Primary Surge Protection Product Overview

Voice and data electronic equipment connected to Outside Plant (OSP) copper based facilities are susceptible to voltage and current transients caused by lightning, AC power cross and other electrical hazards. In order to prevent these hazards from harming personnel, damaging equipment, and causing system failures, primary surge protection systems are used.

Surge Protection Modules

Surge protection modules are used in conjunction with surge protection systems commonly referred to as Building Entrances Terminals (BET's), Building Entrance Panels (BEP's) and rack mounted Protector Panels.

LEA Networks surge protection modules prevent excessive hazardous voltage such as AC and lighting transients from reaching equipment and personal by shunting the energy to ground.

5 Pin Surge Protection Modules

LEA's 5 pin surge protection modules are available with Gas Tube, Solid-State and Hybrid technology. They meet Telcordia's GR-974-CORE, NEC and CEC requirements and are UL & cUL listed to UL497.

Options

- Tin or Gold Pins
- 230V, 300V (SS) and 350V (GDT & Hybrid)
- Balanced & Unbalanced
- With and without test points
- With Over Current PTCR (Positive Temperature Coefficient Resistor)
- All standard housing colors Black, Red, Blue, Purple, Yellow etc.

Top View   Bottom View

1 Pin Surge Protection Modules

LEA's 1 pin surge protection modules are available with Gas Tube and Solid-State technology. They meet NEC and CEC requirements and are UL & cUL listed to UL497.

Options

- Tin Socket
- 230V and 350V
- With test points
- All standard housing colors Black, Red, Blue, Yellow, etc.

Top View   Bottom View

Surge Protection Systems

Building Entrances Terminals (BET's), Building Entrance Panels (BEP's) and rack mounted Protector Panel systems interconnect the OSP copper facilities to the electronic telephony and data equipment within an infrastructure. The OSP is commonly referred to as the line side and the electronic equipment is commonly referred to as the equipment side.

LEA Networks Cat5 SmartWired Building Entrance Protectors have been designed to provide enhanced transmission performance for ADSL2+, VDSL2 and EFM high speed data applications. Cat5 SmartWired starts with LEA Networks protection module field. The block has been redesigned to minimize crosstalk and insertion loss, while decreasing part weight and size to reduce the mounting footprint. Unique wire routing and guide ring features ensure that the Category 5e internal wiring maintains ideal performance. Combined with LEA Networks high speed protector modules, the system gives maximum protection and performance for POTS, T1, ADSL2+, VDSL2 and Ethernet based services.

The surge protection systems are equipped with copper Insulation Displacement Connectors (IDC) on the line side and equipment side. The IDC's are designed to provide copper cabling connectivity to interconnect the surge protection systems to the OSP and electronic equipment.

Several types of IDC interfaces have been developed and deployed over the years. BET's and BEP's are commonly designed with the following IDC's: 66, 110, Bix and toolless IDC's. Protector Panels can be equipped with the aforementioned IDC's as well as wire wrap terminals,MS2, 710, RJ21, and RJ45 connectors.

25 Pair Building Entrance Protectors

- Part numbers: BEP25-WW, BEP25-66 & BEP25-110
- Wire Wrap, 66 & 110 IDC termination
- Available with or without a Cover Kit
- CAT5 SmartWired^{TM}
- UL/cUL Listed

25 Pair Rack Mount Building Entrance Protectors

- Part numbers: BEPR-WW and BEPR25-66
- Wrap, 110 and 66 termination
- 19' with adapter kit for 23' rack mount cabinets
- CAT5 SmartWired^{TM}
- UL/cUL Listed

50 Pair Building Entrance Protectors

- Part numbers: BEP50-66 & BEP50-110
- 66 & 110 termination
- Available with or without a Cover Kit
- CAT5 SmartWired^{TM}
- UL/cUL Listed

50 & 100 Pair Protector Panels

The 50 and 100 pair protector panels are available with customizable cable assemblies on the line side and equipment side.

- Part numbers: PROTPNL50 & PROTPNL100
- MS2, 710, RJ21 & stubbed dry and gelled interfaces
- Customizable cable types and lengths
- CAT5 SmartWired^{TM}
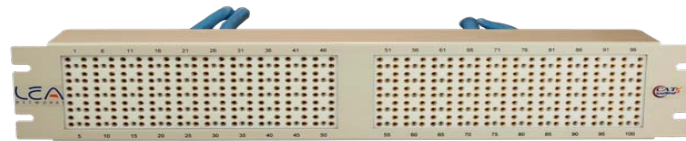
T1 Protector Panel

The T1 protector panels are available with customizable interfaces on the equipment side.

- Part number: PROTPNLT1
- Supports up to 25 T1's
- 66 interface on the line side
- RJ21, RJ45, or stubbed interfaces on equipment side
- Customizable cable types and lengths
- CAT5 SmartWired^{TM}

ADSL2+ Micro Filters

Micro filters are used in consumer residents that connect to the Internet over ADSL2+ services provided by their local telephone company or Independent Service Provider (ISP). Each phone in the consumer residents must be outfitted with a micro filter.

ADSL2+ micro filters perform two main tasks. First, they prevent ADSL2+ high frequency noise from appearing at the telephone and potentially decreasing voice quality. Second, they prevent the telephone equipment from interfering with the ADSL2+ modem by preventing harmonics, overtones and changes in impedance caused by the telephone equipment.

PMF600P-04US and PMF600P-05US

- Part numbers: PMF600P-04US and PMF600P-05US
- Single port and dual port
- RJ11 female interface
- ITU-T G.992.5 standards compliant
- FCC CFR 47 part 68 compliant

PowerLine Carrier (PLC) Adapters

PLC adapters use the power lines within the consumer residents to provide a secure and dependable Internet transport facility for voice, video and data services. Installing the PLC adapter is as easy as plugging it in to the power outlet and connecting the Ethernet cable from the PLC adapter to either your Internet gateway or PC. Once the PLC adapter is plugged into the power outlet, a backbone network is created within the home, turning every power outlet into an Internet connection.

The HomePlug Audio Video (HP AV) specification was ratified in August of 2005. HP AV offers speeds of up to 200Mbps across the power lines in the home.
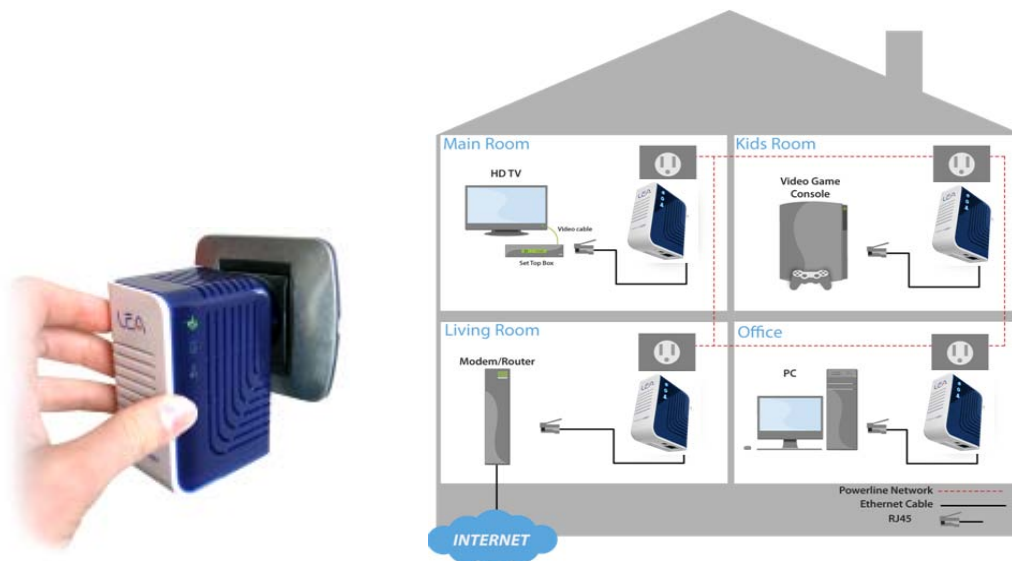
NetPlug200+

- HomePlug AV compliant
- Plug & Network
- Easy pairing button
- Reset to factory default button
- Network Performance LED
  - Green: over 30Mbps
  - Orange: between 15-30Mbps
  - Red: less then 15Mbps
- 1 x 10/100 Ethernet PHY
- 200Mbps PHY rate
- UDP rate: 85 Mbps
- TCP rate: 75 Mbps
- AES 128 bit encryption

New PLC Adapters

LEA Networks will be introducing a new line-up of 200Mbps and 500Mbps PLC adapters in the September/October 2011 timeframe.

NetPlug200

NetSocket200

NetPlug500