



SMP-2400

Unleash Flexibility with CAYIN Digital Signage Player



Product Highlights

- SMP-2400 supports HDMI output, dual display by default, upgradable to triple display by license
- Three playback modes for zones, individual programs, or playlists
- Supports 4K HDMI video, YouTube, PDF, HTML5, CSS3, weather, social networks, and more
- Unlimited video/image/ticker zones*
- 4 video output modes, including Single, Clone, Extended, and Separate
- Versatile scheduling for one-time, daily, weekly, monthly, and yearly plans
- Design layouts directly from SMP player or PC
- Dual LAN ports for improved security and management
- Dual Type-C ports for storage expansion
- 250% faster processing than SMP-2300
- Upgraded SSD interface for ultra-fast data transfer
- Built-in AI AudienceSense facial recognition for targeted content delivery, with support for up to 4 cameras with QNAP QVR Face Tiger / QVR Face Insight
- AI Translation (CAYIN AI Server), translate and localize content in seconds, and quickly translate marquee content into multiple languages
- Convert Videos Directly in the Interface
- Automatic large image optimization preserves original files and prioritizes converted files for playback
- Supports secure HTTPS connections with default or custom certificates
- Download file backups for device relocation and record keeping
- Screen ON/OFF schedules, including prioritized holiday schedules

*Depending on your video resolution, codec, bitrates and hardware spec.

Robustie Solution

The Robustie Solution brilliantly equips industrial-grade hardware and professional software to provide a professional and robust solution to users with diverse project needs. CAYIN SMP players, the core member of the Robustie solution, are designed to work standalone to play programmed content on displays while fulfilling the requirements of smaller-scale digital signage applications.



Deliver Instant and Media-rich Information

The SMP-2400 digital signage player supports all mainstream multimedia formats, including 4K HDMI videos, YouTube videos, PDF files, HTML5 web pages, images, music, and scrolling text. By connecting an optional external HD HDMI capture card, the player can stream live video signals directly from TV tuners and other AV sources.



In addition to robust multimedia advertising capabilities, it also supports real-time content such as news, weather, social media, video streams, or selected web messages, ensuring your digital signage is always vibrant and up-to-date.

Ready-to-use Digital Signage Player

SMP-2400 The SMP-2400 digital signage player is equipped with industrial-grade computer hardware and built-in professional digital signage software SMP, which meets the diverse application needs of digital signage customers. When paired with SMP, SMP-2400 operates smoothly, allowing you to enjoy a seamless user experience while accessing the management interface directly through your computer's web browser, eliminating the need for additional software installation.



Dashboard

Playback

Schedule

Skin Editor

Video Outputs Widely Broadening Applications

Digital signage player can control 2 screens in both portrait and landscape orientation for most popular or even user-defined resolutions.

4 Signal Output Modes Widely Broadening Applications:

Single Mode:
connect to one screen



Clone Mode:
present identical contents on two screens



Extended Mode:
link two screens together and present contents stretching across two screens

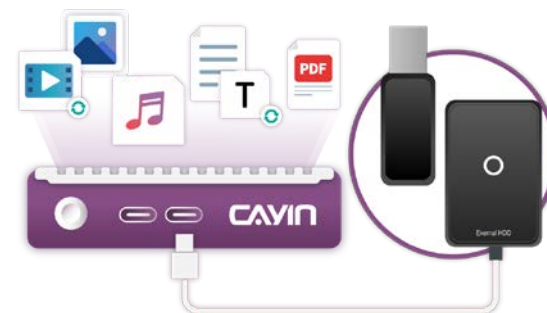


Distinct Mode:
present different contents on two screens



Dual Type-C Ports for Seamless Storage Connectivity

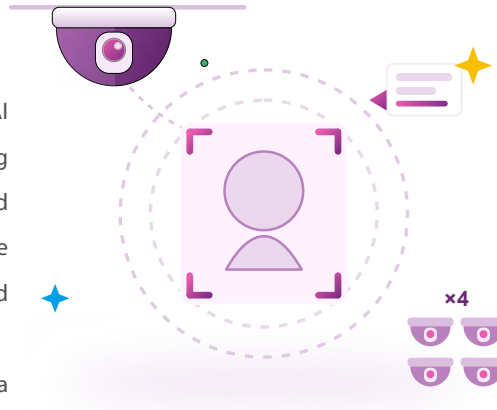
Upgrade your digital signage setup with the unparalleled convenience offered by SMP-2400's dual Type-C ports. These versatile ports ensure seamless connectivity for external storage devices, doubling the convenience for managing your media files, data backups, and content updates. Whether you're transferring large video files or accessing important documents, experience effortless connectivity and swift data transfers with SMP-2400, empowering you to streamline your workflow and enhance your digital signage experience to new heights.



AI AudienceSense Facial Recognition Precise Targeting

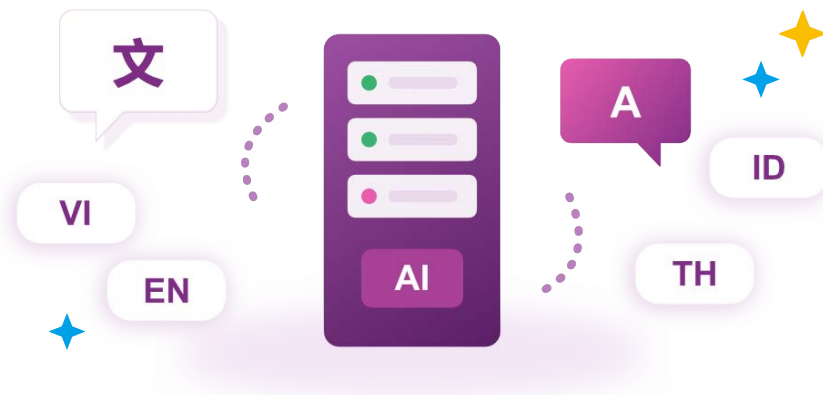
SMP-2400 comes with built-in AI AudienceSense facial recognition, allowing real-time delivery of pre-configured content based on detected audience attributes and creating a more targeted communication experience.

The player works with one built-in camera by default. If wider coverage or multiple locations are needed, up to 4 cameras can be integrated (compatible with QNAP QVR Face Tiger / QVR Face Insight), making it suitable for diverse applications in retail, food & beverage, healthcare, and finance.



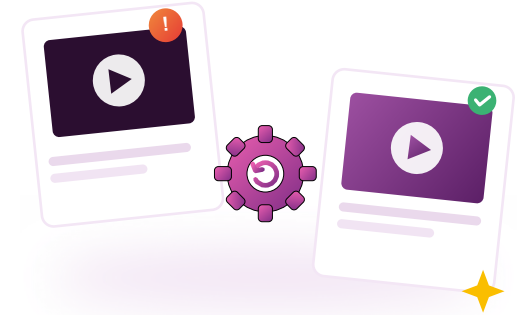
CAYIN AI Server Free Multi-language Localization

With the CAYIN AI Server, you can translate and localize content into multiple languages within seconds. This is especially useful for environments such as factories with multi-national staff, ensuring that announcements, training, and safety information reach everyone instantly. Enjoy high-quality localization with no extra fees.



Convert Videos Directly in the Interface

When a video file cannot play normally because it is 30.3 FPS (PowerPoint-exported video), you can convert it manually directly on the SMP management interface, eliminating the need to re-convert through additional software on the computer, ensuring faster troubleshooting and minimizing the risk of interruption during playback.



Large Image Optimization Automatic Conversion for Stable Playback

Images are automatically converted in the background and scaled proportionally. The original file is never overwritten. During playback, the player prioritizes the converted file, keeping layouts and scheduled playback smooth and reliable.

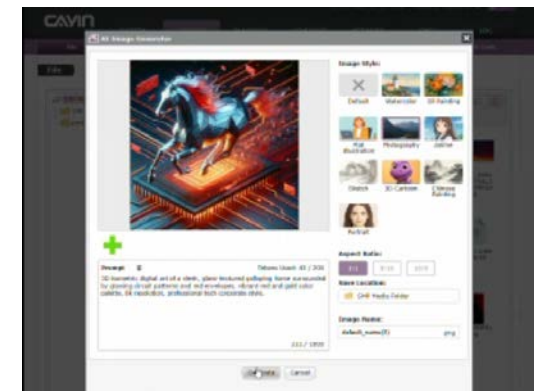


Power Your SMP with AI

Maximize your signage impact. SMP players integrate AI tools to automate content creation and keep your displays consistently fresh.

Smart Tools for Modern Marketing

- **Text-to-Image** : create high-quality visuals instantly
- **Image-to-Image** : adapt styles while preserving consistency



3 Playback Modes for All Occasions and Applications

You can divide the screen into several zones, each media assigned with independent schedules and settings.

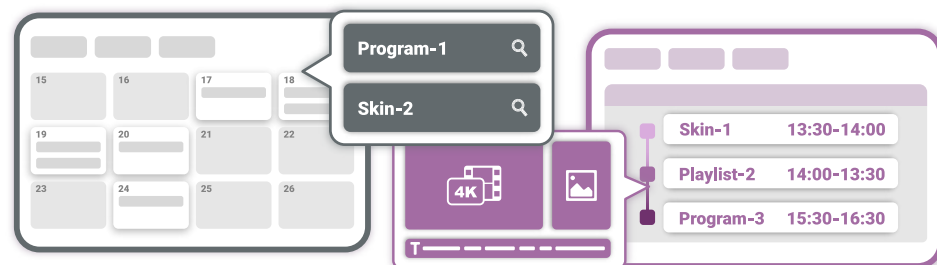
If you simply want to deliver a full-screen presentation as a digital poster, you can create playlists to display different multimedia contents in order.



2 Viewing Modes for Playback Scheduling Calendar and Timetable

You can insert a one-time event or arrange periodic tasks based on daily, weekly, monthly or yearly timescales. You can assign a date, a time period, or even a day in a specific week of a month (e.g. 2nd Sunday in May).

Location-based scheduling or central scheduling through a CMS server is also available to increase the flexibility.



Screen On/Off Scheduling with Priority Holiday Schedules

Set schedules to power your screens on or off as needed for energy saving and to extend panel life.

In addition to standard recurring schedules, a dedicated "Holiday Schedule" feature lets you designate special dates (like October 10 each year) when different rules should apply. Holiday schedules always take priority over weekly routines, so your displays automatically follow your custom holiday settings with no manual intervention required.



File Download for Reliable Data Backup

When relocating devices, replacing equipment, or retaining playback logs, users can download and back up all file contents from the device to their local computer.

For best results and to ensure smooth operation, we recommend performing downloads when no content is playing. This helps avoid playback interruptions and makes data backup and device maintenance safer and more efficient.





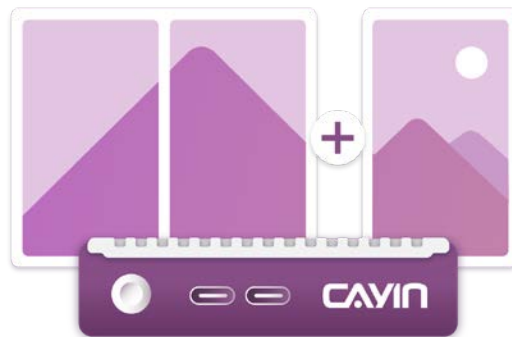
Excellence in Every Detail

Unleash the power of precision and quality with the SMP-2400, proudly made in Taiwan. Our digital signage players stand out for their exceptional craftsmanship, ensuring reliability and performance that you can trust. Tailor your choice to your specific needs with products from various origins, but rest assured, the Taiwanese touch guarantees the best.

Flexible Output Options Simplify Your Display Needs

SMP-2400 supports 2 or 3 display outputs, with the dual-screen version upgradable to a three-screen version via paid software.

This flexibility eliminates the need to prepare multiple devices for different configurations, reducing inventory pressure and simplifying setup for more efficient digital signage deployment.



Ample Storage Capacity Store More, Showcase More

The SMP-2400 comes equipped with a substantial 128GB of storage capacity. This means you have more space to store your high-quality digital signage content, whether it's videos, images, or interactive displays. With more capacity, you can create more impactful and engaging content without worrying about running out of space.



SSD Interface Evolution Ensures Lightning-Fast Data Transfers

Dive into a realm of unparalleled speed and performance with SMP-2400's revolutionary SSD interface evolution. This cutting-edge technology guarantees lightning-fast data transfers, ensuring your digital signage operates at peak efficiency without any bottlenecks. Whether you're uploading large multimedia files or syncing critical data in real-time, SMP-2400's SSD interface evolution delivers unmatched speed and reliability, empowering you to create seamless, high-performance signage solutions that captivate your audience and elevate your brand presence.



Experience 250% Smoother Performance

Experience a quantum leap in performance with SMP-2400, boasting an astonishing 250% increase in processing power compared to its predecessor, the SMP-2300. Enjoy enhanced computing capabilities that result in smoother operation and seamless content playback. With SMP-2400, your digital signage experience reaches new heights of efficiency and effectiveness.

Mobile and Place-Based Digital Signage

SMP-2400 Digital Signage Player can integrate with 4G/3G and GPS technology to provide mobile and location-based solutions. Players installed in moving vehicles can playback contents based on both time and location. Administrators can also locate each player on Google Maps and instantly have an idea of the overall connection status of all media players.



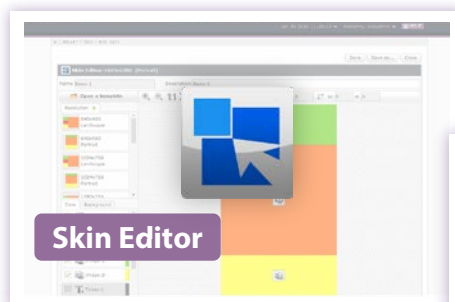
Rich Library and Cloud Resources

All necessary raw materials, including multimedia files, fonts, clocks, skins, programs, and playlists, can be accessed easily in the Library to assist you in organizing resources. The system allows you to upload your desired fonts and even download the latest templates from CAYIN's Cloud service for free to greatly enrich your content.

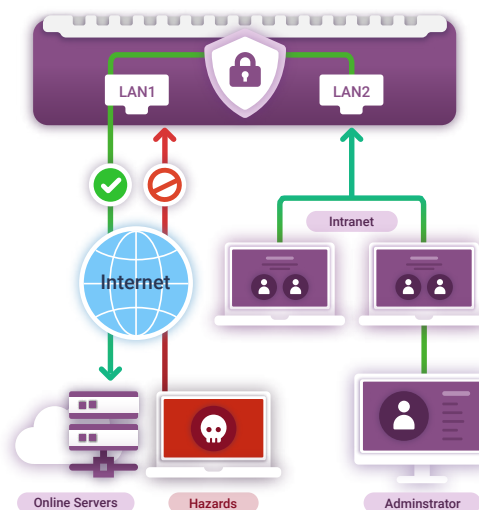


Easy-to-Use Template Creation in Two Ways

With SMP-NEO2, SMP-2400 Digital Signage Player provides a web-based Skin Editor so that users can perform a drag-and-drop operation to define the size and the location of each zone directly on SMP players. Through Skin Editor, you can customize the screen resolution to meet your needs, including screen orientation and multi-display setup.



In addition, experienced web designers can also utilize any web-editing tool to create HTML pages for the greatest flexibility.



Dual LAN Ports & Firewall for Enhanced Security

The SMP-2400 digital signage player features two LAN ports. With the latest built-in firewall, one port can be connected to the internet for external access, while the other connects to a local network for administrator management.

This design ensures the externally connected port is shielded from malicious attacks, and administrators can safely manage SMP players from within the local network.

This architecture provides more flexible and secure network planning, ideal for large-scale digital signage deployments.

Supports HTTPS Encryption for Enhanced Security

To strengthen management interface transmission security, SMP-2400 supports HTTPS encrypted connections.

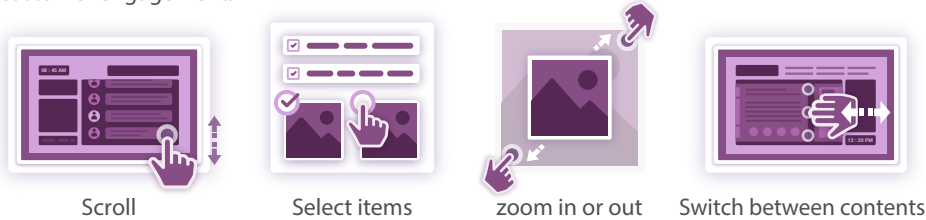
After enabling this feature, you can quickly activate encryption using the system's built-in default self-signed certificate.

Enterprises with their own certificates can also upload a custom self-signed certificate for even stricter management connection security.



Support Intuitive Multi-Touch Gestures

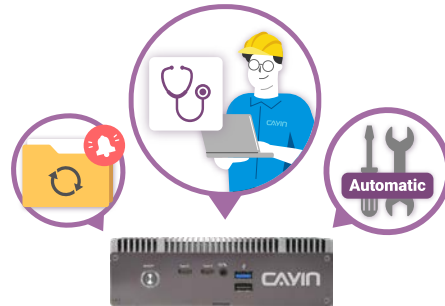
SMP Digital Signage Player support integration with HID compliant touch panels and multi-touch gestures. Users can tap, swipe, pinch or spread one or two fingers to click, change, zoom in or out web pages. Thus, digital signage can interact with customers in a more intuitive way. You may also create your own custom gestures to suit your specific needs and drive customer engagement.



Instant Remote Diagnostics and Preliminary Maintenance

Administrators can perform troubleshooting remotely by retrieving log records and monitoring key operational activities, such as system resource usage, CPU temperature, and network topology. To obtain the optimal performance and functionality, users will be prompted to install patches whenever new software updates are available.

If an abnormal situation occurs, SMP-2400 Digital Signage Player is equipped with a self-repair mechanism to restart the system automatically. Administrators can also restore configurations or recover a system immediately when necessary.



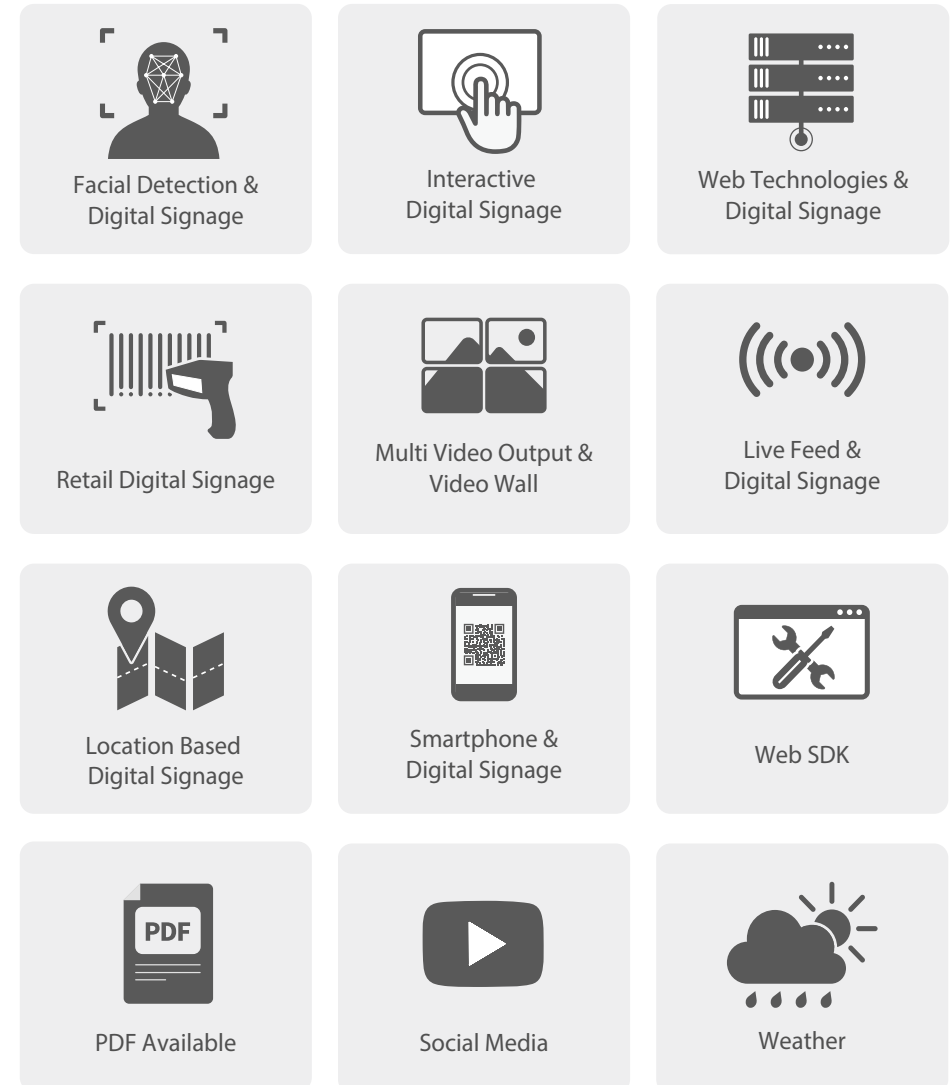
CMS-SE Server

With CMS-SE, administrators can manage players in groups, and perform live video streaming, central scheduling, emergency mode, access right management, and content updates of multiple players simultaneously.



Flexible Platform for Extended Integration

SMP-2400 Digital Signage Player can be integrated with other external devices to meet requirements from diversified vertical markets.



System Specifications

System software	SMP-NEO2 v4.0	
Content Creation	Zone type	• Able to use CAYIN Skin Editor to create templates either directly on SMP players or on your PC • Display zone: • Video zone x 2 (video file/streaming/audio) • HTML zone x 3 • Image zone x 2 • Ticker zone x 2 • Clock zone x 1 • Background image x 1
	Full-screen	• Use any web-editing tool to create HTML pages with unlimited Video zones, Image zones, and Ticker zones (*Depending on Hardware Spec)
Multimedia Playback	Playback modes	• 3 options: Skin, Program, and Playlist
	Web Pages	• Browser: Firefox • Web language: support HTML 5⁽¹⁾, JavaScript and RSS/ ATOM Feed • CAYIN Media Player (Video and Audio), CAYIN Ticker, CAYIN Image Slideshow • Content: show whole or part of HTML/ PDF, remote URL, weather, Youtube, social media or integrate with users' network facilities and databases
	Streaming Video	• CAYIN RTB (MPEG4-TS, MPEG2-TS; bit-rate: 1~5 Mbps) • RTSP (codec: H.264; bit-rate: 1~20 Mbps) • RTP (MPEG-2, MPEG-4, bit rate: 1~10 Mbps) • HTTP/MMS

⁽¹⁾ The compatibility is based on the built-in Firefox browser.

Multimedia Playback	Video Files	• Format: MPEG (MPG, VOB), AVI (H.264), WMV, MP4 • Codec: MPEG-1/2, MPEG-4 ISO, WMV 7/8/9, H.264, H.265(HEVC) • Bit-rate: up to 40 Mbps, 60 fps (MPEG2, MPEG4, WMV, H.264) for 1080p, 65 Mbps, 60 fps (H.264, H.265) for 4K UHD • Resolution: up to 4K UHD @60Hz
	Audio Files	• Format: WMA, MP3 • Codec: MP3, WMA 7/8, AAC, Vorbis
	Image Files	• Format: JPEG/ PNG/ GIF/ BMP/ SVG
	Preview	• Playback simulator: image, HTML, remote URL, and ticker (Note: Simulation is for reference only. Actual display may differ.) • File preview: show thumbnails for image and video files
	Face Detection	• Software: integrate with QVR Face Tiger 1.0.1.0 or later • Layout: show triggered contents in full screen or within a video zone of a skin or program • Playback Content: program, playlist, video, image, and HTML
Schedule	Playback	• Local & central scheduling: edit schedules directly on an SMP player or centrally control multiple players in groups by a CMS server • View type: calendar or time table • Schedule mode: once, daily, weekly, monthly, yearly, and location • Playback type: able to edit scheduled tasks for each zone or as a full-screen display
	Screen, Brightness, volume & system	• Set schedules to turn on/off the screen, adjust SMP's volume and brightness, or restart the system
Content Update	Methods	• Online (manually): FTP, Network Shares (Network Neighborhood), SMP's Web Manager • Online (automatically): CAYIN CMS server • Offline: USB Storage Device
System Settings	Language	• User Interface: Chinese (Traditional), Chinese (Simplified), English, French, German, Italian, Japanese, Polish, Portuguese, Russian, Spanish, Thai • Ticker Support: Unicode (UTF-8) compatible languages; able to use default fonts or upload TTF fonts⁽²⁾.

⁽²⁾ CAYIN doesn't guarantee that SMP-NEO2 is compatible with all font files.

System Settings	Display	• Screen resolutions: 640x480, 800x600, 1024x768, 1152x864, 1280x720 (720p), 1280x768, 1280x1024, 1360x768, 1366x768, 1600x900, 1600x1200, 1680x1050, 1920x1080, 1920x1200, 1920x1440, 3840x2160 (60Hz, Single/Clone); up to 4096 pixels for one side by User-defined mode • Portrait Mode: Support 90 and 270 degree display rotation • 4 signal output modes: Single, Clone, Extended, Distinct Modes • Support to detect EDID/DDC parameters • Support the screensaver function • Support to incorporate with USB HID compliance touch screen and multi-touch gestures
	Time	• Set system time manually or synchronize the clock from an NTP server
	Location	• Track SMP's current location by GPS or simply show a static location in Google Maps
Remote Diagnostics and Maintenance	Hardware Monitor	• Check CPU temperature and utilization of CPU, system DRAM, and hard drive
	Log	• Create log files recording the system status • Able to purchase SuperReporter 2 to generate advanced playback reports
	System Update	• Automatic notification of patch and firmware updates
	Self-repair	• Able to restart/shutdown/recover the system and backup/restore configurations remotely.
Network	Protocol	• Support static IP and dynamic IP (DHCP) • Support HTTP, HTTPS, SMB, ICMP, RTP, RTSP, MMS, SYSLOG, NTP, FTP • Built-in Firewall Management
Resources	Cloud-based	• Provide templates and materials in Library and Online Resources
Web Manager	Recommended browsers	• Edge 88 or later, Chrome 88 or later , Firefox 85 or later

Hardware Specifications

CPU	• INTEL® Elkhart Lake Quad-Core Processor
Dimension	• 160 (W) x 109.2 (D) x 50.5 (H) mm
Weight	• 1.09 Kg
Network	• 2.5GbE Ethernet • 802.11 b/g/n/ac Wireless controller (optional) • 3G/4G Data Network (optional)
Internal Storage	• SSD 128GB (Optional Upgrade: up to 256GB)
External Storage	• Supports up to 4TB
Video	• HDMI x 2 • DP x 1 (Optional upgrade to three outputs)
Audio	• Phone Jack (Analog Stereo) • HDMI Audio (Digital)
Support Video Streaming	• HDMI Capture Card (USB UVC compatible device, Format: MJPG)*
Power	• 100~240V AC (with external adaptor) • DC 12V, 3.3A
Others	• RS-232 (COM) x 1 • USB 3.1 x 2 • USB 2.0 x 1 • USB (Type-C) x 2
Peripherals	• Wall mount bracket x 1 (compatible with VESA 75x75/100x100)
Certificate	• CE, FCC, RoHS, BSMI

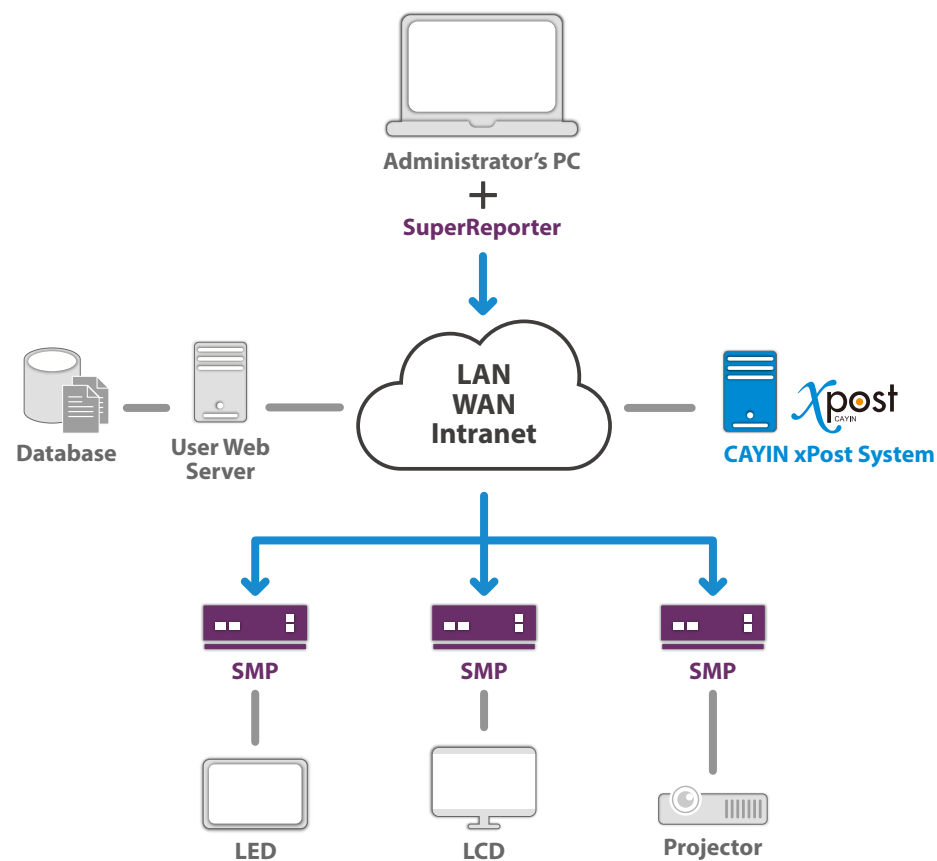
* Please refer to online help for more information.



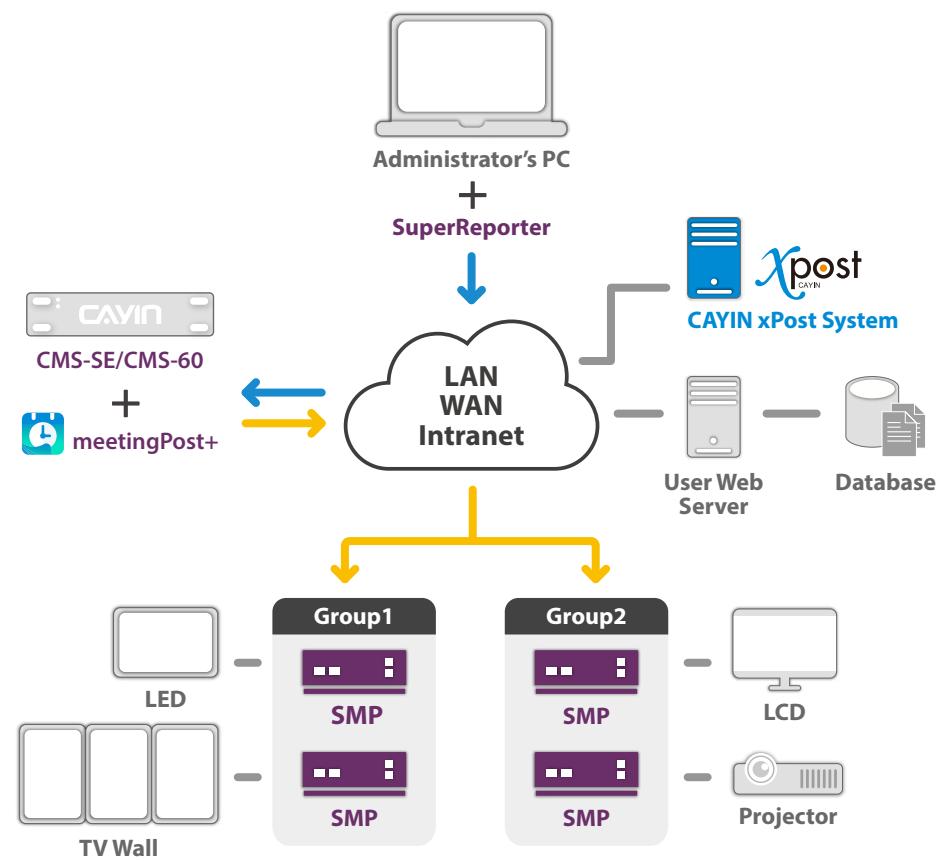
- | | | | |
|--------------------|-------------------|-------------------------------------|---------------|
| 1 Power Button | 2 USB(Type-C) x 2 | 3 Microphone
(function disabled) | 4 USB 3.1 x 2 |
| 5 USB 2.0 x 1 | 6 Power Connector | 7 HDMI x 2 | 8 DP x 1 |
| 9 Ethernet LAN x 2 | 10 RS-232 | | |

System Structure

Networked Standalone Digital Signage Player



Digital Signage Network with Client-Server Structure (CMS server + SMP player)

Distribute Content /
SchedulingUpload Content /
Scheduling