

DV-66B User Guide

(HW V1.3, FW V1.6)

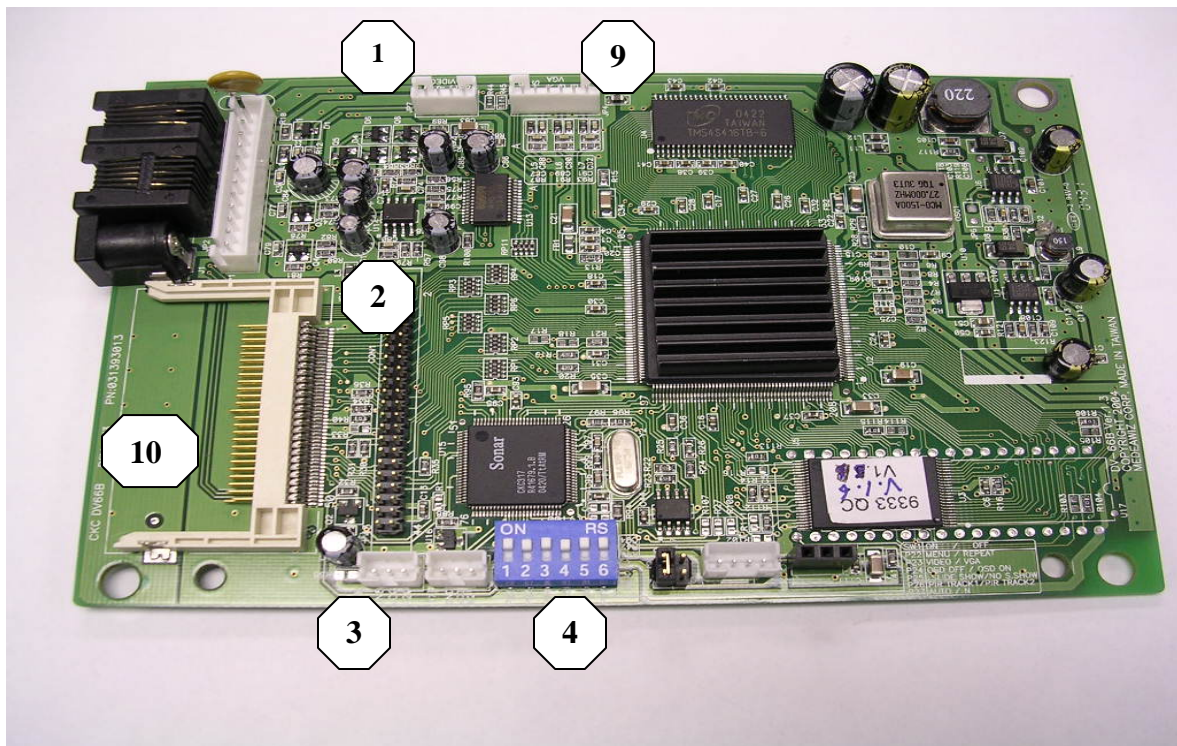
Latest Version Sept. 2004

Product Description

The DV-66B is the PC Board used in the DV-66 player. It enables the DV-66 series player to play multi-format media files with High-speed CompactFlash® memory cards (CF). DV-66B is specifically designed for the POP and Kiosk market. It can store and playback full-motion audio/video clips saved in a CF card with DVD quality audio/video output; MPEG-1, MPEG-2, JPEG, and MP3 file formats. Users can create custom video scripts easily by simply using a computer with a standard CF card reader to drag and drop files to the CF memory card.

Features

PC Board outlook



1. JP7, inner S-video connector
2. CON1, 44-pin pitch 2.0mm connector for using 2.5” Hard disk
3. J4, PIR inner connector
4. 6 position DIP switches for hardware setup
5. RS232 TTL control commands
6. Audio output level (volume) increase
7. Support 16:9 file format
8. Support multiple formats: MPEG-2, MPEG-1, MP3, and JPEG
9. VGA output
10. Support CF card and IBM MicroDrive up to 2.2GB
11. Repeat or Menu modes available
12. Multiple track selection, up to 99 tracks
13. Instant track response
14. Stereo audio output

Features' details and guidelines

1. JP7, inner S-video connector.

This connector will allow the unit output the video signal at S-video format.

It will have a new S-video soon (4-pin Molex pitch 2.0mm to S-video female).

User can also connect it directly to the inner S-video connector in the display by its pin definition to get a better video quality.

2. J4, PIR inner connector.

Reserved a 3-pin pitch 2.0 mm Molex connector (GND: Ground, Vcc: 5V, P20: signal input from PIR module) to connect to a PIR module. PIR use 5V power from the DV-66B, and send the signal into DV-66B via P20 pin. When PIR motion sensor module detect the movement, it will send a 5V signal into P20 of J4, the DV-66B player detect the signal and will activate video clip related to SW1 or SW2 (depending on the setting of the DIP SW5, “On” for SW1; “Off” for SW2”).

3. J4, PIR inner connector.

New standard 44-pin 2.0 mm connector for the player to use a 2.5” Hard Disk as storage media, the pin# 41 is DC 5V, and Pin#43 is the Ground as the power source to the Hard disk.

This will be a low cost solution for the end user who will need a long time playing video clip for repeatedly playing.

4. DIP SW for hardware setup.

	<u>On</u>	<u>Off</u>
1) <u>DIP SW 1</u>	<u>Menu play mode</u>	<u>Repeat Play mode</u>
2) <u>DIP SW 2</u>	<u>Video/S-video output</u>	<u>VGA output @60Hz*</u>
3) <u>DIP SW 3</u>	<u>OSD feature Off</u>	<u>OSD feature On</u>
4) <u>DIP SW 4</u>	<u>JPEG start from Top</u>	<u>JPEG display full screen</u>
5) <u>DIP SW 5</u>	<u>PIR activate SW1</u>	<u>PIR activate SW2</u>
6) <u>DIP SW 6</u>	<u>4:3 Letter Box**</u>	<u>16:9</u>

All the DIP SW default setting at “ON” position.

Details:

- a) All other DIP SW (except DIP SW2) can be selected/changed when the player is power on or even off. No matter what different commands had been made, the player will detect the DIP SW status once it is power on again and setup it as DIP SW setting values.
- b) DIP SW 1 for menu mode/repeat mode setup, new unit will cancel the function of setup menu/repeat by pressing the SW1 or SW2 (of the DV-66K) before unit power on.
- c) DIP SW2 Video/S-video or VGA can only be changed when the unit is power on, the changes will be permanently stored in the flash memory until received any new command or next available DIP SW changes made. (Do not change DIP SW2 when the unit is power off, this will lead to mistake in the setting.)
- d) VGA output set as 60Hz, this will help to support the PAL video to transfer its output from 50Hz (PAL) to 60Hz (NTSC) in VGA output. Per this change, it will help to support most of the update LCD/CRT monitors, which support vertical frequency only from 56Hz to 78 Hz only when playing 50Hz PAL video. Originally NTSC video will not be impact here.
- e) DIP SW3: OSD feature default as Off. OSD will only display the “select track” when a button switch selected. It will not display the track# if it is automatically repeat all in repeat mode.
- f) DIP SW4 is the setting for JPEG file display method.
When it set as “On”, JPEG file will display from the top screen down to bottom screen in 2 seconds, then full screen lasted for 5 seconds.
When it set as “Off”, JPEG file will display the full screen out and lasted for 5 seconds.
- g) DIP SW5 is the setting for PIR activated track (like SW1 or SW2 in the DV-66K)
This will need a PIR sensor motion module connected at J4 as pin definition in above item 2.
DIP SW6 is the setting to support 16:9 file format.

5. Audio output level (volume) increase.

This is to improve/increase the default volume level for the performance in the DV-6664 and DV-66104 series.

6. Support CF and Microdrive up to 2.2GB.



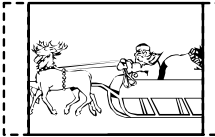
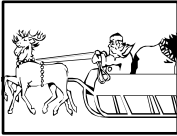
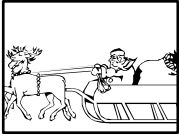
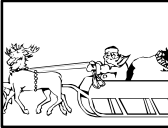
The old DV-66B HW V1.1 FW. V1.2 can only support both the CF card and Microdrive up to 1GB. The new version DV-66B HW V1.3 FW V1.6 can support up the 2.2GB and more.

7. Support 16:9 file format.

If the video clip is in 16:9 format and using a 16:9 display, it will need to change the DIP SW6 setup to meet the requirement. Below is the drawing to show the display method in the modes of 16:9, 4:3 Letter Box and 4:3 Pan & Scan

Select the correct aspect ratio on your DV-66B player

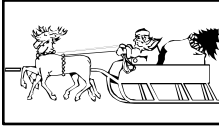
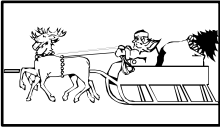
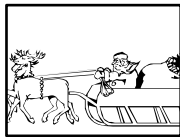

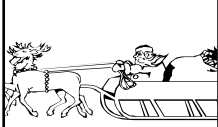
4: 3 Aspect Ratio

Image format	DV-66 Settings	View options	
 <p>16:9 Mpeg files</p>	<p>4:3 (Letter Box)</p>		<p>There are black bars at the top and bottom of the screen but the full image is displayed</p>
	<p>4:3(Pan & Scan)</p>		<p>The left and right sides of the screen are cut off but the image can still be seen properly.</p> <p><i>Switch the player to 4:3 Letter box for a full screen view</i></p>
	<p>16:9 (Wide)</p>		<p>The image appears to be stretched vertically.</p> <p><i>Switch the player to 4:3 Letter Box or 4:3 Pan & Scan</i></p>
 <p>4:3 Mpeg files</p>	<p>4:3 (Letter Box) 4:3 (Pan & Scan) 16:9 (Wide)</p>		<p>The image is displayed properly</p>

Note:

1. DV-66 only support 16:9 (DIP SW6 off) and 4:3 letter box setting (DIP SW6 on) on SW1 setting.
2. DV-66 can support 16:9, 4:3 Letter Box, and 4:3 Pan & Scan on command control per command list.

16:9 Wide TV

Image format	DV-66 Setting	View Options	
 16:9 Mpeg files	16:9 (Wide)		<p>The image is properly displayed on the screen. There may be bands at the top and bottom depending upon the file format.</p>
 4:3 Mpeg files		16:9 (Wide)	
			

8. TTL control commands

DV66, RS232 Interface Definition (Receive Only) Version 0.6

Transmit from PC, com port, TTL level

Received by DV66B MCU of CKC317

RS232 TTL Level :
5V

Voltage Level : (0~5V)

TTL Level

Transmit Protocol : **4800,S(=0),8,1**

Baud Rate : **4800**

Priority Bit Check : **S(=0)**

Data Bit Length : **8**

Stop Bit No. **1**

Initial Status: Default setting

1. Video

2. 4:3

3. Menu

4. OSD Off

RS232 Code(Decimal)	RS232 Code(Hex)	IR Key Code	Content
1~99	1~63	NA	Play track #1~#99

RS232 Code(Decimal)	RS232 Code(Hex)	IR Key Code	Content	
201	C9	01	Standby	Power ON/Off
202	CA	02	Reset	Power reset - new added
203	CB	03	NC	-----
204	CC	04	OSD on	Open OSD feature- new changed
205	CD	05	NC	-----
206	CE	06	1	Number button 1
207	CF	07	2	Number button 2
208	D0	08	3	Number button 3
209	D1	09	NC	-----
210	D2	10	4	Number button 4
211	D3	11	5	Number button 5
212	D4	12	6	Number button 6
213	D5	13	Subtitle	Subtitle selection (DVD only)
214	D6	14	7	Number button 7
215	D7	15	8	Number button 8
216	D8	16	9	Number button 9
217	D9	17	NC	-----
218	DA	18	Mute	Mute button
219	DB	19	33	Erase Typos when key in
220	DC	20	Root	Display root directory & file list
221	DD	21	Title	Display Title
222	DE	22	Up Arrow	Move selection bar up
223	DF	23	Menu	Pop out file list for selection
224	E0	24	Left Arrow	Move selection bar to the left
225	E1	25	Enter / play	Confirm selection made/File playback
226	E2	26	Right Arrow	Move selection bar to the right
227	E3	27	Toggle VGA/Video	VGA/Video mode selection
228	E4	28	Down Arrow	Move selection bar down
229	E5	29	Repeat	Select from 6 REPEAT mode
230	E6	30	Video/S-video out	Video/S-video output - new
231	E7	31	Setup	Activate setup menu
232	E8	32	Display	Display playing status
233	E9	33	Volume +	Volume increase
234	EA	34	VGA output	VGA output -- new added
235	EB	35	4:3 P-Scan	Output mode selection - new
236	EC	36	Zoom	Activate/deactivate the zoom function
237	ED	37	Volume -	Volume decrease

238	EE	38	3D	3D function selection
239	EF	39	A-B	Repeat start/end selection
240	F0	40	Mode	Mode selection (DVD only)
241	F1	41	FB	Fast rewind
242	F2	42	FF	Fast forward
243	F3	43	Prev	Back to previous file
244	F4	44	Next	Go to next file
245	F5	45	Stop	Stop playing file
246	F6	46	Pause	Temporarily stop played file
247	F7	47	Play	File playback
248	F8	48	16:9	Output mode selection --new
249	F9	49	Menu Mode	Play menu clip until other clip selected.
250	FA	50	Repeat Mode	Repeat playing all clips/Menu repeat
251	FB	51	NC	-----
252	FC	52	OSD OFF	Disable OSD feature
253	FD	53	OSD On	Enable OSD feature
254	FE	54	4:3 letter box	Output mode selection -- new
255	FF	55	NC	-----

Setup procedure:

1. Depress "OSD on" button to enable OSD feature before other function selected.
2. OSD on feature will be auto-off

Remark:

- 1) It is highly recommended that the CF card to be inserted while the player is OFF. Do not attempt to insert or pull out CF card while the player is ON; as this may severely damage the CF card. However, in the case that lack/hard to access the power connection, it is recommended that you use SanDisk Ultra II CF card, as this has been approved to be more robust than other CF cards.
- 2) Lead data Ultra Hi-speed or Transcend Ultra 45X CF card do not support above feature.
- 3) Other CF card may or may not support this feature—need to be further approved.