

Full HD Video Conference Codec Solution Features



AddPac

AddPac Technology

2013, Sales and Marketing

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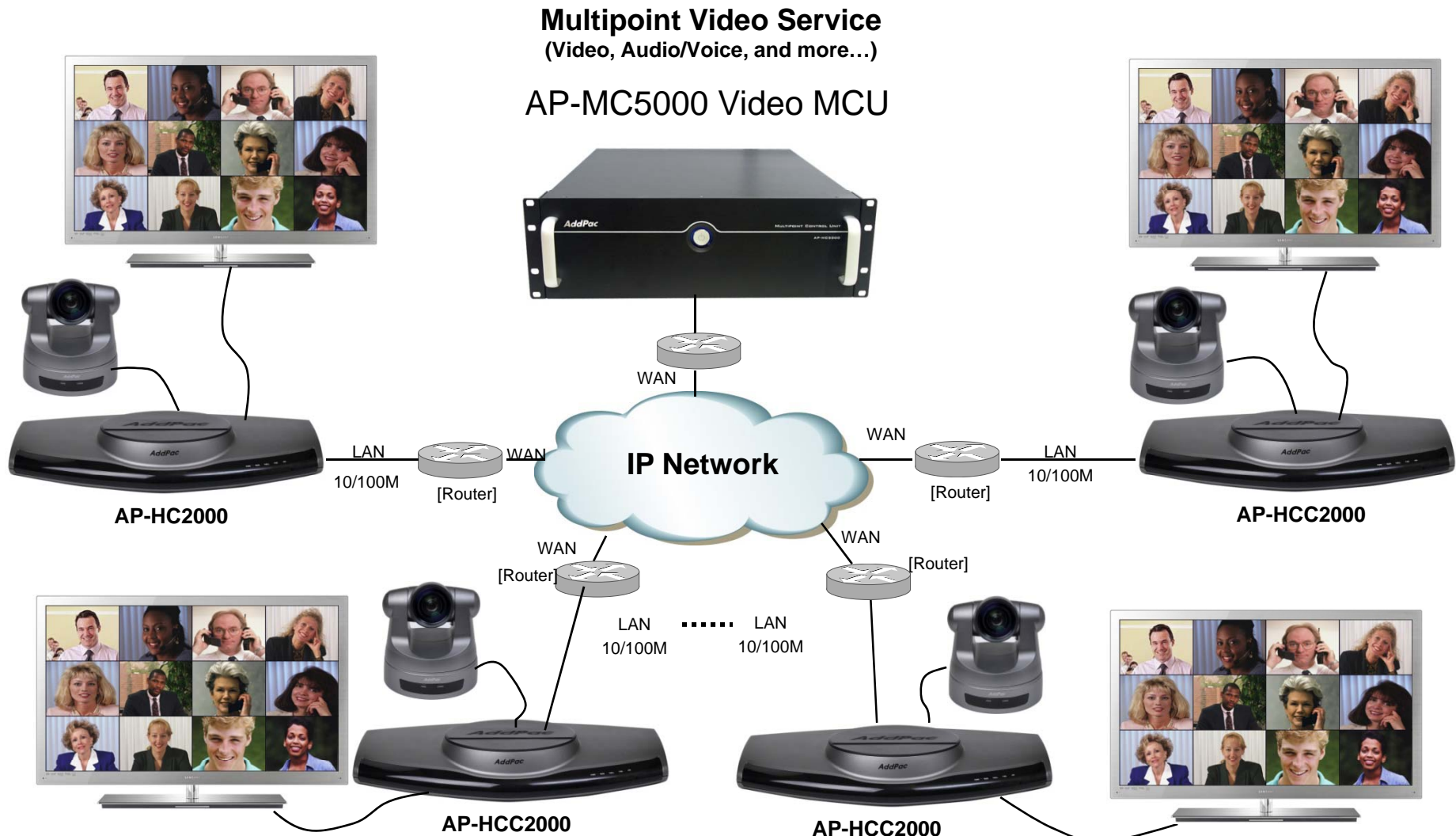
Contents

- AddPac Full HD Video Conference Solution Features
- Full HD Video Conference Codec Service Diagram
- Full HD Video Conference Codec
 - AP-HCC2000 Full HD Video Codec (Two(2) Channel + 4-Party MCU)
 - AP-HCC1000 Full HD Video Codec (Two(2) Channel)
 - AP-HCC500 Full HD Video Codec (One(1) Channel)
- HD Video Conference Cameras
- AEC Microphone
- Smart Conference Controller

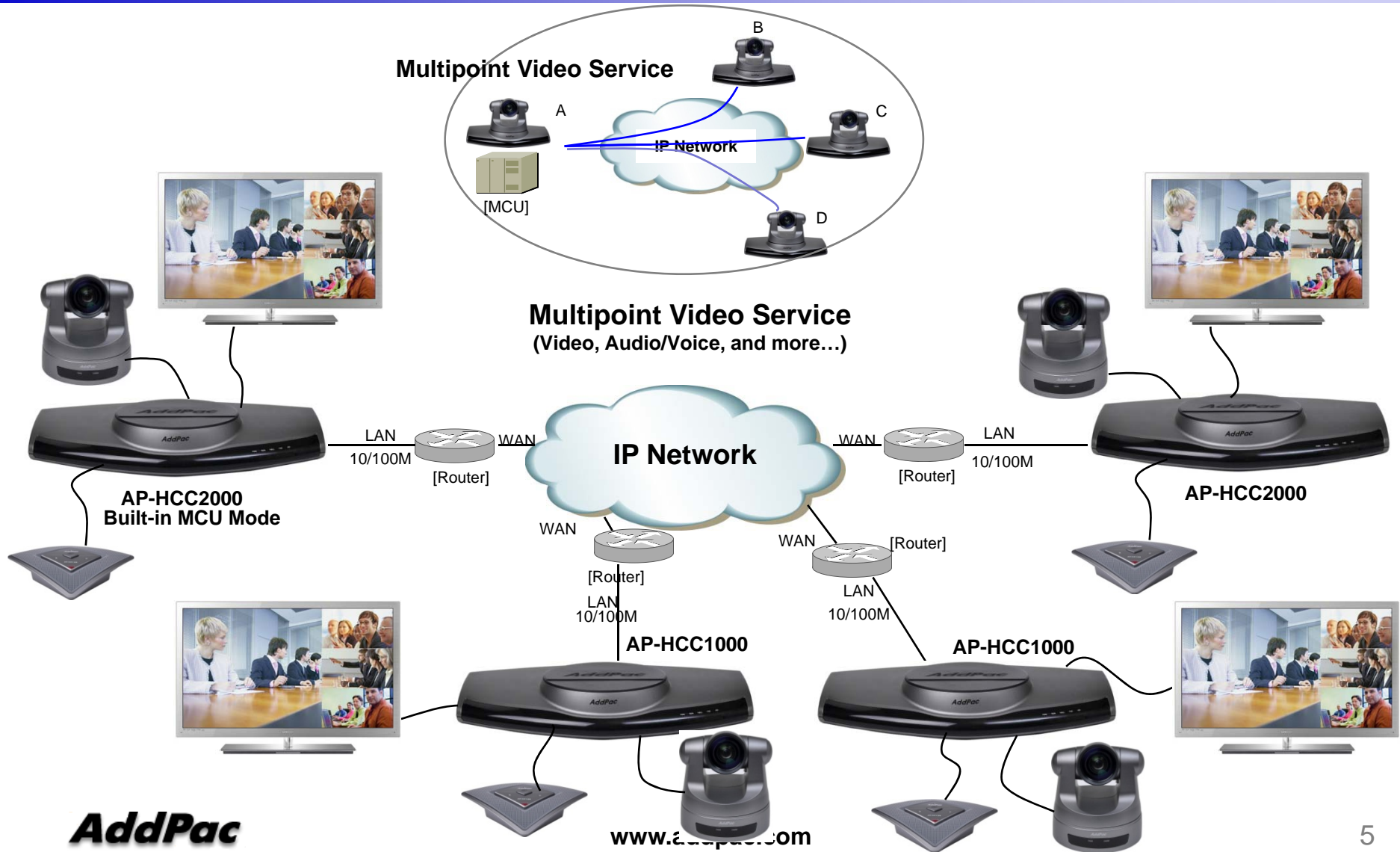
AddPac Full HD Video Conference Solution Features (Advantage)

- High Performance DSP based Hardware Video Codec Scheme
- Multiple Video Port Support : HD-SDI, HDMI, Composite
- Support FXS Phone Interface for Voice Switching beside MIC Input Port (option)
- Support Multiple Source Echo Canceling Microphone
- H.264 SVC (Scalable Video Coding) Support beside H.264 AVC, MPEG4, H.263
- Multiple Signaling Stack for Interoperability Support : H.323, SIP, SSCP
- Support Meeting Mode and Lecture Mode Video Conference (Listening Mode Support)
- Support Floor Control and FECC (Far End Camera Control)
- Support Interoperability with IP Video Broadcasting Solution (AddPac Broadcasting Solution)
- Support Smart Web-based Conference Management Software including Camera PTZ Control (Tab, PAD, etc)
- Support Conference A/V Recording Solution Support (AddPac)
- Various Soft Video Phone Support : MS-Window, Android, IOS, etc (from AddPac)
- Support RTSP based Video Surveillance Codec via External SIP/RTP Adaptor
- Support Voice PTT (Push-to-Talk) Service (PTT Server Required)
- Support AEC Microphone Adaptors for Legacy Large Conference Microphone

Full HD Video Conference Codec Service Diagram (External MCU Mode)






Full HD Video Conference Codec Service Diagram (Internal MCU Mode)





Full HD Video Conference Codec

Full HD Video Conference Codecs

Product		AP-HCC2000	AP-HCC1000	AP-HVC500
				
Video Resolution		720P, 1080i(60), 1080p(30)	720P, 1080i(60), 1080p(30)	720P, 1080i(60), 1080p(30)
Channel One(1)	Video Input	Composite RCA, HD-SDI, HDMI	Composite RCA, HD-SDI, HDMI	Composite RCA, HD-SDI, RGB, HDMI
	Video Output	Composite RCA, Component, HDMI	Composite RCA, Component, HDMI	Composite RCA, Component, HDMI
	Audio Input	Stereo RCA Type	Stereo RCA Type	Stereo RCA Type
	Audio Output	RCA Type Audio (L,R)	RCA Type Audio (L,R)	RCA Type Audio (L,R)
PTZ Control		Support, RS232C	Support, RS232C	Support
Channel Two(2)	Video Input	Composite RCA, HD-SDI, RGB, HDMI	Composite RCA, HD-SDI, RGB, HDMI	N/A
	Video Output	Composite RCA, Component, HDMI	Composite RCA, Component, HDMI	
	Audio Input	Stereo RCA Type	Stereo RCA Type	
	Audio Output	RCA Type Audio (L,R)	RCA Type Audio (L,R)	
PTZ Control		Support, RS232C	Support, RS232C	
Video MCU		4-Party Video MCU	N/A	N/A
LAN		One(1) 10/100/1000M Gigabit Ethernet	One(1) 10/100/1000M Gigabit Ethernet	One(1) 10/100/1000M Gigabit Ethernet
Power		External Power Adaptor	External Power Adaptor	External Power Adaptor

AP-HCC2000

Two(2)-Ch Full HD Video Codec



Main Features

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

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

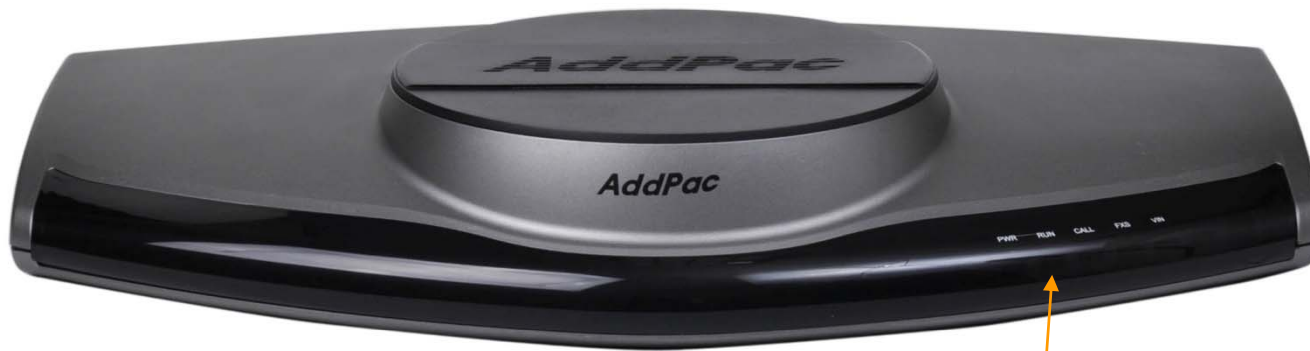
Hardware Specification

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

High
Performance
CPU

High-end
DSP

Front Side



IR Sensor & Status Indication Area

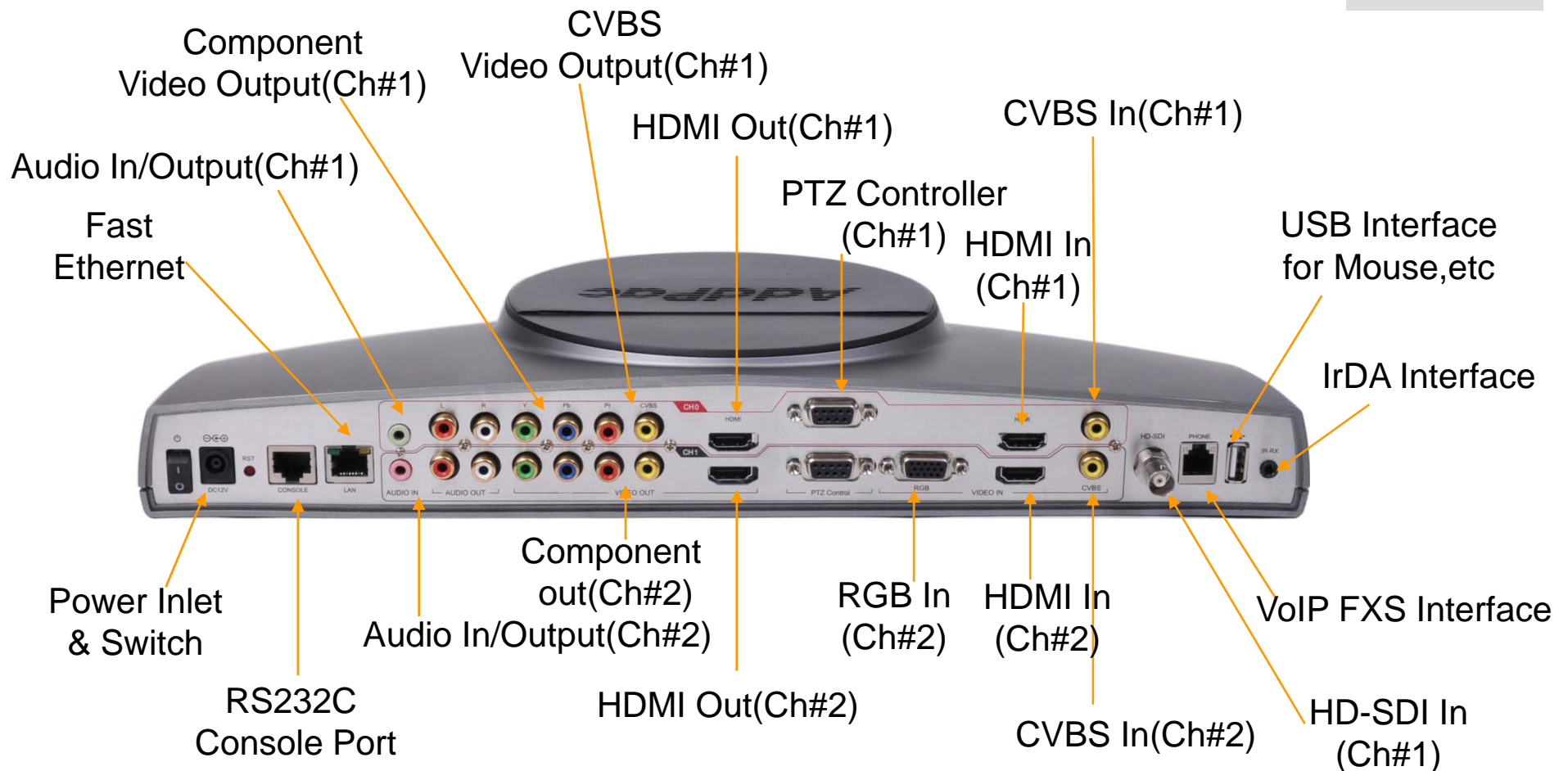
Hardware Specification

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

High Performance
CPU

High-end
DSP

Back Side



AP-HCC1000

Two(2)-Ch Full HD Video Codec



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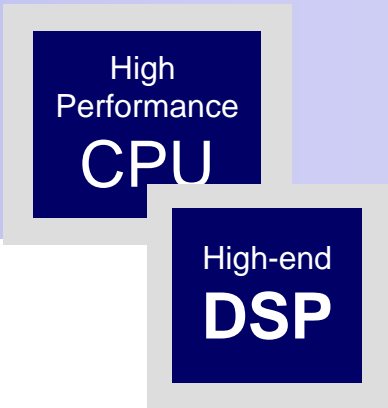
Main Features

AP-HCC1000 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
- 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

Hardware Specification

AP-HCC1000 Two(2)-Channel Full HD Video Conference Codec



- High Performance RISC Computing Power
- High-end Programmable DSP Hardware Architecture
- Video I/O Interface

CH # 1	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	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-HCC1000 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

Hardware Specification

AP-HCC1000 Two(2)-Channel Full HD Video Conference Codec

High
Performance
CPU

High-end
DSP

Front Side



IR Sensor & Status Indication Area

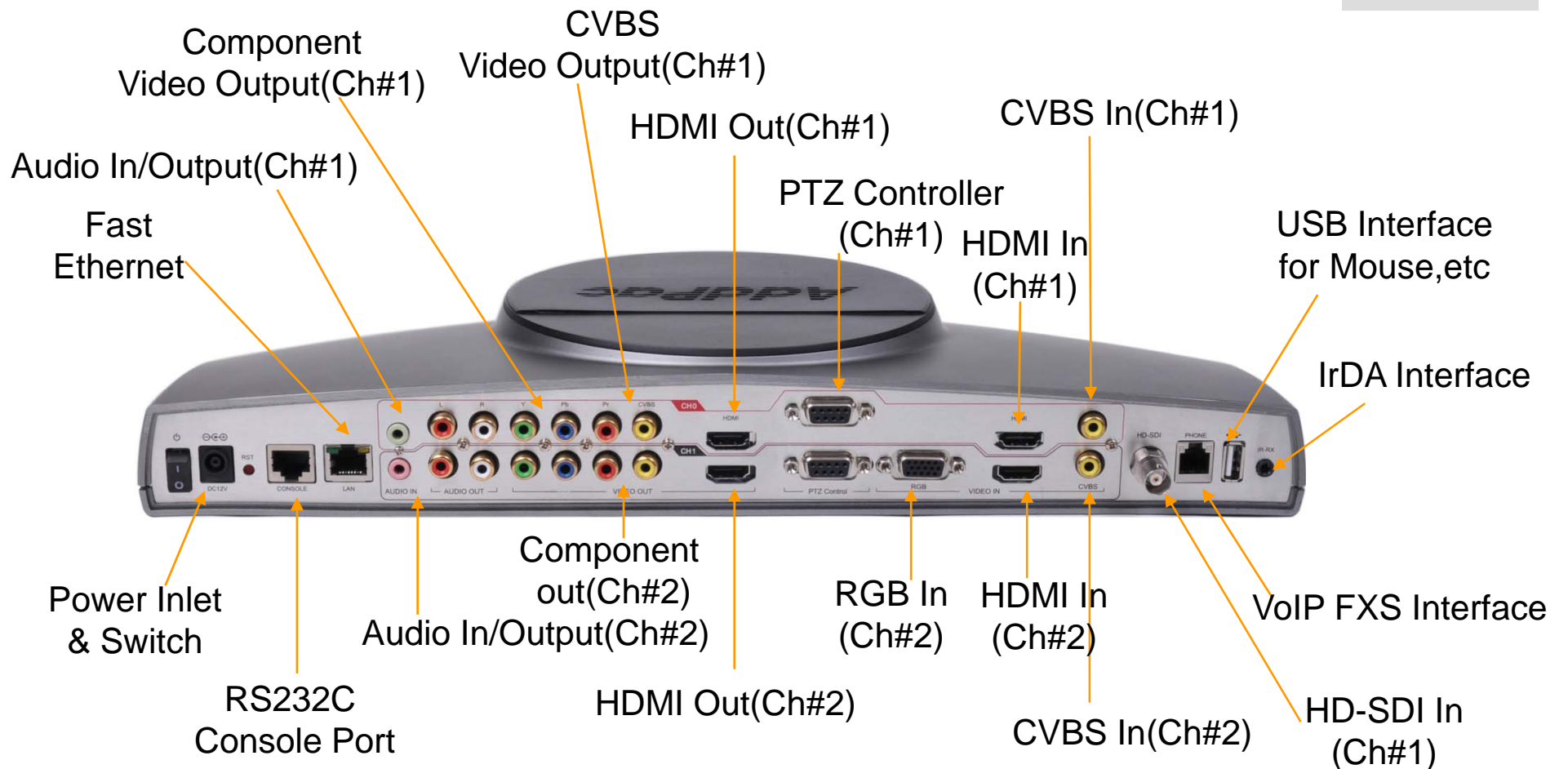
Hardware Specification

AP-HCC1000 Two(2)-Channel Full HD Video Conference Codec

High Performance
CPU

High-end
DSP

Back Side



AP-HCC500

One(1)-Ch Full HD Video Codec



Main Features

AP-HCC500 Full HD Video Conference Codec

- IP based Video Conference Solution
- High-End Full HD Video Conference Codec Features
- Single Channel Full HD Video Conference Codec
- 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

Hardware Specification

AP-HCC500 Full HD Video Conference Codec

High
Performance
CPU

High-end
DSP

- High Performance RISC Computing Power
- High-end Programmable DSP Hardware Architecture
- Video I/O Interface

Video Input	External Full HD Video Camera, 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-HCC500 Full HD Video Conference Codec

High
Performance
CPU

High-end
DSP

- Network Interface
 - One(1) 10/100/1000Mbps Giga 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

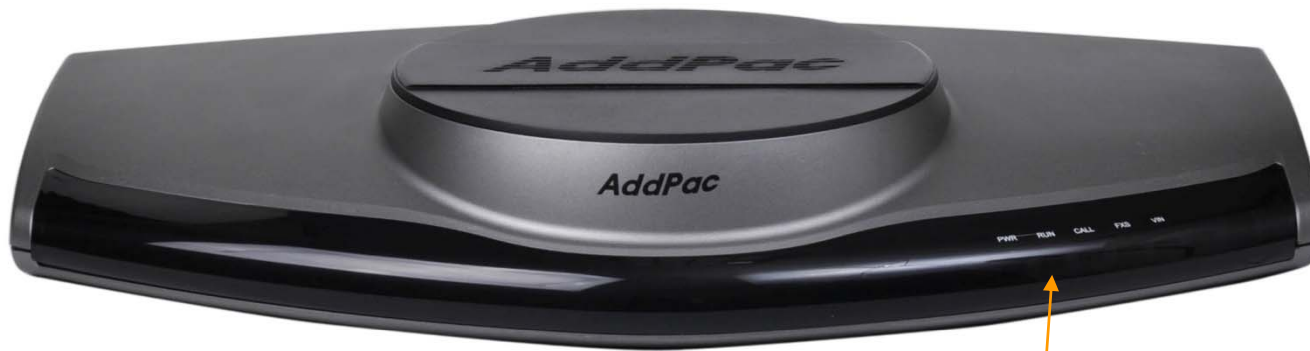
Hardware Specification

AP-HCC500 Full HD Video Conference Codec

High
Performance
CPU

High-end
DSP

Front Side



IR Sensor & Status Indication Area

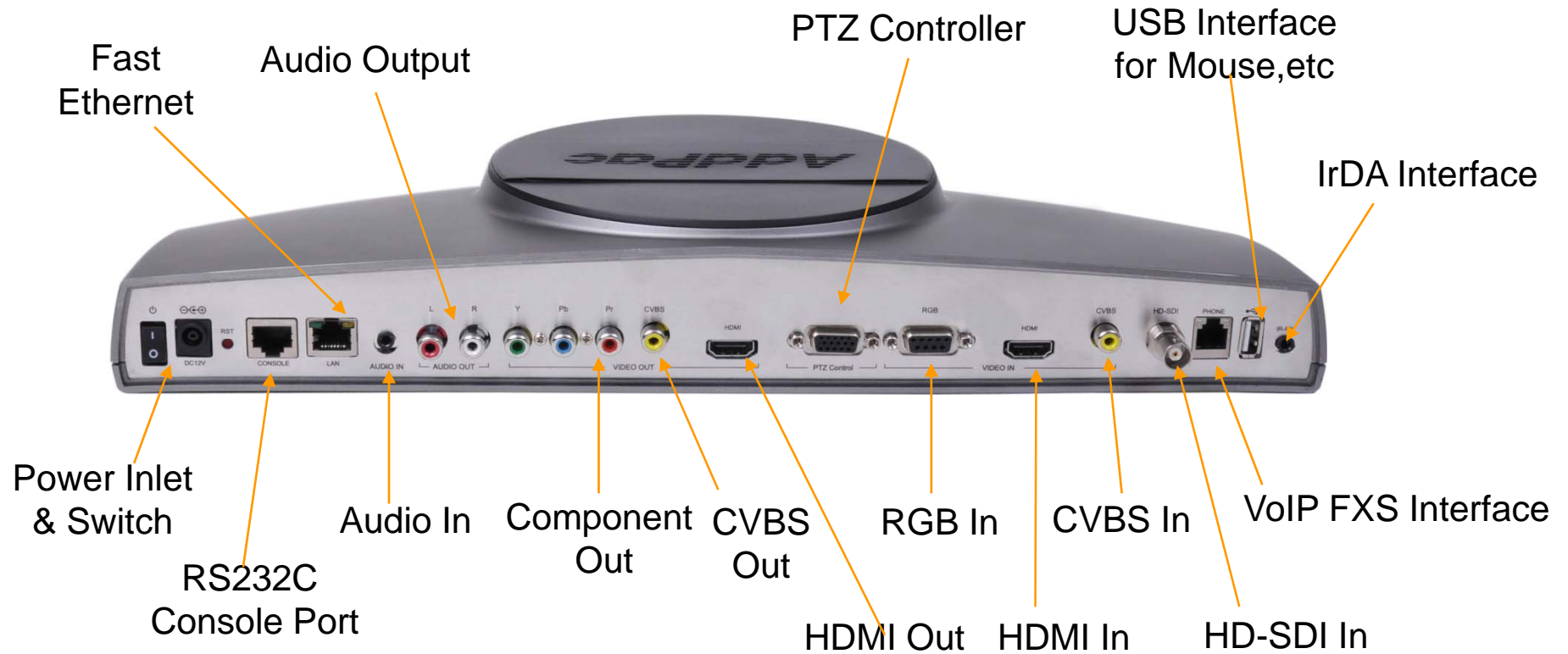
Hardware Specification

AP-HCC500 Full HD Video Conference Codec

High Performance
CPU

High-end
DSP

Back Side










HD Video Conference Camera

HD Video Conference Cameras

- 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 Cameras

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



AEC Microphone Solution

AEC Microphone (AP-MP100)



Main Features

AP-MP100 AEC Microphone

- Acoustic Echo Canceller Micro Phone Solution for Video Conference
- Wide band(16bits, 16kHz sampling) operation
- Support CNG(comport noise generation) to generate white noise
- Support double talk
- Noise reduction algorithm
- Support HDMI speaker mode & analog speaker mode
- S/W upgrade by y-modem protocol via RS232C
- Support CLI(Command Line Interface) to configure AEC parameters
- Voice Activity Detection
- Mute button
- Status LED (Mute, Active)
- Compact Design & Die Casting
- Power On/Off Switch

Hardware Specification

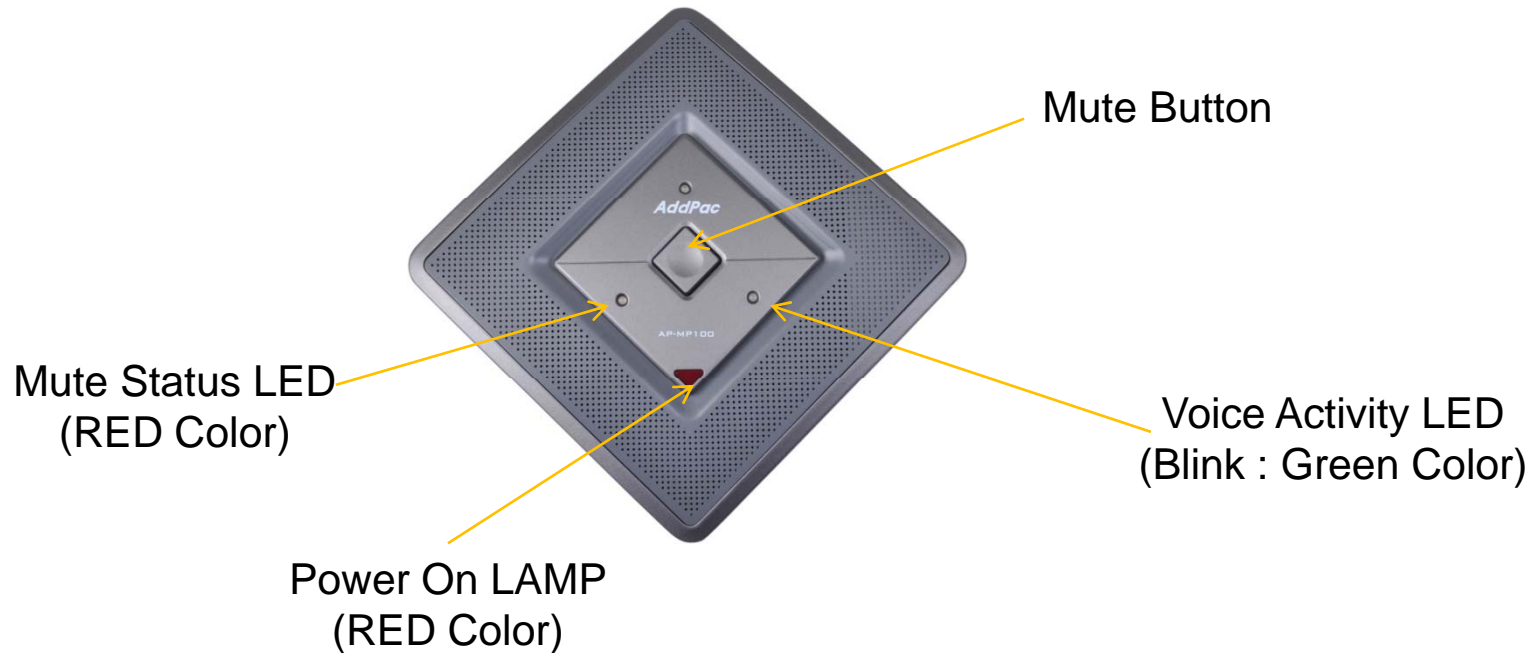
AP-MP100 AEC Microphone

- DSP based Acoustic Echo Canceller Hardware Architecture
- Status LED (Mute, Active)
- Audio Mute Key Support
- RS232C based Firmware Upgrade Architecture
- Compact Design & Die Casting
- Power On/Off Switch
- MIC Interface
 - Power Input
 - Audio Output



Hardware Specification

AP-MP100 AEC Microphone





Hardware Specification

AP-MP100 AEC Microphone



Video Conference AEC MIC Adaptor Network Diagram

Model	AP-MA100	AP-MA50
Service Features		
MIC Interfaces	3.5mm Audio Connector	One(1) MIC connector for AddPac AP-MP50 Microphone (Up to three(3) AP-MP50, cascade)
	RCA Connector	
	3-pin XLR Connector (Phantom Power)	
Wideband Operation (16bit, 16Khz)	Support	Support
Mute Button with LAMP	Support	Support
Speaker Mode	HDMI & analog speaker mode both support	HDMI & analog speaker mode both support
Console Port	Support	Support
Firmware Upgrade By y-modem protocol via RS232C	Support	Support
Power On/Off Switch	Support	Support



AP-MA100 AEC Microphone Adaptor

Main Features

AP-MA100 AEC Microphone Adaptor

- Acoustic Echo Canceller Micro Phone Adaptor Solution for Video Conference
- Wide band(16bits, 16kHz sampling) operation
- Support CNG(comport noise generation) to generate white noise
- Support double talk
- Noise reduction algorithm
- Support HDMI speaker mode & analog speaker mode
- S/W upgrade by y-modem protocol via RS232C
- Support CLI(Command Line Interface) to configure AEC parameters
- Mute button
- Compact Design & Still Chassis
- Phantom +48V Supply On/Off Control
- Various MIC Input Interface Support
- Power On/Off Switch

Hardware Specification

AP-MA100 AEC Microphone Adaptor

- DSP based Acoustic Echo Canceller Hardware Architecture
- Audio Mute Button Support
- Status LED (Mute)
- RS232C based Firmware Upgrade Architecture
- Compact Design & Still Chassis
- Power On/Off Switch
- Phantom +48V On/Off Switch
- Three(3) Type MIC Input Interface



Hardware Specification

AP-MA100 AEC Microphone Adaptor

Back Side



Audio Out & Power In Connector

Power On/Off Switch

Front Side



Audio Mute Button & LAMP

RS232C Port for Firmware Upgrade

MIC Interface

Phantom +48V Interface



AP-MA50 AEC Microphone Adaptor

Main Features

AP-MA50 AEC Microphone Adaptor

- Acoustic Echo Canceller Micro Phone Adaptor Solution for Video Conference
- Wide band(16bits, 16kHz sampling) operation
- Support CNG(comport noise generation) to generate white noise
- Support double talk
- Noise reduction algorithm
- Support HDMI speaker mode & analog speaker mode
- S/W upgrade by y-modem protocol via RS232C
- Support CLI(Command Line Interface) to configure AEC parameters
- Mute button
- Compact Design & Still Chassis
- Phantom +48V Supply On/Off Control
- One(1) AddPac MIC and Two(2) XLR MIC Input Interface Support
- Power On/Off Switch

Hardware Specification

AP-MA50 AEC Microphone Adaptor

- DSP based Acoustic Echo Canceller Hardware Architecture
- Audio Mute Button Support
- Status LED (Mute)
- RS232C based Firmware Upgrade Architecture
- Compact Design & Still Chassis
- Power On/Off Switch
- Phantom +48V On/Off Switch
- One(1) AddPac MIC Input Interface
 - Up to three(3) AddPac MIC cascade
- Two(2) XLR MIC Input Interface



Hardware Specification

AP-MA50 AEC Microphone Adaptor

Back Side



Audio Out & Power In Connector

Power On/Off Switch

Front Side



Audio Mute Button & LAMP

RS232C Port for Firmware Upgrade

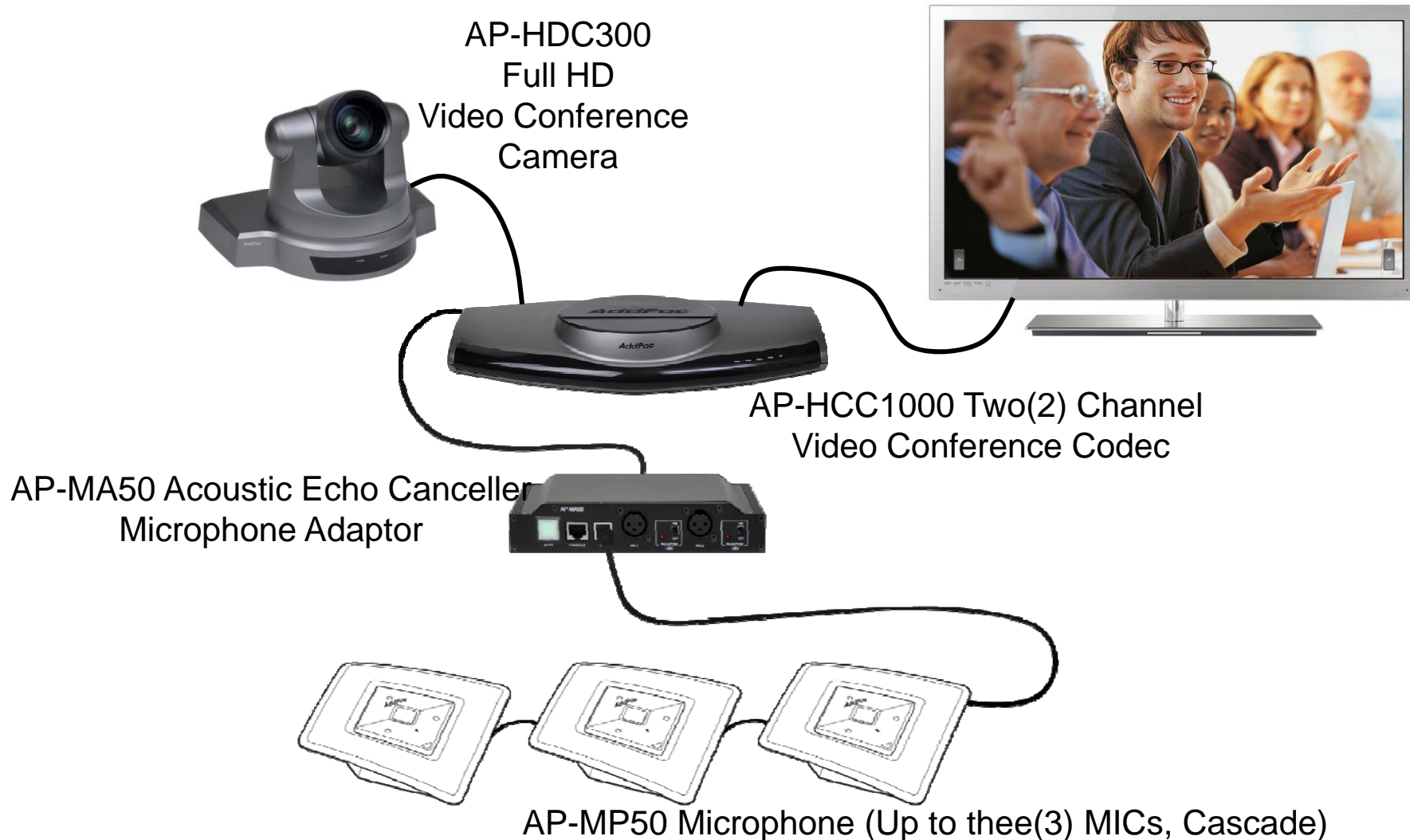
One(1) AddPac MIC Interface

Two(2) XLR MIC Interface

Phantom +48V Interface

Connection Diagram (Up to Three(3) Mic)

AP-MA50 AEC Microphone Adaptor



Smart Conference Controller (AP-SCC)



Contents

- Smart Conference Controller Overview
- Smart Conference Controller GUI Examples
 - Login Home
 - Dial Pad
 - Conference
 - Conference Party
 - Recent Calls
 - Contacts
 - Phone Books
 - Call Connected Control
 - Camera Control
 - Speaker Control
 - PTT (Push-to-Talk) Control

Smart Conference Controller Overview

- Pure Web based Smart Controller for AddPac HD Video Conference System Control
- Support Various Web Brower
 - PC(or Notebook) based Internet Explorer, Chrome, etc
 - Android based Web Browser like as Galaxy Tab, etc
 - Safari Web Browser like as Apple IPAD, etc
- Landscape Orientation View Mode Optimized (Tab, IPAD)
- IP based Remote HD Video Conference Control using PC(or Notebook), Tab, PAD, etc Instead of legacy IrDA Remote Controller by OSD

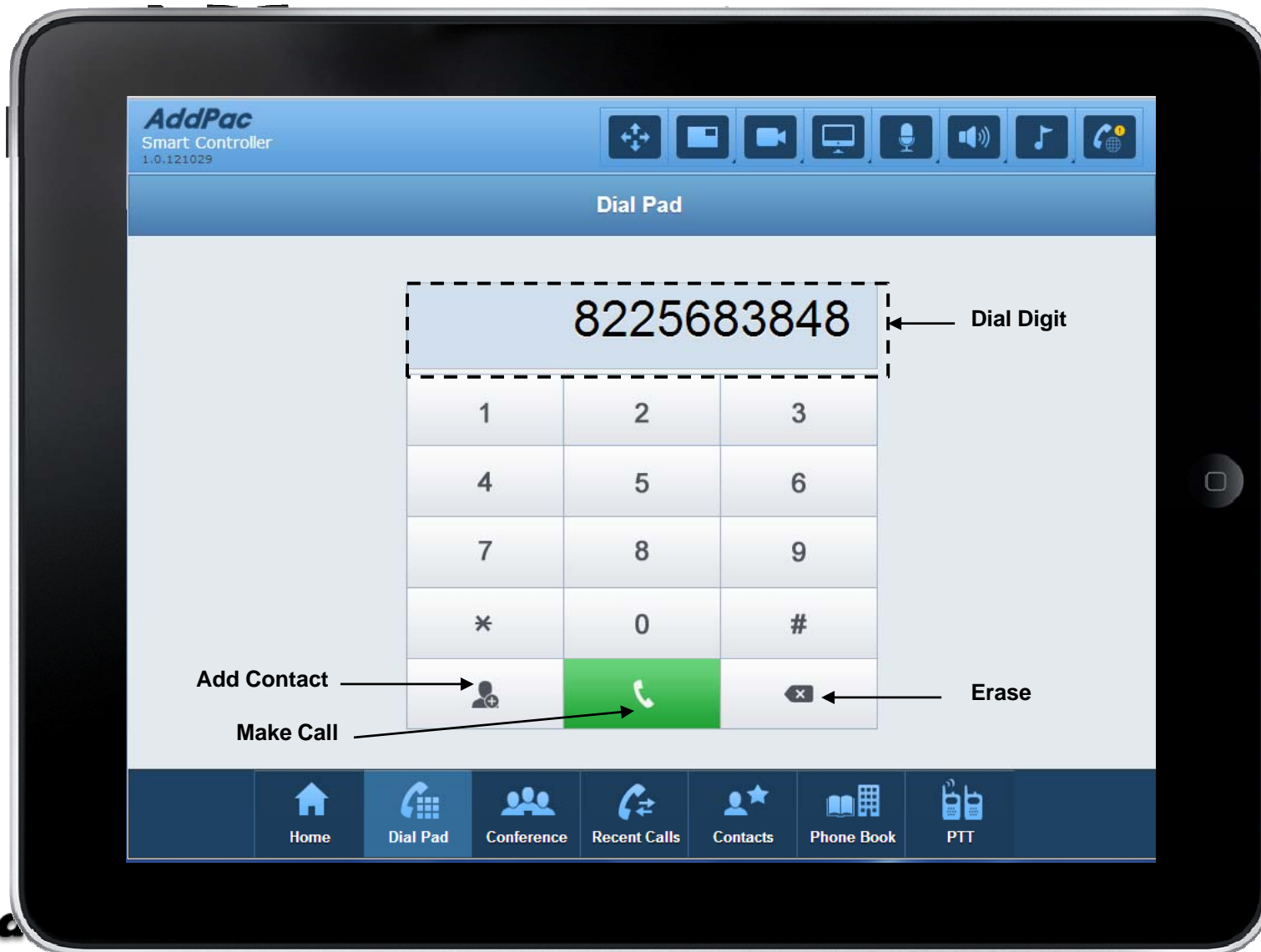
Login Home



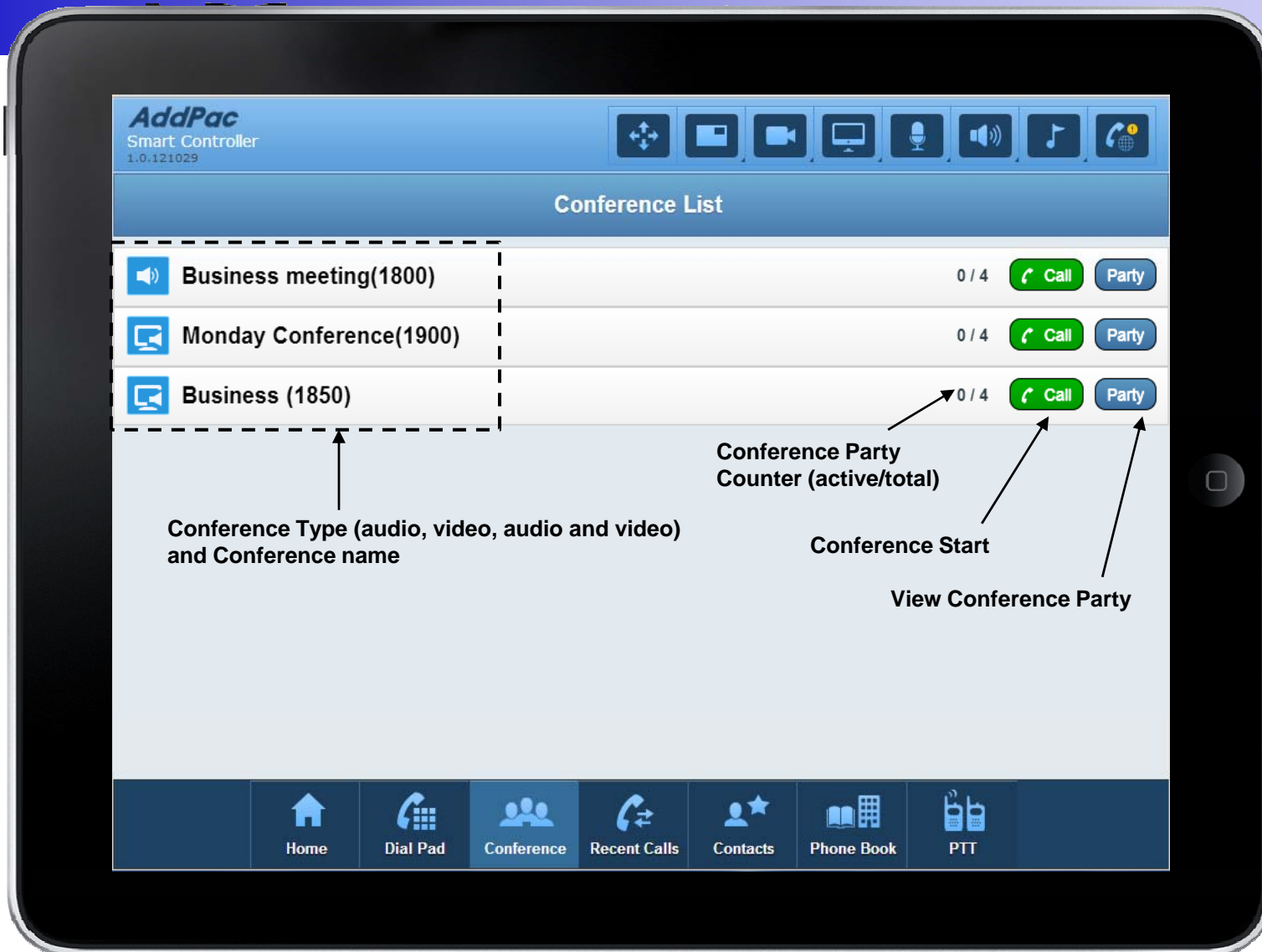
Login Home



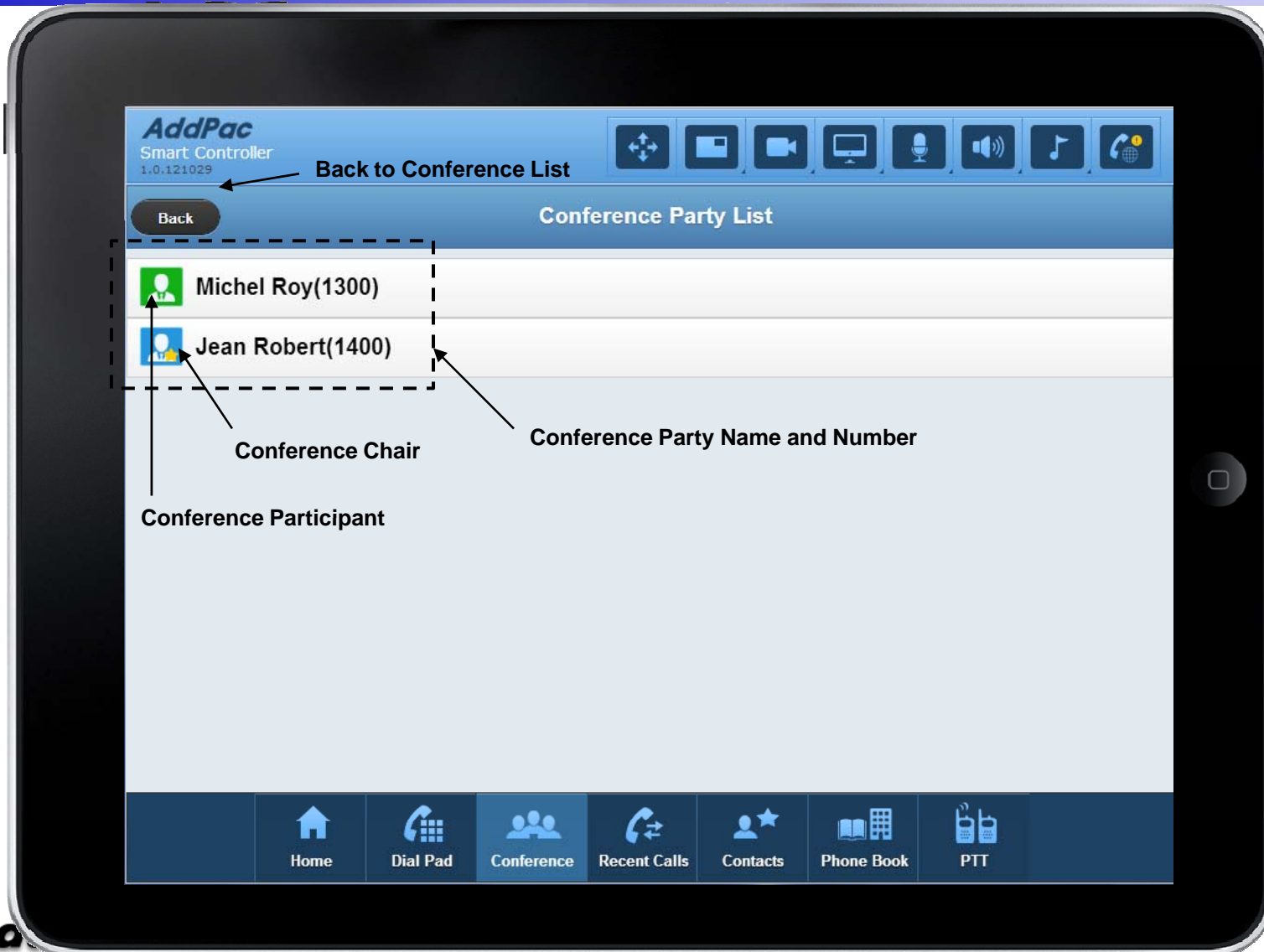
Dial Pad



Conference



Conference Party



Recent Calls



Contacts



Contacts (Add)



Phone Book (Directory)



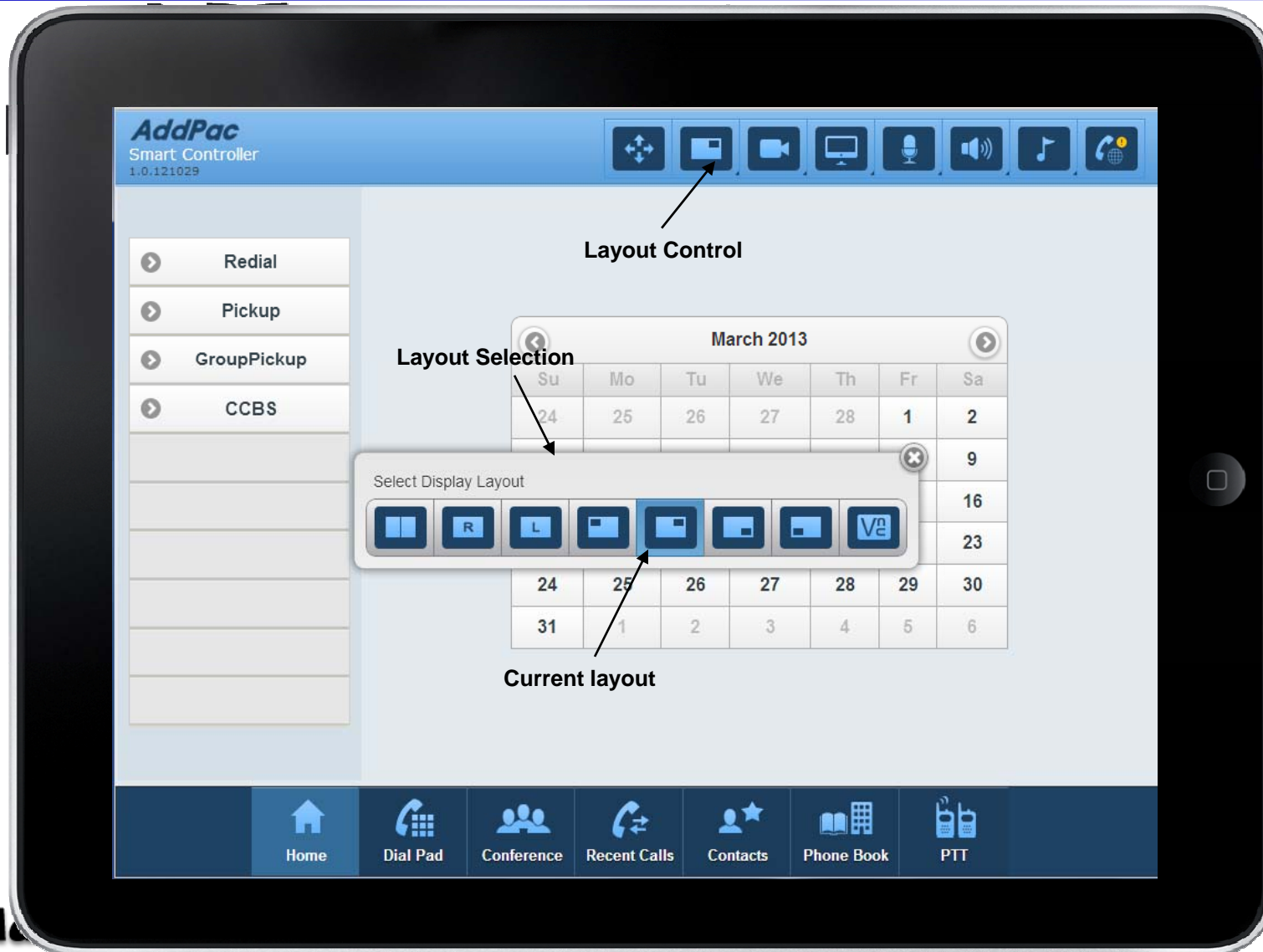
Call Connected



Camera Control



Layout Control



Speaker Control



PTT (Push-To-Talk)





Thank you!

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