# High-End IP Video Conference Solution

# AP-VC1000



## AP-VC1000 IP Video Conference System

AP-VC1000 Video Conference System delivers a new and powerful IP based video communication by simply connecting televisions, external video camera and ordinary telephones. Designed on firmware upgradeable, high-performance DSP, AP-VC1000 equipped with the latest audio/video codec, AV In/Out interfaces realizing complete Internet video telephony, video conferencing, VoD (video on demanding) applications and AV broadcasting system in one platform. AP-VC1000 is a new IP video conference Equipment where Internet voice communications are combined with Internet video communications. This product provides advanced features and services such as video codecs (e.g. H.263, MPEG-4, H.264, and JPEG), various A/V I/O interfaces, QoS, and public IP sharing as well as multiple VoIP signaling protocols such as SIP and H.323. The video channel of AP-VC1000 is equipped with RCA, S-video and component (Y, Pb, Pr) video output interface for connecting televisions, and with RCA, S-video for external video camera input.

AP-VC1000 supports maximum 30 frames of VGA(640×480) images which is considered promising for the high quality video application in case of MPEG-4 video codec. The component video output interfaces of AP-VC1000 supports the 480P, 720P (1280x720) HD video display. In this HD display mode of AP-VC1000, VGA level video image from remote site can be display at HDTV without video downscale (side by side view mode)

Designed on programmable high-performance RISC CPU and high performance DSPs, AP-VC1000 is capable of adopting new capabilities and improvement by downloading firmware from website or with its auto-upgrade option as the customers' needs grow. Using this firmware upgrade S/W features and solution (ex, VPMS), new coming video/audio codecs, VoIP signaling protocols and network protocols will be supported.

AddPac Technology's VoIP gateways, Video Phone, IP-PBX, IP Broadcasting System, Network DVR, VoD system have been highly appraised with their advanced performance and reliability by worldwide customers. With its years of experience and know-who would make AP-VC1000 as the ultimate solution for next-generation video communication.
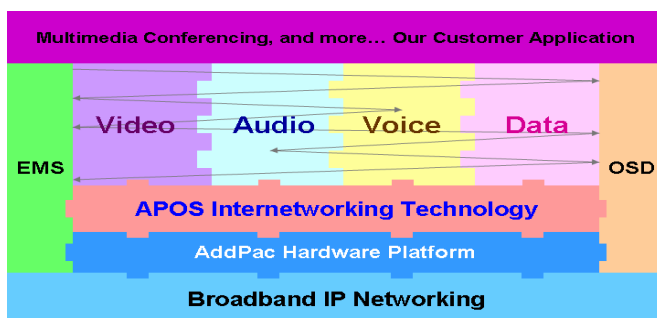


## APOS Internetworking Software

APOS™(AddPac Internetworking Operating System) is AddPac's unique software which supports data, voice, video and security. It provides scalability, reliability, stability and QoS for internetworking solutions. It also provides optimized performance and industry standard network functionality with easy-to-use, easy-to-installation and maintenance.

## Main Features

- AP-VC1000 is a high-end video conference equipment that allows you to build a multimedia system in order to integrate voice, audio, and data based on video communications.

- Ensures high video quality bi-directionally by processing VGA-level video by 30 frames per second. (Supports both video encoding and decoding.)

- Supports the state-of-art codec algorithm for voice and audio services as well as video codecs such as H.263, MPEG-4, and H.264.

- Ensures the best voice quality on a regular IP-based Internet network that provides an asymmetrical bandwidth.

- Provides various video output interfaces for easy physical interfacing with external equipments. (RCA, S-Video, YPbPr Component, D-Sub)

- Provides FXS VoIP Interface for Analog Phone.

- Provides the USB Interface for Wireless LAN, USB Memory, etc

- Two(2) Fast Ethernet Interface

- Equipped with an advanced RISC embedded microprocessor and programmable DSP hardware chipset for easy system upgrade

- Supports On-Screen Display (OSD) for fast operation settings.

- Allows you to enable settings by operating touch screen and ensures convenient device control.

- Allows you to set up configuration and your network environment by operating the remote control. Ensures easy local and remote control and operation for VoD and IPTV services.

- Provides the EMS solution for network maintenance and administration.

- Ensures extensibility, reliability, and authenticity since the APOS internetworking software of AddPac is installed.

## AP-VC1000 Applications
- IP Video conferencing system
- IP voice/video broadcasting system
- Remote training, medical treatment, and surveillance systems
- Video on Demand (VOD) system
- IP multimedia telephony solution

# AP-VC1000
# High-End IP Video Conference Solution

## Hardware Specifications

| | |
|---|---|
| Main Chassis | Embedded Hardware Chassis |
| CPU | High Performance RISC Integrated Processor |
| DSP | High Performance DSP (Digital Signal Processor) |
| Memory | 512KB Boot Memory, 16MB Flash Memory<br>128MB Main Memory |
| Network Interface | 2-ports 10/100Mbps Ethernet (LAN 0, LAN 1) |
| Voice Interface | 1-port FXS Analog Voice Interface |
| Console & USB | 1-port RS-232C Console Interface<br>1-port USB Interface |
| Audio/Video Interface (CH0) | 1-CH Composite RCA Video Input and Output<br>1-CH S-Video Input and Output<br>1-CH Component Video (Y, Cr, Cb) Input and Output<br>1-CH 3.5mm RCA Audio Input<br>1-CH RCA Audio Output Left and Right |
| Operation Environment | Temperature 0℃ ~ +45℃(operating), -40℃ ~ +85℃ (storage), Humidity 5% ~ 95% |
| Power Supply | AC110~220VAC 50/60Hz Free Voltage, 5V 5Amp. |
| Demension | 52mm x 360mm x 202mm (H x W x D), 1.3Kg |

## Video Services

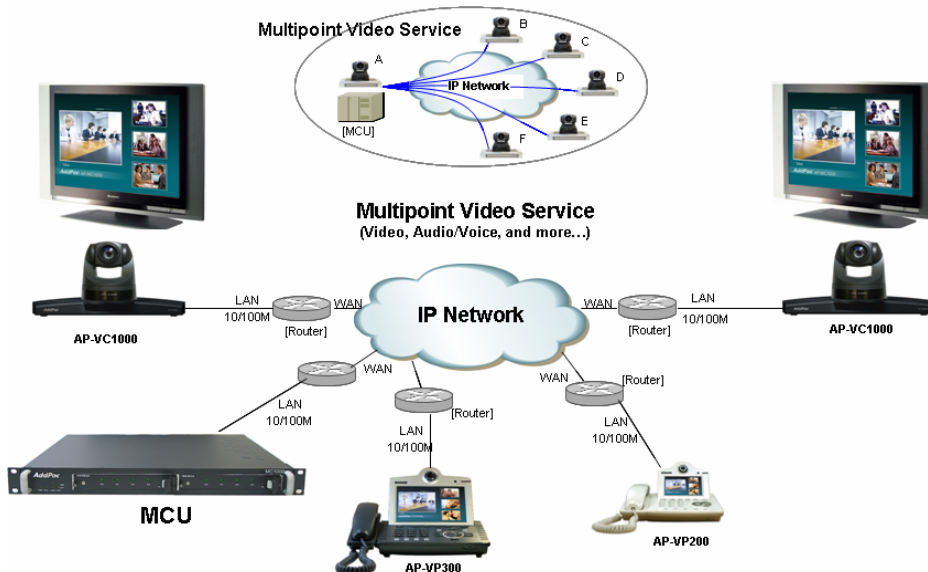| | |
|---|---|
| Video Codec | MPEG4, H.263, JPEG, and H.264 |
| Resolution | QCIF(176x144), CIF(352x288), QVGA(320x240), VGA(640x480) |
| Frame Rate | Up to 30fps with VGA-Resolution (MPEG-4) |
| Operating Bandwidth | 64Kbps ~ 4Mbps |
| Dual Operation Features | Dual Monitor Emulation |
| Video QoS | Enhanced QoS Management for Video Traffic |

## Audio Service and Signaling Protocol Features

| | |
|---|---|
| Voice and Audio Codec | G.711, G.723.1, G.726, G.729 |
| VoIP Signaling Protocol | SIP/H.323 VoIP Signaling Protocol (Dual Stack)<br>ITU-T H.323 Gateway, Gatekeeper Support<br>SIP Proxy Server Interoperability |
| Echo Cancellation | G.165 and G.168 Compliant |
| Voice Processing | VAD, CNG, Dynamic Jitter Buffer Operation |
| FAX Support | T.38 G3(Group 3) FAX Relay |
| DTMF | Detection and Generation, RFC 2833 Compliant |
| Telephone Features | On-screen Dial Pad, Caller ID & Hold |
| Voice QoS | Enhanced QoS Management for Voice Traffic |

## WAN, IP Routing and Other Features

| | |
|---|---|
| WAN Protocol | Point-to-Point Protocol (PPPoE) for ADSL |
| IP Routing | IPv4 and IPv6 Dual Stack Routing, Static and IEEE 802.1Q VLAN Routing, RIP v1/v2, RIPng, OSPF v2/v3, BGP v4, Multicast IGMP Protocol Support |
| Network Management | Standard SNMP Agent (MIB v2) Support, Console, Telnet, Web Based Management, Remote Firmware (APOS) Upgrade via FTP/TFTP Support |
| Security Features | IP Packet Filtering, Access List, Access Control and Data Protections, Enable/Disable for Specific Protocols Multi-level User Account Management, Auto-disconnect for Telnet/Console Sessions, PPP User Authentication Support (PAP/CHAP) |
| Operation & Management | Performance Analyzing (Process, CPU, Interface), Configuration Backup and Restore for APOS Management, Debugging and Diagnosis Features, System Booting/Rebooting through Watch-Dog, Data Logging Features, IP Traffic Statistics through Accounting Support |
| Other Features | DHCP Server and Relay, Network Address Translation (NAT), Port Address Translation (PAT), IEEE Standard Transparent Bridging (Spanning Tree Bridging and Concurrent Routing Bridging Protocol), Network Time Protocol (NTP), Cisco Style Command Line Interface (CLI), DNS Proxy, UPnP, MAC Address Filter Service etc. |
| Control and Setting | OSD (On Screen Display) and Remote Commander |

## Network Diagram



Multipoint Video Service

IP Network

[MCU]

Multipoint Video Service
(Video, Audio/Voice, and more…)

AP-VC1000

LAN 10/100M  [Router] WAN  IP Network  WAN [Router]  LAN 10/100M

AP-VC1000

WAN  LAN 10/100M  [Router]  LAN 10/100M  [Router]  WAN  LAN 10/100M  [Router]

MCU

AP-VP300

AP-VP200

## Ordering Information

- AP-VC1000 — IP Video Conference System
- AP-REMOCON — Remote Control
- CAB-LAN — Ethernet Cable
- CAB-CON — RS-232C Console Cable
- Video Cable — Video Cable for TV connecting
- Camera(Option) — SONY EVI-D70