

Programmer's Guide For DVX8044 \& DVX8032

## A1: Introduction

If you need to use your own Software Control program from a PC or WORKSTATION with an RS-232 or LAN port, the device allows communication through an ASCII code protocol.

The device treats any character that it receives on the RS-232 or LAN as a possible command but only accepts legal commands.
There is no starting/ending code needed in a command string.
A command can be a single character typed on a keyboard and does not require any special character before or after it.
(It is not necessary to press "ENTER" on the keyboard). A command can be preceded by a value (See chapter A-2).
When the device receives a valid command, it will execute the command. Then it will send back the status of the parameters that have changed due to this command.

If the command cannot be executed (value out of range, no signal on the selected input), etc. The device will just sends back the current status of the corresponding parameters.

If the command is invalid, an error response will be returned to the control device. All responses returned to the control device end with a carriage return $<\mathrm{CR}>$ and a line feed <LF> signaling the end of the response character string (see chapter A-3).

## A2: Commands structure

Commands are usually composed of numerical values followed by the command characters. The characters used without any numerical value return the current setting of the command. [read command]

The indexes are defined number: the layer number, the input number, the preset ... on which the command apply. They are separated with a comma. There is commands without index and others with up to 3 indexes.

Write command = [[index,] ...] + Value + Character (s) code
A read command is constituted by index followed by a command coded in 1 or 2 alpha numeric characters, same structure as write command without the value.
Read command $=[[$ index, $] ..]+$. Value + Character (s) code

## A3: Examples

## Document notation:

1) Command without index: SWITCHER_MODE

Command to set the switcher mode to mixer mode: OCM
Answer: $\mathrm{CM} 0<\mathrm{CR}><L F>$ which mean that the device is now working in mixer mode.
2) Command with 1 index: OFORMAT

Command to set the Main output format to XGA: $0,120 \mathrm{~F}$
Answer: OF0,12<CR><LF> which mean that the output format is now $1024 \times 768$
3) Command with 2 indexes: PE_INPUTNUM

Command to set the input 4 displayed in Layer A of Next Preset: 1,1,4IN
Answer: IN $1,1,4<C R><L F>$ which mean that the layer $A$ of the next preset will display the input 4 signal
4) Read command without index : TAKEAVA

Read command to know if the TAKE command is available: TA
Answer: TA1<CR><LF> which mean that the device is ready to accept the TAKE command.
5) Read command with 2 indexes : SET_ASPECT_RATIO_OUT

Read command to know how is displayed a DVI signal plugged on the input 4: 3,1,sB
Answer: $s B 3,1,2<C R><L F>$ which mean that the DVI plug on input 4 is displayed full screen

## A4: Error codes

Answer: $\mathrm{E} 10<\mathrm{CR}><L F>$ which mean invalid command
Answer: E11<CR><LF> which mean index value error (index value out of range)
Answer: E12<CR><LF> which mean index number error (too or few indexes)

Some commands are only available as [Read command], they are status and are colored in blue as this line. Some commands are colored in yellow as this line to indicate they were added or modified in this version. A5 COMMUNICATION PORTS

- REMOTE RS-232 (on DB 9 female connector)

Level: RS-232.
Data Rate: 9600 Bauds, 8 data bits, 1 stop bit, no parity bit, no flow control.

- TALLY OUT (on DB 9 female connector)

Rating: $\quad 20$ Vdc MAX, 50 mA MAX (open collector).

- LAN (on RJ45 connector)

Protocol: UDP (User Datagram Protocol) or TCP (Transmission Control Protocol).
Data Rate: 10 / 100 Mbps .
LED functions (on RJ45 connector):

| Top LED | Bottom LED | Meaning |
| :---: | :---: | :---: |
| OFF | OFF | No link |
| OFF | ON | 100 BASE-T link. |
| ON | OFF | 10 BASE-T link. |

Programmer's Guide


|  | SWITCHER_MODE | CM | CM | Device mode | Rd/Wr | 0 | 3 | 0 | $\begin{aligned} & 0=\text { Mixer mode } \\ & 1=\text { Matrix mode } \\ & 2=\text { Embedded softedge mode } \\ & 3=\text { Synchronous Matrix mode } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AUTO_LOCK | YL | YL | auto-lock (prevent from no-signal selection) | Rd/Wr | 0 | 1 | 1 | 1 = disable selection of inputs without signal |  |  |  |
|  | AUTO_TAKE | YT | YT | auto-take | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 1 | 0 | 1 = automatic TAKE enable |  |  |  |
|  | AUTO_STEPBACK | YA | YA | preset toggle | Rd/Wr | 0 | 1 | 0 | 1 = exchange Current and Next presets on TAKE operation |  |  |  |
|  | AUTO_SET | YX | YX | inputs auto-setting | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 1 | 0 | (auto clear) |  |  |  |
|  | BUTTON_1_1_MODE | YM | YM | front panel key 1:1 mode | Rd/Wr | 0 | 1 | 1 | $0=1 \_1$ key in no zoom mode $1=1 \_1$ key in centered mode |  |  |  |
|  | NATIVE_ZOOM_REQUEST | YY | YY | current layer 1:1 scaling request | Rd/Wr | 0 | 1 | 0 | (auto clear) |  |  |  |
|  | HDCP_CONFLICT | HC | HC | HDCP conflict | Rd | 0 | 1 | 0 | 1 = input HDCP content and at least one output not HDCP |  |  |  |
|  | BOOT_ERROR_STATUS | BE | BE | boot error notification (bit field) | Rd | 0 | 65535 | 0 | bit field, one bit per card |  |  |  |
|  | VERI1 | xi | xi | machine ID byte 0 \& byte 1 | Rd | 0 | 65535 | 0 | ex : AAAA |  |  |  |
|  | VERI2 | xj | xj | machine ID byte 2 \& byte 3 | Rd | 0 | 65535 | 0 | ex : AAAA |  |  |  |
|  | VERI3 | xk | xk | machine ID byte 4 \& byte 5 | Rd | 0 | 65535 | 0 | ex : AAAA |  |  |  |
|  | VERI4 | xI | xI | machine ID byte 6 \& byte 7 | Rd | 0 | 65535 | 0 | ex : AAAA |  |  |  |
| Version | VERK | xK | xK | programmable components checksum \& version | Rd | 0 | 65535 | 0 |  | $\begin{aligned} & 0=\text { Micro } \\ & 1=\ln 1 \\ & 2=\ln 2 \\ & 3=\text { Out } \\ & 4=\text { Scaler } \\ & 5=\text { Video } \end{aligned}$ | $\begin{aligned} & 0=\text { components } \\ & \text { number } \\ & 1= \\ & \text { microcontroler } \\ & 2=1 \text { st } \\ & \text { FPGA/CPLD } \\ & 3=2 \text { nd } \\ & \text { FPGA/CPLD } \\ & 4=3 \text { rd } \\ & \text { FPGA/CPLD } \\ & 5=4 \text { th } \\ & \text { FPGA/CPLD } \\ & 6=5 \text { th } \\ & \text { FPGA/CPLD } \\ & 7=6 \text { th } \\ & \text { FPGA/CPLD } \\ & \hline \end{aligned}$ |  |


|  | VERV | xV | xV | this commands set version | Rd | 0 | 65535 | 15 |  | $\begin{aligned} & 0=\text { Micro } \\ & 1=\ln 1 \\ & 2=\ln 2 \\ & 3=\text { Out } \\ & 4=\text { Scaler } \\ & 5=\text { Video } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | VERUPD | xU | xU | upgrade version (bit fields) | Rd | 0 | 65535 | 0 | bit $15=1$ for BETA version, bits 14 down to 0 for hexa coded version number ex: v4.00 $=0 \times 400=1024$ |  |  |  |
|  | OPT | yo | yo | validated \& detected options | Rd | 0 | 65535 | 0 | bit $0=$ LAN installed <br> bit $1=$ Video option installed <br> bit 2 = audio option installed | $\begin{aligned} & 0=\text { Micro } \\ & 1=\ln 1 \\ & 2=\ln 2 \\ & 3=\text { Out } \\ & 4=\text { Scaler } \\ & 5=\text { Video } \end{aligned}$ |  |  |
|  | REV | xR | xR | cards revisions | Rd | 0 | 255 | 0 |  | $\begin{aligned} & 0=\text { Micro } \\ & 1=\ln 1 \\ & 2=\ln 2 \\ & 3=\text { Out } \\ & 4=\text { Scaler } \\ & 5=\text { Video } \end{aligned}$ |  |  |
| Inputs | IN_NOT_EXTENDED | ix | ix | multihead with covering input source | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 1 | 0 | $0=$ monohead source splitted on each machine 1 = multihead source with covering management | $\begin{aligned} & 0=\operatorname{lnput1} \\ & 1=\text { Input2 } \\ & 2=\operatorname{Input3} 3 \\ & 3=\operatorname{Input4} 4 \\ & 4=\text { Input5 } \\ & 5=\operatorname{Input} 6 \\ & 6=\operatorname{Input7} \\ & 7=\text { Input } \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |



|  | IN_TYPE | iK | iK | input signal type | Rd/Wr | 0 | 17 | 13 | $0=$ composite SDTV <br> 1 = Y/C SDTV <br> $2=$ RGBS TTL/Analog <br> SDTV/EDTV/HDTV <br> 3 = RGB SOG <br> SDTV/EDTV/HDTV <br> 4 = YUV SDTV/EDTV/HDTV <br> 5 = SOG Computer <br> $6=\mathrm{H} \& \mathrm{~V}$ or Composite <br> (TTL/Analog) Computer <br> $7=B \& W$ Computer <br> 8 = RGB 16-235 DVI-D <br> EDTV/HDTV <br> 9 = YUV DVI-D EDTV/HDTV <br> $10=$ RGB 0-255 DVI-D <br> Computer <br> 11 = RGB 16-235 DVI-D <br> Computer <br> 12 = SDI SDTV/HDTV <br> $13=$ analog Computer, <br> separate H\&V sync <br> $14=$ analog Computer, TTL <br> composite sync <br> 15 = analog Computer, analog composite sync <br> $16=$ analog video RGB, TTL composite sync <br> 17 = analog video RGB, analog composite sync | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \\ & 4=\text { Input } \\ & 5=\text { nput } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | IN_SYNC_LOAD | il | il | 75 ohms analog H sync load | Rd/Wr | 0 | 1 | 0 | $\begin{aligned} & 0=\text { High } \mathrm{Z} \\ & 1=75 \text { ohms load } \end{aligned}$ | $0=$ Input 1 $1=$ Input2 $2=$ Input3 $3=$ Input 4 $4=$ Input5 $5=$ Input 6 $6=$ Input 7 $7=$ Input 8 | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | IN_USED | iu | iu | used input | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 1 | 1 | $0=$ unused input | $0=$ Input 1 $1=$ Input 2 $2=$ Input $3=\ln p u t 4$ $4=$ Input 5 $5=$ Input 6 $6=$ nnput 7 $7=\ln p u t 8$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |


|  | IN_SD_STD | iS | iS | input video standard | Rd/Wr | 0 | 7 | 0 | $\begin{aligned} & 0=\text { Auto } \\ & 1=\text { NNSC }(M, J) \\ & 2=\text { PAL (BDGHIN) } \\ & 3=\text { PAL (M) } \\ & 4=\text { PAL (M-Combination) } \\ & 5=\text { NTSC } 4.43 \\ & 6=\text { SECAM } \\ & 7=\text { PAL } 60 \end{aligned}$ | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input2 } \\ & 2=\operatorname{lnput3} 3 \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | IN_CROPPING | iC | iC | activate input finder for cropping | Rd/Wr | 0 | 1 | 0 |  | $\begin{aligned} & 0=\text { Input1 } \\ & 1=\text { Input } 2 \\ & 2=\text { Input3 } \\ & 3=\text { Input } 4 \\ & 4=\text { Input5 } \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | IN_HDCP_ENABLE | iH | iH | enable DVI-D input HDCP answer | Rd/Wr | 0 | 1 | 1 |  | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \end{aligned}$ |  |  |
|  | IN_CROP_MODE | im | im | input finder selection | Rd/Wr | 0 | 1 | 1 | $0=$ direct input cropping <br> $1=$ frame displayed to select cropping zone |  |  |  |
|  | IN_REMAPPING | iR | iR | input processing pending | Rd | 0 | 1 | 0 |  | $0=$ No Input <br> 1 = Input $1 /$ Frame 1 <br> / Logo1/ <br> MaskFrame1 <br> 2 = Input2 / Frame2 <br> / Logo2 <br> 3 = Input 3 / Frame3 <br> / Logo3 <br> 4 = Input 4 / Frame 4 <br> / Logo4 <br> 5 = Input5 / Frame5 <br> / Logo5 <br> 6 = Input6 / Frame6 <br> / Logo6 <br> 7 = Input $/$ / Frame7 <br> / Logo7 <br> 8 = Input8 / Frame8 <br> / Logo8 |  |  |


| EDID | EDID_FORMAT | EF | EF | EDID preferred format | Rd/Wr | 0 | 20 | 20 | $\begin{aligned} & 0=640 \times 480 \mathrm{VGA} \\ & 1=8006000 \text { SVGA } \\ & 2=1024 \times 768 \mathrm{XGA} \\ & 3=1280 \times 960 \\ & 4=12080 \times 1024 \mathrm{SXGA} \\ & 5=1364 \times 1024 \mathrm{4} / 3 \mathrm{DILA} \\ & 6=1400 \times 1050 \mathrm{SXGA}+ \\ & 7=1600 \times 1200 \mathrm{UXGA} \\ & 8=852 \times 480 \mathrm{WVGA} \\ & 9=720 \mathrm{ORGB} \\ & 10=1280 \times 768 \mathrm{WXGA} \\ & 11=1360 \times 768 \mathrm{SWXGA} \\ & 12=1366 \times 800 \mathrm{SWXGA}+ \\ & 13=1200 \times 800 \mathrm{RGB} \\ & 14=1680 \times 1050 \mathrm{WSXGA}+ \\ & 15= \end{aligned}$ | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\operatorname{Input3} 3 \\ & 3=\operatorname{Input} 4 \\ & 4=\text { Input } 5 \\ & 5=\operatorname{Input} 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EDID_RATE | ER | ER | EDID preferred frame frequency | Rd/Wr | 6 | 10 | 8 | $\begin{aligned} & 0=\text { Custom Field Rate } \\ & 1=23,97 \mathrm{~Hz} \\ & 2=24 \mathrm{~Hz} \\ & 3=25 \mathrm{~Hz} \\ & 4=29,97 \mathrm{~Hz} \\ & 5=30 \mathrm{~Hz} \\ & 6=50 \mathrm{~Hz} \\ & 7=59,94 \mathrm{~Hz} \\ & 8=60 \mathrm{~Hz} \\ & 9=72 \mathrm{~Hz} \\ & 10=75 \mathrm{~Hz} \end{aligned}$ | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\operatorname{Input3} 3 \\ & 3=\operatorname{Input} 4 \\ & 4=\text { Input } \\ & 5=\operatorname{Input} 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| Input status | SIG_HPOL | sh | sh | input H sync polarity | Rd | 0 | 0 | 0 | $\begin{aligned} & 0=\text { Negative Sync } \\ & 1=\text { Positive Sync } \end{aligned}$ | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input2 } \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |


|  | SIG_VPOL | sv | sv | input V sync polarity | Rd | 0 | 1 | 0 | $\begin{aligned} & 0=\text { Negative Sync } \\ & 1=\text { Positive Sync } \end{aligned}$ |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SIG_SYNC_TYPE | sK | sK | input sync type | Rd | 0 | 3 | 0 | $0=H \& V$ Sync <br> 1 = TTL Composite Sync <br> 2 = Analog composite Sync <br> 3 = Synchro on green (SOG) | $\begin{aligned} & 0=\text { Input1 } 1 \\ & 1=\text { Input2 } \\ & 2=\text { Input3 } \\ & 3=\text { Input4 } \\ & 4=\text { Input5 } \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SIG_FREQ_FIELD | sf | sf | input frame frequency | Rd | 0 | 65535 | 0 | frame frequency in $1 / 100 \mathrm{~Hz}$ unit | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input3 } \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input6 } \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SIG_FREQ_LINE | sl | sl | input line frequency | Rd | 0 | 65535 | 0 | line frequency in $\times 100 \mathrm{~Hz}$ unit | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input3 } \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input6 } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |



| SIG_DETECTED_FORMAT | sD | sD | detected input format name | Rd | 0 | 41 | 0 |  |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |



|  | SIG_HEIGHT | st | st | displayable input line count | Rd | 0 | 65535 | 0 | Unit : pixels |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SIG_HDCP | sn | sn | HDCP input status | Rd | 0 | 1 | 0 | 1 = HDCP content | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_DEFAULT | SK | SK | current input default settings (auto clear) | Rd/Wr | 0 | 7 | 0 | $\begin{aligned} & 0=\text { None } \\ & 1=\text { positioning \& Cropping } \\ & 2=\text { Colorimetry } \\ & 4=\text { Hard } \\ & 7=\text { all } \end{aligned}$ | $\begin{aligned} & 0=\text { Input1 } \\ & 1=\text { Input2 } \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \\ & 4=\operatorname{Input5} \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| Input Settings | SET_HPOS | SH | SH | input signal horizontal position | Rd/Wr | 0 | 2048 | 1024 | $1024=$ neutral | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input2 } \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_VPOS | Sv | SV | input signal vertical position | Rd/Wr | 0 | 2048 | 1024 | $1024=$ neutral | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input2 } \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \\ & 4=\text { Input5 } \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |


|  | SET_HSIZE | Sw | Sw | input signal horizontal size | Rd/Wr | 0 | 4096 | 2048 | $2048=$ neutral | $0=$ Input 1 $1=$ Input 2 $2=$ Input 3 $3=$ nnput 4 $4=$ Input $5=$ $6=$ Input 6 $7=$ Input 7 7 | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SET_VSIZE | Sh | Sh | input signal vertical size | Rd/Wr | 0 | 4096 | 2048 | $2048=$ neutral | $0=$ Input 1 $1=$ Input 2 $2=$ Input 3 $3=\ln p u 44$ $4=$ Input 5 $5=$ Input $6=1$ nnput 7 $7=\ln p u t 8$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_BRIGHTNESS | Sg | Sg | input signal brightness | Rd/Wr | 0 | 255 | 128 | $128=$ neutral | $0=$ Input 1 $1=$ Input 22 $2=$ Input 3 $3=$ Input 4 $4=$ Input 5 $5=$ $6=$ Input 6 $7=$ Input 7 7 | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_CONTRAST | Sc | Sc | input signal contrast | Rd/Wr | 0 | 255 | 128 | $128=$ neutral | $0=$ Input 1 $1=$ Input 2 $2=$ Input 3 $3=$ Input 4 $4=$ Input5 $5=$ Input 6 $6=$ Input 7 $7=$ Input 8 | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |


|  | SET_COLOR | Sr | Sr | input signal color level | Rd/Wr | 0 | 255 | 128 | 128 = neutral | $\begin{aligned} & 0=\ln p u t 1 \\ & 1=\ln p u t 2 \\ & 2=\ln p u t 3 \\ & 3=\ln p u t 4 \\ & 4=\ln p u t 5 \\ & 5= \\ & 6=\ln p u t 6 \\ & 6=\ln p u t 7 \\ & 7 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SET_HUE | Su | Su | input signal hue (NTSC only) | Rd/Wr | 0 | 255 | 128 | $128=$ neutral |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_HTOTAL | ST | ST | input signal total pixel per line | Rd/Wr | 200 | 65535 | 200 | Unit : pixels | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input } 3 \\ & 3=\text { nnput } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { nnput } 7 \\ & 7=\text { Input } \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_HTOTALMAXI | SX | SX | input signal maximum total pixel per line | Rd | 200 | 65535 | 200 | Unit : pixels | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input } 3 \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |


|  | SET_PHASE | SS | SS | input signal phase | Rd/Wr | 0 | 63 | 0 | 2 pixels range phase |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SET_AUTOCAD | Sa | Sa | input signal autocentering | Rd/Wr | 0 | 1 | 0 | (auto clear) |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_USER_GAIN_R | sr | sr | ADC R channel adjustment (advanced setting) | Rd/Wr | 0 | 255 | 128 | $128=$ neutral |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_USER_GAIN_G | sg | sg | ADC G channel adjustment (advanced setting) | Rd/Wr | 0 | 255 | 128 | $128=$ neutral | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\ln p u t 3 \\ & 3=\ln p u t 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } \\ & 6=\operatorname{lnput} 7 \\ & 7=\ln p u t 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |

$\underset{\text { Pioneer in Analog Leader in Digital }}{\text { AN }}$

|  | SET_USER_GAIN_B | sb | sb | ADC B channel adjustment (advanced setting) | Rd/Wr | 0 | 255 | 128 | 128 = neutral |  | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SET_PULLDOWN_2_2 | Sn | Sn | 2:2 pulldown | Rd/Wr | 0 | 1 | 1 | $\begin{aligned} & 0=\text { Disabled } \\ & 1=\text { Automatic detection } \end{aligned}$ | $\begin{aligned} & 0=\ln p u t 1 \\ & 1=\ln 14+2 \\ & 2=\ln n u t 3 \\ & 3=\ln p u t 4 \\ & 4=\ln p u t 5 \\ & 5=\ln n u t 6 \\ & 6=\ln p u t 7 \\ & 7=\ln p u t 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_PULLDOWN_3_2 | Sp | Sp | 3:2 pulldown | Rd/Wr | 0 | 1 | 1 | $\begin{aligned} & 0=\text { Disabled } \\ & 1=\text { Automatic detection } \end{aligned}$ | $\begin{aligned} & 0=\ln p u t 1 \\ & 1=\ln n u t 2 \\ & 2=\ln p u t 3 \\ & 3=\ln p u t 4 \\ & 4=\ln n u t 5 \\ & 5=\ln p u t 6 \\ & 6=\ln p u t 7 \\ & 7=\ln p u t 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_ASPECT_RATIO_IN | sA | sA | input picture aspect ratio | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 4 | 0 | $0=$ Native, full screen <br> 1 = LetterBox 1.78, 4/3 with 16/9 content and black bands 2 = LetterBox 2.35, 4/3 with 2,35 content and black bands 3 = PillarBox, $16 / 9$ with $4 / 3$ content and black bands 4 = Anamorphic, $4 / 3$ with 16/9 content without black bands | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input } 3 \\ & 3=\text { nnput } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { nnput } 7 \\ & 7=\text { Input } \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |



|  | SET_CROP_HEND | LH | LH | input signal H cropping end | Rd/Wr | 0 | 2048 | 2048 | $2048=100 \%=$ no right cropping | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input2 } \\ & 2=\text { Input3 } \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SET_CROP_VEND | LV | LV | input signal V cropping end | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 2048 | 2048 | $2048=100 \%=$ no top cropping | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input3 } \\ & 3=\operatorname{Input4} 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input6 } \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_FORCE_TO_4_3 | Lf | Lf | force $4 / 3$ aspect ratio (SDTV only) | Rd/Wr | 0 | 1 | 0 | 1 = force to $4 / 3$ aspect ratio (SDTV only) | $\begin{aligned} & 0=\ln p u t 1 \\ & 1=\ln p u t 2 \\ & 2=\ln p u t 3 \\ & 3=\ln p u t 4 \\ & 4= \\ & 5=\ln p u t 5 \\ & 5=\ln p u t 6 \\ & 6=\ln p u t 7 \\ & 7 \\ & 7 \end{aligned}$ | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ |  |
|  | SET_MOTION_DETECT | Sm | Sm | Defines moving pixels detection threshold | Rd/Wr | 0 | 60 | 0 | $60=$ standard setting, $10=$ typical camera setting | $\begin{aligned} & 0=\ln p u t 1 \\ & 1=\ln p u t 2 \\ & 2=\operatorname{lnput} 3 \\ & 3=\ln p u t 4 \\ & 4=\ln p u t 5 \\ & 5=\operatorname{lnp} 54 \\ & 6=\ln p u t 7 \\ & 7 \\ & 7=\ln p u t 8 \end{aligned}$ | 0 = full deinterlacing $60=$ standard deinterlacing |  |



|  | PE_POS_H | pH | pH | layer left H position on output screen | Rd/Wr | 0 | 65535 | 32768 | in pixel with 32768 offset ( $32768=$ left side, visible) | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $0=$ Background <br> Frame <br> 1 = Layer A <br> $2=$ Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PE_POS_V | pV | pV | layer top V position on output screen | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 65535 | 32768 | in pixel with 32768 offset (32768 = top side, visible) | 0 = Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | 0 = Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
|  | PE_SIZE_H | pW | pW | layer H size on output screen (without borders) | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 65535 | 32768 | in pixel | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $0=$ Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
|  | PE_SIZE_V | pS | pS | layer V size on output screen (without borders) | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 65535 | 32768 | in pixel | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> 6 = Memorized <br> Preset 4 | $0=$ Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |


|  | PE_CROP_WIN_POS_H | CH | CH | layer cropping H position | Rd/Wr | 0 | 65535 | 32768 | in \% (65535 = 100\% = full left cropping) | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PE_CROP_WIN_POS_V | CV | CV | layer cropping V position | Rd/Wr | 0 | 65535 | 32768 | in \% (65535 = 100\% = full top cropping) | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
|  | PE_CROP_WIN_SIZE_H | CW | CW | layer H cropping size | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 58981 | 0 | in \% (65535 = 100\%) | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | 0 = Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
|  | PE_CROP_WIN_SIZE_V | CS | CS | layer V cropping size | Rd/Wr | 0 | 58981 | 0 | in \% (65535 = 100\%) | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> 5 = Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | 0 = Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |


|  | PE_ALPHA | pA | pA | layer transparency | Rd/Wr | 0 | 255 | 0 | $\begin{aligned} & 0=\text { opaque, } 255=100 \%=\text { full } \\ & \text { transparency } \end{aligned}$ | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PE_BORDER_STYLE | bS | bS | border style | Rd/Wr | 0 | 4 | 0 | $\begin{aligned} & 0=\text { No Border } \\ & 1=\text { Edges } \\ & 2=\text { Smooth } \\ & 3=\text { Shadow } \\ & 4=\text { Smooth shadow } \end{aligned}$ | 0 = Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
|  | PE_BORDER_COLOR | bC | bC | border color | Rd/Wr | 0 | 544 | 0 | color number | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $0=$ Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> 6 = Logo $B$ <br> 7 = Frame Mask |  |
|  | PE_BORDER_ALPHA | bA | bA | border transparency | Rd/Wr | 0 | 255 | 128 | 255 = full transparency | 0 = Current Preset <br> 1 = Next Preset <br> $2=$ Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> $4=$ Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |


|  | PE_BORDER_SIZE_H | bH | bH | border H size | Rd/Wr | 0 | 127 | 10 | in pixel | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $0=$ Background <br> Frame <br> 1 = Layer A <br> $2=$ Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PE_BORDER_SIZE_V | bV | bV | border V size | Rd/Wr | 0 | 127 | 10 | in pixel | 0 = Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | 0 = Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
|  | PE_BORDER_SHADOW_POS | bP | bP | layer shadow position | Rd/Wr | 0 | 3 | 0 | $\begin{aligned} & 0=S E=\text { Bottom Right } \\ & 1=S W=\text { Bottom Left } \\ & 2=N W=\text { TOP Left } \\ & 3=N E=T O P \text { Right } \end{aligned}$ | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $0=$ Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
|  | PE_OPENING_TRANSITION | oT | oT | layer opening transition | Rd/Wr | 0 | 2 | 1 | $0=$ Cut Transition <br> 1 = Fade Transition <br> 2 = Slide Transition | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> 6 = Memorized <br> Preset 4 | $0=$ Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo $A$ <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |


|  | PE_OPENING_TRANSITION_WAY | oW | oW | opening transition direction | Rd/Wr | 0 | 3 | 0 | $0=$ Left to right Transition <br> 1 = Right to left Transition <br> $2=$ Bottom to top Transition <br> 3 = Top to bottom Transition | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PE_OPENING_DURATION | oD | oD | opening transition time | Rd/Wr | 0 | 255 | 10 | $\begin{aligned} & \text { in } 1 / 10 \text { second (ex : } 105= \\ & 10.5 \mathrm{~s} \text { ) } \end{aligned}$ | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4 \text { = Layer D } \\ & 5 \text { = Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
|  | PE_CLOSING_TRANSITION | cT | cT | layer closing transition | Rd/Wr | 0 | 2 | 1 | $0=$ Cut Transition <br> 1 = Fade Transition <br> 2 = Slide Transition | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> 5 = Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | 0 = Background Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo A <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
|  | PE_CLOSING_TRANSITION_WAY | cW | cW | closing transition direction | Rd/Wr | 0 | 3 | 1 | $0=$ Left to right Transition <br> $1=$ Right to left Transition <br> 2 = Bottom to top Transition <br> $3=$ Top to bottom Transition | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> 6 = Memorized <br> Preset 4 | 0 = Background <br> Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo A <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |


|  | PE_CLOSING_DURATION | cD | cD | closing transition time | Rd/Wr | 0 | 255 | 10 | $\begin{aligned} & \text { in } 1 / 10 \text { second (ex : } 105= \\ & 10.5 \text { s) } \end{aligned}$ | 0 = Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PE_FREEZE_INPUT | pZ | pZ | input image freeze | Rd/Wr | 0 | 1 | 0 | 1 = input freeze | $0=$ Current Preset <br> $1=$ Next Preset <br> $2=$ Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Background } \\ & \text { Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3 \text { = Layer C } \\ & 4 \text { = Layer D } \\ & 5 \text { = Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |
|  | P_PLUGNUM | IP | IP | active plug on input | Rd/Wr | 0 | 2 | 0 | $\begin{aligned} & 0=\text { Analog Plug } \\ & 1=\text { DVI Plug } \\ & 2=\text { SDI Plug } \end{aligned}$ | $0=$ Current Preset <br> $1=$ Next Preset <br> $2=$ Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input } 2 \\ & 2=\text { Input3 } \\ & 3=\text { Input } 4 \\ & 4=\text { Input } 5 \\ & 5=\text { Input } 6 \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ |  |
| Presets | P_KEYING_ENABLE | KE | KE | keying/titling enable | Rd/Wr | 0 | 1 | 0 | 1 = enable keying/tiling | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 |  |  |


|  | P_KEYING_LAYER | KL | KL | keying layer | Rd/Wr | 1 | 4 | 2 | $\begin{aligned} & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { L Layer C } \\ & 4=\text { Layer D } \end{aligned}$ | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | P_KEYING_TYPE | KT | KT | keying type | Rd/Wr | 0 | 3 | 3 | $0=$ Luma titling <br> 1 = Chroma titling <br> 2 = luma keying <br> $3=$ chroma keying | 0 = Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 |  |  |
|  | P_KEYING_SHADOW | KS | KS | shadow level under titling layer | Rd/Wr | 0 | 255 | 0 | $0=0 \%$ = background attenuated, $255=100 \%$ = black background | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 |  |  |
|  | P_KEYING_R_LEVEL | KR | KR | keying red level | Rd/Wr | 0 | 255 | 0 | $0=0 \%, 255=100 \%$ | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> 6 = Memorized <br> Preset 4 |  |  |


|  | P_KEYING_G_LEVEL | KG | KG | keying green level or luma level | Rd/Wr | 0 | 255 | 255 | $0=0 \%, 255=100 \%$ | $0=$ Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | P_KEYING_B_LEVEL | KB | KB | keying blue level | Rd/Wr | 0 | 255 | 0 | $0=0 \%, 255=100 \%$ | 0 = Current Preset <br> 1 = Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 |  |  |
|  | P_KEYING_TOLER | KH | KH | keying tolerance | Rd/Wr | 0 | 255 | 16 | $0=0 \%, 255=100 \%$ | 0 = Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 |  |  |
|  | P_KEYING_INV | Ki | Ki | key invert | Rd/Wr | 0 | 1 | 0 | 1 = invert key (inside keying) | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> $3=$ Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> 6 = Memorized <br> Preset 4 |  |  |





| Layer Controls | COPY_LAYER_PRESET | LP | LP | preset for layer copy | Rd/Wr | 0 | 6 | 0 | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized Preset 1 <br> $4=$ Memorized Preset 2 <br> $5=$ Memorized Preset 3 <br> $6=$ Memorized Preset 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | COPY_LAYER_FROM | LF | LF | source for layer copy | Rd/Wr | 0 | 7 | 0 | $\begin{aligned} & 0=\text { Background Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |  |
|  | COPY_LAYER_TO | LT | LT | destination for layer copy | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 7 | 0 | $\begin{aligned} & 0=\text { Background Frame } \\ & 1=\text { Layer A } \\ & 2=\text { Layer B } \\ & 3=\text { Layer C } \\ & 4=\text { Layer D } \\ & 5=\text { Logo A } \\ & 6=\text { Logo B } \\ & 7=\text { Frame Mask } \end{aligned}$ |  |  |
|  | COPY_LAYER_CTRL | LC | LC | layer copy control (auto clear) | Rd/Wr | 0 | 1 | 0 | $\begin{aligned} & 0=\text { operation complete } \\ & 1=\text { execute one layer copy } \end{aligned}$ |  |  |
| Settings | R_FLICK | Rf | Rf | antiflicker level | Rd/Wr | 0 | 7 | 2 | 0 = no anti-flicker | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \\ & \hline \end{aligned}$ |  |
|  | R_GAMMA | Rg | Rg | gamma correction level | Rd/Wr | 5 | 40 | 10 | gamma value in $1 / 10$ (ex : 22 for 2.2) | $\begin{aligned} & \hline 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |


| Output | OFORMAT | OF | OF | output format | Rd/Wr | 0 | 38 | 12 |  | $0=$ Main Output <br> 1 = Preview Output <br> $2=$ Recording Output |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ORATE | OR | OR | output rate | Rd/Wr | 0 | 10 | 8 | $\begin{aligned} & 0=\text { Custom Field Rate } \\ & 1=23,97 \mathrm{~Hz} \\ & 2=24 \mathrm{~Hz} \\ & 3=25 \mathrm{~Hz} \\ & 4=29,97 \mathrm{~Hz} \\ & 5=30 \mathrm{~Hz} \\ & 6=50 \mathrm{~Hz} \\ & 7=59,94 \mathrm{~Hz} \\ & 8=60 \mathrm{~Hz} \\ & 9=72 \mathrm{~Hz} \\ & 10=75 \mathrm{~Hz} \end{aligned}$ | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |


|  | OSIGTYPEANALOG | OA | OA | analog output type | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 3 | 2 | $\begin{aligned} & 0=\mathrm{RGBs} \\ & 1=\mathrm{RGsB}(\mathrm{SOG}) \\ & 2=\mathrm{RGB} \mathrm{H} \mathrm{\& V} \\ & 3=Y U V \end{aligned}$ | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | OSIGTYPEDIGITAL | OD | OD | digital output type | Rd/Wr | 0 | 2 | 0 | $\begin{array}{\|l\|} \hline 0=\text { RGB 0-255 (Full Scale) } \\ 1=\text { RGB 16-235 (Reduced } \\ \text { Scale) } \\ 2=Y U V \\ \hline \end{array}$ | $\begin{aligned} & \hline 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |
|  | OPATTERN | OP | OP | output pattern | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 9 | 0 | $\begin{aligned} & 0=\text { No pattern } \\ & 1=\text { Vertical Grey Scale } \\ & 2=\text { Horizontal Grey Scale } \\ & 3=\text { Vertical Color Bar } \\ & 4=\text { Horizontal Color Bar } \\ & 5=\text { Grid } \\ & 6=\text { SMPTE } \\ & 7=\text { Burst } \\ & 8=\text { Centering } \\ & 9=\text { Soft Edge Centering } \end{aligned}$ | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |
|  | OBLACK_REQ | OB | OB | black output control | Rd/Wr | 0 | 1 | 0 | 1 = black output | $\begin{aligned} & \hline 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |
|  | OUTIL_H | OH | OH | output horizontal size status | Rd | 0 | 65535 | 0 | in pixel | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \\ & \hline \end{aligned}$ |  |  |
|  | OUTIL_V | OV | OV | output vertical size status | Rd | 0 | 65535 | 0 | in pixel | $\begin{aligned} & \hline 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |
|  | OFIELDRATE | OT | OT | output frame frequency | Rd | 100 | 65000 | 6000 | frequency in $1 / 100 \mathrm{~Hz}$ | $\begin{array}{\|l\|} \hline 0=\text { Main Output } \\ 1=\text { Preview Output } \\ 2=\text { Recording } \\ \text { Output } \\ \hline \end{array}$ |  |  |
|  | OISHDCP | On | On | output HDCP status | Rd | 0 | 1 | 0 | 1 = output connected to HDCP display | $\begin{aligned} & \hline 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |
|  | ODETECT_HDCP | OC | OC | output HDCP detection enable | Rd/Wr | 0 | 1 | 1 |  | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ |  |  |





|  | BKG_COLOR_G | RG | RG | recording background color (Green) | Rd/Wr | 0 | 1024 | 0 |  | $\begin{aligned} & 0=\text { one window } \\ & \text { display mode } \\ & 1=\text { multiple } \\ & \text { windows display } \\ & \text { mode } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BKG_COLOR_B | RB | RB | recording background color (Blue) | Rd/Wr | 0 | 1024 | 0 |  | $\begin{array}{\|l} \hline 0=\text { one window } \\ \text { display mode } \\ 1=\text { multiple } \\ \text { windows display } \\ \text { mode } \\ \hline \end{array}$ |  |  |
| Output screen | OSCREEN_UTIL_H | sH | sH | output screen horizontal size (total screen in softedge) | Rd | 0 | 65535 | 0 | in pixel |  |  |  |
|  | OSCREEN_UTIL_V | sV | sV | output screen vertical size (total screen in softedge) | Rd | 0 | 65535 | 0 | in pixel |  |  |  |
|  | OSCREEN_DEVICE_COUNT | sC | sC | output screen machine count | Rd/Wr | 1 | 16 | 1 |  |  |  |  |
|  | OSCREEN_DEVICE_POSITION | sP | sP | output screen machine position | Rd/Wr | 1 | 16 | 1 | 1 = left or top |  |  |  |
| Softedge | SOFTEDGE_MODE | SM | SM | softedge direction | Rd/Wr | 0 | 1 | 0 | $0 \text { = Horizontal Softedge }$ $1 \text { = Vertical Softedge }$ |  |  |  |
|  | SOFTEDGE_COVERING_SIZE | SZ | SZ | covering size | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 1023 | 0 | in pixel |  |  |  |
|  | SOFTEDGE_ENABLE_CURVES | SE | SE | blending enable | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 1 | 0 | 1 = blending enable |  |  |  |
|  | SOFTEDGE_POINT | SP | SP | blending curve points | Rd/Wr | 0 | 65535 | 0 | coordinate point in \% + 32768 offset <br> (ex : coordinate $26=32768+$ <br> 26) | 0 = Left/Top Border <br> $1=$ Bottom/Right Border | $\begin{aligned} & 0=\text { Point } 0 \\ & 1=\text { Point } 1 \end{aligned}$ | $\begin{array}{\|l} \hline 0=X \\ \text { Coord } \\ 1=Y \\ \text { Coord } \\ \hline \end{array}$ |
|  | SOFTEDGE_BLACK_SIZE | Sb | Sb | black level correction areas | Rd/Wr | 0 | 127 | 0 | in pixel | $\begin{aligned} & 0=\text { Left/Top Border } \\ & 1=\text { Bottom/Right } \\ & \text { Border } \end{aligned}$ |  |  |
|  | SOFTEDGE_BLACK_R_LEVEL | SR | SR | red component level in black area | Rd/Wr | 0 | 63 | 0 | $0=$ Black | $\begin{aligned} & 0=\text { Left/Top Border } \\ & 1=\text { Bottom/Right } \\ & \text { Border } \end{aligned}$ |  |  |
|  | SOFTEDGE_BLACK_G_LEVEL | SG | SG | green component level in black area | Rd/Wr | 0 | 63 | 0 | 0 = Black | $\begin{aligned} & 0=\text { Left/Top Border } \\ & 1=\text { Bottom/Right } \\ & \text { Border } \end{aligned}$ |  |  |
|  | SOFTEDGE_BLACK_B_LEVEL | SB | SB | blue component level in black area | Rd/Wr | 0 | 63 | 0 | 0 = Black | $\begin{aligned} & 0=\text { Left/Top Border } \\ & 1=\text { Bottom/Right } \\ & \text { Border } \end{aligned}$ |  |  |


| Logos Frames | PMODE | PM | PM | logo/frame mode | Rd/Wr | 0 | 9 | 0 | 0 = Use Logo Frame mode <br> 1 = Logo recording mode <br> 2 = Live logo recording mode <br> 3 = Frame recording mode <br> 4 = Frame mask recording <br> mode <br> 5 = Logo clear mode <br> 6 = Frame clear mode <br> 7 = Frame mask clear mode <br> 8 = Complete frame, logo and <br> maskFrame clear mode <br> 9 = Transfer Mode |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PEXECUTE | PG | PG | logo/frame control | Rd/Wr | 0 | 1 | 0 | start operation requested by logo/frame mode. (recording or erasure)(auto clear) |  |  |  |
|  | PABORT | PA | PA | logo/frame recording abort | Rd/Wr | 0 | 1 | 0 | (auto clear) |  |  |  |
|  | PSTATUS | PE | PE | logo/frame control status | Rd | 0 | 5 | 0 | $0=\text { Free }$ <br> 1 = Logo/Frame Recalling <br> 2 = Logo/Frame storing <br> 3 = Logo/Frame Format and <br> output format not compatible <br> 4 = Logo/Frame clearing <br> 5 = Flash memory error |  |  |  |
|  | PFRAMES_VALID | PF | PF | frame available status, bit field with bit0=frame1 ... bit7=frame8, bit8=maskFrame | Rd | 0 | 1023 | 0 | $0=$ no logo/frame available |  |  |  |
|  | PLOGOS_VALID | PZ | PZ | logo available status, bit field with bit0=logo1 ... bit7=logo8 | Rd | 0 | 511 | 0 | $0=$ no logo/frame available |  |  |  |
|  | PCAPTURE_LEFT | PL | PL | logo/frame horizontal position | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 32767 | 0 | in pixel |  |  |  |
|  | PCAPTURE_TOP | PT | PT | logo/frame vertical position | Rd/Wr | 0 | 32767 | 0 | in pixel |  |  |  |
|  | PCAPTURE_WIDTH | PW | PW | logo/frame capture horizontal size | Rd/Wr | 0 | 32767 | 400 | in pixel |  |  |  |
|  | PCAPTURE_HEIGHT | PH | PH | logo/frame capture vertical size | Rd/Wr | 0 | 32767 | 300 | in pixel |  |  |  |
|  | PCAPTURE_LUMAKEY_TYPE | PY | PY | logo/frame keying mode | Rd/Wr | 0 | 1 | 0 | $\begin{aligned} & 0=\text { Black } \\ & 1=\text { White } \end{aligned}$ |  |  |  |
|  | PCAPTURE_LUMAKEY_LEVEL | PI | PI | logo/frame luma key level | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 255 | 0 | 0 = black, 255 = white | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \\ & 2=\text { Recording } \\ & \text { Output } \end{aligned}$ | $\begin{aligned} & 0=\text { Black } \\ & 1=\text { White } \end{aligned}$ |  |




|  | LANRESET | nr | nr | LAN factory parameters reset | Rd/Wr | 0 | 1 | 0 | (auto clear) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | LANSTORE | ns | ns | LAN parameters update | Rd/Wr | 0 | 1 | 0 | (auto clear) |  |  |  |
|  | LANIP | nw | nw | LAN devices addresses | Rd/Wr | 0 | 255 | 192 | 0 up to 255 | $\begin{array}{\|l} \hline 0=\text { Device } \\ \text { side(DVX8044) } \\ 1=\text { Remote } \\ \text { side(RK8044) } \\ 2=\text { Gateway } \end{array}$ | $\begin{aligned} & 0=I P \text { address } \\ & 1 \text { st Byte } \\ & 1=I P \text { address } \\ & \text { 2nd Byte } \\ & 2=I P \text { address } \\ & \text { 3rd Byte } \\ & 3=I P \text { address } \\ & \text { 4th Byte } \end{aligned}$ |  |
|  | LANPORT | np | np | LAN port numbers | Rd/Wr | 0 | 65535 | 10500 | local port : 10000 up to 10999 distant port : 0 up to 65535 | $\begin{array}{\|l} \hline 0 \text { = Device } \\ \text { side(DVX8044) } \\ 1=\text { Remote } \\ \text { side(RK8044) } \\ 2=\text { Gateway } \\ \hline \end{array}$ |  |  |
|  | LANNETMASK | nk | nk | LAN netmask | Rd/Wr | 0 | 24 | 8 | 0 value bit count from right |  |  |  |
|  | LANPROTOCOL | nt | nt | LAN protocol | Rd/Wr | 0 | 2 | 1 | $\begin{aligned} & 0=\text { UDP } \\ & 1=T C P \\ & 2=A M X \end{aligned}$ |  |  |  |
|  | AUDIO_TYPE | AT | AT | audio mode | Rd/Wr | 0 | 1 | 1 | 0 = BreakAway, listened input is independent of displayed inputs <br> 1 = FollowLastLayer, listened input is last selected layer input |  |  |  |
| AUDIO | AUDIO_LEVEL | AL | AL | audio input level | Rd/Wr | 0 | 63 | 63 | with balanced signal : $\begin{aligned} & 1=-63 \mathrm{~dB} \\ & 63=0 \mathrm{~dB} \end{aligned}$ |  |  |  |
|  | AUDIO_AUX_LEVEL | AI | AI | audio auxiliary input level | Rd/Wr | 0 | 63 | 63 | with balanced signal $\begin{aligned} & 1=-63 \mathrm{~dB} \\ & 63=0 \mathrm{~dB} \end{aligned}$ |  |  |  |


|  | AUDIO_BALANCE | AB | AB | audio input balance | Rd/Wr | 0 | 200 | 100 | in \%, $0=$ right muted, $100=$ standard, $200=$ left muted | $\begin{aligned} & 0=\text { Input } 1 \\ & 1=\text { Input2 } \\ & 2=\text { Input3 } \\ & 3=\text { Input } 4 \\ & 4=\text { Input5 } \\ & 5=\text { Input6 } \\ & 6=\text { Input } 7 \\ & 7=\text { Input } 8 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AUDIO_AUX_BALANCE | Ab | Ab | audio auxiliary input balance | Rd/Wr | 0 | 200 | 100 | in \%, $0=$ right muted, $100=$ standard, $200=$ left muted |  |  |  |
|  | AUDIO_SOURCE | AS | AS | audio input select | Rd/Wr | 0 | 8 | 0 | $0=$ No Input <br> 1 = Input1 / Frame1 / Logo1 / <br> MaskFrame1 <br> 2 = Input2 / Frame2 / Logo2 <br> 3 = Input3 / Frame3 / Logo3 <br> 4 = Input4 / Frame4 / Logo4 <br> 5 = Input5 / Frame5 / Logo5 <br> 6 = Input6 / Frame6 / Logo6 <br> 7 = Input7 / Frame7 / Logo7 <br> 8 = Input8 / Frame8 / Logo8 | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $0=$ Background Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo A <br> $6=$ Logo B <br> 7 = Frame Mask |  |
|  | AUDIO_AUX_MUTE | Aa | Aa | audio auxiliary input mute | Rd/Wr | 0 | 1 | 0 | 1 = enable | $0=$ Current Preset <br> $1=$ Next Preset <br> 2 = Previous Preset <br> 3 = Memorized <br> Preset 1 <br> 4 = Memorized <br> Preset 2 <br> $5=$ Memorized <br> Preset 3 <br> $6=$ Memorized <br> Preset 4 | $0=$ Background Frame <br> 1 = Layer A <br> 2 = Layer B <br> 3 = Layer C <br> 4 = Layer D <br> $5=$ Logo A <br> $6=$ Logo $B$ <br> 7 = Frame Mask |  |
|  | AUDIO_MUTE | Au | Au | audio input mute | Rd/Wr | 0 | 1 | 0 | 1 = muted | $\begin{aligned} & 0=\text { Main Output } \\ & 1=\text { Preview Output } \end{aligned}$ |  |  |
|  | AUDIO_MASTER_VOLUME | AV | AV | audio output master volume | Rd/Wr | 0 | 63 | 63 | with balanced signal : $0=$ min volume, $57=0 \mathrm{~dB}$ attenuation, $63=$ max volume $(+6 \mathrm{~dB})$ | 0 = Main Output <br> 1 = Preview Output |  |  |
|  | AUDIO_MODE | Am | Am | audio stereo mode | $\mathrm{Rd} / \mathrm{Wr}$ | 0 | 1 | 1 | $\begin{aligned} & 0=\text { mono }, \\ & 1=\text { Stereo } \end{aligned}$ | $\begin{aligned} & 0=\text { Main Output } \\ & 1 \text { = Preview Output } \end{aligned}$ |  |  |







