P.O. Box 630 100 Douglas Ave. Yankton, SD 57078 USA
Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709
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Proposed Specification for a Crystal Filter
MtronPTI P/N: XF9357

I. General & Electrical Requirements

1. Center Frequency (F_{ON}): 60.24MHz
2. 0.5dB bandwidth: ≥ 80kHz
3. 1.0dB bandwidth: ≥ 160kHz
4. In-Band Flatness: ≤ 0.3dB
5. Insertion Loss (@ peak of transmission within the 0.5dB bandwidth): ≤ 5.0dB
6. Amplitude Ripple (peak-valley): ≤ 0.5dB
7. Input/Output VSWR: ≤ 1.5:1
8. In-Band Phase Linearity: ≤ ±6˚
9. Absolute Group Delay (within the 160kHz bandwidth): ≤ 7.5*μsec*
10. Stopband Attenuation (Minimum, Relative to Insertion Loss)
    70dB: ≤ F_{ON} - 800kHz
    70dB: ≥ F_{ON} + 800kHz
11. Input Third-Order Intercept Point (with 0dBm input power): ≥ 35dBm
12. Shape Factor ($\Delta f_{-60dB}/\Delta f_{-0.5dB}$): ≤ 5
13. Input Signal Level: ≤ +20dBm
14. Z_{IN}/Z_{OUT}: 50Ω nominal

Note: All electrical performance specifications are to be verified and/or adjusted at the prototype build stage.

II. Environmental & Physical Requirements:

1. Temperature Range
   Operating: -10°C to +60°C
   Storage: -45°C to +85°C
2. Solderability: Per EIAJ-STD-002
3. Package: Reference Drawing Figure 1

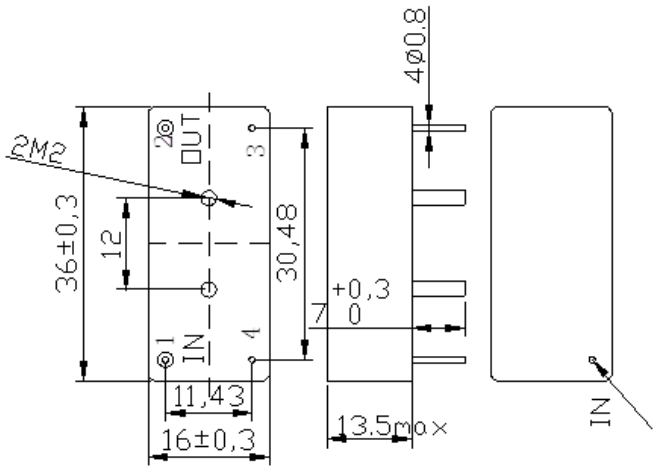

Figure 1 – Filter Package Outline Drawing

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III. Design Simulation Plots: