



# AP-MC1000™

## Video MCU

High-performance Video MCU Solution

**New Enhanced MCU Features**



***AddPac***

**AddPac Technology**

Sales and Marketing

[www.addpac.com](http://www.addpac.com)

# Contents

- Video Display Layout
- Video Conference Signaling
- MCU Management (SMM)
- OSD (Video Phone, Video Terminal, etc)
- Conference Service Diagram : Example



# Video Display Layout

- **Various Layout**
  - 21 types (Symmetric Layout, Asymmetric Layout)
    - Symmetric Layout : same participant picture size
    - Asymmetric Layout : asymmetric participant picture size
  - Auto, Manually : can choice a specific video layout when a conference is started
- **Dynamic control**
  - Dynamic layout change
  - Dynamic participant movement
- **Floor**
  - Can distinguish a participant by using the concept of the right of a speaking participant
  - Floor to full screen
- **Name display**
  - Display or hide the name of a participant dynamically
- **Border**
  - Three kind of a participant picture border : empty border, a participant boarder, a speaker boarder

# Video Conference Signaling

- Dial-in
  - Even in Dial-out started Video Conference, a participant can join the Video Conference if a participant knows the conference room number in outside.
- Mic off of invisible participant
  - Can turn off MIC of a invisible participant.
- Forced Mute (audio, video)
  - Can mute Audio/Video Capability of a participant via SMM or in Chair, Operator Terminal (Video Phone).
- Virtual Audience
  - Broadcasting solution
  - Can monitor the video conference via inter-working with AddPac Broadcasting Server.

# MCU Management (SMM)

## Smart Multimedia Management

- Initial Setting
  - Video Layout Setting
  - User class
    - Chair, Operator, Participant, Audience
  - Initial position
- Active Monitoring
  - Monitoring
    - Snapshot
  - Control
    - Layout
    - Move party
    - Floor
    - Mute

# Conference Room

**Conference Name & Description**  
Conference Name  
Description

**Conference Number**  
Conference Number

**Conference Type**  
: Dial-out, Meet me, AddHoc  
Conference Type: Dial-Out Conference

**Media Type**  
Select Conference Media Type  
Media Type:  Audio  Video + Audio

**Audio Codec**  
Select a conference audio codec  
Audio Codec: G.711U

**Maximum Participant**  
(Can select in Meet-Me conference type only)  
Max Participant: 16

**Close on Chair Out**  
Conference Disconnected if chair hang up phone  
 Close on Chair Out

**Secret Room**  
-Secret room and Room Password  
-(Can select in Meet-Me conference type only)  
 Secret Room  
Room Password: (4 digit)

**Video Endpoint**  
In case of Video Media type, select the video parameter of endpoint.  
Video Support | EndPoint | Layout  
Video Type: Continuous presence  
Target Rate: 1024K  
Picture Size: 640x480  
Video Codec: MPEG4  
Frame Rate: 30 fps

**Video Support**  
In case of Video Media Type, select the video information

Ok Cancel

# Conference - Layout

The screenshot shows the 'Add Conference' dialog box with the 'General' tab selected. The dialog is divided into several sections: 'General', 'Participants', and 'Virtual Audience'. The 'General' section includes fields for 'Conference Name', 'Description', 'Conference Number', 'Conference Type', 'Partition', 'Media Type' (Audio or Video + Audio), 'Audio Codec', 'Max Participant', 'Close on Chair' (checked), and 'Secret Room' (unchecked). The 'Participants' section includes 'Room Password' (4 digit). The 'Virtual Audience' section includes 'Video' sub-sections: 'Support', 'EndPoint', and 'Layout'. The 'Layout' sub-section includes 'Layout Mode' (Manual), 'Arrange Mode' (Dynamic), 'Video Layout' (3), 'Floor Assign Mode' (After Release), 'Color' (Border Line, Floor Line, Background Line, Background), and 'Mic Off of Invisible Participant' (unchecked). The 'Floor to Full Screen' section includes 'Symmetric' (checked) and 'Asymmetric' (unchecked). The 'Display Participant Name' section includes 'Display Participant Name' (unchecked) and 'Layout' (Top Left). The 'Color' section includes 'Background' (black). The 'Mic Off of Invisible Participant' section includes 'Mic Off of Invisible Participant' (unchecked). The dialog has 'Ok' and 'Cancel' buttons at the bottom.

**Video Layout Mode**  
- Auto (symmetric, asymmetric)  
- manual

**Arrange Mode**  
-(dynamic, fixed, fixed reserved)

**Video Layout**  
- Select the video layout

**Floor Assign Mode**  
Floor 권한 할당에 대한 방법 설정.  
(After Release, On Request)

**Floor to Full Screen**  
- Floor to Full Screen Enable/Disable  
in symmetric, asymmetric Layout Mode.

**Display Participant Name**  
- Participant Name Display  
Enable/Disable and Location of Name  
Display

**Color**  
- Layout border and Floor,  
Background Color Setting.

**Mic off of Invisible Participant**

# Conference - Participants

**Conference Properties**

General | **Participants** | Virtual Audience

Phone Number	Par...	User
1002		hwang woo sun
1003		sim sang kwon
1004		lee young sik
1005		oh hyoung suk
1006		lee myoung won
1007		choi jin suk
1008		lee min ji
1010		kwon jong hwi
1012		kim sang mi
1013		you jae won
1015		jang byoung ju
1018		kim kyoung nam
1019		kim chang yeon
1020		kwon young pil
1021		kim do hyoung
1024		kim kwang
1026		lee jounghyuk
1027		kim so young
1101		choi woo suk
1102		sin kwang woong
1500		choi jin suk
3003		
		kim kyoung nam
		kim so young
4002		
4003		

Enter External Phone Number

Add

Conference Participants							
Number	Partition	User	Type	User Class	Media Type	Position	Display Name
3001		Steven	Internal	Chair	Video		
3004		John	Internal	Participant	Video		
3005		Jane	Internal	Participant	Video		
3010		Sally	Internal	Participant	Video		

**Phone Number**  
Participant Phone List

**External Phone Number**  
Register the external phone line number by inputting number directly

**User Class**  
(Chair, Operator, Participant, Audience)

**Media Type**  
(Audio, Audio (Seat Reserved), Video)

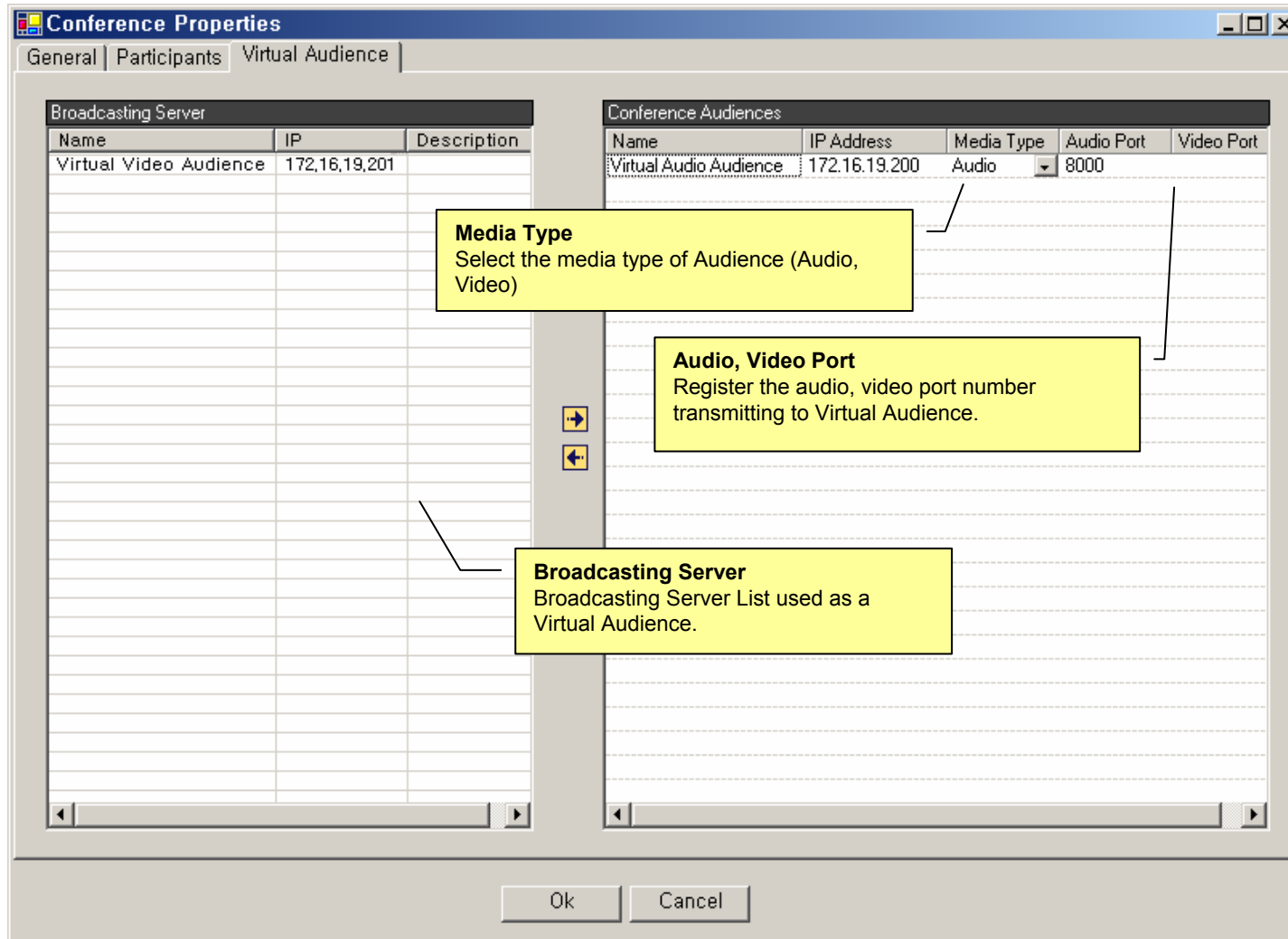
**Position**  
In case of video media type, Select the location of a participant in video layout

**Display Name**  
A Participant Display Name

Ok Cancel



# Conference – Virtual Audience



# Active Conference (1)

Smart Multimedia Manager - [Active Conferences]

File View Tools Window Help

AddPac Smart Multimedia Manager

172.16.201.100 172.16.11.120

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s...)	Media Type	Floor to Full...	Layout Mode	Arrange Mode	Layout	No. of Pa...
nms conference	7100	Running	Dial-Out	20061207-14:33:45	82	Video	On	Manual	Dynamic		3

**Conference**  
Display the current conference room list

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected					
kim kyoung nam(kn...)	3500	172.16.12.30	Connected					
lee joungh hyuk(jh.lee)	6010	172.16.11.110	Connected					

**Participants**  
Display the participant list in conference room each

172.16.201.100 (Ok) 172.16.11.120 (Ok)

2006-12-07 오후 2:35:08 Version 2.9.2532.21338 172.16.201.100:389 administrator

# Active Conference (2)

Smart Multimedia Manager - [Active Conferences]

File View Tools Window Help

Advanced Smart Multimedia Manager

AddPac

Conference Manager  
AddPac Technology

172.16.201.100 172.16.11.120

**Conference**  
Conference parameter setting is possible dynamically in current conference call

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s..)	Media Type	Floor to Full..	Layout Mode	Arrange Mode	Layout	No. of Pa..
nms conference	7100	Running	Dial-Out	20061207-14:33:45	173	Video	On	Manual	Dynamic		3

Participants (nms conference)

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected					
kim kyoung nam(kn...)	3500	172.16.12.30	Connected					
lee joungh hyuk(jh.lee)	6010	172.16.11.110	Connected					

172.16.201.100 (Ok) 172.16.11.120 (Ok)

2006-12-07 오후 2:36:34 Version 2.9.2532.21338 172.16.201.100:389 administrator

# Active Conference (3)

The screenshot displays the 'Smart Multimedia Manager' interface. At the top, there is a menu bar (File, View, Tools, Window, Help) and a toolbar. The main area features a 'Conference' table and a 'Participants' table. A 'Conference Snapshot' window is open, showing a grid of video thumbnails. A 'Participants' table lists three active participants with their respective parameters.

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s..	Media Type	Floor to Full..	Layout Mode	Arrange Mode	Layout	No. of Pa..
nms conference	7100	Running	Dial-Out	20061207-14:33:45	318	Video	On	Manual	Dynamic	[Layout Icon]	3

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected	[Icon]	[Icon]	[Icon]	[Icon]	
kim kyoung nam(kn...)	3500	172.16.12.30	Connected	[Icon]	[Icon]	[Icon]	[Icon]	
lee jounghyuk(jh.lee)	6010	172.16.11.110	Connected	[Icon]	[Icon]	[Icon]	[Icon]	

**Conference Snapshot**  
Display the real-time still image of a current video conference call

**Participants**  
Participant parameter setting is possible dynamically in current conference call

# OSD (Video Phone, Video Terminal,etc)

- Conference Management (Chair, Operator)
  - Layout
  - Move party
  - Floor
  - Mute
- Indicator
- Floor



# Conference Room

- Application >> Conference Room
  - conference list

**Conference Room**

ON AIR | AddPac

	Conference name	Conference number	User in conference / maximum	Conference room -Lock -unlock	Conference type -video -audio
	Conference 1	1000	3/16		
	Conference 2	2000	0/4		
	Conference 3	8888	0/16		

See Detail Participant list

**Detail View**

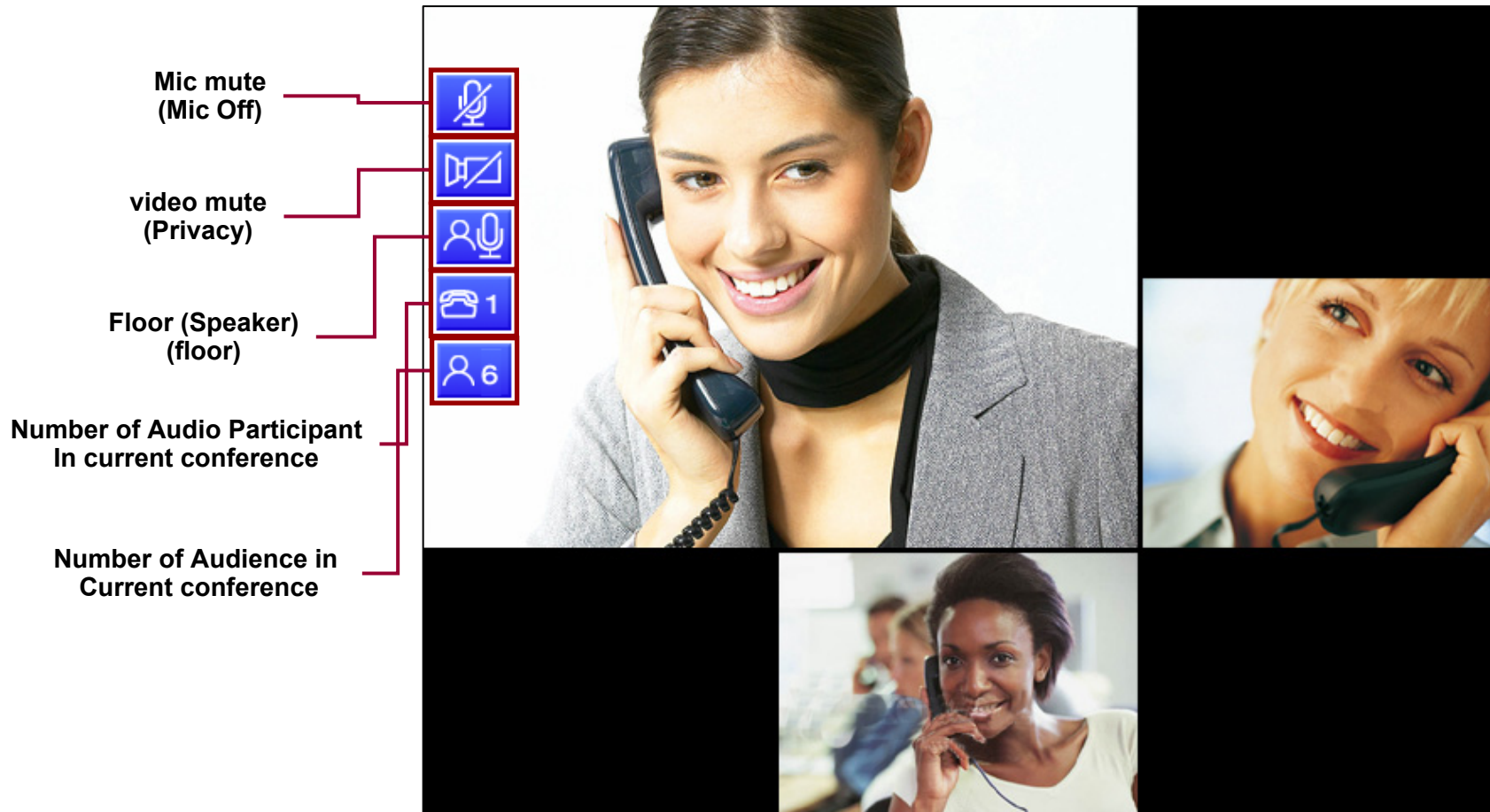
Conference layout

# Conference Open

- Conference open
  - OK or Send Key in Conference Room List
  - Dialing using Conference Room List

# Indicators

- User conference status information (function key)





# Add Party

- New User Invite in Current Conference

Invite new user

Select User class  
-participant  
-audience

Select Media type  
-audio call  
-video call

Add Party

ON AIR

NUM

Incoming Call

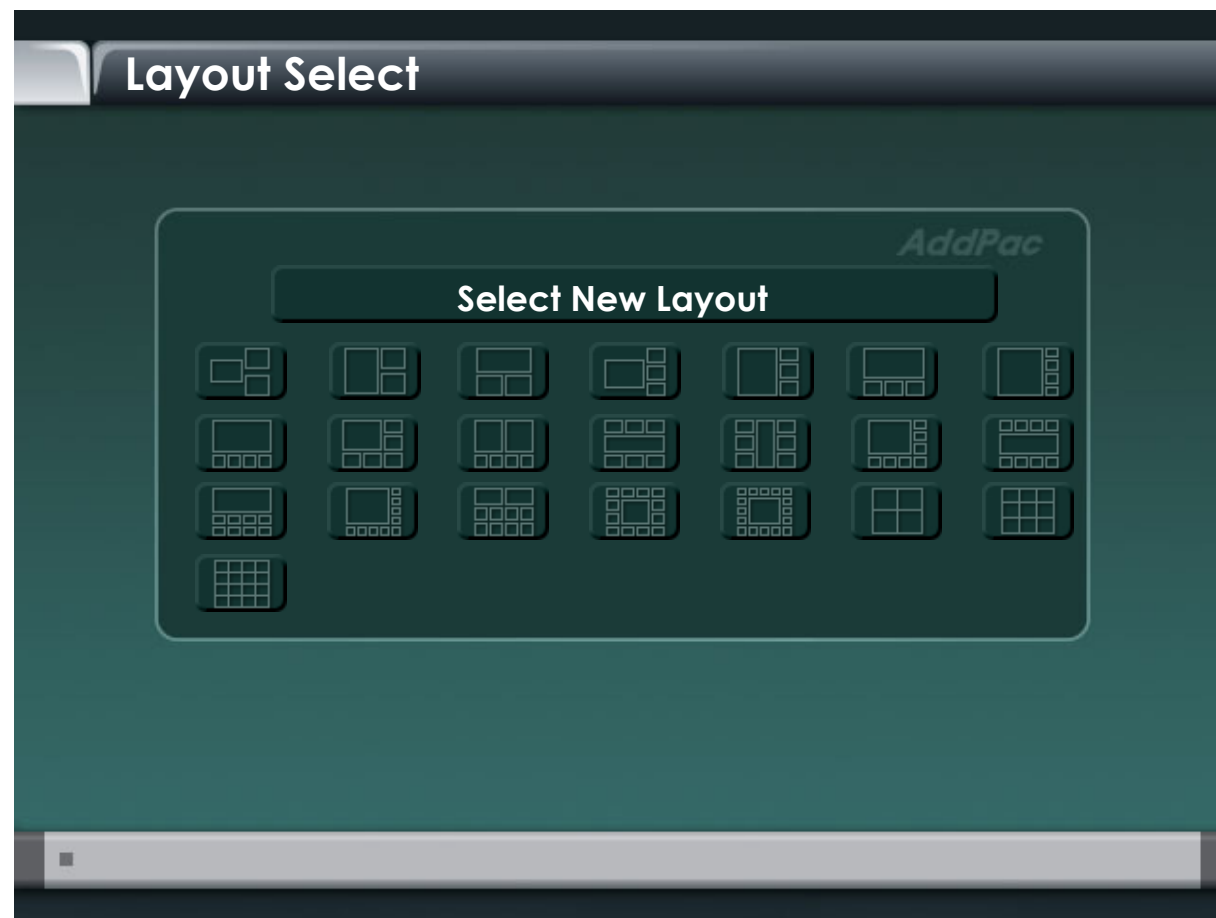
3000

Participant

Audio Call

# Layout

- Video Layout Change in current conference



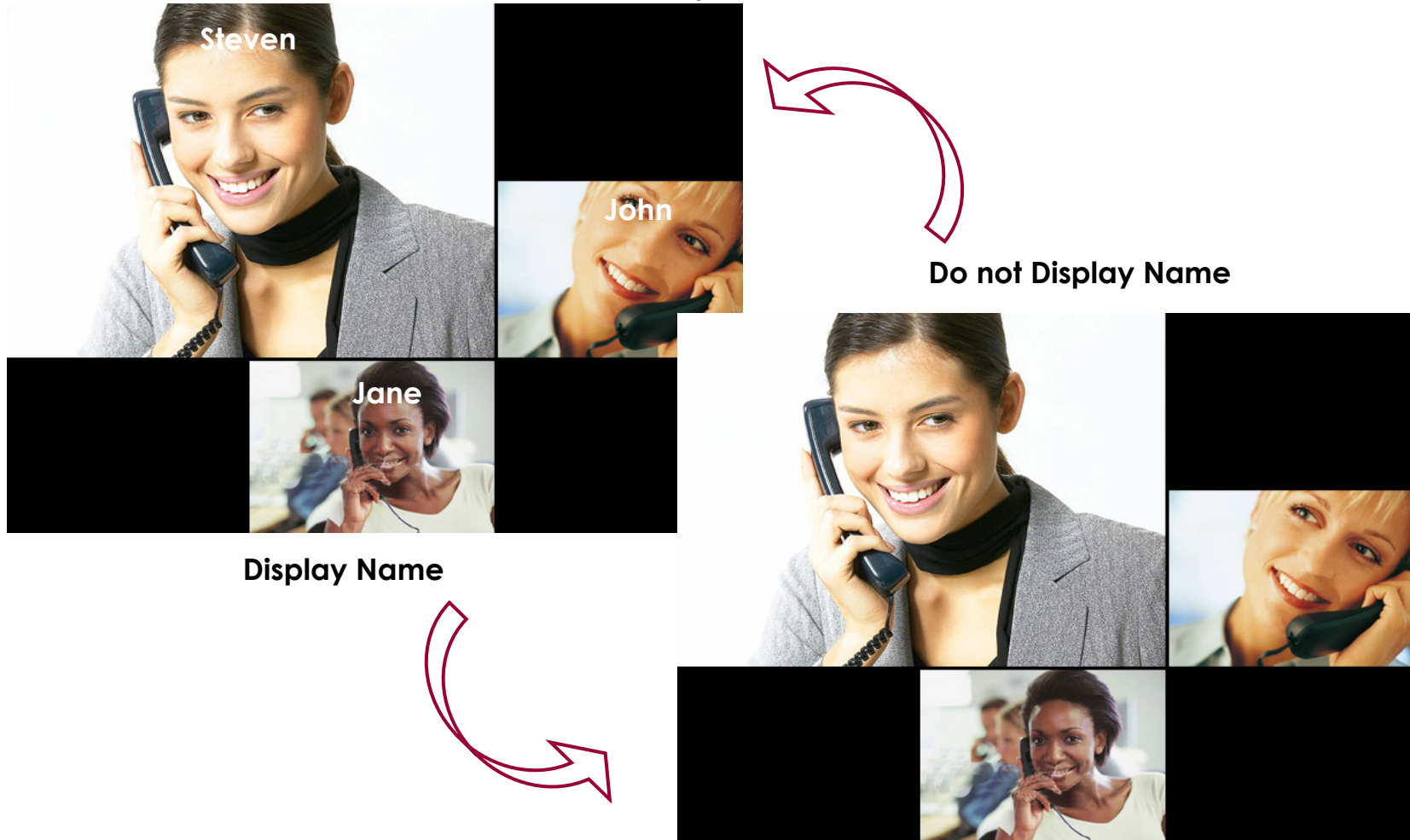
# Floor To Full Screen

- Large view display mode : Floor Participant



# Display Name

- Conference Participant Name Display Enable/Disable



# Accept

- User unregistered want to join the conference
  - User can join the conference by Chair or Operator's Permission,

Accept

ON AIR

NUM

Incoming Call

3000

Conference Join Accept

Conference Join Reject

User class  
-participant  
-audience

Media type  
-audio call  
-video call

Accept Reject Participant Audio Call

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# Participant info

- Party Info
  - Simple Participant info list View/Modification
  - Chair, Operator can modify the status of participant
  - Participant, Audience can read only the status of participant



# Detail participant list

- Can view the status information of member In conference

Media type  
-video  
-audio

Audio/Video enable status

position

User class

Participant's name

Participant's number

User class	Participant's name	Participant's number	Media type	Audio/Video enable status	position
	Sally	3010			
	Steven	3001			
	Jane	3005			
	John	3004			

ON AIR

NUM

Assign Floor

Remove Party

Position

more

# Assign floor

- Give floor (Right of Speaking) to Participant selected in List
  - The ICON of Participant having Floor is changed as MIC ICON

The screenshot shows the 'Participant List' interface in the AddPac software. The list contains four participants: Sally (ID 3010), Steven (ID 3001), Jane (ID 3005), and John (ID 3004). Each participant row includes an icon, name, ID, and several control icons. Steven's icon is a microphone, indicating he has the floor. Jane's icon is a person, indicating she does not have the floor. The 'Assign Floor' button at the bottom is highlighted with a red box and labeled 'Give Floor (Speaker) to Participant'. Other buttons include 'Remove Party', 'Position', and 'more'. The 'ON AIR' button is also visible in the top right corner.

Participant Icon	Name	ID	Control Icons
Person	Sally	3010	Microphone, Camera, Screen
Microphone	Steven	3001	Microphone, Camera, Screen
Person	Jane	3005	Microphone, Camera, Screen
Person	John	3004	Microphone, Camera, Screen

Have a right of speaking

Don't have a right of speaking

Give Floor (Speaker) to Participant



# Remove Party

- Conference Call Disconnect of a Participant selected in List

The screenshot displays the 'Participant List' interface. At the top, there are icons for 'ON AIR', a network icon, a phone icon, 'NUM', and a moon icon. The main area contains a list of participants with columns for a profile icon, name, ID number, and various control icons. The participant 'Jane' (ID 3005) is highlighted with a red box. A red line connects this box to the text 'Participant Select'. At the bottom, a navigation bar includes buttons for 'Assign Floor', 'Remove Party' (highlighted with a red box), 'Position', and 'more'. A red line connects this box to the text 'Conference call disconnect of a participant selected'.

Participant Select	Name	ID	Control Icons
	Sally	3010	
	Steven	3001	
	Jane	3005	
	John	3004	

Conference call disconnect of a participant selected

Assign Floor Remove Party Position more

# Position

- Participant Location Change In Conference View Layout
- Display the Position List in current conference view layout



# User Class

- Change the Right of Participant selected in List
- User class icon change



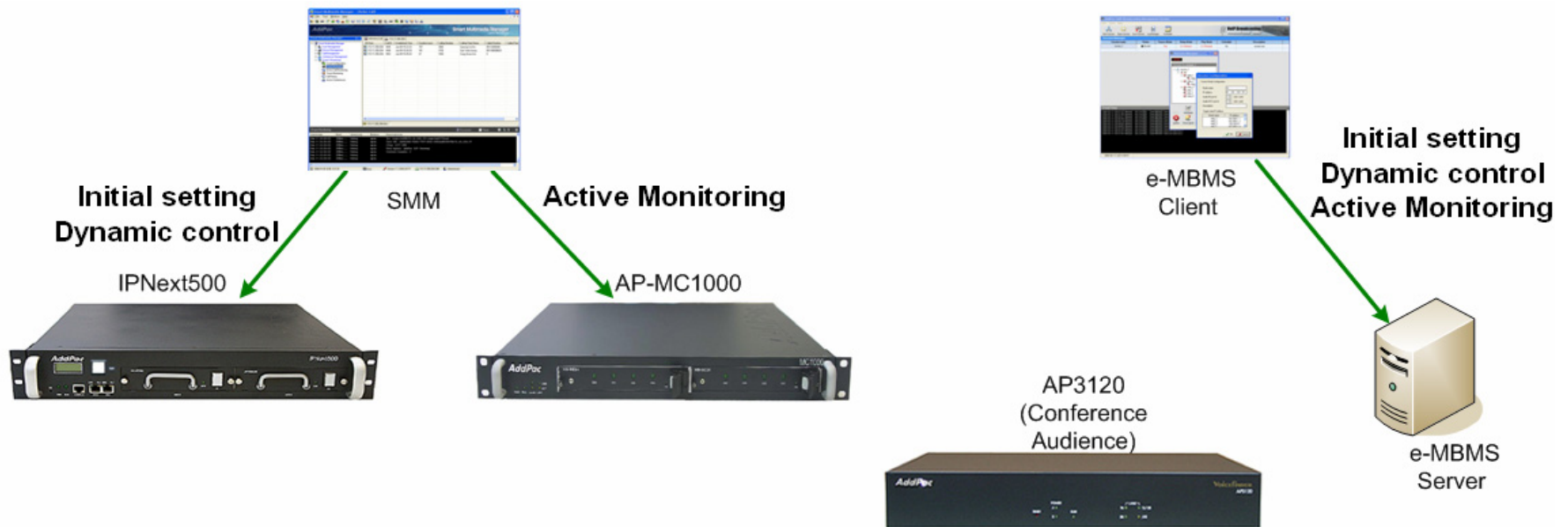
# Audio/Video Mute

- audio, video mute enable/disable

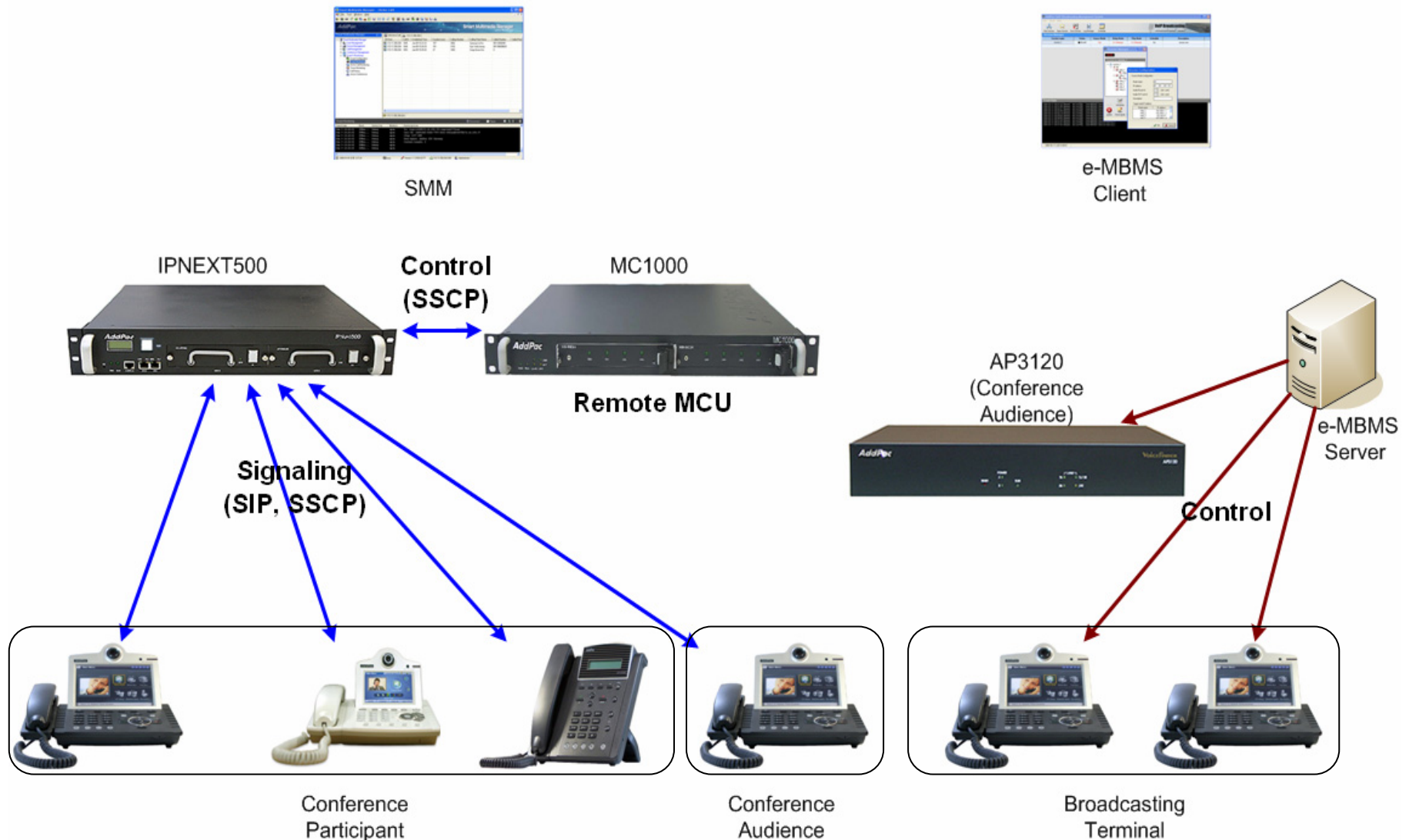
The screenshot displays the 'Participant List' interface. At the top right, there are control buttons for 'ON AIR', a grid icon, a phone icon, 'NUM', and a camera icon. Below these are two labels: 'Audio Mute/Enable' and 'Video Mute/Enable'. The main area shows a list of participants with their names and IDs, and icons for audio and video status. A red box highlights the audio and video icons for Steven and Jane, with a red circle and slash over the video icon for Jane. At the bottom, there is a navigation bar with buttons for 'User Class', 'Audio Enable', 'Video Mute', and 'more'. A red box highlights the 'Audio Enable' and 'Video Mute' buttons. A label 'Audio, video mute/ enable' points to this navigation bar.

Participant	ID	Audio Mute/Enable	Video Mute/Enable
Sally	3010	Enabled	Enabled
Steven	3001	Enabled	Enabled
Jane	3005	Enabled	Muted
John	3004	Enabled	Enabled

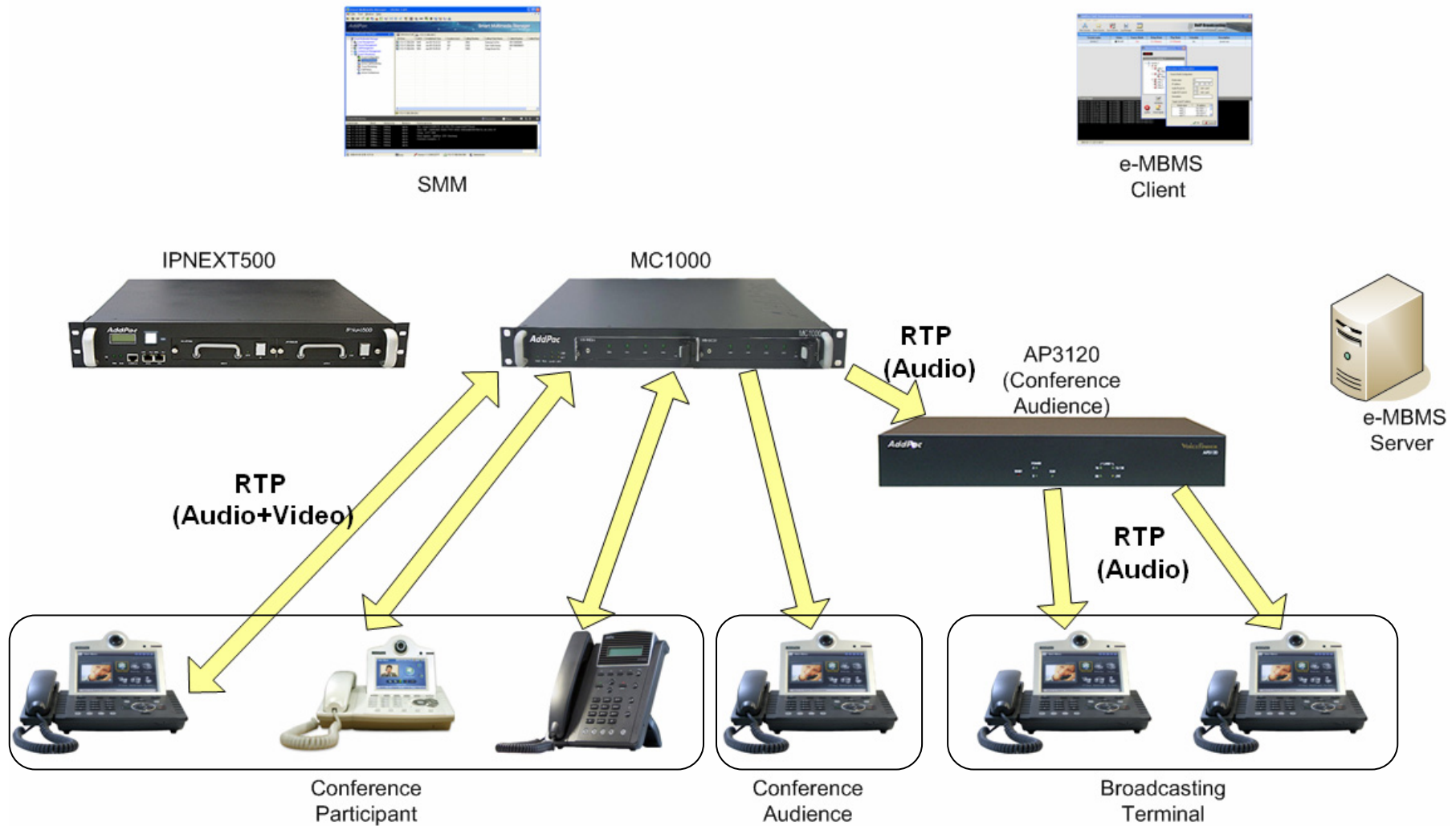
# Conference Service Diagram : Example



# Conference Service Diagram : Example



# Conference Service Diagram : Example



# AP-MC1000 Video MCU

**Thank you!**

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