VPixx Technologies
Vision Science Solutions

VideoBahn™
The NEW fast road to SUPERIOR data

DATAPixx3

DIGITAL, ANALOG AND AUDIO I/O

- Button box interface
- 24 TTL trigger inputs and outputs
- Stereo audio input and output
- Analog inputs and outputs

SYNCHRONIZED DATA ACQUISITION

All digital, analog, and audio inputs and outputs feature microsecond synchronization to video refresh.

VIDEO I/O

- 2 DisplayPort 1.4 inputs
- 2 DisplayPort 1.4 outputs
- Highest resolution and refresh rate

Fiber Optic
Video I/O Hub

OVERVIEW

The DATAPixx3 VideoBahn architecture allows all of your visual and auditory stimulation, and all of your button box, eye tracking, digital, analog, and audio data, to be synchronized to a single clock with microsecond precision. This unique fiber-optic integration can help your group study more subtle effects in brain activity. VideoBahn, the NEW fast road to SUPERIOR data.

SYMBIOTIC DEVICES

Authorized Distributor

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SPECIFICATIONS

VIDEO PROCESSING

Video inputs: 2 DisplayPort 1.4
Video outputs: 2 DisplayPort 1.4
Video input bandwidth: up to 32.4 Gbps per input
Video output channels: dual synchronized DisplayPort
Video output format: mirror or haploscope mode console
Maximum video resolution : 3840 x 2160 @120 Hz

ANALOG TO DIGITAL CONVERTER***

Number of channels: 16 (or 8 differential), on DB-25
Converter resolution: 16 bits
Maximum sampling rate: 200 kSPS per channel
Frequency programming modes:
- samples per second or per video frame
- nanoseconds per sample

Simultaneous sampling across all channels
Input range: ±10 V
Input impedance: $1.6*10^{8}$ Ω // 3 pF GENERAL
Absolute maximum input tolerance: ±12 V

DIGITAL TO ANALOG CONVERTER***

Number of channels: 4 on DB-25 connector
Converter resolution: 16 bits
Maximum sampling rate: 1 MSPS per channel
Frequency programming modes:
- samples per second or per video frame
- nanoseconds per sample

Simultaneous output updates
Output range: ±10 V
Drive capability: ±25 mA

VIDEOBAHN INTERFACE

Number of receivers : 4
Number of transmitters: 4
Maximum bandwidth per channel: 36 Gbps TX, 36 Gbps RX

AUDIO CODEC***

Audio line in, microphone in, speaker out, on 3.5 mm jacks
Stereo microphone input amplifier resistance: 20 kΩ
Microphone sampling rate: 96 kHz
Programmable microphone bias voltage range: 2.0 V to 3.1 V
Stereo DAC sampling rate: 96 kHz
Maximum output power into 8 Ω load: 500 mW

DIGITAL I/O

Number of digital inputs: 24 on DB-25 connector
Input termination: >20 kΩ pullup to 3.3 V
Input tolerance: 5 V
Number of digital outputs: 24 on DB-25 connector
Output drive stage: 5 V through 25 Ω series resistor
Maximum output current:
- source: 15 mA
- sink: 12 mA

GENERAL

USB 2.0 with 480 Mbit/s theorical maximum bandwidth
On-board memory: 2 GBytes for buffering I/O data
Power interface : 4 LEMO connectors, 12 VDC 9 A total
Operating temperature: 0°C to 70°C
Enclosure: steel, with 19" rack-mount hardware available
Power requirements: 12 VDC @ 13.3 A, 160 W max
(international AC adaptor included)

SOFTWARE

Software support includes a low-level ANSI C API, MATLAB/Octave and Python libraries for use under Mac OS X, Microsoft Windows, and Linux.

*** **These functionalities are available only with DATAPixx3 Full version (VPX-DPX-1005C)**

ORDERING INFORMATION

Description: DATAPixx3 data acquisition system with DisplayPort outputs
P/N: VPX-DPX-1005C
Description: DATAPixx3 Lite data acquisition system with DisplayPort outputs
P/N: VPX-DPX-1004A