In-Line®
Coaxial Lightning Surge Protector

Improves Broadband Network Reliability and Reduces Service Outages
Designed For HFC or FTTC Broadband Network Application
Transparent To Analog/ Digital Bi-directional Signal Transmission
Complies with NEC Article 830 Requirements
Provides Powerline Fault Protection For Customer Premises Equipment
Listed to UL 497C & CSA Certified

Tii's cutting edge In-Line® Coaxial Lightning Surge Protector protects personnel and customer premises equipment from lightning and power induced surges on coaxial drop cables. It is specifically designed for today's Broadband Hybrid Fiber-Coax (HFC) and Fiber-To-The-Curb (FTTC) distribution networks.

KEY PRODUCT BENEFITS

- Ideally suited to shield costly digital set-top boxes, expensive stereos and home equipment systems, sensitive internet cable modems, personal computers, big screen TVs and high-end HDTV sets from potentially damaging surges
- Can also protect satellite receivers in the cable headend
- Greatly increases drop system reliability and reduces service outages by protecting against induced high-voltage surges that may appear on the center conductor of a coaxial drop cable
- Unique In-Line® design is impedance matched to 75 ohms and is virtually transparent to all analog or digital bi-directional signals transmitted from DC to 1.0 GHz
- Tii's patented proprietary coaxial gas tube surge protector is equipped with an integral failshort mechanism for a power-cross condition. The DC breakdown voltage of the protector is low enough to protect against even the smallest transient surges, yet is compatible with network powered applications
- Metallic housing of the Tii In-Line® Coaxial Lightning Surge Protector provides adequate EMI shielding
- Protector is environmentally sealed to repel moisture and humidity encountered in broadband pedestals, vaults, NIDs and stand alone applications

INDUSTRY STANDARDS

- Listed to UL 497C & CSA Certified
- Complies with NEC Article 830 Requirements
SPECIFICATIONS

RF PERFORMANCE

Frequency Range
DC to 1 GHz

Characteristic Impedance
75 ohms

Insertion Loss (includes Flatness)
< .3 dB

Return Loss Typical
20 dB

PROTECTION

DC Breakdown @ 2000V/sec
120 - 300 V

Impulse Breakdown @ 100V/μsec
< 450 V

Insulation Resistance
> 100 megohms

Surge Life*:
A. 10A, 10/1000 μsec
> 1500 Surges
B. 100A, 10/1000 μsec
100 Surges
C. 300A, 10/1000 μsec
> 10 Surges
D. 5000A, 8/20 μsec
> 10 Surges

AC Life:
A. 5A, 1000 VAC, 1 sec
> 5 Operations
B. 1A, 1000 VAC, 1 sec
> 60 Operations

Failshort
30 A, 1000 VAC
> 15 minutes

Operating Temperature
-40°C to +65°C (-40°F to +149°F)

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Connection Configuration</th>
<th>Impedance</th>
<th>Connector Type</th>
<th>Voltage Breakdown</th>
<th>Frequency</th>
<th>Insertion Loss</th>
<th>Return Loss</th>
<th>Failsafe</th>
<th>Grounding Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF = Female/Female</td>
<td>75 = 75 Ohms</td>
<td>F = “F”</td>
<td>225 = 150–300</td>
<td>5 MHz – 1GHz</td>
<td>&lt; .3 dB</td>
<td>Typical</td>
<td>0 = None</td>
<td>0 = None</td>
</tr>
<tr>
<td>MF = Male/Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-20dB</td>
<td>1 = Failsafe</td>
<td>1 = 6&quot; #12 Grd Wire</td>
</tr>
</tbody>
</table>