Smart Home Equipment Solution

AddPac

AddPac Technology

2015, Sales and Marketing

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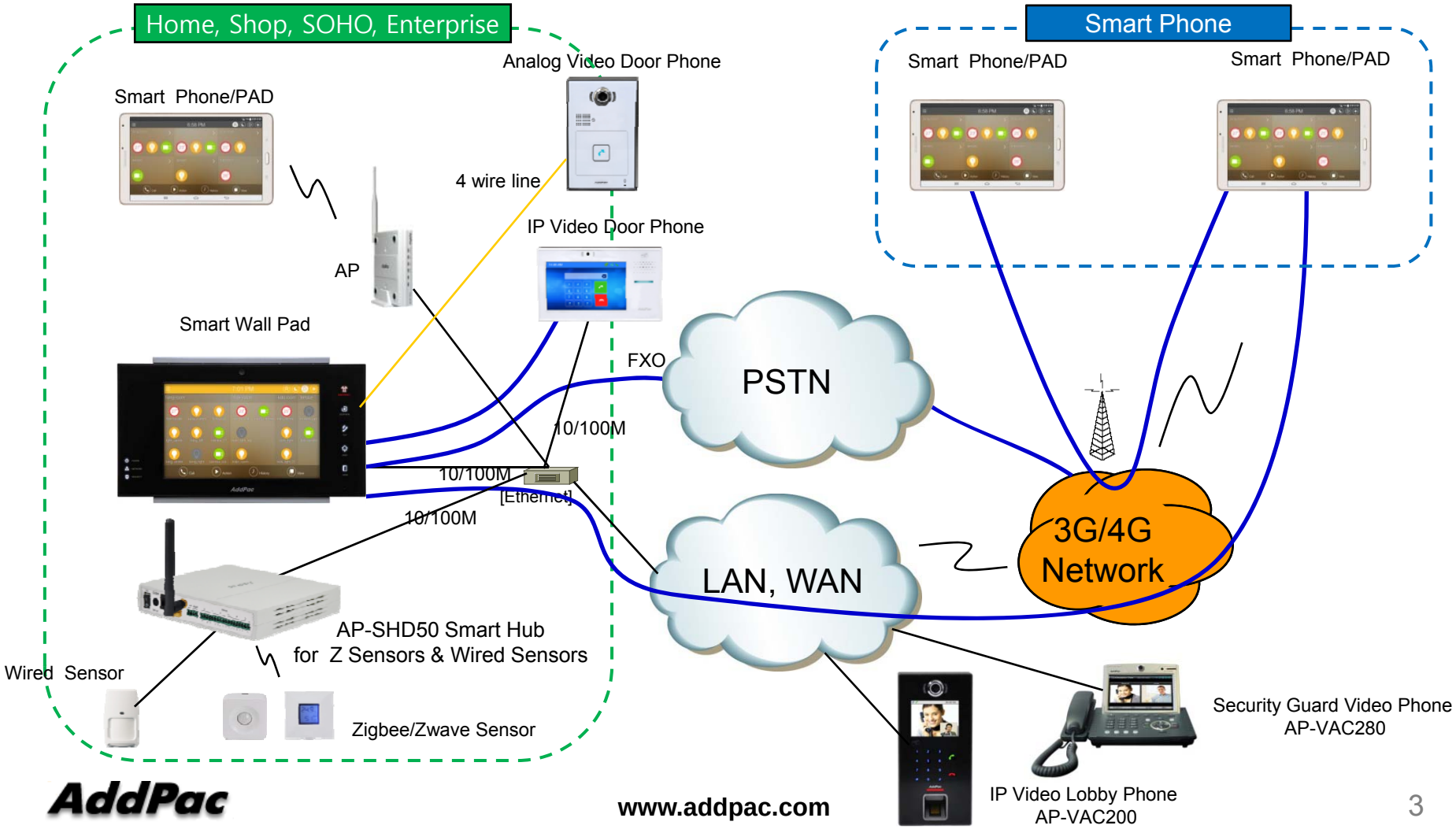
Contents

Smart Home Solution Network Diagram



Overview

Smart Home Equipment Table

Smart Home Products	Description	Model
	Smart IP Wall PAD (SIP Standard Signaling)	AP-VWP100, AP-VWP80
	IP Video Door Phones (SIP Standard Signaling)	AP-VAC80, AP-VAC150
 	Analog Video Door Phones	AP-VAC20A, AP-VAC50A
	IP Lobby Phones (SIP Standard Signaling)	AP-VAC100, AP-VAC200
	IP Video Phone (Bidirectional two-way video)	AP-VP280, AP-VP120
	Smart Hub for Zigbee/Zwave Sensors	AP-SH50, AP-SHD100
	Smart Phone and Tab/Pad Appl.	AP-ASH100

Smart IP Wall PAD
(SIP Signaling Support)

Smart IP Wall PAD Comparison Table

Model Service Features	AP-VWP100 	AP-VWP90 	AP-VWP80 
Duplex (Voice)	Full Duplex	Full Duplex	Full Duplex
LCD	7 Inch	7 Inch	7 Inch
Touch Screen	Support	Support	Support
Camera(Option)	SD(VGA)	SD(VGA)	SD(VGA)
Video Codec	SD, H.264/MPEG4/H.263	SD, H.264/MPEG4/H.263	SD, H.264/MPEG4/H.263
Voice Codec	G.722, G.711, G.726	G.722, G.711, G.726	G.722, G.711, G.726
Signaling	H.323/SIP	H.323/SIP	H.323/SIP
MIC & Speaker Phone	Support	Support	Support
LAN Port	1	1	1
Camera(Option)	SD(VGA)	SD(VGA)	SD(VGA)
Analog Door Phone Interface (option)	SD	SD	SD
PSTN Line (Option)	Support	Support	Support
PoE(Option)	Support	Support	Support

AP-VWP100
Smart IP Wall PAD

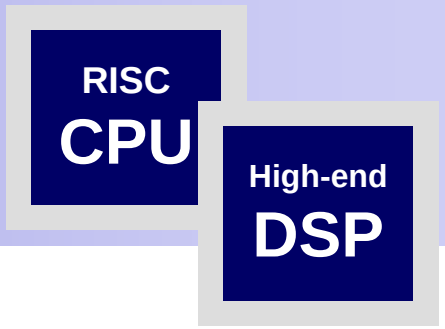
Product Overview

AP-VWP100 IP Video Wall PAD

- High Performance IP Video Wall PAD Solution
- TFT Color LCD, Touch Screen, Touch Sensor, Internal MIC & Speaker
- High Quality “7 Inch LCD, VGA(640x480) Video Resolution
- SIP VoIP Signaling Stack Embedded (Optional H.323)
- High-performance Video/Voice Codec Support
  - H.264/MPEG4/H.263, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- High Quality Speaker Phone Features
- PSTN with CID Interface Support (Option)
- Power Acoustic Echo Canceller (Option)
- PoE(Power over Ethernet) or Internal SMPS Power Support (Option)
- Video Camera Sensor (Option)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

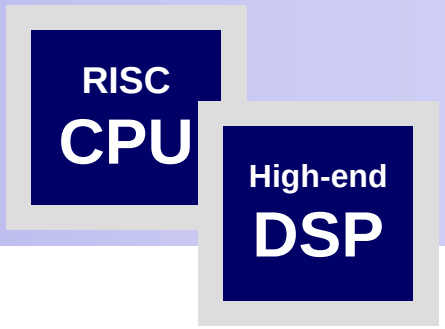
AP-VWP100 IP Video Wall PAD



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface (Option)
- TFT Color LCD Interface with Touch Screen
  - 7 Inch LCD, 640 x 480, D1 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- PSTN Interface with CID (Caller ID Detection)
- Powerful Acoustic Echo Canceller (Option)
  - Half Duplex (Default)
  - Full Duplex, Powerful Acoustic Echo Canceller (Option)
- Wall Mount
- Power Supply
  - Power over Ethernet (Option)
  - Internal SMPS Power (Default)

Hardware Specification

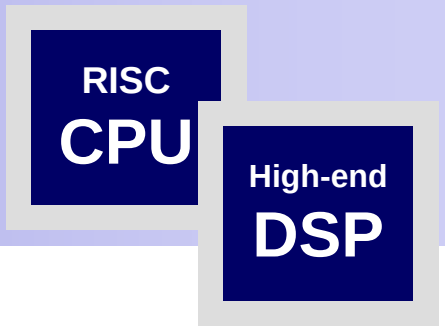
AP-VWP100 IP Video Wall PAD



- Acoustic Echo Canceller (Option)
  - Full-duplex operation during double-talk situations
  - One channel AEC, one channel LEC up to 256ms shared
  - Cancels echoes with up to 10dB echo return
  - Advanced noise reduction(up to 20dB)
- Speaker
  - Impedance : 8 +-15%ohm at 1kHz, 1.0 Vrms
  - Sound Pressure : 90 +- 3dB at 0.1W/10 CM
    at 800Hz, 1.0kHz, 1.2kHz, 1.5kHz
  - Resonance Level : 550Hz +- 20%Hz at Fo Hz, 1.0Vrms
  - Frequency Range : Fo Hz ~20kHz
  - Input Power : Normal : 1.0 W, Max : 2.0W
- Audio Amplifier
  - 1-W BTL Output(5V, 0.11 % THD+N)
  - Uncompensated Gains of 2 to 20 (BTL Mode)
  - Thermal and Shot-circuit Protection
  - High Supply Ripple Rejection Ratio
- PoE(Power over Ethernet), Option
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

Hardware Specification

AP-VWP100 IP Video Wall PAD



- LCD Controller
  - One-Chip Solution for amorphous TFT-LCD
  - Support resolution up to 480xRGBx640
  - Built-in 172800 bytes internal RAM
  - 6,8,16, and 18-bit RGB Interface
  - Resize Function (x ½, x ¼)
  - On-Chip Power Management System

- Video Camera (Option)
  - High Sensitivity for low-light operation
  - Output support for Raw RGB, RGB, and YCrCb format
  - Image Size : VGA, QVGA, and any size scaling down from CIF to 40x30
  - Support AEC, AGC,AWB, ABF, ABLC
  - Saturation Level, Edge Enhancement Level, De-noise level Auto adjust

Hardware Specification

AP-VWP100 IP Video Wall PAD

RISC CPU

High-end DSP

Front Side

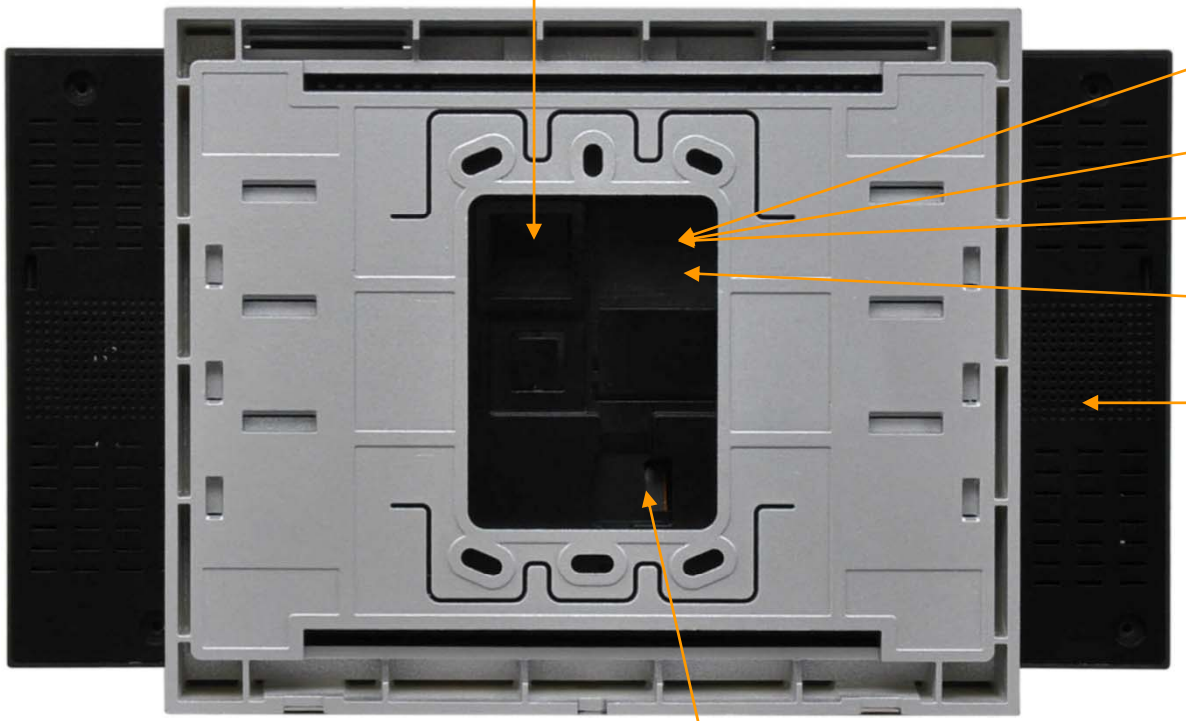
Hardware Specification

AP-VWP100 IP Video Wall PAD

RISC CPU

High-end DSP

Back Side



AP-VWP90
Smart IP Wall PAD

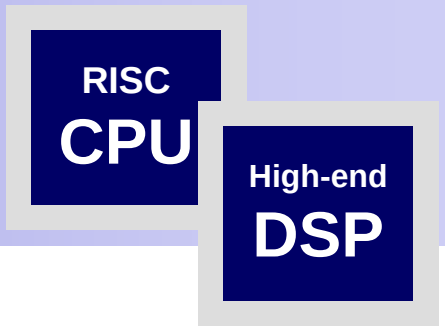
Product Overview

AP-VWP90 IP Video Wall PAD

- High Performance IP Video Wall PAD Solution
- TFT Color LCD, Touch Screen, Touch Sensor, Internal MIC & Speaker
- High Quality “7 Inch LCD, 800x480 Video Resolution
- SIP VoIP Signaling Stack Embedded (Optional H.323)
- High-performance Video/Voice Codec Support
  - H.264/MPEG4/H.263, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- High Quality Speaker Phone Features
- PSTN with CID Interface Support (Option)
- Power Acoustic Echo Canceller (Option)
- PoE(Power over Ethernet) or Internal SMPS Power Support (Option)
- Video Camera Sensor (Option)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

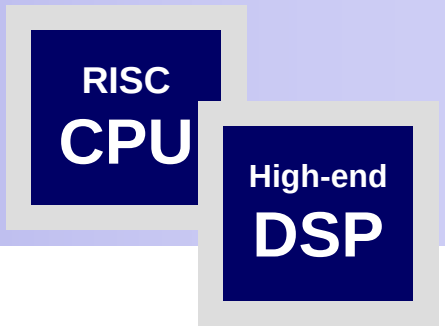
AP-VWP90 IP Video Wall PAD



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface (Option)
- TFT Color LCD Interface with Touch Screen
  - 7 Inch LCD, 640 x 480, D1 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- PSTN Interface with CID (Caller ID Detection)
- Powerful Acoustic Echo Canceller (Option)
  - Half Duplex (Default)
  - Full Duplex, Powerful Acoustic Echo Canceller (Option)
- Wall Mount
- Power Supply
  - Power over Ethernet (Option)
  - Internal SMPS Power (Default)

Hardware Specification

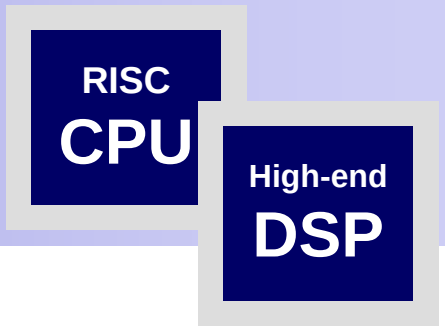
AP-VWP90 IP Video Wall PAD



- Acoustic Echo Canceller (Option)
  - Full-duplex operation during double-talk situations
  - One channel AEC, one channel LEC up to 256ms shared
  - Cancels echoes with up to 10dB echo return
  - Advanced noise reduction(up to 20dB)
- Speaker
  - Impedance : 8 +-15%ohm at 1kHz, 1.0 Vrms
  - Sound Pressure : 90 +- 3dB at 0.1W/10 CM
    at 800Hz, 1.0kHz, 1.2kHz, 1.5kHz
  - Resonance Level : 550Hz +- 20%Hz at Fo Hz, 1.0Vrms
  - Frequency Range : Fo Hz ~20kHz
  - Input Power : Normal : 1.0 W, Max : 2.0W
- Audio Amplifier
  - 1-W BTL Output(5V, 0.11 % THD+N)
  - Uncompensated Gains of 2 to 20 (BTL Mode)
  - Thermal and Shot-circuit Protection
  - High Supply Ripple Rejection Ratio
- PoE(Power over Ethernet), Option
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

Hardware Specification

AP-VWP90 IP Video Wall PAD



- LCD Controller
  - One-Chip Solution for amorphous TFT-LCD
  - Support resolution up to 480xRGBx640
  - Built-in 172800 bytes internal RAM
  - 6,8,16, and 18-bit RGB Interface
  - Resize Function (x ½, x ¼)
  - On-Chip Power Management System

- Video Camera (Option)
  - High Sensitivity for low-light operation
  - Output support for Raw RGB, RGB, and YCrCb format
  - Image Size : VGA, QVGA, and any size scaling down from CIF to 40x30
  - Support AEC, AGC,AWB, ABF, ABLC
  - Saturation Level, Edge Enhancement Level, De-noise level Auto adjust

Hardware Specification

AP-VWP90 IP Video Wall PAD

RISC CPU

High-end DSP

Front Side

Hardware Specification

AP-VWP90 IP Video Wall PAD

RISC CPU

High-end DSP

Side View

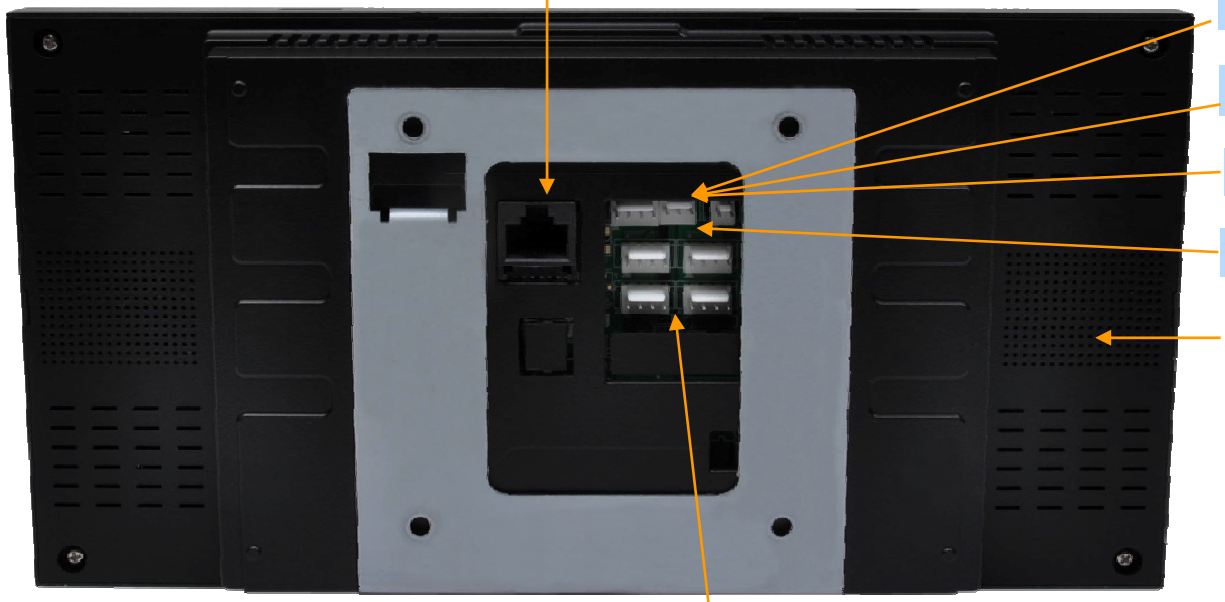
Hardware Specification

AP-VWP90 IP Video Wall PAD

RISC CPU

High-end DSP

Back Side



AP-VWP80
Smart IP Wall PAD

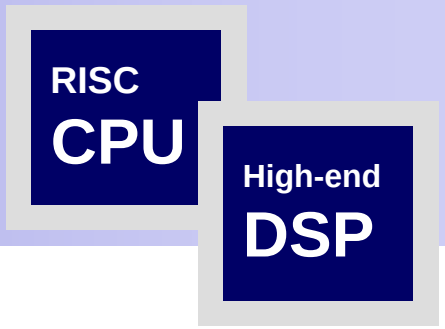
Product Overview

AP-VWP80 IP Video Wall PAD

- High Performance IP Video Wall PAD Solution
- TFT Color LCD, Touch Screen, Touch Sensor, Internal MIC & Speaker
- High Quality “7 Inch LCD, VGA(640x480) Video Resolution
- SIP VoIP Signaling Stack Embedded (Optional H.323)
- High-performance Video/Voice Codec Support
  - H.264/MPEG4/H.263, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- High Quality Speaker Phone Features
- PSTN with CID Interface Support (Option)
- Power Acoustic Echo Canceller (Option)
- PoE(Power over Ethernet) or Internal SMPS Power Support (Option)
- Video Camera Sensor (Option)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Interworking with Smart Hub for Sensor Devices
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

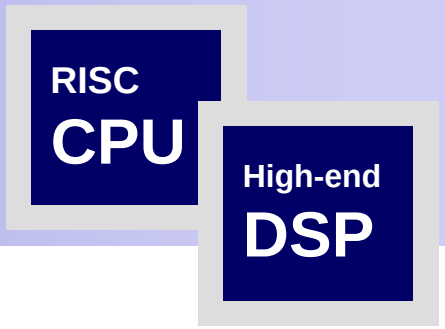
AP-VWP80 IP Video Wall PAD



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface (Option)
- TFT Color LCD Interface with Touch Screen
  - 7 Inch LCD, 640 x 480, D1 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- PSTN Interface with CID (Caller ID Detection)
- Powerful Acoustic Echo Canceller (Option)
  - Half Duplex (Default)
  - Full Duplex, Powerful Acoustic Echo Canceller (Option)
- Wall Mount
- Power Supply
  - Power over Ethernet (Option)
  - Internal SMPS Power (Default)

Hardware Specification

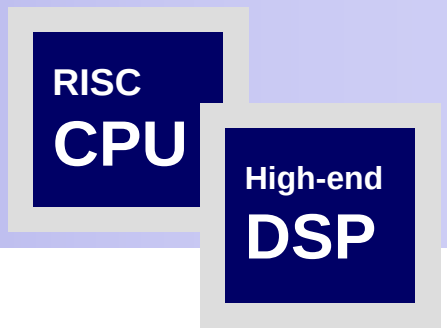
AP-VWP80 IP Video Wall PAD



- Acoustic Echo Canceller (Option)
  - Full-duplex operation during double-talk situations
  - One channel AEC, one channel LEC up to 256ms shared
  - Cancels echoes with up to 10dB echo return
  - Advanced noise reduction(up to 20dB)
- Speaker
  - Impedance : 8 +-15%ohm at 1kHz, 1.0 Vrms
  - Sound Pressure : 90 +- 3dB at 0.1W/10 CM
    at 800Hz, 1.0kHz, 1.2kHz, 1.5kHz
  - Resonance Level : 550Hz +- 20%Hz at Fo Hz, 1.0Vrms
  - Frequency Range : Fo Hz ~20kHz
  - Input Power : Normal : 1.0 W, Max : 2.0W
- Audio Amplifier
  - 1-W BTL Output(5V, 0.11 % THD+N)
  - Uncompensated Gains of 2 to 20 (BTL Mode)
  - Thermal and Shot-circuit Protection
  - High Supply Ripple Rejection Ratio
- PoE(Power over Ethernet), Option
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

Hardware Specification

AP-VWP80 IP Video Wall PAD



- LCD Controller
  - One-Chip Solution for amorphous TFT-LCD
  - Support resolution up to 480xRGBx640
  - Built-in 172800 bytes internal RAM
  - 6,8,16, and 18-bit RGB Interface
  - Resize Function (x ½, x ¼)
  - On-Chip Power Management System

- Video Camera (Option)
  - High Sensitivity for low-light operation
  - Output support for Raw RGB, RGB, and YCrCb format
  - Image Size : VGA, QVGA, and any size scaling down from CIF to 40x30
  - Support AEC, AGC,AWB, ABF, ABLC
  - Saturation Level, Edge Enhancement Level, De-noise level Auto adjust

Hardware Specification

AP-VWP80 IP Video Wall PAD

RISC CPU

High-end DSP

Front Side

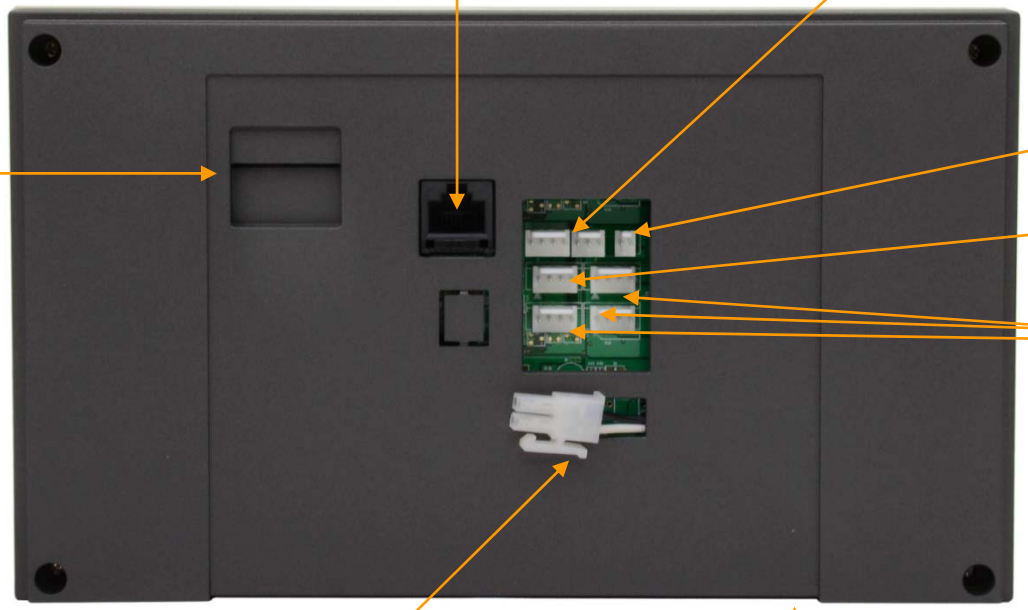
Hardware Specification

AP-VWP80 IP Video Wall PAD

RISC CPU

High-end DSP

Back Side



Touch Screen SIP Video Door Phones

Touch Screen IP Video Door Phone Comparison Table

Model Service Features	AP-VAC150 	AP-VAC80 
Duplex (Voice)	Full Duplex	Full Duplex
Key Pad	Touch Screen based Key Support	Touch Screen based Key Support
LCD	5 Inch LCD	5 inch LCD
RF Card	Support	Support
Fingerprint	Support	N/A
Video Camera	SD (CMOS Sensor)	SD (CMOS Sensor)
Video Codec	H.264/MPEG4	H.264/MPEG4
Voice Codec	G.711	G.711
Signaling	H.323/SIP	H.323/SIP
MIC & Speaker Phone	Support	Support
LAN Port	1	1
PoE(Option)	Support	Support

AP-VAC150
Touch Screen IP Video Door Phone

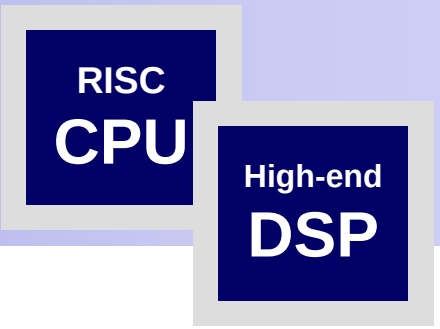
Main Features

AP-VAC150 Fingerprint Recognition IP Video Door Phone

- High Performance IP Video Door Phone Solution
- Video Camera, Touch Screen TFT Color LCD, Internal MIC & Speaker
- High Quality 5 Inch LCD, 800 x 480 Video Resolution
- Fingerprint Recognition Support
- RF Card Support
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
  - H.264/MPEG4, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- High Quality Speaker Phone Features
- Powerful Acoustic Echo Canceller Chip Embedded
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

AP-VAC150 Fingerprint Recognition HD IP Video Door Phone



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface
- Touch Screen TFT Color LCD Interface
  - 5 Inch LCD, 800 x 480 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- Fingerprint Recognition Interface
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- Power Supply
  - Power over Ethernet (Option)
  - External Power Supply

Hardware Specification

AP-VAC150 Fingerprint Recognition IP Video Door Phone

RISC CPU

High-end DSP

Front Side

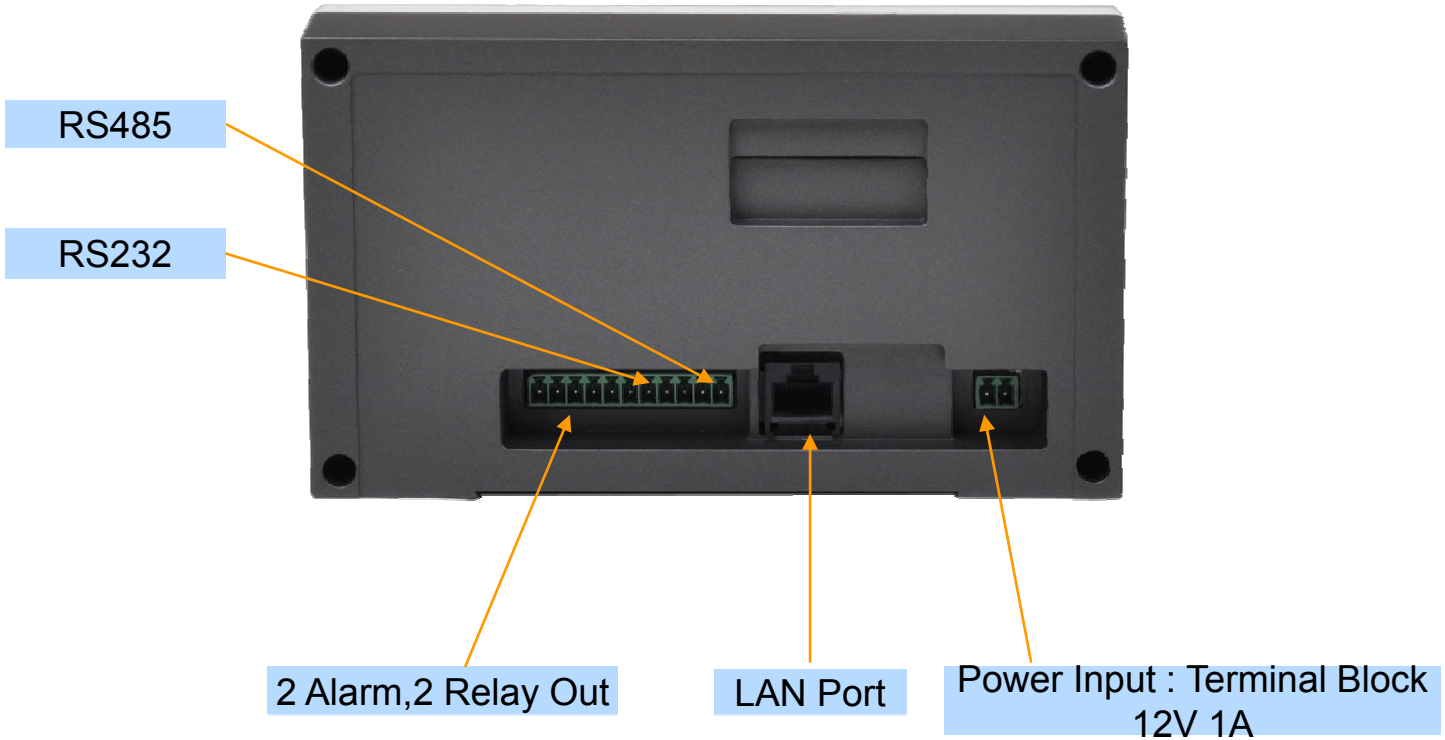
Hardware Specification

AP-VAC150 Fingerprint Recognition HD IP Video Door Phone

RISC CPU

High-end DSP

Back Side



AP-VAC80
IP Video Door Phone

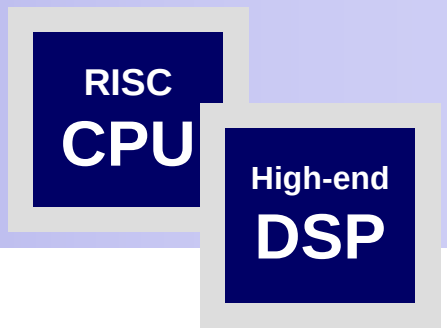
Main Features

AP-VAC80 IP Video Door Phone

- High Performance IP Video Door Phone Solution
- Video Camera, Touch Screen TFT Color LCD, Internal MIC & Speaker
- High Quality 5 Inch LCD, 800 x 480 Video Resolution
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
  - H.264/MPEG4, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- High Quality Speaker Phone Features
- Powerful Acoustic Echo Canceller Chip Embedded
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

AP-VAC80 IP Video Door Phone



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface
- TFT Color LCD Interface
  - 5 Inch LCD, 800 x 480 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- Power Supply
  - Power over Ethernet (Option)
  - External Power Supply

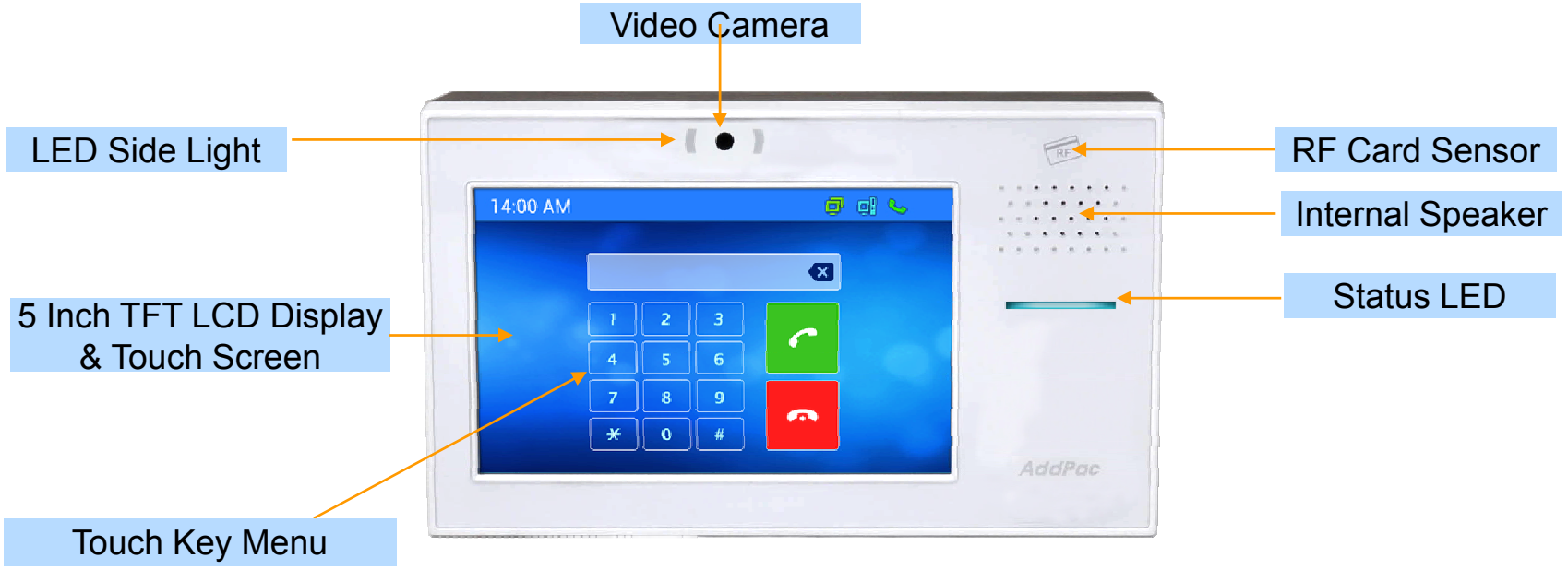
Hardware Specification

AP-VAC80 IP Video Door Phone

RISC CPU

High-end DSP

Front Side



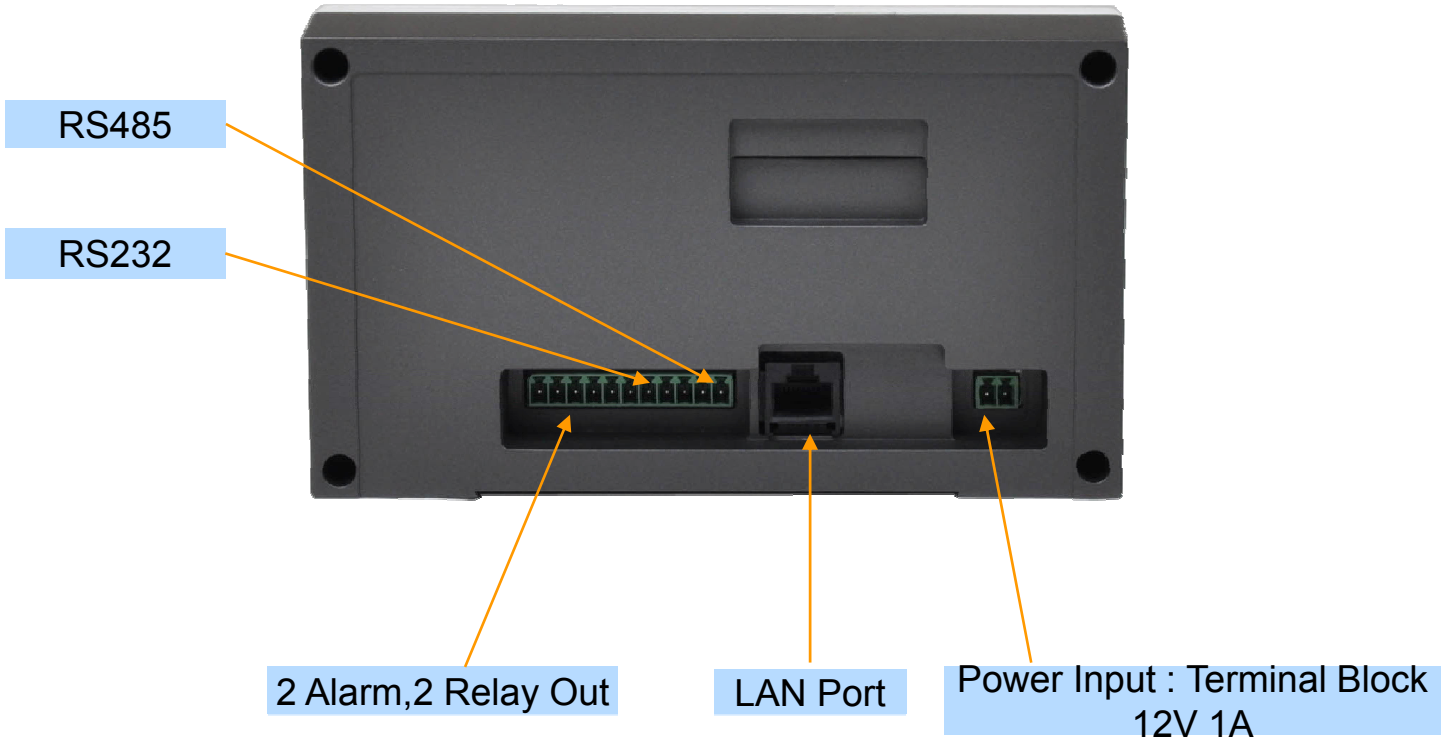
Hardware Specification

AP-VAC80 IP Video Door Phone

RISC CPU

High-end DSP

Back Side



AP-VAC20A
Analog Video Door Phone

Product Overview

AP-VAC20A Analog Video Door Phone

- Analog Video Door Phone Solution
- High Quality Video Camera
- One(1) Touch Call Button (Back Light Support)
- Internal MIC & Speaker
- Power Feeding from External Analog Video Door Intercom
- Four(4) Line Wiring : +12V, Video, Voice, GND

Hardware Specification

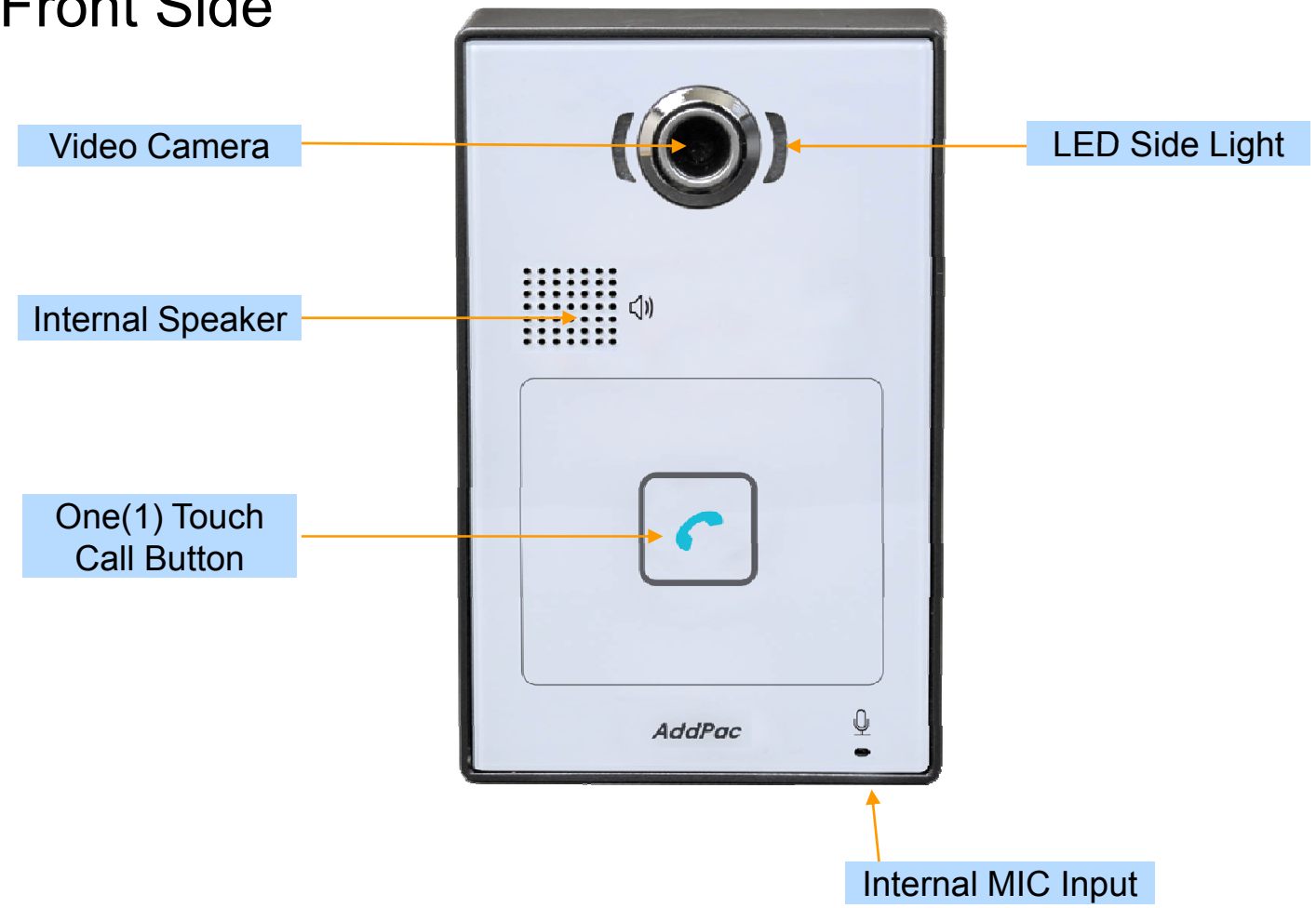
AP-VAC20A Analog Video Door Phone

- MICOM Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface (CVBS)
- One(1) Touch Call Button (Back Light)
- Power Supply
  - +12V Power Feeding from External Analog Video Door Intercom

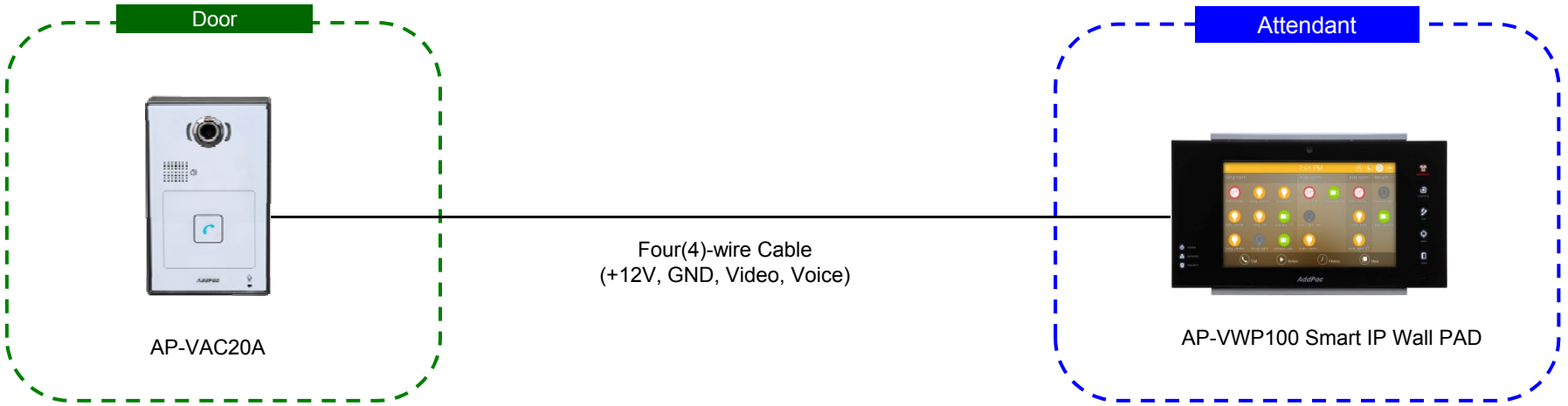
Hardware Specification

AP-VAC20A Analog Video Door Phone

Front Side



Point-to-Point Connection (Simple Appl.)



SIP Video Lobby Phones

IP Video Door Phone Comparison Table

Model Service Features	AP-VAC200 	AP-VAC100 
Duplex (Voice)	Full Duplex	Full Duplex
Key Pad	3x4 Key Support	3x4 Key Support
LCD	3.5 Inch	3.5 Inch
RF Card	Support	Support
Fingerprint	N/A	N/A
Video Codec	H.264/MPEG4	H.264/MPEG4
Voice Codec	G.711	G.711
Signaling	H.323/SIP	H.323/SIP
MIC & Speaker Phone	Support	Support
LAN Port	1	1
PoE(Option)	Support	Support

AP-VAC200
IP Video Door Phone
for Lobby Access

Product Overview

AP-VAC200 Fingerprint Recognition IP Video Door Phone

- High Performance IP Video Door Phone Solution
- Video Camera, 3x4 Key, TFT Color LCD, Internal MIC & Speaker
- High Quality 3.5 Inch LCD, 320 x 240 Video Resolution
- Fingerprint Recognition Support
- RF Card Support
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
  - H.264/MPEG4, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- High Quality Speaker Phone Features
- Powerful Acoustic Echo Canceller Chip Embedded
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

AP-VAC200 Fingerprint Recognition IP Video Door Phone

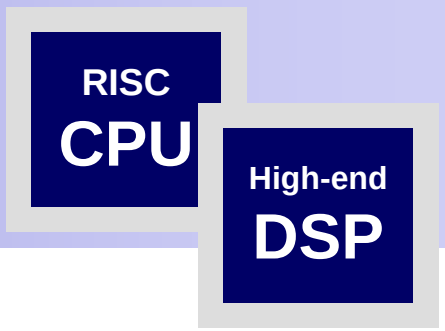
RISC CPU

High-end DSP

- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
  - 3 x 4 key PAD
- Video Camera Interface
- TFT Color LCD Interface
  - 3.5 Inch LCD, 320 x 240 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- Fingerprint Recognition Interface
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- External RCA Audio Line Out and MIC In (back side)
- Steel Chassis
- Power Supply
  - Power over Ethernet (Option)
  - External Power Supply

Hardware Specification

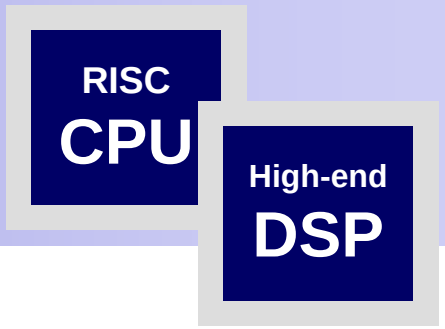
AP-VAC200 Fingerprint Recognition IP Video Door Phone



- Acoustic Echo Canceller
  - Full-duplex operation during double-talk situations
  - One channel AEC, one channel LEC up to 256ms shared
  - Cancels echoes with up to 10dB echo return
  - Advanced noise reduction(up to 20dB)
- Speaker
  - Impedance : 8 +-15%ohm at 1kHz, 1.0 Vrms
  - Sound Pressure : 90 +- 3dB at 0.1W/10 CM
    at 800Hz, 1.0kHz, 1.2kHz, 1.5kHz
  - Resonance Level : 550Hz +- 20%Hz at Fo Hz, 1.0Vrms
  - Frequency Range : Fo Hz ~20kHz
  - Input Power : Normal : 1.0 W, Max : 2.0W
- Audio Amplifier
  - 1-W BTL Output(5V, 0.11 % THD+N)
  - Uncompensated Gains of 2 to 20 (BTL Mode)
  - Thermal and Shot-circuit Protection
  - High Supply Ripple Rejection Ratio
- PoE(Power over Ethernet)
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

Hardware Specification

AP-VAC200 Fingerprint Recognition IP Video Door Phone



- LCD Controller
  - One-Chip Solution for amorphous TFT-LCD
  - Support resolution up to 240xRGBx320
  - Built-in 172800 bytes internal RAM
  - 6,8,16, and 18-bit RGB Interface
  - Resize Function (x ½, x ¼)
  - On-Chip Power Management System

- Camera
  - High Sensitivity for low-light operation
  - Output support for Raw RGB, RGB, and YCrCb format
  - Image Size : VGA, QVGA, and any size scaling down from CIF to 40x30
  - Support AEC, AGC,AWB, ABF, ABLC
  - Saturation Level, Edge Enhancement Level, De-noise level Auto adjust

Hardware Specification

AP-VAC200 Fingerprint Recognition IP Video Door Phone

RISC CPU

High-end DSP

- RF Card Sensor
  - Protocol Supported
    - ISO14443A/B all bit rates
    - > 106,212,424 and 848 kbps
    - Compatible to MiFare Classic
    - ISO15693 all modes
    - > 1.65/6.6 & 26.5 kbps
    - > Uplink 1 & 2 sub-carrier
  - Receiver
    - Rx Sensitivity down to 1mVrms
    - Rx Automatic Gain Control
    - Accept external baseband signal from external circuitry for frame level processing
    - Integrated signal strength indicator (SSI)
    - On-Chip Framing handler for supported standard
  - Transmitter
    - Typical proximity operating distance up to 100mm.
    - Software configurable modulation index
    - Maximum driving current up to 200 mA/PIN @ 5V
    - Accept external baseband signal for RF modulation
    - Wide Transmitter driver supply range from 2.7~7.0V

Hardware Specification

AP-VAC200 Fingerprint Recognition IP Video Door Phone

RISC CPU

High-end DSP

Front Side

- Internal Speaker
- Video Camera
- LED Side Light
- RF Card Sensor
- Status LED
- Fingerprint Recognition
- TFT LCD Display
- Remote Image
- Local Image
- 3 x 4 Dial Key
- Steel Chassis
- Internal MIC Input

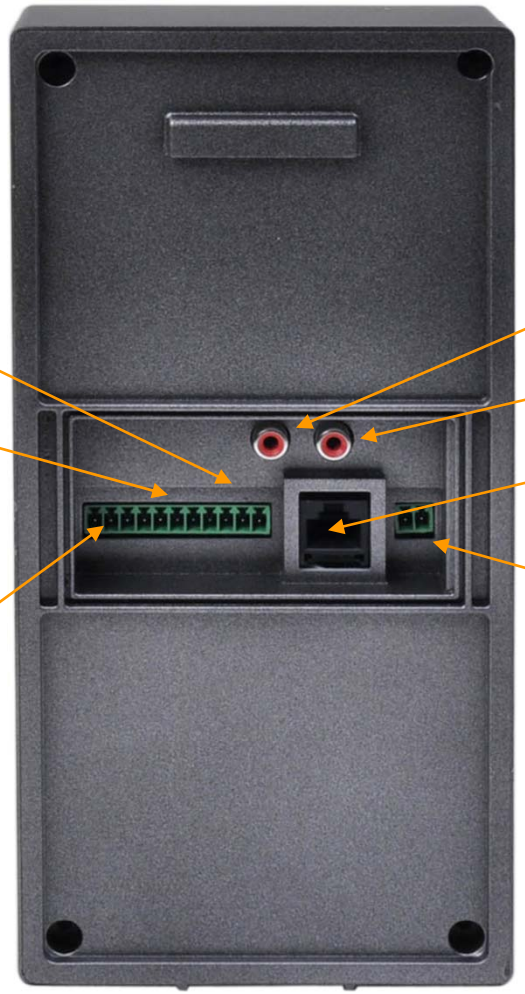
Hardware Specification

AP-VAC200 Fingerprint Recognition IP Video Door Phone

RISC CPU

High-end DSP

Back Side



RS485

RS232

2 Alarm,2 Relay Out

Option : Line Out

Option : MIC In

LAN Port

Power Input : Terminal Block
12V 1A

AP-VAC100
IP Video Door Phone
for Lobby Access

Product Overview

AP-VAC100 IP Video Door Phone

- High Performance IP Video Door Phone Solution
- Video Camera, 3x4 Key, TFT Color LCD, Internal MIC & Speaker
- High Quality 3.5 Inch LCD, 320 x 240 Video Resolution
- RF Card Support
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
  - H.264/MPEG4, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- High Quality Speaker Phone Features
- Powerful Acoustic Echo Canceller Chip Embedded
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

AP-VAC100 IP Video Door Phone

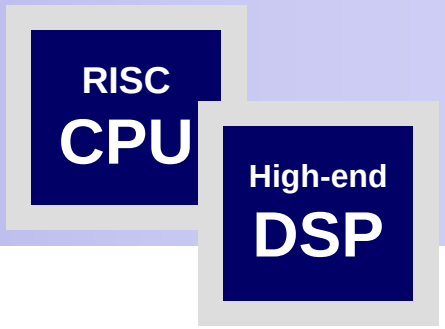
RISC CPU

High-end DSP

- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
  - 3 x 4 key PAD
- Video Camera Interface
- TFT Color LCD Interface
  - 3.5 Inch LCD, 320 x 240 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- External RCA Audio Line Out and MIC In (back side)
- Steel Chassis
- Power Supply
  - Power over Ethernet (Option)
  - External Power Supply

Hardware Specification

AP-VAC100 IP Video Door Phone



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  - High Supply Ripple Rejection Ratio
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  - IEEE802.3af compliant
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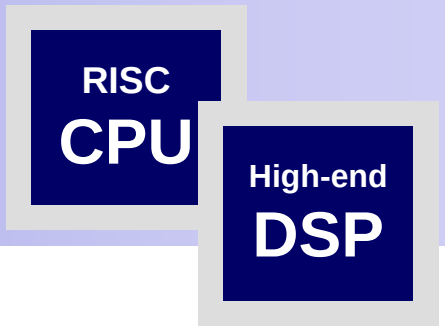
Hardware Specification

AP-VAC100 IP Video Door Phone



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  - Saturation Level, Edge Enhancement Level, De-noise level Auto adjust

Hardware Specification

AP-VAC100 IP Video Door Phone

RISC CPU

High-end DSP

- RF Card Sensor
  - Protocol Supported
    - ISO14443A/B all bit rates
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    - Compatible to MiFare Classic
    - ISO15693 all modes
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    - > Uplink 1 & 2 sub-carrier
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    - Accept external baseband signal from external circuitry for frame level processing
    - Integrated signal strength indicator (SSI)
    - On-Chip Framing handler for supported standard
  - Transmitter
    - Typical proximity operating distance up to 100mm.
    - Software configurable modulation index
    - Maximum driving current up to 200 mA/PIN @ 5V
    - Accept external baseband signal for RF modulation
    - Wide Transmitter driver supply range from 2.7~7.0V

Hardware Specification

AP-VAC100 IP Video Door Phone

RISC CPU

High-end DSP

Front Side

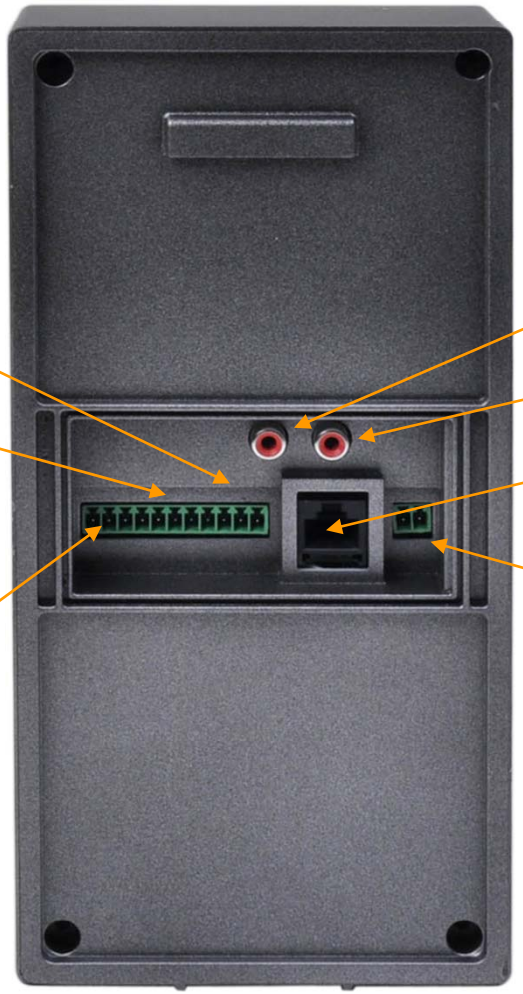
Hardware Specification

AP-VAC100 IP Video Door Phone

RISC CPU

High-end DSP

Back Side



RS485

RS232

2 Alarm,2 Relay Out

Option : Line Out

Option : MIC In

LAN Port

Power Input : Terminal Block
12V 1A

SIP/H.323 Video Phone for Security Guard

SIP Video Phone Comparison for Security Guard

	AP-VP280	AP-VP120
		
LCD Size	7Inch Touch Screen	4.3Inch
Camera	CMOS	CMOS
Video Codec	H.263 MPEG4 H.264	H.263 MPEG4 H.264
Signaling	H.323/SIP	H.323/SIP
Video MCU	N/A	N/A
Voice MCU	3-Party	3-Party
LAN Port	2	2
PoE	N/A	Support

AP-VP280
Video Phone

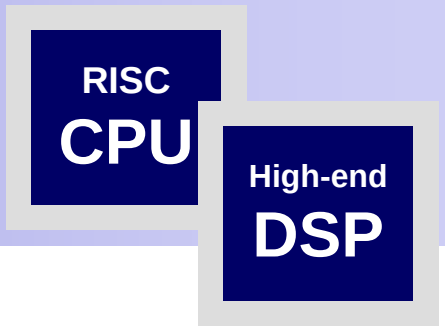
Main Features

AP-VP280 Video Phone

- 7 Inch LCD Display, Touch Screen
- H.323/SIP Concurrent VoIP Signaling Stack Embedded
- High-performance Video Codec Support
  - H.263, MPEG-4, JPEG, and H.264
- Powerful Image Resolution Support
  - QCIF(176x144), CIF(352x288), QVGA(320x240), and VGA(640x480)
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- G.711/G.726/G.723/G.729, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Rate Control for Video Traffic QoS
  - Ensuring Optimized Quality, Frame Rate with Limited Bandwidth
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism

Hardware Specification

AP-VP280 Video Phone



- RISC Microprocessor Computing Power
- CMOS Image Sensor, Samsung LCD, Touch Screen
- High-end Programmable DSP Hardware Architecture
- Powerful Video Interface
  - RCA Video Input/Output, S-Video Output
- High quality Audio and Voice Interface
  - Stereo Audio Input & Output Connector
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet
  - One(1) RS-232C Console
  - One(1) USB 1.0 Interface
- PSTN Interface
  - One(1) FXO(RJ11) interface
- Power Supply
  - *External DC adaptor (5V)*

Hardware Specification

AP-VP280 Video Phone

RISC CPU

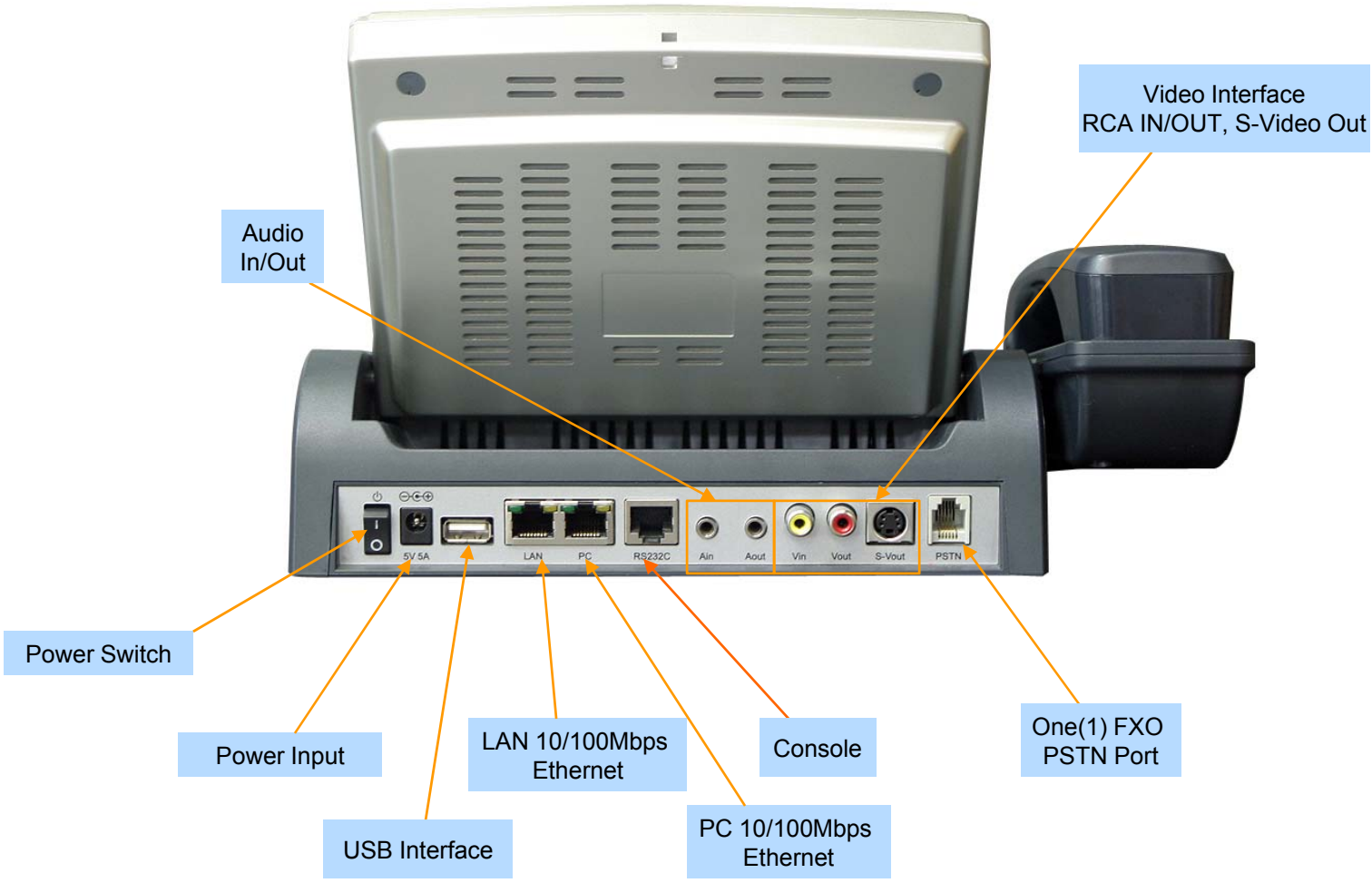
High-end DSP

Hardware Specification

AP-VP280 Video Phone

RISC CPU

High-end DSP



AP-VP120
Video Phone

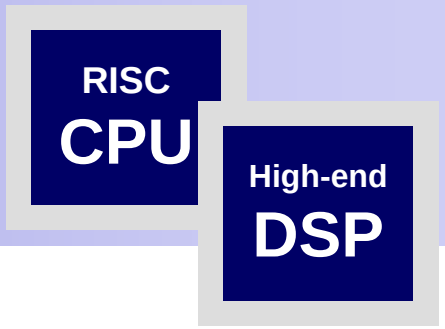
Main Features

AP-VP120 Video Phone

- 4.3 Inch Color LCD Display, Touch Screen
- H.323/SIP Concurrent VoIP Signaling Stack Embedded
- High-performance Video Codec Support
  - H.263, MPEG-4, JPEG, and H.264
- Powerful Image Resolution Support
  - QCIF(176x144), CIF(352x288), QVGA(320x240), and VGA(640x480)
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- G.711/G.726/G.723/G.729, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Rate Control for Video Traffic QoS
  - Ensuring Optimized Quality, Frame Rate with Limited Bandwidth
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism

Hardware Specification

AP-VP120 Video Phone



- RISC Microprocessor Computing Power
- CMOS Image Sensor
- 4.3 Inch Color LCD with Touch Screen
- High-end Programmable DSP Hardware Architecture
- Powerful Video Interface
  - RCA Video Input/Output, S-Video Output
- High quality Audio and Voice Interface
  - Stereo Audio Input & Output Connector
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet
  - One(1) USB 1.0 Interface
- PSTN FXO(RJ11) Interface : Option
- Power Supply
  - *External DC adaptor (5V)*
  - *PoE (Power over Ethernet)*

Hardware Specification

AP-VP120 Video Phone

RISC CPU

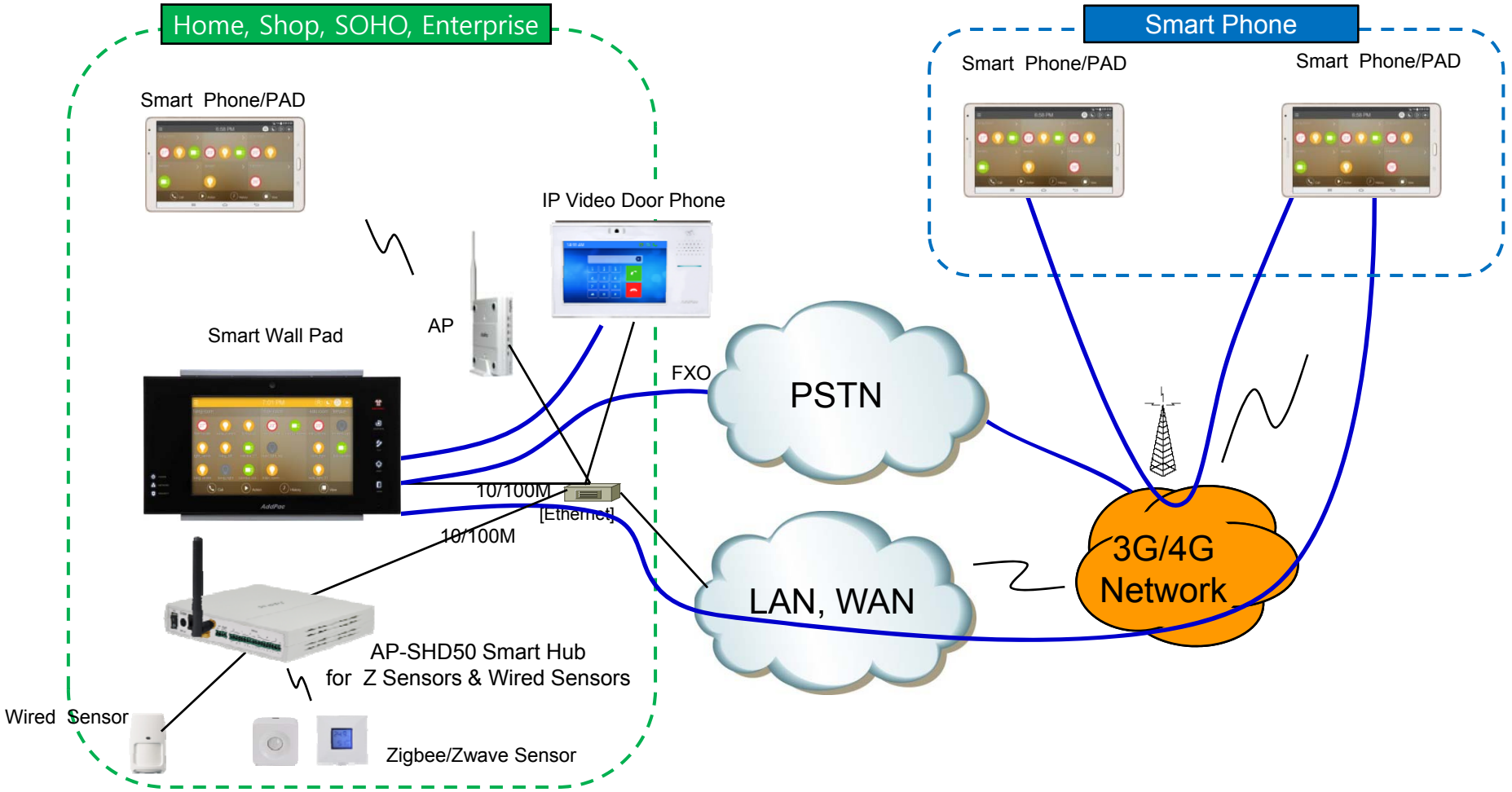
High-end DSP

Smart Hub for Wireless/Wired Sensor Devices

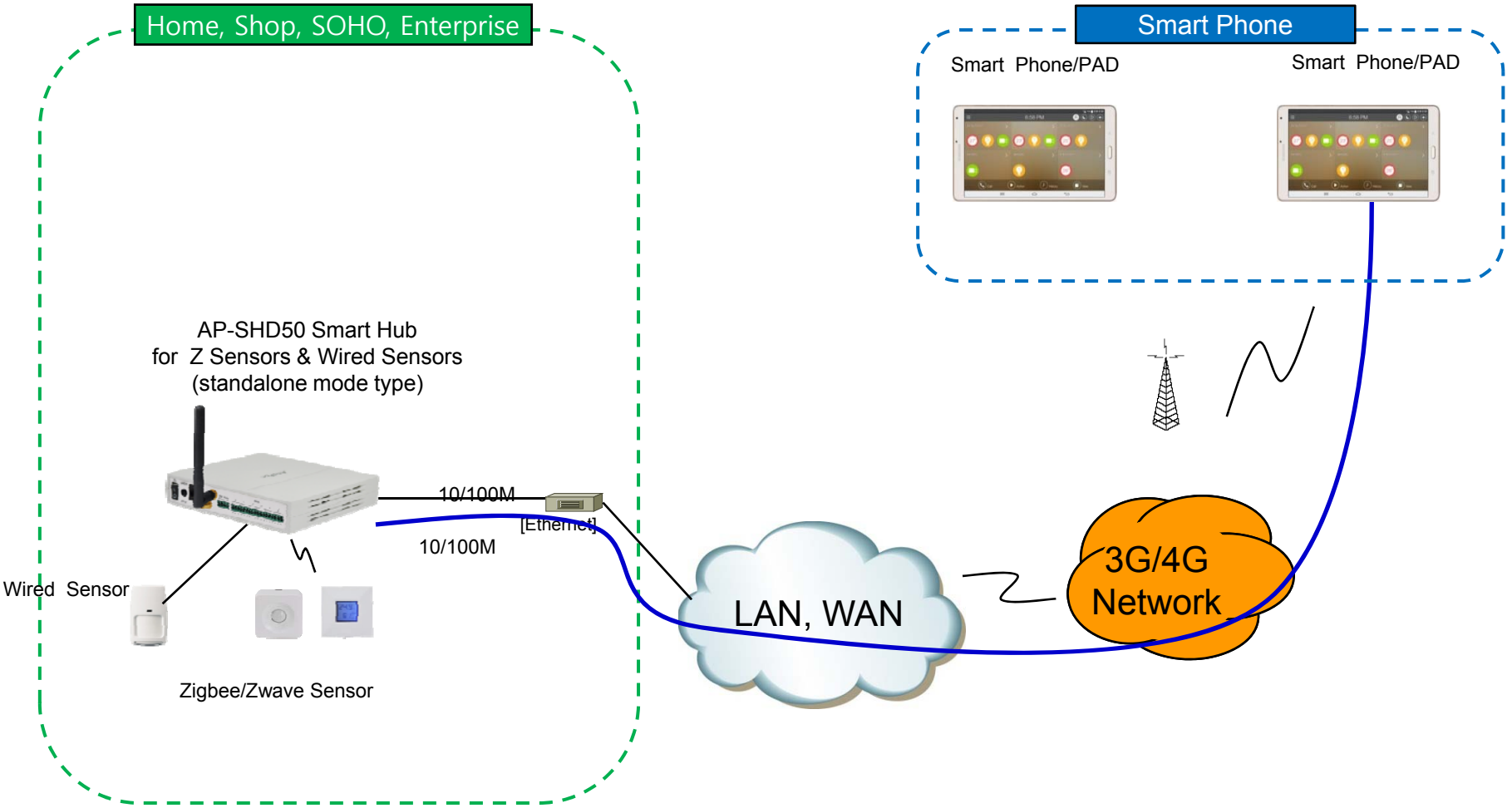
Smart Hub Equipment Comparison Table

Model / Service Features	AP-SH50	AP-SAH50	AP-SH050
			
Sensor Type	Wireless	Wired	Wireless/Wired
	Zigbee, Zwave		Zigbee, Zwave
Wired Sensor Port	N/A	6-Port	6-Port
Smart Appl. for Phone, PAD	Support	Support	Support
Smart Web Manager	Support	Support	Support
LAN Port	1	1	1
PoE(Option)	Option	Option	Option

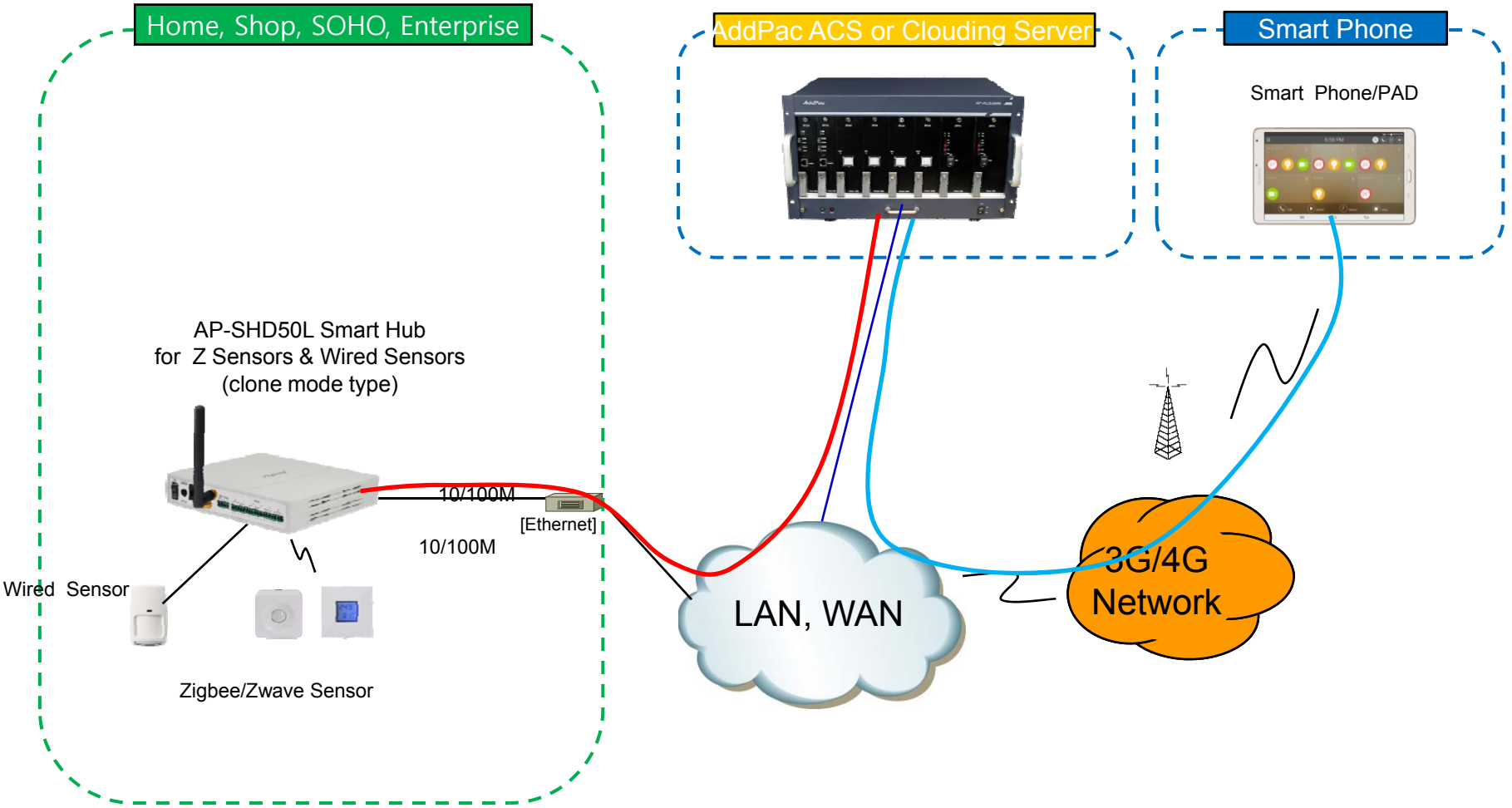
Smart Hub Service Diagram (Smart Home Solution)



Smart Hub Service Diagram
(Standalone Type Smart Hub Device)



Smart Hub Service Diagram
(Clone Type Smart Hub Device)



AP-SH50 Smart Hub

Product Overview

AP-SH50 Smart Hub for Z sensors

- Advanced Smart Home Solution
- Zigbee/Zwave Dual Sensor Interface Support
- Smart IP Routing Service Features for Sensor Network
- Smart Wall Pad Interworking Service Features
- Smart Hub Interworking Support for Third Party
- High Performance RISC Programmable Architecture
- One 10/100Mbps Fast Ethernet
- High Performance LAN-to-Zigbee/Zwave Routing Capability
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Smart Web based Management
- Light and Compact Design with External Power Supply

Hardware Specification

AP-SH50 Smart Hub for Z sensors

- RISC Microprocessor Computing Power
- 1-Port Zigbee Interface
- 1-Port Zwave Interface
- 1-Port Zigbee Antenna
- 1-Port Zwave Antenna
- Network Interface
  - -One(1) 10/100Mbps Fast Ethernet (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply

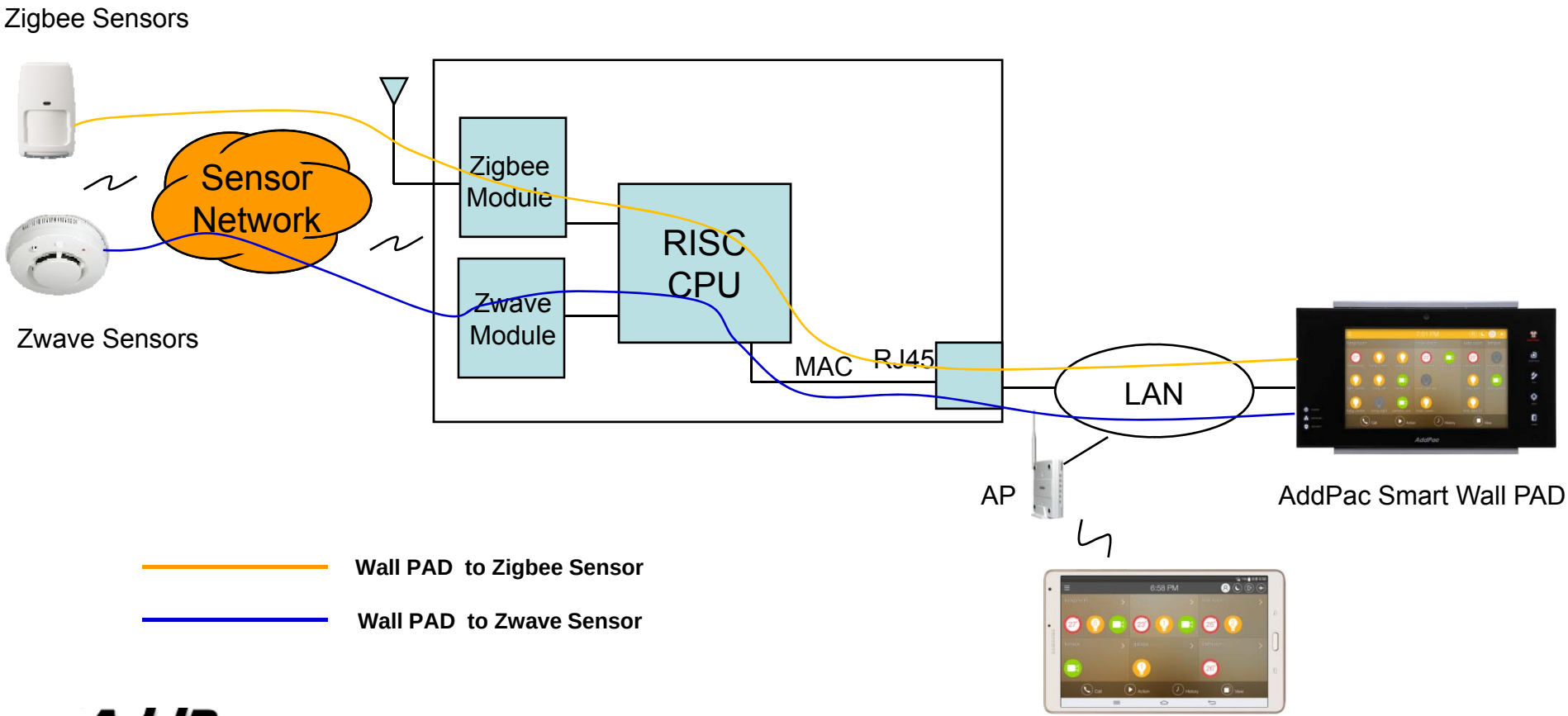
Hardware Specification

AP-SH50 Smart Hub for Z sensors

RISC CPU

Smart Hub Service Diagram

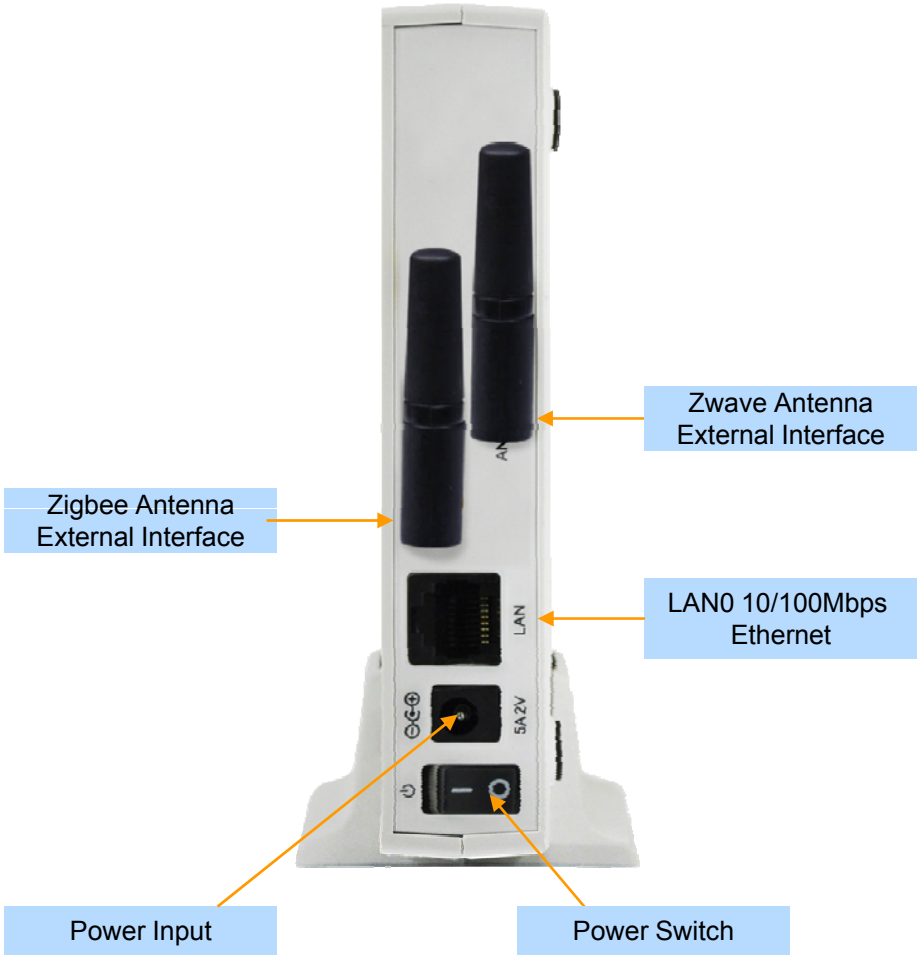
AP-SH50 Smart Hub Internal H/W Block Diagram



Hardware Specification

AP-SH50 Smart Hub for Z sensors

Network interface Configurations



AP-SAH50 Smart Hub

Product Overview

AP-SAH50 Smart Hub for Legacy Wired Sensors

- Advanced Smart Home Solution
- Legacy Wired Sensor Interface Support
- Smart IP Routing Service Features for Sensor Network
- Smart Wall Pad Interworking Service Features
- Smart Hub Interworking Support for Third Party
- High Performance RISC Programmable Architecture
- One 10/100Mbps Fast Ethernet
- PoE Support : Option
- High Performance LAN-to-Wired Legacy Sensor Routing Capability
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Smart Web based Management
- Light and Compact Design with External Power Supply

Hardware Specification

AP-SAH50 Smart Hub for Legacy Wired Sensors

- RISC Microprocessor Computing Power
- 6-Port Wired Sensor
  - Alarm Input
  - Power Output for Sensor Power Supply
- Speaker Port, Beacon Port
- Network Interface

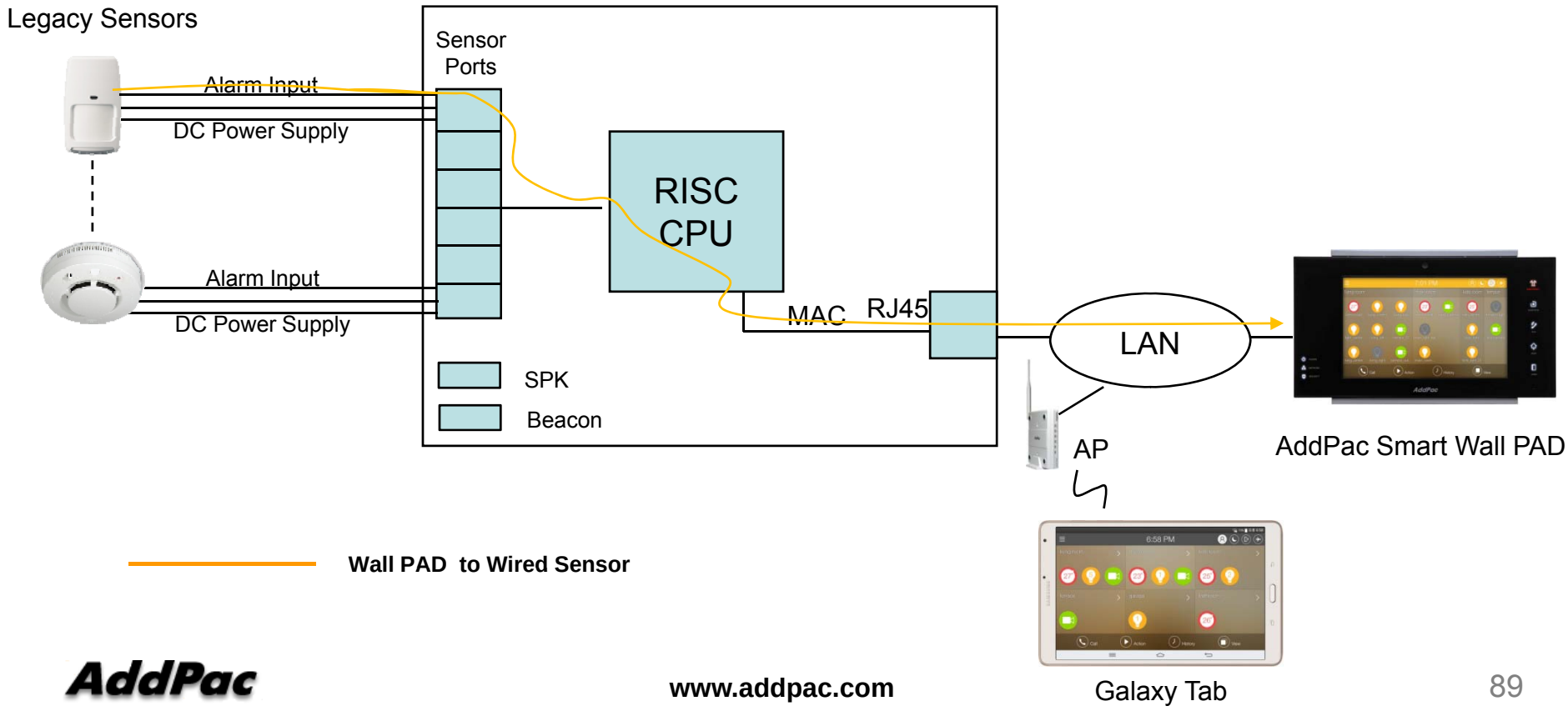
  -One(1) 10/100Mbps Fast Ethernet (RJ45)
- LAN LED, Sensor Port LED
- External Power Supply
- PoE (Power over Ethernet) : Option

Hardware Specification

AP-SAH50 Smart Hub for Legacy Wired Sensors

Smart Hub Service Diagram

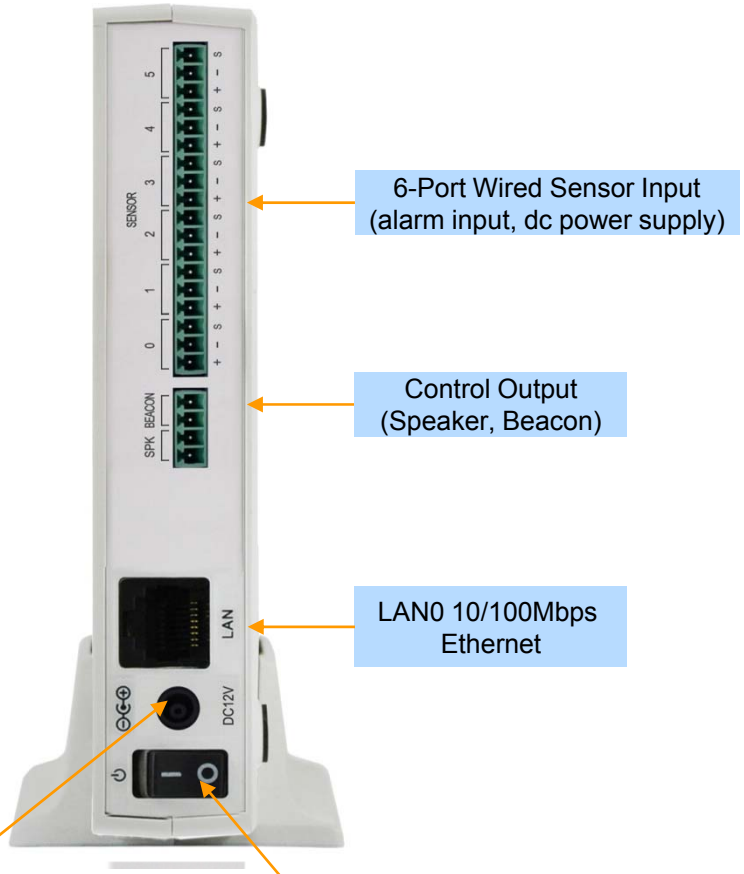
AP-SH50 Smart Hub Internal H/W Block Diagram



Hardware Specification

AP-SAH50 Smart Hub for Legacy Wired Sensors

Back Side



6-Port Wired Sensor Input
(alarm input, dc power supply)

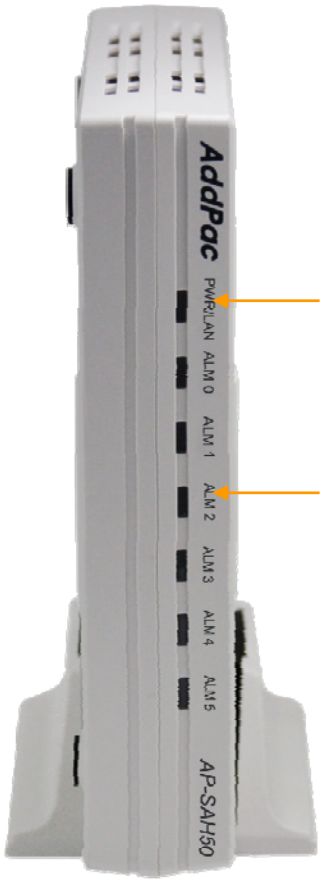
Control Output
(Speaker, Beacon)

LAN0 10/100Mbps
Ethernet

Power Input

Power Switch

Front Side



LAN Port LED

Sensor Port LED

AP-SHD50 Smart Hub

Product Overview

AP-SHD50 Smart Hub for Z Sensors & Wired Sensors

- Advanced Smart Home Solution
- Zigbee/Zwave Dual Sensor Interface Support
- Legacy Wired Sensor Interface Support
- Smart IP Routing Service Features for Sensor Network
- Smart Wall Pad Interworking Service Features
- Smart Hub Interworking Support for Third Party
- High Performance RISC Programmable Architecture
- One 10/100Mbps Fast Ethernet
- PoE Support : Option
- High Performance LAN-to-Zigbee/Zwave Routing Capability
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Smart Web based Management
- Light and Compact Design with External Power Supply

Hardware Specification

AP-SHD50 Smart Hub for Z Sensors & Wired Sensors

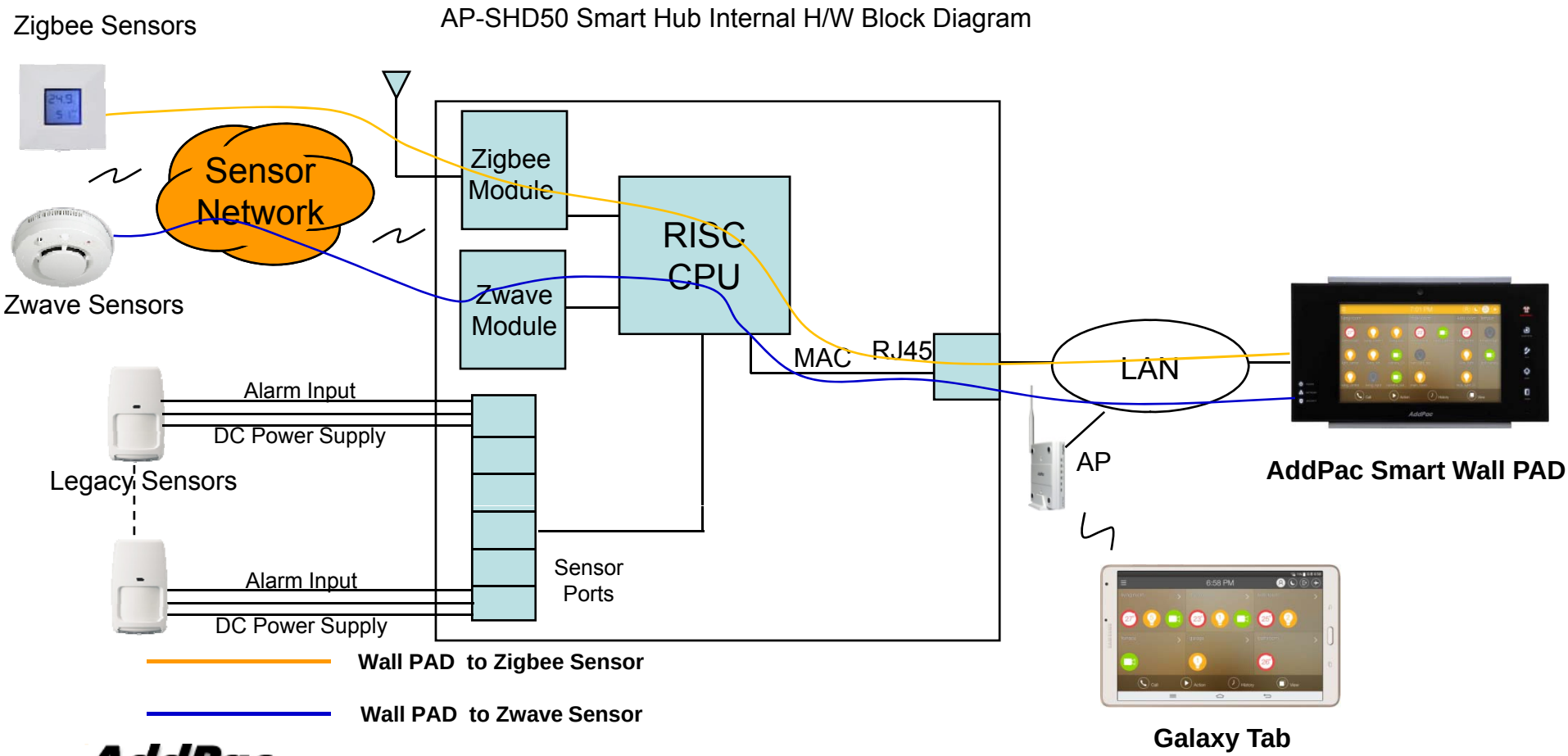
- RISC Microprocessor Computing Power
- 1-Port Zigbee Interface
- 1-Port Zwave Interface
- 6-Port Wired Sensor
  - Alarm Input
  - Power Output for Sensor Power Supply
- Speaker Port, Beacon Port
- Network Interface

  -One(1) 10/100Mbps Fast Ethernet (RJ45)
- LAN LED, Port LEDs
- External Power Supply
- PoE (Power over Ethernet) : Option

Hardware Specification

AP-SHD50 Smart Hub for Z Sensors & Wired Sensors

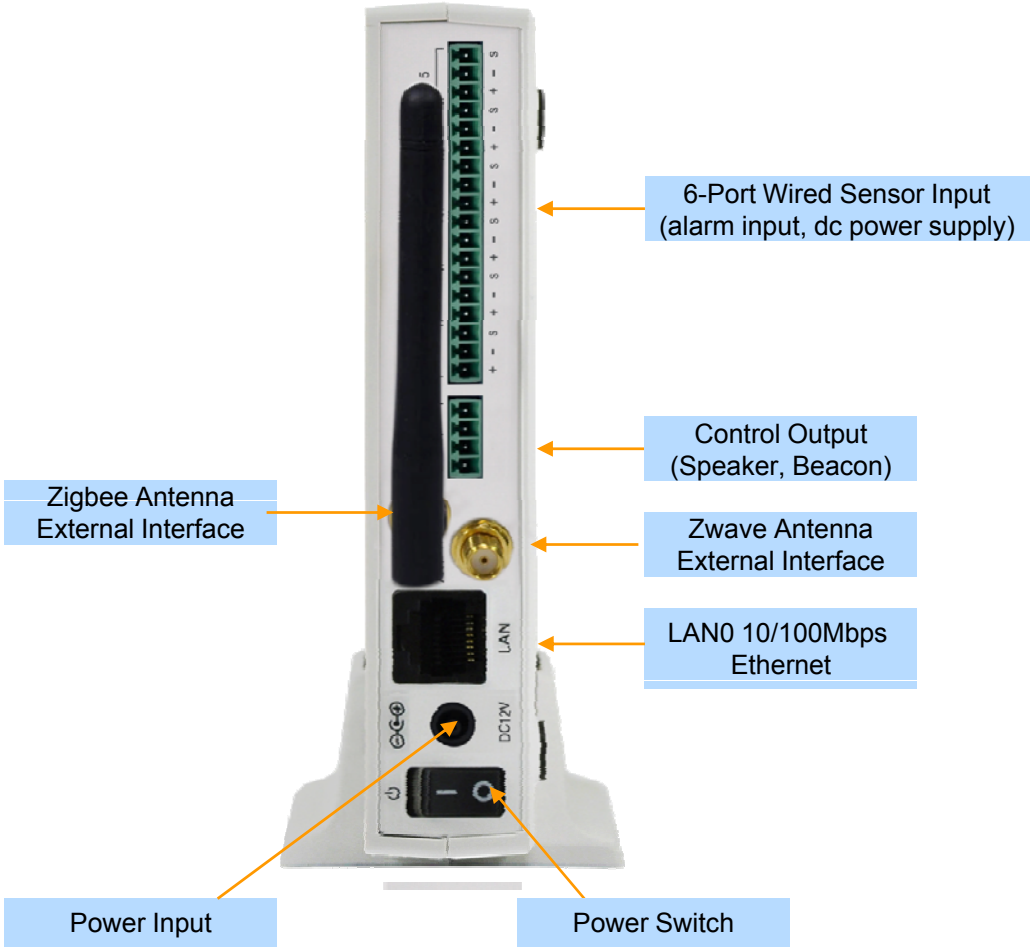
Smart Hub Service Diagram



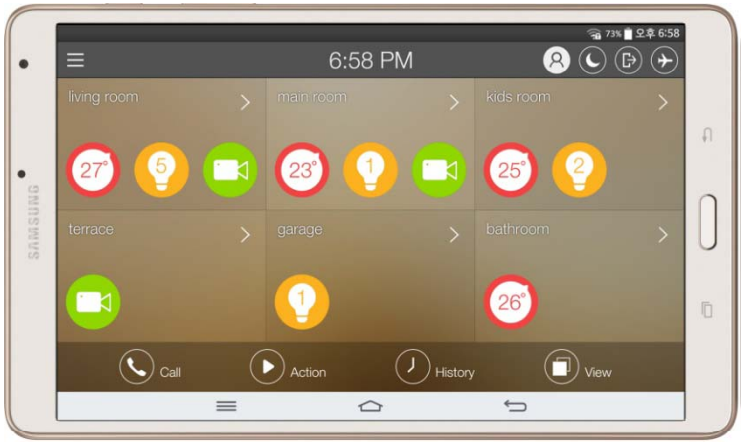
Hardware Specification

AP-SHD50 Smart Hub for Z Sensors & Wired Sensors

Network interface Configurations



Android Smart Home Application Software (AP-ASH100)

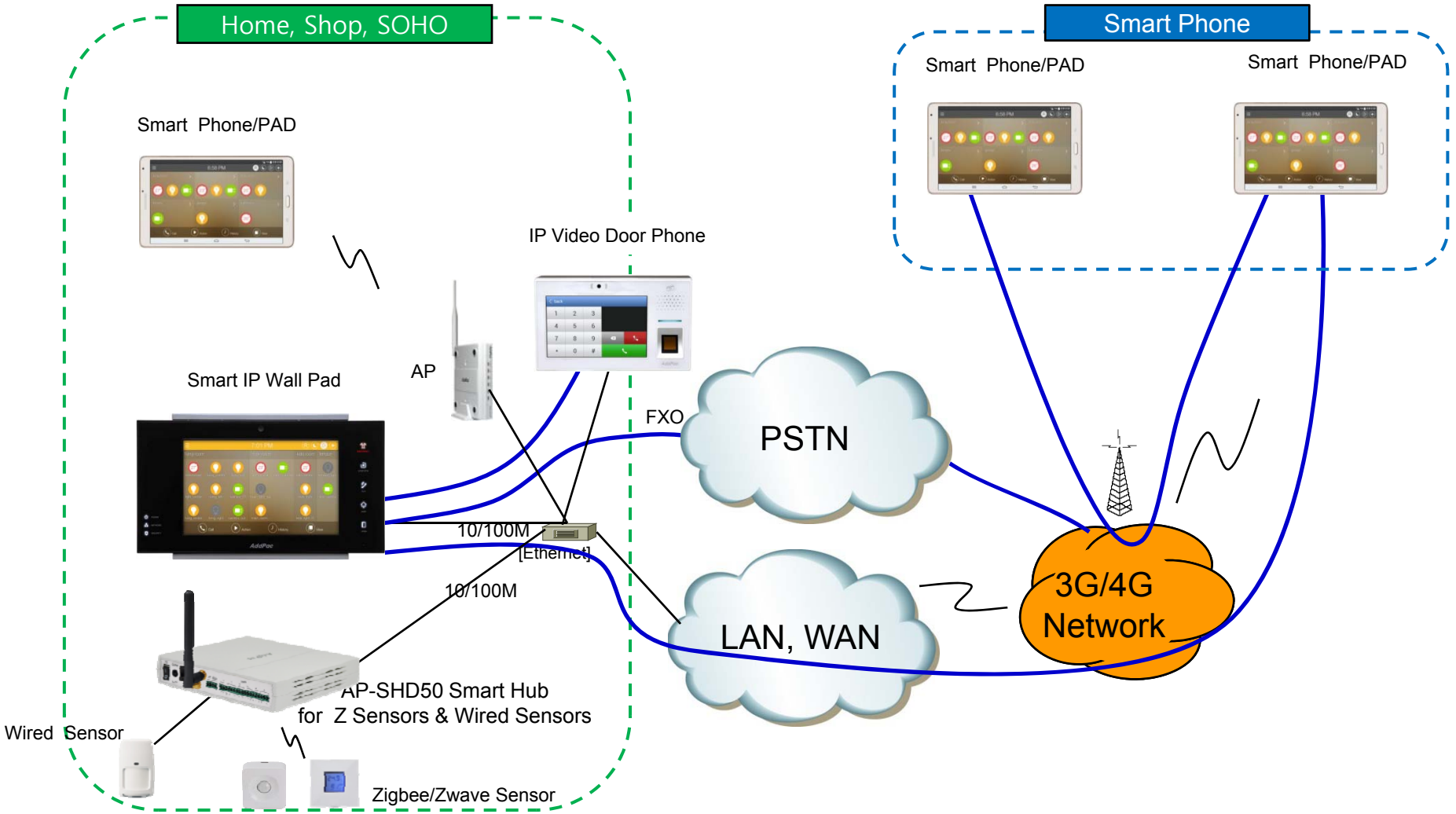


AP-ASH100 Overview

- It supports receiving a video call from video door phone by visitor.
- It supports making a video call to video door phone to see door side.
- It supports bidirectional video call from security guard video phone.
- It supports smart hub devices for sensor device handling.
- It supports IP camera view mode using RTSP protocol
- It supports standard based SIP signaling protocol.
- It supports below voice and video codecs

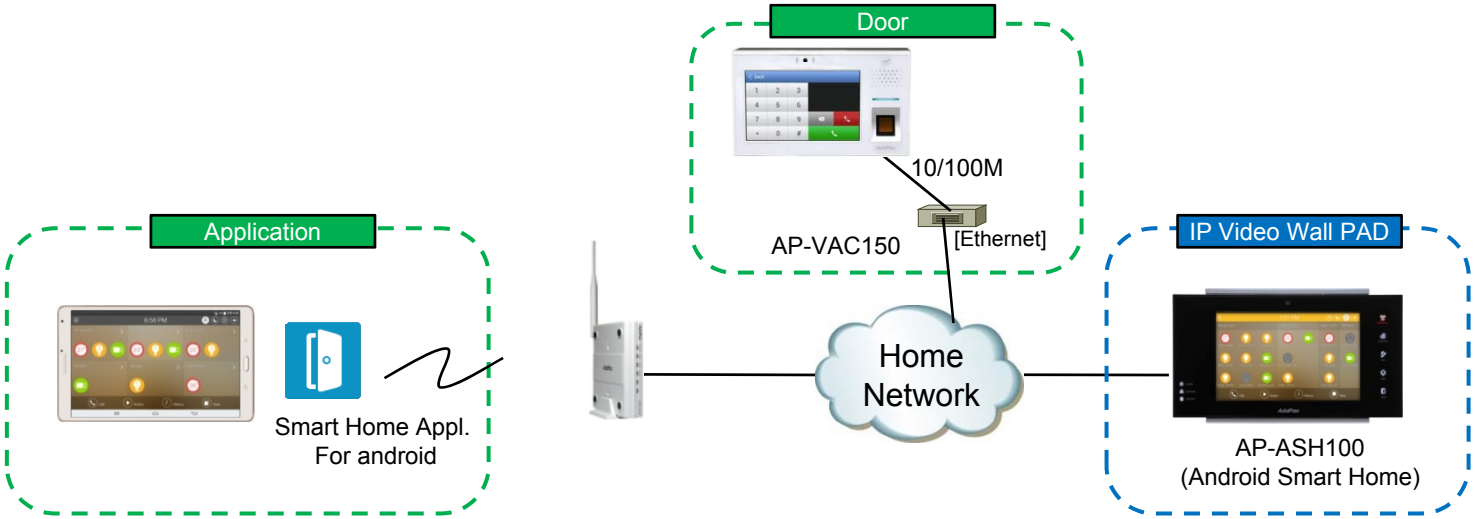
  - Voice Codec : G.711ulaw/alaw, G.726
  - Video Codec : H.264, H.263. MPEG4

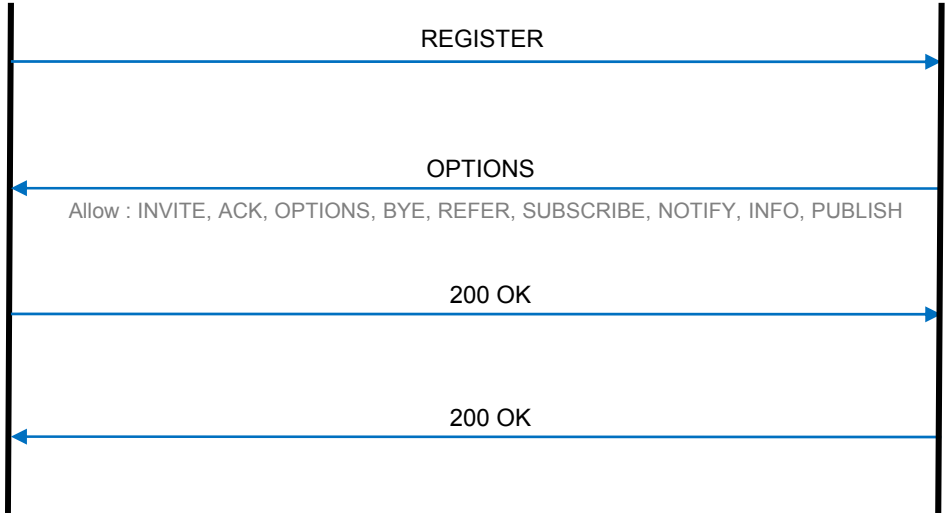
AP-ASH100 Network Service Diagram



SIP Register

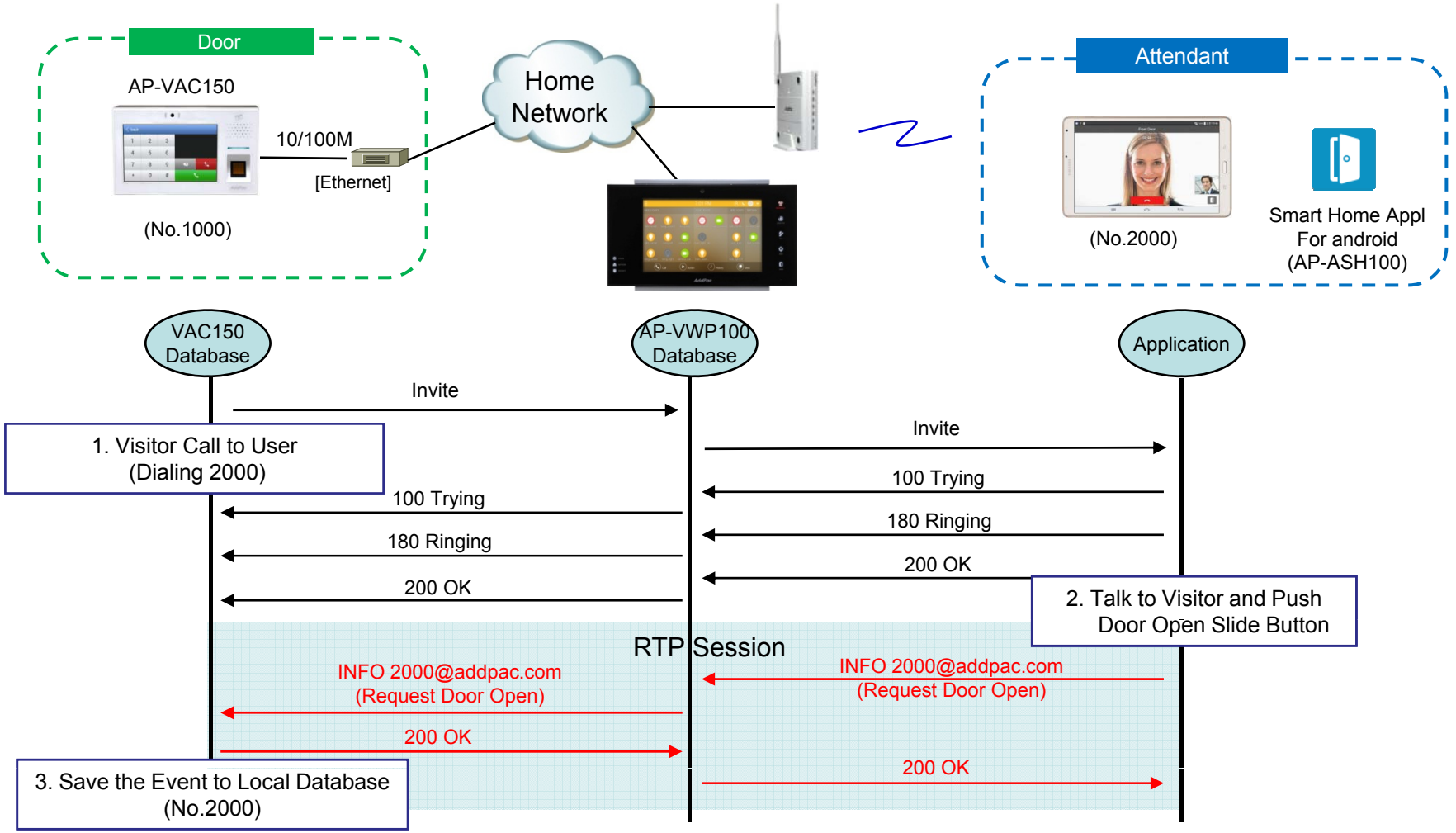
Smart Home Application Register to AP-ACS1000





SIP Video Call Flow

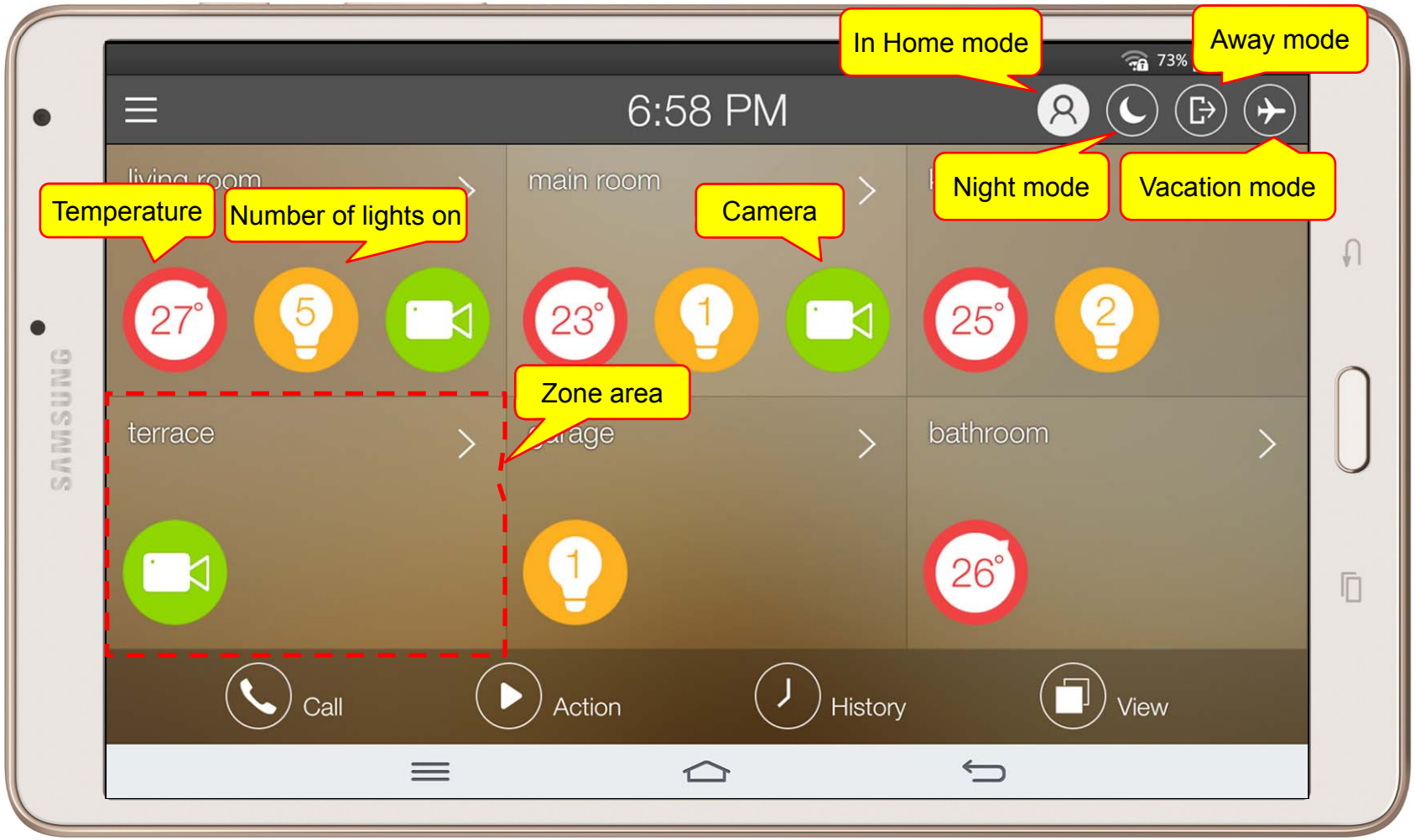
Door Open Flow



UI examples Lists

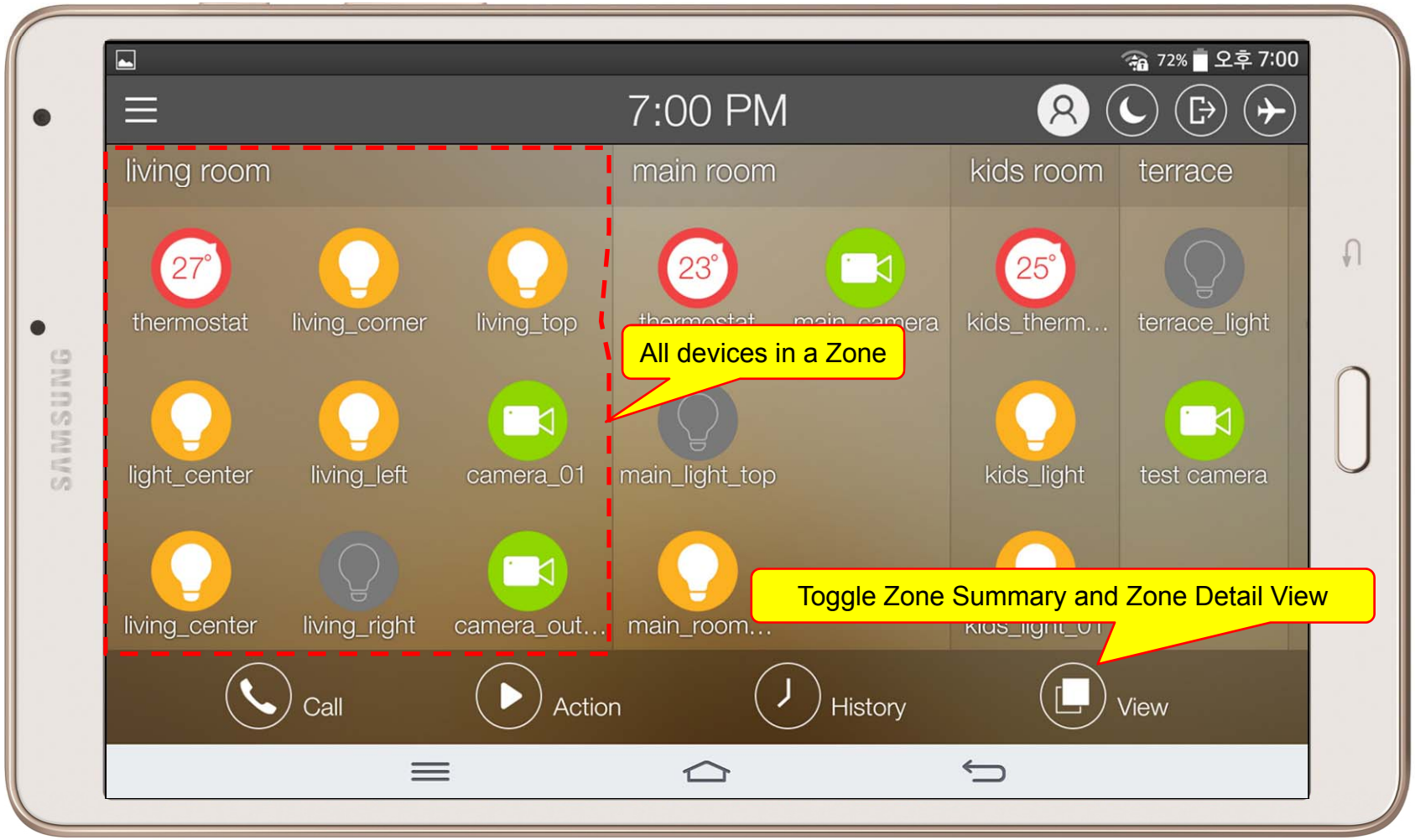
- Main View (Zone Summary)
- Armed Mode (Away, Stay, Night)
- Short View
- Zone View
- Zone Setting and Configuration
- IP Camera View Mode (Home, Outside Home)
- Call View (Favorite Call, Recent Call, Phone Book, etc)
- Video Call View
- Sensor Control View (Ex: Light Control, Thermostat, etc)
- Sensor Control View (Action, Mode, Alert, etc)

Main View (Zone Summary)

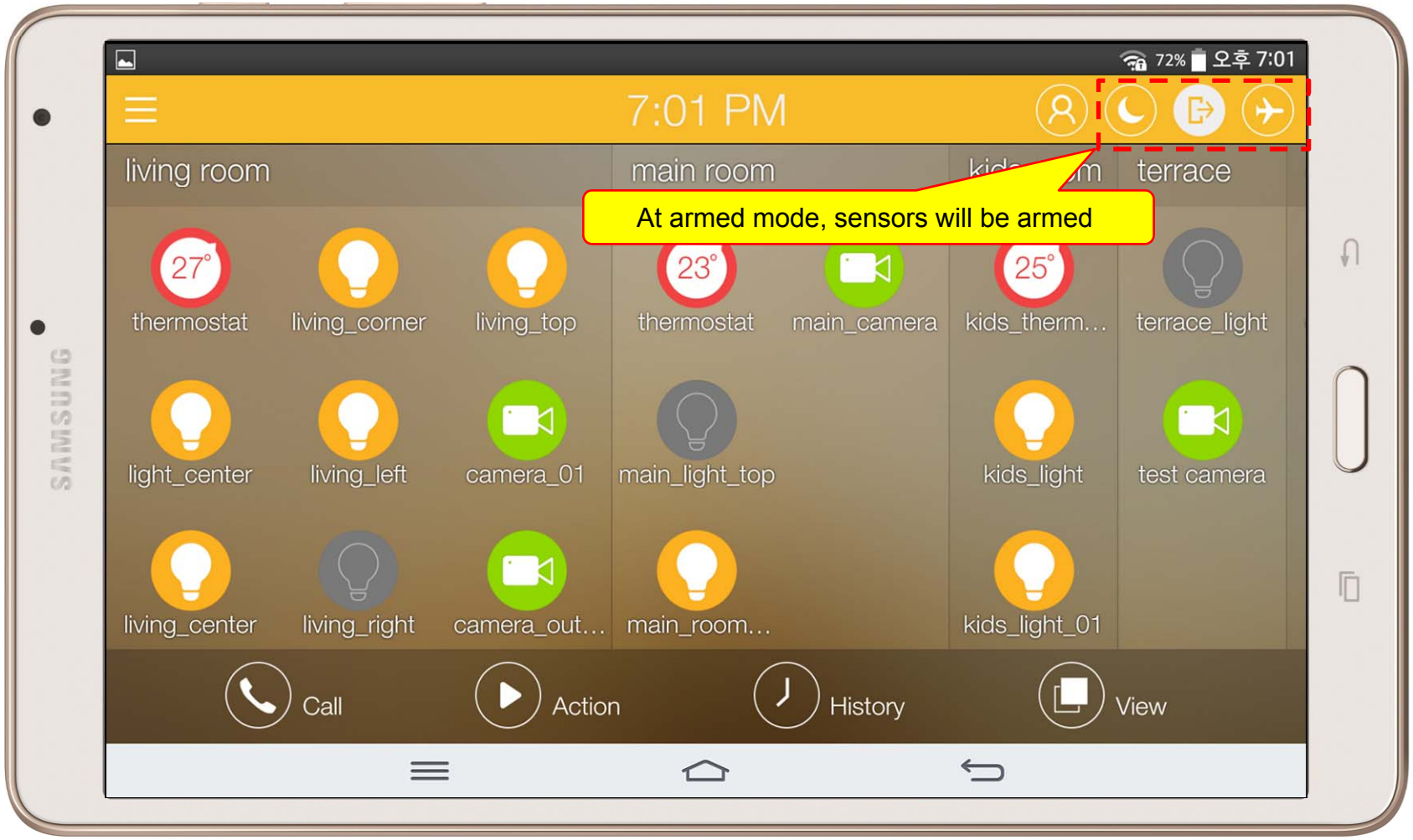


Main View (Cont.)

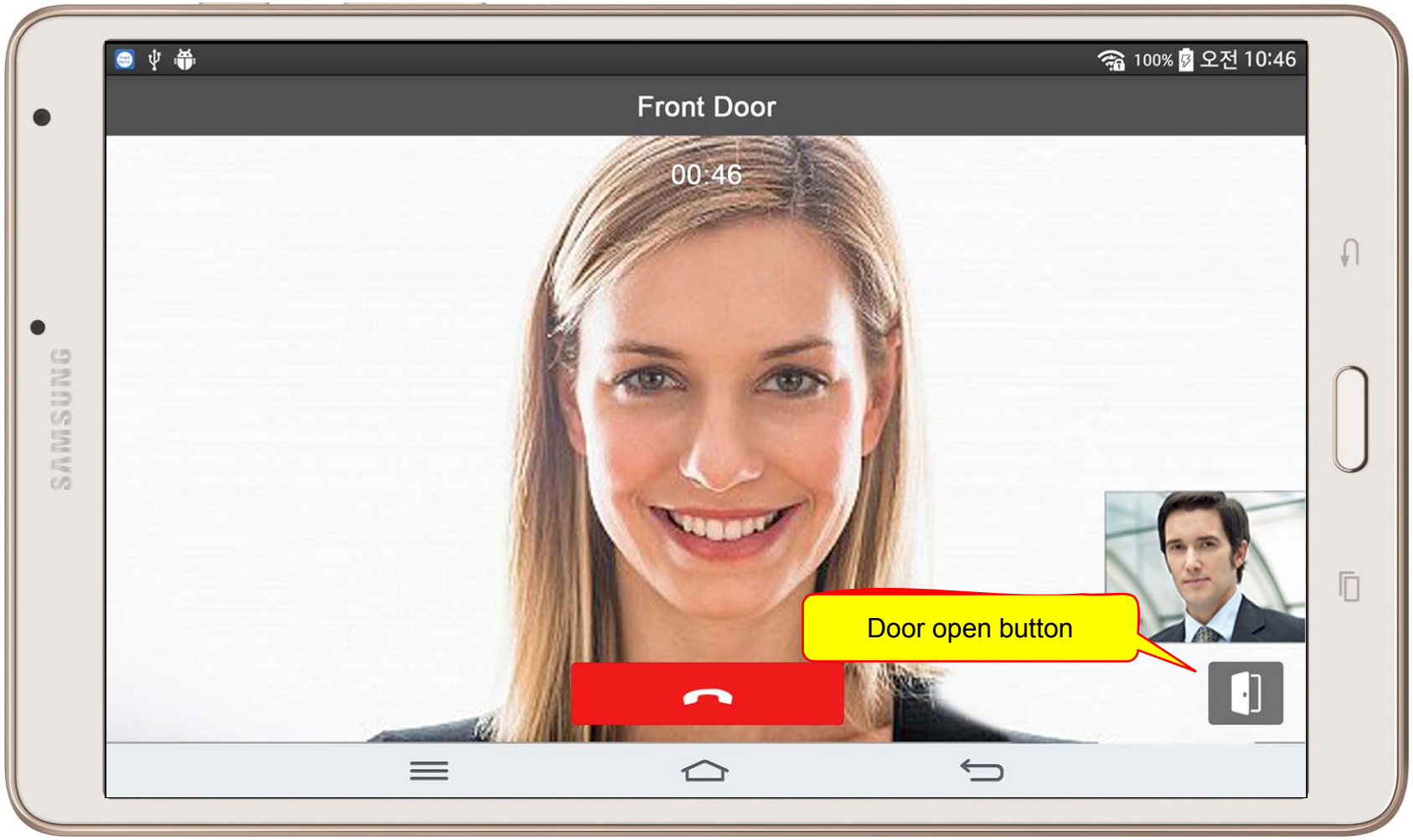
Main View (Zone Detail)



Armed Mode


72% 오후 7:01
7:01 PM
living room
main room
terrace
At armed mode, sensors will be armed
27°
thermostat
living_corner
living_top
23°
thermostat
main_camera
25°
kids_therm…
terrace_light
light_center
living_left
camera_01
main_light_top
kids_light
test camera
living_center
living_right
camera_out…
main_room…
kids_light_01
Call
Action
History
View
SAMSUNG

Video Call View



Thank you!

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