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LevelOne FVT-2202

LevelOne FVT-2202 Fast Ethernet Media Converter User Manual

Model: FVT-2202 | Brand: LevelOne

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the LevelOne FVT-2202 Fast Ethernet Media Converter. The FVT-2202 is designed to convert 10/100Base-TX Fast Ethernet signals to 100Base-FX fiber optic signals, extending network reach over fiber optic cable. It supports both 10Mbps and 100Mbps network speeds, making it suitable for various network environments.

Please read this manual thoroughly before operating the device to ensure proper functionality and to prevent damage.

2. PACKAGE CONTENTS

Verify that your package contains the following items:

- LevelOne FVT-2202 Fast Ethernet Media Converter
- Power Adapter (5VDC)
- User Manual (this document)

If any items are missing or damaged, please contact your vendor immediately.

3. PHYSICAL DESCRIPTION

The LevelOne FVT-2202 is a compact media converter designed for reliable performance. It features standard RJ45 and fiber optic (SC) ports, along with LED indicators for status monitoring.



Figure 3.1: Front view of the LevelOne FVT-2202 Media Converter, showing the RJ45 Ethernet port, SC fiber optic port, and LED indicators for TX, RX, Link/Act, and Power.



Figure 3.2: Rear view of the LevelOne FVT-2202 Media Converter, highlighting the 5VDC power input and DIP switches for configuration.

3.1. LED Indicators

LED	Status	Description
PWR	Green (On)	The device is receiving power.

LED	Status	Description
FX Link/Act	Green (On)	Fiber optic link is established.
FX Link/Act	Green (Blinking)	Data is being transmitted or received over the fiber optic link.
TX Link/Act	Green (On)	Ethernet link is established.
TX Link/Act	Green (Blinking)	Data is being transmitted or received over the Ethernet link.

3.2. DIP Switches

The FVT-2202 features DIP switches for advanced configuration. Refer to the markings on the device for specific switch functions, which typically include settings for LFP (Link Fault Pass-through), speed, and duplex mode.

- Switch 1: LFP (Link Fault Pass-through) Enable/Disable
- Switch 2: Auto-Negotiation Enable/Disable
- Switch 3: 100Mbps/10Mbps Speed Selection (when Auto-Negotiation is disabled)
- Switch 4: Full-Duplex/Half-Duplex Selection (when Auto-Negotiation is disabled)

Caution:

Ensure the device is powered off before changing DIP switch settings to prevent potential damage or incorrect configuration.

4. SETUP AND INSTALLATION

Follow these steps to properly install and connect your LevelOne FVT-2202 Media Converter:

- 1. **Prepare the Environment:** Ensure the installation location is clean, dry, and has adequate ventilation. Avoid areas with extreme temperatures or humidity.
- 2. **Power Off Devices:** Before making any connections, ensure that all network devices (switches, routers, computers) that will connect to the media converter are powered off.
- 3. **Configure DIP Switches (if necessary):** If specific network settings are required (e.g., fixed speed/duplex, LFP), adjust the DIP switches on the rear of the converter according to your network requirements. Refer to Section 3.2 for details.
- 4. **Connect Fiber Optic Cable:** Connect one end of the fiber optic cable (SC connector) to the FX port on the FVT-2202. Connect the other end to your fiber optic network device (e.g., fiber switch, another media converter). Ensure the transmit (TX) and receive (RX) fibers are correctly matched.
- 5. **Connect Ethernet Cable:** Connect a standard RJ45 Ethernet cable from your copper-based network device (e.g., Ethernet switch, computer) to the TX port on the FVT-2202.
- 6. **Connect Power Adapter:** Plug the provided 5VDC power adapter into the power input jack on the FVT-2202. Then, plug the power adapter into a suitable electrical outlet.
- 7. **Power On Devices:** Power on the FVT-2202. The PWR LED should illuminate green. Then, power on your connected network devices.
- 8. **Verify Connections:** Check the Link/Act LEDs for both the FX (fiber) and TX (Ethernet) ports. A solid green light indicates a successful link. Blinking lights indicate data activity.

Important:

Always handle fiber optic cables with care. Avoid bending them sharply or exposing the connectors to dust and dirt, which can degrade performance.

5. OPERATION

Once the LevelOne FVT-2202 is properly installed and powered on, it operates automatically as a transparent media converter. It translates Ethernet signals between copper and fiber optic mediums without requiring any software configuration.

5.1. Basic Functionality

- The converter transparently passes Ethernet frames between the RJ45 (copper) and SC (fiber) interfaces.
- It supports both 10Mbps and 100Mbps Fast Ethernet speeds.
- Auto-negotiation is typically enabled by default on the RJ45 port to automatically detect the speed and duplex mode
 of the connected device.
- The fiber optic port operates at 100Mbps full-duplex.

5.2. Monitoring Status

The LED indicators provide a quick visual status of the converter's operation:

- PWR LED: Confirms the device is powered.
- FX Link/Act LED: Indicates the status of the fiber optic link and data activity.
- TX Link/Act LED: Indicates the status of the Ethernet link and data activity.

Refer to Section 3.1 for a detailed explanation of LED behaviors.

6. MAINTENANCE

The LevelOne FVT-2202 Media Converter is designed for minimal maintenance. However, following these guidelines can help ensure its longevity and reliable performance:

- Cleaning: Keep the device clean and free from dust. Use a soft, dry cloth for cleaning the exterior. Do not use liquid
 or aerosol cleaners.
- **Fiber Optic Connectors:** Ensure fiber optic connectors are clean. Dust or dirt on the fiber end-faces can significantly degrade signal quality. Use appropriate fiber optic cleaning tools if necessary.
- Ventilation: Ensure that the ventilation holes on the device are not blocked to prevent overheating.
- **Power Supply:** Use only the power adapter provided with the device. Using an incorrect power adapter can damage the converter.
- Environmental Conditions: Operate the device within its specified environmental conditions (temperature, humidity) to prevent malfunction.

7. TROUBLESHOOTING

If you encounter issues with your LevelOne FVT-2202 Media Converter, refer to the following troubleshooting steps:

Problem	Possible Cause	Solution
No Power (PWR LED Off)	Power adapter not connected or faulty.	Check power adapter connection to the device and wall outlet. Ensure the outlet is functional. Try a different power adapter if available and compatible.
No Fiber Link (FX Link/Act LED Off)	Fiber cable disconnected, damaged, or incorrect TX/RX connection.	Verify fiber cable connections at both ends. Ensure TX/RX are correctly matched. Inspect cable for damage. Clean fiber connectors. Check the remote fiber device.

Problem	Possible Cause	Solution
No Ethernet Link (TX Link/Act LED Off)	Ethernet cable disconnected, damaged, or incorrect speed/duplex settings.	Verify Ethernet cable connection. Inspect cable for damage. Ensure the connected device is powered on and functioning. Check DIP switch settings for speed/duplex if auto-negotiation is disabled.
Poor Network Performance	Cable issues, duplex mismatch, or excessive network traffic.	Check cable quality and length. Ensure duplex settings are consistent across connected devices (auto-negotiation recommended). Monitor network traffic.

If the problem persists after trying these solutions, please contact LevelOne technical support for further assistance.

8. SPECIFICATIONS

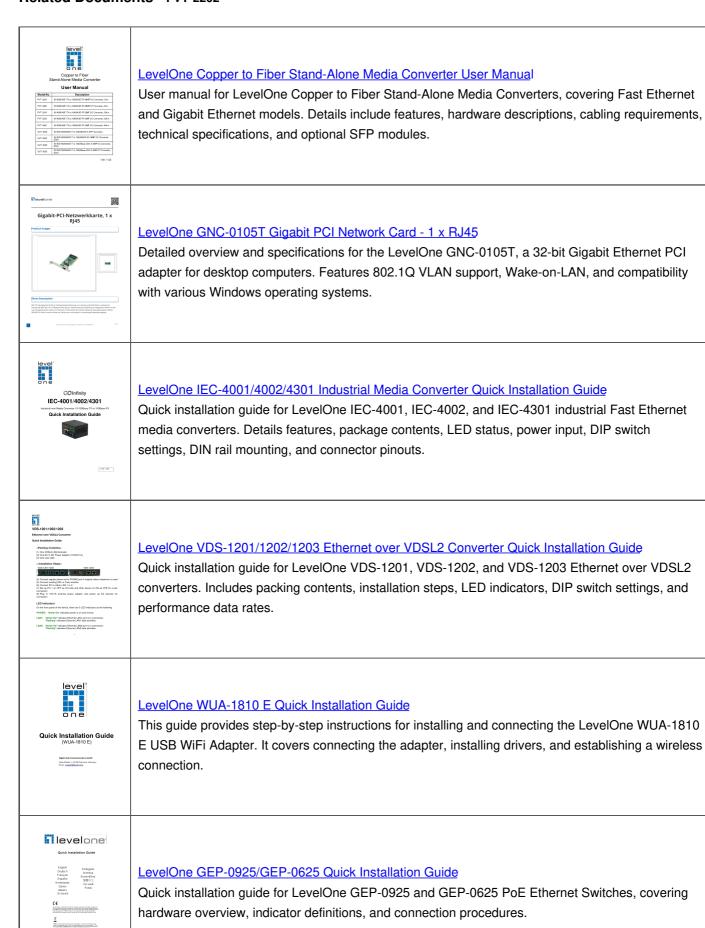
Model Name	FVT-2202
Brand	LevelOne
Network Standard	10/100Base-TX, 100Base-FX
Data Transfer Rate	100 Megabits Per Second (10/100Mbps)
Connector Type (Copper)	RJ45
Connector Type (Fiber)	SC (Single-Mode Fiber, 20km range)
Cable Type	Ethernet, Fiber Optic
Special Feature	Data Transfer, Link Fault Pass-through (LFP) via DIP switch
Color	Black
Indoor/Outdoor Usage	Outdoor
Compliance	RoHS, FCC Part 15
Item Weight	11.3 ounces
Product Dimensions (LxWxH)	2.8 x 3.7 x 1.02 inches
Power Input	5VDC

9. WARRANTY AND SUPPORT

LevelOne products are backed by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official LevelOne website. Keep your purchase receipt as proof of purchase.

For technical support, product registration, or to download the latest drivers and firmware, please visit the LevelOne support portal or contact their customer service department. Contact information can typically be found on the LevelOne website: www.level1.com

Related Documents - FVT-2202

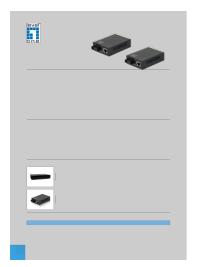




LevelOne Copper to Fiber Stand-Alone Media Converter User Manual

User manual for LevelOne Copper to Fiber Stand-Alone Media Converters, covering Fast Ethernet and Gigabit Ethernet models. Details include features, hardware descriptions, cabling requirements, technical specifications, and optional SFP modules.

lang:en score:30 filesize: 260.13 K page count: 14 document date: 2023-05-23



[pdf] Specifications

LevelOne FVT 2202 Rj45 To Sc Bidi Fast Ethernet Media Converter Set Sing Wagner Online Electronic Stores wagneronline au attachments Level1 |||

FVT-2202 Version: 1 RJ45 to SC BIDI Fast Ethernet Media Converter Set, Single-Mode Fiber, 20km **FVT-2202** Fast Ethernet Media Converter Set is ideally designed for connecting two copper wire networks over long distances via fiber optical communication. Featuring Bi-directional BIDI fiber optic inter...

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FVT-2202, Fast-Ethernet RJ45 zu SC BIDI Mediakonverter-Set, SingleMode Glasfaser, 20km Product Images Short Description bertrgt Daten von 10/100Base-TX-Kupfer- zu Glasfaserschnittstellen Integrierte LFP- Link Fault Pass-through LLCF/LLR Technologie Kippschalter zur Konfigurationsanpassung Unters... lang:en score:29 filesize: 2.1 M page_count: 2 document date: 2022-09-14



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FVT-2202, RJ45 to SC BIDI Fast Ethernet Media Converter Set, Single-Mode Fiber, 20km Product Images Short Description Transfers data from 10/100Base-TX copper to fiber interfaces Built-in LFP Link Fault Pass-through LLCF/LLR Technology Dip switches for customized configuration Supports low-time ...

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LevelOne RJ45 to SC BIDI Fast Ethernet Media Converter Set Single Mode FVT 2202 is ideally designed for connecting two copper wire networks over long distances via fiber optical communication mmo 38196849 1556181897 4135 26679 objects icecat biz |||

FVT-2202 Version: 1 RJ45 to SC BIDI Fast Ethernet Media Converter Set, Single-Mode Fiber, 20km **FVT-2202** Fast Ethernet Media Converter Set is ideally designed for connecting two copper wire networks over long distances via fiber optical communication. Featuring Bi-directional BIDI fiber optic inter...

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[pdf] User Manual Installation Guide Guide

Unmanaged Media Converter User Manual PM Compare the contents of your converter module with checklist above If any item is damaged or missing please contact local dealer for service 3 2 Hardware Description 1 Front Panel FVT 2001 2002 2201 2401 GVT 2000 2xxx V1 QIG 4 level1 qig info Copper to Fiber Stand-Alone Media Converter Quick Installation Guide Model No. FVT-2001 FVT-2002 FVT-2201 FVT-2202 FVT-2401 Description RJ45 to SC Fast Ethernet Media Converter, Multi-Mode Fiber, 2km RJ45 to ST Fast Ethernet Media Converter, Multi-Mode Fiber, 2km RJ45 to SC Fast Ethernet Media Co... lang:en score:22 filesize: 210.93 K page count: 15 document date: 2020-06-29



[pdf] Specifications Decleration of Conformity

FVT GVT ECDoC v5 01 sherlock Konformitätserklärung Declaration of Conformity Verklaring van Conformite Declaración de Conformidad c059e197d8d2fb609062a2f24ff4faf9126d8781 level1 en amfile file 12111 product 11435 |||

Konformittserklrung Der Hersteller Digital Data Communications GmbH Adresse Im Defdahl 10 F, 44141 Dortmund, Germany erklrt hiermit, dass das Produkt Typ Media Converters Markenname LevelOne Produkt FVT-2001, FVT-2002, FVT-2201, FVT-2202, FVT-2401, GVT-2000, GVT-2001, GVT-2002 den folgende...

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LevelOne LEVEL1 Catalogue Level1 Level One Wagner Online Electronic Stores wagneronline au attachments |||

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