

# DVR8106

## Image Recording Module

### With various user setting

#### Description

This image recording module is a standard module which using 4 bit data for various command control of the module. In compare to other modules in the same series, this module provides much more settings for special application

#### Features

- ✓ Small in size: 80x55mm
- ✓ Motion Detect
- ✓ Capture up to 10 photos per trigger
- ✓ AVI frame rate and recording duration setting
- ✓ OSD to show settings in preview screen
- ✓ DC12V operation
- ✓ External trigger to capture a photo/AVI
- ✓ Alarm output when motion detected
- ✓ Video output to TV
- ✓ 4-bit Keys operation
- ✓ Preset NTSC or PAL TV system input



#### Connector Description

**Note: the connectors shown below will depend on the firmware design, not applicable for all models.**

Connector	Function	Remark
JP1	Select NTSC/PAL	Need to be selected before power up
J1	NC	For debug purpose,
J2	SD card slot	Support up to 2G SD card
J3	Select AVI/JPG	Need to be selected before power up
J4	Keyboard input	4 bit binary input with common ground, internal pull high
J5	Video out	2-pins, To output video signal to TV set
J6	Camera input	4-pins, for video signal in and power supply (option)
J7	Trigger input	Active Low, TG1 for Cam1, TG2 for Cam2
J8	Power	Aux power input, 12V DC, if J6 power no connected
J9	Alarm Out	Active low when motion detected

#### Electrical Characteristics (at room temperature 25C)

Parameter	Condition	Min	Type	Max	Unit
Operation Voltage		7.5	12	13.5	V
Operation Current		238	145	128	mA
Standby Current	No Video o/p	215	130	120	mA

#### Key Definition

Key	Name	Key	Name
0001	Snap Shot	0111	Menu
0010	OK	1000	NOP
0011	Down	1001	Left
0100	NOP	1010	UP
0101	Right	1011	Mode
0110	Disp	1100	NOP

Note: all other combinations are NOP (no operation)

## Operation

Users can make his own keyboard according to the key definition stated and perform the following operation.

### 1 Change mode between view and play back

By default, the DVR is in view mode and show channel 1 when power up. One can press MODE to switch view or playback photo screen

### 2 Change viewing channel and PIP

- 2.1 Press DISP to change view from Ch1 to Ch2
- 2.2 Press again DISP and view PIP, Ch2 in Ch1
- 2.3 Press again DISP and view PIP, Ch1 in Ch2
- 2.4 Press again DISP to cycle from viewing Ch1

### 3 Capture photo

- 3.1 Use external trigger to capture: refer to section 4, as below.
- 3.2 by manually: at View mode, press SHOT to snap an image
- 3.3 by motion detect: pls refer to the following setup section, once it is in armed mode, the DVR will capture the image when motion detected.
- 3.4 Use short cut key UP to arm the system at View mode

### 4 External trigger for capture

- 4.1 Active low, it depends on which camera is active.
- 4.2 If ch1 is in view, if TG1 active, capture a photo from ch1, if TG2 active, the system will switch to ch2 and take a photo from ch2 then keep the ch2 in view, until manual change to ch1.
- 4.3 If both channels has triggered at the same time, the first triggered channel will be valid.

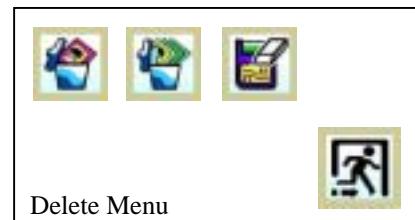
### 5 Playback the photo inside the memory

The capture photos will be stored in different folders for easy searching. The folders are named according to the date sequence. If there is no file in the memory, it will show "NO FILE" and enter view mode

- 5.1 press MODE button to enter playback mode
- 5.2 press OK to enter thumbnail view, press again OK to normal view
- 5.3 use LF/RT button to forward or rewind the image
- 5.4 press UP to turn on off the OSD
- 5.5 press DISP to show folder name, use UP/DN key to scroll, OK to select

### 6 Delete files from memory

- 6.1 At playback mode, press MENU to enter playback menu, by using LF/RT key, one can select delete current image or all files in the current folder. Press OK to confirm and reconfirm by selecting a tick icon.
- 6.2 One can select format to delete all files in all folders



### 7 System Setup

At preview mode, press MENU

#### 7.1 Set up Date time

- 7.1.1 Use LF/RT key to select date or time and UP/DN key to set the correct digit. The setting will then store into system. Press OK to confirm.

#### 7.2 Set up auto capture – enable or disable

- 7.2.1 Press OK to toggle enable or disable

#### 7.3 Set up the capture format – AVI or Photo

- 7.3.1 Press OK to toggle AVI or Photo, press LF/RT key to select next.

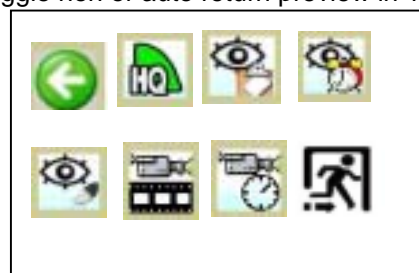
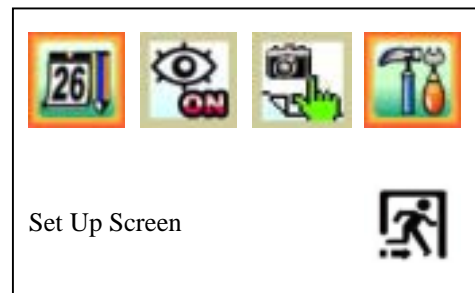
#### 7.4 Advance Setup

- 7.4.1 Set up the auto return preview: Press OK to toggle non or auto return preview in 10 or 30 second

- 7.4.2 Set up the image quality: Press OK to toggle HQ or SQ(default is HQ)

- 7.4.3 Set up motion detect count: default is 1, press OK to select from 1 to 10, this means the no of images will be captured at every trigger. Use LF/RT move to other item

- 7.4.4 Set up motion detect interval: default is 1, press OK to select from 1 to 9, the bigger figure the longer interval to active the detection. Setting n is about n+2 sec between 2 snap shot.



- 7.4.5 Set up motion detect sensitivity, use OK to select Hi, Mid, Lo, default is Hi
- 7.4.6 Set up frame rate setting, use OK to select 1, 2, 5, 10, 15fps
- 7.4.7 Set up recording duration, press OK to select 5, 10, 20, 30sec  
 Remark: When frame rate is 1 or 2fps, "manual capture" means no limit of capture duration, and When frame rate is 5 or 10 or 15fps, "manual capture" means press "snap" to start and auto stop according to duration setting(MAX=30S)





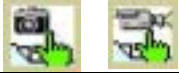
NOTE: Default is full screen MD about Motion detect area.

### 8. Alarm Output









If the active channel has a motion detected, it will output an active low signal to Alarm Out, user can connect it to trigger external device such as siren. Note, this feature is only active at motion detect on and only main viewing channel in PIP mode.

### Icon Definition

#### Set up Menu

	Date Time setup		Advance Set up
	Motion Detect On or Off		Quit Menu
	Select Photo or Video		

#### Advance Set up

	AVI recording frame rate		Select image quality Hi or Low
	Motion Detect count		Motion detect interval setting
	Motion detect sensitivity		AVI frame setting
	AVI duration setting		Quit

#### Photo Management

	Delete one photo		Format memory, clear all files
	Delete all photos		

### OSD

#### A - Preview

1. show date time
2. show Ch1, Ch2
3. show JPG/AVI
4. show MD on
5. show frame rate / MD interval
6. show duration / photo count

#### B – Recording

1. JPG – the camera icon to flash once or change color
2. AVI – recording icon to flash during recording, not relating to the frame rate, flashing at 2 Hz