

## 10/100 VDSL Ethernet Extender Kit over Single Pair Wire 1km

110VDSLEXT

110VDSLEXTGB

110VDSLEXTEU



\*actual product may vary from photos

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## FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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# Introduction

## Package Contents

- 2 x 110VDSLEXT/GB/EU units
- 2 x RJ-45 to VDSL Cable
- 2 x Power Adapter
- Instruction Manual

# Installation

## Hardware Installation

1. Install one of the 110VDSLEXT / GB / EU units with all four of the DIP switches set to the upward (OFF) position. This places the unit in CO mode.
2. Install the second 110VDSLEXT / GB / EU unit with DIP switches 2 through 4 set to the upward (OFF) position and DIP switch 1 set to the downward position (ON). This places the unit in CPE mode.
3. Plug the DC power adapter into the port on the rear panel of the units, and then into an available AC outlet.
4. Plug in an RJ45 Ethernet cable to the RJ45 port on the 110VDSLEXT / GB / EU units. Connect the other end of the cables to your Ethernet devices.
5. Plug a phone cable into the VDSL port of the 110VDSLEXT/GB/EU. Connect the other end of the cable into the opposing 110VDSLEXT/GB/EU unit.
6. **Optional:** Configure DIP switches 2 through 4 as necessary (see *DIP Switch Settings* section). Leave DIP switch 1 alone, as one unit should always be set to CO mode while the other is CPE mode.

# Operation

## LED Displays

### LAN LED Display

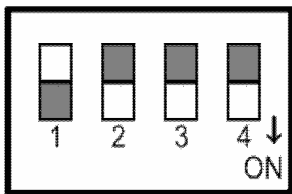
LED	Blinking	ON	OFF
1	Activity	Link up	Link down
2		100 Mbps	10 Mbps
3		Full duplex	Half duplex

### VDSL LED Display

LED	Blinking	ON	OFF
1	Activity	Device Power On	Device Power Off
2	-	CPE Mode	CO Mode
3	Slowly: Idle Quickly: Training	Linked	Offline

## DIP Switch Settings

The 110VDSLEXT / GB / EU has a 4-position DIP switch for configuration of *Side*, *Channel*, *Rate Limit*, and *SNR*.

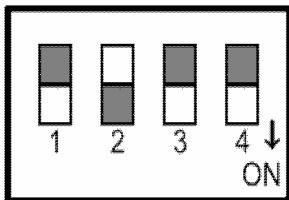


### Pin 1 - CO, CPE Switch

**OFF:** If Pin 1 is in the OFF position, the 110VDSLEXT / GB / EU will operate in Central Office (CO) mode.

**ON:** If Pin 1 is in the ON position, the 110VDSLEXT / GB / EU will operate in Customer Premise Equipment (CPE) mode.

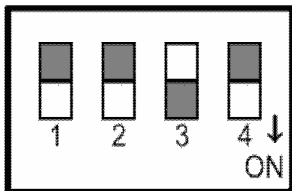
## Pin 2 - Interleave Noise Protection



**OFF:** If Pin 2 is in the OFF position, the 110VDSLEXT / GB / EU will operate in Interleave mode, with communication protection for up to 250ms of impulse noise with latency less than 6 ms

**ON:** If Pin 2 is in the ON position, the 110VDSLEXT / GB / EU will operate in Fast mode, with direct data transmissions having less than 1ms of latency.

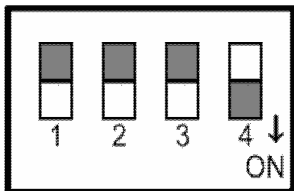
## Pin 3 - Band Plan



**OFF:** If Pin 3 is in the OFF position, the 110VDSLEXT / GB / EU will operate in Symmetric mode, with both downstream and upstream transmissions operating on the G.997 band plan.

**ON:** If Pin 3 is in the ON position, the 110VDSLEXT / GB / EU will operate in Asymmetric mode, with asymmetric short range transmissions operating at the highest available line rate.

## Pin 4 - General Protection



**OFF:** If Pin 4 is in the OFF position, the 110VDSLEXT / GB / EU will operate with a SNR ratio up to 9 dB.

**ON:** If Pin 4 is in the ON position, the 110VDSLEXT / GB / EU will operate with a SNR ratio of 6 dB.

# Connector Architecture

## Ethernet Port

Pin Number	Assignment (MDI-X)
1	RX+; Receive data +
2	RX-; Receive data -
3	TX+; Transmit data +
4	Not used
5	Not used
6	TX-; Transmit Data -
7	Not used
8	Not used

## VDSL Port

Pin Number	Assignment (MDI-X)
1	Not used
2	Not used
3	Not used
4	ANALOG Input/Output
5	ANALOG Input/Output
6	Not used
7	Not used
8	Not used



# Specifications

	<b>110VDSLEXT</b> <b>110VDSLEXTGB</b> <b>110VDSLEXTEU</b>
<b>LAN Interface</b>	RJ-45 connector Complies with IEEE 802.3/802.3u/802.3x 10/100 Base-T Auto-Negotiation, Auto-MDI/MDI-X
<b>VDSL Interface</b>	RJ-45 connector DMT Encoding Complies with ITU-T G993.1/993.2 On-board surge protection
<b>DIP Switch</b>	4 position
<b>LED</b>	LAN: ACT/LNK, 10/100 Mbps, Half/ Full Duplex VDSL: Power On/Off, CO/CPE, Idle/ Trained/Link
<b>Power Supply</b>	12VDC, 1A output, 3.5mm jack
<b>Power Consumption</b>	4.2 Watt maximum
<b>Dimensions</b>	95.5 mm x 72.0 mm x 22.0 mm

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## Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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