

# AP-NRC100

## Network RF Controller for Smart Transportation

High Performance Network RF Controller Solution for Car Entrance



### Preliminary Product Overview

(Without notice, following described technical spec. can be changed)

# **AddPac**

## **AddPac Technology**

2014, Sales and Marketing

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

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# Product Overview

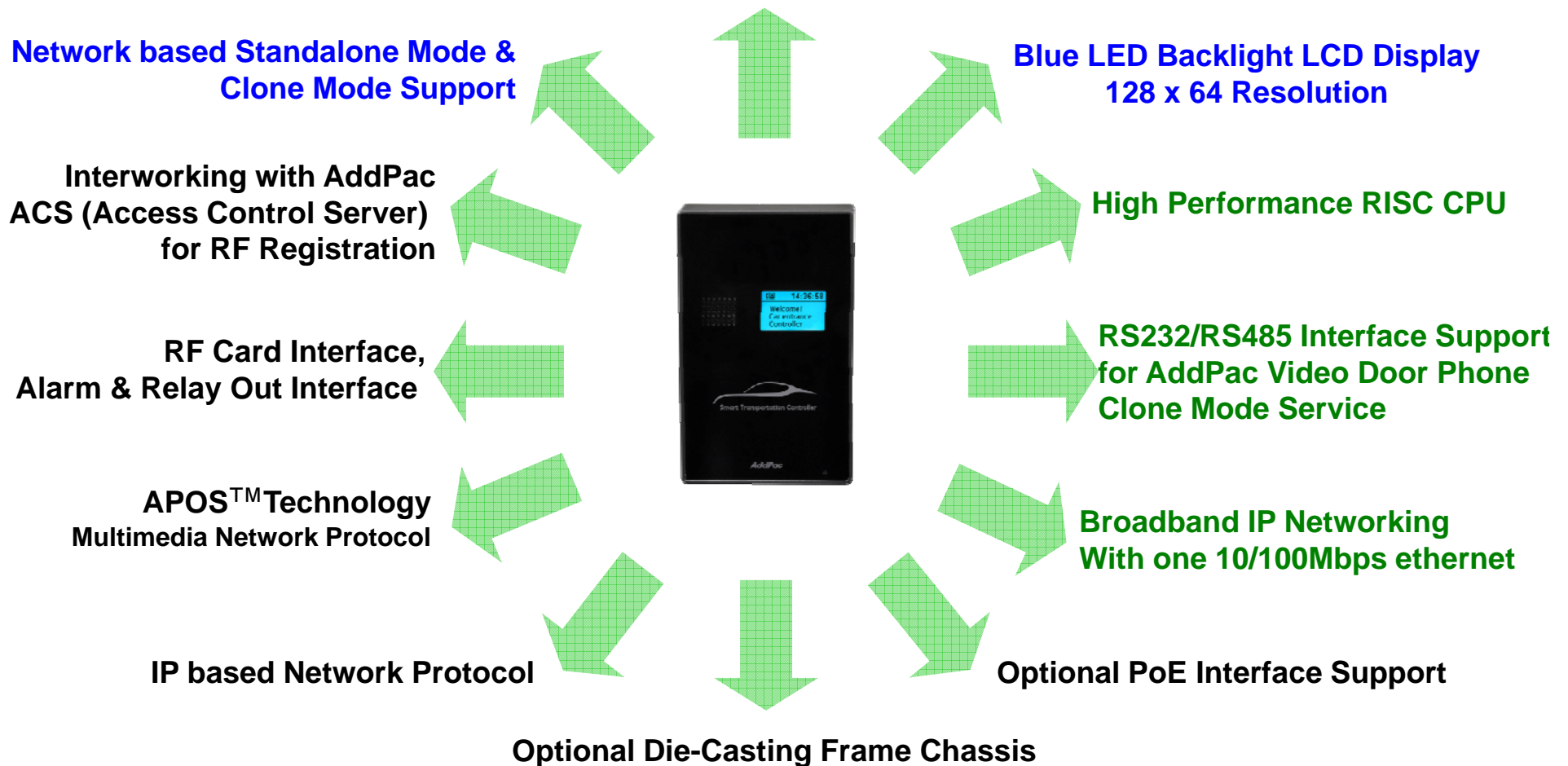
## AP-NRC100 Network RF Controller for Smart Transportation

- High Performance RF Controller Solution for Smart Transportation
- Network(LAN) RF Controller Solution : Standalone Mode
- RS232/RS485 Interface Support for AddPac IP Video Door Phone Interworking : Clone Mode
- Interworking with AddPac ACS(Access Control Server) for RF Registration
- RF Controller Interface using high performance external UHF antenna
- Internal Speaker
- Blue LED Backlight LCD, 128 x 64 Display Resolution
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism
- **Die-casting Frame Chassis : Option\***

# Product Highlights

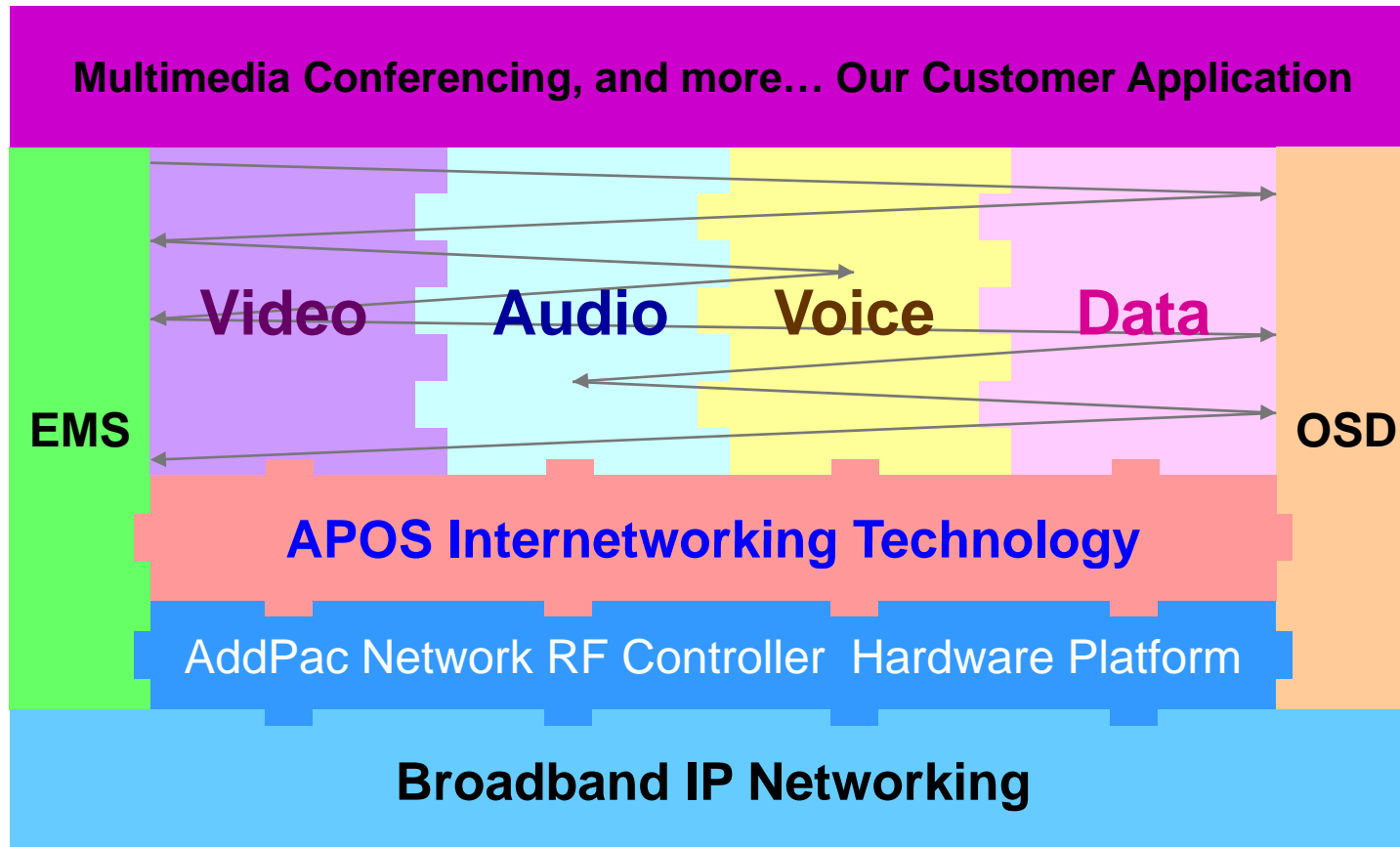
AP-NRC100 Network RF Controller for Smart Transportation

## Network based RF Controller using External UHF Antenna



# Multimedia Service

AP-NRC100 Network RF Controller for Smart Transportation



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

# Hardware Specification

AP-NRC100 Network RF Controller for Smart Transportation



RISC  
CPU

RF  
Module

- RISC Microprocessor Computing Power
- Audio and Voice Interface
  - Internal Speaker
- Blue LED Backlight LCD Interface
  - 128 x 64 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- RF Interface for Car Entrance Control
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- Power Supply
  - Power over Ethernet (Option)
  - External Power Supply
- Steel Chassis : Option

# Hardware Specification

AP-NRC100 Network RF Controller for Smart Transportation

RISC  
CPU

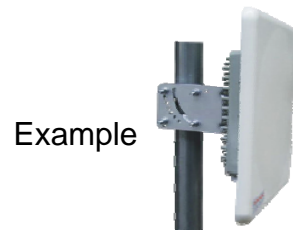
- **LCD Controller**
  - Display Type : FSTN, Positive
  - Built-in Controller : ST7567
  - Blue LED Backlight
  - Active Area : 35.48(W) x 22.38(H)
  - Number of Dots : 128 x 64
- **Speaker**
  - Impedance : 8 +-15%ohm at 1kHz, 1.0 Vrms
  - Sound Pressure : 90 +- 3dB at 0.1W/10 CM  
at 800Hz, 1.0kHz, 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
- **PoE(Power over Ethernet)**
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

# Hardware Specification

## AP-NRC100 Network RF Controller for Smart Transportation



- Smart Transportation Interface (Car Entrance Control Interface)
  - Protocol Supported
    - ISO18000-6C, EPC class1 Gen 2
  - RF Specification
    - Frequency Range 860~960 MHz
    - Modulation System PR-ASK
    - Kind of antenna Circular Polarization Antenna
    - Air Protocol ISO18000-6C, EPC Global Class1 GEN
    - Type FHSS
    - Read Range <5m (dependent on reader placement and Tag type)
    - Channel Number 6 Channel



Example

External UHF Antenna Interface



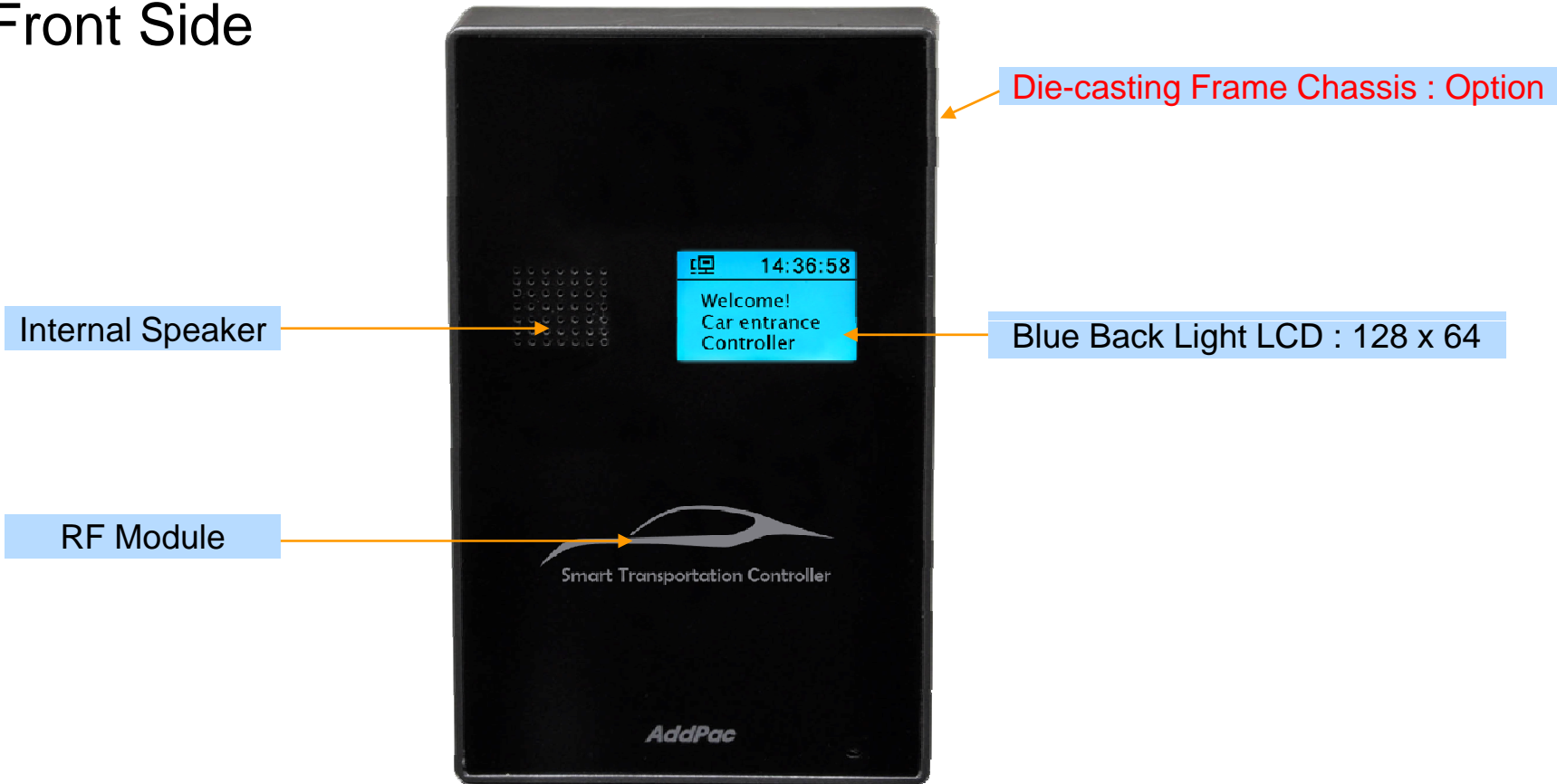


# Hardware Specification

AP-NRC100 Network RF Controller for Smart Transportation



## Front Side

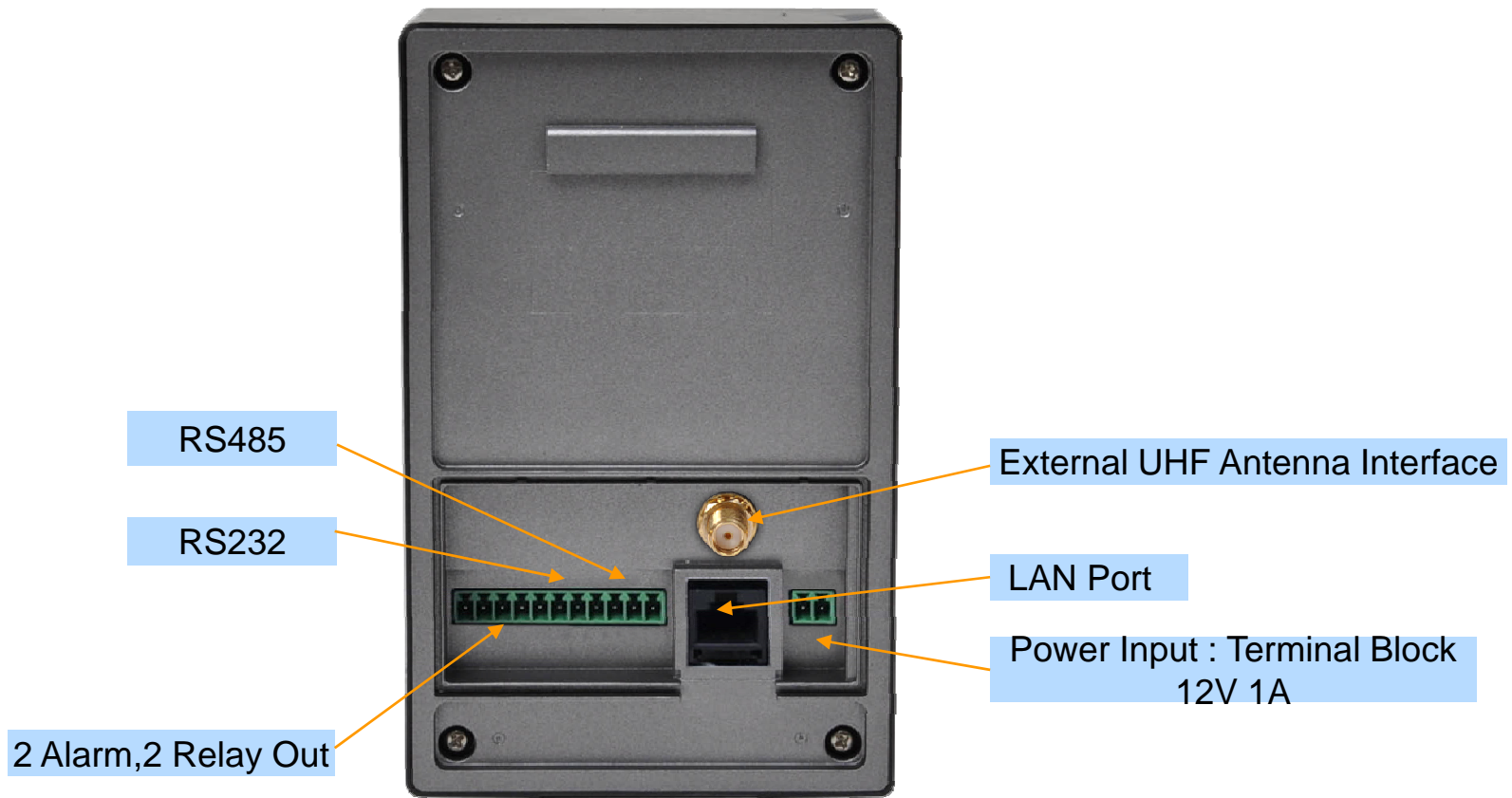


# Hardware Specification

AP-NRC100 Network RF Controller for Smart Transportation

RISC  
CPU

## Back Side

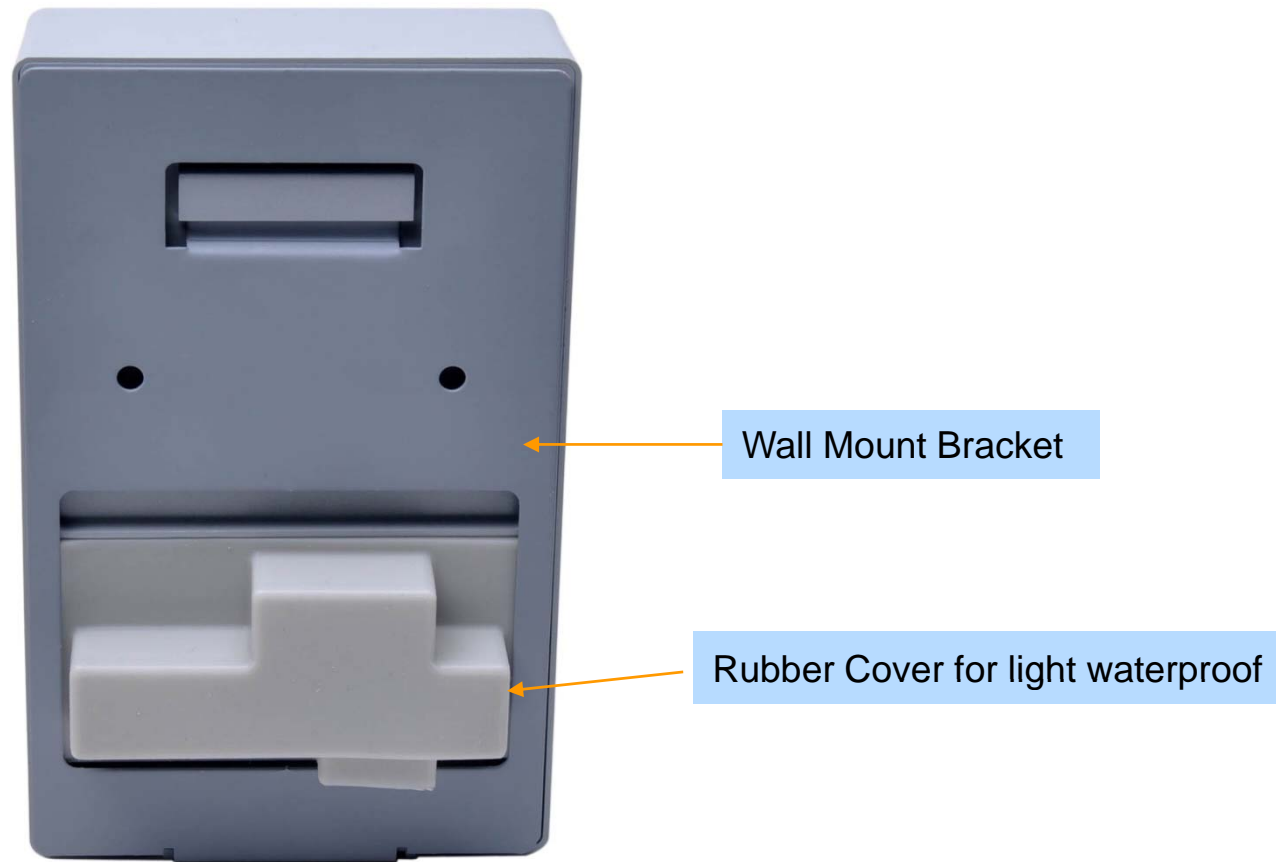


# Hardware Specification

AP-NRC100 Network RF Controller for Smart Transportation

RISC  
CPU

Back Side



# Hardware Specification

AP-NRC100 Network RF Controller for Smart Transportation

RISC  
CPU

High-end  
DSP

## Power Supply

Terminal Block



12V 1A Power Adaptor

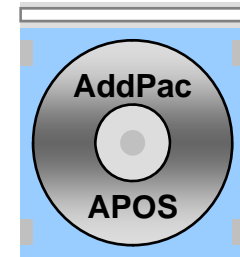
Example



# Software Service

## AP-NRC100 Network RF Controller for Smart Transportation

- Built-in AddPac APOS Internetworking Software
  - Scalability, Functionality, and Stability Features
- Firmware Upgradeable DSP Architecture
- Network RFID Control Function Support
- RS232/RS485 based RFID Control Function Support
  - : AddPac Video Door Phone Clone Mode Service
- Industry Standard IP based Network Protocol Features





# Smart Web Manager (Example)

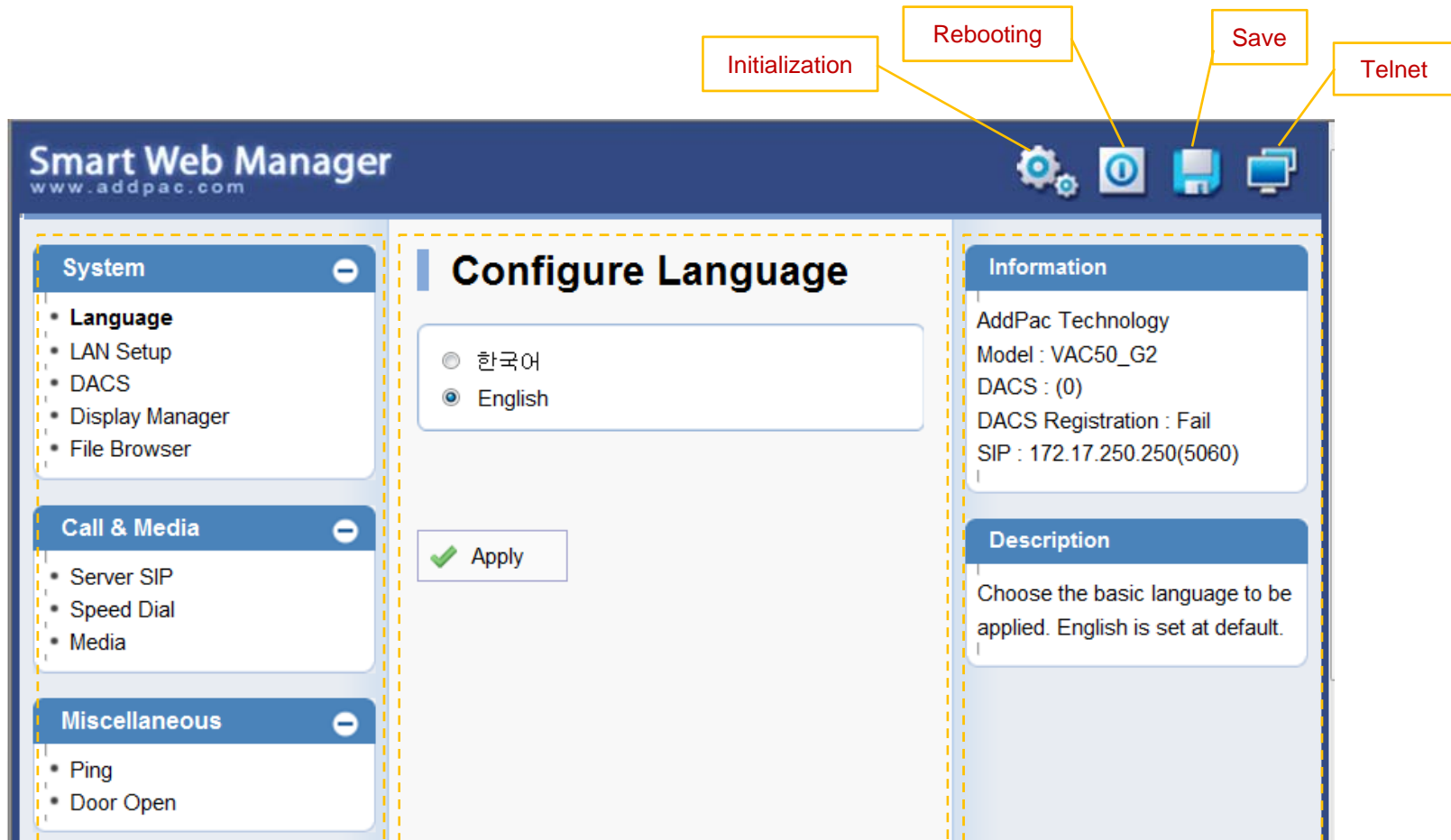
# Smart Web Manager

AP-NRC100 Network RF Controller for Smart Transportation

- Main Screen
- System
  - Language
  - LAN Setup
  - DACS
  - Display
  - File Browser
- Miscellaneous
  - Door Control and Test
  - Network Test

# Smart Web Manager : Main Screen

AP-NRC100 Network RF Controller for Smart Transportation



Menu Tree

Output Screen after  
Menu Select

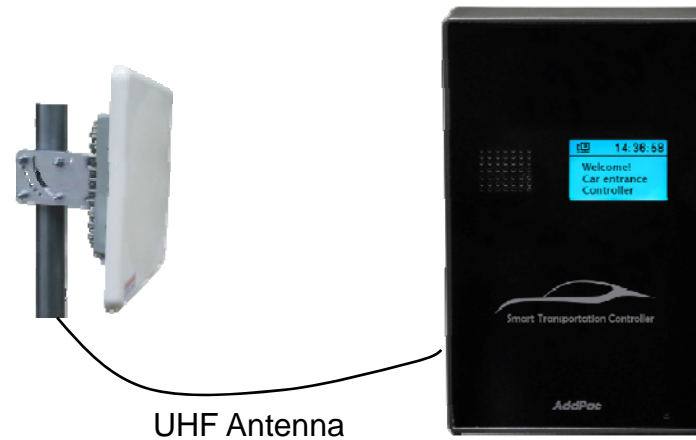
System Information and  
Help Message



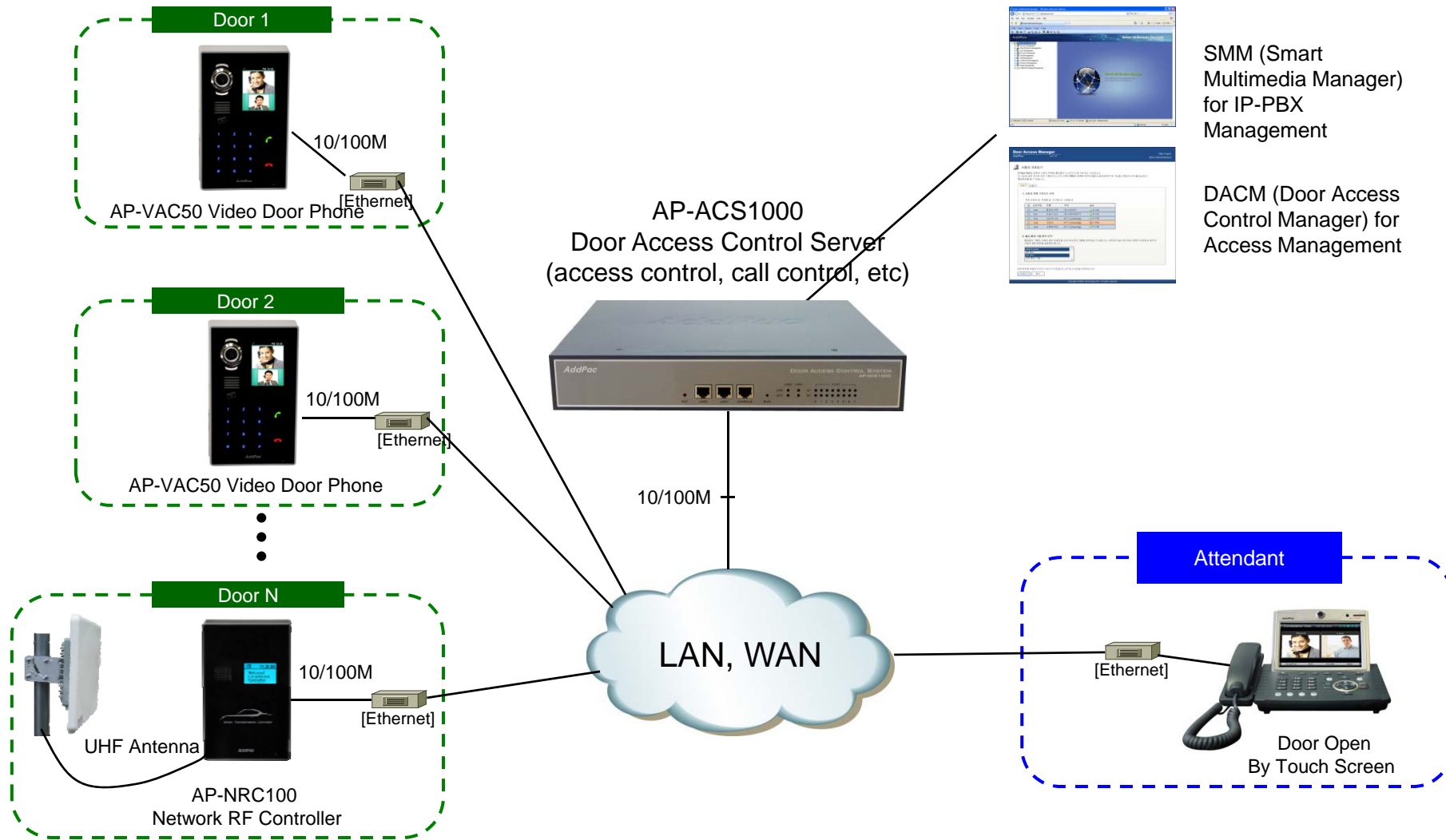
# AP-NRC100 Network RF Controller

## Application Area

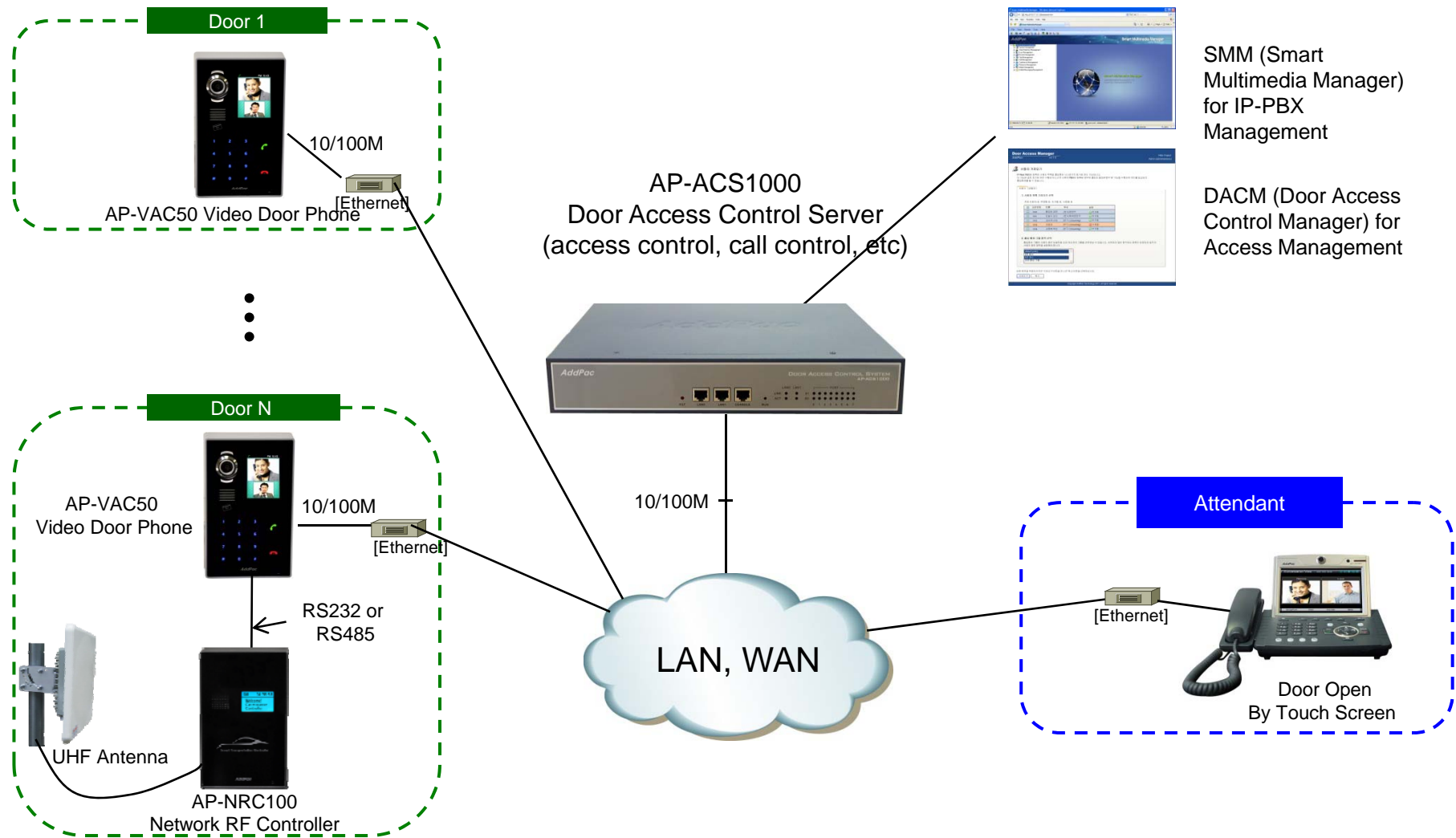
- RF Controller Stand-alone Mode
- RF Controller Video Door Phone Clone Mode



# Integrated Door Access Control and Call Control (standalone mode)



# Integrated Door Access Control and Call Control (clone mode)



# Ordering Information

- **AP-NRC100 Network RF Controller Hardware**
  - AP-NRC100 Network RF Controller Main Body
  - RISC Microprocessor Programmable Architecture
  - Blue LCD
  - Internal Speaker
  - 1-ports 10/100Mbps Fast Ethernet
  - Including Network Cable Set & Ext. Power Supply, etc.
  - Option : Die-casting Frame Chassis\*, PoE Interface
- **Built-in APOS Internetworking Software**
- **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](http://www.addpac.com)



# Thank you!

**AddPac Technology Co., Ltd.**  
Sales and Marketing

Phone +82.2.568.3848 (KOREA)

FAX +82.2.568.3847 (KOREA)

E-mail [sales@addpac.com](mailto:sales@addpac.com)