



Specification for a 160MHz Narrow Band Filter

MtronPTI P/N: LF9834R

I. General & Electrical Requirements

Parameter	Units	Specification		
		Min	Typ	Max
Center Frequency (average of 2 dB points)	[MHz]	159.3	160	160.7
Temperature Coefficient of Frequency	[ppm/°C]		TBC	
"Flat" Frequency Range BW	[MHz]	10		14
Insertion Loss in "Flat" Range	[dB]		5	7
IL Pk-Pk Ripple in "Flat" Range	[dB]			0.6
VSWR (in "Flat" Range)	[dB]			1.5:1
2 dB BW	[MHz]			18
32 dB BW	[MHz]			30
Ultimate Frequency Range1	[MHz]	DC to 140		180 to 2500
Ultimate Rejection1	[dB]	45		
Maximum Input Power w/o Performance Degradation	[dBm]		20	
Maximum Input Power - w/o Permanent Damage	[dBm]		25	

Z_{IN}/Z_{OUT} : 50Ω nominal

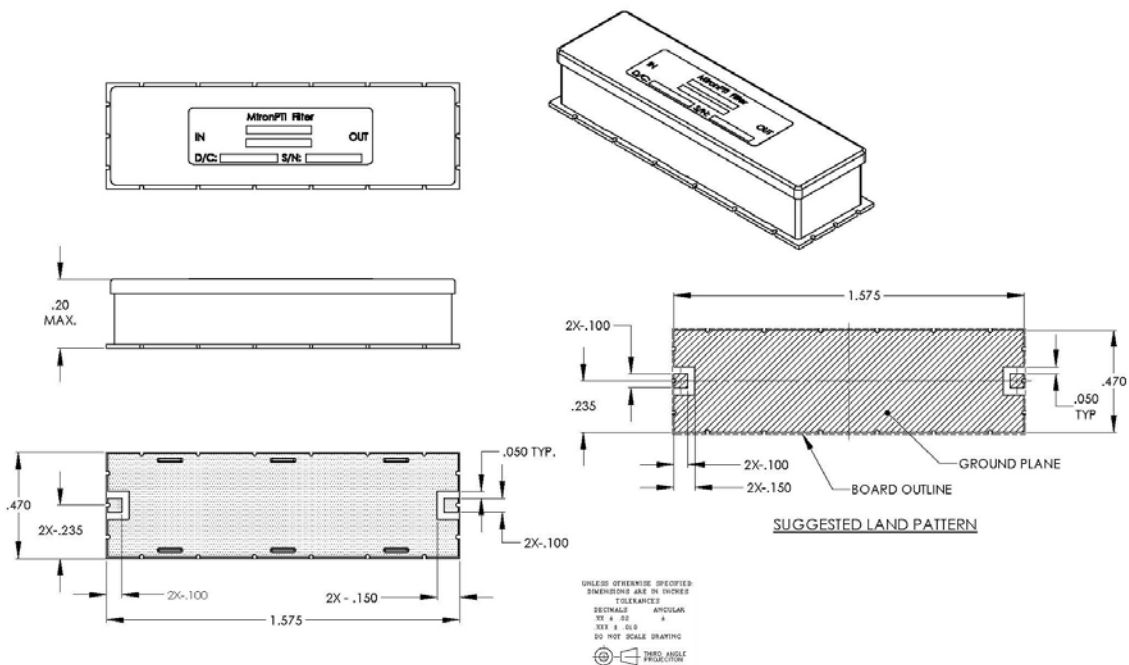
II. Environmental & Physical Requirements:

Temperature Range:

Operating: -40°C to +100°C

Storage: -55°C to +125°C

Moisture Sensitivity Level (MSL): 1





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Cover material: 0.016+.002” Brass per ASTM B36 Alloy C26000 H02 or equivalent, plated with 0.2 mil copper undercoat and silver plate 0.3mil minimum final coat.

PCB material is Rogers 4350. Terminations are ENIG per IPC-4552.

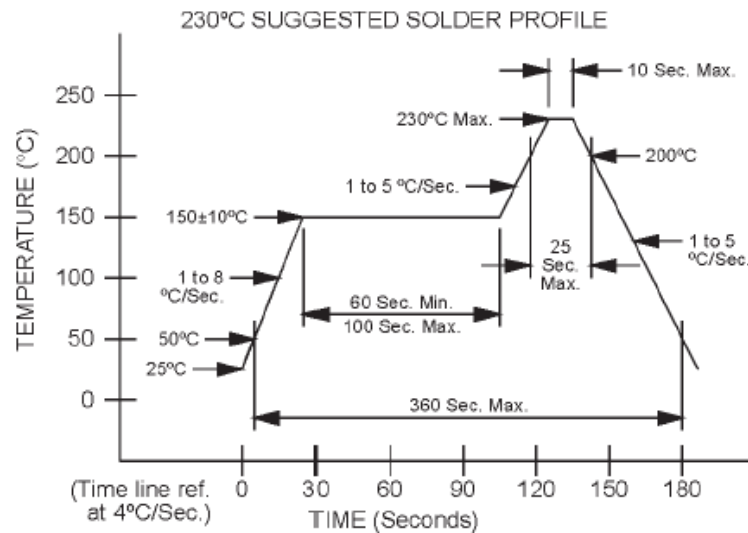
Mechanical Shock: MIL-STD-202, Method 213, Condition C

Performance Random Vibration: 50 to 1000MHz: 0.35g²/Hz, 1000 to 2000Hz: 6dB/Octave roll off.

Overall: 23GRMS Min

Endurance Random Vibration: 50 to 1000MHz: 1.10 g²/Hz, 1000 to 2000Hz: 6dB/Octave roll off.

Overall: 40GRMS Min



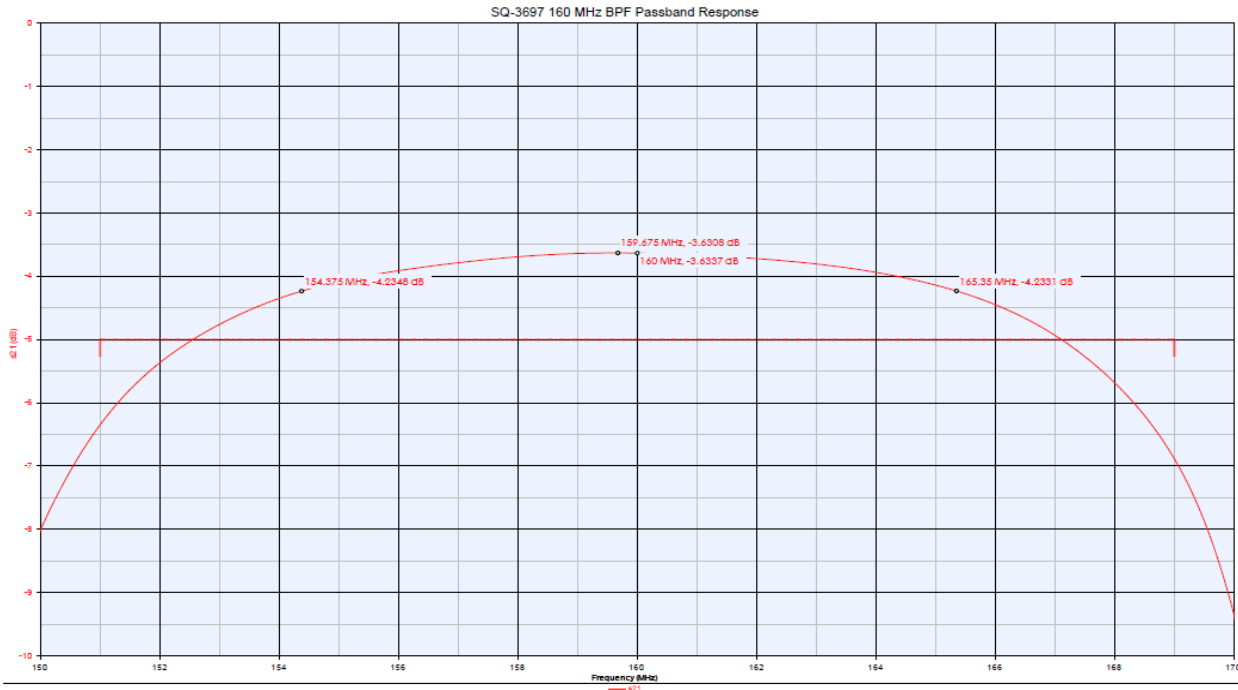
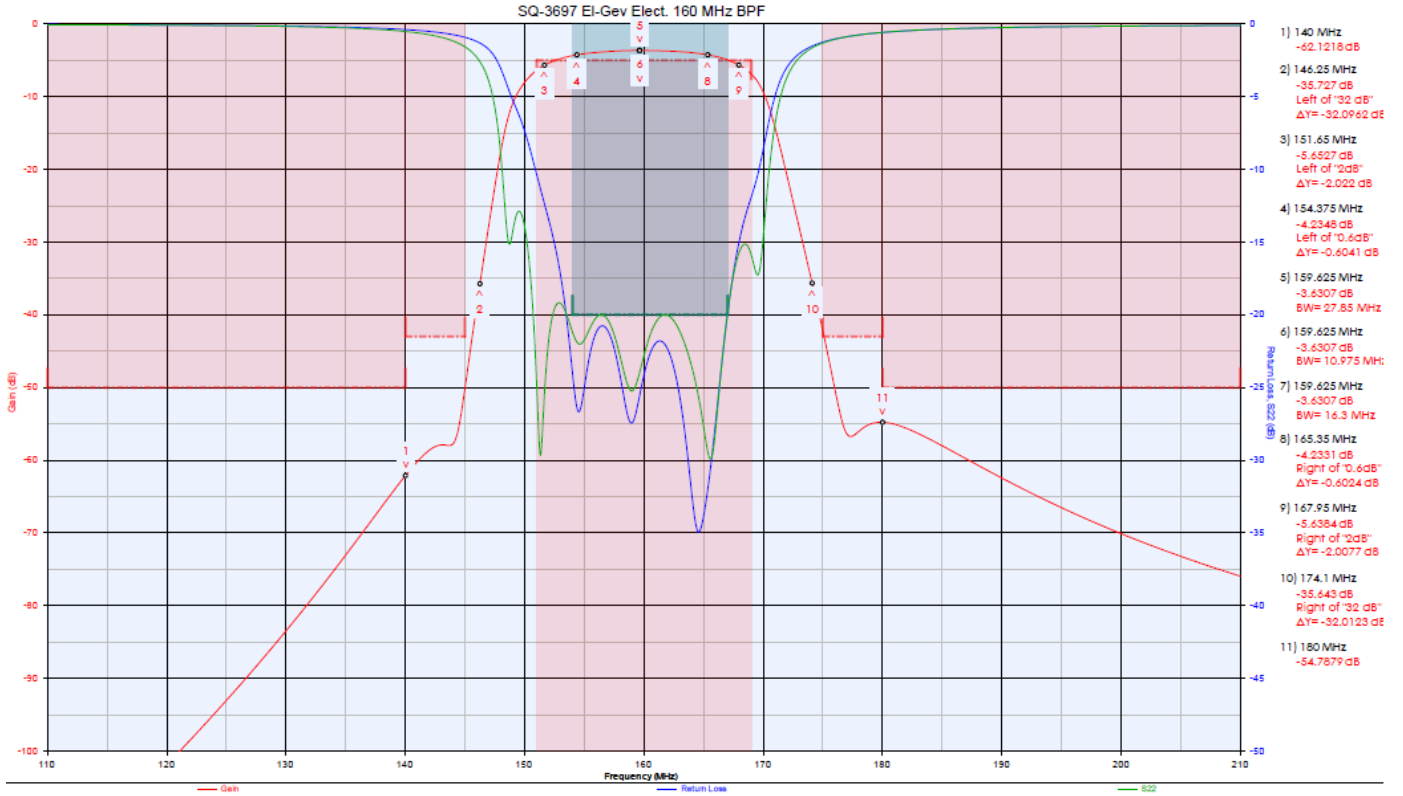
Recommended Reflow Profile

111. Simulations



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1V: Datasheet Revision:

06-08-18	G	DPD	Outline updated due to typo in recommended land pattern.
06-04-18	F	DPD	Materials, Outline updated and MSL added.
05-22-18	E	DPD	Outline updated and material details added on option 2 packages.
05-15-08	D	DPD	Various package options added
05-08-18	C	DPD	Tolerance added.
05-02-18	B	DPD	Storage temperature updated.
04-30-18	A	DPD	Original Draft.