

## Specification for a Lowpass LC Filter MtronPTI P/N: LF9520

### I. General & Electrical Requirements

1. Insertion Loss (764MHz to 941MHz):  $\leq 0.6\text{dB}$
2. Amplitude Ripple (over any 25kHz Segment within 764MHz to 941MHz, peak-valley):  $\leq 0.1\text{dB}$
3. VSWR (764MHz to 941MHz, ref. to 50 $\Omega$ ): 1.4:1 maximum
4. Group Delay Variation (over any 25kHz Segment within 764MHz to 941MHz):  $< 2.0\text{nsec}$
5. Power Handling (up to 70,000-ft):  
     Average:  $\leq +37\text{dBm CW}$   
     Peak (50 $\mu\text{sec}$  pulse, 1% Duty Cycle):  $+57\text{dBm}$
6. Stopband Rejection (minimum):  
     50dBc minimum: Over 1520MHz to 4720MHz
7.  $Z_s/Z_L$ : 50 $\Omega \pm 10\%$

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

### II. Environmental & Physical Requirements:

1. Temperature Range:  
     Operating:  $-40^\circ\text{C}$  to  $+105^\circ\text{C}$   
     Storage:  $-55^\circ\text{C}$  to  $+125^\circ\text{C}$
2. Package:  
     Type: SMD (ref. drawings)  
     Size: 1.50" (L) 0.50" (W) x 0.30" (H, maximum)

*Note 2: Sn10 High Temperature solder ( $\text{Pb}_{90}\text{Sn}_{10}$ ), or equivalent, will be utilized throughout the construction of this filter.*

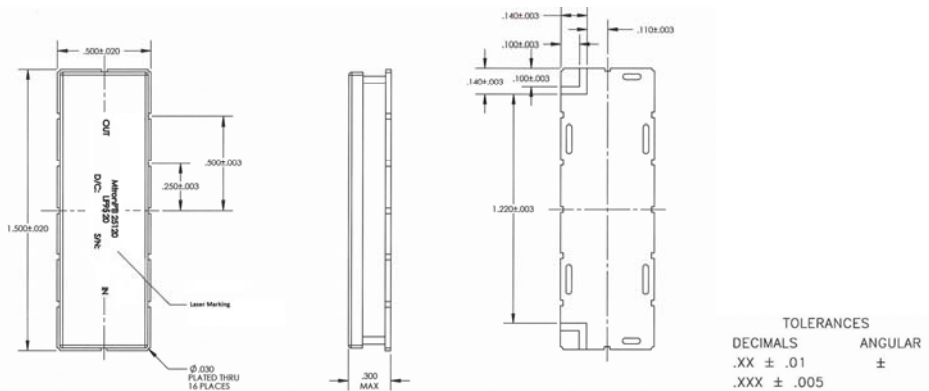


Figure 1: Package Outline Drawing

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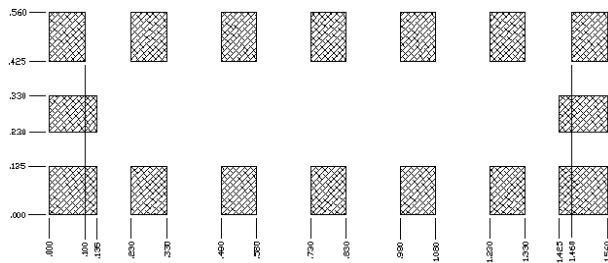


Figure 2: Recommended PAD Layout

### III. Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
03-12-21	E	DPD	Laser marking requirement added
02/10/17	D	DPD	Outline drawing update with part# marking information. Cutoff frequency spec deleted as it contradicts IL spec
12/02/14	C	BRM	Modified frequency ranges for Ripple & Group Delay. Modified Insertion Loss & Stopband Rejection levels.
11/05/14	B	BRM	Corrected typographical errors in Cutoff (changed max. to min.) and Insertion Loss (removed max.).
05/15/14	A	BRM	Original Release.