

Network Video Recorder: Digital Watchdog Blackjack Blade

1.0 Description

The recorder shall be a Blackjack model DW-BJBLADE2T Network Video Recorder. The recorder shall offer network recording for up to 16 Ethernet-linked network cameras using H.264 image compression.

2.0 Bid specification

Recorder operation:

- The recorder shall be an appliance based with an embedded real-time operating system
- The OS must reside completely within the hardware and not be installed on the hard disk drives
- The OS shall be run on Linux
- Installed disk drives must be dedicated to recording video.
- The recorder shall have the capacity to install a maximum of two (2.5”) hard disk drives internally.
- The recorder shall be expandable up to 2 TB of total storage
- The recorder shall not support local live display.
- The recorder shall support Digital Watchdog’s MegaPIX series of IP camera, and selected Manufacturer’s network cameras, and ONVIF cameras.
- The recorder shall support H.264 and record up to 30fps.
- Each camera shall support individual Recording Rate settings for Event and Scheduled Recording Modes.
- Pre and Post event recording: All individual cameras shall support pre and post recording.
- The recorder will automatically detect all compatible network cameras.
- The recorder will automatically detect Enterprise Controllers’ IP addresses within the same network (gateway and subnet mask).
- The recorder shall support NTP server function to synchronise the time in the network to all recorders and cameras
- The recorder shall support motion detection.

Client Viewing:

- The recorder shall be viewable from any properly connected PC using Microsoft Internet Explorer, Google Chrome, Firefox, Safari, and Opera
- The recorder shall provide for user authentication and support different user privileges based on logon ID
- From the client the user should (with proper authentication) be able to do the following:
 - Setup cameras
 - Define live viewing, recording rates and quality settings
 - Define recording programs and schedules

Architect and Engineer Specification

- Define Layouts of Different Cameras
- View live video in single to 128 channels, rotate, flip, and manipulate views.
- Search and play recorded video
- Export selected recorded video
- Control connected PTZ cameras
- Search Event Logs
- In addition to the included web viewer, the recorder should provide for optional viewer for mobile devices.
- In addition to the included web viewer, the recorder should provide for optional viewer software model WV-ASM100, that is capable of viewing multiple cameras from multiple recorders on multiple monitors

Form Factor:

- The dimensions shall be no larger than 10.00 in (length) x 1.6 in (width) x 6.4 in (height).

Processor:

- On die, primary 32kB, 8-way L1 instructions cache and 24kB, 6-way L1 write-back data cache.
- Intel®Hyper-Threading Technology 2-threads per core.
- Support for IA 32-bit.
- Intel®64 architecture.
- Micro-FCBGA11 packaging technologies.
- Supports C0 and C1 states only for D2000 series.
- Execute Disable Bit support for enhanced security.

Graphics Processing Unit Features

- Support DirectX* 10.1 compliant Pixel Shader* v2.0 and OGL 3.0
- Two display pipes, Pipe A and B support the dual independent displays.
- Max Pixel Clock: SC LVDS: 18bpp and 24bpp. (D2000 series single channel)
- Supports HDCP 1.3 & PAVP1.1c for Blue Ray playback while HDCP is needed for High Definition playback in D2000 series
- Supports HDMI 1.3a through SW lip-sync.
- Support Intel HD Audio Codec.

Platform Controller Hub (Tiger Point)

- 10Gb/s each direction DMI interface
- Five USB 2.0 ports support
- Intel High Definition Audio Interface
- Low pin count interface
- Package 17 mm x17 mm 360 MMAP
- Two SATA ports
 - Data transfer rates up to 3.0 Gb/s(300 MB/s)

PCI express Gigabit Ethernet controller JMC 251

Architect and Engineer Specification

- Compliant with PCI Express Base Spec.
- Integrated non-volatile memory to store MAC address and other configuration data
- 10/100/1000 Compliant with IEEE 802.3, IEEE 802.3u, and IEEE 802.3ab
- Supports Wake-On-LAN function
- Support D3 Enhanced Power Down Mode
- The JMC251 supports PCI-Express Pseudo Hot-plug modes to achieve the lowest power consumption.

ADVANCED POWER MANAGEMENT

- ACPI Rev 1.0b compatible power management
- Support System states: S1, S3
- Support CPU Thermal Management (TM1 & TM2) while D2000 series is TM1 only.

INTEGRATED REAL TIME CLOCK

- 256-byte battery-backed CMOS RAM
- Integrated oscillator components
- Lower Power DC/DC Converter implementation

CPU ON BOARD PWM

- Vcore use OZ8293 to support VR12 (1 Phase) and V_Graphic (1 Phase)
- SVID support

H/W Audio IDT 92HD87



- 4 Channels (2 stereo DACs and 2 stereo ADCs) with 24-bit resolution.
- 2W/channel stereo speaker amplifier @ 4 ohms and 4.75V
- 2 adjustable VREF Out pins for analog microphone bias.
- 5 analog ports with port presence detect + stereo speaker differential output

EC & SuperIO (ITE 8731F-CX)

- ACPI v2.0 compliant
- Compliant with LPC interface
- SMBus spec. 2.0 (2 SMBus masters+1 slave)
- 11 voltage monitor inputs (3VSB and VBAT measured internally)
- 59 general purpose IO pins
- 64-byte SRAM mapped into host and EC side
- 32 external/internal wake up events.
- 54 interrupt events to EC.

3.0 Specification

Recommended Specs for Client:

 	
Processor	Intel Core i5 or greater
Video Card	Intel HD Graphics 2500 (or higher) with 1GB Dedicated Memory
Resolution	1920 x 1080
RAM	4GB
NIC	10 / 100 / 1000 Base-T Ethernet
OS	Windows 7, Server 2008, Vista, XP, Linux Ubuntu 10.0

Network Requirements:

<p>IEEE 802.3ab 1000BASE-T Gigabit Ethernet</p> <p><i>* Cameras and servers in the network must be completely isolated</i></p>

** NOTE: if you are not connecting to the Blackjack from within the same network, you may be required to perform port forwarding on your router to access the server. Contact your Network Administrator or Installer for additional information*

Mobile Access:

Web	Internet Explorer, Firefox, Safari, Opera, Chrome
Apps	Android OS