# EKI-1751

## 10/100Base-T, Ethernet over VDSL2

## Features

- Media and protocol converter (1)10/100BaseT ports to (1)VDSL2
- Operates over existing CAT3 cabling
- Supports VDSL, Band plans 997 and 998 (symmetrical and asymmetrical) transmission per ITU-T G.993.2 standard
- On board surge protection
- LED indicators for power, speed and other status
- Signal to Noise Ratio setting (SNR)

## Introduction

The EKI-1751-AE is a Long Reach Ethernet Extender to utilize existing copper cabling infrastructure (twisted pair), extending Ethernet to up to 1200 meters over VDSL2. Applications such as IP-based Internet connections, video surveillance and voice services can benefit from the EKI-1751-AE series. The devices support VDSL2 Profiles 17a and 30a.

EKI-1751-AE is designed to work in pairs, over twisted pair; as an unmanaged product, it is easy to install and each Extender can be set to a Master (CO) or Remote (CPE) via a DIP Switch. Offering one model that can be set to a Master or Remote and operate as a pair reduces the cost of investment and minimizes inventory as well.

The Extenders support SNR Margin, VDSL2 Profile 30a(High Bandwidth Mode) or VDSL2 Profile 17a(Long Reach Mode), and Symmetric/Asymmetric data throughput, all DIP Switch-selectable. The selection of symmetrical or asymmetrical for throughput of upstream/downstream data rates directly influences the distance covered. LEDs include link activity, VDSL status, and Central Office or Customer Premises Equipment designation.

The Extenders meet 802.3 Ethernet standards, as well as transparently supporting VLANS, 802.1q.

## Specifications

### Interface

- **I/O Port**               1 x 10/100Base-T/TX RJ-45
                             1 x VDSL2 Extender RJ-45
- **Power Connector**        2.1mm DC Jack

### Dip Switch

- **Pin 1**                  Selectable CO or CPE mode
- **Pin 2**                  Selectable 30a or 17a (VDSL2 Profile)
- **Pin 3**                  Selectable Band plan (Symmetric or Asymmetric)
- **Pin 4**                  electable target SNR margin (6dB or 9dB)

### Physical

- **Enclosure**              Metal Shell
- **Protection Class**       IP 30
- **Installation**           Din-Rail or Panel Rack Mountable
- **Dimensions (W x H x D)** 72.5 x 23 x 94.5 mm (2.85" x 0.91" x 3.72")

### LED Display

- **System LED**             PWR
- **Port LED**               Link / Speed / Activity

### Environment

- **Operating Temperature**       0 ~ 45°C (32 ~ 113°F)
- **Storage Temperature**         -40 ~ 70°C (-40 ~ 158°F)
- **Ambient Relative Humidity**   0 ~ 95% (non-condensing)
- **Humidity**                    0 ~ 95% (non-condensing)

### Power

- **Power Input**            $12V_{DC}$ / 1A, External Power Adapter
- **Power Consumption**      4.2W

### Certification

- **EMI**                    CE, FCC Class A
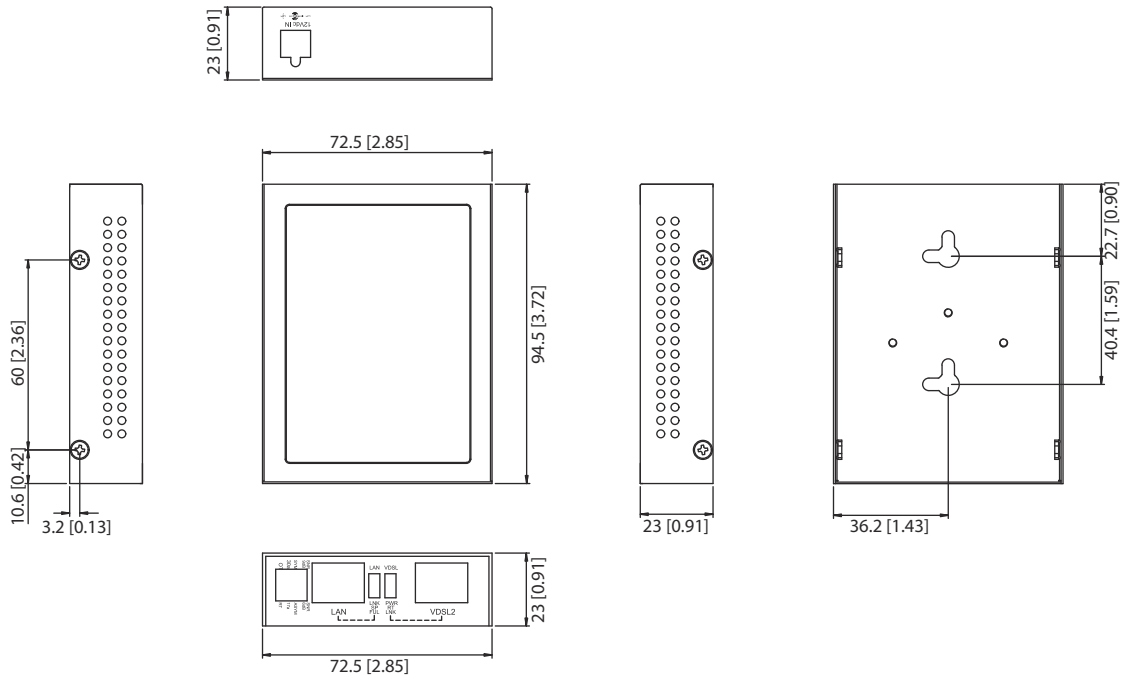- **Safety**                 UL60950
- **EMC**                    EN 61000-4-2
                             EN 61000-4-3
                             EN 61000-4-4
                             EN 61000-4-5
                             EN 61000-4-6
                             EN 61000-4-8
                             EN 61000-4-11
- **Shock**                  IEC 60068-2-27
- **Freefall**               IEC 60068-2-32
- **Vibration**              IEC 60068-2-6
- *= Compliant
- **Patent**                 http://www.advantech.com/legal/patent

## Dimensions

Unit: mm [inch]

23 [0.91]

72.5 [2.85]

94.5 [3.72]

60 [2.36]

10.6 [0.42]

3.2 [0.13]

23 [0.91]

36.2 [1.43]

22.7 [0.90]

40.4 [1.59]

23 [0.91]

72.5 [2.85]

LAN

VDSL2

**Panel Cut-out Dimensions: 72.5 x 23 x 94.5 mm (2.85" x 0.91" x 3.72")**

## Ordering Information

- **EKI-1751-AE**          VDSL2 Ethernet Extender Compact