

AP-VAC20N

IP Video Intercom

High Performance SIP Video Intercom Solution



AddPac

AddPac Technology

Sales and Marketing

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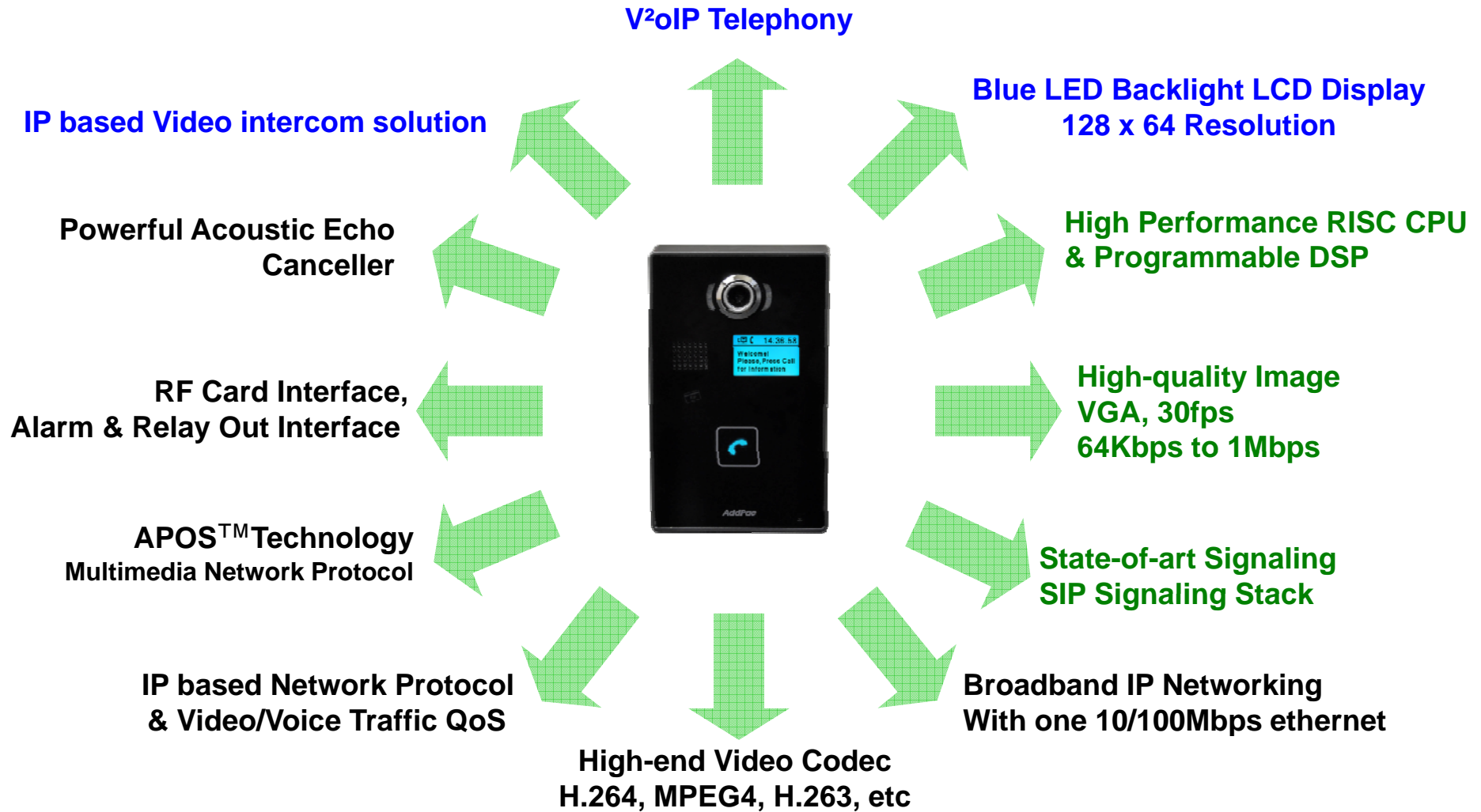
Product Overview

AP-VAC20N IP Video Intercom

- High Performance SIP Video Intercom Solution
- Video Camera, Internal MIC & Speaker
- Blue LED Backlight LCD, 128 x 64 Display Resolution
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
 - H.264/MPEG4/H.263, 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
- **Die-casting Frame Chassis : Option***

Product Highlights

AP-VAC20N IP Video Intercom

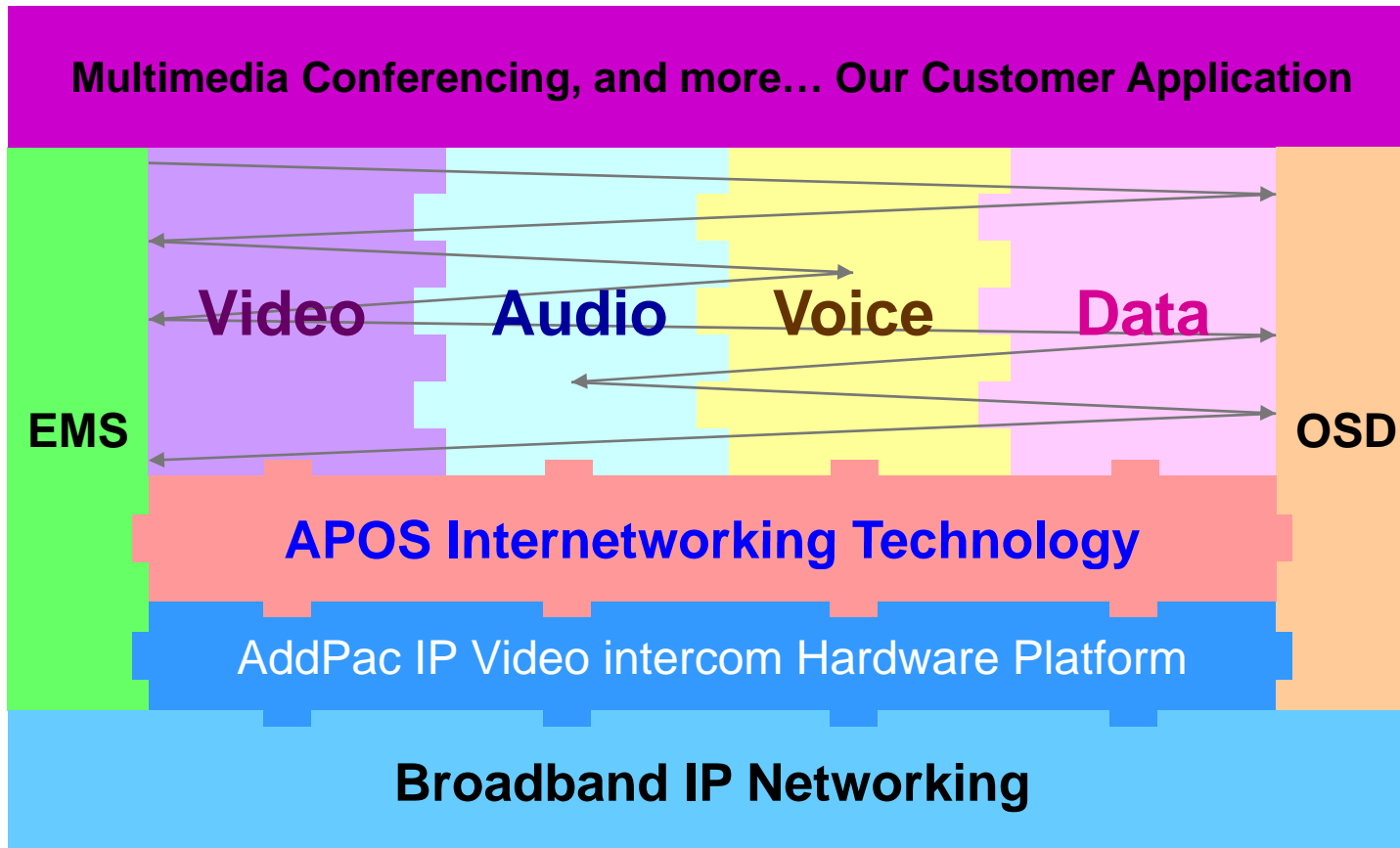


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Multimedia Service

AP-VAC20N IP Video Intercom



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

Hardware Specification

AP-VAC20N IP Video Intercom

RISC
CPU

High-end
DSP

- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
 - Internal MIC
 - Internal Speaker
 - Option : 3 x 4 key PAD or Single One Touch Dial Button
- Video Camera Interface
- Blue LED Backlight LCD Interface
 - 128 x 64 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)
- Power Supply
 - Power over Ethernet (Option)
 - External Power Supply

Hardware Specification

AP-VAC20N IP Video Intercom

RISC
CPU

High-end
DSP

- **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-VAC20N IP Video Intercom

RISC
CPU

High-end
DSP

- **LCD Controller**
 - Display Type : FSTN, Positive
 - Built-in Controller : ST7567
 - Blue LED Backlight
 - Active Area : 35.48(W) x 22.38(H)
 - Number of Dots : 128 x 64
- **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-VAC20N IP Video Intercom

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



RF Card Sensor

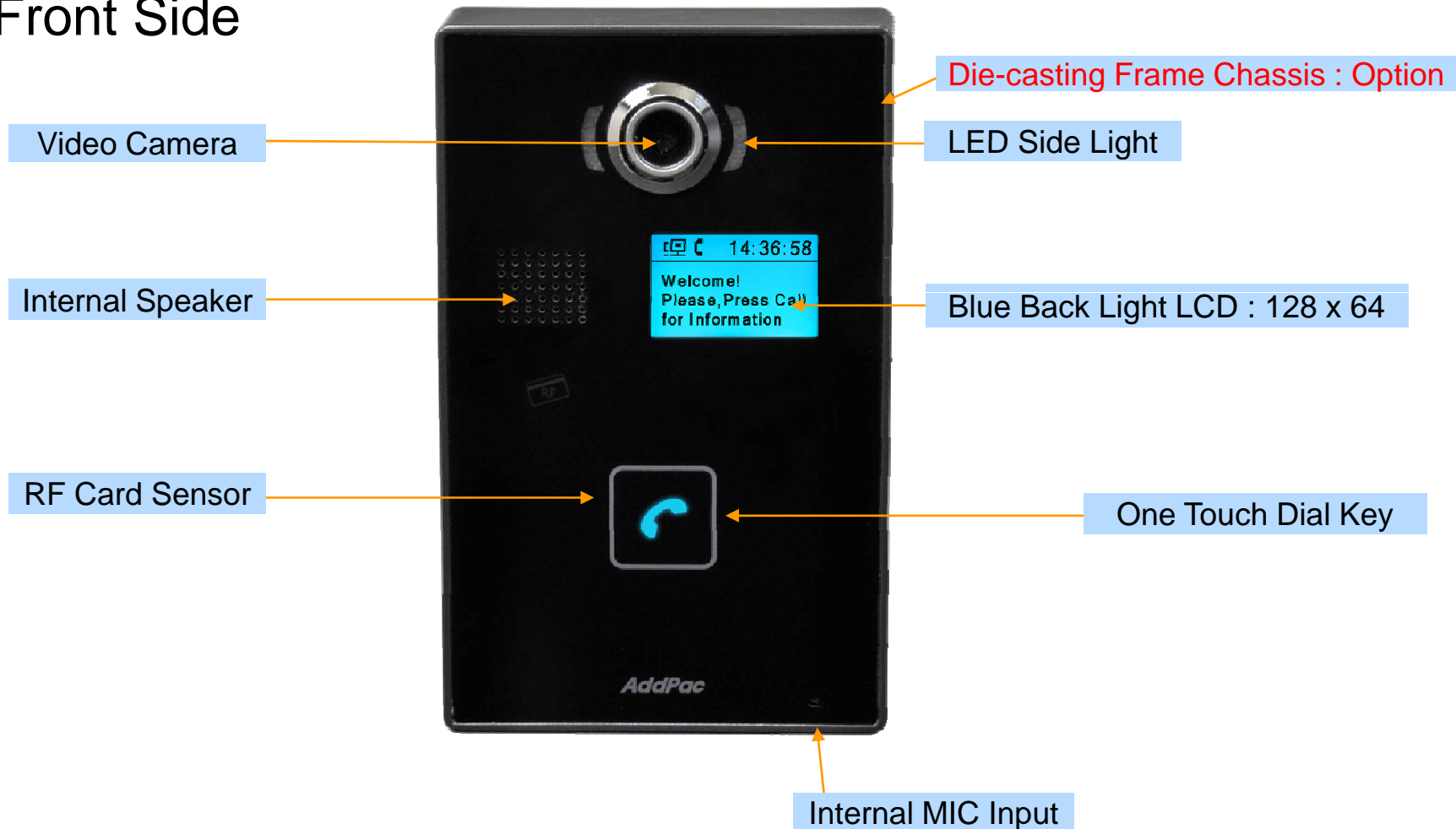
Hardware Specification

AP-VAC20N IP Video Intercom

RISC
CPU

High-end
DSP

Front Side



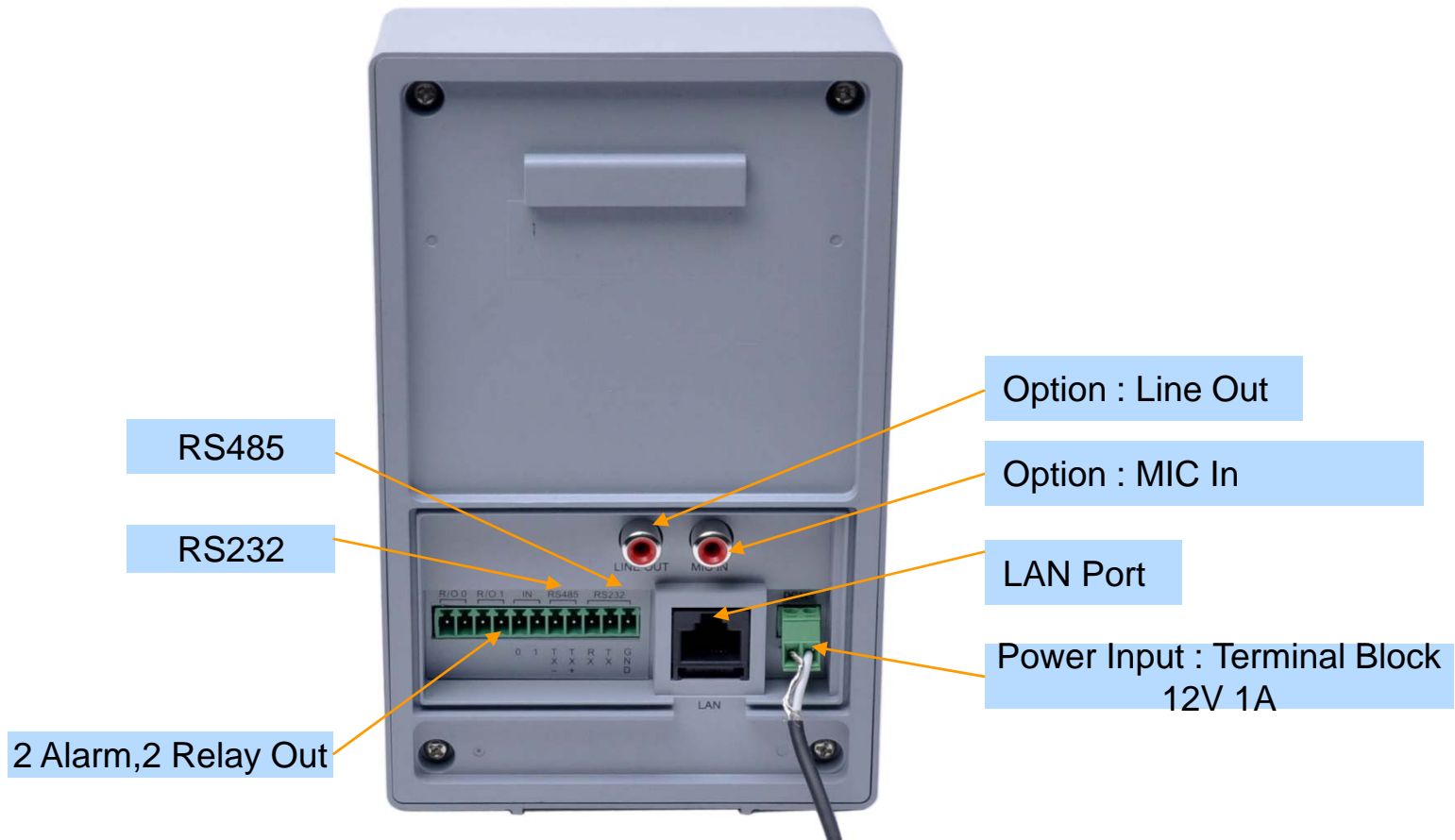
Hardware Specification

AP-VAC20N IP Video Intercom

RISC
CPU

High-end
DSP

Back Side



Hardware Specification

AP-VAC20N IP Video Intercom

RISC
CPU

High-end
DSP

Back Side



Wall Mount Bracket

Rubber Cover for light waterproof

Hardware Specification

AP-VAC20N IP Video Intercom

RISC
CPU

High-end
DSP

Power Supply

Terminal Block



12V 1A Power Adaptor

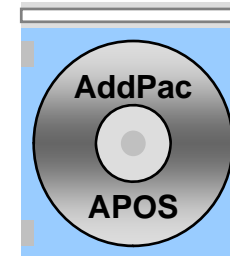
Example



Software Service

AP-VAC20N IP Video Intercom

- **Built-in AddPac 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 DSP Architecture**
- **OSD (On-screen Display) Function Support**
- **Industry Standard IP based Network Protocol Features**



Video Service and Features

AP-VAC20N IP Video Intercom

- **High-performance Video Codec Support**
 - H.264, MPEG4, H.263, etc
- **Image Resolution Support**
 - Video Encoding : VGA(640x480), QVGA(320x240)
- **Up to 30fps with VGA Resolution**
- **128Kbps to 1Mbps Operating Video Traffic Bandwidth**
- **Rate Control for Video Traffic QoS**
 - Ensuring Optimized Quality
 - Frame Rate with Limited Bandwidth
- **High-end Error Resilient Against Various Packet Error**

Audio & Voice Service and Features

AP-VAC20N IP Video Intercom

- **Audio & Voice Networking Interface**
 - External Audio Line-Out Interface (RCA Connector)
 - External Audio MIC-In Interface (RCA Connector)
- **VoIP based Signaling Protocol Support**
 - SIP Signaling Protocol Stack
- **High-performance Audio & Voice Codec Support**
 - G.711, G.726 Audio Codec
- **Enhanced QoS Management Features for Voice Traffics**



Smart Web Manager (Example)

Smart Web Manager

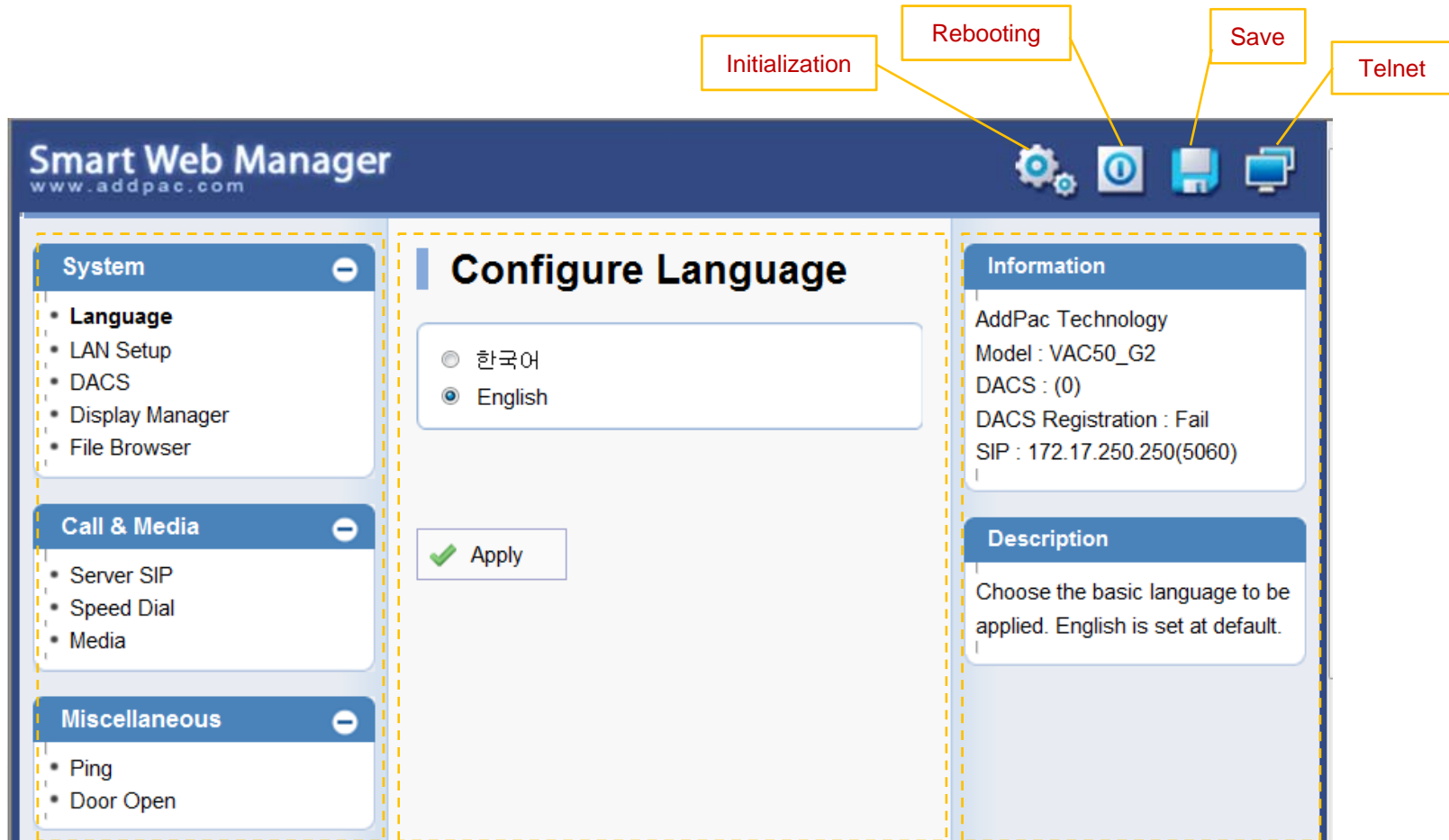
AP-VAC20N IP Video Intercom

- Main Screen
- System
 - Language
 - LAN Setup
 - DACS
 - Display
 - File Browser
- SIP Call & Media
 - SIP (Session Initiation Protocol)
 - Speed Dial
 - Media
- Miscellaneous
 - Door Control and Test
 - Network Test



Smart Web Manager : Main Screen

AP-VAC20N IP Video Intercom



Menu Tree

Output Screen after
Menu Select

System Information and
Help Message

Smart Web Manager : SIP configuration

AP-VAC20N IP Video Intercom

SIP (Session Initiation Protocol)

SIP server check if exist.

SIP Basic Information Display

Telephone Line Number and Password Configuration
Same Information is used when DACS is connected

Use SIP Server	<input checked="" type="radio"/> Yes <input type="radio"/> No
Primary SIP Server	<input type="text" value="172.17.250.250"/> <input type="text" value="5060"/> Server address and Port (default 5060)
Secondary SIP Server	<input type="text"/> <input type="text" value="5060"/> Server address and Port (default 5060)
Local Domain Name	<input type="text"/> (SIP userpart of authentication)
SIP Signaling Port	<input type="text" value="5060"/> (default 5060, between 1 to 65535)
Register Expiration	<input type="text" value="60"/> (in seconds, default 60, between 10 to 86400)
Session Re-Fresh	<input checked="" type="radio"/> INVITE <input type="radio"/> UPDATE
Session Expire Time	<input type="text" value="1800"/> (in seconds, default 1800, between 30 to 86400, 0 = disable)
Min-SE	<input type="text" value="1800"/> (in seconds, default 1800, between 30 to 86400)
Extension	<input type="text" value="1020"/> <input type="text"/> Extension Number, Password

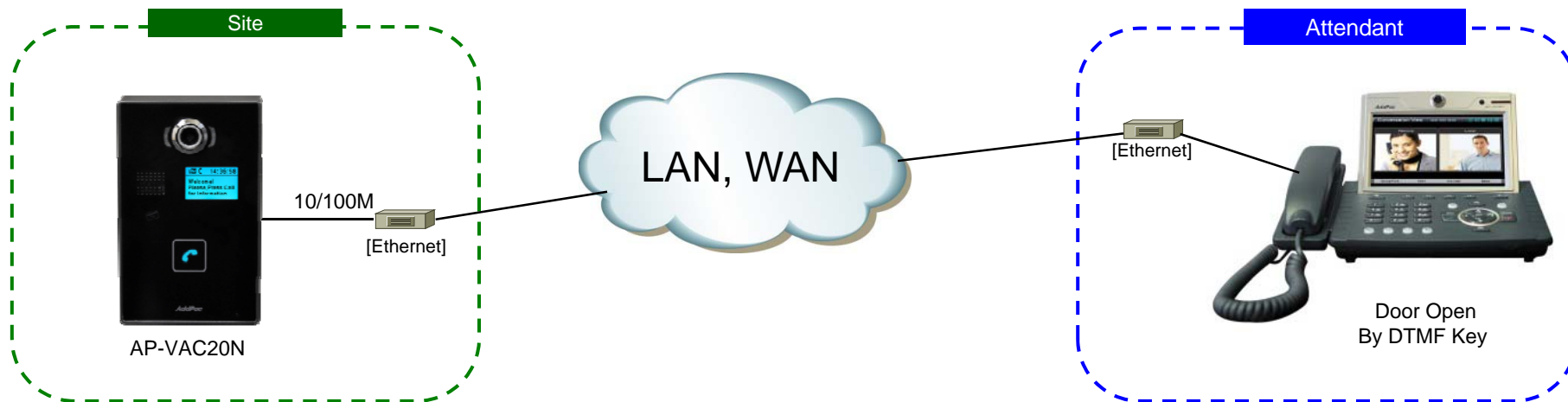
AP-VAC20N IP Video Intercom

Application Area

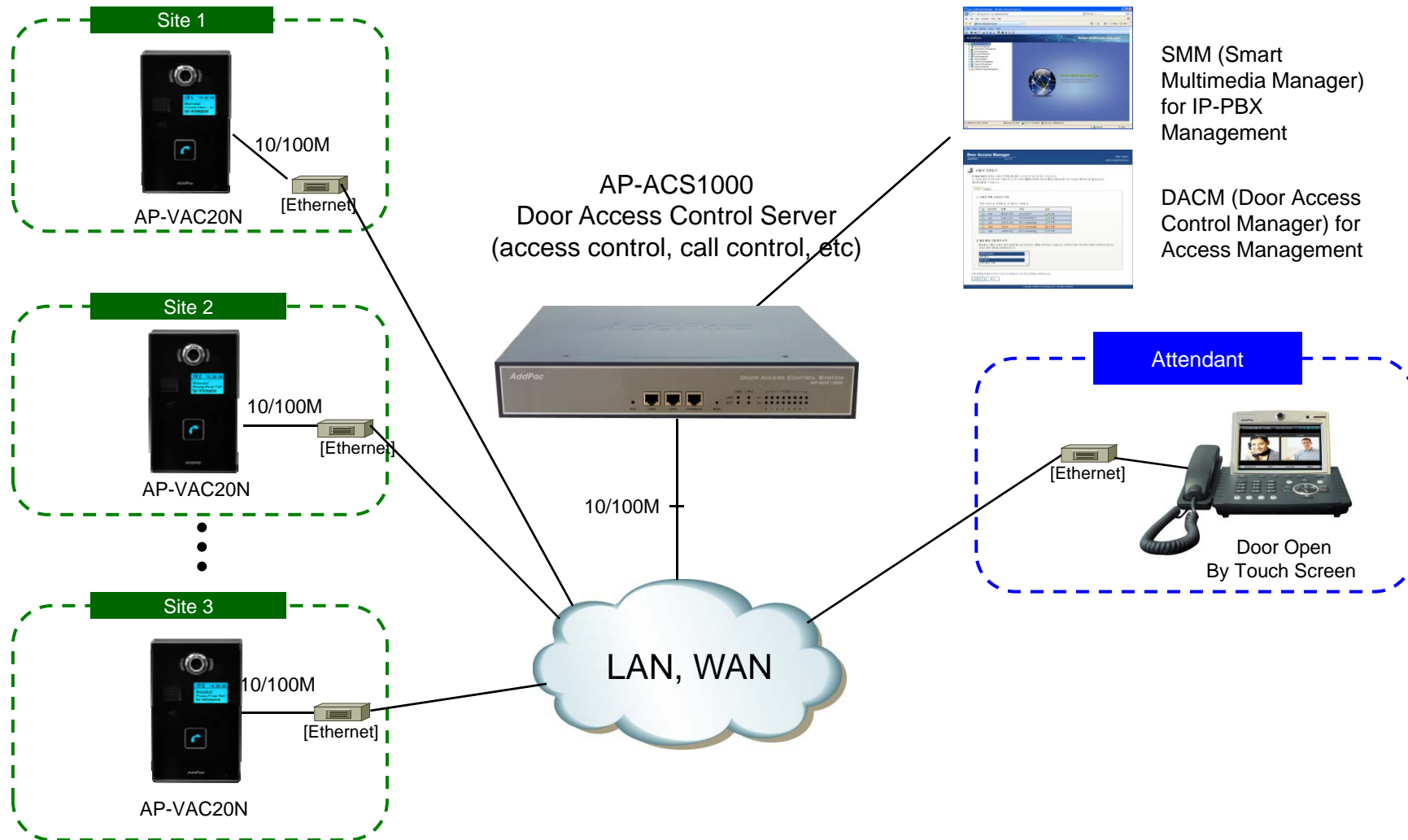
- Point-to-Point Application (Simple Application)
- Point-to-Multipoint Application
 - All AddPac Solution
(Call Manager + Door Access Control Server)
 - Legacy IP-PBX Environment



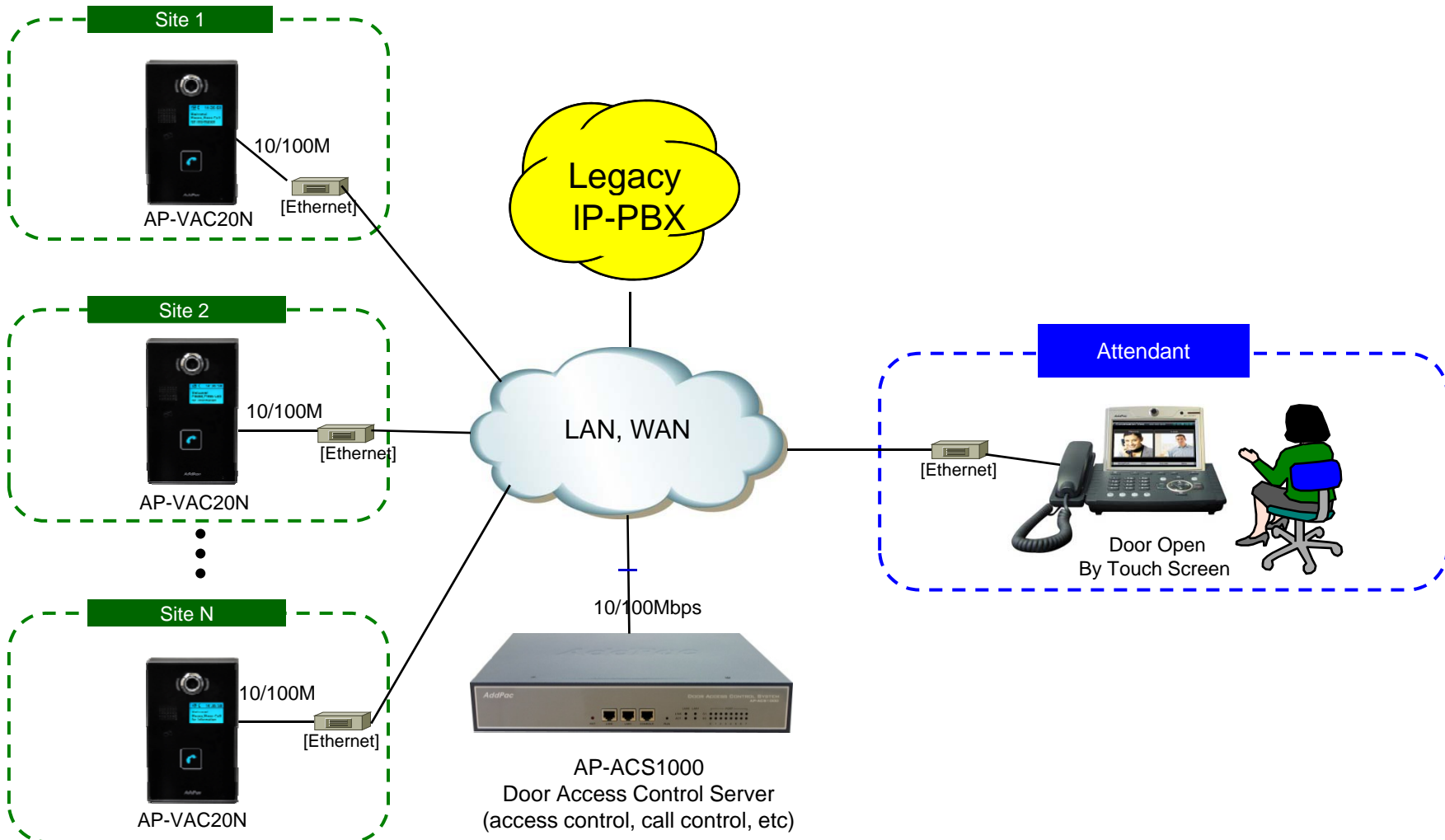
Point-to-Point Connection (Simple Appl.)



Integrated Door Access Control and Call Control (All AddPac Solution)



Legacy IP-PBX Environment



Ordering Information

- **AP-VAC20N IP Video Intercom Hardware**
 - AP-VAC20N IP Video Intercom Main Body
 - RISC Microprocessor with High-end Programmable DSP Architecture
 - Blue LCD, Built In Camera, Side Light
 - Internal MIC, Internal Speaker
 - 1-ports 10/100Mbps Fast Ethernet
 - PoE Interface
 - Including Network Cable Set & Ext. Power Supply, etc.
 - Option : Die-casting Frame Chassis*, One Touch Dial Key
- **Built-in APOS Internetworking Software for AP-VAC20N**
- **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!

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