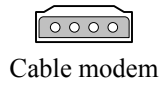


## Access technologies



Cable modem



Wireless (unlicensed)  
Frequency Hopping or  
DS Spread Spectrum



xDSL modem



POTS  
Modem

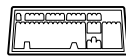


10BASE-T  
wall plate



Wireless  
PCS, cellular

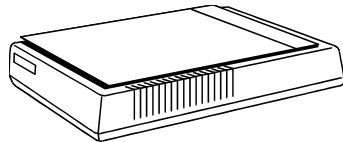
## Input devices



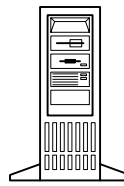
Wireless  
Keyboard with  
mouse / trackball



External  
Mouse



## Target selling price: US\$300



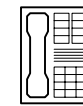
Embedded x86 CPU



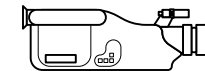
output to TV monitor

33 MHz i386 EX CPU  
4 MB Boot Memory  
16/32 MB Flash Array  
4/16 MB DRAM  
Type II PCMCIA Contr.  
2 ISA, 1 PC/104 slots  
LCD/VGA controller  
IDE controller  
Floppy Disk Controller  
PS/2 mouse & keyboard  
4 serial, 1 parallel port  
BIOS in Flash memory  
ROMed QNX in Flash

## Output devices



VoIP



MPEG video



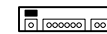
Fax



Printer



PC Monitor

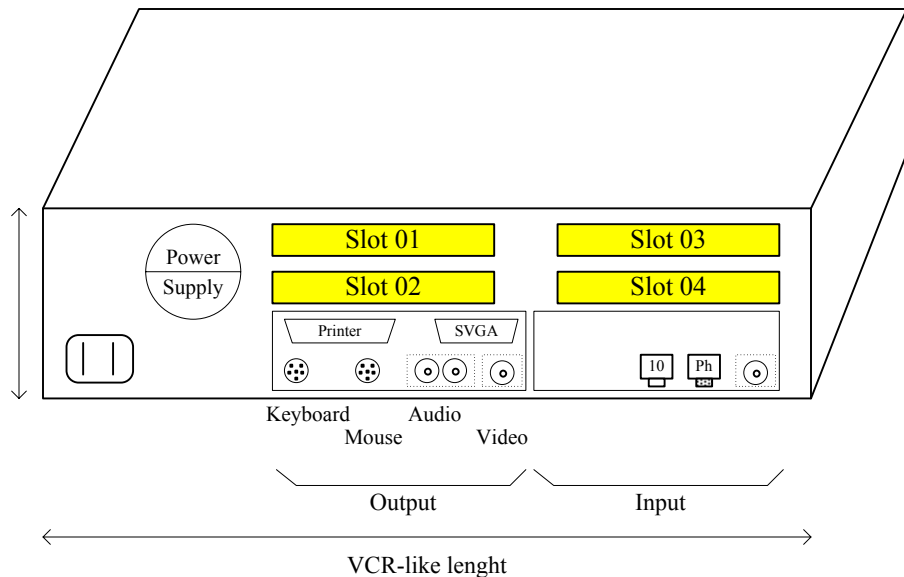


Hub

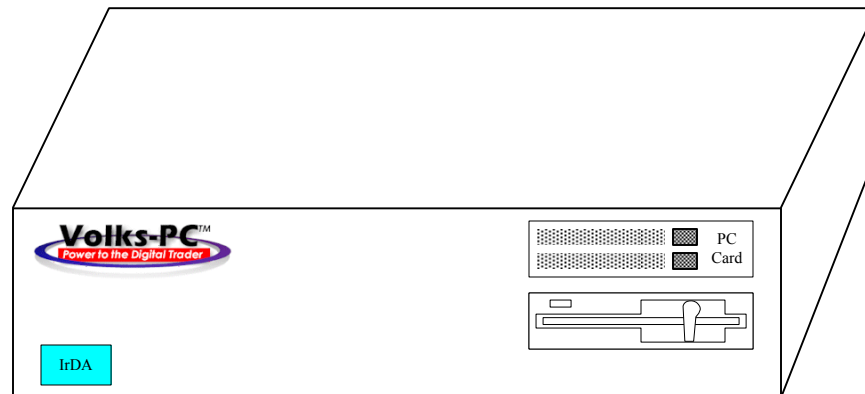
## Customer-oriented, Saleable Applications

- Student's home workstation
- Small Business Accounting station
- Personal Internet Information Server
- Classroom LAN Server
- SOHO Information Controller
- Home Security Coordinator
- Cable TV set-top box
- Low-end Internet appliance for schools

Rear view



Front view



The slots are regular PCI half-length cards. This way any user can upgrade his/her Volks-PC with function-specific boards, such as:

- MPEG comp/decomp
- Ethernet hubs / switches in a card
- Wireless receivers, TV / radio tuners
- VoIP card / Optiset card (with on-board DSPs to off-load the processing burden from the CPU)

For the CPU, we suggest using National Semiconductor's Odin reference model, which is a highly-integrated 486 CPU-in-a-board. This Volks-PC hardware reference model uses all of the native I/O features of the Odin platform:

- up to 25 Mhz NS486SXF CPU
- TV (NTSC) or VGA (up to 1024 x 763, 256 colors) out
- S-VHS output, video in / out / pass through
- 10BaseT interface
- Audio system, CD-quality sound, Internet phone application support
- 28.8 Fax/modem, full duplex speakerphone, fax transmit and receive, digital answering machine
- ECP Parallel Port
- PS/2 mouse and keyboard input
- IrDA interface
- PC-Card slot

National Semiconductor publicly states that the target price for an Odin-based web-top device should be around US\$200  
 More info available at <http://www.national.com/appinfo/ns486/overview.html>