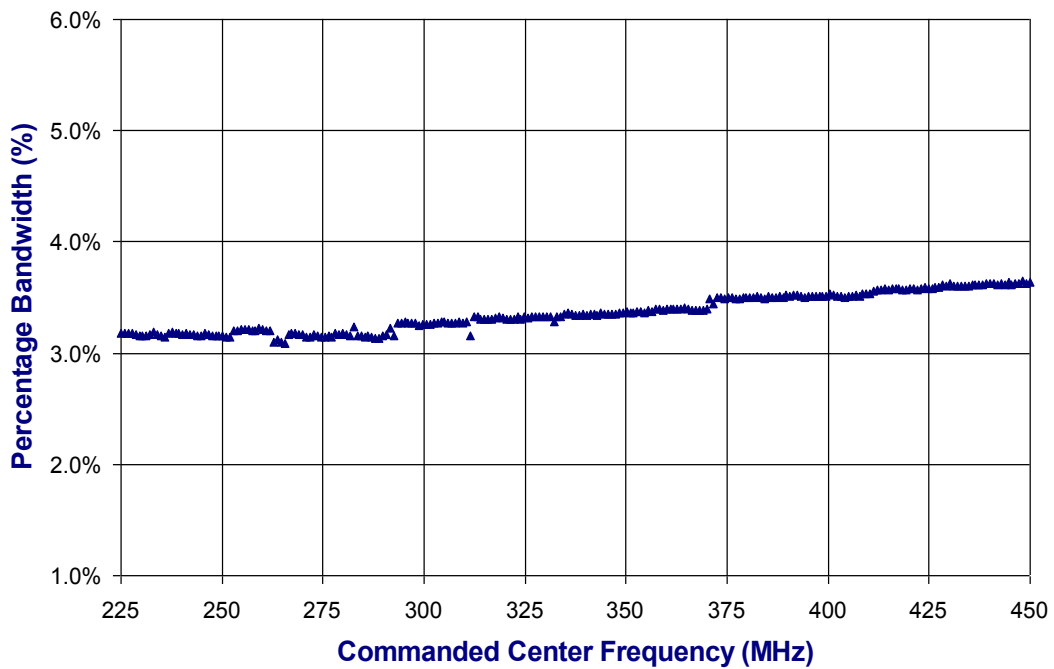
Frequency Range	225 to 450 MHz
Frequency Tuning Increment	0.90 MHz
Input / Output Impedance	50 Ω
RF Power Rating	
Power Handling	1 W
Filter Bandwidth, 3 dB	3.5%
Insertion Loss (Avg)	≤ 4 dB
Return Loss - Typical	15 dB
Second Harmonic Rejection	≥ 65 dB
VSWR	2.2:1
Inband Third Order Intercept Point	+37 dBm
Tuning Channels	250
Switching Speed	35 μ sec max
Out of Band Attenuation	$f_0 \pm 2.8\% \leq 6$ dB $f_0 \pm 6.1\% \leq 13$ dB $f_0 \pm 15.8\% \leq 31$ dB
DC Inputs	
+5 VDC Forward Bias	400 mA
+100 VDC Reverse Bias	5.0 mA
Operating Temperature Range	-30 to +85 $^{\circ}$ C
External Control Interface	8-Bit Serial
RF Connectors	SMA
Requires External Power Supply	
Dimensions	2.8 x 2.0 x 0.5 inches

Performance

Filter Insertion Loss

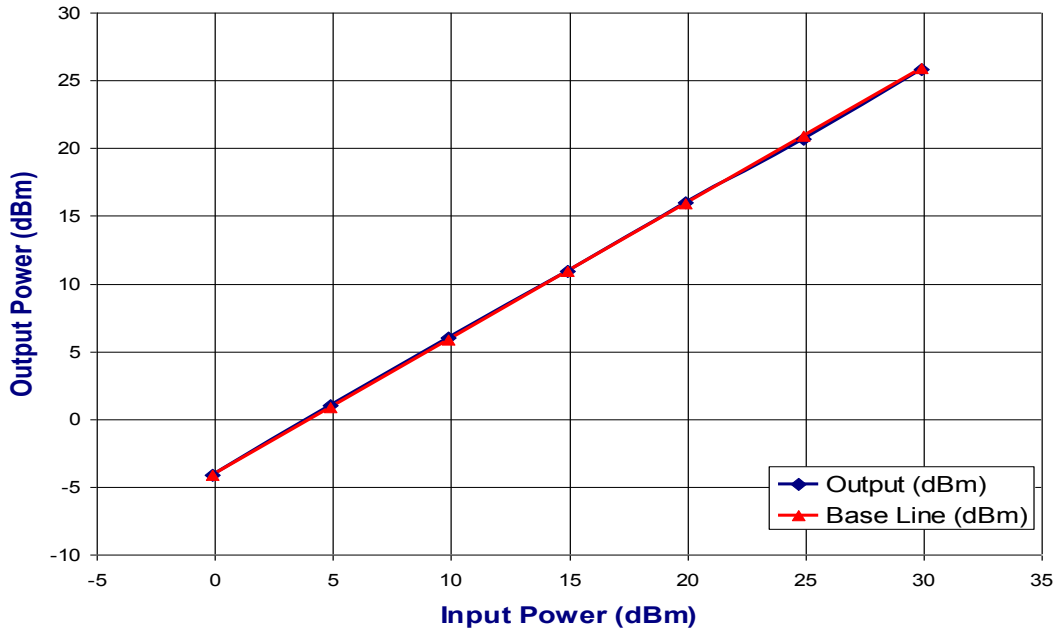


Filter Percentage Bandwidth

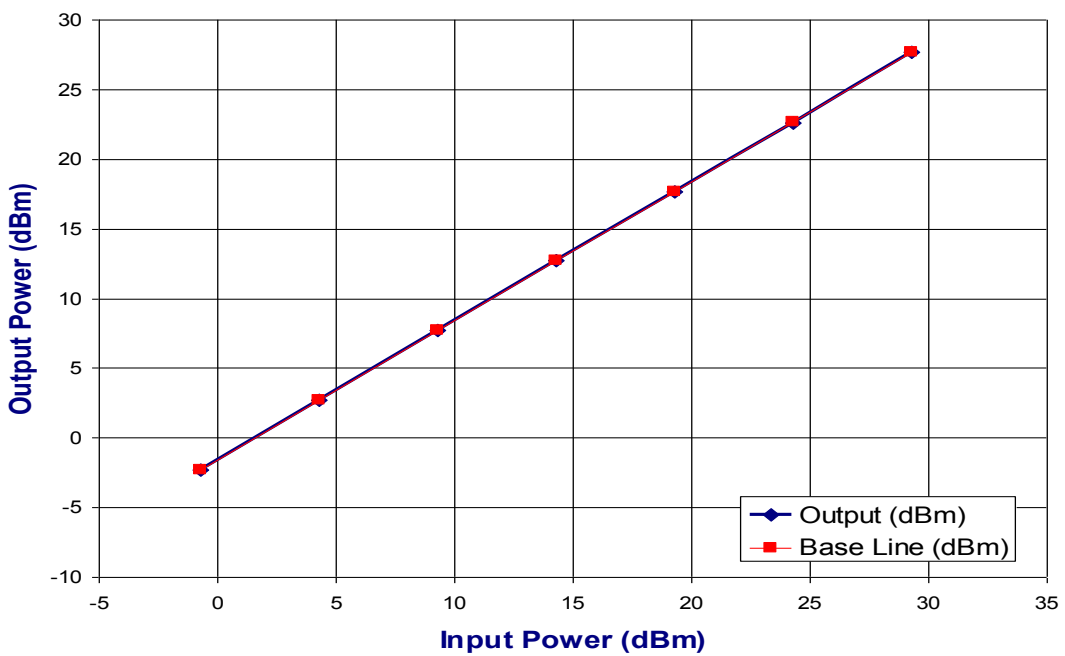


Compression

225 MHz 1-dB

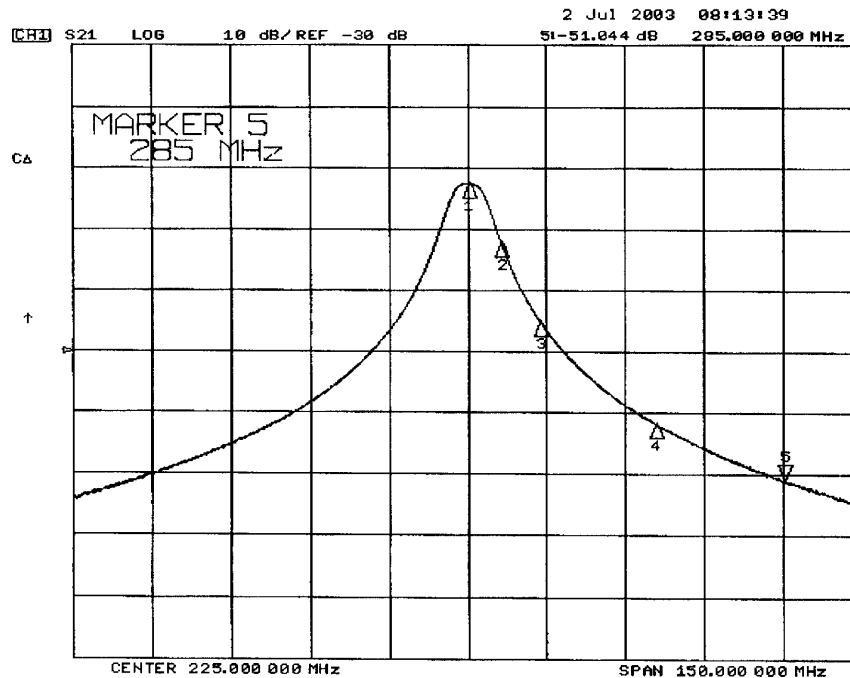


450 MHz 1-dB



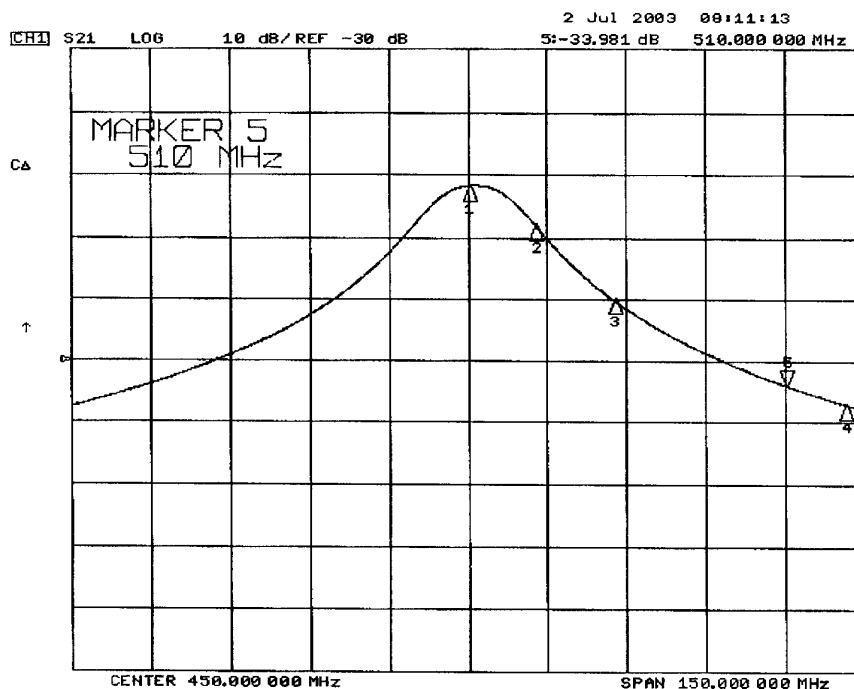
Performance (cont.)

Filter Response at 225 MHz



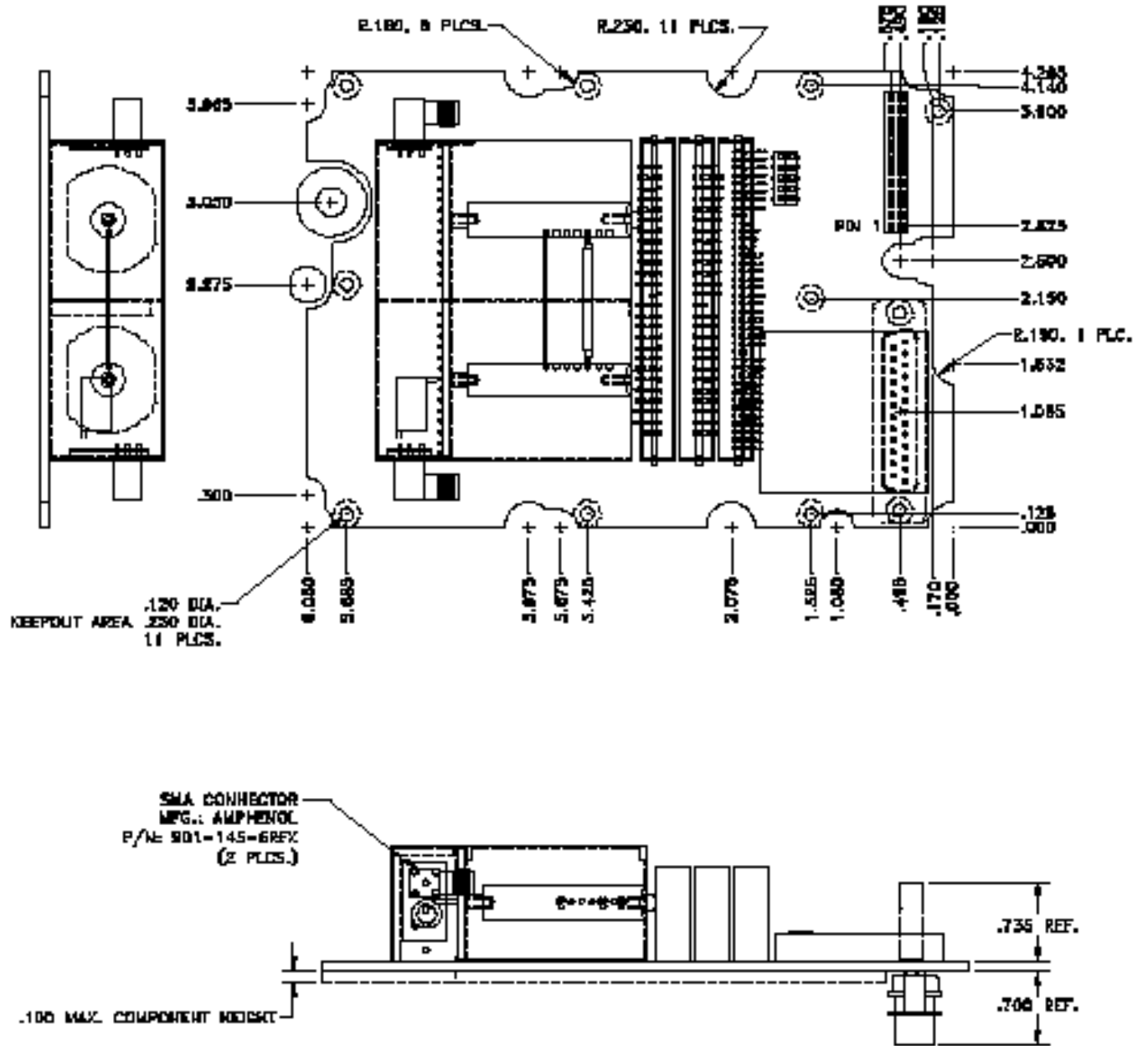
- 1: -2.5409 dB @ 225.000 MHz
- 2: -12.173 dB @ 231.300 MHz
- 3: -25.145 dB @ 238.730 MHz
- 4: -41.749 dB @ 260.550 MHz
- 5: -51.044 dB @ 285.000 MHz

Filter Response at 450 MHz



- 1: -1.7595 dB @ 450.000 MHz
- 2: -7.9650 dB @ 462.600 MHz
- 3: -20.031 dB @ 477.450 MHz
- 4: -36.987 dB @ 520.100 MHz
- 5: -33.981 dB @ 510.000 MHz

Mechanical



*Custom Mechanical Designs available upon request.



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