RADIUM

Mission Critical Collaboration.
Redefined

Radium

For over a decade, the **Radium Videowall System** has been an industry leader in delivering:

24/7 Reliability

Count on consistent, high-performing operation for demanding applications.

Customizable User Experience

Tailored interfaces for your specific needs and work flows.

Intuitive Control Interface

Manage your system with ease, maximising productivity.

Unbound Potential

What truly sets **Radium** apart is its ability to natively develop and run custom modules, directly within the processor.

Create unique functionalities, seamlessly integrate them into your workflows, and unlock endless possibilities.

A Class of Its Own.

Peerless Brilliance. Stunning Visuals.

With **Radium**, a new era for VideoWall display processing systems has been unleashed. Meticulously crafted by our expert team and incorporating cutting-edge technology, no system quite comes close to it.

Experience unparalleled visualizations and high-resolution presentations, thanks to **Radium's** unmatched graphical rendering power.

Designed Futureproof. Engineered for Ease.

Radium offers a fully scalable and expandable system, alongside supporting a large variety of mix-and-match input and output configurations, resulting in every unit being unique.

Plus. controlling complex systems has never been easier with **Radium's** ultra-intuitive wall manager, designed for touch interfaces.

Personalized Tech Tapestry, Woven for You.

Radium surpasses the competition with its unrivalled customization. Unlike other systems, it leverages the latest technology to let you tailor the system to your exact needs. Every unit is highly scalable and expandable, supporting a vast array of input and output configuration for any large format display or projection system.

Need a truly monumental VideoWall? **Radium** seamlessly cascades multiple chasses to create awe-inspiring installations.

Exceptional Versatility. Powerhouse Performances.

Radium unlocks unmatched versatility, supporting a vast array of input and output cards for HDMI, DVI, RGB, HDTV, and even Composite Video/S-Video Sources. Stream content from computers and IP cameras directly into **Radium**, regardless of their encoding formats. **Radium's** built-in decoding capabilities handles a wide variety of encoded formats, minimizing the amount of hardware needed to support a virtually limitless amount of input sources over IP.

Experience superior performance with **Radium's** advanced PCI Express technology, that ensures smooth visuals despite high frame rates. Our proprietary control methods guarantee consistent processor control responsiveness, even when managing multitudes of sources simultaneously.

Smoother Control. Smarter Integration.

Effortlessly manage your VideoWall with the intuitive **Radium Control Manager** Software. Pre-set, configure, and recall canvas layouts in an instant. Thanks to our user-friendly interface, diverse display content can be managed with ease. And for ultimate convenience, **Radium** seamlessly integrates with third-party control systems, allowing you to further simplify your workflow.

Limitless Applications. Always Dependable.

System reliability is assured with **Radium's** robust operating system, designed for critical operations that necessitate perpetual uptime. **Radium** can undoubtedly be implemented for various settings, such as large format display array presentations, command and control, and even digital signage applications.

Radium Features

Features at a Glance

Modular Design – Standard card-based chassis with optional Expansion chassis, for maximum configurability.

PCI-Express Architecture – Larger bandwidth offers superior video transfer rates & quality

24/7 Operating Reliability – Engineered for continuous operation in mission-critical environments (e.g., command & control rooms) requiring 24/7 uptime, 365 days a year

Scalable & Expandable – Supports small standalone systems to massive control rooms with large wall arrays & multiple input sources

Direct Playback – Allows direct playback for popular types of images and media files from Local Storage or Network Shared Storage

Smart Widgets – Easy-to-use widgets for advanced applications, at your service

Integrated Media Library – For images, animations & videos

Control System Enabled – Integrates and simplifies complicated VideoWall systems with Premium Touch Panel Control Systems, for easier system management & operation

High-Performance Processing - Intel i7 / Xeon Processors provides fast & powerful processing power for system management

Ultra HD Output Performance – Quad Output Card supports up to 2560 x 1600, allowing maximum expansion with minimal hardware

Low Latency – Real-Time information and video content display

Multi-Format Input Capturing – Supports multiple variants of input formats, including IP streaming in various encoded formats, for ultimate flexibility

Active Source Switching – Auto Input Signal Detect & Video Optimization to Windows during dynamic input switching

Live RSS Feeds – Displays different RSS feeds for live updates & monitoring

Video on Demand – Allows play back of content from VOD servers (e.g. Wowza, Windows Media Server), directly from processor

Wall Manager – Simple Touch Panel Friendly Interface for convenient system configuration at users' fingertips

Card-Based Chassis

Radium currently offers 2 frame options, the **Radium-SC** and the **Radium-EXP**.

The **Radium-SC** Master Chassis features a 4U Chassis with 6, 9, or 11 card slots. Alternatively, the **Radium-EXP** Expansion Chassis offers 16 more card slots, to accommodate various input types and VideoWall configurations. Express your individuality, with no 2 configurations ever truly alike.

Latest Intel Core i7 / Xeon Processors

Experience performance beyond what you're familiar with. Our **Radium** systems come sporting the latest Intel Core i7/Xeon processors with 6 Physical and 12 Virtual Cores on 64-bit Architecture, and up to 16GB RAM. Capable of lightning-fast yet fluid full application spanning, flawless HD video cloning, multi-display HD video content, and active IP video decoding, the achievable possibilities with this device remain endless.

PCI-Express Architecture

Skip the bottleneck. Unlike systems that rely on PCI Express Switching, **Radium** systems utilize dedicate PCI-Express lanes. This translates to you receiving an unprecedented performance, as our systems' outstanding traffic management allows greater expandability, faster graphics, exceptional HD frame

Ultra HD Performance

Taking advantage of today's most advanced GPU architecture, each output card boasts a dedicated 128MB/512MB of graphics memory, stepping up HD VideoWall performances another notch.

Unleash stunning visuals onto massive video walls with **Radium**. It possesses up to 4 dedicated PCI-E lanes, enabling high-resolution graphical output of up to 2560 x 1600 WQXGA on each of its QUAD outputs, resulting in a marvel for eyes being delivered via DVI-D connections. Additionally, with the ability to accommodate up to 16 cards per system, **Radium** effortlessly scales to conquer even the most expansive video wall configurations.

Multi-Format Input Capturing

Capture a range of video sources with ease.
The **Radium** family offers a variety of capture cards to suit your needs.

The **Radium-I2** DVI-I Input Capture Card displays high-definition content in 1080p @ 60Hz, and supports Component, HDMI (1080p), DVI (1920x1200), and even VGA (2048x1536) inputs for ultimate flexibility.

The **Radium-I3** DVI-I/Video Hybrid Card accepts single DVI, HDMI, or VGA input with up to 4 Composite/S-Video sources, making it ideal for capturing from various devices simultaneously.

Need to capture multiple standard-definition sources? The **Radium-I4** Standard Video Capture Card allows you to capture up to 8 Composite/S-Video inputs concurrently

Applications, RSS Feeds, Real-Time

Radium VideoWall Processors pack an Intel Core i7 with a ruggedized Windows OS, for direct application control. Containing a minimum of 320GB on its hard drive, it enables a wealth of apps to be stored and operated, cutting your hardware costs.

Require real-time updates from RSS Feeds, Widgets, or Ticket Tape Text bars? Fret not. **Radium** enables all these functions efficiently, directly from its processor. Plus, it can receive and display 3G Video Sources, or SMS texts directly from SMS gateways, facilitating real-time correspondences.

Streaming Anywhere, All the Time

Radium breaks the mould of traditional VideoWall processors, with its ability to accept, decode, and display streams IP video streams encoded in various available formats (e.g., MPEG-2, MPEG-4, H.264, etc). With its highly advanced scaling engines and communication technologies, the possibilities of VideoWall systems have been redefined to a whole new level.

Video on Demand

Simplify your systems and save on hardware costs once again, with **Radium's** direct file playback function from Video on Demand (VOD) Systems. The freedom to access content from any VOD system readily, is yours to own.

Take control of your VOD content. **Radium** supports Real-Time Streaming Protocols (RTSP) and Real-Time Transport Protocols (RTP) to perform simple control actions, such as "Start", "Stop", and more.

Control System Friendly

Radium Processors effortlessly integrates with Major Control System Manufacturers, such as AMX, Crestron, or Extron Control Systems. Easily switch between hundreds of sources to any window on the canvas, with Radium's real-time, one-touch control interface. Control interfaces are also available for mobile devices like iPads and iPhones, granting you ultimate convenience.

Always Running, Always Reliable

Built for 24/7 uptime, **Radium** thrives in demanding environments where downtime is unacceptable. Engineered for continuous operations, it possesses features that ensures its uninterrupted functionality, such as a ruggedized OS and redundant power supplies, to remain active even when a power supply failure occurs.

Radium Manager – VideoWall Management Software

Radium Manager is a software application designed to streamline the operation and management of the **Radium VideoWall Processing Systems**. This user-friendly software empowers operators with a graphical interface that facilitates intuitive control over all aspects of the video wall.
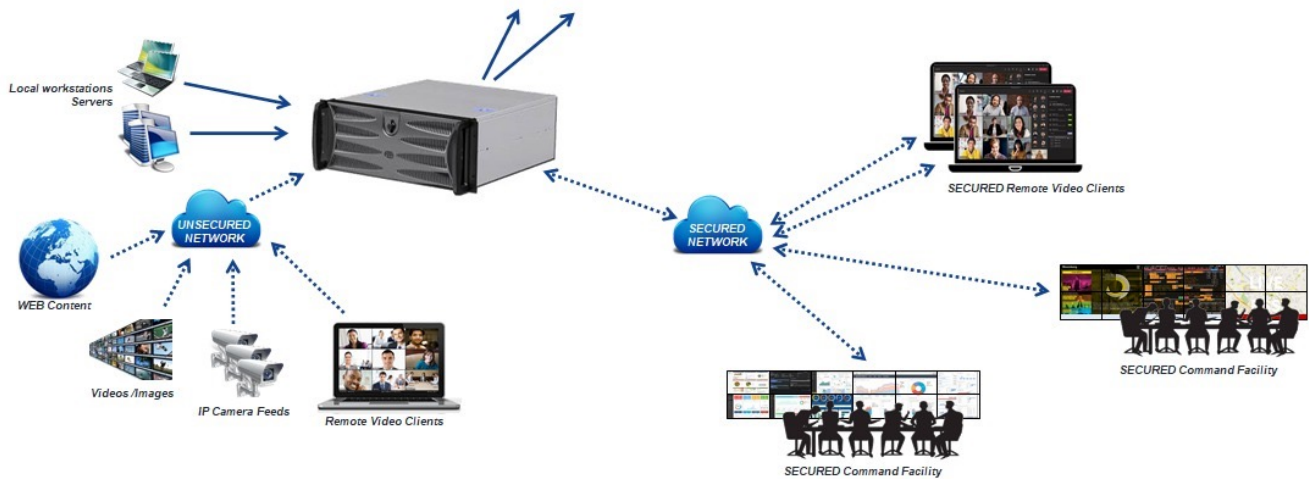
Radium Manager offers a suite of tools and features designed to simplify video wall operation and maximize user efficiency. Command and control has never been easier.

Game Changing Functionalities

- IP CENTRIC Remote Manager allows control of multiple control room displays

- Drag-&-Drop interface grants ease for design & content management

- Fully flexible windows position and sizing

- Multiple window positions can be saved as presets for easy recall

- Pre-determined canvas layouts for rapid access and switching to fully customizable, designed layouts

- Edit window layouts in real-time or offline for mission-critical command & control rooms

- Hotkeys for pre-defined layouts

- User Rights & Privilege Management for access rights control & permissions

- Smarter window management with Smart Selection & Snap Alignment, allowing multiple windows to be resized, aligned, or selected simultaneously.

- Snap-to-grid option always aligns windows quickly

- Labelling windows provides positive source window identification for large command & control applications

- Multi-Touch enabled GUI & multi-touch gesture for window sizing

- Microsoft Office-style controls for quicker user adoption to Radium Manager

Radium C2 Centre VideoWall System

Empowering Mission-Critical Operations

Our 4th generation of VideoWall Systems networks both remote and alternative command site operators together, enabling unified teamwork.
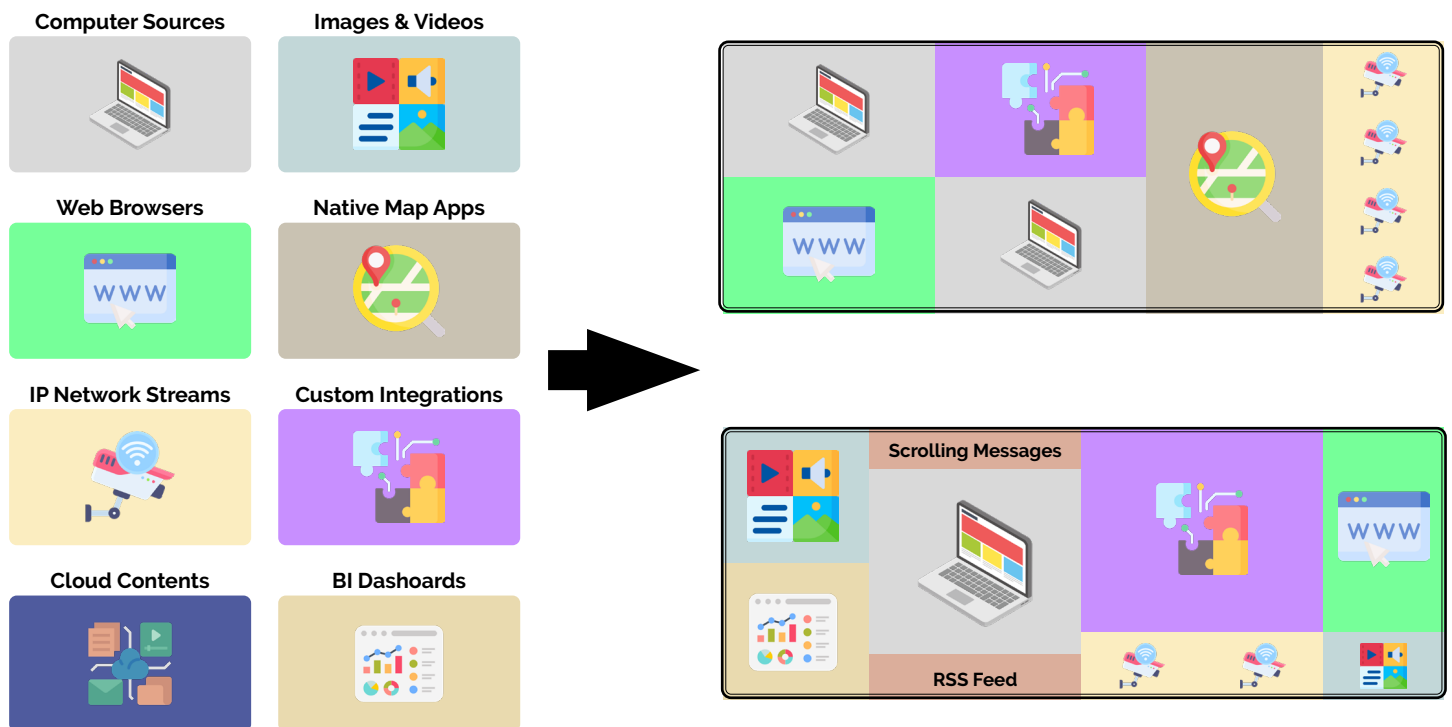
Radium's native virtual conferencing allows visual and physical collaborations across command centres. Sharing entire VideoWall canvas contents is now intuitively simple, significantly boosting command, control, and communication for critical installations and applications.

Workflows Without Limitations

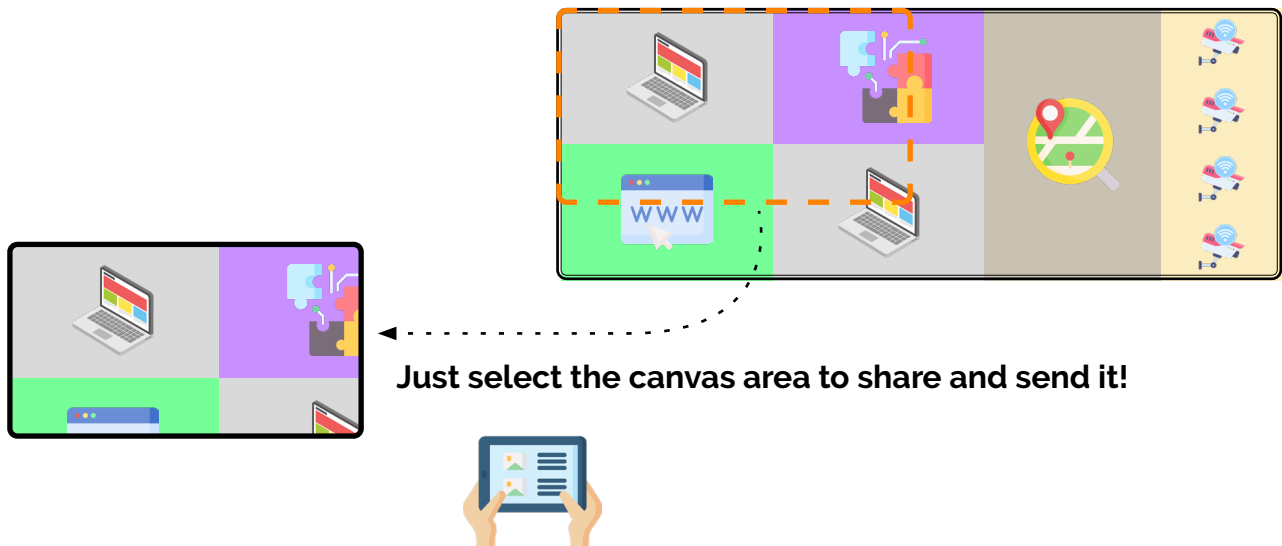## Flexible Video Canvas: Your Platform, Your Rules

Gone are the limitations of single-sourced video walls. **Radium** allows you to combine different input types and cohesively adopt various layouts to your liking, all on a single holistic display.

Different Type of Inputs into a Single Video Canvas

Computer Sources

Images & Videos

Web Browsers

Native Map Apps

IP Network Streams

Custom Integrations

Cloud Contents

BI Dashoards
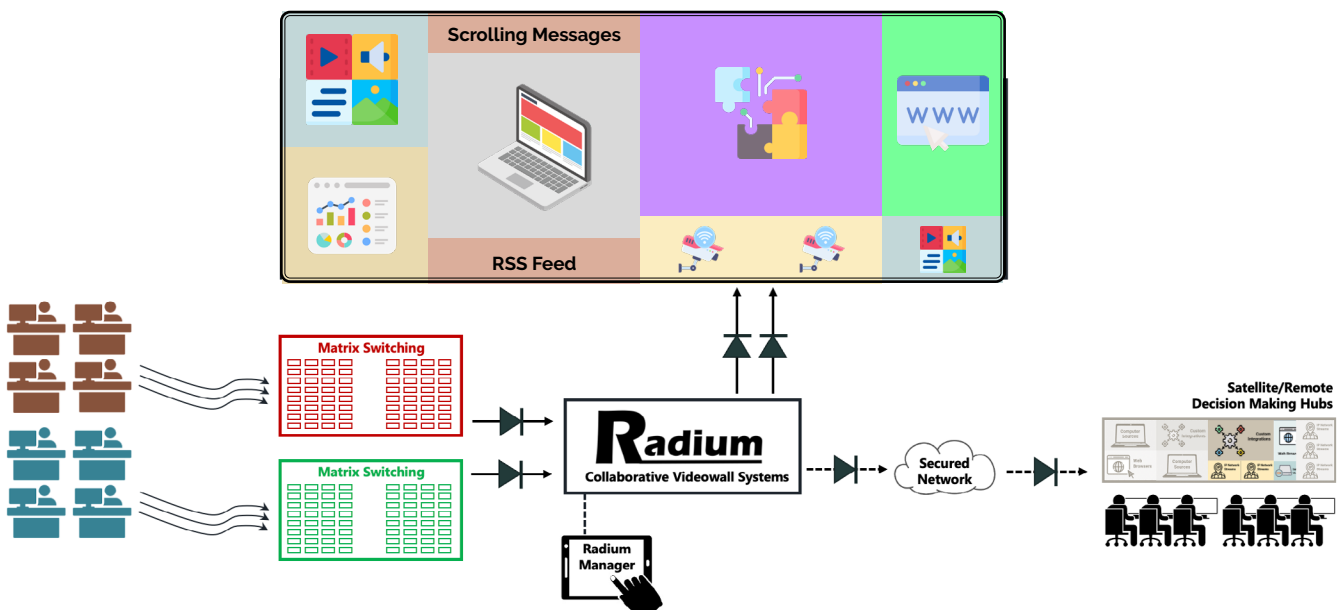

Scrolling Messages

RSS Feed

Dynamic Screen Sharing: Break Down Walls

Collaborating just got easier. **Radium** enables users to dynamically select any portion of their video canvas for instant sharing, making it ideal for real-time teamwork. Forget reconfiguring entire displays, this intuitive feature allows you to focus on what matters most – getting the job done well.

Just select the canvas area to share and send it!

Safe Sharing: Protected by Design

We understand how paramount security is for mission-critical operations. **Radium's** secure matrix switching technology ensures uni-directional video transfers of video content, physically and virtually. Operate fearlessly, knowing that your shared data is always protected.

Specifications

Chasis

Model	Radium - SC6	Radium - SC9	Radium - IXE5	Radium - EXP
Processor	Intel i7 64bit	Intel i7 64bit	Intel Core Xeon E5	-
System Memory	8 GB DDR	8 GB DDR	16 GB DDR	-
Operating System	Windows Embedded Standard 7 64bit Edition	Windows Embedded Standard 7 64bit Edition	Windows Embedded Standard 7 64bit Edition	-
Available Slots	6 PCI-Express Slot	9 PCI-Express Slot	11 PCI-Express Slot	18 PCI-Express Slot
Disk Storage	2x 500GB Serial ATA HDD, Removable	2x 500GB Serial ATA HDD, Removable	2x 500GB Serial ATA HDD, Removable	-
Power	Internal, 100-240V AC, 50-60Hz			
Power Consumption	600W Max, 500w Typical			
Dimensions	449(W) x 550(D) x 177(H) mm 17.7(W) x 21.7(D) x 7(H) inches			
Weight (Frame)	13.3kg/37.4lbs			
Operating Requirements	**Temperature:** 0ºC ~ 50ºC **Humidity:** 10-90% Non Condensing **MTBF:** 50,000 Hours			

Specifications

Card - Radium

Radium	I2 Dual HD In	I3 Hybrid HD/SD In	I4 Octal SD In	I5 Dual 3G - SDI In
Number of Inputs	2 DVI-I Input on DVI-I Connectors.	• 1 DVI-i Input on DVI-I Connector • 4 Composite / S-Video on 30pin D-Sub;	8 Composite/S-Video on 2x30pin D-Sub	• 2 BNC Connectors for SDI Inputs • 2BNC Connectors for SDI Looped - Through Outputs
Accepted Formats	• Component HD up to 1080p 60Hz • HDMI up to 1080p Full HD • DVI up to 1920 x 1200 60Hz • VGA up to 2048 x 1536 @ 60Hz • Dynamic Input Source Selection	**DVI-I:** • Component HD up to 1080p 60Hz • HDMI up to 1080p Full HD • DVI up to 1920 x 1200 60Hz • VGA up to 2048 x 1536 @ 60Hz • Dynamic Input Source Selection **30Pin D-Sub:** • Standard Definition Videos up to W576p • Composite / S-Video NTSC / PAL	• Standard Definition Videos up to W576p • Composite / S-Video NTSC / PAL	• SMPTE 259M up to 370bits/s • SMPTE 292M up to 1.485Gbits/s • SMPTE 424M up to 2,70Gbits/S • 2K Digital Cinema Modes
Maximum Data Rate	650MB/s	650MB/s	480MB/s	650MB/s

Card	Radium - 04 Quad HD Out
Number of Inputs	4 Outputs on 4 DisplayPort Connectors
Output Formats	DVI-D up to 2560 x 1600 @ 60Hz HDMI up to 2560 x 1600 @ 60Hz
Memory	Dual GPU with 2x256MB frame buffer

Encoder	Radium - 04 Quad HD Out
Number of Outputs	1 DVI-I Input on DVI-I Connector. 1 Composite / S-Video on 4Pin Mini - DIN
Output Formats	DVI-I: HDMI up to 1080p Full HD

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