

# CORIO®master

All-in-one creative versatile video experiences



The world's most advanced family of video processors providing the ultimate creative video experience. CORIOmaster systems offer anything in, anything out capability in glorious, eye-popping 4K quality.





# Powerful Performance and Features

CORIOmaster is a modular 4K video processor with high quality CORIO scaling across 4 video walls. Mixed input resolutions, pixel perfect window placement, source and screen orientations, bezel adjustment, edge-blending and customizable output resolutions all contribute to CORIOmaster being the most flexible video wall processor platform available. CORIOmaster manages four display canvases while simultaneously sharing sources across the canvases.

## Versatile— manage four simultaneous video walls



2x2 Video Wall

2x3 Video Wall

Rotation Video Wall

Edge-Blended Wall

## Source & Display Flexibility



Using edge-blending, bezel compensation and a user defined display library, our creative and powerful video experiences give you the WOW factor! Adding to creativity, CORIOmaster allows multiple video windows that can be positioned, resized and rotated in 1° increments. Transitions, including animations and fade through black, add further to creating eye catching experiences. CORIOmaster provides this high powered performance while low on power consumption and noise.

## Design Simplicity

CORIOgrapher is the creative video wall software for CORIOmaster, CORIOmaster mini and CORIOmaster micro. Design walls offline or online and connect to multiple video walls. Define your displays and video windows precisely to your desired size (mm/in) and save to your library for later use. Also, mix streaming video with 4K files and still images into a single playlist. For LED walls, switch to pixel mode to enable the exact mapping of your content. The software's real-time dashboard view allows for instant triggering of multi-window presets and transitions of which up to fifty can be stored and controlled.



## Input & Output Modules

CORIOmaster can easily be populated with input and output modules to match your source and display requirements

### Dual 3G-SDI broadcast input module

- Supports resolutions up to 1080p/60



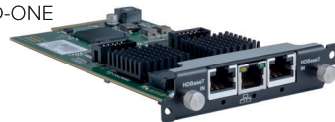
### Dual HD-SDI broadcast input module

- Supports resolutions up to 1080p/30



### Dual 4K HDBaseT input module

- Supports resolutions up to 4096x2160
- 100BaseT input for control applications
- Pair with tvONE's Magenta HD-ONE HDBaseT transmitter for 150m reach - guaranteed over Cat6 cable!



### Dual 4K HDMI input module

- Allows resolutions up to 4096 x 2160



### Dual DVI Universal input module

- Supports resolutions to 1920 x 1200/60p
- Supports HDMI, DVI-D, HD15/VGA, YC (S-video) & analog (RGBHV or YPbPr) using DVI-U adaptors



### Streaming media and 4K Playback input module

- Dual network streaming, 4K local and USB playback of clips and stills



### Dual 3G-SDI output module

- Supports resolutions up to 1080p/60



### Dual DVI-I Scaled output module

- Supports resolutions up to 1920 x 1200/60p
- Supports HDMI, DVI-D and HD15/VGA using adaptors



### Dual HDBaseT scaled output module

- Supports resolutions to 1920 x 1200/60p
- 100BaseT input for control applications
- Pair with tvONE's Magenta HD-ONE HDBaseT receiver for 150m reach - guaranteed over Cat6 cable!



### 4K HDMI scaled output module

- Supports all resolutions to 3840 x 2160/30p



## DVI Adapters



HDMI



CV



Analog PC



YC (S-Video)



Analog RGBHV



YPbPr/YUV

## Support Services

The tvONE support team is available to support you from system design to installation and a full after care service.

### Support

- ◆ Our experienced support engineers are available to help.
- ◆ Get in touch by phone, email or request a site visit.
- ◆ Zero license fees or recurring costs of maintenance and software upgrades.
- ◆ Access to comprehensive knowledge database and a support ticketing system.

### Training

- ◆ Understand how to proficiently design and operate CORIOmaster.
- ◆ Available as hands on training, remote training or video clips.
- ◆ CTS accredited training academy is available at our UK & US offices.

### Commissioning

- ◆ A full commissioning service by tvONE engineers for the ultimate peace of mind.

### Repair

- ◆ Reliable system diagnosis by our knowledgeable engineers.
- ◆ Fast repair of any mainframes or modules.
- ◆ 5-year warranty period.

### Design

- ◆ Validation of your requirements to select the most suited CORIOmaster configuration.
- ◆ Offline design of your CORIOmaster using CORIOgrapher software.
- ◆ Get the very best from your installation. Save time & money.



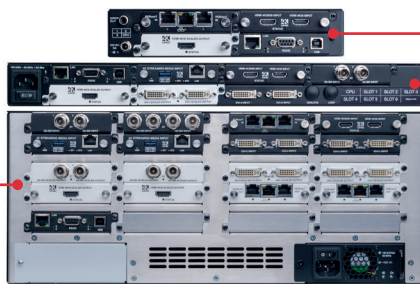


# CORIOmaster Family

## CORIOmaster

CORIOmaster can easily be populated with input and output modules to match your source and display requirements

- 4RU, 16 Module capacity
- High quality low latency performance guaranteed
- Bandwidth can support 4 videowalls
- Dual redundant PSU option



## CORIOmaster micro

Even smaller form factor with the same power!

- Super compact size
- 3 Module capacity

## CORIOmaster mini

Smaller form factor, same amazing capabilities!

- 1RU, 6 Module capacity
- Fixed dual DVI-U inputs

## Specifications

| Video Processing Power                                       |  |
|--|--|
| Parallel Processing Architecture                             | Yes  |
| CORIO3 Video Processing                                      | Yes  |
| Real Time Video Quality                                      | Yes  |
| Up/Down/Cross Conversion                                     | Yes  |
| Number of Video walls  | C3-503 x 2, C3-510 x 4, C3-540 x 4                                     |
| Display Size Compensation                                    | Yes, different sizes in video walls                                    |
| Output Rotation  | Yes for any outputs and windows  |
| Projector Edge Blending                                      | Yes  |
| HDCP Key Handling  | Yes  |
| Computer Input   |  |
| Digital DVI via Universal DVI*                               | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                       |
| Analog via Universal DVI                                     | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                       |
| Analog Format  | RGBHV, RGBS, RGsB, YPbPr   |
| Analog Sync  | TTL Level, 10KΩ, Pos or Neg  |
| RGB Level Range  | 0.5-2.0 Vp-p   |
| Scan Rate Detection  | Automatic  |
| Analog Signals   | PC to 1920x1080, HD to 1080p60   |
| DVI Signals  | PC to 1920x1200, HD to 1080p60   |
| Max Horiz Scan Rate  | 150kHz   |
| Computer Outputs   |  |
| DVI-I Signals via DVI-I*                                     | C3-503 up to 10, C3-510 up to 10, C3-540 up to 28                      |
| Analog via DVI-I   | C3-503 up to 10, C3-510 up to 10, C3-540 up to 28                      |
| Analog format  | RGBHV, RGBS, RGsB, YPbPr   |
| R-G-B Level  | 0.7 Vp-p   |
| DVI Signals  | PC to 1920x1200, HD to 1080p60 w/EDID                                  |
| Analog Signals   | PC to 1920x1080, HD to 1080p60   |
| Size and Position  | User Adjustable  |
| Settings Memory  | Non-Volatile   |
| Conversion Technology  | Proprietary – CORIO®3  |
| Color  | RGB 24-bit 4:4:4, YPbPr 20-bit 4:2:2, SDI 20 bit 4:2:0                 |
| Max. Sampling Rate   | 162MHz   |
| Firmware Memory  | Upgradeable via download.  |
| Video Comb Filter  | Adaptive   |
| Video Adjustments  | Contrast, Brightness, RGB Gamma  |
| HD Video Resolutions supported (DVI, YPbPr, SDI and HDBaseT) |  |
| 720p (1280x720)†   | 23.98, 24, 25, 29.97, 30, 50, 59.94, 60Hz                              |
| 1035i (1920x1035)  | 59.94, 60Hz  |
| 1080i (1920x1080)  | 50, 59.94, 60Hz  |
| 1080p (1920x1080)  | 23.98, 24, 25, 29.97, 30Hz   |
| 1080p (1920x1080)  | 50, 59.94, 60Hz  |
| 4K Video Input Resolutions supported (via HDMI and HDBaseT)  |  |
| 3840x2160 4:4:4  | 23.98/24/25/29.97/30Hz 8-bit   |
| 3840x2160 4:2:0  | 50/59.94/60Hz 8-bit  |
| 4096x2160: 4:2:0   | 50/59.94/60Hz 8-bit  |
| 4K Video Output Resolutions supported (via HDMI)             |  |
| 3840x2160  | 4:4:4 23.98/24/25/29.97/30Hz 8-bit                                     |
| Video Inputs   |  |
| Television Standards   | NTSC, PAL  |
| Composite Video via DVI                                      | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                       |
| YC (S-Video) via DVI   | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                       |
| YUV /YPbPr via DVI   | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                       |
| SD-SDI/HD-SDI via BNC  | C3-503 up to 8, C3-510 up to 16, C3-540 up to 56                       |
| SD-SDI/HD-SDI/3G-SDI via BNC                                 | C3-503 up to 4, C3-510 up to 8, C3-540 up to 28                        |
| 4K/30 via HDMI & HDBaseT †                                   | C3-503 up to 4, C3-510 up to 8, C3-540 up to 28                        |
| 4K60 via HDMI & HDBaseT †                                    | C3-503 up to 2, C3-510 up to 4, C3-540 up to 14                        |
| HDBaseT via RJ45   | C3-503 TBD, C3-510 TBD, C3-540 TBD                                     |
| AV over IP   |  |
| Module cards supported                                       | C3-503 up to 2, C3-510 up to 2, C3-540 up to 4                         |
| Interface 1 GbE Ethernet Port                                | C3-503 up to 2, C3-510 up to 2, C3-540 up to 4                         |
| IP Video Decoding  | H.264 (CBP, Main, High), H.265/HEVC1 (Main)                            |
| IP Bit Rates up to 25Mbps per stream                         | C3-503 up to 4 streams, C3-510 up to 4 streams, C3-540 up to 8 streams |
| Colour Depth   | 4:2:0, 4:2:2   |
| Supported IP Resolutions                                     | Configurable to 1920x1080p60   |
| Unicast Streams  | RTSP, RTMP, HTTP, MPEG-TS  |
| Multicast Streams  | RTSP, MPEG-TS  |

| Media/Images                        |  |
|-------------------------------------|--|
| Interfaces                          | USB3.0, Internal Storage <sup>1</sup> , Network <sup>1</sup>               |
| Video Codecs                        | H.264 (CBP, Main, High), H.265/HEVC1 (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               | C3-503 up to 2, C3-510 up to 2, C3-540 up to 4                             |
| Up to 1080p60@60fps                 | C3-503 up to 2, C3-510 up to 2, C3-540 up to 4                             |
| Up to 7680 x 4320                   | Still Images <sup>2</sup>  |
| Media Handling                      |  |
| External USB 3.0 Interface          | C3-503 up to 2, C3-510 up to 2, C3-540 up to 4                             |
| Supported devices                   | Flash file systems FAT, FAT32, ext3, ext4, NTFS                            |
| Internal                            | High speed storage up to 128GB <sup>3</sup> per module                     |
| External                            | File transfer supported <sup>3</sup>                                       |
| Video Outputs                       |  |
| YUV /YPbPr via DVI-I                | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                           |
| SD-SDI/HD-SDI/3G-SDI via BNC        | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                           |
| HDBaseT via RJ45                    | C3-503 up to 4, C3-510 up to 10, C3-540 up to 28                           |
| 4K via HDMI                         | C3-503 up to 2, C3-510 up to 5, C3-540 up to 14                            |
| 3G/HD/SD-SDI                        |  |
| SMPTE259M-C                         | 270Mbps < 0.1UI jitter   |
| (SD-SDI Video)                      | 525/625Line  |
| SMPTE292M                           | 1.485/1.4835Gbps < 0.2 UI jitter   |
| (HD-SDI Video)                      | 720p, 1035i, 1080i, 1080p  |
| SMPTE424M                           | 2.97/2.967Gbps < 0.3 UI jitter   |
| (3G-SDI Video)                      | 1080p60/59.94  |
| Still Image Support                 |  |
| Up to 7680x4320                     | Rendered to 4K   |
| Still Image file                    |  |
|                                     | JPEG, PNG, BMP   |
| Control Methods                     |  |
| RS-232                              | via D9 Female Connector  |
| IP Interface                        | RJ45 Connector   |
| Warranty                            |  |
| Limited Warranty                    | 5 Years Parts and Labor  |
| Regulatory Compliance               |  |
| Main unit                           | FCC, CE, RoHS, UL  |
| Mechanical C3-540                   |  |
| Size (H x W x D)                    | 7.0" x 19.0" x 13.1" (178 x 482 x 334mm)                                   |
| Weight (Net)                        | Approx. 15Kg (33 lbs) (with redundant PSU option)                          |
| Mechanical C-3-510                  |  |
| Size (H x W x D)                    | 1.73" x 8.54" x 9.61" (44 x 217 x 244mm)                                   |
| Weight (Net)                        | 5Kg (11.03 lbs) (with redundant PSU option)                                |
| Mechanical C3-503                   |  |
| Size (H x W x D)                    | 1.73" x 19.0" x 13.1" (178 x 482 x 334mm)                                  |
| Weight (Net)                        | TBD  |
| Environmental                       |  |
| Operating Temperature               | 0° to +40° C (+32° to +104° F)   |
| Operating Humidity                  | 10% to 85%, Non-condensing   |
| Storage Temperature                 | -10° to +70° C (+14° to +158° F)   |
| Storage Humidity                    | 10% to 85%, Non-condensing   |
| MTBF                                | Approximately 50,000 hours   |
| Power Requirement                   |  |
| Internal Power Supply               | 110v to 240v auto-detecting  |
| Redundancy                          | Optional Internal Hot Swap PSU (C3-540 only)                               |
| Power Consumption                   |  |
| C3-540                              | 300 watts maximum (fully populated chassis)                                |
| C3-510                              | 125 watts maximum (fully populated chassis)                                |
| C3-503                              | 60 watts maximum (fully populated chassis)                                 |
| BTU                                 |  |
| C3-540                              | 1024 BTU/hr  |
| C3-510                              | 427 BTU/hr   |
| C3-503                              | 205 BTU/hr   |
| Accessories Included                |  |
| 1x Operations Manual                |  |
| 1x Power cable                      | US, UK, Euro or AU   |
| Control Software                    | USB Flash Drive & Downloadable from Website                                |

\* HDMI & HDCP compatible

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

‡ HDBaseT input capacity is not yet determined

<sup>1</sup>Planned update via Firmware, <sup>2</sup>Images will be rendered to 4K, <sup>3</sup>Future Release

Specifications are subject to change without notice.

