DVR EXPRESS®
CORE 2 MAX

IO INDUSTRIES

Advanced High-Speed Digital Video Recorder with IRIG and GPS

APPLICATIONS

Space Launch Imaging

Test Range Video Recording

Multi-Camera Motion Capture

Stereo and 3D PIV/PTV

FEATURES INCLUDE:

· Reliable uncompressed video recording from Camera Link, CoaXPress or SDI video sources

· Long recording durations at high frame rates

· SDI video output for display during recording

· Precise timestamps with integrated IRIG input or optional single/dual-frequency GPS receiver

· Connects easily to laptops or PCs via USB 3.0

· Includes easy-to-use CoreView™ software
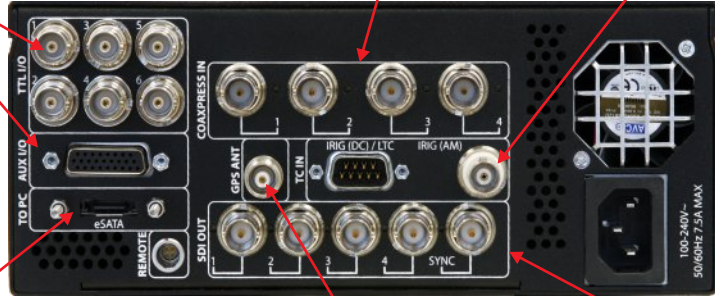
· Optional SDK for programmers

EXAMPLE SYSTEM

Simple connections to TTL or LVDS synchronization signals via BNC or DB26

High-speed digital video inputs support up to four cameras

Integrated IRIG-A/B Receiver

2U half-width rack-mount chassis

High-speed connection to Control PC via eSATA or USB 3.0

Optional single/dual-frequency GPS Receiver

High-definition real-time monitoring via 3G/HD-SDI

AVAILABLE MODELS

· Records up to (4) cameras with Camera Link Base, Medium, Full or Full 80-bit output formats and clock rates up to 85MHz
· Area and Line Scan camera types supported
· Power over Camera Link (PoCL) provided on all ports
· Bidirectional ports allow pass-through repeat features instead of using separate Camera Link splitters; works for either (2) CL-Base cameras or (1) CL-Full camera

Supported Camera Link Connections				
Model	Base	Med/Full	Base w. Repeat	Med/Full w. Repeat
CORE2CLMAX	4	2	2	1

· Records up to (4) cameras with CoaXPress single-link, dual-link or quad-link interfaces
· Link rates up to CXP-6 supported with no restriction on readout rate - supports any frame rate allowed by camera
· Area and Line Scan camera types supported
· Power over CoaXPress (PoCXP) provided on all ports

Supported CoaXPress Connections			
Model	Single-Link	Dual-Link	Quad-Link
CORE2CXMAX	4 (up to CXP-6)	2 (up to CXP-6)	1 (up to CXP-6)

· Records up to (4) single-link SDI video sources simultaneously
· Flexible support for SD-SDI, HD-SDI or 3G-SDI connections
· Supported formats include SD, HD, 2K, UHD and 4K up to 60p
· Records SMPTE metadata (HANC/VANC) from each link including embedded audio channels or KLV metadata
· Includes (4) tri-level sync outputs to synchronize exposure between cameras from different vendors
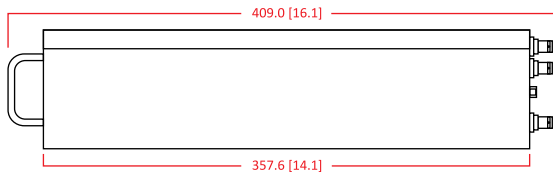
Supported SDI Connections		
Model	Single-Link In/Out	Quad-Link* In/Out
CORE2SDIMAX	4	1

*Quad-Link supports UHD/4K formats only

MECHANICAL DIAGRAM

Side

409.0 [16.1]

357.6 [14.1]

Front

217.0 [8.5]

86.1 [3.4]
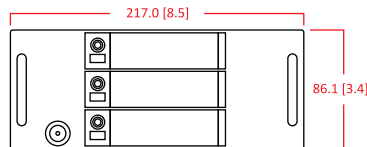
COMMON FEATURES

Supported Video Data Rate:
· Up to 2240 MB/s

Video Storage Media:
· (3) Rugged Removable Drive Cartridges holding up to (6) IO Industries VidIO Drive Modules (solid state media)
· Up to 45TB capacity

Connection to Control Computer:
· 6Gb/s eSATA (USB 3.0 adapter included)
· Required for configuration and operation
· Allows live video display, post-recording playback and video export to local storage

Recording Format:
· Uncompressed (IO Industries file system)
· Images or clips can be exported to common file types using control software (AVI, BMP, JPG, TIF, RAW, etc.), archived to backup format, or accessed via SDK

Control Software:
· CoreView™ or Streams™ 7 (SDKs available)

System Requirements:
· Windows 7/8.1/10 32/64-bit
· Ubuntu 16.04 LTS 32/64-bit
· Available eSATA or USB 3.0 port

Time Stamping:
· High-precision time stamp per frame
· Integrated timecode receiver for IRIG-A/B (AM or DC) or SMPTE LTC
· Opt. single/dual-frequency GPS receiver

SDI Video Output:
· (4) 3G/HD-SDI for low-latency real-time display and playback of recorded video
· Choose frame scaling or 1:1 mode

Multi-DVR Synchronization:
· Master/Slave configuration allows time reference distribution and synchronizes recording start/stop across multiple DVRs

Auxiliary Signal Input/Output:
· (6) Bi-directional TTL I/O
· (2) LVDS inputs and (2) LVDS outputs
· (1) Remote On/Off

Mechanical / Electrical / Environmental

Dimensions:
· 409 x 217 x 86mm (16.1 x 8.5 x 3.4")

Weight:
· Approx. 6.4 kg* (14 lbs)

Construction:
· Powder-coated galvanneal

Power:
· 100-240V AC, 50/60Hz, Approx. 58W*

Shock/Vibration:
· TBD

Temperature:
· Operating: 0° to 45℃
· Storage: -20° to 60℃

*Depending on model and installed media, excludes PoCL/PoCXP power for cameras