unit:mm

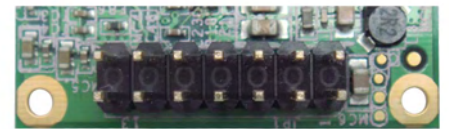| Model	MP-VRM100
AV recorder resolution	640x480(VGA) / max 30 fps.
External Memory	SD Card memory slot (support up to SDHC 32GB) ●
Compression	MPEG 4 ASF file
Video	Synchronized audio & video recording/ playback
Function	AV In Mode , Play Mode , PreviewOSD displaying icons , SD card Update , ISP Mode , Special circumstances , SETUP Rec Mode Normal REC Mode, loop overwrite REC Mode , motion detect , REC Mode , RTC date and time stamping Using SD CARD config profile , Snapshot: JPG IMAGE 640x480 ,
Video Output	TV out /AV in (NTSC/PAL)
PC Interface	USB1.1
Dimension	32 x 68 mm

MP-VRM100

•Improve the SD SDHC Card 4GB ~32GB compatibility MP-VRM100 support for SDHC, SDHC card(OVER 4GB~32GB) must be special format processing ! through the pc to format SDHC Card Fat32 block size 16k process:
WINDOWS SYSTEM
1.Click [Start],
2.then click the [running] 'button',
3. [Open] box, type: "diskmgmt.msc", and then click [OK],
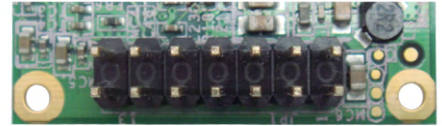then Right-click on SDHC CARD DISK and format block size 16 or 32K

I/O Pin Define

PIN	VRB03 I/O PIN	SIGNAL LEVER
PIN1	(input)5V/350mA Power Supply	
PIN2	GND	
PIN3	(input)NTSC Composite Video in	
PIN4	(input)Mono Audio Line in	
PIN5	(output)NTSC Composite Video out	
PIN6	(output)Mono Audio Line out	
PIN7	(output)SD Card full or Error LED out(high: SD Card Fullor Error low: Normal)	Off ⌐On⌐ Off
PIN8	(output)Recording/Playing LED out Recording-> high :SD Card Recording low: Stop Playing->Flash High(1 Second high 1 Second low Repeater):Playing low: Stop	Off ⌐⌐ Off
PIN9	(input)Rec Control pin(Normal High Low Active)	Rec Stop Rec 1 SEC Rec Rec

PIN14	PIN12	PIN10	PIN8	PIN6	PIN4	PIN2
PIN13	PIN11	PIN9	PIN7	PIN5	PIN3	PIN1

I/O Pin Define

PIN	VRB03 I/O PIN	SIGNAL LEVER
PIN9	On Preview screen delete file (1) Double click 2 times then delete file (2) Longer(2 seconds) for delete file	2 SEC Rec
Pin 10	(input)Play pin input(Normal High low active)	Play Pause
Pin 11	(input)Stop pin input(Normal High low active)	Stop
Pin 12	REC MODE: snapshot JPG image file 640 x 480 (Normal High low active) (input)Fast Forward input(Normal High low active) Short for next video longer (2 seconds) for Fast Forward	Nest Forward(2 SEC)
	On Preview Screen, Longer(2 seconds) for jump to the last file	Forward(2 SEC)
Pin 13	(input)Rewind input(Normal High low active) short for next video longer(2 seconds) for Rewind	Back Rewind (2 SEC)
	On Preview Screen, Longer(2 seconds) for jump to the first file	Rewind (2 SEC)

PIN14	PIN12	PIN10	PIN8	PIN6	PIN4	PIN2
PIN13	PIN11	PIN9	PIN7	PIN5	PIN3	PIN1

Setting

Configuration file: create txt file to the SD CARD, \MISC\SYSCFG.txt
SD \MISC\SYSCFG.txt configuration file contents

[COMMON]
DATE=2009-12-14
TIME=14:38
// NTSC/60, PAL/50
TVTYPE=PAL
TVFREQHz=50
RESET=0

[DVINFO]
//60, 50 Hz
SENSORFREQHz=50
// REC MODE NORMAL, CYCLE, MOTION
DVRECTYPE=NORMAL
//YES TIME BAR ON, NO TIME BAR OFF
DVRECTIMEBAR=YES
[DSCINFO]

#END

⚠ Boot after waiting for about 10 ~ 15 sec and off power, The system will read and delete the configuration file
(do not perform other operations, will lead to a configuration parameter can not be saved)

S/W Function Description

1. when turning on the device, LED D1, D2 on. after the device is already turned on, D1, D2 LED off

2. after turning on the device and entering AV_In Mode, at the same time AV_Out, no OSD shown on the screen

3. Turn on setup option and default :
Key Sound: Off ,
Volume:15 ,
TV Type:NTSC , Format , Version , Exit ,
Key function: Key(Play)⟶ Enter Key(Froward)⟶Down Key(Rewind)⟶Up

4. Play Mode:
When playing, pausing, forwarding, rewinding, keep D2 On/Off at an one second blink interval
When playing, pausing, forwarding, rewinding, key (Rec) has no effect
Press Key(Play) from AV_In Mode. If the SD card is not plugged in, then OSD will appeal "InsertMemory Card"
If SD card is locked, OSD will appear "Memory Card Locked"
If SD card has no more space, OSD will appear "Memory Card Full;
If SD card is damaged, OSD appears "Memory Card Fail"
If SD card has no file in it, OSD appears "No Record File"
Problems of SD card appears in OSD is at AV_In Mode screen
Problems appear in OSD will automatically disappear after 3 seconds
Press Key(Play) from AV_In Mode then you will enter Play Mode monitor appears the screen last recorded
Press Key(play) again to start playing the file
Press Key(Play) to enter Pause Mode, press it again to continue playing the file
When playing the video press Key(Forward) to directly play the next video
Press Key(Forward) for 2 seconds to forward the video 2 times faster
Press Key(Play) to stop forwarding
When the video is being forwarded to the end, stop forwarding to automatically start playing the next video
When playing the video press Key(Rewind) to directly play the previous video
press key(Rewind) for 2 seconds to rewind the video 2 times faster until you press Key(Play) to stop rewinding
When the video is being rewound to the end, stop rewinding to automatically play the previous video
When playing the video press Key(Stop) to return to AV_In Mode

5. AV_In Mode :
When AV signal input, it can immediately output AV signal , To get into the screen of setup option, press Key(Forward   Rewind) at the same time , Set volume
output default at 15

6. Rec Mode :
Normal, loop overwrite, motion detect
When recording Key(Play   Stop   Forward   Rewind) has no effect. Press Rec key(voltage is atLow level) then start recording, press again to stop recording.
When recording, keep D2 On/Off at an one second blink interval
The recorded file's name is "File0001.asf";"File0002.asf", and so on. The length of all files is
consistently at "2006.1.1 00:00:00". File is saved at the VIDEO catalogue inside the SD card.

7. Preview
Press Rec Key 2 times in a second or press it for two seconds to delete the preview file
When the file is deleted, SOD appears "Delete File," it does not ask the user to confirm
After the file is deleted then preview the next file
For example: there are 5 files, after the third file is deleted it will preview the forth file
If there is only one file, after deleting it the screen will return to AV_In Mode
Press Key(forward) for 2 seconds to preview the last file
Press Key(Rewind) for 2 seconds to preview the first file

8. SD card Update
Under MISC catalogue of SD card there has to have 2 files
Change the original file name to VRB03.bin and ISP_38NR.bin Insert SD card
Press Key(Stop) to turn on, make SD card Update Code
During the Update process, D1
After update is completed, turn D1   D2 Off. At the same time power reset to restart.

9. ISP Mode
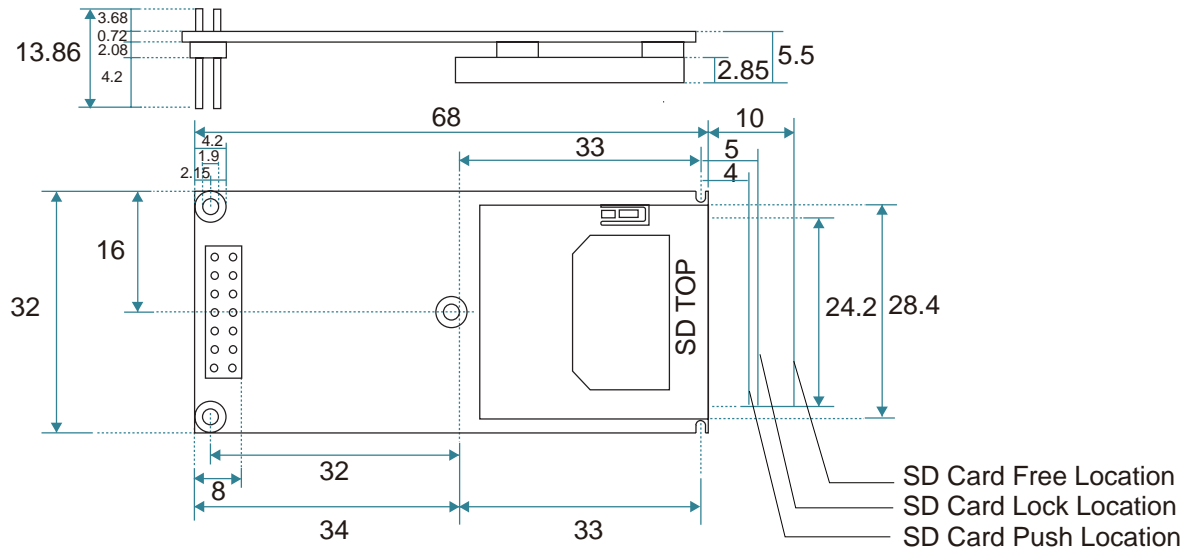In order to use ISP Down Code, evaluation board need to be used at the same time.
When downloading, need to keep D1   D2 On/Off at an one second blink interval.
After downloading turn off D1   D2, at the same time power reset to restart.

10. Special circumstances
When turning on, set Key(Rec) at Low level. Execute Rec Mode after turning on.
In order to use ISP Down Code, evaluation board need to be used at the same time.

Dimensions

3.68
0.72
2.08
4.2
13.86
2.85 5.5

68 10
33 5 4
4.2
1.9
2.15
16
32
SD TOP
24.2 28.4
32
8
34 33

SD Card Free Location
SD Card Lock Location
SD Card Push Location

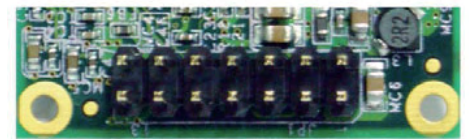| Model	MP-100
AV recorder resolution	640x480(VGA) / max 30 fps.
External Memory	SD Card memory slot (support up to 32GB)●
Compression	MPEG 4 ASF file
Video	Synchronized audio & video recording/ playback
Video Output	TV out /AV in (NTSC/PAL)
Function	AV_In Mode , Rec Mode , Play Mode , PreviewOSD displaying icons , SD card Update , ISP Mode , Special circumstances
PC Interface	USB1.1
Dimension	64 (L) x 95 (H) x 18 (W) mm

MP-100

●Format SDHC

Add support for SDHC specifications,SDHC card through the pc to format Fat32 block size 16k, mp100 can use SDHC card over 8G
Click [Start], then click the [running] 'button', and then [Open] box, type:"diskmgmt.msc", and then click [OK],then Right-click on SDHC and format 32K.
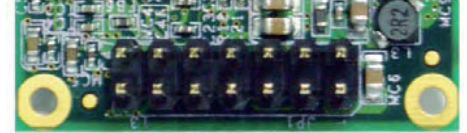
I/O Pin Define

PIN	VRB03 I/O PIN	SIGNAL LEVER
PIN1	(input)5V/350mA Power Supply	
PIN2	GND	
PIN3	(input)NTSC Composite Video in	
PIN4	(input)Mono Audio Line in	
PIN5	(output)NTSC Composite Video out	
PIN6	(output)Mono Audio Line out	
PIN7	(output)SD Card full or Error LED out(high: SD Card Fullor Error low: Normal)	
PIN8	(output)Recording/Playing LED out Recording-> high :SD Card Recording low: Stop Playing->Flash High(1 Second high 1 Second low Repeater):Playing low: Stop	
PIN9	(input)Rec Control pin(Normal High Low Active)	
	On Preview screen delete file (1) Double click 2 times then delete file (2) Longer(2 seconds) for delete file	

PIN14	PIN12	PIN10	PIN8	PIN6	PIN4	PIN2
PIN13	PIN11	PIN9	PIN7	PIN5	PIN3	PIN1

I/O Pin Define

PIN	VRB03 I/O PIN	SIGNAL LEVER
Pin 10	(input)Play pin input(Normal High low active)	Play Pause
Pin 11	(input)Stop pin input(Normal High low active)	Stop
Pin 12	(input)Fast Forward input(Normal High low active) Short for next video longer(2 seconds) for Fast Forward	Nest / Forward(2 SEC)
	On Preview Screen, Longer(2 seconds) for jump to the last file	Forward(2 SEC)
Pin 13	(input)Rewind input(Normal High low active) short for next video longer(2 seconds) for Rewind	Back / Rewind (2 SEC)
	On Preview Screen, Longer(2 seconds) for jump to the first file	Rewind (2 SEC)

PIN14	PIN12	PIN10	PIN8	PIN6	PIN4	PIN2
PIN13	PIN11	PIN9	PIN7	PIN5	PIN3	PIN1

IS/W Function Description

1. when turning on the device, LED D1, D2 on. after the device is already turned on, D1, D2 LED off

2. after turning on the device and entering AV_In Mode, at the same time AV_Out, no OSD shown on the screen

3. Turn on setup option and default :
Key Sound: Off ,
Volume:15 ,
TV Type:NTSC , Format , Version , Exit ,
Key function: Key(Play) → Enter Key(Froward)→Down Key(Rewind)→Up

4. AV_In Mode : When AV signal input, it can immediately output AV signal , To get into the screen of setup option, press Key(Forward 、Rewind) at the same time , Set volume
output default at 15

5. Play Mode:
When playing, pausing, forwarding, rewinding, keep D2 On/Off at an one second blink interval
When playing, pausing, forwarding, rewinding, key (Rec) has no effect
Press Key(Play) from AV_In Mode. If the SD card is not plugged in, then OSD will appeal "InsertMemory Card"
If SD card is locked, OSD will appear "Memory Card Locked"
If SD card has no more space, OSD will appear "Memory Card Full;
If SD card is damaged, OSD appears "Memory Card Fail"
If SD card has no file in it, OSD appears "No Record File"
Problems of SD card appears in OSD is at AV_In Mode screen
Problems appear in OSD will automatically disappear after 3 seconds
Press Key(Play) from AV_In Mode then you will enter Play Mode monitor appears the screen last recorded
Press Key(play) again to start playing the file
Press Key(Play) to enter Pause Mode, press it again to continue playing the file
When playing the video press Key(Forward) to directly play the next video
Press Key(Forward) for 2 seconds to forward the video 2 times faster
Press Key(Play) to stop forwarding
When the video is being forwarded to the end, stop forwarding to automatically start playing the next video
When playing the video press Key(Rewind) to directly play the previous video
press key(Rewind) for 2 seconds to rewind the video 2 times faster until you press Key(Play) to stop rewinding
When the video is being rewound to the end, stop rewinding to automatically play the previous video
When playing the video press Key(Stop) to return to AV_In Mode

6. Rec Mode :
When recording Key(Play、Stop、Forward、Rewind) has no effect. Press Rec key(voltage is atLow level) then start recording, press again to stop recording.
When recording, keep D2 On/Off at an one second blink interval
The recorded file's name is "File0001.asf";"File0002.asf", and so on. The length of all files is consistently at "2006.1.1 00:00:00". File is saved at the VIDEO catalogue inside the SD card.

7. Preview
Press Rec Key 2 times in a second or press it for two seconds to delete the preview file
When the file is deleted, SOD appears "Delete File," it does not ask the user to confirm
After the file is deleted then preview the next file
For example: there are 5 files, after the third file is deleted it will preview the forth file
If there is only one file, after deleting it the screen will return to AV_In Mode
Press Key(forward) for 2 seconds to preview the last file
Press Key(Rewind) for 2 seconds to preview the first file

8. OSD displaying icons: Play、Rec、Forward、Rewind、Pause

9. SD card Update
Under MISC catalogue of SD card there has to have 2 files
Change the original file name to VRB03.bin and ISP_38NR.bin Insert SD card
Press Key(Stop) to turn on, make SD card Update Code
During the Update process, D1
After update is completed, turn D1、D2 Off. At the same time power reset to restart.

10. ISP Mode
In order to use ISP Down Code, evaluation board need to be used at the same time.
When downloading, need to keep D1、D2 On/Off at an one second blink interval.
After downloading turn off D1、D2, at the same time power reset to restart.

11. Special circumstances
When turning on, set Key(Rec) at Low level. Execute Rec Mode after turning on.
In order to use ISP Down Code, evaluation board need to be used at the same time.

Other infromation

Mobile Digital Video Recorder

MP-415E	MP-469E
SD/MMC. card slot (support up to 2GB)	SD/MMC. card slot (support up to 4GB SDHC)
Built-in flash memory 128 MB	MPEG 4 REC VIDEO & Snapshot JPG IMAGE
Interface: USB 2.0 (USB 2.0/power in)	Interface: USB 2.0 (USB 2.0/power in)
Extend Interface: Extend DC Power 9V out for Camera and AV in	Extend Interface: Direct supply DC Power 9V output for Camera and Vdieo composite input

Instruction Drawing & Description

MP-100-JIG

Accessory

GND(BLACK)

MP-100-JIG

MP-100

GND(BLACK)

(FRONT)

(BACK)

PIN13 PIN14
PIN11 PIN12
PIN9 PIN10
PIN7 PIN8
PIN5 PIN6
PIN3 PIN4
PIN1 PIN2

Forward Play Stop Rewind
S5 S4 S2 S1

Boot Strap Jump

OFF ON

REC.
S6 S3 J2 J3

Power OFF/ON

J6 J5 J4 J1

DC 5V Power Input

USB For Computer

AV Output for AV phone jack

AV Input for phone jack

62

32

Connect MP-100

Unit: mm (±0.2)

Output DC 5V

Video male(yellow)

Audio male(white)

apply to :

G P
A V

Output DC 5V

Video Female(yellow)

Audio Female(white)

GND

D+ D-

VCC-5V

J6
DC_JACK_S

1
3
2

S6
3
1
2

C1

100uF/6.3V

D1

SD-FULL

D2

REC-PLY-OUT

J4
1
2
3
4

LINE-IN

VIDEO-IN
VCC-5V

J5
1
2
3
4

AUDIO-OUT

VIDEO-OUT
VCC-5V

VCC-5V

J9   CN-14P

1 VCC-5V
2 GND
3 VIDEO-IN
4 LINE-IN
5 VIDEO-OUT
6 AUDIO-OUT
7 SD-FULL
8 REC-PLY-OUT
9 REC-IN
10 PLAY
11 STOP
12 FORWARD
13 REWIND
14

VIDEO-IN
LINE-IN
VIDEO-OUT
AUDIO-OUT
SD-FULL
REC-PLY-OUT
REC-IN
PLAY
STOP
FORWARD
REWIND

J1
CN/MINI_USB

VCC-5V
D-
D+

1
2
3
4
5

VSYS

J2
1

2 D+

J3
1 MA2

2

S1
REWIND 1 2

S2
STOP 1 2

S3
REC-IN 1 2

S4
PLAY 1 2

S5
FORWARD 1 2

J7
1
2 MA2
3 D+
4 D-
5 D+
6 VSYS

R1 1.5K

CN/MOLEX/6P