



OVERVIEW

CORIOmaster² (CM2-547) is a powerful, efficient approach to building large 4K/8K video display systems. Multiple video windows can be positioned on LED, display based videowalls or projector edge blends, displaying any of the sources connected to CORIOmaster². Windows can be visually “transitioned” into position, resized or rotated to any proportion allowing designers to achieve striking visual effects. Each system can support up to three separate 4.1 Gigapixel video canvasses with up to sixty four windows per canvas depending upon the source resolution, frame rate and size of windows. CORIOgrapher, the control software for the CORIOmaster² series of processors, is a simple, easy to use design interface that enables window and source positioning and transition effects. This dynamic feature is easily managed through presets in CORIOgrapher or by simple commands executed by third party control systems. Fifty presets can be saved permanently in the system.

KEY FEATURES

- ◆ Patented CORIO® video processing technology
- ◆ 752Gbit system bandwidth (360Gbit output bandwidth)
- ◆ Up to 128 windows per system (40 x 4K60 total)
- ◆ Up to 64 windows per canvas
- ◆ Manage up to 3x 4.1 Gigapixel canvases (over 12 Gigapixels of design space)
- ◆ 4RU frame size
- ◆ Modular (8x Video Input Slots, 7x Video Output Slots and 1x Audio Slot) Cascadable (future expansion – requires additional expansion module)
- ◆ Field upgradable (flash, upgradeable via download)
- ◆ Low power consumption when compared to PC based systems
- ◆ Uses **CORIO**grapher, an easy to use and powerful software interface
- ◆ **CORIO**grapher live dashboard to switch presets and window sources
- ◆ Automatically discover device on the network using **CORIO**discover
- ◆ Simultaneous output from 4 to 28x 4K60 outputs and 1 to 8x 4K60 Inputs (Quad 4K60 input module coming 2020 to increase to 20x 4K60 inputs)
- ◆ Simultaneous output from 4 to 28x 4K30 outputs and 2 to 16x 4K30 inputs (Quad 4K60 input module coming 2020 to increase to 24x 4K30 inputs)
- ◆ From 8 to 56x full HD outputs and 2 to 32x full HD inputs
- ◆ Windows and displays can be rotated in 1° increments
- ◆ Versatile DVI inputs: (HDMI/DVI/CV/YC/RGB/YPbPr)
- ◆ 4K60 input & output modules
- ◆ HDMI outputs: (8x 1080P60 or 4x 4K60 modules available)
- ◆ 4K HDBaseT inputs
- ◆ SDI inputs SD/HD-SDI/3G-SDI to 1080p60
- ◆ H.265 4K/30 Streaming Media & 4K Playback Input Module
- ◆ High resolution analog inputs
- ◆ HDMI inputs & outputs with HDCP handling
- ◆ Support for custom output resolutions (future expansion 2020)
- ◆ Combination of different size and resolution of displays can be used
- ◆ Customizable bezel compensation
- ◆ Multi-edge blending of projectors
- ◆ Up-down-cross conversion
- ◆ EDID manager
- ◆ Secure command interface
- ◆ REST API
- ◆ Real-time status feedback through events
- ◆ Simple serial control protocol
- ◆ Command line interface – third party control
- ◆ Crestron modules available
- ◆ IP decoding low latency mode
- ◆ IP stream labelling
- ◆ Audio support (one stereo pair per canvas)
- ◆ Audio module to embed and de-embed

OPTIONS

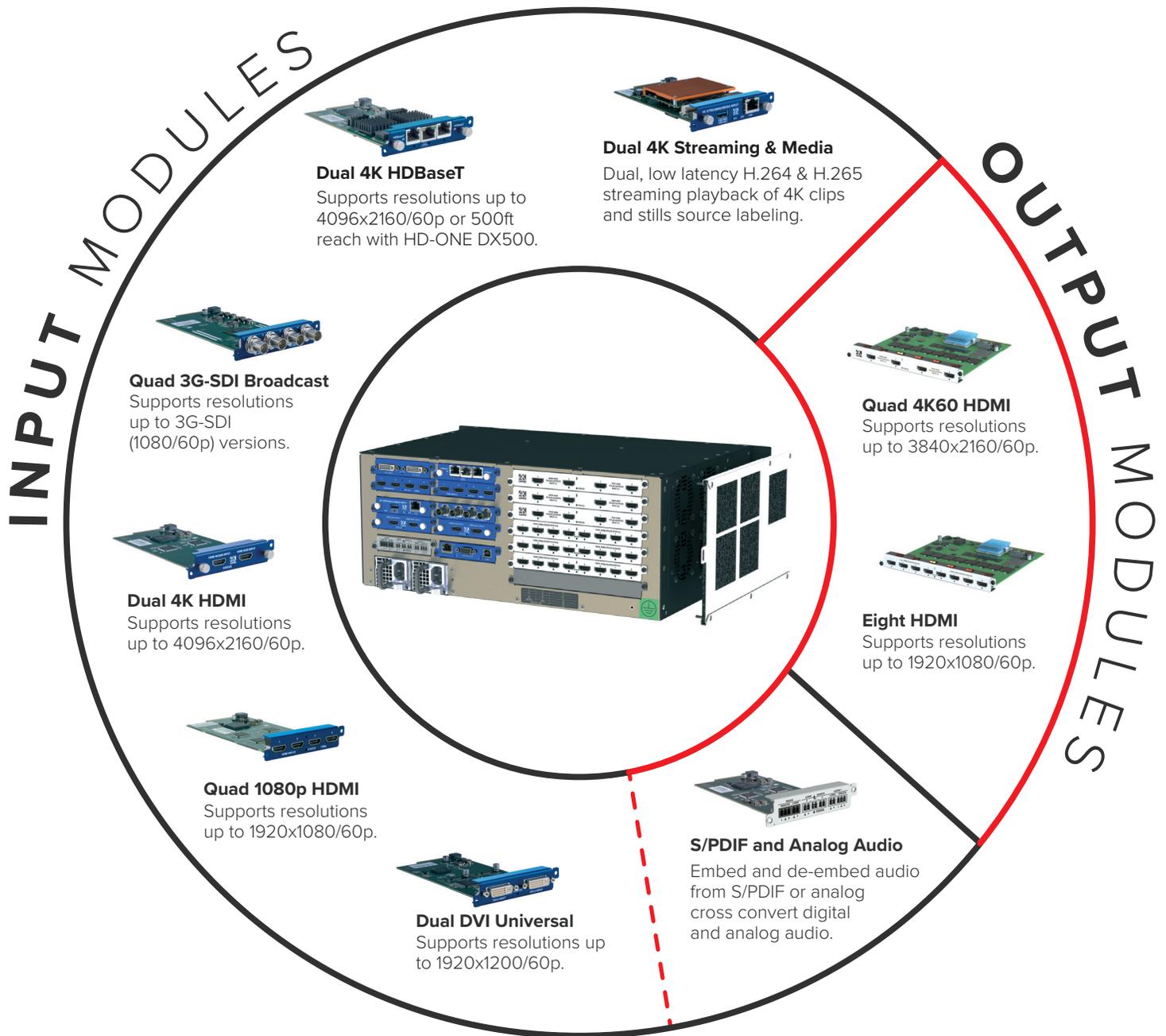
- ◆ Dual redundant power supply
- ◆ Universal DVI adapters
- ◆ Optional air inlet filter
- ◆ Onsite system commissioning (US Only)

Ordering Information

CM2-547	4RU CORIO master2 chassis
CM2-3GSDI-4IN	3G-SDI input 4x
CM2-AVIP-IN-1USB-1ETH-128	4K Media Streaming Input 128GB SSD
CM2-DVIU-2IN	DVI-U input 2x (DVI, RGB/YUV, CV, YC via DVI-I)
CM2-HDMI-4IN	HDMI 1080P input 4x
CM2-HDMI-4K-2IN	HDMI 4K input 2x
CM2-HDBT-2IN-1ETH	HDBT input 2x (and single ethernet)
CM2-AUD-2IN-4OUT	Audio I/O module - analog (1xIN, 1xOUT), SPDIF (1xIN, 4xOUT) via terminal block
CM2-HDMI-4K-4OUT	HDMI 4K output 4x
CM2-HDMI-HD-8OUT	HDMI 1080P output 8x
CM2-BONDING	Bonding Module
CM2-4RPS	Optional dual redundant, hot swappable power supply
FE-1	Onsite system commissioning (US Only)

Modular Flexibility

CORIOmaster2 can accommodate numerous I/O configurations in the eight input and seven output video slots available; when inserted, the modules are automatically recognized & configured. This flexibility allows end user configurations to be based on their own needs.



ADAPTORS

For use with legacy AV formats



SPECIFICATIONS

Video Processing Power	
Parallel Processing Architecture	Yes
CORIO Video Processing	Yes
Up/Down/Cross Conversion	Yes
Number of Canvasses	3
Display Size Compensation	Yes, different sizes in video walls*1
Output Rotation	Yes for any outputs and windows
Projector Edge Blending	Yes
HDCP Key Handling	Yes
Video Inputs	
Analog	Up to 16x via Universal DVI, Format RGBHV, RGBS, RGsB, YPbPr Composite Video - Up to 16x via DVI-U YC (S-Video) - Up to 16x via DVI-U YUV /YPbPr - Up to 16x via DVI-U Television Standards - NTSC, PAL
Digital DVI	Up to 16x via Universal DVI (HDMI & HDCP compatible)
HDMI	Up to 32x (HDCP compatible)
4K HDMI	up to 16x 4K30 or 8x 4K60
HDBaseT + Ethernet	Up to 16x 4K30 plus 8x ethernet via RJ45
3GSDi	Up to 32x 1080P/60 via BNC
IP	Up to 16x 1080P/30 or 8x 4K30 (IP Stream)
Supported Input Resolutions (depends on modules fitted)	
(640x480P) 60/72/75/85Hz	
(720x487i) 59.94Hz	
(720x480i) 59.94Hz	
(720x480P) 59.94Hz	
(720x576i) 50Hz	
(800x600P) 56, 60, 72, 75, 85Hz	
(980x980P) 75Hz	
(1024x768P) 60, 70, 75, 85Hz	
(1152x864P) 70, 75Hz	
(1280x720P) 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz*2	
(1280x768P) 60, 75, 85Hz (1280x800p) 60, 75, 85Hz	
(1280x960P) 60, 85Hz	
(1280x1024P) 50, 60, 75, 85Hz	
(1360x768P) 60Hz	
(1366x768P) 60Hz	
(1400x900P) 60Hz	
(1400x1050P) 50, 60, 75Hz	
(1440x900P) 60, 75, 85Hz	
(1600x900P) 60Hz	
(1600x1200P) 60Hz	
(1680x1050P) 60Hz	
(1920x720P) 50, 59.94, 60Hz	
(1920x1080i) 47.96, 48, 50, 59.94, 60Hz	
(1920x1080P) 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz	
(1920x1200P) 50, 60Hz	
(3840x2160P) 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz	
(4096x2160P) 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz	
Video Outputs	
HDMI	Up to 56x 1080P/60 HDCP 2.2 compatible
4K HDMI	Up to 28x 4K60, HDCP 2.2 compatible
Size and Position	User Adjustable
Conversion Technology	Proprietary CORIO®
Color	HDMI 24-bit 4:4:4
Supported Output Resolutions (depends on modules fitted)	
(1280x720P) 50, 60Hz	
(1920x1080i) 50, 60Hz	
(1920x1080P) 23.98, 24, 25, 29.97, 30, 50, 60, 119.88, 120Hz	
(3840x2160P) 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz	

AV over IP (up to 8x module cards)	
Interface	Up to 8x USB3.0, Internal Storage, Network
IP Video Decoding	H.264 (CBP, Main, High), H.265/HEVC (Main)
IP Bit Rates	Up to 16x streams up to 25Mbps per stream
Color Depth	4:2:0, 4:2:2
Supported IP Resolutions	Configurable to 3840x2160/30
Unicast Streams	RTSP, RTMP, HTTP, MPEG-TS
Multicast Streams	RTSP, MPEG-TS
Media/Images	
Interfaces	Up to 8x USB3.0, Internal Storage, Network
Video Codecs	H.264 (CBP, Main, High), H.265/HEVC (Main)
Video Formats	mp4, .mov, .mkv, .m4v, .ts, .mts, .m2ts, .mt2
Playback Bit Rates	Single stream to 100Mbps (per module), Dual Streams to 40Mbps (per module)
File Playback Resolutions Supported	
Up to 3840x2160@30fps	Up to 8x (1x per module)
Up to 1080p60@60fps	Up to 16x (2x per module)
Up to 8x 7680 x 4320	Still images *(scaled to 4K)
Media Handling	
External	Up to 8x USB 3.0 interface
Supported devices	Flash file systems FAT, FAT32, ext3, ext4, NTFS
Internal	High-speed storage up to 128GB per module
Remote	File transfer supported
Control Methods	
RS-232	via D9 Female Connector
IP Interface	RJ45 Connector for both HTTP(s)
CPU Module	
Settings Memory	Non-Volatile
Warranty	
Limited Warranty 5 Years Parts and Labor	
Regulatory Compliance	
Main unit FCC, CE, RoHS, ULc	
Mechanical	
Size (H x W x D)	7.0" x 17" x 12.09", (178mm x 432mm x 307mm), (D) including PSU Handle 12.99" (330mm), (W) including rack ears 19" (483mm)
Weight (Net)	Approx. 22 lbs (10Kg) Chassis Without Modules but included 1x Power Supply
Environmental	
Operating Temperature	TBA
Operating Humidity	10% to 85%, Non-condensing
Storage Temperature	14° to +158°F (-10° to +70°C)
Storage Humidity	10% to 85%, Non-condensing
MTBF	TBA
BTU	TBA
Fan Noise	TBA
Power	
Internal Power Supply	110v to 240v auto-detecting
Redundancy	Optional Internal Hot Swap PSU
Consumption	TBA

Specifications subject to change

*1 using different sized monitors in the same wall can degrade picture quality

*2 DVI input module only supports 720p frame rates 50, 59.94 & 60Hz