Tupavco TEX-200 Ethernet Extender
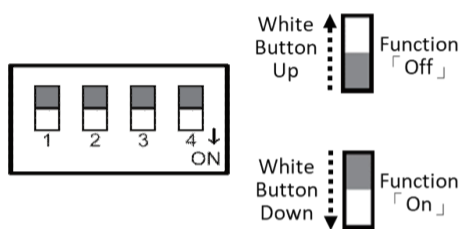
Quick Installation Guide (v1.3)

Installation Procedure

■ STEP 1:
Set the LAN extender to CO mode or CPE mode from the DIP Switch at the front panel. For Point to Point applications, one unit must be Master/Transmitter (CO mode OT) and the other one is Slave/Receiver (CPE mode RT).

■ STEP 2:
Connect the master device (CO) with a regular Cat 5/6 to the LAN port from a router or another signal source device.

■ STEP 3:
Power on LAN extender (CO) by connecting the power adapter.

■ STEP 4:
Connect the CPE and CO devices via a regular Cat. 5/6 cable; phone cable or twisted pair wire using VDSL2 ports on transmitter and receiver devices.

■ STEP 5:
Connect the receiver (CO) with a regular Cat. 5 cable to the LAN port and then connect the other end of the RJ45 cable to the service equipment.

■ STEP 6:
Power on LAN extender (CO) by connecting the power adapter.

4-Position DIP Switch

8 profile settings allow users to select the parameters in order to meet the needs of different applications.

Note:
There are four white buttons for DIP Switch. Moving the white button **up** position, its function is "**Off**". Moving the white button **down** position, its function is "**On**".

LED Indicators

The following table explains the LED indicators on the front panel.

LEDs for VDSL2

LED	Color	Blink	On	Off
PWR	Green		Device Power On	Device Power Off
RT	Green		CPE (Remote)	CO (Master)
LNK	Green	Slow: Idle Fast: Training / Data Transmitting	Link Up	Link Down

LEDs for Ethernet Port

LED	Color	Blink	On	Off
10	Green	Data Transmitting	Link speed at 10 Mbps	Link Down
100	Green	Data Transmitting	Link Speed at 100 Mbps	Link Down
1000	Green	Data Transmitting	Link Speed at 1000 Mbps	Link Down

Role	DIP Switch	Symmetrical / Asymmetrical	G.INP / Interleaved Mode	Target SNR Margin (dB)	Max Data Rate DS / US (Mbps)
Master (OT)		Symmetrical	G.INP	8	160/160
		Asymmetrical	G.INP	8	220/110
		Symmetrical	Interleaved	6	160/160
		Asymmetrical	Interleaved	6	220/110
		Symmetrical	G.INP	12	150/150
		Asymmetrical	G.INP	12	220/100
	*Special Profile Setting for poor environment	Symmetrical (Forcing 30a profile to link, and disable band 0 to 2.2MHz)	G.INP	24	20/20
		Asymmetrical (Standard profile Annex A 17a-eu32)	Interleaved	6	150/50
Remote (RT)		Remote Unit (RT) will always follow the setting of Master Unit (OT). When the unit operates in RT (CPE) Mode, DIP Switches 2, 3, 4 have no functions.			

VDSL2 Interface Pin Assignments (RJ-45)

The VDSL2 interface is standard eight-pin modular jack. The table below displays the pin out assignments.

Pin Number	Description	Figure
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	

⚠ Precautions and Safety Warnings

● Disconnect all power from devices before attempting installation.

● This device is intended for installation only in restricted access locations as defined where both these conditions apply:

▪ Access is through the use of a lock or tool and key, or other means of security, and is controlled by the authority responsible for the location.

▪ Access can only be gained by service persons or by users who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken.

● All electric installations must be carried out in accordance with local and national regulations.

● Do not work on the system, connect or disconnect cables during periods of lightning activity.

● The equipment must be connected to earth.

● Shield of RJ-45 cables has to be connected to the same earth potential as the equipment.

● If the VDSL interface is used for the connection between two buildings, all necessary protective measures must be ensured externally.

● This equipment relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a fuse or circuit breaker no larger than 1A is used.

Note:
To reduce potential safety issues, only the AC Adapter provided with the product, a replacement AC Adapter provided by agency, or an AC adapter purchased as an accessory from agency should be used with the product.

Technical Specifications

VDSL2 Interface
■ RJ-45 Connector
■ DMT Encoding
■ Complying with ITU-T G993.1/G993.2/G993.5/G.997.1/G.998
■ G.INP
■ On-board Surge Protection

LAN Interface
■ 1 x RJ-45 Connector
■ 10/100/1000 Base-T; Auto-Negotiation, Auto-MDI/MDI-X.
■ Complying with IEEE 802.3/802.3u/802.3z

4-position DIP Switch
■ Selectable Master (OT) or Remote (RT) Mode
■ Selectable 8 Different Profile Settings via Dip Switch: G.INP/Interleaved (Plastic Enclosure), Target SNR 6/8/12/24 dB, Symmetric/Asymmetric Modes

LED
■ Power: On/Off
■ LAN: Fast Ethernet/Gigabit Ethernet
■ VDSL2: Mode – CO (OT) / CPE (RT); Sync - Idle / Trained / Link

Power Supply
■ Plastic and Metal Enclosure (AC): 12 Vdc over 2.1mm DC Jack (Commercial Grade External Power Adaptor included)
■ Power Consumption: 4.5 Watts (Max)

Power Wiring (Metal Enclosure)
■ 2-PIN Terminal Block
■ Wire range: 0.2 mm² to 2.5 mm²
■ Solid wire (AWG): 12-28
■ Stranded wire (AWG): 12-30
■ Torque: 5 lb-In/0.5 Nm/0.56 Nm
■ Wire strip length: 7-8 mm
■ Max wire length: 3m (9.84ft)

Physical Characteristics
■ Dimension (W x H x D): 96.5 x 23 x 73.4 mm
■ Installation (Plastic Enclosure): Wall Mounting / Media Converter Chassis (Optional)
■ Installation (Metal Enclosure): DIN Rail / Wall Mounting (Optional)

Environment
■ Operating Temperature: 0°C ~45°C (Plastic Enclosure)
■ Humidity: 0%~95% RH (non-condensing)

Regulatory Compliance
■ CE Class A
■ FCC Part 15B Class A (Plastic Enclosure)
■ FCC Part 15 Class A (Metal Enclosure)
■ EN62368