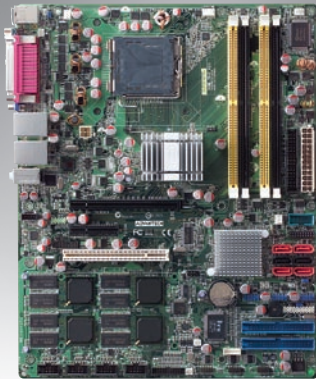


# DVMB-764

## 16 CH D1 480FPS MPEG4 Hardware Encoding ATX Main Board with Intel® Q965 Platform



### Features

- 16 Channel D1 480 FPS MPEG4 Hardware Encoding on board
- 16 Channel Audio Encoding on board
- Intel Q965 533/800/1066 MHz FSB
- Dual video stream MPEG4 , MJPEG
- Integrates with 12 DI, 8DO and 2 RS-485
- Supports 6 SATA HD with RAID 0, 1, 5
- Supports Dual Giga Ethernet LAN
- 1 x PCIe x16, 1 x PCIe x4 and 1 x PCI
- Supports Windows® 2000/XP driver and video development SDK
- All solid capacitor design

### Introduction

DVMB-764 is a high performance video surveillance main board built with Intel Q965 Core 2 duo/Quad Core platform and 16 channel MPEG4 hardware encoding engine. It supports 16 channel video encoding at D1 resolution and a total of 480 frames per second. The audio/video codec integrates multiple functions like real time preview, encoding, smart quad, motion detection, OSD and video playback. It can generate multiple video stream, two high resolution video on MPEG4, using MJPEG for storage. In addition to the on board graphic engine and the 6 SATA RAID support, an additional graphics card and hardware RAID card can also be used via the PCIe interface. The standard ATX form factor and the rugged design of duo LAN, duo IDE and all solid capacitors, make the DVMB-764 the idea platform for high performance digital video applications like intelligent video analysis, video conference, and PC based DVR or hybrid DVR.

### Specifications

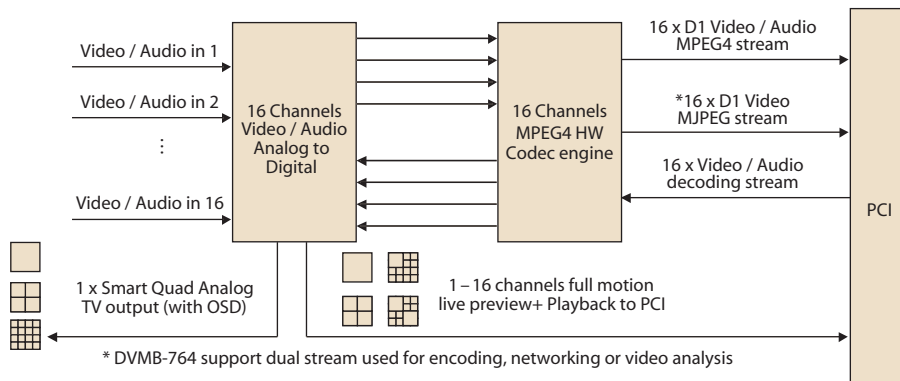
Processor System	CPU	LGA775 socket for Intel Quad-core / Core 2 Extreme/Core 2 Duo / Pentium D / Pentium 4 / Celeron D processor
	Chipset	Intel Hyper-Threading Technology ready
	BIOS	Intel Q965+ICH8DO
	Front Side Bus	Award 16Mbit SPI
Video System	Video Standard	533/800/1066 MHz
	Video Input	Composite NTSC/PAL
	Capture Resolution	16 Channel @ 480/400 FPS
	Live Preview	CIF/2CIF/D1
	Video Codec	16 Channel @ 480 FPS
	Video Encode Performance	ISO/IEC 1496-2 MPEG4 Advanced Simple Profile
	Video output	480/400 fps @ D1
	Audio Input /Encoder	1 Smart Quad TV output (Preview or Playback)
	Digital Input/Output	16 Channel/ADPCM
	Video Stream	12 isolated inputs/ 8 relay outputs
	OSD	MPEG4, MJPEG
	Motion Detection	Yes, with encoding video
	Software Development Kits	Motion detection & motion trace
Expansion Slot	PCIe x 16	Support Windows XP DVP Suite SDK with Sample program and C++ Source code
	PCIe x 4	4.0 GB/s per direction, 1 slot
	PCI	1 GB/s per direction, 1 slot
Memory	Technology	32-bit/33MHz, 1 slots
	Max. Capacity	Dual channel DDR2 533/667/800 MHz
	Socket	8 GB
Graphics	Embedded	240-pin DIMM x 4
	Add-on	Intel Graphics Media Accelerator 3000 integrated High Definition Video Processing with max. resolutions to 2048 x 1536 bpp (@ 75 Hz)
Ethernet	Interface	PCIe x 16 slot, ADD2 on PCIe x 16 for 2nd Display
	Controller	10/100/1000 Base-T
	Connector	G-LAN: Intel 82566DM and Marvell 88E8053
SATA II	Max. Data Transfer Rate	RJ45 with LED connector x 2
	Channel	300 MB/s
EIDE	Mode	6 (with RAID 0, 1, 5 and hot plug support)
	Channel	ATA 100/66/33
		2

## Specifications

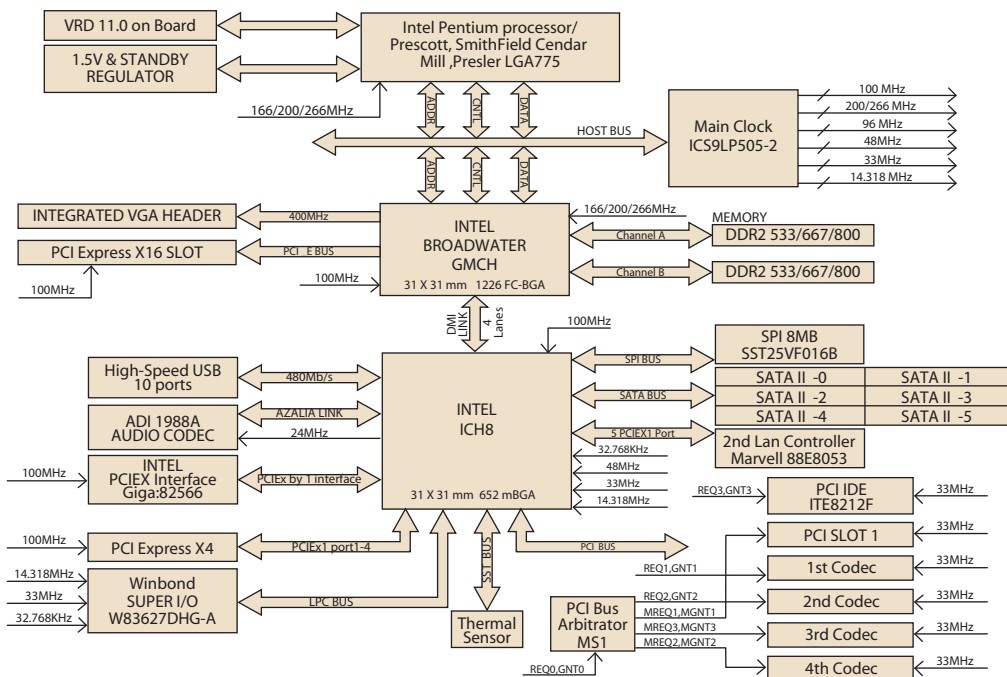
I/O Interface	VGA	1											
	USB	Max. 10 (USB 2.0 compliant), 4 ports at back panel											
	Audio	MIC In, Line In, Line Out											
	Serial	2											
	Parallel	1 (SPP/EPP/ECP)											
	FDD	1											
	PS/2	1 (with Y cable)											
Watchdog Timer & CPLD	Hardware WDT & software protection function lets customer insert specific key for software protection												
Power Requirement	Typical	Intel Core 2 Due 2.13 GHz and four 1 GB DDR2 667MHz SDRAM memory modules											
		<table border="1"> <tr> <td>+12 V</td> <td>+5 V</td> <td>+3.3 V</td> <td>5 Vsb</td> <td>-5 V</td> <td>-12 V</td> </tr> <tr> <td>10.36 A</td> <td>3.95 A</td> <td>4.5 A</td> <td>1.2 A</td> <td>12 mA</td> <td>36 mA</td> </tr> </table>	+12 V	+5 V	+3.3 V	5 Vsb	-5 V	-12 V	10.36 A	3.95 A	4.5 A	1.2 A	12 mA
+12 V	+5 V	+3.3 V	5 Vsb	-5 V	-12 V								
10.36 A	3.95 A	4.5 A	1.2 A	12 mA	36 mA								
Environment	Temperature	Operating: 0-55° C (32 - 131° F), depends on CPU's speed and cooler solution											
		Non-Operating: -20 - 70° C (-4 - 158° F)											
Physical Characteristics	Dimensions (W x D)	304.8 x 244 mm (12" x 9.6")											

## Block Diagram

### Video



### Process System



## Ordering Information

Part Number	Description
DVMB-764-16D1E	Socket LGA775; 16 CH D1 480FPS MPEG4 Hardware Encoding Digital Video Motherboard
DVMB-764-08D1E	Socket LGA775; 8 CH D1 240FPS MPEG4 Hardware Encoding Digital Video Motherboard
DVMB-764-16CFE	Socket LGA775; 16 CH CIF 480FPS MPEG4 Hardware Encoding Digital Video Motherboard; Single Gigabit LAN

## Accessories

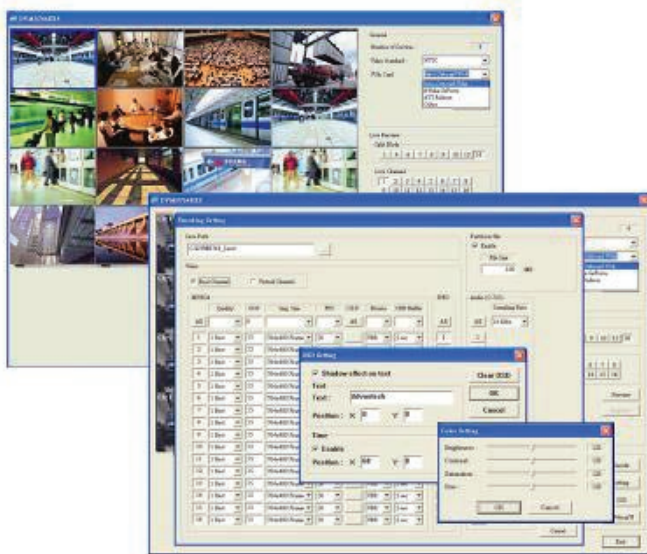
Module	Description
9692A21000E	4 channels Video-In module with BNC connectors
9692080400E	4 x DO + 4 x DI (2 x RS-485; jumper selectable) module
9698080500E	8 x DI module
9698080600E	16 channels Audio-In/Video-In Combo module with D-Sub connectors (default module)

ADD2 Card	Description
AIMB-DVI-00A1E	ADD2 DVI Card (PCIe)
AIMB-VGA-00A1E	ADD2 VGA Card (PCIe)

\* Only DVA-806 is inside DVMB-764 box as default module. Others accessories are optional items.

## Full function SDK and demo program with complete C++ source code

DVMB-764 comes with a 16 channel SDK and C++ based demo program which helps the system integrator speed up application development or integration. It includes multi functions like video encode, decode, preview, GPIO control, hardware motion detection control, smart quad data preview and all the parameter setting.



## Optional Items

### CPU

Item	Socket LGA775 Core 2 Duo Processor	
P/N	96MP2DD-26FA-4M7T	INTEL CR2 DUO DT 2.66G 4M, 775-pin, 1066 MHz
	96MP2DD-24FA-4M7T	INTEL CR2 DUO DT 2.40G 4M, 775-pin, 1066 MHz

Item	Socket LGA775 Pentium D Processor	
P/N	96MPPD-3.4F8-4M7T	INTEL P-D 3.4G 800F 4M, 775-pin, 800 MHz
	96MPPD-3.2F8-4M7T	INTEL P-D 3.2G 800F 4M, 775-pin, 800 MHz

Item	Socket LGA775 Pentium 4 Processor	
P/N	96MPP4-3.8F8-2M7T	INTEL P4 3.8G 800F 2M 775-pin, 800 MHz
	96MPP4-3.4F8-2M7T	INTEL P4 3.4G 800F 2M 775-pin, 800 MHz

Item	Socket LGA775 Celeron D Processor	
P/N	96MPCD-3.2F5-5K7T	INTEL CEL-D 3.2G 512K 775-pin, 533 MHz
	96MPCD-2.9F5-2K7T	INTEL CEL-D 2.93G 256K 775-pin, 533 MHz

### Memory

Item	Long-DIMM DDRII 667 RAM	
P/N	96D2-2G667FB-TR	TRANSCEND 2G DDR2-667 240P 128 x 4 (G)
	96D2-1G667NN-TR	TRANSCEND 1G DDR2-667 240P 64 x 8 (G)
	96D2I-1G667NN-TR	TRANSCEND 1G DDR2-667 240P 64 x 8, I GRD (G)
	96D2I-512M667NN-TR	TRANSCEND 512M DDR2-667 240P 64 x 8, I GRD (G)

Item	Long-DIMM DDRII 533 RAM	
P/N	96D2-1G533NN-AP	APACER 1G DDR2-533 240P 64 x 8 (G)
	96D2-1G533NN-TR1	TRANSCEND 1G DDR2-533 240P 64 x 8 (G)
	96D2-512M533NN-AP	APACER 512M DDR2-533 240P 64 x 8 (G)
	96D2-512M533NN-TR1	TRANS 512M DDR2-533 240P 64 x 8 SAMSUNG (G)

### Others

P/N	1750000334	Cooling LGA775 CPU with fan up to 3.8G w/BP
	1960014558T000	Cooling LGA775 CPU DUCTSINK-P4