

# Quick Start

## NetVanta PoE Protector/Injector

P/N 1702595F15



### SPECIFICATIONS

- Compliance** FCC Part 15 Class B, EN 300 386  
EN 60950-1, IEC 60950-1, AS/NZS 60950-1, UL 497A,  
CAN/CSA C22.2 No. 226-92  
RoHS compliant
- Physical** Dimensions: 3.37-inch W x 1.12-inch H x 4.41-inch D  
Operating Temperature: 0°C to 50°C  
Storage Temperature: -40°C to 70°C  
Relative Humidity: 10 to 95 percent, noncondensing

### LED BEHAVIORS

LED	Color	Indication
POWER	Off	The device is not powered.
	Green (solid)	The device is powered by either a PoE switch or the optional power adapter.
DEVICE	Off	No valid PoE device is present.
	Green (solid)	A compliant PoE load has been detected.
	Green (flashing)	A non-compliant PoE load has been detected.

#### NOTE

- If the NetVanta PoE Protector/Injector is connected to both power sourcing equipment (PSE) and the optional power adapter (P/N 1700501F1), the power adapter takes precedence. If the protector/injector loses power from the power adapter, there will be a brief disruption of service while the PSE negotiates with the protector/injector.
- The loading capability of the NetVanta PoE Protector/Injector is limited. Due to isolation and power requirements, approximately 5 W is dissipated as heat in the power supply. For example, typically a class 4 device can use up to 30 W of power. However, when using the NetVanta PoE Protector/Injector, power available to the downstream device would be limited to 25 W. The PSE will show 30 W being delivered, 25 W to the load and 5 W to the protector/injector.

### DESCRIPTION

The NetVanta PoE Protector/Injector provides detection, disconnect, overload, and voltage control protection fully compliant with IEEE 802.3af and 802.3at PoE specifications. It can provide power and data to an array of downstream PoE powered devices (PDs), such as IP telephones, wireless network access points, Bluetooth access points, security cameras, and IP print servers without the need for and expense of AC power outlets. Additionally, in situations where PoE is not available, the optional 48 V power supply can be used to inject PoE power.

The NetVanta PoE Protector/Injector also functions as a single port Ethernet surge protector where Ethernet cabling is exposed to external hazards.

The protector/injector minimizes the voltages and current levels transferred to the Ethernet or PoE port of the network equipment (e.g., switch) being protected, during electrical disturbances such as lightning storms or AC power induction/cross that occur on the device side (phone, camera, etc.). This allows the PoE or Ethernet port of the switch to continue functioning properly and in most cases prevents permanent damage. Additionally, the protector/injector protects itself and the Ethernet port from becoming a fire or fragmentation hazard as a result of lightning or AC power cross events.

A significant advantage of the protector/injector is it does not require a ground connection. Protection is accomplished by high voltage isolation >6KV impulse.



- Two NetVanta PoE Protector/Injectors cannot be used in tandem. For full Ethernet circuit protection the downstream PD must also have suitable Ethernet port protection.
- The NetVanta PoE Protector/Injector must be installed within 20 feet of the PSE. Otherwise, electrical disturbances can occur between the PSE and the protector/injector, which can damage the switch.
- Maximum operating temperature is 45°C when using the optional power adapter.

### PROTECTOR/INJECTOR INSTALLATION INSTRUCTIONS

The NetVanta PoE Protector/Injector should be installed between the PoE switch and the downstream PD. To install the PoE injector, follow these steps:

- Optional. If using the optional AC power adapter (P/N 1700501F1), insert the power adapter's output power cable into the receptacle labeled **48V DC IN**. Insert the power adapter's three-pronged plug into an appropriate AC power source. When the protector/injector is powered by the optional adapter, the **POWER LED** will illuminate signifying that the device is ready to power an 802.3af or 802.3at compliant load.
- Insert the cable extending from the switchport into the port labeled **TO NETWORK**. When the protector/injector is powered by the PoE switch, the **POWER LED** will illuminate signifying that the device is ready to power an 802.3af or 802.3at compliant load. (If the optional adapter was used, the **POWER LED** will already be illuminated.)
- Insert another Ethernet cable from the **TO DEVICE** port of the protector/injector into the Ethernet port of the downstream PD. If the PD's load is compliant, the green **DEVICE LED** will illuminate and remain solid. If the load is not compliant, the LEDs will flash signifying the load is noncompliant. Refer to the [LED Behaviors](#) table for a list of expected LED behaviors.
- The NetVanta PoE Protector/Injector can be mounted on the wall using two small screws through the keyhole slots in the bottom of the case. Ensure that the protector/injector is mounted so that no tension is placed on the optional power adapter's power cords or the Ethernet cables.

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**SAFETY AND REGULATORY COMPLIANCE****WARNING**

- Read all warnings and cautions before installing or servicing this equipment.
- The Ethernet Equipment port is classified as Type 2 or 4, as defined in Appendix B of GR-1089-CORE, and is suitable for connection to intra-building or unexposed wiring or cabling only. Do not metalically connect this port to interfaces which connect to the Outside Plant (OSP) or to the OSP wiring. The addition of Primary Protectors is not sufficient protection in order to connect this interface metalically to OSP wiring.

**CAUTION!**

Electrostatic Discharge (ESD) can damage electronic modules. When handling modules, wear an antistatic discharge wrist strap to prevent damage to electronic components. Place modules in antistatic packing material when transporting or storing. When working on modules, always place them on an approved antistatic mat that is electrically grounded.

**NOTE**

- The Ethernet Line port is classified as Type 1, 2, 3a, 3b, 4, 5a, or 5b as defined in Appendix B of GR-1089-CORE. If deployed as type 1, 3a, 3b, 5a, or 5b the ports meet the lightning and power fault criteria with any primary protector that meets any of the voltage limits of GR-974-CORE or GR-1361-CORE (that is, carbon blocks, gas tubes, and so forth). If deployed as 2 or 4 ports, primary protectors are not required.
- Solid-state primary protectors are not recommended as they will adversely affect the signal integrity of the Ethernet signal.
- Per GR-1089-CORE Section 9, this product is not DC powered and therefore is not classified as either DC-C or DC-I.
- The product is designed to be deployed in GR-3108-CORE environmental class 1 and 3 as defined in GR-3108-CORE issue 2.

This product is NRTL Listed to UL 497A for use as a secondary telecommunications protector and meets or exceeds all the applicable requirements of NEBS, Telcordia GR-63-CORE, GR-3108-CORE (Class 1, 2, and 3), and GR-1089-CORE. It has been approved for UL 497A, IEC 60950-1, and CE Mark.

This product is intended for deployment in Central Office type facilities, EEEs, EECs, cells sites, and locations where the NEC applies (ex., Customer Premises).

Changes or modifications not expressly approved by ADTRAN could void the user's authority to operate this equipment. This product is designed to meet the following environmental classes:

- ETSI EN 300 019-1-1 "Classification of environmental conditions; Storage," Class 1.2
- ETSI EN 300 019-1-2 "Classification of environmental conditions, Transportation," Class 2.3
- ETSI EN 300 019-1-3 "Classification of environmental conditions, Stationary use at weather protected locations," Class 3.3

The equipment is designed to function without degradation during exposure to all test severities per Class 3.3 of ETSI EN 300 019-1-3.

The EPPD meets EU RoHS Directive 2002/95/EC and/or applicable exemptions. Refer to [www.adtran.com](http://www.adtran.com) for further information on RoHS/WEEE.

**FRANÇAIS****ATTENTION**

Lisez tous les avertissements et mises en garde avant l'installation de cet équipement ou la réalisation de toute opération de maintenance.

**AVERTISSEMENT**

L'ESD (décharge électrostatique) peut endommager les modules électroniques. Lors de la manipulation des modules, portez un bracelet de décharge antistatique pour éviter d'endommager les composants électroniques. Placez les modules dans un emballage antistatique lors du transport ou du stockage. Lorsque vous travaillez sur les modules, placez-les toujours sur un tapis antistatique certifié muni d'un branchement de mise à la terre.

Ce produit est conçu pour répondre aux classes environnementales suivantes:

- ETSI EN 300 019-1-1 Classification des conditions d'environnement; Entreposage, classe 1.2
- ETSI EN 300 019-1-2 Classification des conditions d'environnements; Transport, classe 2.3
- ETSI EN 300 019-1-3 Classification des conditions d'environnements; l'utilisation à poste fixe dans des endroits protégés contre les intempéries, classe 3.3

L'équipement est conçu pour fonctionner sans dégradation lors des tests à tous les niveaux de sévérité, suivant les spécifications de la classe 3.3 de l'ETSI EN 300 019-1-3.

Ce produit est conforme à la directive européenne RoHS 2002/95/CE et/ou aux exonérations applicables. Reportez-vous à [www.adtran.com](http://www.adtran.com) pour de plus amples renseignements sur RoHS/WEEE.

**DEUTSCH****WARNUNG**

Lesen Sie sich alle Warn- und Sicherheitshinweise durch, bevor Sie dieses Gerät installieren oder warten.

**VORSICHT**

Elektrostatische Entladung können elektronische Module beschädigen. Tragen Sie beim Umgang mit Modulen ein Erdungsarmband, um Schäden an den elektronischen Komponenten zu vermeiden. Transportieren oder lagern Sie Module in antistatischem Verpackungsmaterial. Bei der Arbeit an den Modulen, achten Sie darauf, diese stets auf antistatische, elektrisch geerdete Matten zu legen.

Dieses Produkt wurde entsprechend der folgenden Umweltklassen entwickelt:

- ETSI EN 300 019-1-1 Klassifikation von Umweltbedingungen, Lagerung, Klasse 1.2
- ETSI EN 300 019-1-2 Klassifikation von Umweltbedingungen, Transport, Klasse 2.3
- ETSI EN 300 019-1-3 Klassifikation von Umweltbedingungen, Stationärer Einsatz ohne Witterungseinflüsse, Klasse 3.3

Dieses Gerät funktioniert ohne Leistungsabfall während aller für Klasse 3.3 von ETSI EN 300 019-1-3 vorgeschriebenen Belastungstests.

Dieses Produkt erfüllt die EU RoHS Richtlinie 2002/95/EC und/ oder gültige Ausnahmen. Bitte besuchen Sie [www.adtran.com](http://www.adtran.com) für ausführlichere Informationen zu RoHS/WEEE.