

Specification for a Space Qualified Crystal Filter  
 MtronPTI P/N: XF9441-001 (Engineering Model)  
 MtronPTI P/N: XF9441-002 (Flight Model)

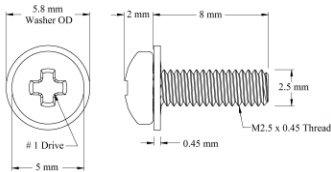
**I. General & Electrical Requirements**

1. Center Frequency ( $F_{ON}$ ): 70MHz
2. Center Frequency Tolerance:
  - @ +25°C:  $F_{ON} \pm 1.5\text{kHz}$  maximum
  - @ -15°C and +60°C:  $F_{ON} \pm 3.5\text{kHz}$  maximum
3. Bandwidth:
  - @ 1dB:  $F_{ON} \pm 40\text{kHz}$  minimum
  - @ 3dB:  $F_{ON} \pm 52\text{kHz}$  minimum
4. Insertion Loss (at the peak of transmission): 5.0dB maximum
5. Ripple (peak-valley, over 70% of the 3dB Bandwidth): 1.0dB maximum
6. Stopband Attenuation (minimum relative to Insertion Loss):
  - 40dB:  $F_{ON} \pm 125\text{kHz}$  maximum
  - 70dB:  $F_{ON} \pm 500\text{kHz}$  maximum
7. Spurious Response: 45dBc minimum
8. Nominal Input Level: 0dBm
9. Weight: 25-grams maximum
10.  $Z_{IN}/Z_{OUT}$ : 50Ω

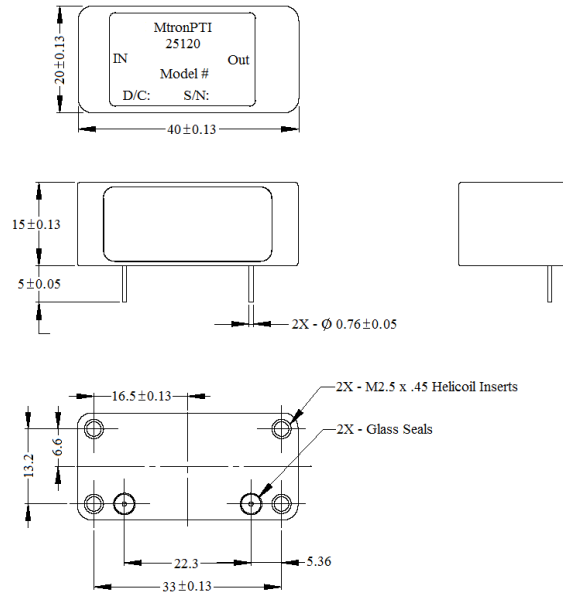
*Note 1: All electrical performance specifications are to be met over the -10°C to +60°C Operating Temperature Range.*

**II. Environmental, Test & Physical Requirements:**

1. Temperature Range
  - Operating: -15°C to +60°C
  - Storage: -40°C to +85°C
2. Package:
  - Size: Reference Figure 1
  - Mating Hardware: Reference Figure 2



**Figure 2: Mating Hardware**



**Figure 1: Package Outline Drawing**

**Data Sheet Revision Table:**

Date	Rev.	Author	Details of Revision
04/18/13	0	BRM	Original Release.