

AP-HCC2000

MCU Built-In Two(2)-Channel Full HD Video Conference Codec

High Performance MCU Built-in Full HD Video Conference Solution



AP-MP100
AEC Microphone



AP-HCC2000
Full HD Video Codec



AP-HDC100
Full HD
Camera

Product Overview

(Without notice, following described technical spec. can be changed)

AddPac

AddPac Technology

Sales and Marketing

Contents

- Product Overview
- Benefits and Features
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- AEC Microphone
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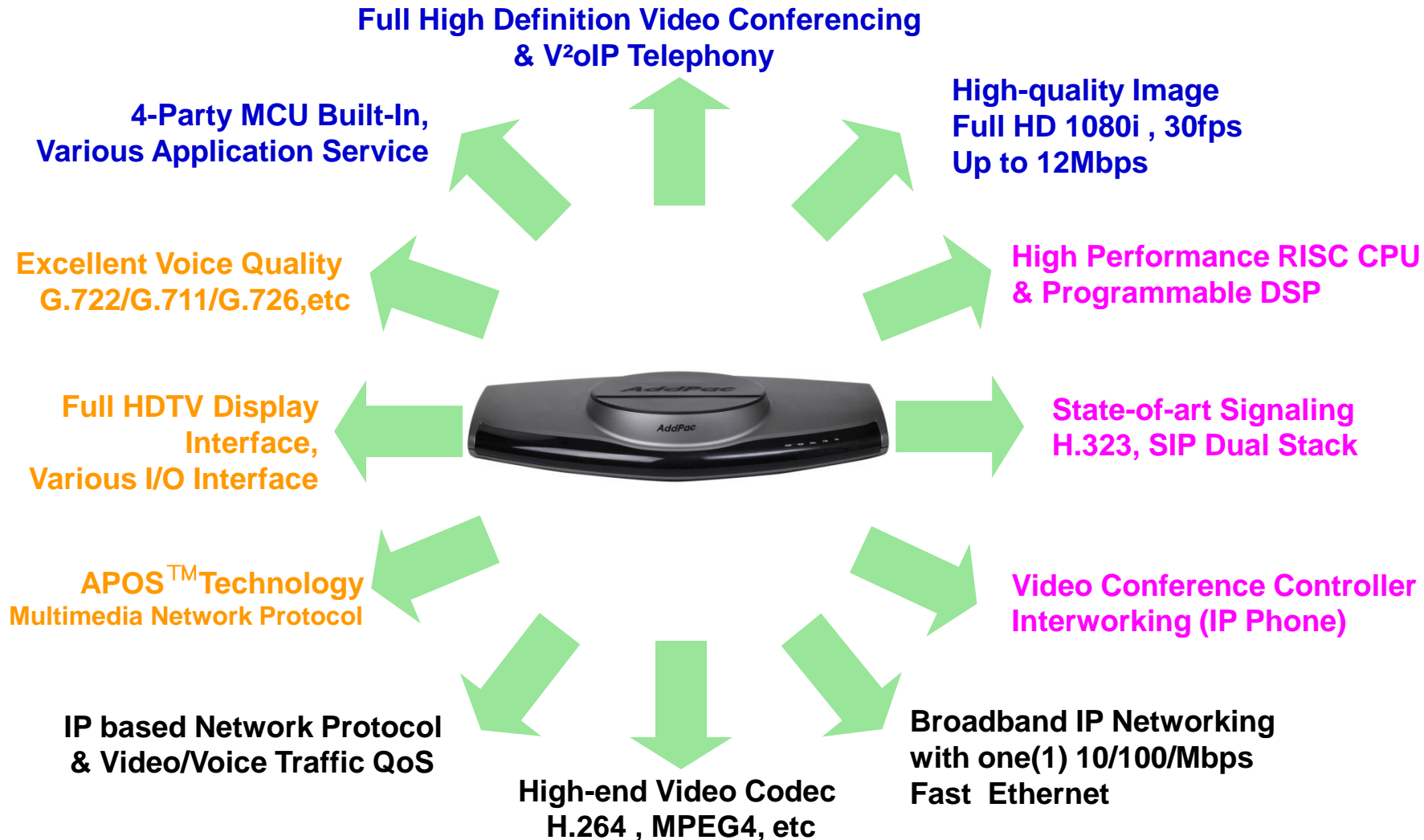
Product Overview

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

- IP based Video Conference Solution
- High-End Full HD Video Conference Codec Features
- Two(2)-Channel Full HD Video Conference Codec
- 4-Party MCU Built-in
- External Full HD Video Conference Camera (ex: AP-HDC100)
 - CMOS Sensor, 2Mega Pixel Camera
 - Various Video Format Support (ex;1080i/59.94)
 - PAN/TILT/Zoom Housing Features
 - Optical 10 x Zoom, Digital 12 x Zoom Camera
 - Built-in Wide Angle Lens for Video Conference
- External Acoustic Echo Canceller Microphone (AP-MP100)
- High-performance Video, Audio, and Voice Service
- Flexible Videoconferencing Deployment
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection

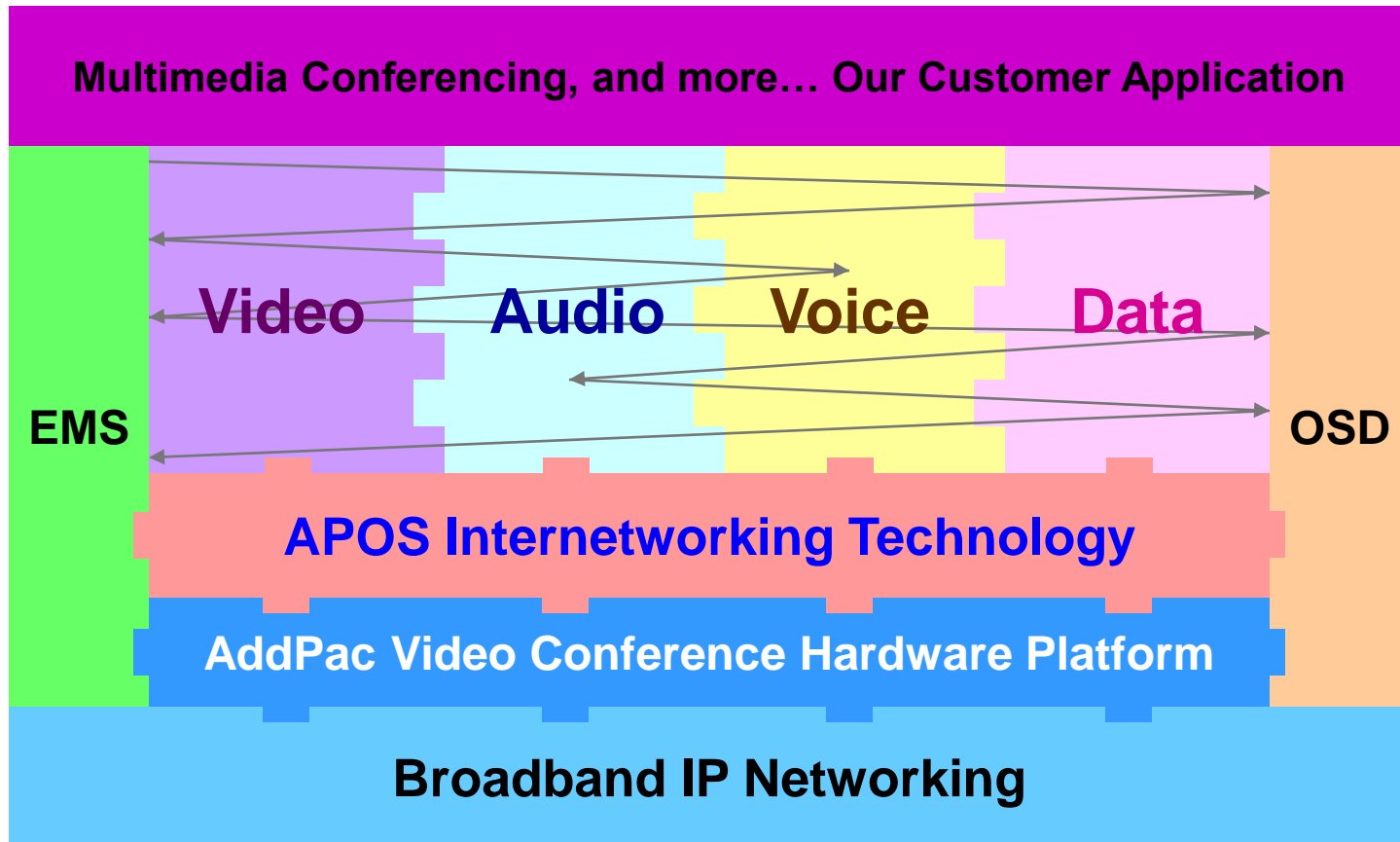
Product Highlights

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec



Multimedia Service

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec



- APOS : AddPac Internetworking Operating System
- OSD : On- Screen Display
- EMS : Element Management System

Benefits and Features

AP-HCC2000 Full HD Video Conference Codec

- Various Video Input/Output Interface
 - Composite (RCA) , Component (Y, Pb, Pr), HDMI, HD-SDI
- High-performance Video Codec Support
 - H.264, MPEG4, etc
- Powerful Image Resolution Support
 - CIF(352x288), QVGA(320x240), HVGA(640x240), VGA(640x480), 4CIF(704x576), 720P(1280x720), 1080i(1920x1080)
- Up to 30fps with Full HD-Resolution(H.264)
- 4-Party MCU Built-In
- SIP, H.323 Signaling Support
- Rate Control for Video Traffic QoS
 - Ensuring Optimized Quality
 - Frame Rate with Limited Bandwidth
- High-end Error Resilient Against Various Packet Error

Hardware Specification (AP-HCC2000 Full HD Codec)

Hardware Specification

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

High
Performance
CPU

High-end
DSP

- High Performance RISC Computing Power
- High-end Programmable DSP Hardware Architecture
- CH#1 I/O Interface

Video Input	Composite RCA, HD-SDI, HDMI
Video Output	Composite RCA, Component , HDMI
Audio Input	Stereo RCA Type Audio Input
Audio Output	RCA Type Audio Output (Left, Right)
PTZ Control	RS-232C Pan/Tilt/Zoom Control Interface

- CH#2 I/O Interface

Video Input	Composite RCA, HD-SDI, RGB, HDMI
Video Output	Composite RCA, Component , HDMI
Audio Input	Stereo RCA Type Audio Input
Audio Output	RCA Type Audio Output (Left, Right)
PTZ Control	RS-232C Pan/Tilt/Zoom Control Interface

Hardware Specification

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

- Network Interface
 - One(1) 10/100/1000Mbps Gigabit Ethernet(RJ45)
 - One(1) RS-232C Interface (RJ45) for Console
- USB Interface
 - USB 2.0 Interface for Mouse, etc
- Voice Interface
 - FXS Interface for Analog Phone, Analog Conference Phone, etc
- External Power Input Connector
- External IrDA Connector
- Power On/Off Switch

Full HD Video Conference Camera






HD Video Conference Camera

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

- Full HD Camera Specification
 - High-end CMOS Camera Sensor
 - 2Mega Pixel
 - HD : 1080i/59.94, 1080i/50, 720p/59.94, 720p/50, etc
 - Auto Focus 10 x Optical Zoom, 12 x Digital Zoom
 - Wide Angle Lens for Video Conference Application
 - PELCO-D Control Protocol
 - Position Preset

HD Video Conference Camera

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

Product	AP-HDC50	AP-HDC100	AP-HDC200	AP-HDC300	AP-HDC350
					
Sensor	CCD	CMOS	CCD	CMOS	CMOS
Optical Zoom	x18	x10	x18	x10	x20
Video Resolution	HD 720P(1280x720)	Full HD 720P, 1080i	HD 720P(1280x720)	Full HD 720P, 1080i	Full HD 720P, 1080i, 1080p
Video Output	HDMI, HD-SDI, Component, RCA	HDMI, HD-SDI, Component, RCA	HDMI, HD-SDI, Component, RCA	HDMI, HD-SDI, Component, RCA	HDMI, HD-SDI, Component, RCA
PTZ Control	Support	Support	Support	Support	Support
PTZ Control Interface	RS232/RS485	RS232/RS485	RS232/RS485	RS232/RS485	RS232/RS485
Power	External Power Adaptor	External Power Adaptor	External Power Adaptor	External Power Adaptor	External Power Adaptor

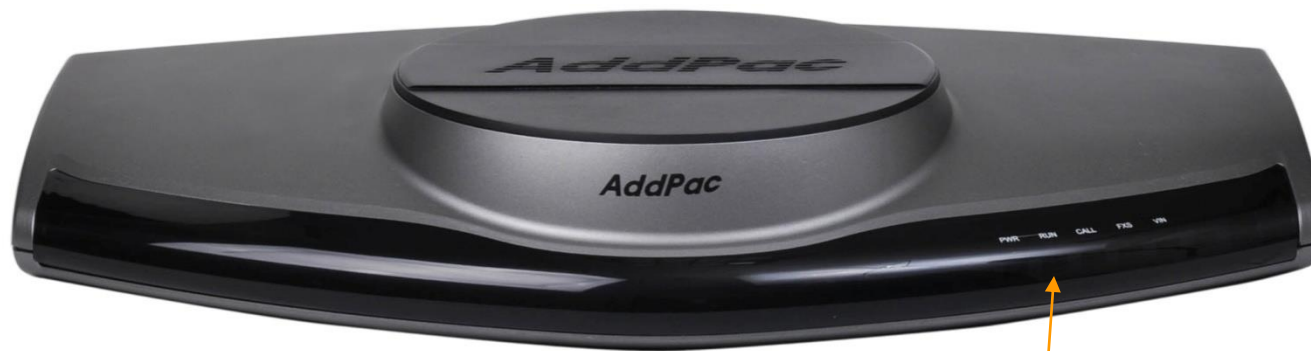
Hardware Specification

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

High
Performance
CPU

High-end
DSP

Front Side



IR Sensor & Status Indication Area

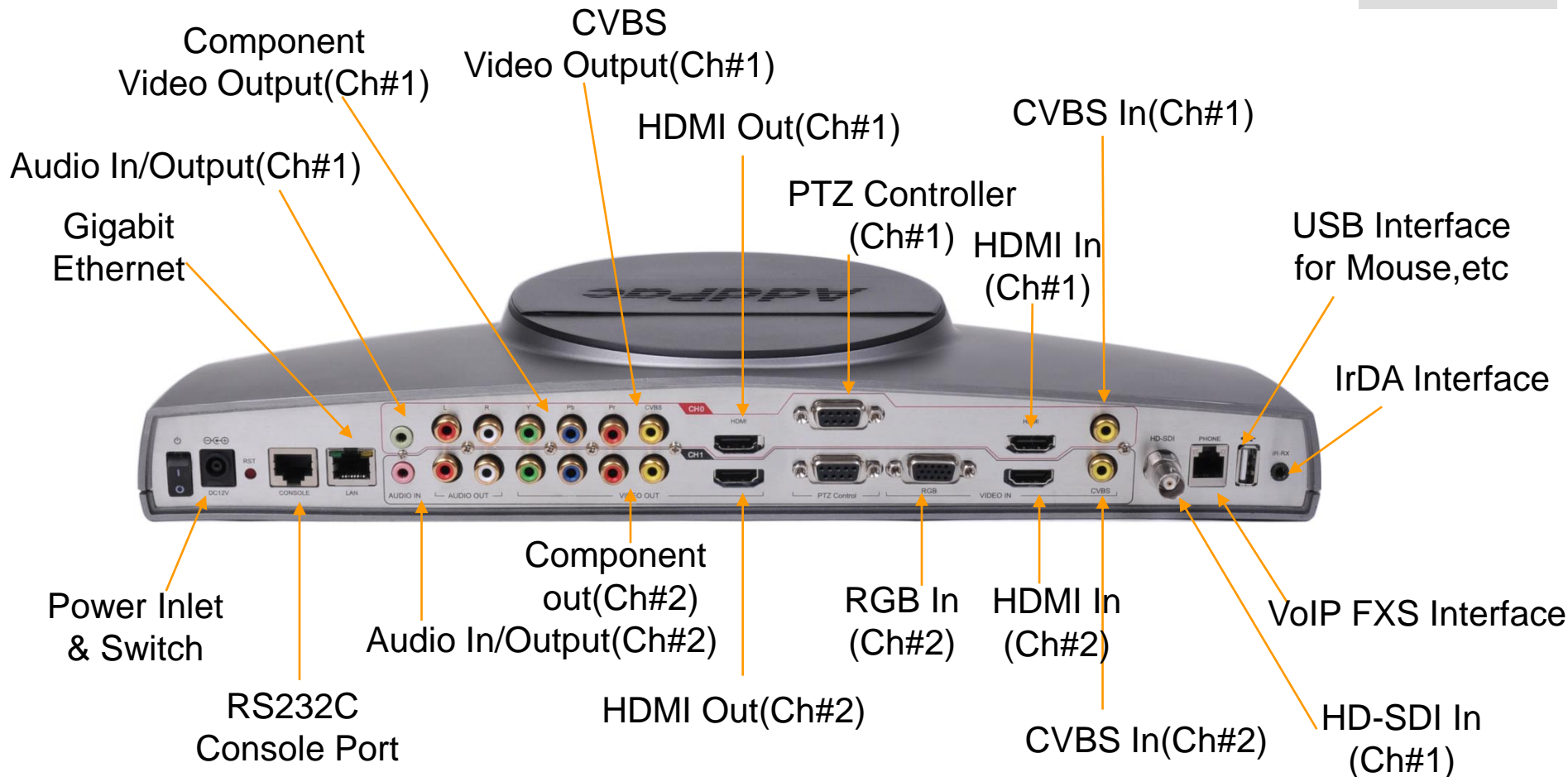
Hardware Specification

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

High Performance
CPU

High-end
DSP

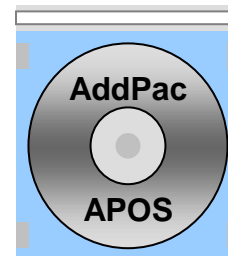
Back Side



Software Service

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

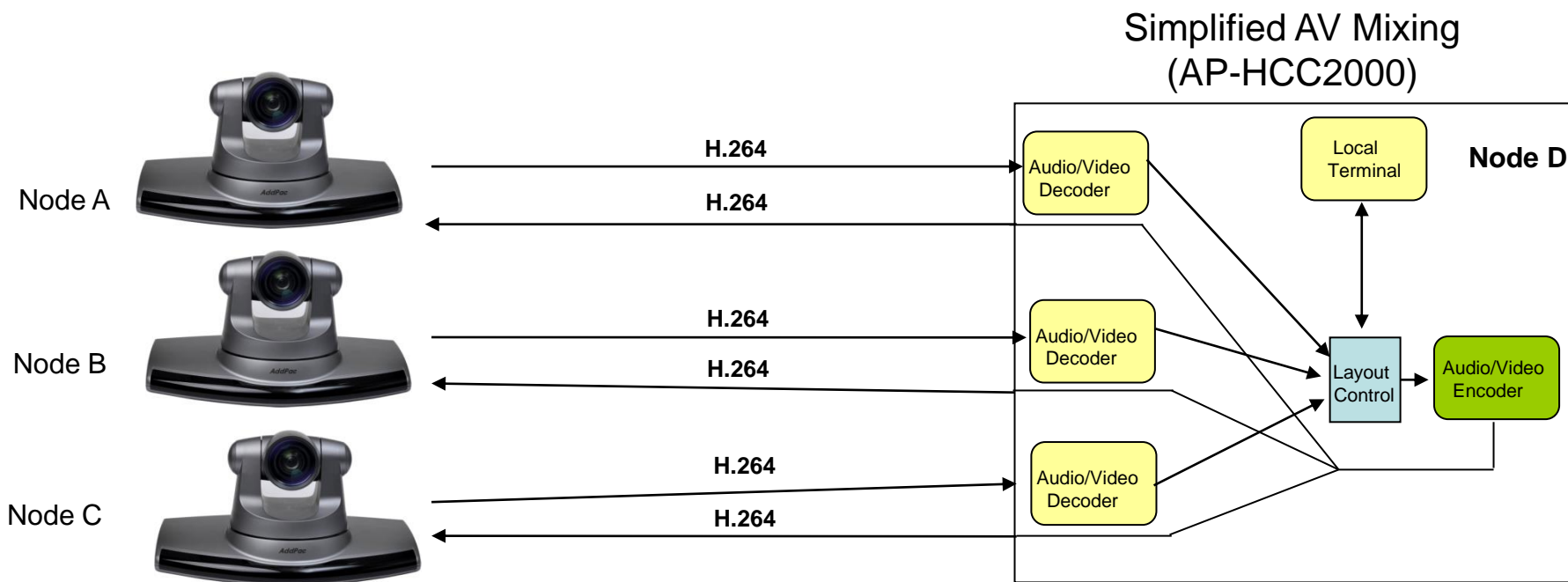
- Built-in APOS Internetworking Software
 - Scalability, Functionality, and Stability Features
 - Video Traffic QoS Control
- Programmable Video, Audio, and Voice Services
 - Video Codes, Audio, and Voice Codec
- Firmware Upgradeable Architecture
- OSD (On-screen Display) Function Support
- Industry Standard IP based Network Protocol Features



MCU Service and Features (cont..)

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

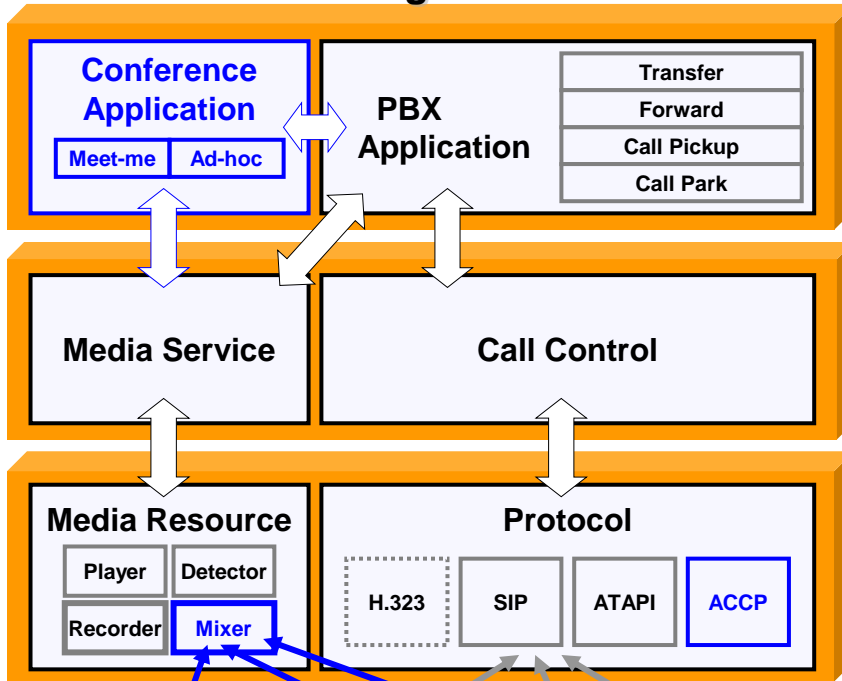
- Simplified AV Mixing Model
- Video Codec : H.264, etc
- Voice Codec : G.711, G.729, etc
- Asymmetric Rate Control between Encoder & Decoder
- Same Conference Layout for All Party



MCU Service and Features (cont..)

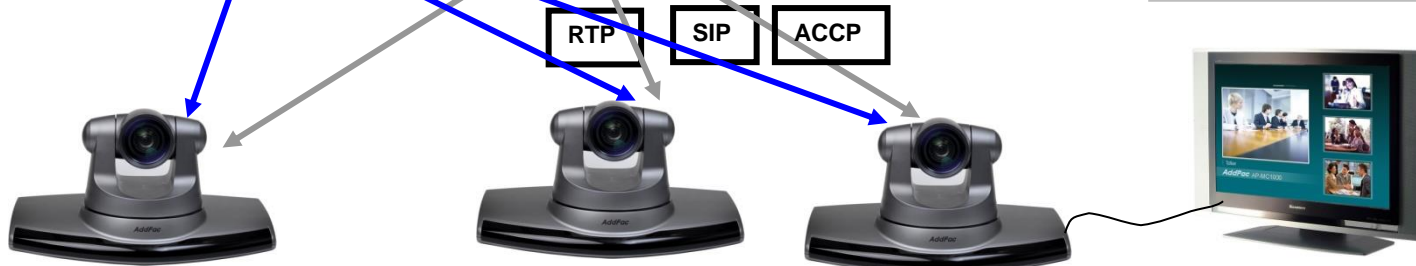
AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

Call Manager + MCU



MCU Integrated Model

- * ATAPI - AddPac Telephony API
- * ACCP - AddPac Client Control Protocol



AddPac

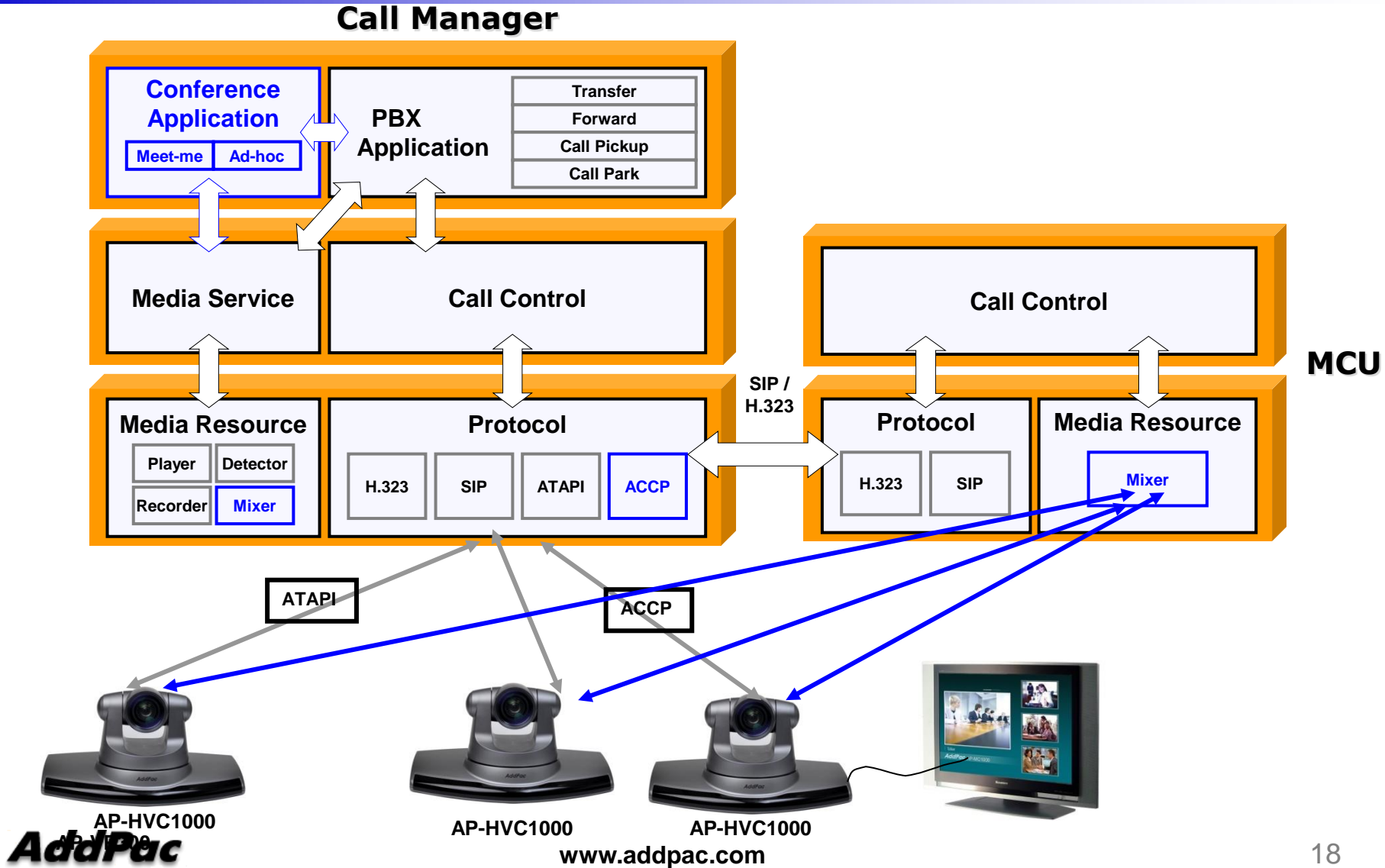
AP-HVC1000

AP-HVC1000

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MCU Service and Features (cont..)

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec



MCU Service and Features (cont..)

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

- Type of Conference
 - Meet-Me (Dial-In) Conference
 - Require that a *range of directory numbers* be allocated for exclusive use of the conference
 - Ad Hoc (On-Demand) Conference
 - using Conference and Join soft key
 - Dial-Out Conference
- View Mode Configuration

Network Service and Features

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

- **Basic Routing**
 - Static Routing (IPv4)
 - Static / DHCP / PPPoE
 - VRRP (Virtual Redundancy Routing Protocol)
- **Network Management**
 - SNMPv2/SNMPv3 Support
 - Standard & Enterprise SNMP MIB Support
 - Web Based Management using HTTP/HTTPS
 - Console / Telnet / Rlogin / SSH Interface
- **Security Function**
 - Standard & Extended IP Access List
 - HTTPS / SSH Interface
 - Auto-disconnect Telnet/Console Session
 - Access Control for Local Service (FTP/Telnet/HTTP.)
 - Enable/Disable Network Services
 - Multi-Level User Account Management

Network Service and Features

AP-HVC2000 Two(2)-Channel Full HD Video Conference Codec

- Operation & Management
 - Configuration Backup & Restore for APOS Managements
 - Use Multiple APOS™ and Configuration
 - Auto Upgrade via HTTP/HTTPS
 - Debugging, System Auditing, and Diagnostics Support
 - FTP/TFTP/Telnet/SSH Server and Client
 - HTTP Server
 - Remote logging using Syslog
 - Local System Logging (Local HDD model)
 - RADIUS Authentication / Account
- Other Scalability Features
 - Network time Protocol (NTP) Support
 - Cisco Style Command Line Interface (CLI)
 - DHCP Server & Relay Functions
 - DNS Server

OSD Software Overview

Contents

- Menu Control Mode
- Dial Mode
- Conversation View Mode
- Display Layout Call Mode
- Key Pad Mode for Dialing Number
- Phone Book OSD
- Phone Book : New Contact
- Recent Call OSD
- Tools OSD Mode
- Codec Configuration : IP address, etc
- Status Bars OSD
- PTZ Control OSD

Menu Control Mode

Keypad, Phonebook, Recent Call, PTZ Control, Tools, Layout, Configuration



Menu Bar Indication
ICON

Function Key List
for Soft-key

Dialing OSD



Conversation View Mode



Remote Site View

PIP : Local Site View

Conversation View Mode



Remote Site Full Screen View

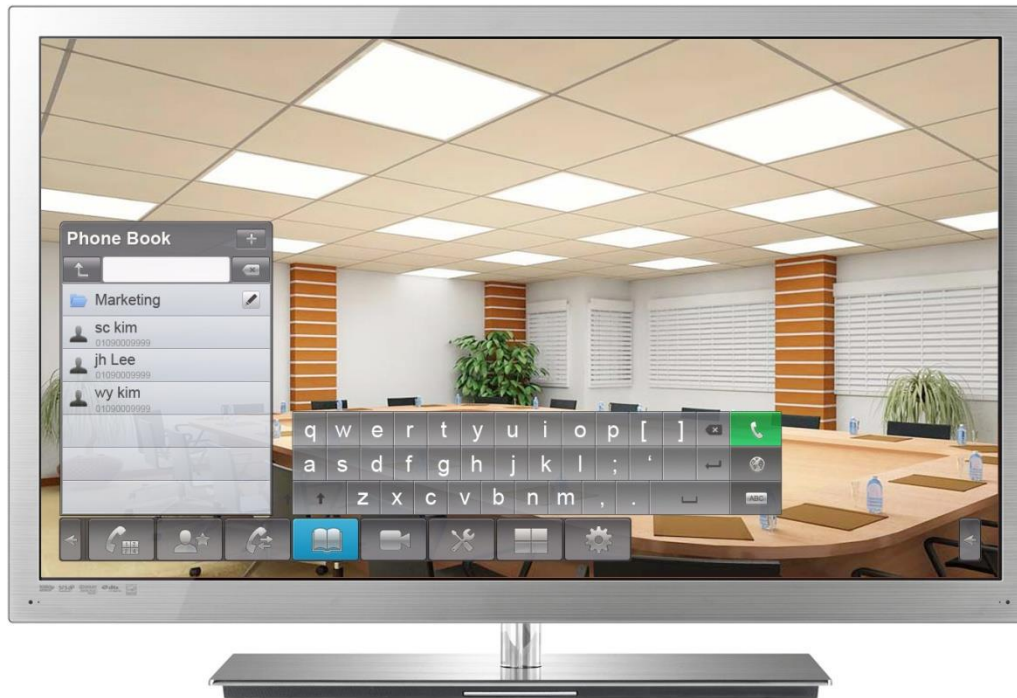
Display Layout Control Mode



Keypad Menu for Dialing Number



Phone Book OSD Menu



Phone Book OSD Menu : New Contact



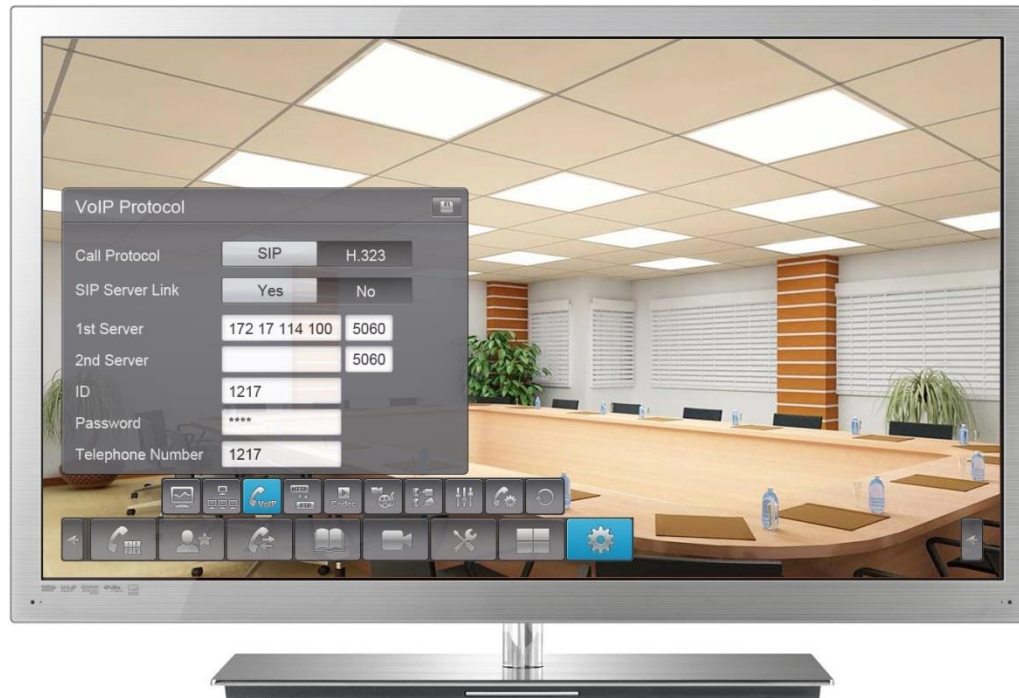
Recent Call OSD Menu



Tools OSD Menu



Codec Configuration



Status Indication Bars OSD

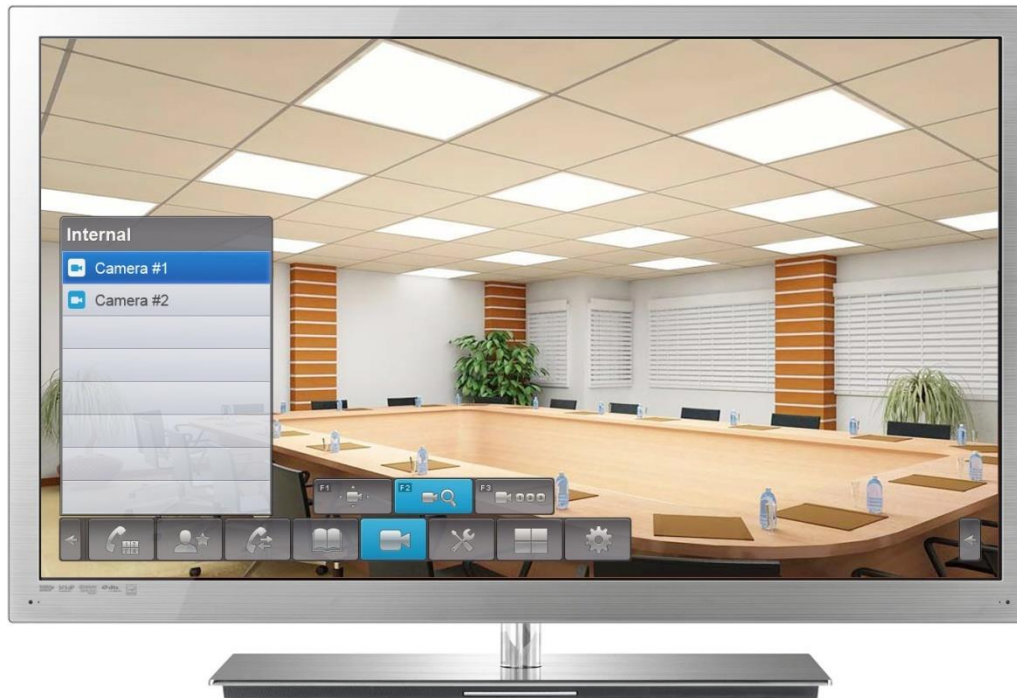
Status Bars



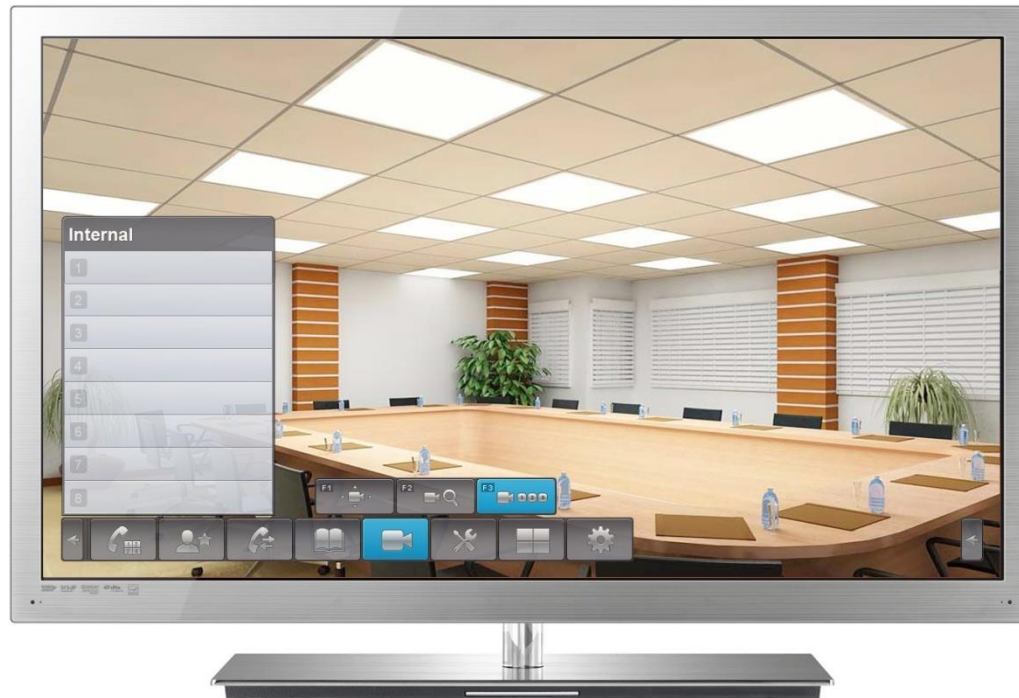
PTZ Control : Camera #1



PTZ Control : Camera Select



PTZ Control : Preset Setting



AP-HCC2000 Full HD Video Conference Codec

Application Area

- Audio/Video Real-time Broadcasting
- Video Telephony
- Video Telephony + Document Broadcasting
- Video Telephony + Video Broadcasting
- Video Conference

Video Telephony Application

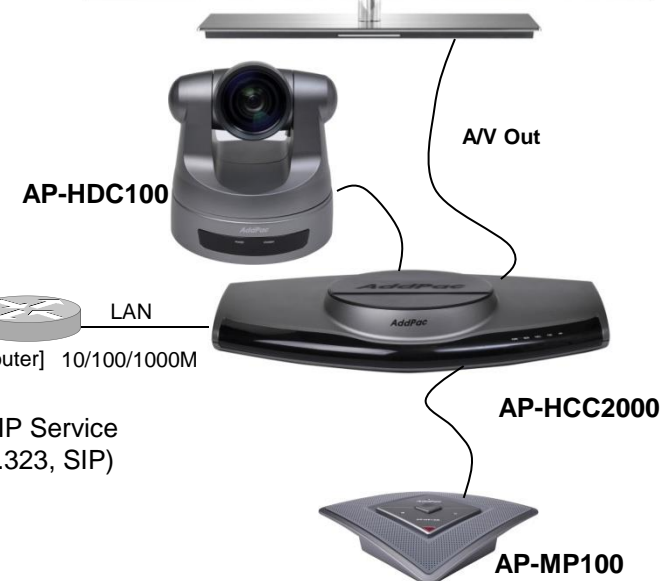
AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

H.264, 1080i, 30frame



Point-to-Point Video Service
(symmetric video quality)

H.264, 1080i, 30frame



30fps, Full HD

30fps, Full HD

IP Network

Multimedia Service
(Video, Audio/Voice, and more...)
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Video Telephony + Document Broadcasting

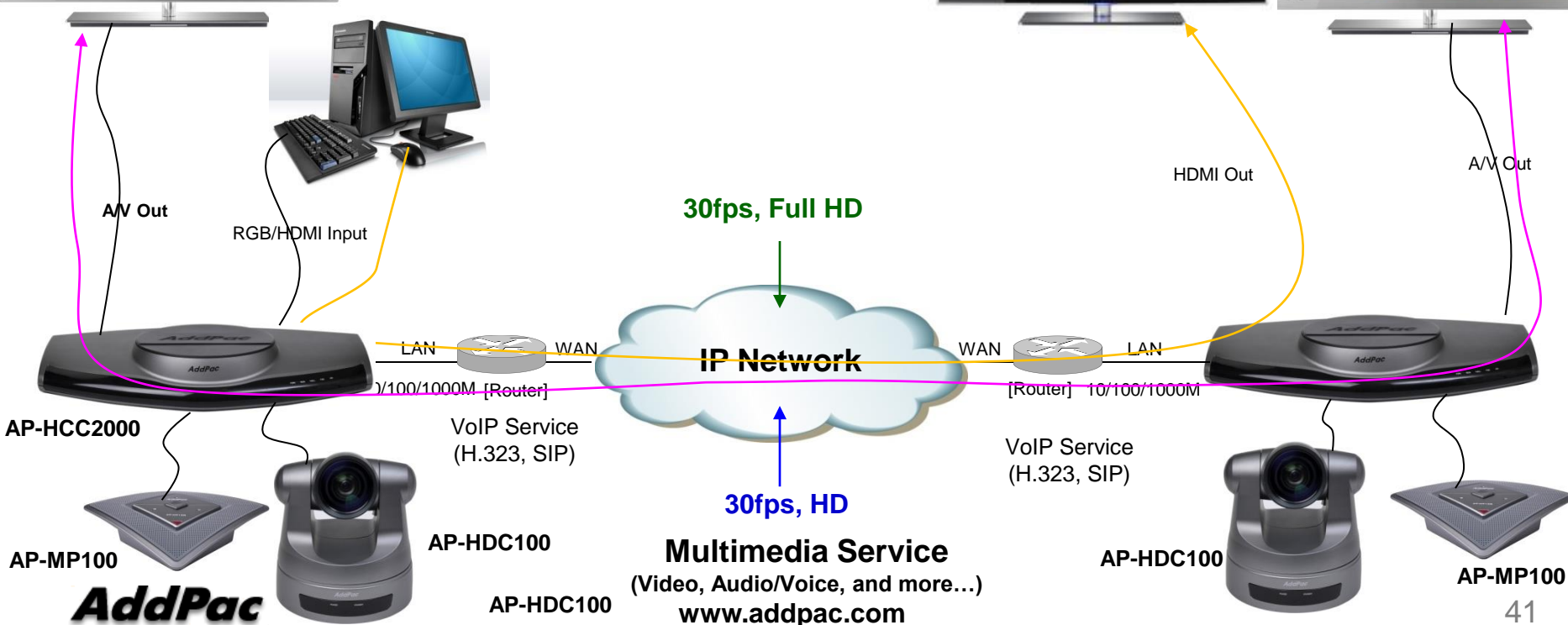
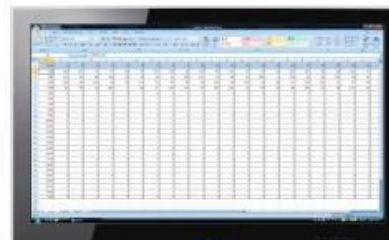
AP-HVC2000 Two(2)-Channel Full HD Video Conference Equipment

H.264, 1080i, 30frame

Point-to-Point Video Service
(symmetric video quality)

H.264, 1080i, 30frame

Document Broadcasting



Video Telephony + Video Broadcasting

AP-HCC2000 Two(2)-Channel Full HD Video Conference Equipment

Point-to-Point Video Service
(symmetric video quality)

H.264, 1080i, 30frame



H.264, 1080i, 30frame



Video Broadcasting

Video Broadcasting Camera



A/V Out

HD-SDI Input

HDMI Out

A/V Out

30fps, Full HD

IP Network

30fps, Full HD

LAN [Router] WAN

WAN [Router] LAN

VoIP Service
(H.323, SIP)

VoIP Service
(H.323, SIP)

Multimedia Service
(Video, Audio/Voice, and more...)
www.addpac.com

AP-HCC2000

AP-MP100

AP-HDC100

AddPac

AP-HDC100

AP-MP100

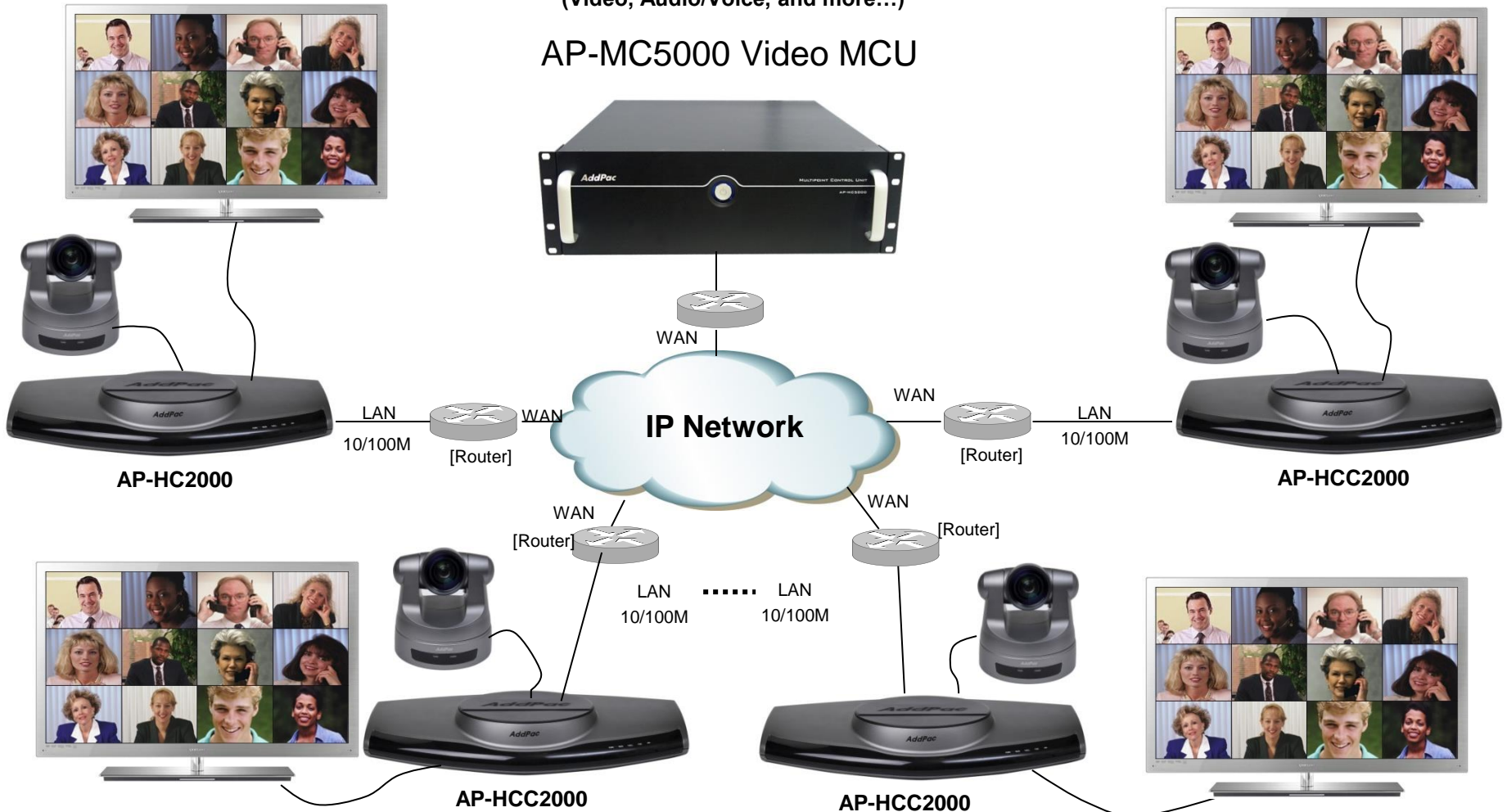
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Video Conference

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

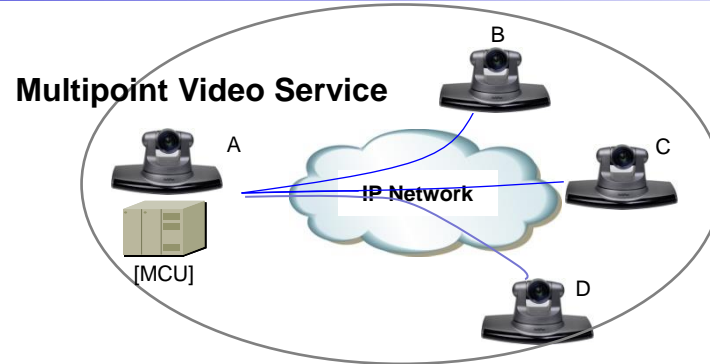
Multipoint Video Service
(Video, Audio/Voice, and more...)

AP-MC5000 Video MCU

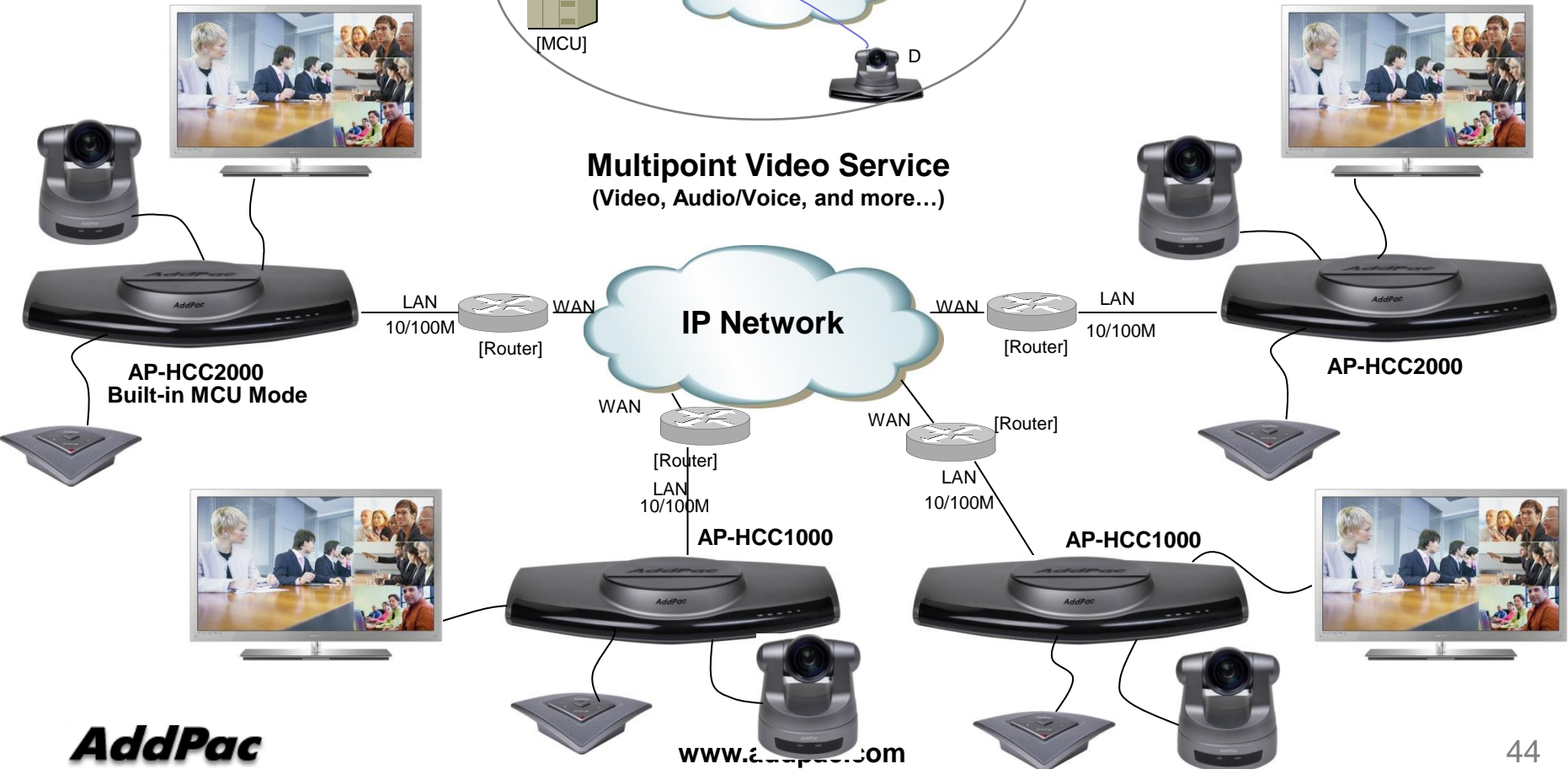


Video Conference

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec



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



Ordering Information

- AP-HCC2000 Full HD Video Conference Codec
 - AP-HCC2000 MCU Built-In Two(2)-Channel Full HD Video Conference Codec
 - Including Network Cable Set & Power Supply Cable, etc.
 - Option : Video Conference HD Camera, Microphone
- Built-in APOS Internetworking Software for AP-HCC2000
- Including 1 Year Hardware Warranty
- Product Documents
 - Install and Operation Guide (PDF)
- Pricing
 - AddPac Technology Regional Sales Manager
 - Authorized Sales and Marketing Representatives
 - Please Contact www.addpac.com

Thank you!

AddPac Technology Co., Ltd.
Sales and Marketing

Phone +82.2.568.3848 (KOREA)

FAX +82.2.568.3847 (KOREA)

E-mail sales@addpac.com