OEM-LHi

PCI Express 4 Lane Card
for 8/10-bit Uncompressed
Analog and Digital SD, HD, 3G I/O
with HDMI v1.3 I/O

PRECISION 10-BIT QUALITY, UNMATCHED FEATURES

The OEM-LHi is AJA's award winning platform for analog and digital uncompressed audio and video I/O. OEM-LHi is compatible with Windows Vista, XP, and Linux via our robust and proven SDK environments for each of these platforms. Like all of our products, OEM-LHi is built to the highest specifications offering true broadcast-level performance within your systems and applications.

The OEM-LHi is the only PCIe card that includes both analog and digital SD/HD input and output with HDMI I/O on one PCIe card. OEM-LHi is a true dual-rate SD/HD card, via it's hardware-based 10-bit SD to HD up/down/cross-converter, available on any and all inputs or outputs. Also, HDMI v1.3a capability at 30 bits per pixel allows full support of the latest 10-bit monitors.

Major Features

- 8/10-bit Uncompressed SD/HD/3G PCIe I/O Card
- PCI Express 4 lane
- 12-bit HD Analog Component I/O
- 12-bit SD Analog Component/Composite/S-Video I/O
- HDMI v1.3a w/Deep Color at 30 bits per pixel input/output
- 10-bit Hardware Up/Down/Cross-conversion
- 3G/HD/SD-SDI Input, 1 Independent 3G/HD/SD-SDI Output
- 2-ch Balanced XLR AES Digital Audio I/O, 24-bit 48khz
- 2-ch Balanced XLR Analog Audio I/O, 24-bit 48khz
- 8-ch SDI Embedded Audio I/O, 20-bit 48khz
- HD/SD Genlock, LTC or Reference Video Input (selectable)
- RS-422 9-pin Port for Machine Control
- Cables Standard, KLHi-Box Breakout Optional
- 3-year warranty

MULTIPLE OS SUPPORT, COMMON API, ROBUST SDK

OEM-LHi is compatible with Windows Vista, XP, and Linux via our SDK (Software Development Kit), sharing one unified API (Application Programming Interface). This common API means less time developing if you are developing on multiple platforms and even multiple AJA cards. Our SDK's are feature rich and proven through the years.

Our SDK supports multiple OS's, including:
- Windows Vista 32-bit
- Windows Vista 64-bit
- Windows XP 32-bit
- Windows XP 64-bit
- Linux 32-bit
- Linux 64-bit

A more in-depth overview of our SDK can be found on our website, as well as in our OEM Overview whitepaper. Please contact us for more information, as well as additional information on our entire line of OEM cards.

Please continue for technical information on the OEM-LHi.

AJA
VIDEO SYSTEMS

www.aja.com
530.274.2048
800.251.4224 US

SPECIFICATIONS
OEM-LHi
PCI Express 4 lane

Video Input
Digital:
3G/HD/SD SDI,
SMPTE-259/292/296/424
HDMI v1.3, 30 bits/pixel,
  RGB or YUV, 2.25Gbps, SD,
  HD, 1080p50/60
Analog:
Composite/S-Video (Y/C):
  NTSC, NTSCJ, PAL 12-bit A/D,
  2x oversampling
  3 line adaptive comb filter
  decoding
SD Component:
  SMPTE/EBU N10, Betacam 525 line,
  Betacam 525J, RGB
  12-bit A/D, 2x oversampling
HD Component:
  YPbPr
  12-bit A/D

Video Output
Digital:
3Gb SD and HD-SDI,
SMPTE-259/292/296/424
HDMI v1.3, 30/36 bits/pixel,
  RGB or YUV, 2.25Gbps, SD,
  HD, 1080p50/60
Analog:
Composite/S-Video (Y/C):
  NTSC, NTSCJ, PAL
  12-bit D/A, 8x oversampling
SD Component:
  SMPTE/EBU N10, Betacam 525 line,
  Betacam 525J, RGB
  12-bit D/A, 8x oversampling
HD Component:
  YPbPr, RGB
  12-bit D/A, 2x oversampling

Video Formats
SD:
525i 29.97
625i 25

HD:
720p 50
720p 59.94
720p 60
1080i 25
1080i 29.97
1080i 30
1080p 23.976
1080psf 23.976
1080p 24
1080psf 24
1080p 25
1080psf 25
1080p 29.97
1080psf 29.97
1080p 30
1080psf 30
1080p 50
1080p 59.94
1080p 60

Audio Input
Digital:

2-channel 16/24/32-bit AES/EBU,
48kHz sample-rate Synchronous or
Non-synchronous (Internal sample-
rate conversion)
16/24/32-bit SMPTE-259 SDI
embedded audio, 8-channel, 48kHz
synchronous

Analog:
2-channel balanced input
+24dbu Full Scale Digital
16/24/32-bit A/D, 48kHz sample rate
+/- 0.2db 20 to 20kHz Frequency
Response

Audio Output
Digital:
2-channel 16/24/32-bit AES/EBU,
48kHz sample rate
16/24/32-bit AES/EBU, 48kHz sample
rate
16/24/32-bit SMPTE-259 SDI embed-
ded audio, 8-Ch, 48kHz synchronous

Analog:
2-channel balanced output
+24dbu Full Scale Digital
16/24/32-bit D/A, 48kHz sample rate
+/- 0.2db 20 to 20kHz Frequency
Response

Up-Conversion
Hardware 10-bit
Aspect conversion
modes:
Anamorphic
Pillar box 4:3
Zoom 14:9
Zoom Letterbox
Zoom Wide

Down-Conversion
Hardware 10-bit
Aspect conversion
modes:
Anamorphic
Letterbox
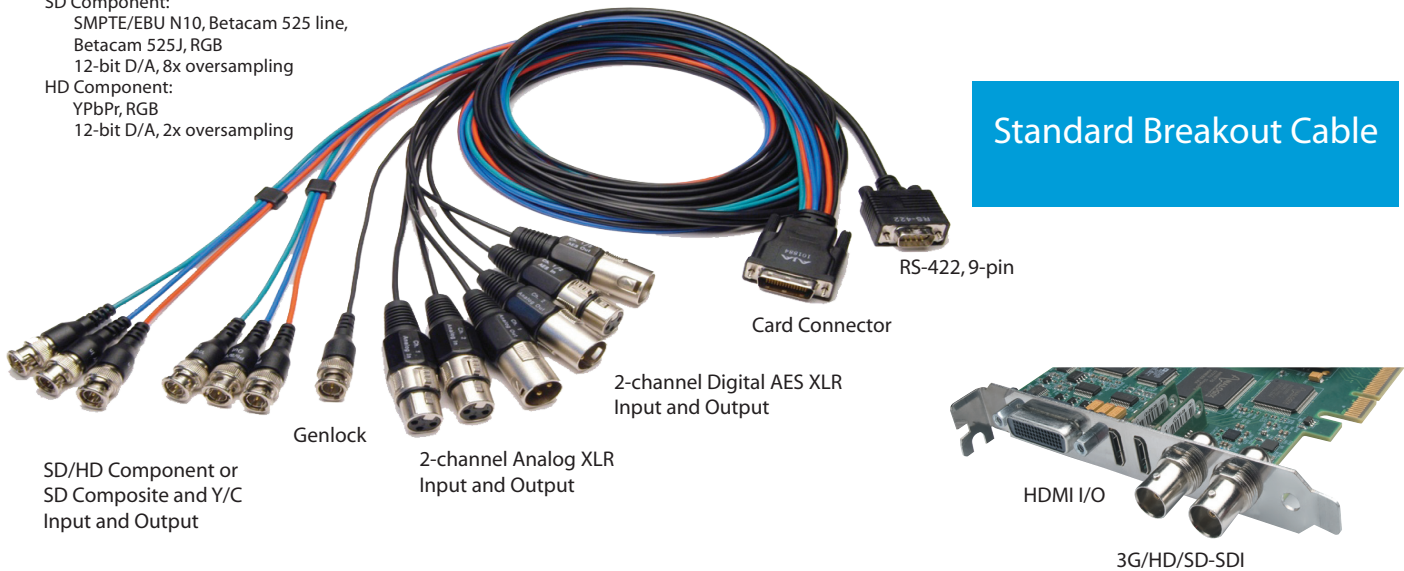Crop

Cross-Conversion
Hardware 10-bit
1080i to 720p
720p to 1080i

Reference Input
Analog Color or HD Tri-level
1 BNC on standard breakout cable
(75 Ohm terminating)
KLHi-Box (optional): 2 BNCs, passive loop

Machine Control
RS-422, Sony 9-pin protocol Connector
provided on breakout cable and
on optional KLHi-Box

Standard Breakout Cable

RS-422, 9-pin

Card Connector

2-channel Digital AES XLR
Input and Output

Genlock

2-channel Analog XLR
Input and Output

SD/HD Component or
SD Composite and Y/C
Input and Output

HDMI I/O

3G/HD/SD-SDI

Optional KLHi-Box
Breakout Box

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