

# TwinPEG™ Pro

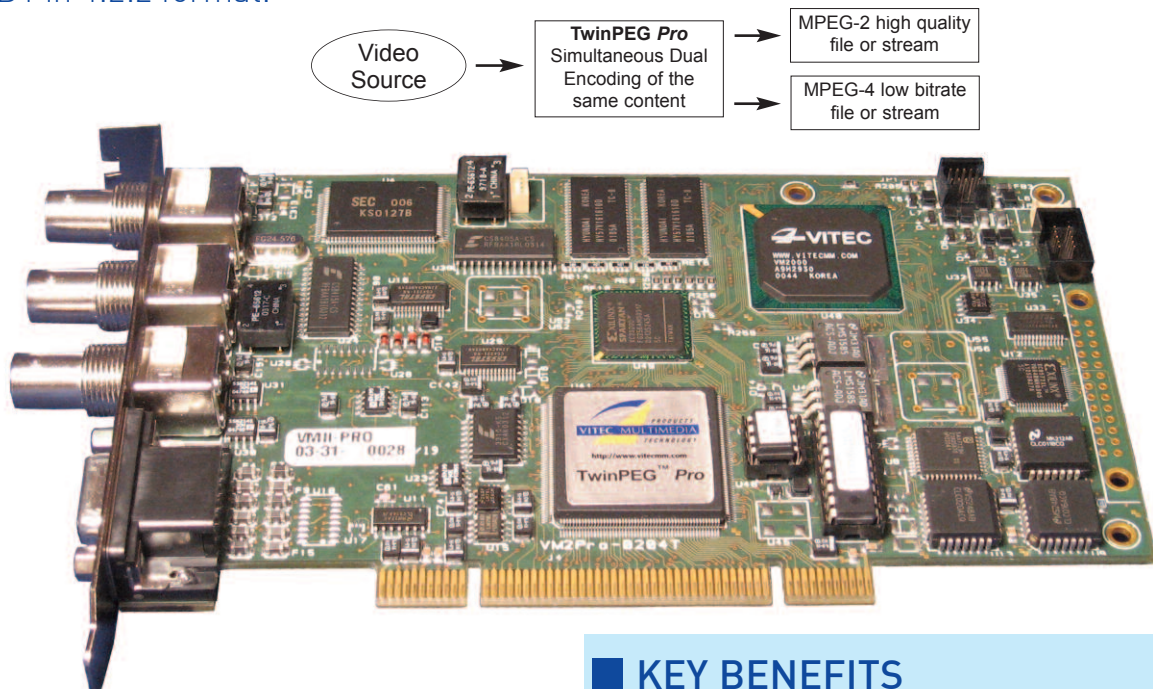
Advanced MPEG Encoder

## SDI, YUV & Composite Encoder

### MPEG-4 MPEG-2 MPEG-1

#### ■ ADVANCED MPEG ENCODER FOR PROFESSIONALS

TwinPEG Pro is an advanced MPEG encoding solution for professionals with innovative features including DUAL encoding. Indeed, TwinPEG Pro is able to simultaneously generate two MPEG files from a unique video source such as: MPEG-4 SIF low bitrate and MPEG-2 high quality FD1 in 4:2:2 format.



#### ■ APPLICATIONS

TwinPEG Pro is ideal for many key applications:

- Video Ingest in production studios,
- Broadcast quality video archiving,
- Video streaming,
- DVD content creation,

And much more...

#### ■ KEY BENEFITS

- SDI & YUV inputs.
- AES/EBU & embedded audio in SDI.
- DUAL encoding.
- MPEG-4 ASP & MPEG-2 & MPEG-1.
- Transport Stream & Program Stream.
- 24/7 Encoding.
- 4:2:2 & 4:2:0 Profiles.
- CC, TC.
- Pause/Resume mode.
- Still frame capture while encoding.



# TECHNICAL SPECIFICATIONS

|               |                       |                                                    |
|---------------|-----------------------|----------------------------------------------------|
| <b>Inputs</b> | Video formats         | NTSC/PAL/SECAM                                     |
|               | Video Inputs: analog  | YUV, S-video, Composite                            |
|               | Video Inputs: digital | SDI                                                |
|               | Audio Inputs: analog  | Analog balanced audio (2 XLR)                      |
|               | Audio Inputs: digital | Digital audio AES/EBU (1 XLR) & SDI embedded (BNC) |
|               | Preview on VGA        | yes                                                |

|                                   |                                   |                                              |
|-----------------------------------|-----------------------------------|----------------------------------------------|
| <b>Video Encoding</b>             | MPEG-1                            | SIF, QSIF                                    |
|                                   | MPEG-2                            | FD1, 2/3D1, HD1, SIF, QSIF                   |
|                                   | MPEG-4                            | FD1, 2/3D1, HD1, SIF, QSIF                   |
|                                   | MPEG-4 ISMA Level 1               | yes                                          |
|                                   | MPEG-4 profile                    | ASP / level 0-5 (1 object)                   |
|                                   | Elementary streams MPEG-1 & -2    | yes                                          |
|                                   | MPEG-1 System stream              | yes                                          |
|                                   | MPEG-2 PS and TS Mux              | yes                                          |
|                                   | 4:2:2 profile MPEG-2              | up to 50 Mbit/s with I frames only           |
|                                   | 4:2:2 profile MPEG-2              | up to 25 Mbit/s with IBP & Motion estimation |
|                                   | 4:2:0 profile MPEG-2              | up to 15 Mbit/s with IBP & Motion estimation |
|                                   | MPEG-4 System stream              | yes                                          |
|                                   | VCD 2.0, XVCD compliance          | yes                                          |
|                                   | DVD, SVCD compliance              | yes                                          |
|                                   | Frame rate                        | 29.97 (NTSC)<br>25 (PAL/SECAM)               |
|                                   | Adjustable frame rate             | yes                                          |
|                                   | Bitrate MPEG-1                    | 128 Kbit/s to 3 Mbit/s                       |
|                                   | Bitrate MPEG-2                    | 1 to 15 Mbit/s                               |
|                                   | Bitrate MPEG-4                    | 64 Kbit/s to 6 Mbit/s                        |
|                                   | Bitrate regulation mode MPEG-1    | CBR, VBR                                     |
|                                   | Bitrate regulation mode MPEG-2    | CBR, VBR                                     |
|                                   | Bitrate regulation mode MPEG-4    | CBR, VBR, CFR                                |
|                                   | VBR with Average and Max settings | yes                                          |
| VBR with Fixed Quantizer          | yes                               |                                              |
| Adjustable GOP definition         | IIII, IP, IBP, IBBP, ...          |                                              |
| IBP distance settings, closed GOP | yes                               |                                              |
| Scene Change Detection            | yes                               |                                              |

|                       |                                         |                      |
|-----------------------|-----------------------------------------|----------------------|
| <b>Audio Encoding</b> | MPEG-1 Layer 1 & 2                      | yes                  |
|                       | PCM                                     | yes                  |
|                       | AC-3                                    | yes                  |
|                       | MPEG-4 AAC Low Complexity               | yes                  |
|                       | Sample rate                             | 22, 32, 44.1, 48 KHz |
|                       | Bits per sample                         | 16 bits              |
|                       | Bitrate MPEG-1 audio                    | 32 to 384 Kbit/s     |
|                       | Bitrate AC3                             | 96 to 640 Kbit/s     |
|                       | Bitrate AAC-LC                          | 20 to 128 Kbit/s     |
| Audio Mode            | Mono, Stereo, Dual Stereo, Joint Stereo |                      |

|                                    |                                                   |     |
|------------------------------------|---------------------------------------------------|-----|
| <b>Signal calibrat<sup>®</sup></b> | Brightness, Contrast, Saturation, Hue Adjustments | yes |
|                                    | Audio Level Adjustments                           | yes |

|                    |                                   |                                                         |
|--------------------|-----------------------------------|---------------------------------------------------------|
| <b>Still image</b> | Resolution                        | 720x576, 352x288 (PAL/SECAM)<br>720x480, 352x240 (NTSC) |
|                    | Field or Frame (2 fields) Capture | yes                                                     |

|                                                             |                                                           |     |
|-------------------------------------------------------------|-----------------------------------------------------------|-----|
| <b>Advanced Features</b>                                    | DUAL encoding                                             | yes |
|                                                             | Audio deembedding from SDI                                | yes |
|                                                             | CC, WSS, TC                                               | yes |
|                                                             | Embedded color bar pattern                                | yes |
|                                                             | Still image capture while encoding                        | yes |
|                                                             | Audiometer overlaid on preview                            | yes |
|                                                             | Status overlay on preview window                          | yes |
|                                                             | Pause/Resume mode                                         | yes |
|                                                             | Split mode (back to back files)                           | yes |
|                                                             | Skip frame mode (captures and compresses 1 frame among N) | yes |
| Drop frame mode (reduced frame rate & accelerated playback) | yes                                                       |     |
| 24/7 Very Long Encoding                                     | yes                                                       |     |

|                        |                               |                                    |
|------------------------|-------------------------------|------------------------------------|
| <b>Software bundle</b> | Capture application           | IMAGER for TwinPEG Pro             |
|                        | VTR control software option   | Supports frame accurate edit lists |
|                        | Frame accurate MPEG PS editor | DVD TOOLBOX Package                |

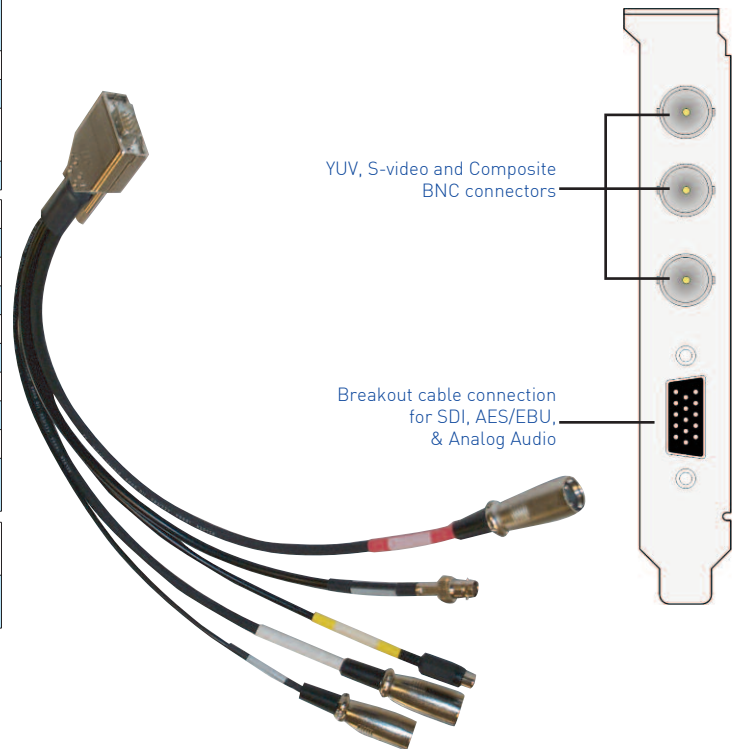
|                                  |                          |
|----------------------------------|--------------------------|
| <b>Recommended configuration</b> | P4 - 3.4 GHz, 256 MB RAM |
|----------------------------------|--------------------------|

|                         |                   |
|-------------------------|-------------------|
| <b>Operating System</b> | Vista / XP / 2000 |
|-------------------------|-------------------|

|                       |                                  |
|-----------------------|----------------------------------|
| <b>PCI compliance</b> | PCI 2.2 5V (and 3.3V on request) |
|-----------------------|----------------------------------|

|                                |                             |
|--------------------------------|-----------------------------|
| <b>Dimensions of the board</b> | 167 x 92 mm (6.57" x 3.62") |
|--------------------------------|-----------------------------|

|                          |       |
|--------------------------|-------|
| <b>Power consumption</b> | 7.3 W |
|--------------------------|-------|



**VITEC Multimedia, Inc / Stradis, Inc.**  
 1800 Century Blvd, NE Suite 1225  
 Atlanta, GA 30345-3218 USA  
 Phone: +1 404 320 0110  
 Fax: +1 404 320 3132  
 Email: info@vitecmm.com



**VITEC MULTIMEDIA International Sales**  
 99, rue Pierre Sémar  
 92324 Châtillon - France  
 Phone: +33 1 46 73 06 06  
 Fax: +33 1 46 73 06 00  
 Email: sales@vitecmm.com