

JetCon 2502

Ethernet over VDSL Extender



CE FC  RoHS



- IEEE 802.3u 100Base-TX Fast Ethernet Converter
- IEEE 802.3x Flow control & Back-pressure
- ITU-T G.993.2 VDSL2 standard
- 2 x RJ-11 connectors for POTS/ISDN and VDSL 2
- One RJ-45 10/100Mbps Fast Ethernet Port
- Built-in POTS/ISDN Splitter
- Extends Voice and Ethernet transmission distance to 1KM
- Transparent 1792 bytes packet size
- Quality of service with broadcast packet filtering for data precedence transmission
- DC 12~48V Power input by power jack and terminal block
- Supports AC 1.5KV Hi-Pot isolation protection
- Operating temperature -40~70°C

Ideal Ethernet / Voice Extender

JetCon 2502 is an Ethernet/POTS to VDSL2 (Very High-Rate Digital Subscribe Loop -2) extender and is compliant with ITU-T G.993.2 standard. It allows carriers to deliver Ethernet data up to 100Mbps in both upstream and downstream over existing twisted copper. The Ethernet/POTS (Plain Old Telephone

Service) converter features Discrete Multi-Tone modulator/ de-modulator and VDSL Analog Front End (AFE) technology; it is an ideal solution to carry POTS signal and Ethernet Data stream to 3000 feet to extend local LAN and voice on the same line.

Economical and Simple Connection

To deploy VDSL2 access with the telephone network, the VDSL2 converter should follow the line impedance of telephone network. Therefore, each region will adopt different line splitters to provide best communication quality.

As a result, users need additional wiring and splitter, but mostly need to make a jumble at home and office. To solve this problem, the JetCon 2502 has implemented splitter for each region to save your installation time and make it more easily to connect.

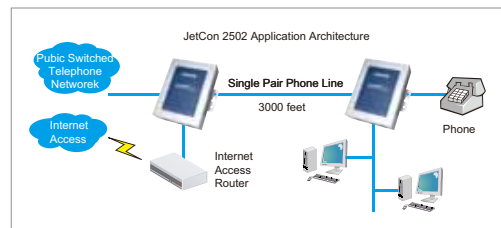
Central and Discrete Internet Access

For the network infrastructure, JetCon 2502 is the best choice for planning centralized internet access through the existing POTS wiring system

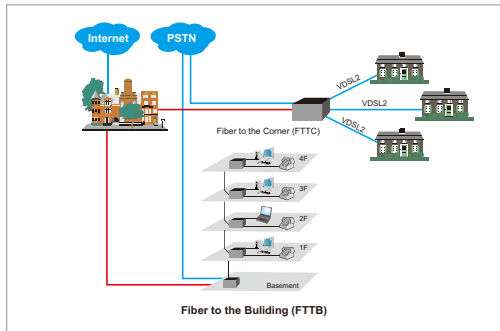
for hotels, dormitories or for places where there is a need to extend LAN over 100m over a single pair of copper path.

Triple Play – HDTV, Data Access, Video conference

JetCon 2502 allows users to compete with wireless and satellite providers by offering outstanding service, such as Video conference, HDTV or Video chatting over an existing telephone copper cable without any configuration, just plug and play to enlarge infrastructure for your applications.



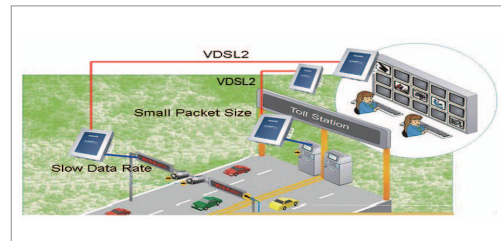
Internet Last Mile Access



The VDSL2 technology is also deployed at the last mile of internet access. The ISP uses the fiber cable as backbone uplink to the basement of building (FTTB) or corner of streets (FTTC) and uses the existing 1 pair twisted cable of POTS system to carry voice and Ethernet data stream to users via VDSL2 signal.

Intelligent Traffic System application

In Intelligent Traffic systems (ITS), the VDSL2 technology could be applied in the long distance data transmission for the traffic signal control or traffic information signboard. JetCon 2502 can save the fiber cost by using the twisted cable up to 3000 feet at DS/US data rate 35Mbps / 8Mbps for low speed data transmission but over the Ethernet link distance.



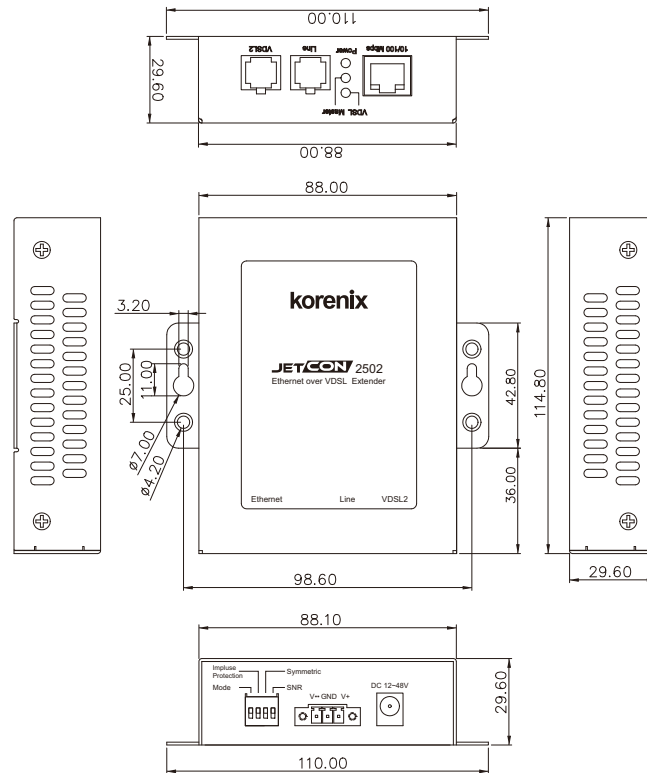
- Industrial Intelligent NMS
- Rackmount PoE Plus Switch
- Industrial PoE Plus Switch
- Industrial 12-24V PoE Switch
- Industrial PoE Switch
- Rackmount L3/L2 Switch
- Gigabit Managed Switch
- Managed Ethernet Switch
- Entry-level Switch
- Wireless Outdoor AP
- Embedded PoE/Router Computer (LINUX)
- Industrial Communication Computer (WIN/LINUX)
- Ethernet/PoE/Serial Board
- Ethernet I/O Server
- Media Converter**
- Serial Device Server
- SFP Module
- Din Rail Power Supply

Subway & Railway System application

JetCon 2502 can also be applied in the subway and railway system to offer a long distance transmission with low data traffic, such as the Fire Alarm System (FAS) and Passenger Information Direction System

(PIDS) with the VDSL2 technology to communicate between outdoor device and Control Room to replace the fiber cable and therefore save more costs.

Dimensions (Unit = mm)



Specification

Technology

Standard:

IEEE 802.3 10 Base-T
 IEEE 802.3u 100 Base-TX
 IEEE 802.1p Class of Service
 IEEE 802.1Q Quality of Service
 ITU-T G.993.2 VDSL2

Performance

Forwarding Technology: Store and Forward technology with 64 ~1792 bytes packet forwarding ability

Switch Packet Buffer: 384Kbits

Mac Table: 2K with 300 Sec agent time

Class of Service: 4 Packet forwarding queues with 1 (Lowest):4 (Low):8 (High):15 (Highest) WRR (weighted round robin) forwarding schematics

Quality of Service: VLAN tag priority, IPv4 packet precedence and IPv6 ToS.

Broadcast filtering: Fast Ethernet: 200 packet / per sec. @ 100Mbps; 20 packet / per sec. @ 10Mbps

Interface

Number of Ports: 1x 10/100Mbps Fast Ethernet port with Auto MDI/MDI-X function
 Auto-Negotiation
 1x Line for ISDN/POTS
 1x VDSL2

Connectors: 10/100 Base-TX: RJ-45 with auto MDI/MDI-X, Auto-Negotiation
 ISDN/POTS: RJ-11
 VDSL2: RJ-11

Cables: RJ-45 Fast Ethernet port: Cat.4,5, 4-pairs UTP cable, up to 100 meters
 VDSL2: 1pairs of UTP cable, up to 3000 feet.

Line: Integrated ISDN/POTS

Configuration DIP Switch:

DIP-1 (Mode selection): On (Master) / Off (Slave)
 DIP-2 (Impulse protection):On (Interleave)/ Off (Fast) ;
 Interleave mode with less than 250ms forwarding latency,
 Fast mode is less than 2ms forwarding latency.

DIP-3 (Rate Control): On (Non-Symmetric)/Off (Symmetric)

DIP-4 (SNR Control): On (9dB)/ Off (6dB)

300bps to 921.6Kbps

Diagnostic LED:

System Power: Power on (Green on)

Fast Ethernet Port: Speed (100 Mbps: Yellow On),

Link/Activity: Green on (Link at 10 or 100Mbps), Green

Blinking (packet is on transmitting)

Master (Green On): Device operating under Master Mode

VDSL Link/ Negotiation (Green): On/ Link, Blinking/ Negotiation

Power Requirements

System Power:

DC Jack: 12~48V, Ø 2mm Center Pin

Terminal block: DC 12~48V, 3-Pin terminal block with earth ground. Power input with polarity reverse protection.

Power Consumption: 5Watts @DC 24V(Maximum)

Mechanical

Installation: Wall Mount or DIN-Rail mount

Casing: Aluminum metal case

Dimensions: 29mm (H) x 88mm(W) x 114mm (D)

Environmental

Operating Temperature: -40 ~70°C

Operating Humidity: 0% ~ 95% (non-condensing)

Storage Temperature: -40 ~ 80°C

Storage Humidity: 0%~ 95% (non-condensing)

Hi-Pot: Ethernet port AC 1.5KV for port to power

Regulatory Approvals

EMI: FCC Class A; CE/EN55022 class A

EMC Immunity Interface:

IEC 61000-4-2, IEC61000-4-3, IEC61000-4-4,

IEC61000-4-5, IEC61000-4-6, IEC61000-4-8

Shock: IEC60068-2-27

Vibration: IEC60068-2-6

Free Fall: IEC60068-2-31

Industrial
Intelligent
NMS

Rackmount
PoE Plus
Switch

Industrial
PoE Plus
Switch

Industrial
12-24V
PoE Switch

Industrial
PoE Switch

Rackmount
L3/L2 Switch

Gigabit
Managed
Switch

Managed
Ethernet
Switch

Entry-level
Switch

Wireless
Outdoor AP

Embedded
PoE/Router
Computer
(LINUX)

Industrial
Communication
Computer
(WINLINUX)

Ethernet/PoE/
Serial Board

Ethernet
I/O Server

Media Converter

Serial Device
Server

SFP Module

Din Rail
Power Supply

Ordering Information

JetCon 2502 Industrial Ethernet over VDSL2 converter, 600 Ohm

Includes:

- JetCon 2502
- DIN rail kit
- Quick Installation Guide