

# 4-Party MCU Full HD Video Conference Codec Solution

4-Party MCU Full-HD Video Codec Solution

AP-HVC2000 HD Video Conference  
AP-HCC2000 HD Video Conference Codec

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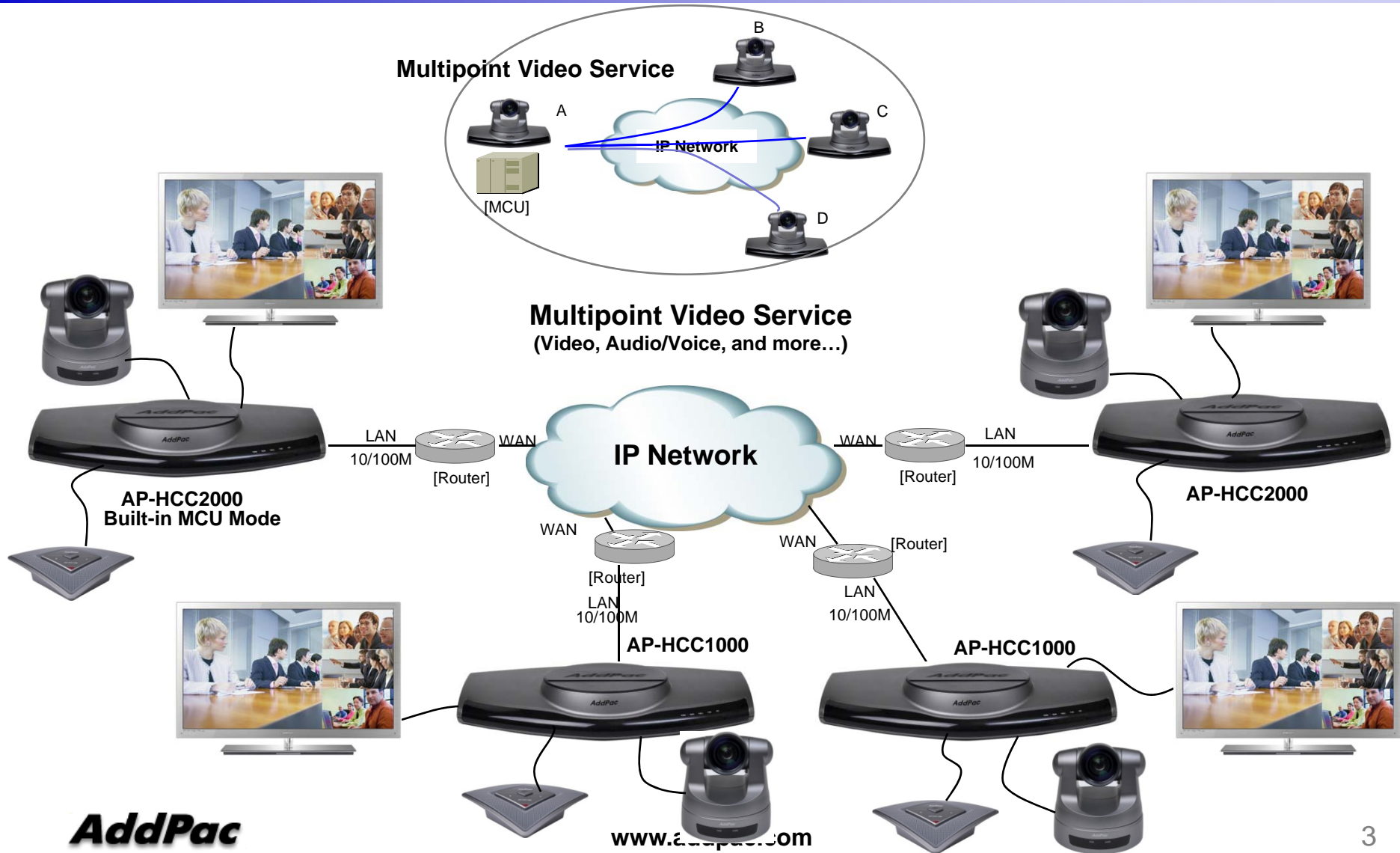
Sales and Marketing

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- AEC Microphone
- Smart Conference Controller

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







# 4-Party MCU

## Full HD Video Conference Codec

# 4-Party MCU Full HD Video Conference Codecs

Product		AP-HCC2000	AP-HVC2000
			
Camera Video Resolution		720P, 1080i(60), 1080p(30)	Built-in Camera : HD, Full HD
Channel One(1)	Video Input	Composite RCA, HD-SDI, HDMI	Built-In Full HD Camera
	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	N/A
Channel Two(2)	Video Input	Composite RCA, HD-SDI, RGB, HDMI	Composite RCA, HD-SDI, RGB, HDMI
	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	4-Party Video MCU
LAN		One(1) 10/100M Fast Ethernet	One(1) 10/100M Fast Ethernet
Power		External Power Adaptor	External Power Adaptor

# AP-HVC2000

## Two(2)-Ch Full HD Video Codec



# Main Features

## AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- IP based Video Conference Solution
- High-End Full HD Video Camera Features
- 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
- Two(2) Channel Video Interface
- 4-Party Full HD MCU Built-in
- Second Video Interface for Document Sharing, Camera, etc
- 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

High-end  
**DSP**

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

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

Video Input	Built-in Full HD Camera
Video Output	Composite RCA, Component , HDMI
Audio Input	Stereo RCA Type Audio Input
Audio Output	RCA Type Audio Output (Left, Right)

- 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

High-end  
**DSP**

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

- High-end Programmable DSP Hardware Architecture
- Network Interface
  - One(1) 10/100Mbps Fast 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
- Power On/Off Switch

# Hardware Specification

High-end  
**DSP**

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



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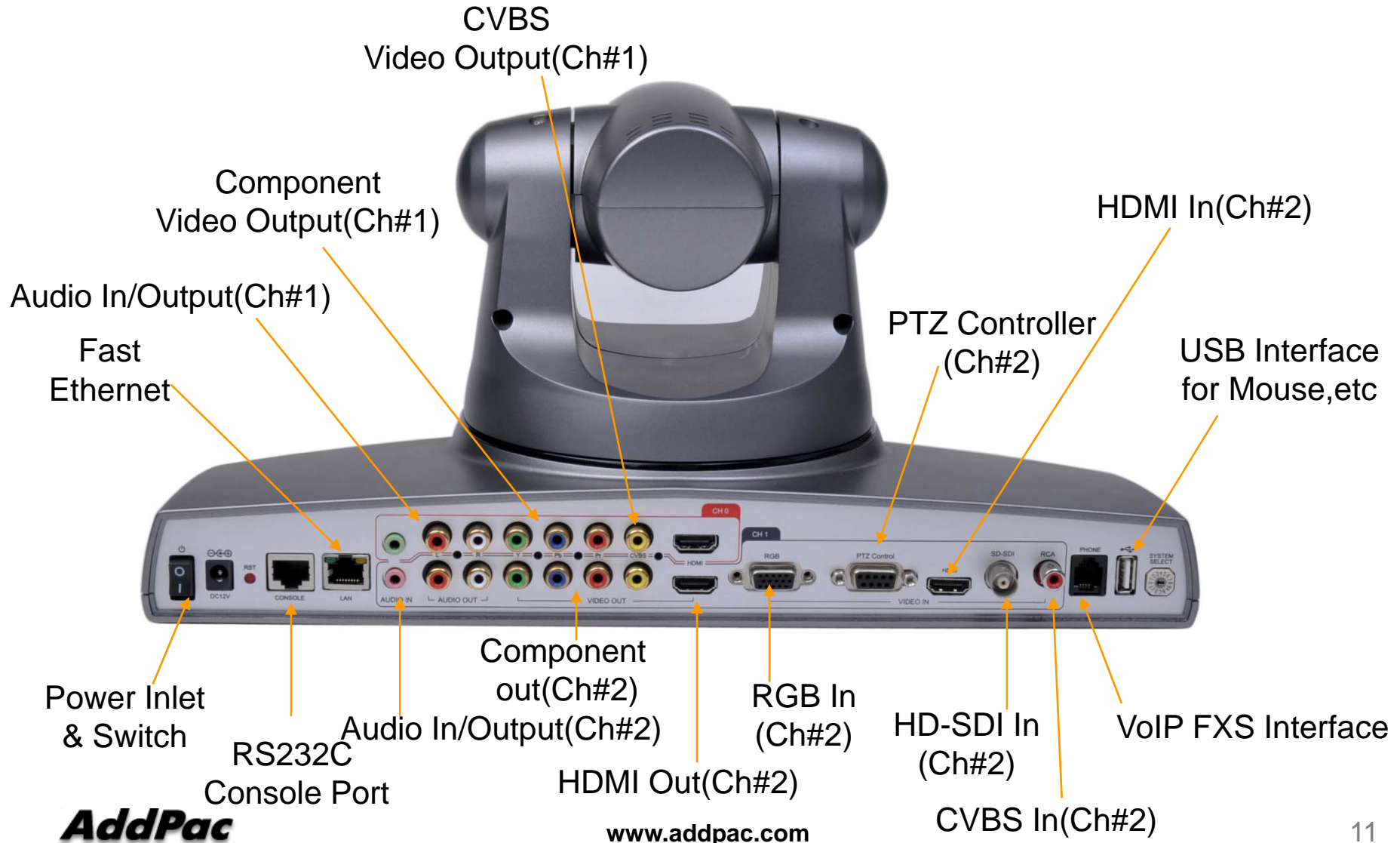
IR Sensor & Status Indication Area

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# Hardware Specification

High-end  
**DSP**

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



# 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



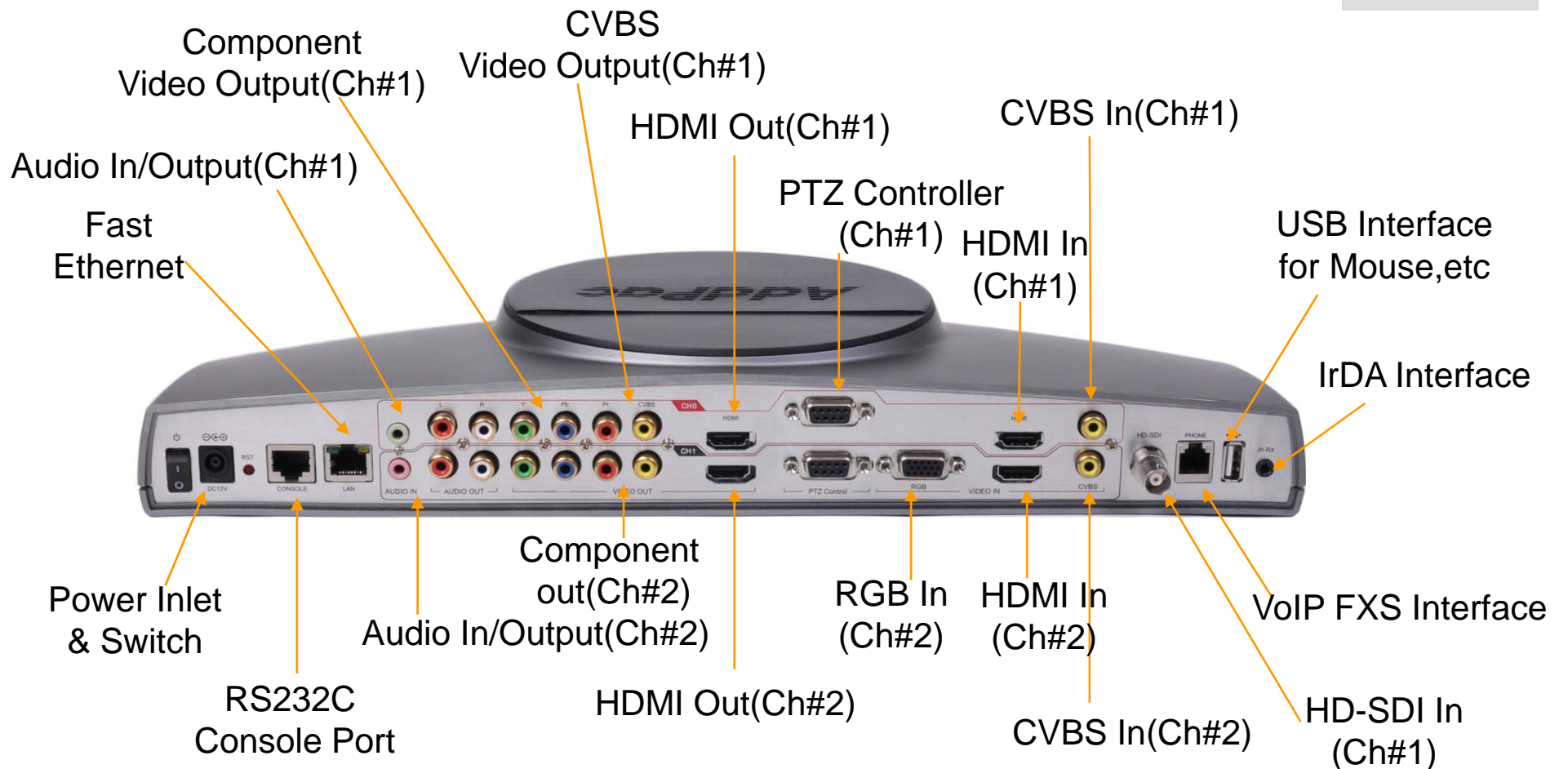
# Hardware Specification

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

High Performance  
**CPU**

High-end  
**DSP**

## Back Side



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# Full HD/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 (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

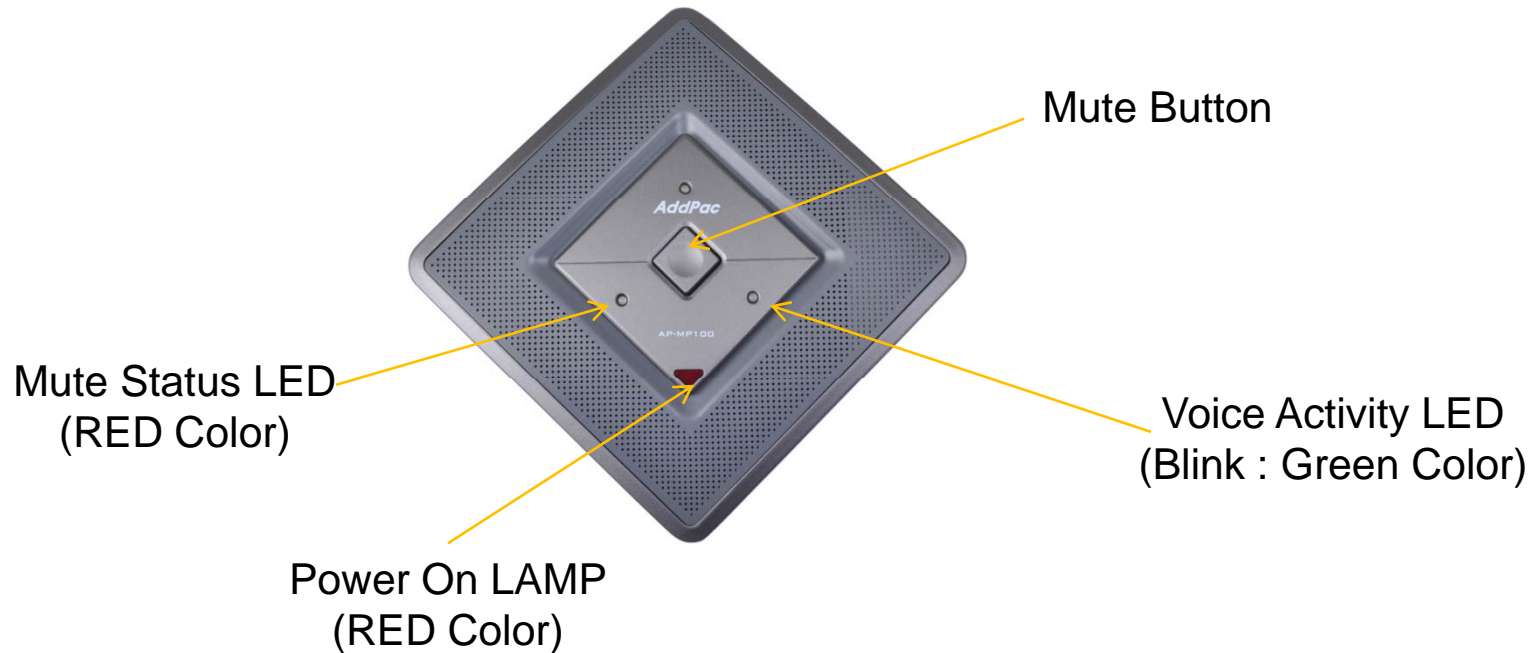
## AP-MP100 AEC Microphone

- 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



# AEC Microphone Adaptor (AP-MA100)



# 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

# Smart Conference Controller (AP-SCC)



# Contents

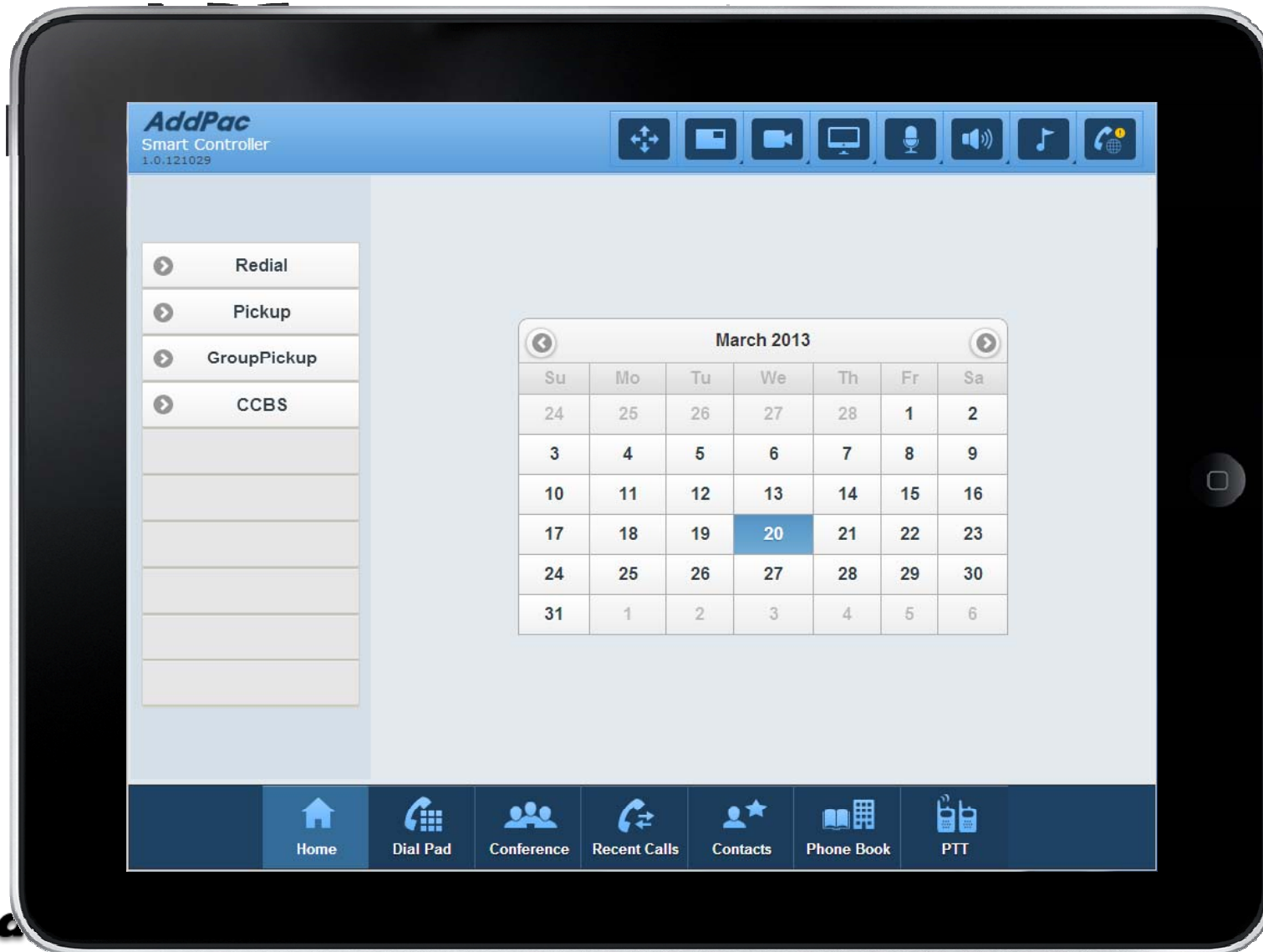
- Smart Conference Controller Overview
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  - Conference
  - Conference Party
  - Recent Calls
  - Contacts
  - Phone Books
  - Call Connected Control
  - Camera Control
  - Speaker Control
  - PTT (Push-to-Talk) Control

# Smart Conference Controller Overview

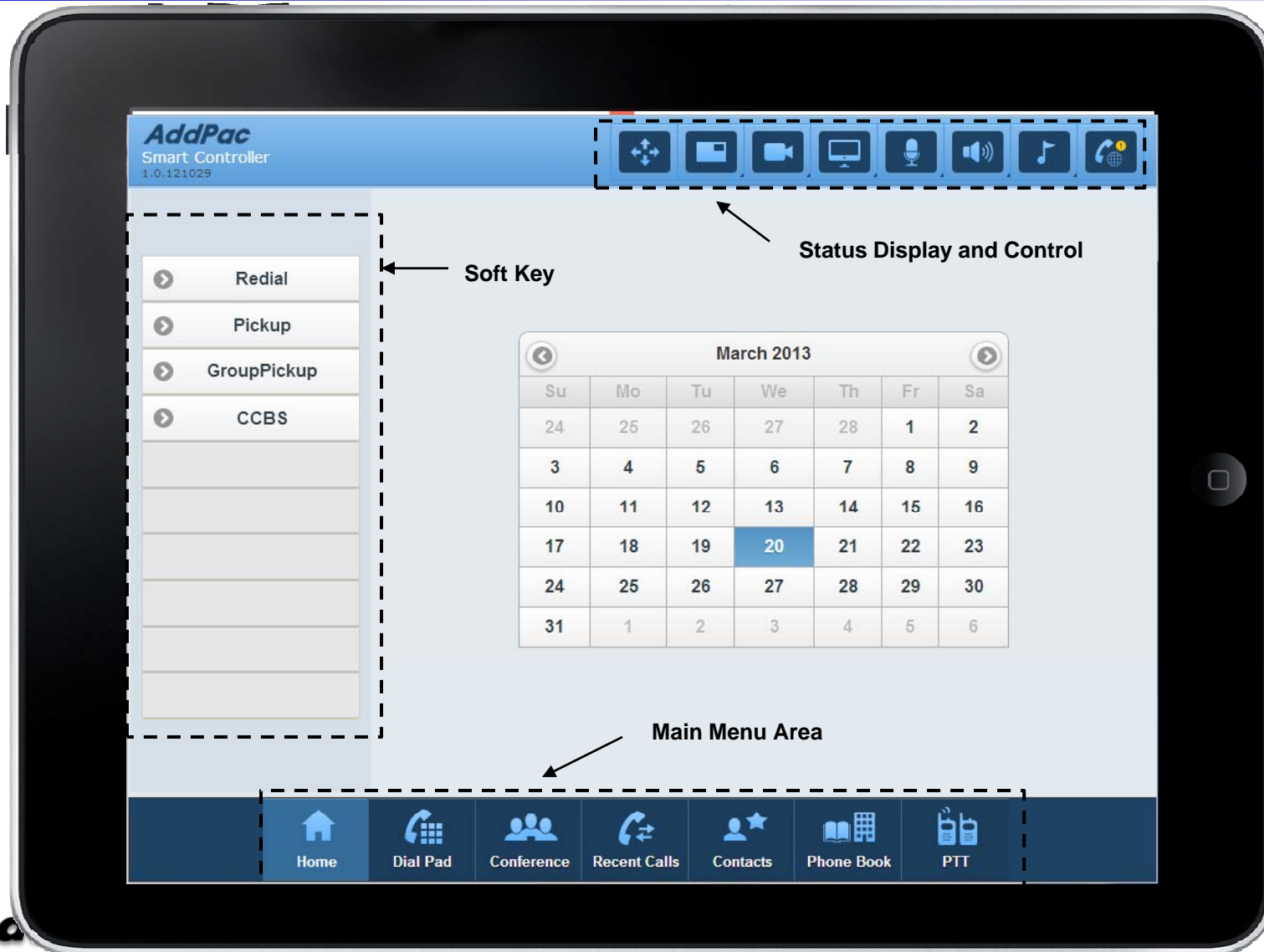
- Pure Web based Smart Controller for AddPac HD Video Conference System Control
- Support Various Web Brower
  - PC(or Notebook) based Internet Explorer, Chrome, etc
  - Android based Web Browser like as Galaxy Tab, etc
  - Safari Web Browser like as Apple IPAD, etc
- Landscape Orientation View Mode 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



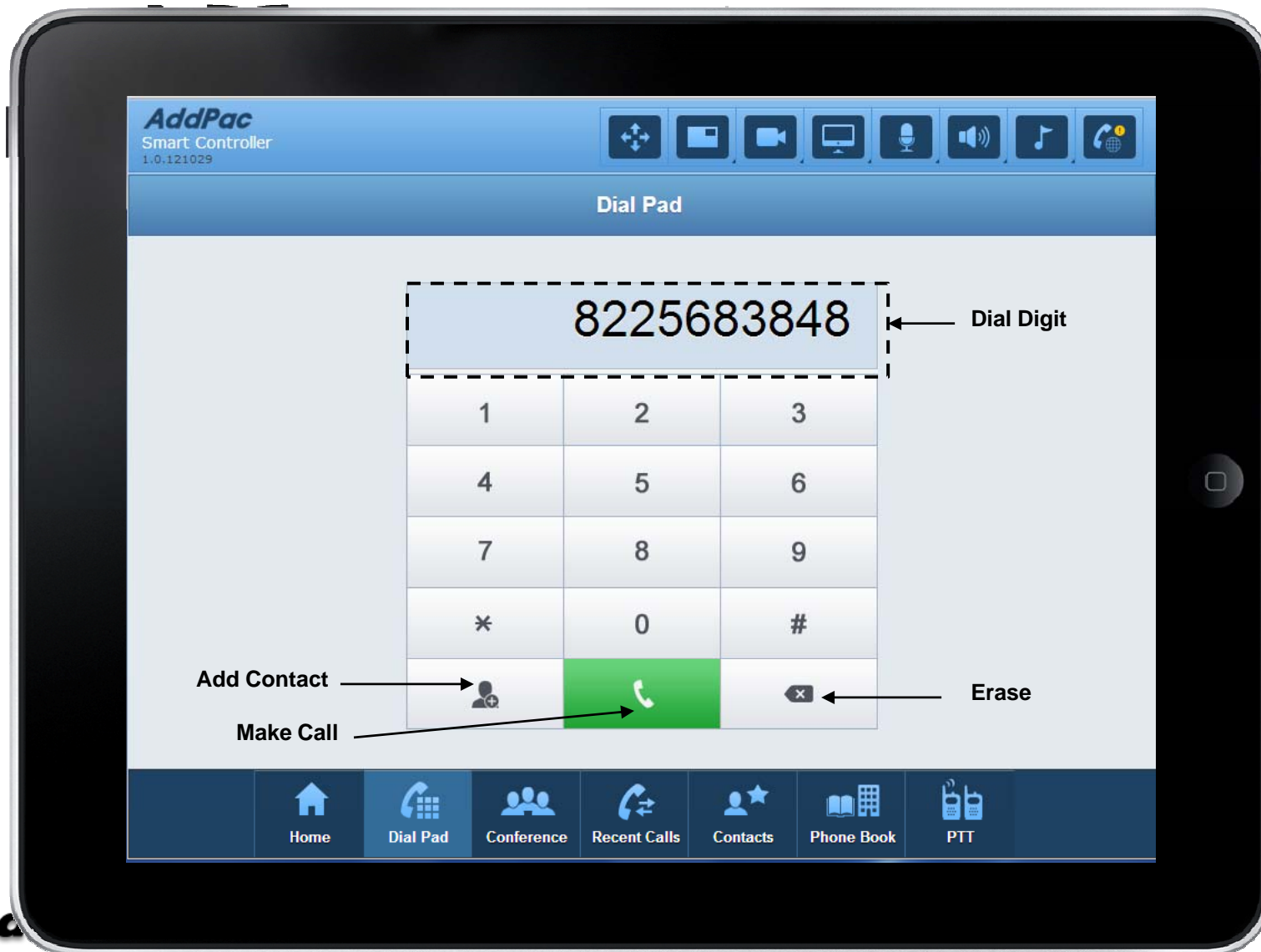
# Login Home



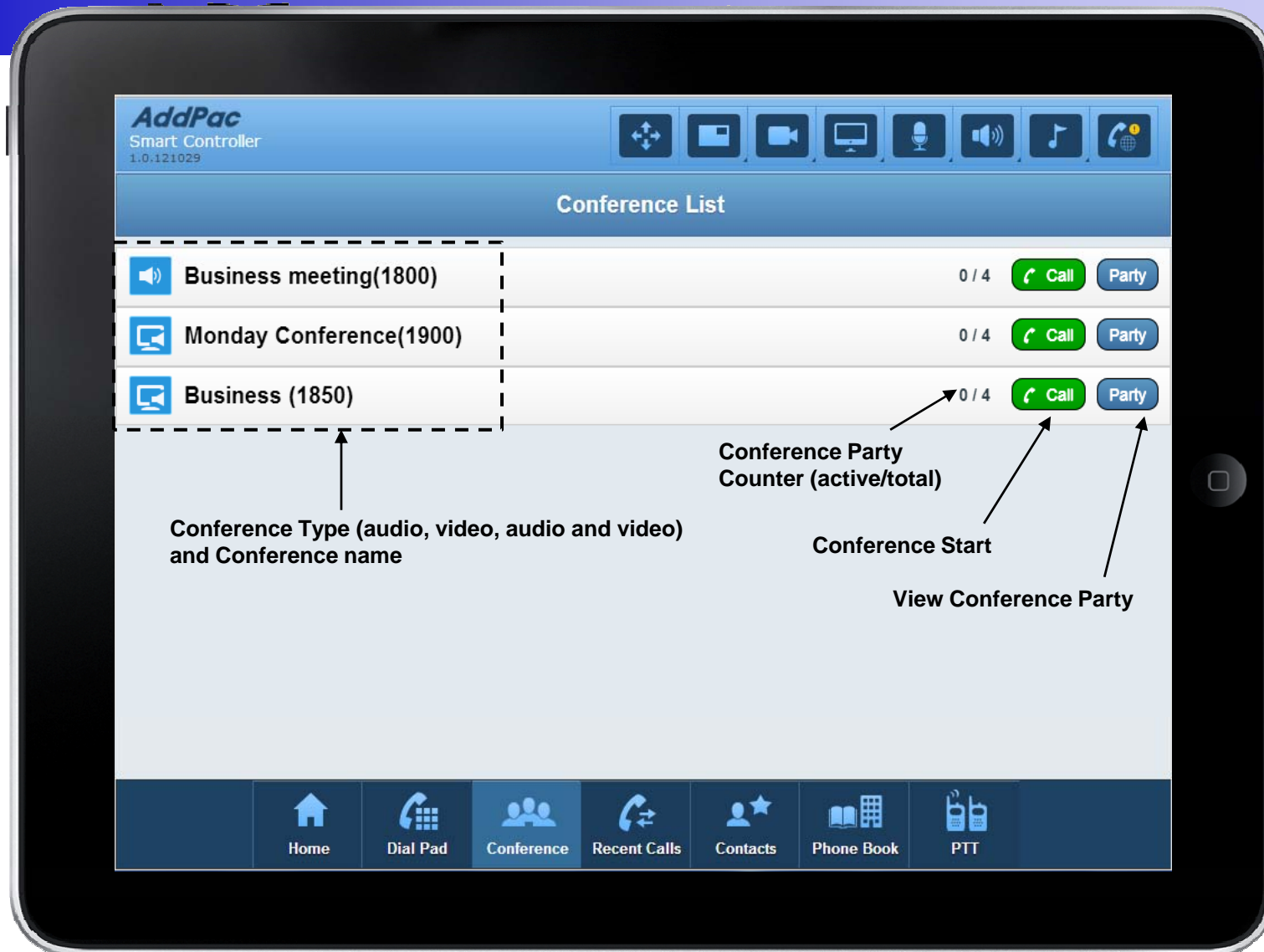
# Login Home



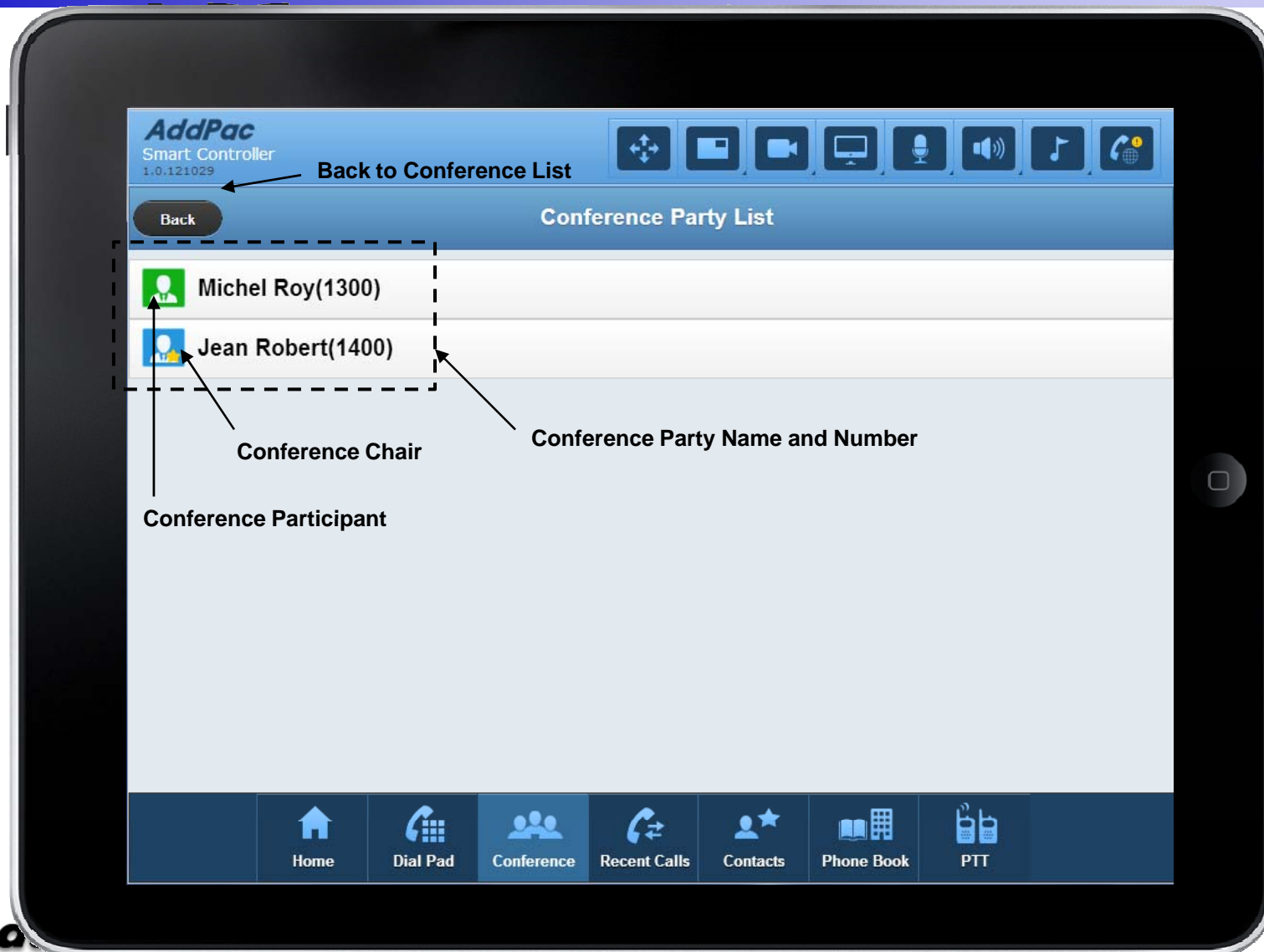
# Dial Pad



# 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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