VR4 Video player Manual Version 1.2

INTRODUCTION:
The VR4 is a self-contained Solid State video player housed in a small aluminum enclosure. The VR4 utilizes the latest development in DVD single chip technology to decode VOB (DVD) video file. The VR4 has a HDMI engine that up converts a standard DVD resolution video and wide format video (anamorphic) into a high definition video. Together with a HDMI transmitter chip, it will process and transmit the data into a HDMI connector. The result is all digital, high quality, high resolution video far exceeding analog video output.

The VR4 has a built in program to decode Line 21 Closed Captioning. The decoded closed caption is only available on the S Video output and at NTSC setting. The VR4 has a complete set of video out connectors. The S-Video output is ideal for small screen LCD monitor and also large monitors requiring Closed caption. The VGA output is ideal for standard PC Monitor and is limited to 640 X 480. The HDMI is ideal for 16 X 9 video format or high resolution video requiring large screen LCD display. It is also ideal for PC monitor with DVI input.

The VR4 plays from a single Compact Flash Card Drive. CF card capacity is up to 4 Gig byte. VR4 has 5 digital input configured in binary and 2 digital input for volume control. To play using the input, the VR4 requires a playlist.txt file. Without the playlist.txt file, the VR4 will loop the entire file in the CF card. The VR4 has a RS485 Serial port for connection to IN16 or RL4 board. The IN16 board has 16 input and 16 Transistor output and is expandable to 96, the RL4 board has 4 relays rated at 1 Amp each. The VR4 together with the IN16/RL4 board can turn ON/OFF the output in sync with the video. The VR4 is an ideal replacement for a professional DVD player.

VR4 MEMORY STORAGE:
The VR4 plays from Compact Flash card only. To copy video files into the CF Card, use a USB card reader and a PC (USB2.0 port). Copy (drag and drop) the files into the CF card. The VR4 CF card will only read DOS format. **It will not read MAC formatted CF card.**

TYPE of COMPACT FLASH CARD:
Use Sandisk Compact Flash card only, type 1 or Ultra II or Extreme III. Maximum CF card size is 4 Giga byte. The VR4 player reads Compact Flash card that uses Windows (98 to XP) DOS (FAT32) format only, not NTSF. Do not format a new CF card. However if you have to format a used CF card, format it with DOS (FAT or FAT32) format only (not NTFS). **It will not play CF card that has a MAC format.**

POWER REQUIREMENT:
The VR4 is supplied with a desktop switching power supply. The power supply operates from 120VAC to 240VAC at 50 –60Hz. Power draw is 20 watt. The power supply is supplied with a PC style plug AC power cord that fits a standard North America power jack.

MONITOR TYPES:
VR4 has a complete set of video output to drive different types of monitor as follows:

Large LCD or PLASMA screen (27" and up) with HDMI input.
Set VR4 to HDMI output at 720p or 1080i. Audio is present within the HDMI cable.
Notes:
When using 720p, set the VR4 to NTSC.
When using 1080I, set the VR4 to PAL.

PC Monitor with DVI input

Set VR4 to HDMI output to 720p. Connect the Audio out of the VR4 into the Audio in of the monitor. VR4 is supplied with an external stereo mini jack with 2 audio (red and white RCA). If the PC monitor has RCA audio in, then use the Red and White RCA jacks. If the monitor has stereo mini jack input, then use a stereo mini jack connector.

LCD screen with S Video input:
Set VR4 to S Video. Use this setting to play closed caption. Use the stereo mini jack to connect the audio.

PC Monitor with VGA input
Set VR4 to VGA output. Connect the Audio out of the VR4 into the Audio in of the monitor. VR4 is supplied with an external stereo mini jack with 2 audio (red and white RCA). If the PC monitor has RCA audio in, then use the Red and White RCA jacks. If the monitor has stereo mini jack input, then use a regular stereo mini jack connector.

VIDEO file types:
Note: VR4 is identical to a DVD player. Any xxx.vob video file that has been created for a DVD disk, can be played by VR4. **VR4 will not play HD video file.**

xxx.vob (VOB file from DVD, std 4X3 format):
The VR4 plays standard DVD file (xxx.vob). These files are usually located under the Video_TS file folder. Inside the Video_TS file folders, there are 3 types of files: xxx.bup, xxx.ifo and xxx.vob. xxx.bup are back up files for the xxx.ifo and are not used by the VR4. xxx.ifo are information files for the DVD player and are not used by the VR4. The xxx.vob files are the actual video files that are used by the VR4. VR4 will play xxx.vob files that contain AC3, PCM and MP2 audio stream. **VR4 will not play HD video file.**

xxx.vob (VOB file from DVD, 16X9 format):
The VR4 plays wide screen format (16X9) VOB files and decodes it through the HDMI video engine. The wide screen format is known as Anamorphic file OR Square Pixel. **VR4 will not play HD video file.**

xxx.mpg (Mpeg2):
The VR4 will play Mpeg2 video files at up to 10 Mbps. The bit rate is limited by the CF card transfer speed. It will decode wide screen format and closed caption.

AUDIO file types:
xxx.mp3 (Std MP3 audio format):
The VR4 plays only standard **stereo mp3 audio format** at up to 320kbps. The VR4 WILL NOT play MONO mp3 audio file.

JPEG PICTURE File:
The VR4 will play Jpeg file at it's native resolution at up to 720p. For best picture quality, use the HDMI output at 1080i. While looping a single Jpeg picture, the VR4 will display the picture continuously without any black screen in between. When playing a series of jpeg pictures, the VR4 will go into a slide mode. In slide mode, there will be a black screen shown in between the picture change.

HOW TO TEST VR4:
A CF card sample test file is available from our web site www.akman.com. It is listed under Product Support, VR4 CF test file. Download this test file and unzipped it into it's own file folder.

Here is the content of the VR4 CF card test file:
[ ] VIDEO   ….. This is a file folder
Cat.mpg . ….… This is the first MPG video file
Playlist.txt ….. This is the text file to operate the VR4.

The VIDEO file folder contains Main.vob video file.

Using your PC and a USB card reader, copy files Cat.mpg and playlist.txt. Also copy the VIDEO file folder into the CF card. **NOTE: DO NOT USE MAC!**
After finish copying, your CF card should look like this:

E:\   This is the CF card drive as shown on your PC.
          Assume that the CF card is E drive.
 [ ] VIDEO
         Cat.mpg
         Playlist.txt

If you enter VIDEO file folder, here is what you will see:
VIDEO:\
    Main.vob

And if you open playlist.txt, here is what you will see:
VIDEO=SVIDEO
PLAYMODE=REPEAT
ADDRESS=00
VOLUME=12
V-ADJUST=04
010000=Main.vob

And here is the Playlist.txt explanation:

PLAYMODE=REPEAT:
After powering up, VR4 will Repeat (loop) the files in the root directory. In this case it will loop Cat.mpg.

VIDEO=SVIDEO
This statement indicates that you are using the VR4's S Video output.
If you are using HDMI LCD TV, connect the VR4's HDMI output and change the video statement in the playlist into this line: VIDEO=HDMI720P
Use the same HDMI720P statement if you are using PC Monitor with DVI input, but connect the mini jack/RCA audio line out since DVI does not carry the HDMI's digital audio signal.
If you are using a std VGA PC monitor, connect the VR4's VGA output and change the video statement in the playlist into this line: VIDEO=VGA.
For maximum video and audio quality and if possible, use HDMI output at 720p.

ADRESS=00 is for future connection to the output board.

VOLUME=12
VR4 will set it self to volume setting 12 (out of 16). However the VR4 will remember the last volume setting, so at power up it will use the last volume setting.

V-ADJUST=04
This is the volume adjustment range of the VR4. In this case, the max volume is 12+4=16 and the minimum volume is 12-4=8.

010000=Main.vob
This is a six number definition that determines the operation of the input. The first two numbers refers to the input. In this case 01 means Input 1.
When input 1 is triggered, Main.vob will play. See below for further explanation of this six number definition.
The last 2 numbers (5 and 6) refers to "where to go" after playing. In this case 00 means root directory, so after playing the VR4 will return to root directory and loop Cat.mpg again.

Use the above playlist as a starting point and expand it to suit your application.

And here is how the VR4 operates:
After powering up, Cat.mpg will loop. If input 1 is triggered (or use IR remote and press 1 and OK), then Main.vob will play.
After playing main.vob, VR4 will return to loop Cat.mpg.

HOW TO PLAY ONCE AVIDEO FILE AFTER POWERING UP:
To play the video in the ROOT DIRECCTORY for ONE TIME only automatically after powering up, modify the PLAYMODE line in the playlist as follows: PLAYMODE=SINGLE
After powering up the VR4 will play the audio/video files in the root directory one time and then stop.

HOW TO LOOP AUDIO/VIDEO AFTER POWERING UP:
To LOOP the audio/video in the ROOT DIRECCTORY   automatically after powering up, modify the PLAYMODE line in the playlist as follows:
PLAYMODE=REPEAT
After powering up the VR4 will loop the audio/video files in the root directory.

HOW TO IDLE VR4 AFTER POWERING UP:
If you want the VR4 to idle after powering up, copy a single Black.JPG file in the root directory. Playmode can be either Repeat or Single.

HOW TO NAME THE AUDIO/VIDEO FILE:
DO NOT use any space in the file name.
The VR4 will not play if a file has a space in its name. Example:
Big Bird.vob. This file will not play because of the space between Big and Bird. To play, change it to Big_Bird.vob

Another example:
VTS_01_2.vob. this file will play since it does not have any space in it's name.

DIGITAL INPUT:
The VR4 has **5 inputs that can be used to play a video file.** These inputs are configured as binary. The 5 inputs are IN1, IN2, IN4, IN8 and IN16.

HOW to trigger an INPUT:

To trigger input 1,2,4,8,or 16, short it momentarily to ground.
To trigger input 3, short both 1 and 2 momentarily to ground.
To trigger input 5, short both 1 and 4 momentarily to ground.
To trigger input 6, short both 2 and 4 momentarily to ground.
To trigger input 9, short both 1 and 8 momentarily to ground.
To trigger input 10, short both 2 and 8 momentarily to ground.
To trigger input 12, short both 4 and 8 momentarily to ground.
To trigger input 17, short both 1 and 16 momentarily to ground.
To trigger input 18, short both 2 and 16 momentarily to ground.
To trigger input 20, short both 4 and 16 momentarily to ground.
To trigger input 24, short both 8 and 16 momentarily to ground.
The above single and 2 input combination (total 15 inputs) can be triggered directly using **the push button that is available from our web site.** To trigger 3 or more input combination at once, you have to use a diode network or use the IN16 board. There are a total of 94 inputs available, all can be triggered through the Serial port and through the IN16 board.

HAND HELD IR UNIT:
The Hand held IR unit is identical to a DVD remote control. It has functions similar to a DVD such as Forward, Rev, Step, Pause, Stop, A-B etc. The IR hand held unit can also be used to bring up the Main Menu. Use the arrow UP/Down and Left/Right keys to navigate the menu. From this main menu you can access and modify VR4 settings. From the main menu you can change various Audio setting, Video setting and other prefrences.
Please note that the playlist will override this setting after powering up.
The Hand held IR unit can be used to trigger VR4 input. Use this to test your playlist program.
Example:
To trigger VR4's input 1, press key 1 and enter.
To trigger VR4's input 2, press key 2 and enter.
To trigger VR4's input 16, press keys 1 and 6 and then enter.
To trigger VR4's input 24, press keys 2 and 4 and then enter.

playlist.txt:

NOTE: name playlist.txt using lower case letters. Do not use capital letters.
Create playlist.txt using any text editor such as Notepad, Wordpad, MS Word etc.

Each playlist.txt contains 4 mode definitions and the input definition. The 4 modes are Video resolution, Serial address, Initial Volume setting and Volume adjustment range. The input definition is determined by a six number numbering system. This six number system specifies what input is used to play a video, whether you interrupt the playback or not and then what to do OR where to go to after playing a video.
Here is an example of the definitions in a playlist.txt:
playlist.txt:
VIDEO=HDMI720p
ADDRESS=08
VOLUME=06
V-ADJUST=04
PLAYMODE=SINGLE

And here is the explanation of the modes:
playlist.txt:

VIDEO=HDMI720p

> This is the setting for the video resolution: 720p. If video is not specified in the play list, default is SVIDEO. Available choices are **HDMI720p, HDMI1080I, VGA and SVideo.**

ADDRESS=08

> This unit serial address is 08. If address is not specified in the Playlist.txt, the default serial address is 0.

VOLUME=06

> Smart volume setting, this unit volume is 06. If Volume is not specified in the Playlist.txt, use the previous volume setting. Volume is 1 to 16.

V-ADJUST=04

> This unit volume adjustment is 04. If the volume is 6 and V-Adjust is 4, then the lowest volume setting is 2 and maximum volume setting is 10.

PLAYMODE = REPEAT

> Loop files after powering up. VR4 will loop the files in the root directory.

PLAYMODE = SINGLE

> Play the first after powering up and then stop. VR4 will play the first file in the root directory and then stop.

INPUT DEFINITION in PLAYLIST.TXT:

Besides the above 4 modes, playlist.txt also contains INPUT definition. Each input is define by using a six number system. Here is the example of the six number system:

SIX NUMBER DEFINITION:

First and second numbers are for input.
Third number is not used.
Fourth number is for interrupt.
Fifth and sixth numbers are for what to do OR where to go after playing a file.

First and second numbers are for input.

Example:

010199=VTS_01_1.vob	Input 1 plays vts_01_1.vob.
020120=bird.vob	Input 2 plays bird.vob.
030197=Cat.vob	Input 3 plays cat.vob

Third number is NOT USED.

Fourth number is for interrupt.

Fourth number: if **0** play the file with **interrupt**
                 if **1** play the file **NO interrupt**.

Example:

010199=VTS_01_1.vob	Play this file with NO interrupt.
020020=bird.vob	Play this file with interrupt.
030197=Cat.vob	Play this file with NO interrupt

Fifth and sixth numbers are for "what to do" OR "where to go" after playing a file.

Example:

010120=bird.vob (jump to an input after playing the file, in this case jump to input 20).

01: First and second number is the input. Input 01 plays bird.vob
0: Third number: Not used.
1: Fourth number: if **0** play the file with **interrupt**
                if **1** play the file **NO interrupt**.
Fifth and Sixth number **20** is for Jump to input OR one of the special functions below. In this case jump to Input20.

SPECIAL FUNCTIONS for fifth and sixth number.
Numbers: 00, 99,98,97,96,95 and 94.

CODE 00, return to home position after playing a file
011000=cats.vob
RETURN TO HOME POSITION after playing a file.
Fifth and Sixth number is NUMBER 00:
Number 00 is for Home position, eg. 0110**00**=cats.vob.
After finish playing cats.vob, go to home position (root).

CODE99, stop after playing and wait for another input.
011099=cats.vob
STOP after playing a file and WAIT for Input.
Fifth and Sixth number is NUMBER 99:
Number 99 is for Stop after playing a file and wait for input. eg. 0110**99**=cats.vob
Stop after playing cats.vob and wait for another input.

CODE98, Loop this file.
011098=cats.vob
LOOP this file.
Fifth and Sixth number is NUMBER 98:
Number 98 is for Loop playing. eg. 0110**98**=cats.vob
Loop file cats.vob.

CODE97, sequentially play next file when triggered.
011097=cats.vob
STOP after playing a file and WAIT for Input. Play the NEXT file if the same input is triggered.
Fifth and Sixth number is NUMBER 97:
Number **97** is for Stop after playing a file and wait for input. If the same input is triggered again, then play the next file on the list.
eg. 0110**97**=cats.vob
     0100**97**=Lion.vob
     0100**97**=Dog.vob
 Stop after playing Cats.vob and wait for another input. If input 1 is triggered again, then play Lion.vob and wait for another input. If input 1 is triggered again, then play Dog.vob and wait for another input.
 If input 1 is triggered again, then return to play Cats.vob again and wait for another input.

NOTE: This function (97) only works after the file stops playing. If the same input is triggered while playing, then it will simply repeat the same file.

CODE96, automatically play next file.
010096=lion.vob
AUTO PLAY the NEXT line inside a file folder.

Fifth and Sixth number is NUMBER 96 :

Number **96** is to auto play the next file.

> 010096=lion.vob
> 010096=bird.vob
> 010096=horse.vob

If input 01 is triggered lion.vob, bird.vob and horse.vob will automatically play.

CODE95, Audio/Video on Hold (root directory).
This function will pause audio or video file being played at the root directory, play the input and then return to continue playing the paused audio/video.
EXAMPLE:
Intro1.vob …. This file is in the root directory
010095=dog1.vob ….. this file is inside a file folder
Example: 010095=dog1.vob

Suppose Intro1.vob is now being played in the root directory. If input 1 is triggered, the player will PAUSE Intro1.vob and immediately play Dog1.vob After finish playing Dog1.mp3, player will resume playing Intro1.vob from the paused position, not from the start.

CODE 94 … Remote control function.
The VR4 digital input can be programmed to function as a remote control (hand held) unit. If the fifth and sixth number of the 6 numbering system is 94, the input will function as a remote control key. Below is the definition:

CODE for REMOTE CONTROL function (Code is 94).
Each push button can be programmed to work as one of the remote control function.
The codes are identical to the lettering on the Remote control unit.

IR remote control functions are:

030094=CC
Closed Caption …. CC.
Input 3 turn ON/OFF closed caption.

030094=PLAY or PAUSE
PLAY or PAUSE
Input 3 is similar to Play or Pause key on remote.

050094=STOP
STOP
Input 5 is similar to Stop key on remote.

060094=PAUSE
PAUSE or PLAY.

Input 6 is similar to Pause or PLAY key on remote.

080094=NEXT
  NEXT
Input 8 is similar to NEXT key on remote.

100094=PREV
  PREV … PREVIOUS.
Input 10 is similar to Previous key on remote.

110094=OK
  OK … ENTER.
Input 11 is similar to OK key on remote.

020094=UP
  UP ……… UP.
Input 2 is similar to UP key on remote.

030094=DOWN
  DOWN
Input 3 is similar to Down key on remote.

130094=LEFT
  LEFT .
Input 13 is similar to LEFT key on remote.

090094=RIGHT
  RIGHT .
Input 9 is similar to RIGHT key on remote.

040094=MENU
  MENU.
Input 4 is similar to MENU key on remote.

110094=DISPLAY
  DISPLAY.
Input 11 is similar to DISPLAY key on remote.

030094=AUDIO
  AUDIO ….. AUDIO CHANNEL .
Input 3 is similar to Audio Channel key on remote.

040094=STEP
  STEP.
Input 4 is similar to STEP key on remote.

030094=A-B
  A-B.
Input 3 is similar to A-B key on remote.

040094=MUTE
  MUTE .

Input 4 is similar to MUTE key on remote.

040094=RESUME
>> **RESUME .**
>> Input 4 is similar to RESUME key on remote.

040094=FWD
>> **FWD ….. FORWARD.**
>> Input 4 is similar to FORWARD key on remote.

040094=REV
>> **RV …… REVERSE .**
>> Input 4 is similar to REVERSE key on remote.

IR remote control KEY (NUMBER) functions are:
030094=1
>> **Key 1 …. 1.** Input 3 is similar to key 1 on remote.

030094=2
>> **Key 2 …. 2.** Input 3 is similar to key 2 on remote.

030094=3
>> **Key 3 …. 3.** Input 3 is similar to key 3 on remote.

030094=4
>> **Key 4 …. 4.** Input 3 is similar to key 4 on remote.

030094=5
>> **Key 5 …. 5.** Input 3 is similar to key 5 on remote.

030094=6
>> **Key 6 …. 6.** Input 3 is similar to key 6 on remote.

030094=7
>> **Key 7 …. 7.** Input 3 is similar to key 7 on remote.

030094=8
>> **Key 8 …. 8.** Input 3 is similar to key 8 on remote.

030094=9
>> **Key 9 …. 9.** Input 3 is similar to key 9 on remote.

030094=0
>> **Key 0 …. 0.** Input 3 is similar to key 0 on remote.

CLOSED CAPTION:

> The VR4 will decode closed caption and play it on the screen at S Video output only and also at NTSC video out. Use the IR remote control to set the Video out at NTSC. Please make sure to turn ON the CC setting on your monitor to ON. If you want to toggle the CC on/off, you can program one of the input to CC code94 of the IR function. Closed caption will only work for NTSC setting, it will not work on PAL.

030094=CC
>> **Closed Caption …. CC.**
>> Input 3 turn ON/OFF closed caption.

HDMI

When using HDMI, use the IR remote control to set the VR4 as follows: On the IR remote press SETUP key. From the Set Up menu, select Video Set Up. Now select TV type and select either NTSC or PAL (depends on your system). Remember: when using 720p. set TV type to NTSC. When using 1080I, set TV Type to PAL.

APPLICATION EXAMPLE:
Example 1:
F:
Vts_03_1.vob
Playlist.txt
     Video1:**   **(note: this is a File folder)
       VTS_01_1.vob
And below is the content of the Playlist.txt:
PLAYLIST.TXT
VIDEO=HDMI720p
ADDRESS=0
VOLUME=08
V-ADJUST=04
PLAYMODE=REPEAT

Explanation of example 1:
After powering up, the VR4 will loop Vts_03_1.vob.
Video out is HDMI at 720p. Volume setting is 08. The volume adjustment is 04, so minimum vol is 4 (8-4) and max vol is 12 (8+4).
If input 1 is triggered, VTS_01_1.vob will play. After playing VR4 will return to home position and loop

Example 2:

F:
Vts_03_1.vob
Playlist.txt
     Video1:**   **(note: this is a File folder)
      VTS_01_1.vob
      VTS_01_2.vob
      VTS_01_3.vob
      VTS_02_1.vob
      VTS_02_2.vob
      VTS_02_3.vob
      VTS_02_4.vob
      VTS_03_3.vob
      VTS_03_4.vob
      Dark.vob

And below is the content of the Playlist.txt:
PLAYLIST.TXT
VIDEO=SVIDEO
ADDRESS=0
VOLUME=06
V-ADJUST=04
PLAYMODE=REPEAT
010095=Dark.vob
020000=VTS_01_1.vob
030000=VTS_01_2.vob
040000=VTS_01_3.vob
050197=VTS_02_1.vob

050197=VTS_02_2.vob
050197=VTS_02_3.vob
050100=VTS_02_4.vob
060020=VTS_03_3.vob
200000=VTS_03_4.vob

Explanation of the example 2:
After powering up, the VR4 will loop Vts_03_1.vob.
Video out is S-Video. Volume setting is 06. The volume adjustment is 04, so minimum vol is 2 (6-4) and max vol is 10 (6+4).
If input 2 is triggered, VTS_01_1.vob will play. After playing VR4 will return to home position and loop Vts_03_1.vob
If input 3 is triggered, VTS_01_2.vob will play. After playing VR4 will return to home position and loop Vts_03_1.vob
If input 4 is triggered, VTS_01_3.vob will play. After playing VR4 will return to home position and loop Vts_03_1.vob
If input 5 is triggered, VTS_02_1.vob will play. After playing VR4 will stop and wait for an input.
If input 5 is triggered, VTS_02_2.vob will play. After playing VR4 will stop and wait for an input.
If input 5 is triggered, VTS_02_3.vob will play. After playing VR4 will stop and wait for an input.
If input 5 is triggered, VTS_02_4.vob will play. After playing VR4 will return to home position and loop Vts_03_1.vob
If input 6 is triggered, VTS_03_3.vob will play. After playing VR4 will jump to IN20 (200000) and play VTS_03_4.vob. After finish playing VTS_03_4.vob, VR4 will return and loop Vts_03_1.vob again.

While playing any of the above video (videos inside file folder video1), if Input 1 is triggered a short dark screen will appear momentarily and immediately return to root directory. It will continue playing Vts_03_1.vob from the last known position (not from start).

VR4 Technical specification:

VIDEO FORMAT:
Video format is:
- DVD – XXX.VOB video files
- MPG - Mpeg2 Programmed video files.
- JPEG – JPG still pictures

BIT RATE:
Maximum video bit rate is 10.5 Mbps.

VIDEO TYPE:
Std Pixel (4X3) and Wide Screen (16X9).
Wide screen format is encoded as 4X3 using Anamorphic encoding or square (squeezed) Pixel .

AUDIO FORMAT:
MP3 audio , stereo only.
AAC ausdio, stereo only

BIT RATE:
Maximum audio bit rate is 329kbps.

CLOSED CAPTION:

Std Line 21 decoding. Available on NTSC only and using S Video output.

VIDEO OUTPUT:
S-Video - 720 X 480 (576) on 4 pin Mini Din connector on board. Decodes closed caption.
VGA – 640 X480, Std HD15 connector on board. Does not decode closed caption.

HDMI – 720p and 1080I, std HDMI connector on board.
Plays regular wide screen format 16X9. **(not HD).**

COMPACT FLASH CARD:
Any SANDISK Compact flash card including standard type 1 or UltraII or ExtremeIII. Maximum size is 4 Gigabyte.

AUDIO OUTPUT:
Audio line out is 2 V p/p stereo (adjustable) on external 2 RCA jacks. Digital audio out is available on HDMI out.

VOLUME CONTROL INPUT:
2 Digital input to control Vol UP and Vol Down. To trigger short the input momentarily to ground. Volume control and adjustment range is adjustable via playlist.

DIGITAL INPUT:
5 digital inputs are in binary mode. To activate input 1,2,4,8,and 16, short it momentarily to ground. To activate other input, short 2 or more inputs to ground.

SERIAL INPUT/OUTPUT:
Serial port is RS485 bi-directional for connection to optional output board.

playlist.txt:
To play using the input, VR4 requires a play list. The play list is a text file that contains information about how to play the Video files using the input(s). "playlist.txt" is in lower case letters. No capital letter.

ENCLOSURE Flash mpx:
Aluminum enclosure (desktop), 6" W X 4.25" D X 1.1" H.
Weight is approximately 1.2 lbs.
UPS/Fedex shipping weight with Power Supply & cord is 3 lbs.
Optional: NEMA (weatherproof) enclosure for outdoor application is also available.

Power supply Flash mpx:
120 – 240VAC Universal switching power supply complete with a detachable PC style power cord. Power output is 12VDC, 15 watt.

When using custom power supply, maximum power input is 12.5VDC. Use switching power supply only.

Please consult us before using any custom power supply.

For technical support contact:
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