Trimmer Capacitors

- PTFE
- Air Tubular
- Sapphire
- Air Plate
- 3mm SMT
- Microwave Tuning Elements
- Machining & Turnmill Services
PTFE Trimmer

PTFE  PPI-63 Series

◆ Attributes

Pros:
• High Voltage
• Wide Capacitance Range
• Medium size
Cons:
• Lower Q

◆ Applications

• L - C Filters
• Radio Transmitters and Receivers
• Quartz Oscillators
• Coils for NMR/MRI Applications
• Impedance Matching

◆ Specifications

• Capacitance Range: 2pF to 100pF
• Q-Factor: 2000 @ 100 MHz
• DC Working Voltage: up to 7.5kV
• DC Withstanding Voltage: up to 15kV
• Operating Temperature: -65 °C to +125 °C
• TCC (ppm/°C): 0 ± 50 to 65 ± 30 (model dependent)
• Insulation Resistance: >10 Mohm @ 500 VDC
• Vibration: 60g, 10-2000Hz
• Shock: 100g, 6msec.
• Resolution: High Resolution

◆ Available in Non-Magnetic -- MRI/ NMR

◆ Custom designs available
Air Tubular Trimmers

**PPI-60 Series**

**Attributes**
- **Pros:**
  - High Q
  - Finer Tuning/Multi-Turn
  - Medium size
- **Cons:**
  - Medium Capacitance Range
  - Lower Voltage

**Applications**
- L - C Filters
- Radio Transmitters and Receivers
- Quartz Oscillators
- Coils for NMR – Systems
- Impedance Matching

**Specifications**
- Capacitance Range: 0.3pF to 30pF
- Q-Factor: > 5000 @ 200 MHz
- DC Working Voltage: 1.75kV
- DC Withstanding Voltage: 3.5kV
- Operating Temperature: -65 °C to +125 °C
- TCC (ppm/°C): 0 ± 50 to 65 ± 30 (model dependent)
- Insulation Resistance: >10 Mohm @ 500 VDC
- Vibration: 60g, 10-2000Hz
- Shock: 100g, 6msec.
- Resolution: High Resolution

**Available in Non-Magnetic – MRI/NMR**

**Custom designs available**

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**Q-Factor vs. Frequency**

**Capacitance vs. Self-Resonant Frequency**

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www.passiveplus.com  +1 (631) 425-0938  sales@passiveplus.com
Sapphire Trimmers

◆ Attributes

Pros:
- Smallest Size
- Finer Tuning/ Multi-Turn
- High Q

Cons:
- Lower Capacitance Range
- Lower Voltage

◆ Applications

- LC Filters
- Radio Transmitters and Receivers
- Quartz Oscillators
- Coils for NMR – Systems
- Low Noise Amplifiers

◆ Specifications

- Capacitance Range: 1pF to 18.5pF
- Q-Factor: > 5000 @ 200 MHz
- DC Working Voltage: 500V
- DC Withstanding Voltage: 1kV
- Operating Temperature: -65 °C to +125 °C
- TCC (ppm/°C): 0 ± 75 to 350 ± 75 (model dependent)
- Insulation Resistance: >10 Mohm @ 500 VDC
- Vibration: 60g, 10-2000Hz
- Shock: 100g, 6msec.
- Resolution: High Resolution

◆ Available in Non-Magnetic - MRI/ NMR

◆ Custom designs available

Q-Factor vs. Frequency
Air Plate Trimmers

**Air Plate** | **PPI-10 Series**

**Attributes**

**Pros:**
- Wide Capacitance Range
- Highest Q
- Higher Voltage

**Cons:**
- Large Size
- Open Construction

**Applications**

- **L - C Filters**
- **Radio Transmitters and Receivers**
- **Quartz Oscillators**
- **Coils for NMR – Systems**
- **Low Noise Amplifiers**

**Specifications**

- Capacitance Range: 1pF to 146pF (select models up to 200pF)
- Q-Factor: > 1500 @ 200 MHz/ 8000 @ 1 MHz
- DC Working Voltage: 3.25kV
- DC Withstanding Voltage: 6.5kV
- Operating Temperature: -65 °C to +125 °C
- TCC (ppm/°C): 30 ± 20 to 90 ± 40 (model dependent)
- Insulation Resistance: >10 Mohm @ 500 VDC
- Vibration: 60g, 10-2000Hz
- Shock: 100g, 6msec.
- Resolution: 180° Resolution

**Available in Non-Magnetic -- MRI/ NMR**

**Custom designs available**

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3mm Surface Mount Trimmers

36, 46, 46 High Voltage & 56 Series

Microwave Tuning Elements

◆ Attributes
- Low Cost Applications
- Low Temperature Drift
- Designed for reflow soldering
- Low Magnetics
- Surface Mount Design
- Half Turn Adjustment
- Tape & Reel Packaging

◆ Applications
- NMR/ MRI applications/ Pre-Amplifiers
- Commercial Instrumentation
- RFID
- Tunable Filter Circuits

◆ Specifications
- Capacitance Range: 1.5pF to 40pF
- Q-Factor: > 200 @ 1 MHz
- DC Working Voltage: 100-350V
- DC Withstanding Voltage: 220-700V
- Operating Temperature: -40°C to +85°C
- TCC (ppm/°C): >0 ± 200
- Insulation Resistance: >10⁴ Mohm

Head On Tuning Element

Maximum Capacitive Loading

L-C Tuning Element

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Machining – Turnmill Services

◆ Specifications
  • High Precision turned and milled parts
  • Turned parts with a diameter of 1 to 64mm (0.039 to 2.52 inches)
  • Milled parts up to 500 x 500mm (19.685 to 19.685 inches)
  • Custom designs available

◆ Markets
  • Mobile Communication
  • Electronics
  • Pneumatics & Hydraulics
  • Mechanical Engineering
  • Defense, Aero and Space

◆ Materials
  • Brass (Non-Magnetic)
  • Aluminum
  • Plastics (TFE, Delrin, Rexolite, PVC)
  • Cold Roll Steel & Stainless Steel
  • Copper
  • Bronze
  • Super Alloys (Invar, Kovar)

◆ Defined Surface Finishes
  • Silver
  • Gold
  • Nickel
  • Copper
  • Alodine
  • Chrome
  • Anodizing
  • Tin
  • Zinc
  • Burnish

◆ Accepted Files
  We can accept formatted Customer files:
  • PDF
  • STEP
Passive Plus, Inc. (PPI) is a manufacturer of high-performance RF/Microwave passive components for the Medical, Semiconductor, Military, Broadcast, and Telecommunications Industries.

PPI specializes in High-Q, Low ESR/ESL Capacitors, Broadband Capacitors, Single Layer Capacitors, Non-Magnetic Resistors (High Power and Thin Film) and Trimmer Capacitors.

PPI is ISO9001:2015 certified.

PPI is known for the outstanding Customer Service and RF Engineering Support.