

MtronPTI High Power LC Diplexer Assembly

Using over 50 years of high performance RF filter design and manufacturing experience – incorporating custom designed and tuned coils, combined with discrete and high power design expertise, MtronPTI can provide high power LC Diplexers that not only reduce the overall mechanical footprint, but also offer improved electrical performance and **power handling**.

Features: High Power, Better Isolation/RF Shielding, Low Insertion Loss

Applications: Avionics, Electronic Warfare, Space, Satcom

I. General & Electrical Requirements:

1. Lower Passband (P1 to Common Port):

Passband Frequency Range: 1350MHz to 1850MHz

Insertion Loss (IL, input to P1): 0.8dB maximum

Rejection lowband input to common port

0-1200 MHz: 15 dB minimum

2000-2700 MHz: 20 dB minimum

2700-3700 MHz: 60 dB minimum

3700-5000 MHz: 35 dB minimum

2. High Band Filter(P2 to Common Port):

Passband Frequency Range: 2000MHz to 2500MHz

Insertion Loss (IL, input to P2): 1.2dB maximum

Rejection high-band input to common port

0-1850 MHz: 20 dB minimum

3700-7500 MHz: 65 dB minimum

8200-10000 MHz: 50 dB minimum

10000-12500 MHz: 30 dB minimum

3. General Specifications:

Passband return loss: 13 dB minimum

Impedance (all ports): 50Ω nominal

RF Power (all ports): ≤ 160Watts CW; 250 Watts peak at 64% duty cycle with 20 ms max. pulse width

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Time duration: ∞ with a 3:1 VSWR load on the common port, any phase angle 2 sec. max. with any load on the common port.

II. Environmental & Physical Requirements:

1. Environmental

Temperature:

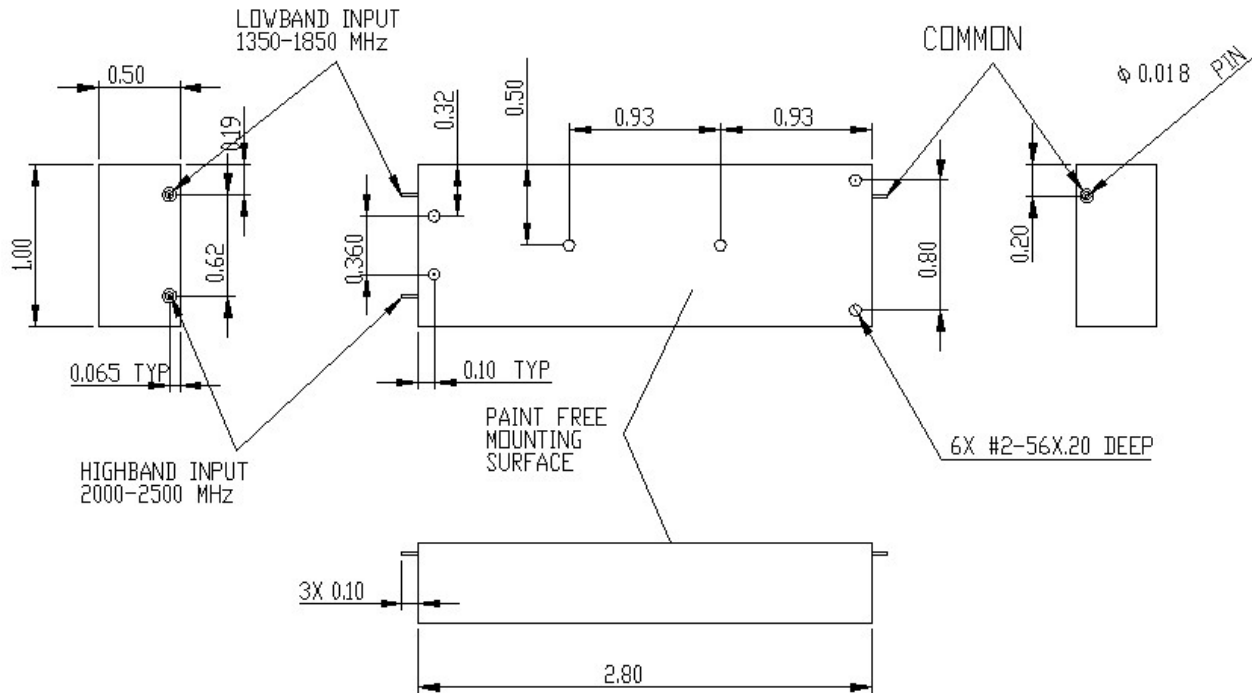
Operating (OTR): -40°C to +65°C

Storage (STR): -55°C to +125°C

2. Package:

Size: 2.8" x 1.0" x 0.5" (Typical, excludes connectors) See Figure 1.

Weight: 3 ounces max.



IV. Datasheet Revision Table:

Date	Rev.	Orig.	Details of Revision
05-04-18	A	DPD	Original Draft