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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:
 - (a) $+25^{\circ}$ C: F_{ON} ± 1.5 kHz maximum
 - @ -15°C and +60°C: F_{ON} ±3.5kHz maximum
- 3. Bandwidth:
 - @ 1dB: $F_{ON} \pm 40 kHz$ minimum
 - @ 3dB: $F_{ON} \pm 52kHz$ 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): $40dB: F_{ON} \pm 125kHz$ maximum
 - 70dB: F_{ON} ±500kHz maximum
- 7. Spurious Response: 45dBc minimum
- 8. Nominal Input Level: 0dBm
- 9. Weight: 25-grams maximum
- 10. Z_{IN}/Z_{OUT} : 50 Ω

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:

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

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