Excellent attenuation for high voltage impulse. Epoxy molded for internal component reliability and metal case provides effective EMI shielding. Ideal for digital, industrial and automation equipment.

Three Phase Power Line Filters

Low Current/High Performance ................................PF80-PF81
Three-Phase Power Line Filters ................................PF82-PF83
High Performance ................................................PF84-PF89
Power Line Filters
Three Phase
Low Current/High Performance

62-PMB/63-PMF Series

Features
- Excellent attenuation for high voltage impulse
- Effective for both balanced and unbalanced three-phase loads
- Metal case provides effective EMI shielding
- Epoxy molded for internal component reliability
- Compact and economical
- Excellent filtering characteristics for both normal and common mode
- Various current ratings available: 3, 5, 8 and 16 Amps
- Safety agency approvals pending
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF81)

Applications
- Digital equipment
- Industrial equipment (UPS, inverters and converters)
- Automation equipment
- Computerized washing machines

Circuit Diagram

62-PMB-050-6-12 (5 Amp Delta)

63-PMF-030-8-14 and 63-PMF-080-8-14 (3 and 8 Amp Wye)

63-PMF-160-9-21 (16 Amp Wye)

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Capacitance</th>
<th>Inductance (L1)</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-PMB-050-6-12</td>
<td>250VAC</td>
<td>5A</td>
<td>0.6mA</td>
<td>2200pF</td>
<td>0.22uF</td>
<td>115mH</td>
</tr>
<tr>
<td>63-PMF-030-8-14</td>
<td>480VAC</td>
<td>3A</td>
<td>1.0mA</td>
<td>4700pF (4X)</td>
<td>470uF (3X)</td>
<td>1.0mH (4X)</td>
</tr>
<tr>
<td>63-PMF-080-8-14</td>
<td>480VAC</td>
<td>8A</td>
<td>3.0mA</td>
<td>0.015uF (2X)</td>
<td>1.0uF (6X)</td>
<td>0.74mH (4X)</td>
</tr>
<tr>
<td>63-PMF-160-9-21</td>
<td>480VAC</td>
<td>16A</td>
<td>3.0mA</td>
<td>0.015uF (2X)</td>
<td>1.0uF (6X)</td>
<td>1.2mH (4X)</td>
</tr>
</tbody>
</table>

Note: Test Voltage 1500VAC one minute, line to ground.
Insulation Resistance: 300 MΩ min. at 500VDC.
Voltage Drop: 1V max. at rated current.
Weight: 8.82 ounces (250 grams) for 63-PMF-030-8-14 and 63-PMF-080-8-14
19.4 ounces (550 grams) for 62-PMB-050-6-12
51.5 ounces (1450 grams) for 63-PMF-160-9-21
Power Line Filters
Three Phase
Low Current/High Performance

62-PMB/63-PMF Series

62-PMB-050-6-12 (5 Amp)

Dimensions in inches (mm)

63-PMF-030-8-14 and 63-PMF-080-8-14 (3 and 8 Amp)

63-PMF-160-9-21 (16 Amp)

Common Mode
62-PMB-050-6-12 (5 Amp)

63-PMF (3, 8 and 16 Amp)

Normal Mode
62-PMB-050-6-12 (5 Amp)

63-PMF (3, 8 and 16 Amp)
Power Line Filters
Three Phase

13-PWF/PWL/PWB Series

Features
- Excellent attenuation for high voltage impulse
- Effective for both balanced and unbalanced three-phase loads
- Metal case provides effective EMI shielding
- Epoxy molded for internal component reliability
- Suitable for both Wye and Delta connection
- Excellent filtering characteristics for both normal and common mode
- Operating temperature: -40°C to +85°C
- Designed for 3-phase 4-line power supply systems

Applications
- Digital equipment
- Industrial equipment (UPS, inverters and converters)
- Automation equipment
- Computerized washing machines

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-PWF-005-12-H</td>
<td>440/250VAC</td>
<td>5A</td>
<td>1.5mA</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
</tr>
<tr>
<td>13-PWF-010-12-H</td>
<td>440/250VAC</td>
<td>10A</td>
<td></td>
<td>1</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>13-PWB-010-12-D</td>
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<td>15A</td>
<td></td>
<td>2</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>13-PWB-020-12-D</td>
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<td>20A</td>
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<td>13-PWB-025-12-D</td>
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<td>25A</td>
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<td>13-PWB-030-12-D</td>
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<td>30A</td>
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</table>

Note: Test Voltage 1500VAC one minute, line to ground.
Insulation Resistance: 300 MΩ min. at 500VDC.
Voltage Drop: 1V max. at rated current.
**Power Line Filters**

**Three Phase**

**13-PWF/PWL/PWB Series**

**Common Mode**

![Common Mode Diagram](image1)

**Normal Mode**

![Normal Mode Diagram](image2)

---

**Figure A**

- **Dimensions** in inches (mm)

---

**Figure B**

- **Dimensions** in inches (mm)

---

**Figure C**

- **Dimensions** in inches (mm)

---

**Figure D**

- **Dimensions** in inches (mm)

---

**Figure E**

- **Dimensions** in inches (mm)

---

**Figure F**

- **Dimensions** in inches (mm)

---

**Figure G**

- **Dimensions** in inches (mm)

---

**Figure H**

- **Dimensions** in inches (mm)

---

**Figure I**

- **Dimensions** in inches (mm)

---

**Figure J**

- **Dimensions** in inches (mm)

---

**Figure K**

- **Dimensions** in inches (mm)

---

**Figure L**

- **Dimensions** in inches (mm)

---

**Figure M**

- **Dimensions** in inches (mm)

---

**Figure N**

- **Dimensions** in inches (mm)

---

**Figure O**

- **Dimensions** in inches (mm)

---

**Figure P**

- **Dimensions** in inches (mm)

---

**Figure Q**

- **Dimensions** in inches (mm)

---

**Figure R**

- **Dimensions** in inches (mm)

---

**Figure S**

- **Dimensions** in inches (mm)

---

**Figure T**

- **Dimensions** in inches (mm)

---

**Figure U**

- **Dimensions** in inches (mm)

---

**Figure V**

- **Dimensions** in inches (mm)

---

**Figure W**

- **Dimensions** in inches (mm)

---

**Figure X**

- **Dimensions** in inches (mm)

---

**Figure Y**

- **Dimensions** in inches (mm)

---

**Figure Z**

- **Dimensions** in inches (mm)
Power Line Filters
Three Phase
High Performance

13-PDF/PDL/PDB Series

Features
- Excellent attenuation for high voltage impulse
- Effective for both balanced and unbalanced three-phase loads
- Metal case provides effective EMI shielding
- Epoxy molded for internal component reliability
- Compact and economical
- Excellent filtering characteristics for both normal and common mode
- Operating temperature: -40°C to +85°C
- Designed for 3-phase, 3-Delta connection system

Applications
- Digital equipment
- Industrial equipment (UPS, inverters and converters)
- Automation equipment
- Switching power supplies

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Figure</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-PDF-005-11-J</td>
<td>440/250VAC</td>
<td>5A</td>
<td>1.5mA</td>
<td>1</td>
<td>A</td>
<td>30°C</td>
</tr>
<tr>
<td>13-PDL-005-11-D</td>
<td></td>
<td>10A</td>
<td></td>
<td></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>13-PDF-010-11-J</td>
<td></td>
<td>15A</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>13-PDL-010-11-D</td>
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<td>20A</td>
<td></td>
<td></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>13-PDB-010-11-D</td>
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<td>25A</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>13-PDB-015-11-D</td>
<td></td>
<td>30A</td>
<td></td>
<td></td>
<td>B</td>
<td></td>
</tr>
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</table>

Note: Test Voltage 1500VAC one minute, line to ground.
Insulation Resistance: 300 MΩ min. at 500VDC.
Voltage Drop: 1V max. at rated current.
Power Line Filters
Three Phase
High Performance

13-PDF/PDL/PDB Series

Figure A

Common Mode

13-PDF-005;010; PDL-005;010 PDB-010

Insertion Loss (dB)

Frequency (MHz)

Normal Mode

13-PDF-005;010; PDL-005;010 PDB-010

Insertion Loss (dB)

Frequency (MHz)

Dimensions in inches (mm)
Power Line Filters
Three Phase
High Performance

13-PWB Series

Features
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Epoxy molded for internal component reliability
- Excellent filtering characteristics for both normal and common mode
- Various current ratings available: from 5 to 150 Amps
- Operating temperature: -40°C to +85°C
- Designed for 3-phase, 4-line power systems

Applications
- Power supplies for data systems
- Industrial equipment (UPS, inverters and converters)
- Automation equipment
- Telecommunications systems and equipment

Circuit Diagram

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-PWB-005-12-A</td>
<td>480/277VAC</td>
<td>5A</td>
<td>4.5mA</td>
<td>1</td>
<td>30°C</td>
</tr>
<tr>
<td>13-PWB-010-12-B</td>
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<td>10A</td>
<td></td>
<td></td>
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<tr>
<td>13-PWB-020-12-B</td>
<td></td>
<td>20A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-P WB-035-12-C</td>
<td></td>
<td>35A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-PWB-050-13-C</td>
<td></td>
<td>50A</td>
<td>9.0mA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-PWB-080-14-D</td>
<td></td>
<td>80A</td>
<td>20mA</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>13-PWB-100-14-D</td>
<td></td>
<td>100A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-PWB-150-14-E</td>
<td></td>
<td>150A</td>
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<td></td>
<td></td>
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</tbody>
</table>

Note: Test Voltage 1500VAC one minute, line to ground.
Insulation Resistance: 300 MΩ min. at 500VDC.
Voltage Drop: 1V max. at rated current.
# Power Line Filters
## Three Phase
### High Performance

## 13-PWB Series

### Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A (in)</th>
<th>B (in)</th>
<th>C (in)</th>
<th>D (in)</th>
<th>E (in)</th>
<th>F (in)</th>
<th>G (in)</th>
<th>H (in)</th>
<th>I (mm)</th>
<th>J (mm)</th>
<th>K (mm)</th>
<th>M (mm)</th>
<th>N (mm)</th>
<th>P (mm)</th>
<th>L (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-PWB-005-12-A</td>
<td>7.2 (184)</td>
<td>6.3 (160)</td>
<td>7.9 (202)</td>
<td>2.4 (60)</td>
<td>1.7 (44)</td>
<td>3.5 (86)</td>
<td>.70 (18)</td>
<td>2.3 (58)</td>
<td>1.5 (38)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>M4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-PWB-010-12-B</td>
<td>9.6 (243)</td>
<td>8.7 (220)</td>
<td>10.3 (261)</td>
<td>3.1 (81)</td>
<td>3.8 (96)</td>
<td>4.9 (125)</td>
<td>.98 (25)</td>
<td>3.5 (90)</td>
<td>1.8 (45)</td>
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<td>–</td>
<td>–</td>
<td>M6</td>
<td></td>
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</tr>
<tr>
<td>13-PWB-020-12-B</td>
<td>13.9 (354)</td>
<td>12.9 (320)</td>
<td>15.1 (384)</td>
<td>3.9 (99)</td>
<td>6.1 (155)</td>
<td>7.3 (185)</td>
<td>1.2 (30)</td>
<td>2.3 (62)</td>
<td>2.3 (58)</td>
<td>2.9 (74)</td>
<td>1.9 (49)</td>
<td>M8</td>
<td>3.4 (88)</td>
<td>2.4 (62)</td>
<td>M8</td>
</tr>
<tr>
<td>13-PWB-035-12-C</td>
<td>13.5 (342)</td>
<td>12.6 (320)</td>
<td>15.1 (384)</td>
<td>3.9 (99)</td>
<td>6.1 (155)</td>
<td>7.3 (185)</td>
<td>1.2 (30)</td>
<td>2.3 (62)</td>
<td>2.3 (58)</td>
<td>2.9 (74)</td>
<td>1.9 (49)</td>
<td>M8</td>
<td>3.4 (88)</td>
<td>2.4 (62)</td>
<td>M8</td>
</tr>
<tr>
<td>13-PWB-050-13-C</td>
<td>15.9 (403)</td>
<td>14.9 (380)</td>
<td>17.9 (454)</td>
<td>3.9 (99)</td>
<td>6.1 (155)</td>
<td>7.3 (185)</td>
<td>1.2 (30)</td>
<td>2.3 (62)</td>
<td>2.3 (58)</td>
<td>2.9 (74)</td>
<td>1.9 (49)</td>
<td>M8</td>
<td>3.4 (88)</td>
<td>2.4 (62)</td>
<td>M8</td>
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<tr>
<td>13-PWB-080-14-D</td>
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<td>14.9 (380)</td>
<td>17.9 (454)</td>
<td>3.9 (99)</td>
<td>6.1 (155)</td>
<td>7.3 (185)</td>
<td>1.2 (30)</td>
<td>2.3 (62)</td>
<td>2.3 (58)</td>
<td>2.9 (74)</td>
<td>1.9 (49)</td>
<td>M8</td>
<td>3.4 (88)</td>
<td>2.4 (62)</td>
<td>M8</td>
</tr>
<tr>
<td>13-PWB-100-14-D</td>
<td>15.9 (403)</td>
<td>14.9 (380)</td>
<td>17.9 (454)</td>
<td>3.9 (99)</td>
<td>6.1 (155)</td>
<td>7.3 (185)</td>
<td>1.2 (30)</td>
<td>2.3 (62)</td>
<td>2.3 (58)</td>
<td>2.9 (74)</td>
<td>1.9 (49)</td>
<td>M8</td>
<td>3.4 (88)</td>
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<td>M8</td>
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<tr>
<td>13-PWB-150-14-E</td>
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<td>14.9 (380)</td>
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<td>7.3 (185)</td>
<td>1.2 (30)</td>
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<td>3.4 (88)</td>
<td>2.4 (62)</td>
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</tr>
</tbody>
</table>

### Common Mode

#### 13-PWB-005-010-020-035

![Common Mode Graph](image)

### Normal Mode

#### 13-PWB-005-010-020-035

![Normal Mode Graph](image)
Power Line Filters
Three Phase
High Performance

13-PDB Series

Features
- Excellent attenuation for high voltage impulse
- Metal case provides effective EMI shielding
- Epoxy molded for internal component reliability
- Excellent filtering characteristics for both normal and common mode
- Various current ratings available: from 5 to 200 Amps
- Operating temperature: -40°C to +85°C
- Designed for 3-phase, 3-line connection systems

Applications
- Digital equipment
- Industrial equipment (UPS, inverters and converters)

Circuit Diagram

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated Voltage (@ 50/60Hz)</th>
<th>Rated Current</th>
<th>Leakage Current (Max.)</th>
<th>Circuit Diagram</th>
<th>Temperature Rise (Max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-PDB-005-12-A</td>
<td>480/277VAC</td>
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<td>4.5mA</td>
<td>1</td>
<td>30°C</td>
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<tr>
<td>13-PDB-010-12-A</td>
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<td>10A</td>
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</tr>
<tr>
<td>13-PDB-020-12-B</td>
<td></td>
<td>20A</td>
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<tr>
<td>13-PDB-035-12-B</td>
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<td>35A</td>
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<td>50A</td>
<td>9.0mA</td>
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<td>13-PDB-080-13-C</td>
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<tr>
<td>13-PDB-150-14-C</td>
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<td>13-PDB-200-14-D</td>
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<td>200A</td>
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Note: Test Voltage 2250VDC one minute, line to ground.
Insulation Resistance: 500MΩ.
Power Line Filters
Three Phase

13-PDB Series

Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>L</th>
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<td></td>
<td>6.3</td>
<td>7.9</td>
<td>1.6</td>
<td>2.4</td>
<td>3.3</td>
<td>1.5</td>
<td>2.3</td>
<td>3.5</td>
<td>M4</td>
<td></td>
<td></td>
<td>.25 x .37 (6.4 x 9.4)</td>
<td></td>
</tr>
<tr>
<td>13-PDB-010-12-A</td>
<td>9.6</td>
<td>243</td>
<td>8.7</td>
<td>10.3</td>
<td>2.3</td>
<td>2.7</td>
<td>3.9</td>
<td>2.3</td>
<td>2.9</td>
<td>3.3</td>
<td>M6</td>
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<td></td>
<td>.25 x .38 (6.4 x 9.6)</td>
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</tr>
<tr>
<td>13-PDB-020-12-B</td>
<td>13.9</td>
<td>354</td>
<td>12.6</td>
<td>15.1</td>
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<td>2.4</td>
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<td>.25 x .36 (6.4 x 9.9)</td>
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<td>13-PDB-035-12-B</td>
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<td>13-PDB-080-13-C</td>
<td>13-PDB-100-14-C</td>
<td>13-PDB-150-14-C</td>
<td>13-PDB-200-14-D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-PDB-100-14-C</td>
<td>6.3</td>
<td>160</td>
<td>8.7</td>
<td>220</td>
<td>2.3</td>
<td>58</td>
<td>100</td>
<td>58</td>
<td>25</td>
<td>74</td>
<td>M6</td>
<td></td>
<td></td>
<td>.25 x .38 (6.4 x 9.7)</td>
<td></td>
</tr>
<tr>
<td>13-PDB-200-14-D</td>
<td>25</td>
<td>61</td>
<td>2.3</td>
<td>62</td>
<td>2.5</td>
<td>66</td>
<td>66</td>
<td>2.5</td>
<td>66</td>
<td>66</td>
<td>M8</td>
<td></td>
<td></td>
<td>.25 x .36 (6.4 x 9.10)</td>
<td></td>
</tr>
</tbody>
</table>

Common Mode

Normal Mode

Insertion Loss (dB)

Frequency (MHz)