Mobile Media Safe VSV-II
(30 GB)
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Introduction
Introducing VSV-II
VSV-II is a multi-player portable device that could be used for personal storage and all kinds of entertainment. Import and organize songs, photos, movies through your PC and transfer them to your VSV-II for entertainment on the go.

VSV-II Highlights
- 3.5 inch color LCD display.
- Listen to hours of music. VSV-II supports MP3, WAV, AAC, WMA, to CDA files.
- View thousands of photos. VSV-II supports BMP, TIFF, JPEG and RAW files.
- Create slideshow with music.
- Watch hours of movies, recorded television or home video. VSV-II can support MPEG-1, MPEG-4 (Simple Profile), DivX5.x, Motion JPEG movie files.
- Connect to a projector or TV for larger screen viewing.
- Video/Audio/Voice recorder.
- FM tuner/recorder.
- Built-in 30GB Hard disk drive for storage
- Integrated CF/MD/SD/MMC/MS & xD card reader, able to transfer files in all directions.
- Print photos directly with Pictbridge compliant printers.
- Built-in Speaker.
- Video game-Tetris.
- USB2.0 for fast transfer to and from your PC.

Mastering the Basics
Getting Started
VSV-II standard package should include the following items:
- VSV- 3.5 player
- Audio and Video RCA cable
- AC adapter
- USB cable
- Software-DVD
- Earphone
- Remote control
Operation Modes
VSV-II has two Operation modes:

- **Standalone mode:** When it is not connected to PC, VSV-II becomes a portable multi-player and backup device.
- **USB mode:** When connected to PC, VSV-II automatically enters USB mode. VSV-II’s built-in hard disk appears on your PC as an additional hard disk, while the two card slots appear as two removable disks which can function as card readers.

Operating Systems
VSV-II does not need a driver when connected to a PC or Mac for the below:

- Windows 2000 (Service Pack 3 and later)
- Windows XP
- Mac 10.0.1 and later
- Linux Kernel Version 2.4 and later

Note that Windows 2000 Service Pack 2 and previous versions will have to be updated to support VSV-II.

Preparations
Powering VSV-II
Before operating VSV-II, you will need to charge your battery with an AC adapter or a USB cable. When power is connected, the red LED will shine. When you turn on VSV-II, the green LED will shine as well.

- **AC Adapter:** Plug AC adapter to DC in through household power socket. VSV-II may be charged during on or off mode.
- **USB 2.0:** Connect USB cable to PC and VSV-II. VSV-II may be charged during on or off mode.

When VSV-II’s battery is fully charged, the red LED light won’t shine. When turned on, the battery Icon on the bottom right of the display will show as below:

*Low Battery:*

*Charging:*

*Full Battery:*

*Note that battery for VSV-II’s is built inside. When battery is empty, it takes about 3.5 hours to fully charge.*

Standalone Mode
Operating VSV-II Controls

<table>
<thead>
<tr>
<th>Keys</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Key (8)</td>
<td>* Turn on VSV-II</td>
</tr>
<tr>
<td>Joystick (2)</td>
<td>* Move Upward: To go up</td>
</tr>
<tr>
<td></td>
<td>* Move Downward: To go down</td>
</tr>
<tr>
<td></td>
<td>* Move Leftward: To go left</td>
</tr>
<tr>
<td></td>
<td>* Move Rightward: To go right</td>
</tr>
<tr>
<td></td>
<td>* Press Down: Enter, play file</td>
</tr>
<tr>
<td>Wheel (3)</td>
<td>* Turn Clockwise: raise volume/zoom</td>
</tr>
<tr>
<td></td>
<td>* Turn Counter clockwise: lower</td>
</tr>
<tr>
<td>ESC (1)</td>
<td>Move to previous page</td>
</tr>
<tr>
<td>Menu (4)</td>
<td>* List view: Show details of each file</td>
</tr>
<tr>
<td></td>
<td>* Auto view: For files such as photos, it will show Icon. For files such as mp3s, it will show the details of file.</td>
</tr>
<tr>
<td></td>
<td>* Icon view: Show Icon of each file</td>
</tr>
<tr>
<td></td>
<td>* Copy: Select OK to copy selected file or folder to clipboard.</td>
</tr>
<tr>
<td></td>
<td>* Paste: Paste file or folder from clipboard to selected folder</td>
</tr>
<tr>
<td></td>
<td>* Delete: Delete file or folder</td>
</tr>
<tr>
<td></td>
<td>* Key lock: To lock keys from being activated when pressed.</td>
</tr>
<tr>
<td>Reset (9)</td>
<td>To restart VSV-II</td>
</tr>
</tbody>
</table>

IR remote control
The keys definition on the remote control is the same as VSV-II but without **Power on & off**. For the best signal reception, the remote control should be pointed at IR receiver direction.

**Key lock**
You may lock your keys by selecting **Keylock** under Menu key. To unlock, press Menu key then press ESC key, or the other way around.

**Copying files or folders with VSV-II**
You can copy any file or folder in all directions. From Hard Disk to Memory Card, Memory Card to Hard Disk, Folder to Folder within Hard disk.

1. Select file or folder and Press Menu key.
2. Select **Copy** VSV-II will show: **Copied to Clipboard**.
3. Go to desired folder and press Menu key.
4. Select **Paste**.
5. VSV-II will show: **Paste from Clipboard?**
   Select **Yes**.

Playing music
Music may be played from the hard disk drive or directly from the memory cards.

Jukebox Controls

| Menu (4) | * Playlist: List all songs in particular folder for you to select while still listening to music. |
|          | * Shuffle On: Plays music in Playlist randomly. |
|          | * Repeat Single: Repeats same song. |
|          | * Repeat All: Plays all songs in Playlist repeatedly. |
|          | * Equalizer: Plays music in different modes. (Normal/Bass/Classic/Dance/Live/Rock/Treble) |
|          | * Key Lock: Lock keys. |
|          | * Play in background: Hiding Jukebox as background music. |

**Equalizer**
When Jukebox is playing, press Menu key and select **Equalizer** for 7 EQ settings: “Normal/Bass/Classic/Dance/Live/Rock/Treble.”

Hiding Jukebox as background music
Press Menu key under Jukebox and select **Play in background**. Simply press ESC and listen to music while operating VSV-II. To return to Jukebox screen press Menu and select **Jukebox**.

Add songs to Playlist with VSV-II
Songs in Playlist are all the songs in the folder of which the song being played belongs to.

1. Press Menu key under Jukebox and select Playlist to see songs.
2. Press ESC key to leave Playlist.
3. Press Menu key and select Play in Background to go to another folder.
4. Select the song of which you desire to add to your Playlist by leaving the cursor on it.
5. Press Menu key and select Add to Playlist. (To add another song, repeat step 4 and step 5).
6. You may press Menu key and select Jukebox to go back to Jukebox mode.
7. Press Menu key and select Playlist to see the selected songs added to the end of the Playlist.

Playing Movies
Movie may be played from hard disk drive or directly from memory cards. To fast-forward or rewind movie, move joystick either rightward or leftward.

Video Player Controls

Keys | Functions
---|---
Menu (4) | * Playlist
* Repeat
* Stereo
* Left Channel
* Right Channel
Joystick (2) | * Move Upward: Move to previous movie.
* Move Downward: Move to next movie.
* Move Leftward: Rewind.
* Press Enter: Pause movie.

Play Video Clips or Slideshow on your TV
Connect VSV-II Audio out and Video out with AV cables to TV’s Audio in and Video in. VSV-II’s LCD screen will automatically turn off to save battery life.

Viewing Photos

Photo Viewer controls

Key Functions
Menu (4) * Hide EXIF: Hide description for photo.
* Fit Width View: Picture will be resized to fill the screen.
* Max Visible View: Let Picture Zoom out completely.
* Slide Show: Pictures will show automatically.
* Delete: Delete picture.
* Set as Background: Set picture as desktop.
* Print: Print out picture to printer.
Joystick (2) * Move Upward: Previous Photo.
* Move Downward: Next Photo.
* Move Leftward: Previous Photo.
* Move Rightward: Next Photo.
* Press Enter: Rotate Picture.

Slide Show
You may view all photos of a folder automatically by using Slide Show.

When viewing photos:
1. Press Menu key and select Slide show.
2. Move joystick rightward or leftward for how many seconds you would like to display each picture before automatically changing to the next one. VSV will show something like this: “Slide Interval = 3 sec”.

For music in background, refer to “Hiding Jukebox as background music” (page 9).
To jump out of Slide show, press ESC key.

Zoom in / Zoom out
Zoom in or Zoom out a picture by spinning the wheel in either direction. Use the Joystick to move to different spots in the picture.

Rotate pictures
Rotate pictures by pressing Enter. Each rotation of picture is 90 degrees in counterclockwise direction.

Change background
You may change the background photo of VSV-II that is stored in your Hard Disk drive.

1. Press Menu key for the picture you would like to place on your desktop.
2. Select Set as Background.

FM Tuner
You may listen to FM radio with VSV-II. Select Radio on desktop and tune to the station you prefer.
The earphone is worked as an antenna. Thus, if you want a better reception, you must listen to radio through an earphone.

Automatically Scan from Channel to Channel
You may automatically scan from channel to channel by two ways:
A. Press Menu key and select Scan
B. Hold Joystick either leftward or rightward for more than 2 seconds.

The tuner will automatically scan for the next channel available. To stop scanning, press Enter.
Note that this function may sometimes fail do to bad reception of some channels.

Preset channels
You may preset up to 12 of your favorite channels. There are two groups (GROUP 1 and GROUP 2) where each group can save up to 8 channels.

1. Tune to the channel you would like to preset.
2. Press Menu and select GROUP 1 or GROUP 2.
3. Select SAVE and choose from Channel 1 – Channel 9

When listening to radio, select favorite channels by pressing up or down.

Video Recording
Refer Audio Line-in Recording procedure but cable connects to TV or DVD output.

Audio/Voice/FM Recorder
There are two different channels – Stereo & Mono for audio and radio recording. For voice recording, there is only one channel. Mono. For high Mono recording quality, select higher frequency: 48 KHz Mono. For lower quality settings, select frequency with lower number. The lower the quality, the smaller the recorded file.

Audio Recording (Audio Line-in Recording)
You may record from any device, such as a CD player, a radio…etc. as long as it has an Audio output.
1. Connect cable to audio output from the device.
2. Connect other end to VSV-II.
3. Change to line-in recording by going up or down.
4. Enter record to start recording.
5. While recording, you will see the green signals move on the screen.
6. To stop recording, press pause.

Voice Recording
Please put on earphones or leave speaker on OFF while voice recording, the VSV-II will be no feedback influence.
1. Directly choose Audio Recording on Menu.
2. Enter record to start recording.
3. While recording, you will see the green signals move on the screen.
4. To stop recording, press pause.

FM Recording
1. Change to radio recording, you will enter radio mode.
2. Tune to the channel that you want to record.
3. Press Menu key to select Record on screen.
4. Enter record to start recording.
5. While recording, you will see the green signals move on the screen.
6. To stop recording, press pause.
Find recorded files
To find all your recorded files:
1. Go to Hard Disk folder.
2. Enter Media folder.
3. Enter Voice folder.

**Video Game**
- **Tetris:** Play in different speeds, up to 9 different levels.
  1. Select level pressing up or down when entering game.
  2. Control directions: left, right, and down.
  3. Press Menu key to pause.

**Options**
- **Change Options**
  - To change settings under SYSTEM/DISPLAY/VERSION:
    1. Press Menu key to change to between SYSTEM/DISPLAY/VERSION.
    2. Press Enter to select items.
    3. Select different options with Joystick.
    4. Press Enter again to confirm settings. To cancel settings, press ESC key.

**SYSTEM Menu**

<table>
<thead>
<tr>
<th>Items</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>Select from 11 Languages.</td>
</tr>
<tr>
<td>Auto Shutdown Timer</td>
<td>Choose how many minutes of idle time before VSV-II turns off.</td>
</tr>
<tr>
<td>Copy Speed (HD)</td>
<td>ULTRA/NORMAL/HIGH</td>
</tr>
<tr>
<td>Copy Speed (CF)</td>
<td>ULTRA/NORMAL/HIGH</td>
</tr>
<tr>
<td>USB mode</td>
<td>Mass Storage Device: General use. MTP media player: For downloading music through DRM (Digital Right Management).</td>
</tr>
<tr>
<td>Time Zone</td>
<td>Choose what time zone you are in.</td>
</tr>
<tr>
<td>Date Time</td>
<td>Shows date and time.</td>
</tr>
</tbody>
</table>

**DISPLAY Menu**

<table>
<thead>
<tr>
<th>Items</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>File View Mode</td>
<td>Auto View: Files such as pictures or video will show as icons while files such as music will show as list view. Icon View: All files will show as small pictures. List View: All files will show file name and file capacity.</td>
</tr>
<tr>
<td>Screen Saver Timer</td>
<td>Choose how many minutes of idle time before LCD turns off.</td>
</tr>
<tr>
<td>LCD Backlight</td>
<td>Adjust the brightness of LCD.</td>
</tr>
<tr>
<td>TV Standard</td>
<td>NTSC/PAL</td>
</tr>
<tr>
<td>Cursor color</td>
<td>Choose different cursor colors.</td>
</tr>
</tbody>
</table>

**VERSION Menu**

<table>
<thead>
<tr>
<th>Items</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firmware Version</td>
<td>Version of firmware in VSV-II</td>
</tr>
<tr>
<td>Hardware Version</td>
<td>Version of Hardware of VSV-II</td>
</tr>
<tr>
<td>Production Number</td>
<td>Product number</td>
</tr>
</tbody>
</table>

**Setting Date and Time**
To set date and time, go to Date Time under SYSTEM and press Enter, adjust the time by spinning the wheel, move to different directions with Joystick.

**Update Firmware**
When new firmware is available for VSV-II, you can contact the vendor for updated firmware. Following is the procedure for updating firmware:
1. Make sure VSV-II is fully charged or connected to an adapter.
2. Download the latest firmware into your VSV-II or in a memory card.
3. Select firmware and enter the file.
4. Press "Yes" for latest firmware update.
5. VSV-II will ask you to wait for 55 seconds.
6. When done updating, VSV-II will ask you to press "Sel".
7. Press Enter and VSV-II will turn off.
8. Press the power key to turn on again.

**System Mode**

- **Power Saving Features**
  - **Auto Shutdown Timer:** Go to System and select "Auto Shutdown Timer", set the time you would like the power to shut off while idling.
  - **Screen Saver Timer:** To save battery life, go to Display and select "Screen Saver time" and set how many minutes you want before screen automatically turns off when idling.

**Hard Disk Drive**
All your files are stored in Hard Disk Drive, there are four folders: "Backup, Data, Media, and System".

**Format Hard Disk Drive and Memory Cards on PC**
1. Choose the VSV-II Hard Disk and right click the mouse.
2. Choose "Format" and window will pop up.
3. Select to format into FAT16 or FAT32. Please try not to format the Hard Disk into NTFS-You will not be able to recognize the Hard Disk in Standalone mode.
4. To format Memory cards, follow the same procedure as above.

In USB mode, when battery level is low, it is highly recommended to have the adapter power VSV-II. When copying files between VSV and PC, the USB port alone may not supply enough power to enable stable hard disk operations.

**MTP Media Player**
- **Downloading files through Windows Media Player 10**
  1. Go to Options.
  2. For USB mode, select MTP media player.
  3. Connect USB cable to PC and VSV-II.
  4. A window will pop out and ask if you would like to format Hard Disk from VSV-II, VSV-II will create "Music/Pictures/Video/Voice" folders under Media folder of Hard Disk. Note that if you format Hard Disk through PC, these folders won’t be created.

**USB Mode**
There are two modes for USB: Mass storage device and MTP media player.

**Update Firmware**
When new firmware is available for VSV-II, you can contact the vendor for updated firmware. Following is the procedure for updating firmware:
1. Make sure VSV-II is fully charged or connected to an adapter.
2. Download the latest firmware into your VSV-II or in a memory card.
3. Select firmware and enter the file.
4. Press "Yes" for latest firmware update.
5. VSV-II will ask you to wait for 55 seconds.
6. When done updating, VSV-II will ask you to press "Sel".
7. Press Enter and VSV-II will turn off.
8. Press the power key to turn on again.

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When new firmware is available for VSV-II, you can contact the vendor for updated firmware. Following is the procedure for updating firmware:
1. Make sure VSV-II is fully charged or connected to an adapter.
2. Download the latest firmware into your VSV-II or in a memory card.
3. Select firmware and enter the file.
4. Press "Yes" for latest firmware update.
5. VSV-II will ask you to wait for 55 seconds.
6. When done updating, VSV-II will ask you to press "Sel".
7. Press Enter and VSV-II will turn off.
8. Press the power key to turn on again.
5. Open up Windows Media Player 10. Drag in the songs you prefer to download into VSV-II to “Library” tab of Windows Media Player 10.

6. Go to “Sync” folder and select “All Music”, you will also see VSV device detected on the right of the window.

7. Put a check next to the songs you prefer to store in VSV-II.
8. Press “Start Sync” and the files will automatically store into your Music folder.

Note that DRM files may only be downloaded to VSV-II through Windows Media Player 10.

Printing Photos directly from VSV-II through printer
1. Go to “Options”.
2. Change settings to “Mass Storage Device”.
3. Connect VSV-II to Pictbridge Compliant Printers.
4. Open up your photo files and press Menu key.
5. Select “Print.”

For Photos to be directly printed out through printers, printers must be Pictbridge compliant. If printer is not Pictbridge compliant or if it is not connected well, VSV-II will show “No Supported Printer”.

Using a memory card
VSV-II supports CF/SD, SD, MMC, MS, XD cards.

Inserting memory cards
1. Slide in your memory card(s) to the right card slot on your VSV-II.
2. VSV-II will show “Identifying memory card” then it will show “card mounted”. Then click down “Joykey” lightly to get display on screen.
3. An Icon of your memory card will then show on the screen exactly.
4. Press Enter to read the files in the memory card.

Format memory cards with VSV-II
To format your memory card:
1. Select memory card Icon.
2. Press Menu key.
3. Select “Format Disk”.

Backing up files from memory card
All the data backed up from your memory card will be stored in Backup folder. Backup folder is in Hard Disk Drive.

Full Backup of memory card
1. Press Menu on memory card Icon.
2. Select Full Backup.
3. VSV-II will reconfirm with you if you want to or not. Press “Yes” and all your files in your memory card will be copied to the Backup folder.

Backup photos from memory card
You may backup your photos taken with your digital camera. Regardless of what other files are in your memory card, VSV-II will only backup the photos taken with digital camera. If there are no digital photos taken in memory card, VSV-II will show “Not DCF format”.
1. Slide your memory card into the slot.
2. Press Menu key and select Photo Backup.
All your photos will be copied to your Backup folder.

Specifications for VSV-3.5

General Specifications

<table>
<thead>
<tr>
<th>Items</th>
<th>Category</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>Built-in Storage</td>
<td>1.8” 30GB Hard Disk, Up to 4 Primary Partitions</td>
</tr>
<tr>
<td>Memory Card</td>
<td>2 Slots, 6 Card Types: CF/Micro Drive, SD/MMC/MS/XD</td>
<td></td>
</tr>
<tr>
<td>File Management</td>
<td>Single File / Folder Copy &amp; Paste between any Storage Media, File Deletion, Hard Disk Format</td>
<td></td>
</tr>
<tr>
<td>File System</td>
<td>Connected to PC, As External HDD + Multi-Card Reader</td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 98/98SE/ME/2000/XP</td>
<td></td>
</tr>
<tr>
<td>Linux Kernel Version 2.4 and Later</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mac OS 10.0.1 and Later</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User Interface</td>
<td>Key Definition</td>
<td>Up, Down, Left, Right, Power, ESC, Menu, +, -, Select and Reset, Key Lock by Software</td>
</tr>
<tr>
<td>Language</td>
<td>Multi-Language OSD Menu and Filename Display</td>
<td></td>
</tr>
<tr>
<td>File View Mode</td>
<td>Icon or List View</td>
<td></td>
</tr>
<tr>
<td>Power Supply</td>
<td>AC Adapter</td>
<td>DC 5.0V, 2.0A</td>
</tr>
<tr>
<td>Battery</td>
<td>Rechargeable, Li-Polymer 3.7V/2200mAh</td>
<td></td>
</tr>
<tr>
<td>Average Playback Time</td>
<td>Video: 3.5 hours, Audio: 10 hours</td>
<td></td>
</tr>
<tr>
<td>Power Saving Features</td>
<td>Auto Power Off, Screen Saver, Hard Disk Spin Down</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>Display</td>
<td>3.5” TFT LCD, 320x240 Pixels, Backlight Adjustable</td>
</tr>
<tr>
<td>Line / TV-Out</td>
<td>NTSC/PAL</td>
<td></td>
</tr>
<tr>
<td>Line In</td>
<td>I/O cable</td>
<td></td>
</tr>
<tr>
<td>Audio</td>
<td>Audio Built-in Speaker</td>
<td>8 Ohm up to 500mW</td>
</tr>
<tr>
<td>Built-in Microphone</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Line Out</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Line In</td>
<td>I/O cable</td>
<td></td>
</tr>
<tr>
<td>No. Channels</td>
<td>Stereo (L+R)</td>
<td></td>
</tr>
<tr>
<td>Recording</td>
<td>FM, Voice and Line-In signals</td>
<td></td>
</tr>
<tr>
<td>FM Tuner</td>
<td>FM Frequency Range</td>
<td>76 MHz – 108 MHz</td>
</tr>
</tbody>
</table>
### Items Category Specification

**Connectivity**  
Extended Interface (22P I/O connector)  
USB 2.0 / Microsoft MTP, Audio In/Out, Video In/Out, 2-Wire Serial Interface, UART  
Remote Control  
Infrared  
Direct Printing  
PictBridge Compliant  
Multimedia Content Protection  
Microsoft Digital Rights Management (DRM) 10  
**Scalability**  
Firmware Update  
DSP Firmware by Direct File Execution, USB Firmware by PC  
**General**  
PC Connection  
USB 2.0/ USB 1.1 by Microsoft MTP  
Dimensions  
113 x 73 x 26 mm  
Weight  
235g (including HDD and battery)  
Operational Temperature  
0º to 40º C  

---

**Supported files**

<table>
<thead>
<tr>
<th>Items</th>
<th>File Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decoding Image</td>
<td>JPEG (*.JPG)</td>
<td>Baseline YUV and Grayscale (No Progressive), Up to 16M Pixels</td>
</tr>
<tr>
<td>Decoding Image</td>
<td>TIFF (*.TIFF)</td>
<td>1 and 8-bit Grayscale, 8-bit Indexed-Color, 8 and 16-bit True Color</td>
</tr>
<tr>
<td>Decoding Image</td>
<td>BMP (*.BMP)</td>
<td>Monochrome, 8-bit Indexed-Color, RGB, RLE8</td>
</tr>
<tr>
<td>Decoding Image</td>
<td>RAW (*.NEF, *.ORF, *.CRW, *.RAF, *.OCR)</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>Motion JPEG (*.AVI, *.MOV)</td>
<td>320x240 @ 30 fps, Audio: ADPCM</td>
</tr>
<tr>
<td>Video</td>
<td>MPEG-1 (*.MPG, *.DAT)</td>
<td>352x240 @ 30 fps, Bitrate: 1.5Mbps, Audio: MPEG-1 Layer II/III, Remark: VCD</td>
</tr>
<tr>
<td>Video</td>
<td>ISO MPEG-4 (*.MP4)</td>
<td>720x480 @ 25 fps / 640x480 @ 30 fps, Bitrate: 4Mbps, Audio: AAC, Remark: Simple Profile</td>
</tr>
<tr>
<td>Video</td>
<td>DivX 5.x (*.AVI)</td>
<td>720x480 @ 25 fps / 640x480 @ 30 fps, Bitrate: 4Mbps, Audio: MPEG-1 Layer III, AAC, ADPCM</td>
</tr>
<tr>
<td>Audio</td>
<td>MP3 (*.MP3)</td>
<td>MPEG-1 Layer I/II/III, Sample Rate up to 48KHz, Bitrate: 16~384Kbps, CBR &amp; VBR, Stereo or Mono</td>
</tr>
<tr>
<td>Audio</td>
<td>WMA (*.WMA)</td>
<td>WMA 7/8/9, Sample Rate up to 44KHz, Bitrate: 32~192Kbps, CBR, Stereo or Mono, Microsoft DRM10</td>
</tr>
<tr>
<td>Audio</td>
<td>AAC (*.M4A, *.AAC)</td>
<td>MPEG4-AAC, Sample Rate up to 48KHz, Bitrate: 16~320Kbps, CBR, VBR &amp; ABR, Stereo or Mono</td>
</tr>
<tr>
<td>Audio</td>
<td>WAV (*.WAV)</td>
<td>Sample Rate up to 48KHz, Stereo or Mono, Uncompressed 8 or 16-bit PCM in MS-RIFF WAV Format</td>
</tr>
<tr>
<td>Audio</td>
<td>CDA</td>
<td>CD-Audio, 18-bit 44.1KHz Stereo</td>
</tr>
<tr>
<td>Encoding Video</td>
<td>ISO MPEG-4 (*.MP4)</td>
<td>352x240 @ 30 fps, Audio: AAC</td>
</tr>
<tr>
<td>Encoding Audio</td>
<td>AAC (*.AAC)</td>
<td>1 Channel: 48KHz / 75Kbps, 44.1KHz / 75Kbps, 32KHz / 56Kbps, 24KHz / 42Kbps, 22KHz / 38Kbps</td>
</tr>
<tr>
<td>Encoding Audio</td>
<td>2 Channel: 24KHz / 84Kbps</td>
<td></td>
</tr>
</tbody>
</table>