

MDVR-7016

Mobile Digital Video Recorder



The Right Solution For Vehicles in the World !!



**Available in 4, 8,
or 16 Channel Configurations**

Features

- Real-Time Display & Record over 16 channels
 - 16 channels of video at 30 FPS per camera
 - 16 channels of audio synchronized per camera
 - Enhanced MPEG-4 Video Compression
 - 720 X 480 Resolution (NTSC)
- (see [Appendix 1](#) for Detailed Specifications)

Touch Screen

- Simple to use touch-screen
- Move through cameras, split screens, and audio with touch screen capabilities (10.2")
- Options: Roller ball, mouse



Performance

- Video capture rates are configurable on a per camera basis, up to a total of 480 FPS (16 Channel)
- Video & Audio data is stored on a rugged, shock & vibration resistant removable HDD
- 250 GB Hard Drive (standard), 500 GB , 1 TB (optional)

Built in Heater

- Thermostatically controlled heating system
- Automatic turn on
- Automatic shut down
- Varying configurations to meet any need

Reliability

- Superior stability with Embedded operating system
- Two independent watchdog functions (reliable hardware watchdog & software watchdog)
- Recovery– Auto re-boot by watchdog function

Intelligent Power Supply & Housing

- Built-in 250W DC-DC vehicle power Supply
- High efficiency (extended battery life)
- Automatic shut-down at low battery voltage
- Load dump protected

(See [Appendix 2](#) for Detailed Specifications)

Data Retrieval

- Removable HDD to EZ– USB Connection
- External SATA port to External HDD
- USB to External HDD
- USB Jump Drive
- Ethernet, Fire-wire
- (All with auto-play viewer software)

Operating System Platform Benefits

- Specifically designed for MDVR System
- Non-Proprietary
- Easily upgraded, Easily serviced
- Parts are readily available

Appendix 1

Detailed Specifications:		MDVR-5004	MDVR-6008	MDVR-7016	
VIDEO	Video Input	4 CH	8 CH	16 CH	
	Loop Output (Option)	4 CH	8 CH	16 CH	
	Input Level	1.0Vp-p± 10% Composite 75Ω Unbalanced			
	Video Standard	NTSC/PAL			
	Display Resolution	720*480/720*576(NTSC/PAL)			
	Display Speed	NTSC	Real Time		
		PAL	Real Time		
	Main TV Output	1.0Vp-p± 10% Composite 75Ω Unbalanced			
	Camera Name	Max. 29 Characters			
	Screen Split Control	4, 1+5, 3+4, 1+7, 3X3, 2+8, 1+12, 4X4, full screen, auto conversion			
Screen Rotate Control	Continuous				
Image Control	Contrast, Bright, Hue.				
AUDIO	Compression	ADPCM			
	Input Channel	4 CH	8 CH	16 CH	
	Live Output	1 Channel			
RECORDING	Compression	Enhanced MPEG-4			
	Resolution(pixels)	NTSC	352*240/704*240/704*480		
		PAL	352*288/704*288/704*576		
	Image Size	1~3 kbytes/frame@352*240(CIF) / 2~6 kbytes/frame@704*240(HALF D1) / 4~12 kbytes/frame@704*480(D1)			
	Maximum Recording Speed	NTSC	120 fps@CIF 60 fps@HD1 30 fps@D1	240 fps@CIF 120 fps@HD1 60 fps@D1	480 fps@CIF 240 fps@HD1 120 fps@D1
		PAL	100 fps@CIF 50 fps@HD1 25 fps@D1	200 fps@CIF 100 fps@HD1 50 fps@D1	400 fps@CIF 200 fps@HD1 100 fps@D1
	Mode	Continuous / Scheduled / Motion Detection / Sensor Event / Quick Instant / Intensive			
	Scheduling	Pre alarm : 30 sec, Post alarm : 180 sec			
	Alarm Duration	3 ~ 15 sec			
	Removable Storage	Default 250 GB HDD, (Option 500 GB, 1 TB)			
External EIDE Storage	Option				
Water Marking	Support (Exported Image Only)				
SEARCHING	Search Method	Instant search / Date / Time / Event / Object / Day search / Real time / Multi time			
	Date / Time Search	Selectable on Map and Calendar			
REMOTE	Monitoring Environment	CMS, WEB CMS, CAMS(Innovative Central Automated & Monitoring Solution, Option) Appx. 9 clients accessible			
	Display Search	Appx. 36 Screen Full Motion Transmission / Max. 1400FPS Real-time Transmission Supporting Multi Client			
SYSTEM MONITORING & RECOVERY	System Logging	System Logging(Power Failure / Video loss Checkable etc.)			
	Monitoring	Two Independent Watchdog(Reliable H/W Watchdog + Software Watchdog) Automatic self diagnosis program built in (By interface with remote healthy checker)			
	Recovery	Auto Reboot by Watchdog			
ALARM	Sensor Input	4 Ports(NC/NO) / 8 Ports(NC/NO) / 16 Ports(NC/NO)			
	Alarm Output	4 Ports / 8 Ports / 16 Ports / 8 Ports / 16 Ports			
	Motion Detection	Available for each camera Multi Detection Level			
CONNECTOR	Video input	BNC 4 Ports / BNC 8 Ports / BNC 16 Ports			
	Audio Input(mono)	BNC 4 Ports / BNC 8 Ports / BNC 16 Ports			
	Main Output	VGA			
	Spot Monitor Output	RCA			
	Sensor input	16 Terminal Block (Include Ground Common 2)			
	Alarm Output	16 Terminal Block (Include Isolated Common 2)			
	PTZ	RS-232, 422, 485 / Remote PTZ controller / Mouse PTZ / Tour			
	Ethernet	RJ-45, 10/100Mbps Fast Ethernet (Basic), 10/100/1000Mbps Fast Ethernet(Option)			
	USB 2.0	Front 2 port, Rear 4 ports			
	VGA Output	15 pin female DSUB			
BACKUP	Archiving Type	Removable HDD Tray, USB, External SATA			
	Remote backup	Automatic schedule backup manager support (3 DVR Simultaneous Backup)			
	Local Backup	Instant backup / Schedule backup (DVR file format - with backup viewer)			
	Backup Viewer	Autorun Playback support with backup viewer after backup data into backup device.			

Intelligent Power Supply & Housing ———Detailed Specifications

Designed specifically for use in an automotive environment. Just get in your vehicle, start the engine the MDVR-7016 is ready to go. When you switch off the ignition the MDVR-7016 can go into shut down, standby or hibernate modes automatically.

Constructed from heavy gauge aluminum sheet metal, the case is ruggedly built to withstand the shock and vibration encountered in a tough mobile environment. Although tough, the case still provides easy accessibility to I/Os, cables and a removable Hard Drive. Cables and I/O connectors are covered for protection from accidental damage by a removable front panel featuring a security lock to prevent unauthorized access inside the unit. The hard drive is protected from shock and vibration by a specially designed isolation mount. A daughter card retaining bracket prevents cards from sliding out during shock and vibration.

The DC-DC Power supply uses state-of-the-art technologies and the most advanced techniques to maximize efficiency, performance and reliability. A micro-controller governs various functions of operation. The automobile battery voltage is monitored to protect against deep discharge. The ignition lead is monitored to start the MDVR when the vehicle is turned on and also to implement a safe shutdown procedure. MDVR motherboard signals are controlled to provide smooth power-up and power down sequences. In addition, the supply also responds to shut down, stand-by and hibernate mode and can be programmed to shut down the MDVR with a delay of up to one hour.

Features

- Built-in 250W DC-DC vehicle power supply (12V or 24V)
- High efficiency (extended battery life)
- Ignition or ON/OFF switch input
- Automatic shutdown at low battery voltage
- Wide input voltage
- Load dump protected
- Auto shutdown
- Built in Hard Drive shock & vibration protection
- Rugged heavy aluminum construction
- Delayed shutdown
- 4 pin cam lock for security
- Flexible mounting options

Applications

- Law enforcement vehicles
- School Buses
- Transit Systems
- Mobile GPS & tracking systems

Input

	<u>12V</u>	<u>24V</u>
Normal operating voltage:	7V to 18V DC	15V to 32V DC
Low battery shutdown voltage:	10.6V +/- 0.25V	21.2V +/- 0.25V
Low battery de-bounce time:	10sec	10sec

Output

	<u>250W</u>	<u>Ripple</u>	<u>Regulation</u>
+3.3V	15A max, 20A pk	50mv p-p max	2%
+5V	15A max, 20A pk	50mv p-p max	2%
+12V	10A max, 17A pk	100mv p-p max	2%
-12V	0.35A max, 0.4A pk	50mv p-p max	2%
5V standby	1.5A max, 2A pk	50mv p-p max	2%

General

Power supplies overall efficiency:	>90% at optimum loads
Shut Down Delay Time:	10sec. (Default), 20min, 40min or 60min (set by Jumper)
Wake on interrupt time:	20 minutes (while ignition is off)
Ignition or ON/OFF input current:	<5 mA
Cooling:	Forced air or thermal coupling to heat sink for loads above 90W
Operating temperature:	-20C to 65C
Input fuse:	15A ATO (automotive blade fuse)

External Dimensions

MDVR 6008:	400mm x 335mm x 148mm (16" x 13.4" x 5.92")
Weight:	3.25 - 6 Kg, 7.2 - 13.2 lbs (depends on included components)