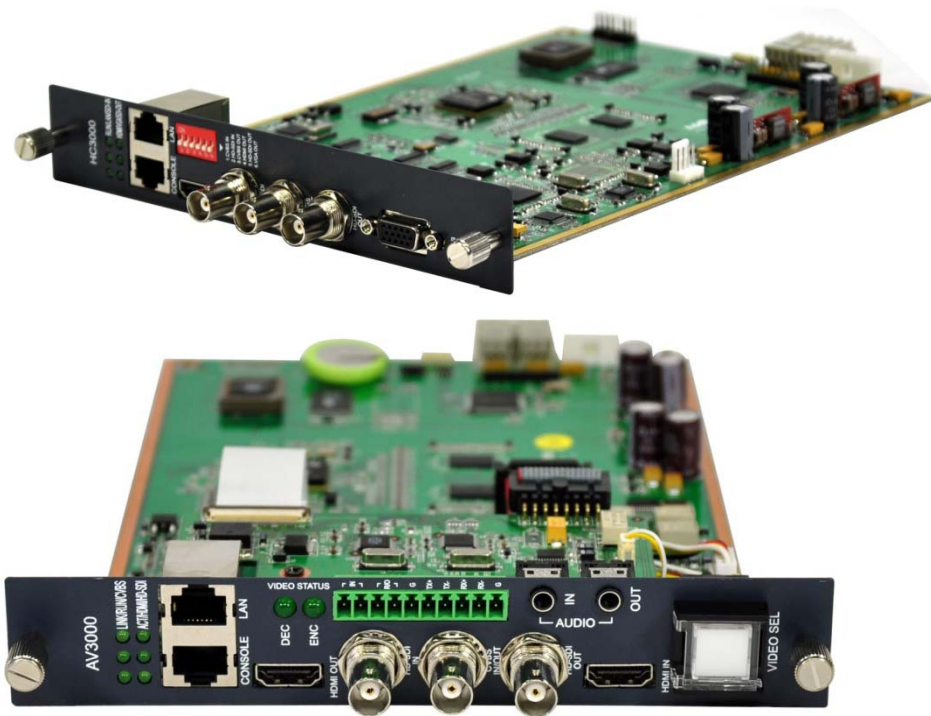


# HD Video Codec Solution for NVR



**AddPac**

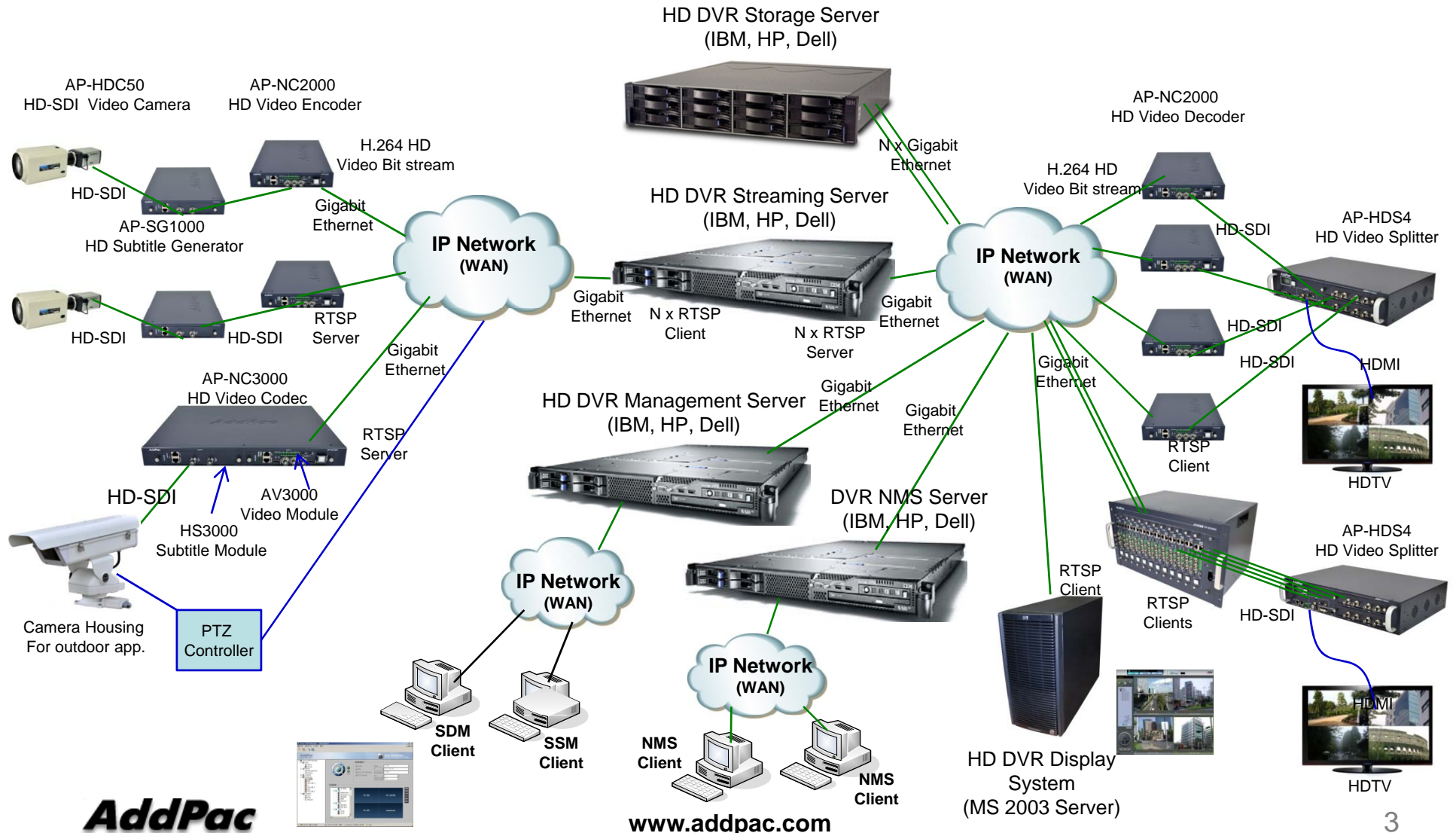
AddPac Technology

Sales and Marketing

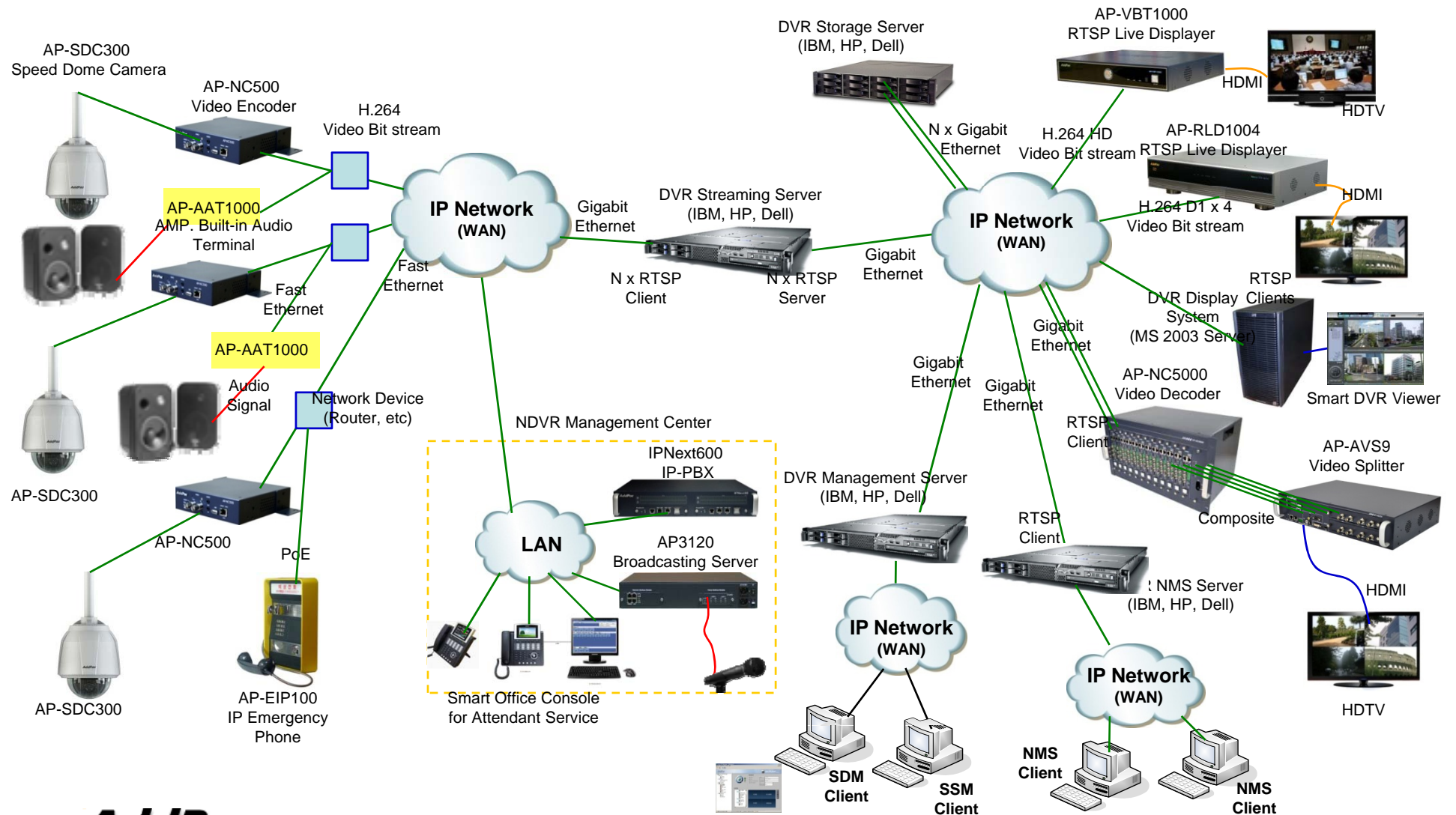
# Contents

- AddPac HD Network DVR Service Diagram
- AddPac D1 Network DVR Service Diagram
- HD Video Codec Platform
  - AP-NC5000 Ten(10) Video Module Slots
  - AP-NC3500 Four(4) Video Module Slots
  - AP-NC3000 Two(2) Video Module Slots
  - AP-NC2000 One(1) Video Module Slots(Internal Power Supply)
  - AP-NC2000D One(1) Video Module Slots(External Power Supply)
- Video Modules for HD Video Codec Platform
  - AV6000 Full HD Video Encoder/Decoder Module
  - AV3000 HD Video Encoder/Decoder Module
  - AV2000 D1 Video Encoder/Decoder Module
  - AV1800 D1 Video Decoder Module
  - HS3000 HD Subtitle Generator Module(HD-SDI)

# HD Network DVR Service Diagram








# D1 Network DVR Service Diagram






# HD Video Codec Platform

# HD Video Codec Platform Comparison Table

	AP-NC2000D	AP-NC2000	AP-NC3000	AP-NC3500	AP-NC5000
Model					
Module Slot	1 Module Slot	1 Module Slot	2 Module Slots	4 Module Slots	10 Module Slots
Power Supply	External Power Supply(DC)	Internal Power Module (AC)	Internal Power Module (AC)	Internal Power Module (AC)	Internal Power Module (AC)
Power Type	Power Adaptor	Built-In	Built-In	Module Type	Module Type



# AP-NC5000

## Multichannel HD Video Codec

# Main Features

## AP-NC5000 Multi-Channel HD Video Codec

- IP based Audio/Video Encoding/Decoding Solution
- Ten(10) Module Slots for HD Video Modules
- HD Video Encoder Modules
- HD Video Decoder Module
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Dual Power Supply Module for Redundancy
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection



# Hardware Specification

## AP-NC5000 Multi-Channel HD Video Codec

High-end  
**DSP**

- High-end Programmable DSP Hardware Architecture
- Ten(10) Video Module Slots
- HD Video Encoder/Decode Module (Ex : AV3000)
  - Network Interface
    - One(1) 10/100/1000Mbps Gigabit Ethernet
    - One(1) Console Port
  - Powerful Video Input/output Interface
    - HD-SDI, HDMI, Analog
  - High quality Audio and Voice Interface
    - Stereo Audio Input/Output Connector
  - Camera Control Interface
    - One(1) RS-232C, RS422, RS485 Interface for Camera Control
  - I/O Interface
    - 2 Alarm Input, 1 Relay
- Module Type Dual Power Supply

# Hardware Specification

AP-NC5000 Multi-Channel HD Video Codec

High-end  
DSP

AP-NC5000 Front View



Power Supply Module

HD Video Encoder Module



# AP-NC3500

## Multichannel HD Video Codec

# Main Features

## AP-NC3500 Multi-Channel HD Video Codec

- IP based Audio/Video Encoding/Decoding Solution
- Four(4) Module Slots for HD Video Modules
- HD Video Encoder Module
- HD Video Decoder Module
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Internal Power Supply
- Audio/Video Privacy Protection

# Hardware Specification

AP-NC3500 Multi-Channel HD Video Codec

High-end  
**DSP**

- High-end Programmable DSP Hardware Architecture
- Four(4) Video Module Slots
- HD Video Encoder/Decode Module (Ex : AV3000)
  - Network Interface
    - One(1) 10/100/1000Mbps Gigabit Ethernet
    - One(1) Console Port
  - Powerful Video Input/output Interface
    - HD-SDI, HDMI, Analog
  - High quality Audio and Voice Interface
    - Stereo Audio Input/Output Connector
  - Camera Control Interface
    - One(1) RS-232C, RS422, RS485 Interface for Camera Control
  - I/O Interface
    - 2 Alarm Input, 1 Relay
- Internal Power Supply

# Hardware Specification

AP-NC3500 Multi-Channel HD Network Video Codec

High-end  
**DSP**

AP-NC3500 Front Side View



HD Video Encoder Module


# Hardware Specification

AP-NC3500 Multi-Channel HD Network Video Codec

High-end  
**DSP**

## AP-NC3500 Back Side View





# AP-NC3000

## Two(2) Channel HD Video Codec



# Main Features

## AP-NC3000 Two(2) Channel HD Video Codec

- IP based Audio/Video Encoding/Decoding Solution
- Two(2) Module Slots for HD Video Modules
- HD Video Encoder Module
- HD Video Decoder Module
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Internal Power Supply
- Audio/Video Privacy Protection

# Hardware Specification

## AP-NC3000 Two(2) Channel HD Video Codec

High-end  
**DSP**

- High-end Programmable DSP Hardware Architecture
- Two(2) Video Module Slots
- HD Video Encoder/Decode Module (Ex : AV3000)
  - Network Interface
    - One(1) 10/100/1000Mbps Gigabit Ethernet
    - One(1) Console Port
  - Powerful Video Input/output Interface
    - HD-SDI, HDMI, Analog
  - High quality Audio and Voice Interface
    - Stereo Audio Input/Output Connector
  - Camera Control Interface
    - One(1) RS-232C, RS422, RS485 Interface for Camera Control
  - I/O Interface
    - 2 Alarm Input, 1 Relay
- Internal Power Supply

# Hardware Specification

AP-NC3000 Two(2) Channel HD Video Codec


High-end  
DSP

AP-NC3000 Front View



HD Video Encoder Module





# AP-NC2000

## One(1) Channel HD Video Codec

# Main Features

## AP-NC2000 One(1) Channel HD Video Codec

- IP based Audio/Video Encoding/Decoding Solution
- Single Slot for HD Video Modules
- HD Video Encoder Module
- HD Video Decoder Module
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Internal Power Supply
- Audio/Video Privacy Protection

# Hardware Specification

## AP-NC2000 One(1) Channel HD Video Codec

High-end  
**DSP**

- High-end Programmable DSP Hardware Architecture
- One(1) Video Module Slots
- HD Video Encoder/Decode Module (Ex : AV3000)
  - Network Interface
    - One(1) 10/100/1000Mbps Gigabit Ethernet
    - One(1) Console Port
  - Powerful Video Input/output Interface
    - HD-SDI, HDMI, Analog
  - High quality Audio and Voice Interface
    - Stereo Audio Input/Output Connector
  - Camera Control Interface
    - One(1) RS-232C, RS422, RS485 Interface for Camera Control
  - I/O Interface
    - 2 Alarm Input, 1 Relay
- Internal Power Supply

# Hardware Specification

AP-NC2000 One(1) Channel HD Video Codec

High-end  
**DSP**

AP-NC2000 Front View



HD Video Encoder Module





# AP-NC2000D

One(1) Channel HD Video Codec  
(Compact, External DC Power)



# Main Features

## AP-NC2000D One(1) Channel HD Video Codec

- IP based Audio/Video Encoding/Decoding Solution
- Single Slot for HD Video Modules
- HD Video Encoder Module
- HD Video Decoder Module
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- External DC Power Supply
- Audio/Video Privacy Protection

# Hardware Specification

## AP-NC2000D One(1) Channel HD Video Codec

High-end  
**DSP**

- High-end Programmable DSP Hardware Architecture
- One(1) Video Module Slots
- HD Video Encoder/Decode Module (Ex : AV3000)
  - Network Interface
    - One(1) 10/100/1000Mbps Gigabit Ethernet
    - One(1) Console Port
  - Powerful Video Input/output Interface
    - HD-SDI, HDMI, Analog
  - High quality Audio and Voice Interface
    - Stereo Audio Input/Output Connector
  - Camera Control Interface
    - One(1) RS-232C, RS422, RS485 Interface for Camera Control
  - I/O Interface
    - 2 Alarm Input, 1 Relay
- External DC Power Supply

# Hardware Specification

AP-NC2000D One(1) Channel HD Video Codec

High-end  
**DSP**

AP-NC2000D Front View



AV3000 HD Video Encoder/Decoder Module





# Video Modules

# Video Modules

High-end  
DSP

AV6000 Full HD Video Encoder Module  
(H.264 1080i, 720P Dual Encoding)



AV3000 HD Video Encoder/Decoder Module  
(H.264 720P, D1 Dual Encoding)



AV2000 D1 Video Encoder/Decoder Module  
(H.264 D1, CIF Dual Encoding)



AV1800 D1 Video Decoder Module  
(H.264/MPEG4 D1 Decoding)



HS3000 HD-SDI Subtitle Generator Module



# AV6000

## Full HD Video Module



# AV6000 Full HD Video Codec Module

High-end  
**DSP**

## Main Features

- Full HD (1080i) Video Encoding/Decoding Service Features
- Video Codec : H.264 HP/MP/BP
- Video Input Interface : HDMI, HD-SDI, Analog (NTSC, PAL)
- Video Output Interface : HDMI, HD-SDI, Analog (NTSC, PAL)
- Dual Bit Streaming Support
- RTSP/RTP, TCP/UDP Protocol Support
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Web based Management Service
- AP-NC2000D, AP-NC2000, AP-NC3000, AP-NC5000 Platform Available

# AV6000 Full HD Video Codec Module

High-end  
**DSP**

## Hardware Specification

- **RISC + Video Processor Computing Power**
- **AP-AV6000 Video Module**
  - **Network Interface**
    - One(1) 10/100/1000Mbps Gigabit Ethernet
  - **Video Interface**
    - One(1) Channel HD-SDI Input
    - One(1) Channel HDMI Input
    - One(1) Channel CVBS Input or Output (selected by DIP Switch)
    - One(1) Channel HD-SDI Output
    - One(1) Channel HDMI Output
  - **One(1) RS-232 Console Interface (RJ45)**
  - **Camera Control Interface**
    - One(1) RS-232C, RS422, RS485 Interface for External Camera Control
  - **I/O Interface**
    - Two(2) Alarm Input /One(1) Relay Out

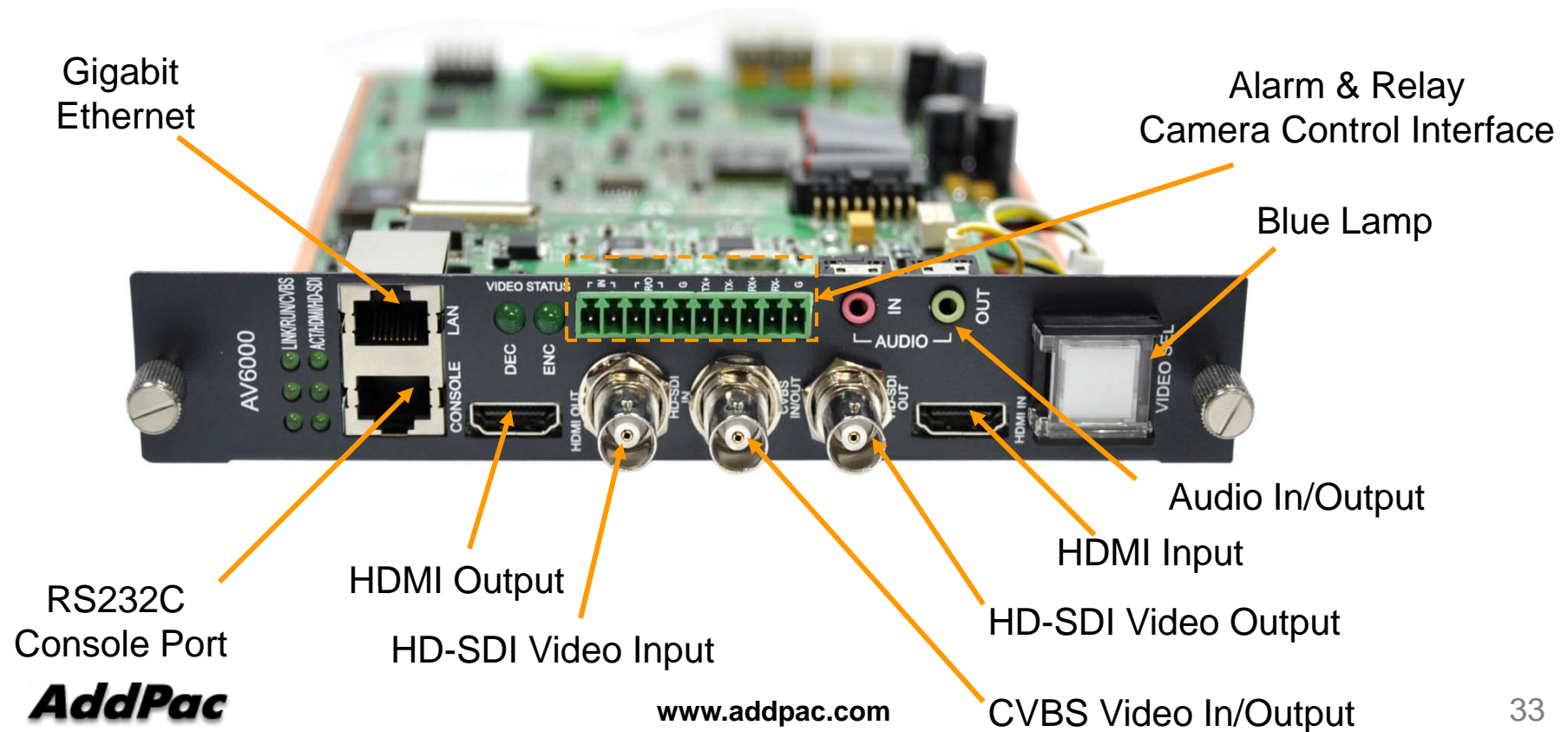


# AV6000 Full HD Video Codec Module

High-end  
DSP

## Hardware Module Specification

AV6000 HD Video Encoder/Decoder Module(H.264)



# AV6000 Full HD Video Codec Module

High-end  
**DSP**

## Triple Video Encoding Bit Stream Matrix

Video Input	Concurrent Video Encoding Bit Stream			
	CIF	D1	HD(720P)	FULL HD (1080i)
Analog Video Input (NSTC/PAL)	Available	Available	N/A	N/A
HD-SDI Video Input (720P)	Option	Available	Available	N/A
HD-SDI Video Input (1080i)	Option	Available	Available	Available



# AV3000 HD Video Module

# AV3000 HD Video Codec Modules

High-end  
**DSP**

## Main Features

- IP based HD Video Encoding/Decoding Solution
- H.264 Video Codec : Dual Encoding(720P, D1 Dual Encoding)
- RTSP, TCP/UDP Protocol Support
- RTP/RTCP Protocol Support
- One(1) Gigabit Ethernet Interface
- RS232/RS422/RS485 Interface for Camera Control
- Up to HD Video Resolution, Up to 30 frame/sec, Up to 8Mbps bandwidth
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability

# AV3000 HD Video Codec Modules

High-end  
**DSP**

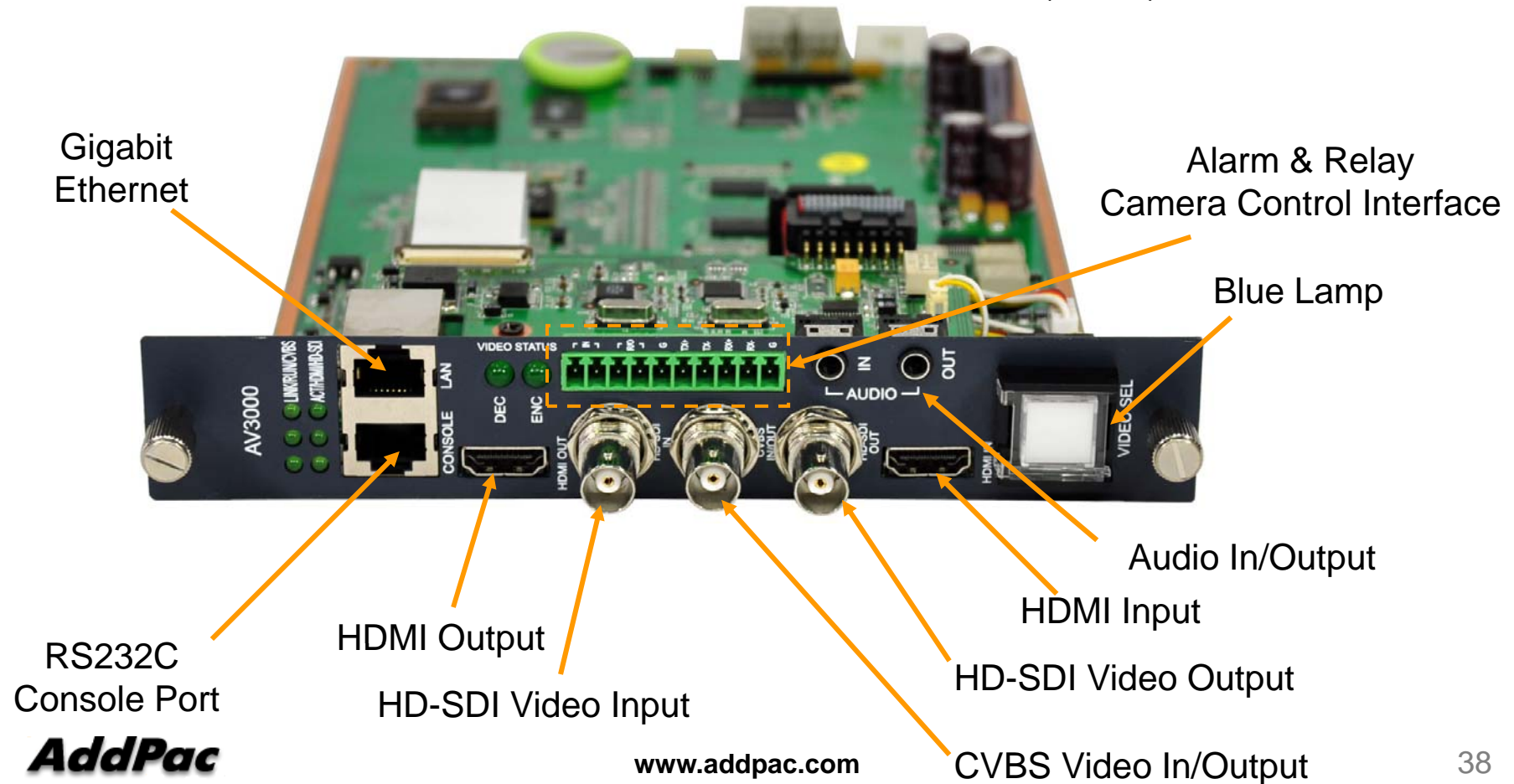
## Hardware Specification

- High-end Video Processor Architecture
- Network Interface
  - One(1) 10/100/1000Mbps Gigabit Ethernet (RJ45)
- Command Line Interface
  - One(1) RS-232C Interface (RJ45)
- Powerful Video Interface
  - Video Input : HD-SDI Input, HDMI Input, CVBS Video Input(BNC)
  - Video Output : HD-SDI Output, HDMI Output, CVBS Video Output(BNC)
- High quality Audio Interface
  - One(1) Audio Stereo Input, Output channel
- Camera Control Interface
  - One(1) RS-232C, RS422, RS485 Interface for External Camera Control
- I/O Interface
  - 2 Alarm Input, 1 Relay Out

# AV3000 HD Video Codec Modules

## Hardware Module Specification

AV3000 HD Video Encoder/Decoder Module(H.264)





# AV2000 D1 Video Module

# AV2000 D1 Video Codec Modules

## Main Features

- IP based Video Encoding/Decoding Solution
- H.264 Video Codec : D1 Module(D1, CIF Dual Encoding)
- RTSP, TCP/UDP Protocol Support
- RTP/RTCP Protocol Support
- One(1) Gigabit Ethernet Interface
- RS232/RS422/RS485 Interface for Camera Control
- Up to D1 Video Resolution, Up to 30 frame/sec, Up to 2Mbps bandwidth
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability



# AV2000 D1 Video Codec Modules

High-end  
**DSP**

## Hardware Specification

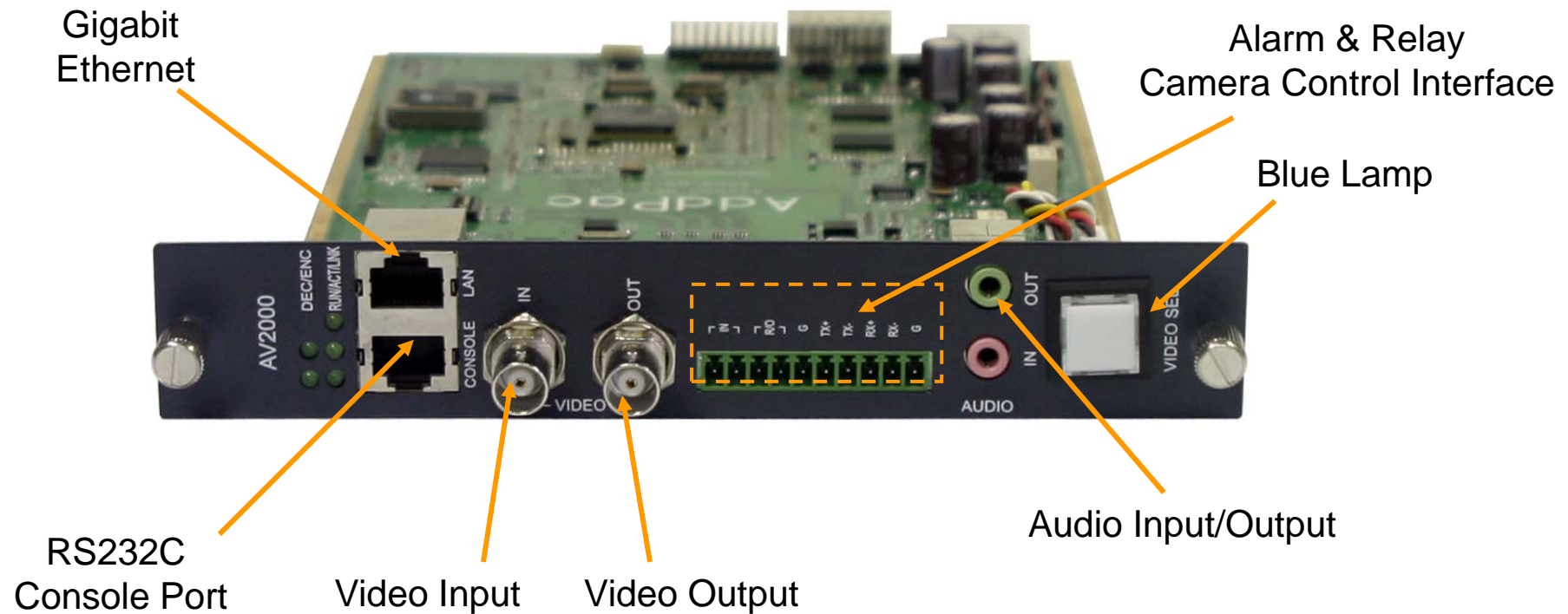
- High-end Video Processor Architecture
- Network Interface
  - One(1) 10/100/1000Mbps Gigabit Ethernet (RJ45)
- Command Line Interface
  - One(1) RS-232C Interface (RJ45)
- Powerful Video Interface
  - Video Input : 1 Channel Video Input (BNC) : NTSC, PAL
- High quality Audio Interface
  - One(1) Audio Stereo Input, Output channel
- Camera Control Interface
  - One(1) RS-232C, RS422, RS485 Interface for External Camera Control
- I/O Interface
  - 2 Alarm Input, 1 Relay Out

# AV2000 D1 Video Codec Modules

High-end  
**DSP**

## Hardware Module Specification

AV2000 D1 Video Encoder/Decoder Module (H.264)





# AV1800

## D1 Video Decoder Module

# AV1800D D1 Video Decoder Modules

High-end  
**DSP**

## Main Features

- IP based Video Decoding Solution
- H.264, MPEG4 Video Codec (D1, CIF), CIF to D1 Upscaling
- RTSP, TCP/UDP Protocol Support
- RTP/RTCP Protocol Support
- One(1) Fast Ethernet Interface
- RS232/RS422/RS485 Interface for Camera Control
- Up to D1 Video Resolution, Up to 30 frame/sec, Up to 2Mbps bandwidth
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability

# AV1800 D1 Video Decoder Modules

High-end  
**DSP**

## Hardware Specification

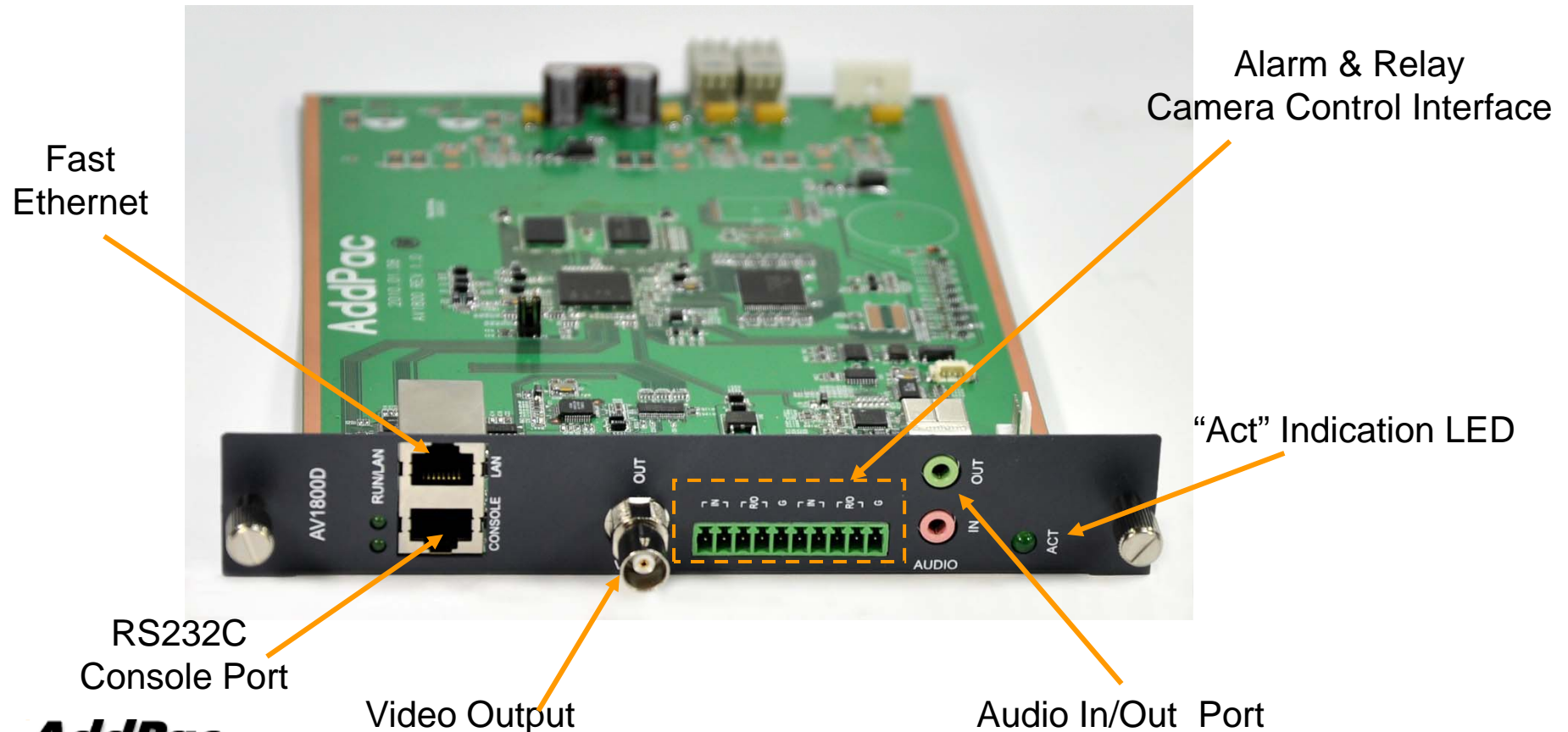
- High-end Video Processor Architecture
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet (RJ45)
- Command Line Interface
  - One(1) RS-232C Interface (RJ45)
- Powerful Video Interface
  - Video Output : 1 Channel Video Output (BNC) : NTSC, PAL
- High quality Audio Interface
  - One(1) Audio Stereo Input channel
  - One(1) Audio Stereo Output Channel
- Camera Control Interface
  - One(1) RS-232C, RS422, RS485 Interface for External Camera Control
- I/O Interface
  - 2 Alarm Input, 1 Relay Out

# AV1800 D1 Video Decoder Modules

High-end  
DSP

## Hardware Module Specification

AV1800 Video Decoder Module  
(H.264, MPEG4, Up to D1 Resolution)



**AddPac**

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



# HS3000

## HD Subtitle Generator Module

# HS3000 HD Subtitle Generator Modules

High-end  
**DSP**

## Main Features

- HD-SDI Subtitle Generation Service Features
- PC based Subtitle Controller Software
- High-end Video Processor Architecture
- One(1) 10/100/1000Mbps Gigabit Ethernet Interface
- One(1) RS232C Command Line Interface(RJ45)
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection



# HS3000 HD Subtitle Generator Modules

High-end  
**DSP**

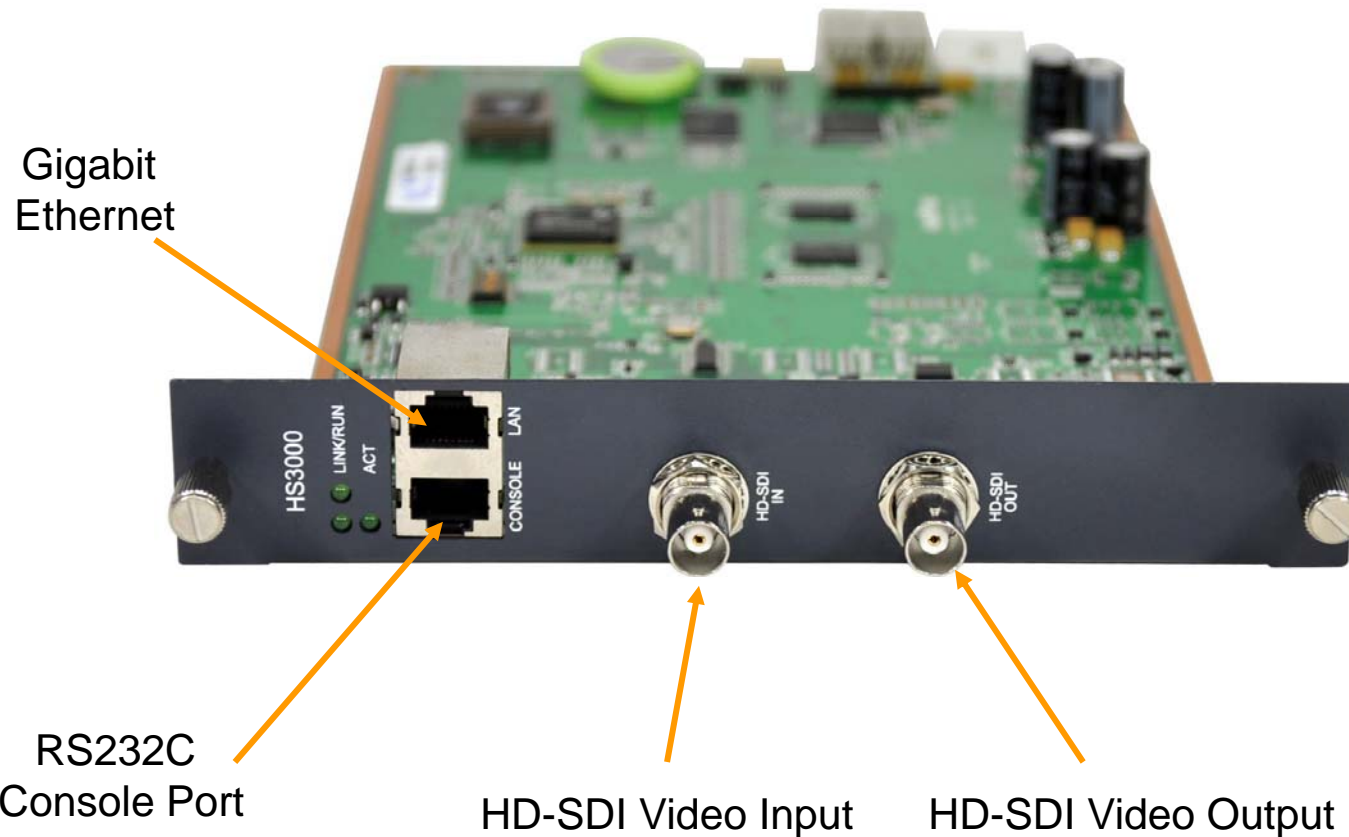
## Hardware Specification

- High-end Video Processor Architecture
- Network Interface
  - One(1) 10/100/1000Mbps Gigabit Ethernet (RJ45)
- Command Line Interface
  - One(1) RS-232C Interface (RJ45)
- Video Interface
  - Video Input : 1 Channel Video Input (HD-SDI)
  - Video Output : 1 Channel Video Output (HD-SDI)

# HS3000 HD Subtitle Generator Modules

High-end  
DSP

## HS3000 HD-SDI Subtitle Generator Module Specification





# 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)