

Specification for a Lowpass LC Filter MtronPTI P/N: LF9521

I. General & Electrical Requirements

1. Passband Insertion Loss: 1dB maximum
2. Passband Flatness (400MHz to 600MHz): 0.6dB maximum
3. Passband Ripple (400MHz to 600MHz, peak-valley): 0.4dB maximum
4. Passband Return Loss (ref. to 50Ω): 15dB minimum
5. Phase Ripple (400MHz to 600MHz, peak-valley, < 2-cycles): 3.0° maximum
6. Random Phase Ripple (400MHz to 600MHz, peak-valley, > 2-cycles): 1.0° maximum
7. Power Handling (within the Passband only): ≤ +27dBm CW
8. Attenuation (minimum):
 45dB minimum: Over 1050MHz to 5000MHz
9. Z_S/Z_L: 50Ω ±10%
10. DC Blocking Capacitor in Series with Input/Output

Note 1: All specifications will be met over the full Operating Temperature Range

II. Environmental & Physical Requirements:

1. Temperature Range:
 Operating: -20°C to +80°C
 Storage: -55°C to +85°C
2. Package:
 Type: SMD (ref. drawings)
 Seal: Solder Seal
 Size: 0.75" (L) 0.50" (W) x 0.20" (H, maximum)

MTBF: *T.B.D.*

Note 2: Sn10 High Temperature solder (Pb₉₀Sn₁₀), or equivalent, will be utilized throughout the construction of this filter.

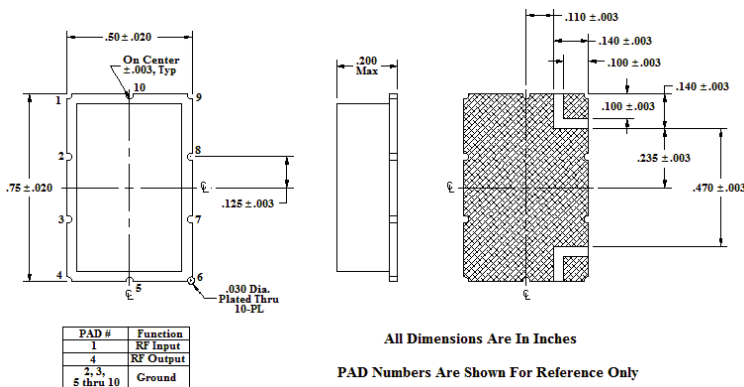


Figure 1: Package Outline Drawing

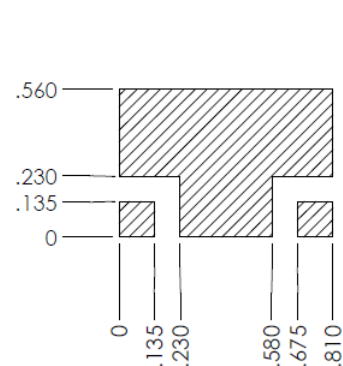
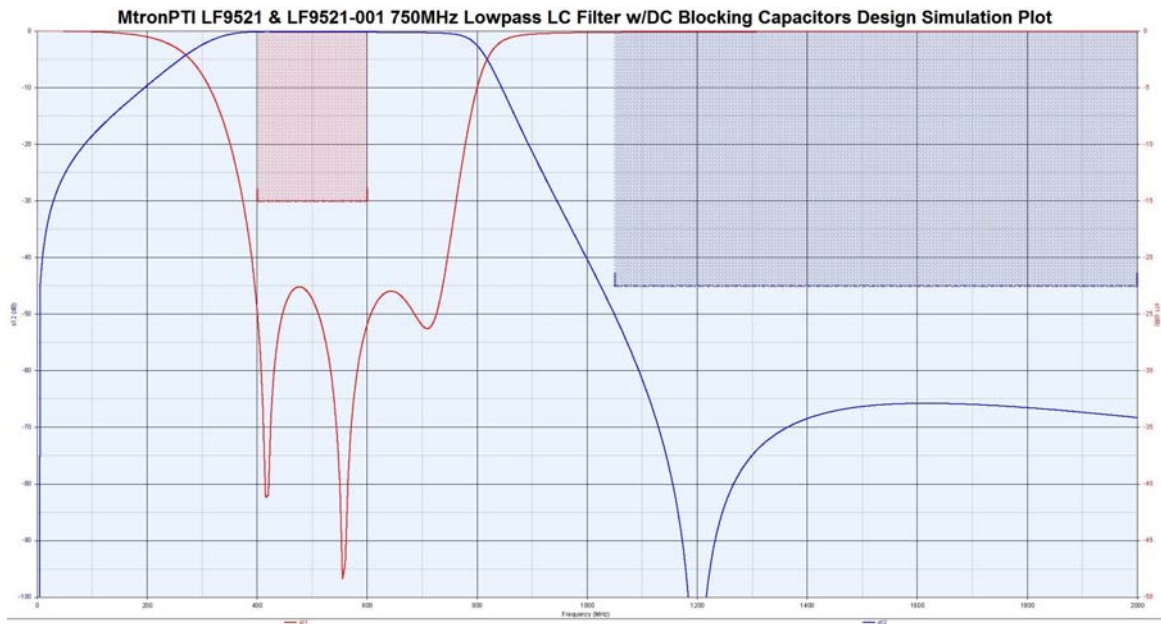


Figure 2: Recommended PAD Layout

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III. Design Simulation Plots:



IV. Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
07/09/15	I	DPD	Recommended pad layout updated as per customer request. Storage temp updated to -55C at cold end
10/6/14	H	MFE	Removed Specification Point 1.0 dB Maximum at 750 MHz and Material Listing.
09/03/14	G	BRM	Added specification point # 11 to note DC Blocking capacitors on Input/Output and associated updated Design Simulation Plot.
07/30/14	F	BRM	Modified the upper temperature ranges, Operating to +80°C and Storage to +85°C at customer's request.
06/26/14	E	BRM	Made provisions for the addition of a MTBF (Reliability) specification point.
05/22/14	D	BRM	Assigned the unique MtronPTI Model #.
05/22/14	C	BRM	Updated the datasheet with details on materials employed in the filter construction.
05/15/14	B	BRM	Removed a Passband specification point as this was a typographical error.
05/14/14	A	BRM	Original Draft.