

SIGNAL LINE PROTECTION MODULES

Modular and Expandable
Application Specific
Signal Line Protection

Why settle for anything less than the best when it comes to protecting your equipment? Every type of signal requires a different type and level of protection to be effective. Panamax's signal line protection modules are optimized for specific applications and their design allows you to mix and match the modules to provide complete protection for every installation.

Panamax's EX and Pro power protection families offer a variety of models with integrated signal line protection. These units provide all the protection needed for basic systems but complex installations may require more. This family of add-on modules provides the flexibility needed to protect against surges on all signal lines going to or coming from remote equipment. Their styling coordinates with the EX and Pro products but the modules are also backward compatible with Panamax's older towerMAX products.

PRODUCT USES, APPLICATIONS AND SPECIFICATIONS

For Analog Phone System Protection - 2 Lines
DSL Modem Compatible



Designed to protect standard phone lines connected to computer modems, telephones, pay-per-view ports, etc. It will also protect DSL lines (ADSL, G.Lite) going into the DSL modem. The MOD-AT2 module will protect a single phone line using an RJ-11 (2 wire) cord or a dual phone line using an RJ-14 (4 wire) cord.

Model MOD-AT2

SPECIFICATIONS

Telco / DSL Protection:
Fuseless/Auto-Resetttable _____ Yes
Clamping Level _____ 260V
Capacitance _____ 30pf pf (approx.)
Suppression Modes _____ Metallic & Longitudinal
Wires Protected _____ Pins 3,4,5,6
Connectors _____ RJ-14

For Analog Phone System Protection - 4 Lines
DSL Modem Compatible



Designed to protect standard phone lines and DSL (ADSL, G.Lite) lines. Multiple input & output jacks provide complete installation flexibility. Different cables/connectors can be split or combined to accommodate a variety of installations.

Model MOD-AT4

SPECIFICATIONS

Telco / DSL Protection:
SignalPerfect™ Circuitry _____ Yes
Fuseless/Auto-Resetttable _____ Yes
Clamping Level _____ 260V
Capacitance _____ 30 pf (approx.)
Suppression Modes _____ Metallic & Longitudinal
Wires Protected _____ 8
Connectors _____ RJ-45, RJ-14, RJ-11 and S110D

For 8 Analog Phone Lines Using 110 Punchdown
Connectors DSL Modem Compatible



Designed to protect up to 8 standard phone lines using 110 punchdown connectors on both the input and output.

Model MOD-AT8110

SPECIFICATIONS

Telco/DSL Protection:
Fuseless/Auto-Resetttable _____ Yes
Clamping Level _____ 260V
Capacitance _____ 30 pf (approx.)
Suppression Modes _____ Metallic & Longitudinal
Wires Protected _____ 16
Connectors _____ Punchdown S110D

For Digital Phone System Protection - 4 Lines



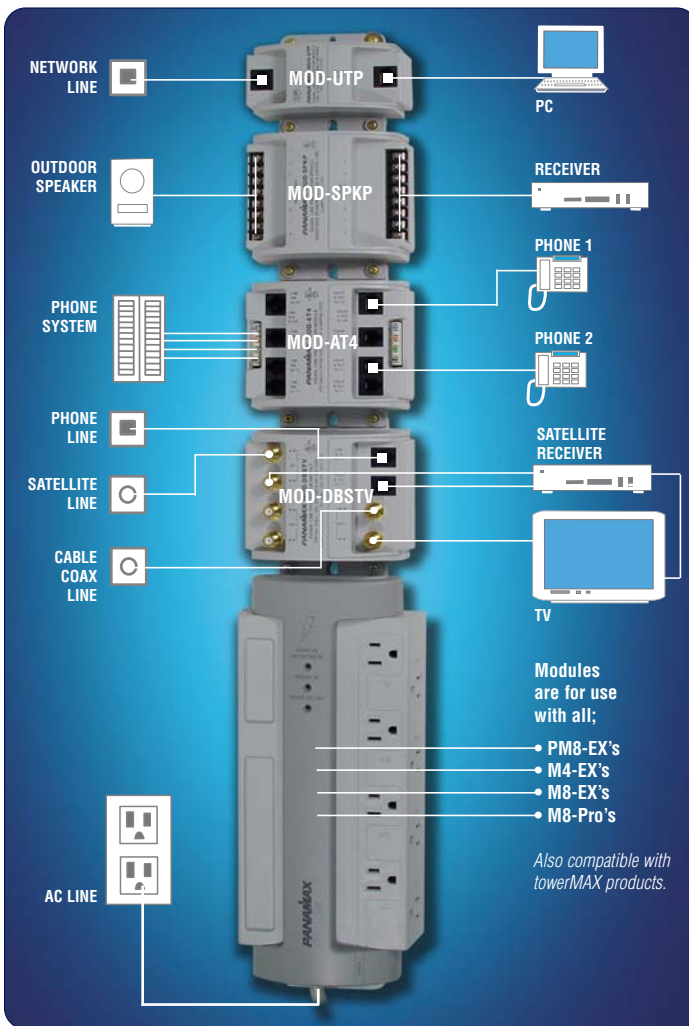
Designed to protect Digital Station (DS) Set phone lines. Station Set lines that leave the building are a pathway for surges (backdoor) to enter the phone system. Multiple input & output jacks provide complete installation flexibility. Different cables/connectors can be split or combined to accommodate a variety of installations.

Model MOD-DT4

SPECIFICATIONS

Telco Protection:
Fuseless/Auto-Resetttable _____ Yes
Clamping Level _____ 70V
Capacitance _____ 50 pf (approx.)
Suppression Modes _____ Metallic & Longitudinal
Wires Protected _____ 8
Connectors _____ RJ-45, RJ-14, RJ-11 and S110D

SIGNAL LINE PROTECTION EXAMPLES



For 10/100 baseT Ethernet Networks



Designed to protect networked computer equipment. It will protect one Ethernet 10/100 Base-T, Token Ring, Arcnet, or AppleTalk network line.

Model MOD-UTP

SPECIFICATIONS

LAN Protection:
Compatibility _____ 10/100bT
Clamping Level _____ 7V
Suppression Modes _____ Differential & Common Ground
Wires Protected _____ Pins 1, 2, 3 and 6
Connectors _____ RJ-45

For Gigabit (1000 bT) Ethernet Networks



Designed for high-speed data applications-networks including CAT 5, fast Ethernet, ATM, and other high-speed active transport devices up to 100 MHz per pair.

Model MOD-CAT5

SPECIFICATIONS

Telco Protection:
Clamping Level _____ 19V @ 1mA
Capacitance _____ <6pf
Suppression Modes _____ Differential & Common Ground
Wires Protected _____ Pins 1-8
Connectors _____ RJ-45
CAT5E Compliant _____ Yes
Speed _____ ≤100 Mh/s per pair

For Satellite, CATV, Cable / DSL Modems & Pay-Per-View Lines



Designed to protect 2 satellite lines, 1 cable TV or antenna line, and 1 telephone line.

Model MOD-DBSTV

SPECIFICATIONS

Telco / DSL Protection:
Fuseless/Auto-Resetttable _____ Yes
Clamping Level _____ 260V
Capacitance _____ 30 pf (approx.)
Suppression Modes _____ Metallic & Longitudinal
Wires Protected _____ 1 Pair (Pins 4, 5)
Connectors _____ RJ-11

Satellite Protection:

Shielded _____ Yes
Clamping Level _____ 25V
Frequency Range _____ 950MHz - 2.2GHz
Insertion Loss _____ <1dB
Connectors _____ Gold Plated Female "F"

CATV and Cable Modem Protection:

Bidirectional _____ Yes
Shielded _____ Yes
Clamping Level _____ 1.4V
Frequency Range _____ 5MHz-950MHz
Insertion Loss _____ <1dB
Connectors _____ Gold Plated Female "F"

For Outdoor Speakers, Keypads and Control Lines



Designed to protect outdoor speaker, keypad, control and security wires (8 wires or 4 pairs). Equipment lines that lead outside the building are pathways for surges (sometimes called backdoor surges) to enter the equipment.

Model MOD-SPKP

SPECIFICATIONS

Signal Line Protection:
Clamping Level _____ 47V
Modes Protected _____ All Terminals to Ground
Wires Protected _____ 8
Per Wire Capacity _____ 7 Amp
Wire Size _____ 12 AEG Max.
Connectors _____ 8 Wire Screw Terminals
Screw Terminals _____ Compatible w/ 12 Gauge Wire
Power Handling Capacity for Outdoor Speakers;
225 Watts per Channel for 4 Ohm Speakers
450 Watts per Channel for 8 Ohm Speakers

General: For all Modules

Lightning Protection _____ Yes
Product Warranty _____ Lifetime
Mounting Hardware Included _____ Yes

Specifications subject to change without notice due to continuing product updates and improvements.

UPC's, Quantities, Weights and Measures for Ordering & Shipping

| MODEL | INDIVIDUAL UNIT | | | | | INNER PACK | | | | MASTER CARTON | | | |
|------------|-----------------|------|--------------------------|------------------|------------------|------------|---------------------------|------------------|------------------|---------------|---------------------------|------------------|------------------|
| | UPC | Qty. | Carton Dimensions | Weight in Pounds | UPC | Qty. | Carton Dimensions | Weight in Pounds | UPC | Qty. | Carton Dimensions | Weight in Pounds | UPC |
| MOD-AT2 | 0 50616 00769 6 | 6 | 7.25" x 6.25" x 5.50" H | 3.25 | 30 50616 00769 7 | 24 | 13.0" x 7.50" x 12.0" H | 15.0 | 50 50616 00769 1 | 24 | 13.0" x 7.50" x 12.0" H | 15.0 | 50 50616 00769 1 |
| MOD-AT4 | 0 50616 00770 2 | 6 | 13.0" x 11.25" x 5.75" H | 5.10 | 30 50616 00770 3 | 24 | 22.5" x 13.5" x 12.0" H | 22.5 | 50 50616 00770 7 | 24 | 22.5" x 13.5" x 12.0" H | 22.5 | 50 50616 00770 7 |
| MOD-AT8110 | 0 50616 00771 9 | 6 | 13.0" x 11.25" x 5.75" H | 4.75 | 30 50616 00771 0 | 24 | 22.5" x 13.5" x 12.0" H | 21.0 | 50 50616 00771 4 | 24 | 22.5" x 13.5" x 12.0" H | 21.0 | 50 50616 00771 4 |
| MOD-DT4 | 0 50616 00772 6 | 6 | 13.0" x 11.25" x 5.75" H | 5.10 | 30 50616 00772 7 | 24 | 22.5" x 13.5" x 12.0" H | 22.5 | 50 50616 00772 1 | 24 | 22.5" x 13.5" x 12.0" H | 22.5 | 50 50616 00772 1 |
| MOD-UTP | 0 50616 00773 3 | 6 | 7.25" x 6.25" x 5.50" H | 3.60 | 30 50616 00773 4 | 24 | 13.0" x 7.50" x 12.0" H | 16.5 | 50 50616 00773 8 | 24 | 13.0" x 7.50" x 12.0" H | 16.5 | 50 50616 00773 8 |
| MOD-CAT5 | 0 50616 00774 0 | 6 | 7.50" x 6.50" x 5.75" H | 4.40 | 30 50616 00774 1 | 24 | 13.25" x 7.75" x 12.25" H | 20.0 | 50 50616 00774 5 | 24 | 13.25" x 7.75" x 12.25" H | 20.0 | 50 50616 00774 5 |
| MOD-SPKP | 0 50616 00775 7 | 6 | 13.0" x 11.25" x 5.75" H | 4.40 | 30 50616 00775 8 | 24 | 22.5" x 13.5" x 12.0" H | 20.0 | 50 50616 00775 2 | 24 | 22.5" x 13.5" x 12.0" H | 20.0 | 50 50616 00775 2 |
| MOD-DBSTV | 0 50616 00776 4 | 6 | 13.0" x 11.50" x 6.5" H | 6.40 | 30 50616 00776 5 | 24 | 27.0" x 13.5" x 12.5" H | 28.0 | 50 50616 00776 9 | 24 | 27.0" x 13.5" x 12.5" H | 28.0 | 50 50616 00776 9 |



1690 Corporate Circle
Petaluma, CA 94954

www.panamax.com
800-472-5555