

OpenVox

OpenVox Communication Co.Ltd



V100 Hardware Installation Manual

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OpenVox Communication Co.Ltd

Most Advanced Asterisk Cards

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EMC

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Safety

EN60950

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General Safety Instructions



CAUTION

1. The computers that have V100 card installed must comply with the country's specific safety regulations.
2. Only service personnel should go to install V100 card.
3. Before installing V100 card, please unplug the power cord and remove the cover from your PC.
4. For avoiding personal injuries and damages to your machine and V100 card, make sure bracket of the card is secured to the PC's chassis ground by fastening the card with a screw.
5. Electrical Surges, ESD are very destructive to the equipment. To avoid it, make sure there is a low impedance discharge path from your computer to chassis ground.
6. To reduce the risk of damage or injury, please follow all steps or procedures as instructed.

Chapter 1 Overview

Overview

Because of its low bandwidth requirements, the voice data compression Codecs, such as G.729, G.726, G.723, G.722, iLBC, GSM are commonly used in VoIP applications. The G.711 Codecs is commonly used in legacy telephone network. For bridging TDM to VoIP connectivity, it needs Codec transformation. Compared with transformation in software, the V100, which is based on Multicore-DSP, can convert more sessions of transcoding and relieves the host CPU resources.

The V100 cards are rated to handle up to 32, 64, 128, 256, 400 bi-directional Codec transformations, without additional licensing fees for transcoding.

The V100 cards can be worked as PCI /PCIe form factors in one board. The V100 is also suitable for normal PCI/low profile PCI applications and can provide PCI/PCIe/RJ45 media/control flow paths. These features can save the cost and support flexible applications. The V100 can be worked with Asterisk® and FreeSWITCH®.

Features

- High density up to 30 to 400 transcoding
- No additional License Fee
- Small Size 2U Form Factor

- PCI&PCIe interface in one board
- Supports Low Profile PCI/PCIe
- Multi Media/Control Flow Paths
- Relieves Host CPU Load
- Releases API for Integration
- OS: Linux and Windows
- Integrates in Asterisk® and FreeSWITCH®
- Supports distributed or integrated application

Codec Support

- G.711 •G.729
- G.722 •GSM
- G.723 •iLBC
- G.726

Target Applications

- Hosted VoIP GateWay
- Conferencing Server
- IVR Server
- Distributed Office PBX
- Call Centers

Chapter 2 Hardware Specifications

Dimension

- Includes Low Profile PCI Short Form Factor in 2U Chassis
- 64.1 × 119 × 8mm (PCB)

Interfaces

- PCI : 32bit/33MHz
- PCIe: × 1
- 10/100/1000 BASE-T RJ45

Power Requirements

- PCI: 2.5A, 3.3V Or PCIe: 0.3A, 3.3V; 0.6A, 12V

Operating Temperature Range

- 0 to 50 °C

Humidity

- 10 to 90% NON-CONDENSING

Hardware and Software Requirements

- PC with PCI/PCIe Slot
- Windows/Linux in Host

Chapter 3 Hardware Architecture

3.1 Core Module

The small size Core Module (See Figure 1) which is plugged into Extender Board, combines power supply , RAM and Flash, on-board Ethernet MAC, is used as powerful DSP in transcoding applications.

3.2 Extender Board

The Extender Board (See Figure 1) is a plug-on board for Core Module, and all external I/O interfaces are situated in it.

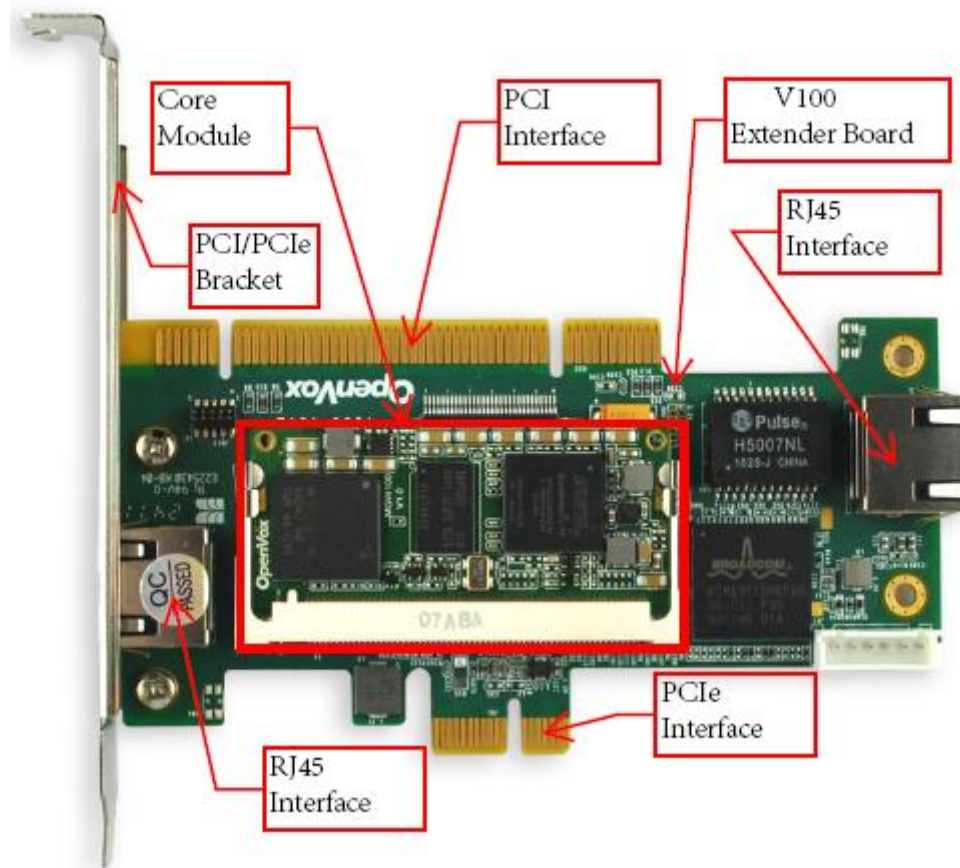


Figure 1 Card, Module and Connector

Chapter 4 Hardware Installation

1. Make sure the computer that have V100 card installed complies with the country specific safety regulations.
2. Power off your computer and unplug it from its AC power source.
3. Attach an Anti-static Wrist Strap to your wrist.
4. Choose the appropriate bracket and install it in the right place. The V100 is designed as PCI and PCIe Form Factors in one board, in addition, the V100 is suitable for normal PCI and low profile PCI applications. The factory setting is normal PCIe application. So, if your application is different, please replace the bracket to the right place. For example, if the V100 will be used as low profile PCI card, the default normal bracket has to be replaced with low profile bracket and the V100 has to be assembled as PCI card.
5. Open the cover of the computer.
6. Remove the bracket holder and insert the card into PCI/PCIe Slot.
7. Firmly secure the card with a screw
8. Replace the cover of the computer.
9. Plug the UTP cable into RJ45 Jack of the V100 only if the Media/Control Path is RJ45/UTP. (See Appendix B)
10. Plug the AC power source and follow the software installation manual.

Appendix A V100 Application Topology

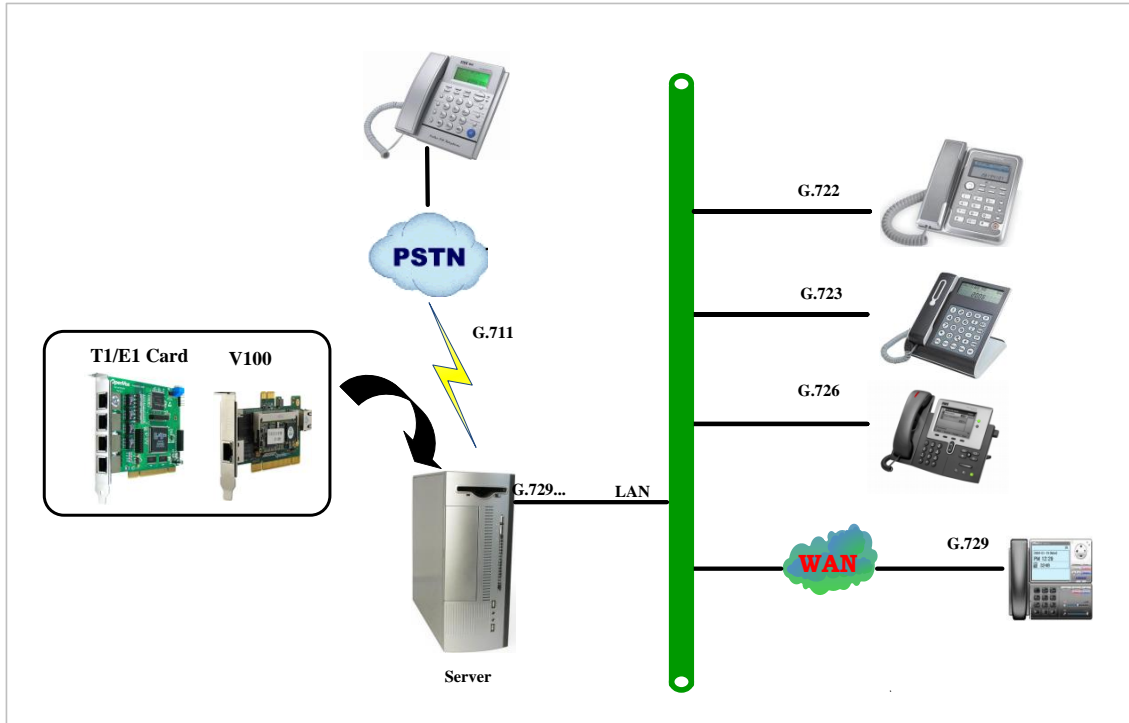


Figure 2 Aggregation Transcoding

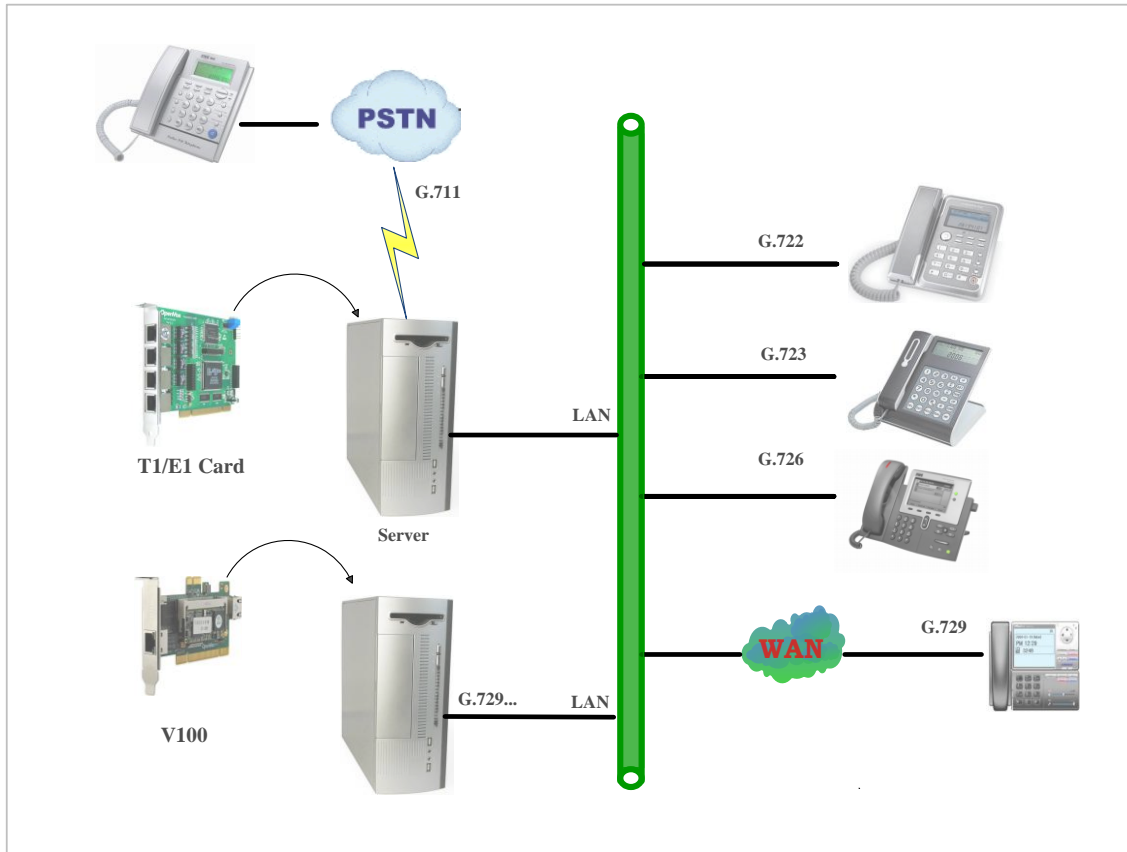


Figure 3 Distribution Transcoding

Appendix B V100 Interface Diagram

A

