



深圳开源通信有限公司

*OpenVox-Best Cost Effective Asterisk Cards*

## OpenVox V100 hardware installation Manual

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*OpenVox-Best Cost Effective Asterisk Cards*



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## EMC (pending)

FCC Part 15 Class B  
EN55022 Class B  
EN55024

## General Safety Instructions



### WARNING

The computers that have V100 card installed must comply with the country specific safety regulations.

### WARNING

Only service personnel should install V100 card.

### WARNING

Before you install V100 card or remove the cover from your PC, Unplug the power cord from the computer.

### WARNING

For avoiding personal injuries and damage to your computer, and

V100 card, make sure the card' bracket is secured to the PC' s Chassis ground by fastening the card with the screw.

**WARNING**

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.

**WARNING**

To reduce the risk of damage or injury, follow all steps or procedures as instructed.

**Release History**

Vesrsion	Date	Changes	Editor
1.00	06/27/2011	First preliminary release.	Carson Wang

**FCC Caution**

Caution: The user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Chapter 1 Overview

### Overview

Because of its low bandwidth requirements, The voice data compression Codecs ,such as G. 729,G. 726, AMR, G. 722, iLBC ,etc. 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 ,Based Multicore-DSP , can convert more sessions of transcoding,relieve the host CPU resources.

The V100 card, are rated to handle up to 32, 64, 128, 256, 400 bi-directional Codec transformations, without additional licensing fees <sup>1</sup> for transcoding.

The V100 card can be worked as PCI /PCIe Form Factors in one board . The V100 is 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®.

### Feature

- High density up to 30 to 400 Transcoding
- No additional License Fee<sup>1</sup>
- Small Size 2U Form Factor
- PCI&PCIe interface in one board
- Supports Low Profile PCI/PCIe
- Multi Media/Control Flow Paths
- Relieve Host CPU Load
- Release API for Integration
- OS : Linux and Windows
- Integrates in Asterisk® and FreeSWITCH®
- Support distributed or integrated Application

### Codec Support

- G. 711
- G. 722
- G. 722. 1
- G. 726
- G. 729AB
- GSM-FR
- GMS-EFR
- AMR
- AMR-WB (G. 722. 2)
- iLBC

<sup>1</sup> Except for AMR and ANR-WB

### Target Applications

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

## Chapter 2 Hardware Specification

### Dimensions

- Includes Low Profile PCI Short Form Factor in 2U Chassis
- 64.1x119.8mm (PCB)

### Interface

- PCI :32bit/33MHz
- PCIe: x1
- 10/100/1000 BASE-T RJ45

### Power Requirments

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

### Operating Temperature Range

- 0 - 50 ° C

### Humidity

- 10 TO 90% NON-CONDENSING

### Hardware and Software Requirement

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

## Chapter 3 Hardware Architecture

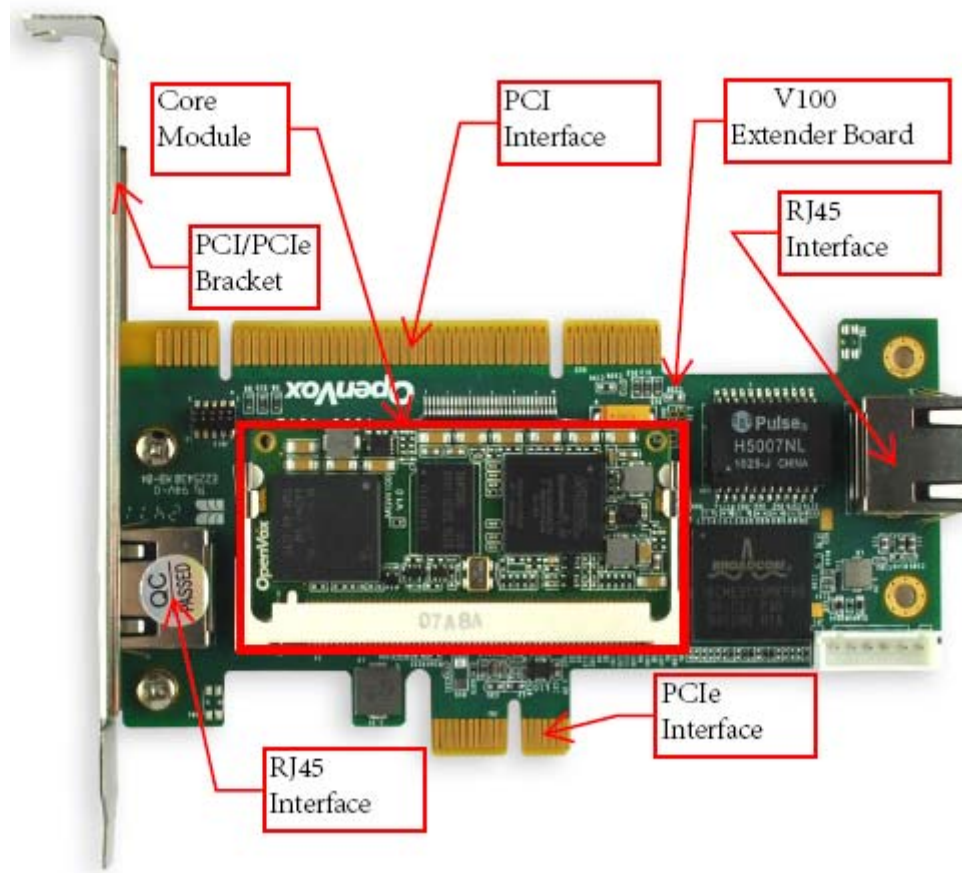


Figure 1 Card, Module, Connector

## .Hardware Architecture

### 3.1 Core Module

The small size Core Module (See Figure 1) which is plugged into Extender Board, combines PowerSupply, Ram, Flash, on-board Ethernet Mac, and be used as powerful DSP in transcoding application.

### 3.2 Extender Board

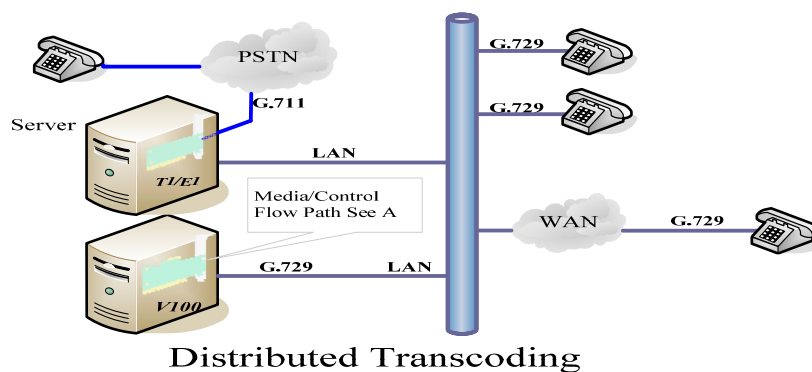
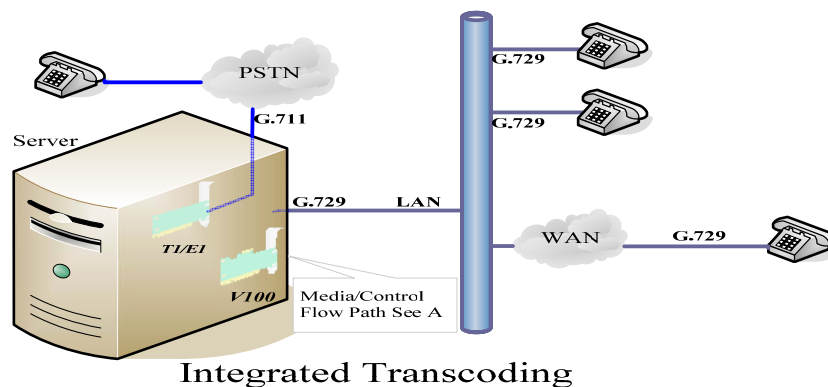
The Extender Board (See Figure 1) is a plug-on board for Core Module, All external I/O interface are situated in it.

## 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 a Anti-static Wrist Strap to your wrist.
4. Choose the appropriate bracket, 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 the 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 A)
10. Plug the AC power source. and follow the software installation manual.





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