

### **Interactive Display**

Interactive displays of different sizes and configurations for a wide range of applications



# Audio Visual Solution HIGHLIGHTS 2015

### Video Wall

Impactful presentation with multiple LCD panels embracing LED backlighting technology

### Telepresence

Dramatically improve the experience of video conferencing systems in conference rooms





## Presentation & Streaming

Team collaboration technology for creating, sharing, and managing content from any device – PC, Mac, tablet, smartphone and more



### LED Wall

Widely customized for large screen applications through high-impact indoor and outdoor environments with high reliability and superior image quality





## INTERACTIVE DISPLAY





Multimedia and interaction are inevitable to today's conferencing and presentation environments. UAT provides interactive displays in HD resolution, full array LED backlight, and high responsive touch-screen, enabling outstanding image quality with confident 24×7 operation.

Our interactive displays are in different sizes and configurations for a wide range of applications in video conferencing, presentation, discussion, training, and digital signage.

- Brilliant, big screen images
- Full array LED backlight
- User-friendly tool bar
- Built-in speakers
- Video wall connectivity
- 24×7 operation



SHARP Integrated Touch Screen LCD Monitor plays an important role in serving the communication needs of today's businesses and academic institutions. As a highly intutive monitor, along with superb image quality and easy operation, it brings the convenience of onscreen editing to a range of professional uses.

With various sizes and configurations, CNIT IT-Pad integrates functions of high definition stream media TV, interactive electronic whiteboard and OPS (Open Pluggable Specification) PC, as well as multi-touch technology. IT-Pad is configured with high quality screen that delivers a captivating visual effect.



Useful templates are pre-installed and will keep updated by cloud service. Users can also have their own custom-made templates



Cloud Service

Documents can easily be stored or taken from cloud, making conferences or classes effective



### **OPS PC** Inside

No external PC is needed to be installed. This all-in-one solution provides a streamline conferencing and teaching experience

### Screen Recording

reviewed afterwards with this easy-to-use function







#### **TOUCH SCREEN**

Touch Technology	Infrared intereption detection	Optical imaging method	Infrared intereption detection
PC Connection Port	USB	USB	USB
Power Supply	USB	USB	USB
Protection Glass Thickness	Approx. 5mm	Approx. 3.4mm	Approx. 5mm
DIMENSIONS (DISPLAY ONLY)	1904 × 1096 mm	1880 × 1157 mm	1549.44 × 871.56 mm







LCD PANEL	CNIT IT-Pad 65"	SHARP PN-L602B	CNIT IT-Pad 55"
Resolution	1920 × 1080 pixels	1920 × 1080 pixels	1920 × 1080 pixels
Pixel Pitch ( $H \times V$ )	0.744 × 0.744 mm	0.692 × 0.692 mm	0.21 × 0.63 mm
Brightness	400 cd/m2	380 cd/m2	400 cd/m2
Viewing Angle	178°	160°	178°
Response Time	6 ms	6 ms	6.5 ms

#### **TOUCH SCREEN**

Touch Technology	Infrared intereption detection	Infrared blocking detection	Infrared intereption detection
PC Connection Port	USB	USB	USB
Power Supply	USB	USB	USB
Protection Glass Thickness	Approx. 4mm	Approx. 3mm	Approx. 4mm
DIMENSIONS (DISPLAY ONLY)	1428.48 × 803.52 mm	1648 × 982 mm	1209.6 × 680.4 mm

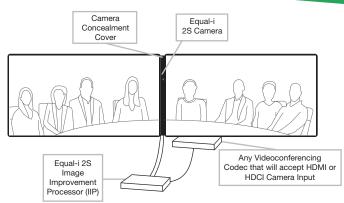




## ARRAY TELEPRESENCE

## Equal-i 2S

Dual-Camera and Image Improvement Processor



The Equal-i 2S is Array Telepresence's revolutionary dual camera and Image Improvement Processor (IIP) that improves the experience of video conferencing systems in conference rooms.

Equal-i replaces the typical pan/tilt/zoom (PTZ) camera associated with most video conferencing systems and inputs to any commercial video conferencing codec or PCs running video conferencing soft clients.

The resulting user experience is exponentially improved and incrementally better than that of three screen multi-codec room systems for a fraction of the cost.

- Up close and personal
- Single-screen version
- Better eye-line
- Low cost
- Concealed camera
- Better horizontal gaze angle
- Across-the-table format
- Use your existing codec
- Improved multi-point
- Use your existing furniture
- Stand-up capture



## Equal-i Technology

Equal-i is the name of Array Telepresence's patent-pending image improvement algorithms, camera and Image Improvement Processor that dramatically improves the scene for telepresence-quality experiences using your existing video conferencing codec in any standard conferencing room

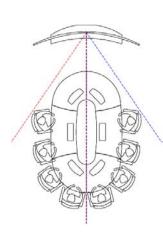
For dual screen systems the Array Equal-i 2S dual-headed camera is concealed at eye-level in a 1-inch space between two displays (Curved or flatpanel. Video walls are feasible as well) and then the camera and space are concealed with a cover.

The Image Improvement Processor (IIP) sits between the specially-designed camera and the video conferencing codec. It is running Array's custom image improvement and equalization algorithms on wire-speed FPGA and geometry warping chips that dramatically improve the scene from two separate cameras each capturing ½ room before sending it to the video conferencing codec for compression



## Benefits

- Executives look better captures the image of the farthest participant at 6.5 times the resolution of the PTZ
- View participants in life-size (with appropriately-sized displays)
- Less bandwidth
- Better immersive experience
- Increased meeting productivity
- Improved ROI on video investment



On the other side of the video conferencing call, the Equal-i IIP receives a single video conferencing stream from its codec and splits the stream into two different high-definition streams allowing a single codec to power dual displays.

The farthest participants are brought "up close and personal" increasing the pixel count on their faces by 6.5Xs that of a PTZ camera while "Equal-i-zing" their size to the closest participant.

Vertical eye-line is improved by ~13% over PTZ, meeting format is improved to a more "across the table" feel, stand-up capture is enabled, and the system powers a wide-format dual display using a single codec with no impact on bandwidth.

## Turn Any Video Conferencing End-point Into an Immersive Environment

Up Close and Personal — Farthest remote participants are brought virtually closer. Pixels on the farthest face increases by 6.5 times that of HD PTZ camera capture. Facial resolution compares favorably to that of three screen system quality.

Improved Eye-line — Perfect vertical eye line eliminates top-of-head capture. Average horizontal gaze angle is less than 50% of three screen systems.

Improved Format — Meeting format improved to a more natural and effective across-the-table experience.

Stand Up Capture — The Equal-i Dual Screen System enables stand up capture to maintain immersion when participants are standing, presenting and enter/leave the scene.

## Integrate with Existing Systems

The Equal-i 2S plugs into any video conferencing system that accepts HDMI or Polycom HDCI camera input.

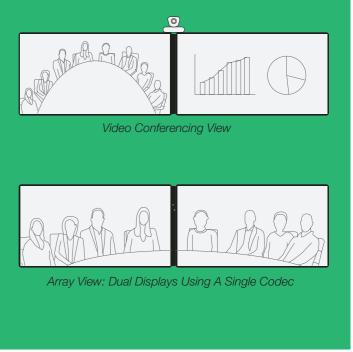
The Equal-i camera replaces or augments the pan-tilt-zoom camera that came with your codec and is concealed between dual displays at eye-level.

Between the camera and your video conferencing codec sits the patent-pending Image Improvement Processor (IIP). The IIP works at wire-line speed to improve the image before it is sent to the video conferencing codec for the trip across the wire.

## **Effective Multi-Point**

The Equal-i 2S enables effective multi-point – Example: With 3 Equal-i 2S locations with dual 65-inch displays using 8 seat tables, you can "Crop & Stack" and show up to 16 participants in two rows across both displays. Using 12 seat tables and 80-inch displays the total rises to 24 participants.

While the Equal-i 2S will power dual displays using a single codec, adding a second codec will enable "telepresence multi-point" with ½ of each remote room (4-6 essentially life-size participants from each remote site) visible on each screen in a "global roundtable" format.





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### Package Includes

- Equal-i Dual Camera system
- Equal-i 2S Image Improvement Processor (IIP)
- Proprietary camera cables
- Remote power supply
- Universal mounting system
- Front bezel cover

### Image Improvement Processer ( IIP )

Camera Inputs - Proprietary high speed interface × 2

### **Transmit Module**

- HDMI Output #1 to Codec #1 Resolution 1920 × 1080p, 30fps
- HDMI Output #2 to Codec #2 Resolution 1920 × 1080p, 30fps
- HDCI (Polycom) #1 to Codec #1 Resolution 1920 × 1080p, 30fps
- HDCI (Polycom) #2 to Codec #2 Resolution 1920 × 1080p, 30fps
- Processing latency Less than 10 ms
- Image Framing Modes

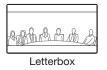
# Native Single Codec

Operation



Operation





### USB

- USB 2.0 × 2 System set-up/installation
- USB 3.0 & 2.0 Camera input for PC soft codecs using HDMI to USB 3.0 converter (sold separately)

### **Physical Characteristics**

- Equal-i 2S base box L 7.36", W 15.34", H 2.17"
- Camera Assembly 7"H × 1"W × 2" D

### Mechanical

- Camera Mounting System Universal articulating arm mounted to the back of the display. 1.2" space required behind display
- Image Improvement Processor can be installed on a shelf or rack mounted with supplied brackets

### Camera System

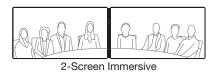
- Output Proprietary high speed interface
- Output resolution of each Camera Head 2304 x 1536 pixels
  3.54 Mpixel × 2 (7.08 Mpixel)
- Lens 37 degrees horizontal field of view x 2 (74 degrees total)
- Micro positioning mechanics for camera alignment

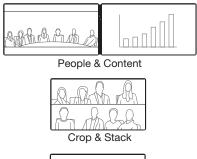
### User Interface

 Downloadable App for user supplied Android tablet or Crestron control system

### **Receive Module**

- HDMI Input #1 from Codec #1 Resolution 1920 x 1080p, 30fps
- HDMI Input #2 from Codec #2 Resolution 1920 x 1080p, 30fps
- HDMI Output #1 to Display #1 Resolution 1920 x 1080p, 30fps
- HDMI Output #2 to Display #2 Resolution 1920 x 1080p, 30fps
- Processing latency Less than 10 ms
- Image Framing Modes







### Electrical

N12 V, 10 A remote power supply — UL and CE rated

### Network

- · Wi-Fi User Interface and system set-up/installation
- RJ45 Ethernet Remote operation, management, and diagnostics

### Certifications

FCC and CE

### Environmental

- Operating temperature: 0 to 40 degree C
- Operating humidity: 15 to 80%
- Maximum altitude: 10,000 ft





A video wall consists of multiple screens tiled together contiguously in order to form one large screen. Video walls can be easily found in control rooms, shopping malls, lobbies, etc. They allow distant passersby to view large images and nearby observers to read about small text.

The advancement of HD technology brings us to the new century of high resolution, colorful and bright images. In the business world, virtually seamless and multiple visuals offer corporate users real time and multipoint connections for achieving faster business decision and greater flexibility in a single environment.

Considering mullion – the gap between active display areas, UAT utilizes ultra-slim bezel LCDs that are built with long-term serviceability and full HD 1920x1080. The multi screens are seamless stacked together and equipped with exquisite inlays for video-and-wall integration. It gives rise to the ability to match color and brightness between adjacent screens, which enables the overall video wall looks like one continuous image.



- Full HD 1920 × 1080
- Ultra-slim bezel LCDs
- Full array LED backlight
- Customized interface
- 24×7 operation



## **Seamless Video Wall for** Ultra Visual Experience and **Active Business Enhancement**



UAT's tailor-made programming and ease to use interface enables corporate users to view content at any size according to desired multi-screen configurations for diversified purposes.

process.

### **Applications**

### Traffic and Transportation

Well performed traffic and transportation networks are one of the key factors to contribute to the economic growth. The traffic and transportation control centers play the key role to maintain safe and smooth traffic and transportation systems.

Our video wall helps the control centers to effectively monitor traffic, anticipate traffic delays, divert traffic and dispatch public safety and maintain a reliable traffic and transportation networks for the society.

### Power and Utilities

Energy management centers are essential to provide the most reliable and stable power and utilities services without any downtime. Once the video wall has been integrated with the monitoring infrastructure, it gives high definition output with finest details from anywhere in the room and provides instant new information to the technicians.

### Surveillance and Security

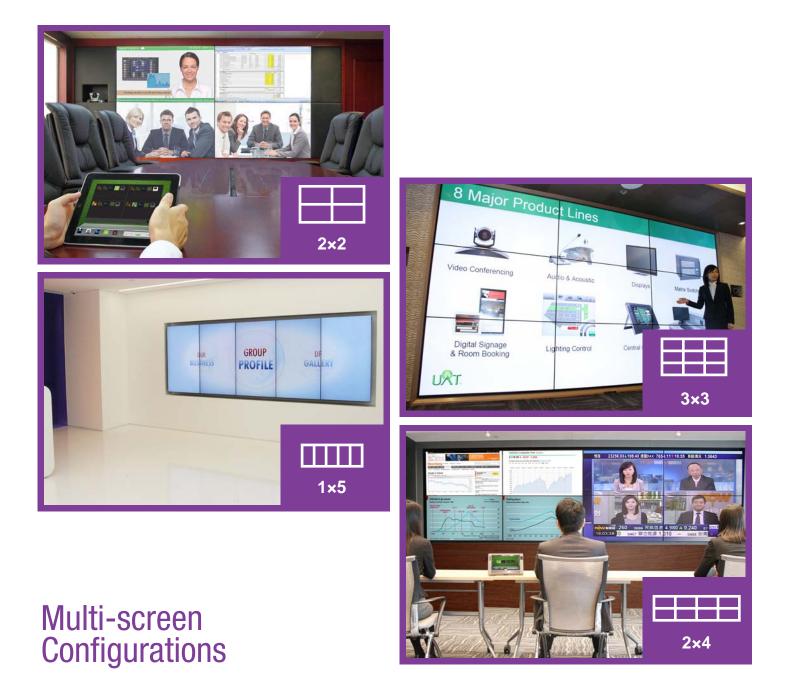
The video wall application in the surveillance and security operation centers assist the personnel to monitor various environments at a glance, giving them accurate data for taking action in order to avoid accidences and ensuring every monitoring area is under supervision.

### Broadcast

In the entertainment industry, managing live television broadcasting is important to provide accurate updates to control the broadcasting time, studio backdrop or station lobby through the video wall. Delivering superior brightness and color saturation, engineers can effectively monitor multiple programming signals and sources in real time.

With our video wall, it is not difficult to conjure up scenery of larger display surface, superior image quality and multiple-instant communication. Its importance has been recognized by corporations in the creation of an impactful presentation environment and acceleration of decision making





UAT designs optimal interfaces with multi-screen configurations according to your budget, space, and requirements.

We offer tailor-made programming and easy-to-use interface for users to select desired layouts and output signals for a multi-screen video wall. The output signals can be in different combinations of multi-point video conference, blue-ray video, HDTV, wired and wireless PC content. Users can even spread one image across multi-screens.





LED wall is widely customized for large screen applications in corporate communication, brand building, and target advertising through high-impact indoor and outdoor environments with high reliability and superior image quality.

Designed in slim and lightweight, our LED wall is easy and fast to transport and install. Its magnetic backing can be mounted to any metal surface. With the low consumption heating system, it provides the maximum heat dissipation through the natural air convection without extra cooling fan or noise.

### **APPLICATIONS**

- Advertising
- Conference
- Control room
- Digital signage
- News and information
- Sports
- Stage
- Transportation



## **Indoor Display**

Indoor displays create the optimal viewing experience for a wide variety of viewing needs. These displays provide the highest quality image without the hassle

### **Advantages**

- Small pixel pitch from 1mm to 1.6mm
- Indooor brightness and stable images
- Light and slim, easy to install
- No noise
- Energy saving
- Long life span
- Low maintainance cost
- Scalable to any size



## **Outdoor Display**

Outdoor series is bright and functional with solid construction and quality components that allow the message to stand out and outshine the rest of the noise

Incorporating Single Point Color Correction and Single LED Calibration technologies, the LED wall maintains brightness and chroma level throughout its running life. Adjustable constant current source ensures minimum grayscale loss for optimal image quality under various lighting environments regardless of daytime or nighttime.

By the adoption of the video processor and window controller, you are able to view images from a single source with multiple digital display terminals, satisfying the switch of different perspectives from live broadcast, advertising image, and on-scene interview.

Our LED wall is scalable to any sizes, shapes, and physical pixel pitch distances according to your needs. Integrate your environment with UAT's diversified display solutions ranging from LED wall, video wall, LCD, interactive display, projection screen, and rear projection to digital signage.

### How does LED display wall work?

LED wall are very clear in concept. They convert what you see on a computer or television into a format accepted by LED displays. Our system is easy to assemble, use, and transport. Here's how our LED displays come together.

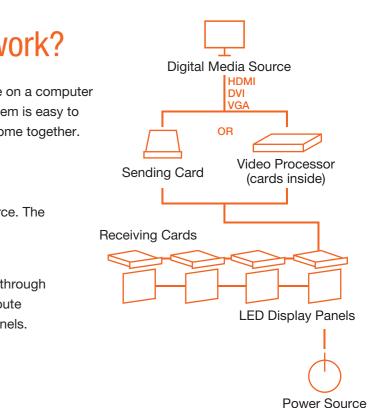
### The Source

A computer with a video output port serves as the media source. The output, VGA, HDMI, or DVI, will plug into a conversion hub.

### **Control Unit**

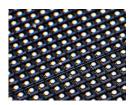
Signal from a computer will be converted into Ethernet signal through a sending card. Ethernet signal and media from a computer route through a converter and then pass along to the digital LED panels.

- **Advantages**
- From physical pixel pitch of 12mm to 26.7mm or virtual pitch from 6mm to 13.3mm
- Strong protection
- High brightness and stable images
- Wide viewing angle
- Light and slim, easy to install
- Energy saving
- Long life span



### **Digital LED Panels**

Our LED panels are comprised of 4 main components:



### 1. LED Lamp Embedded Panels

Efficient light sources that can be manipulated into image.



### 2. Aluminum or Iron Housing Cabinets

Aluminum and iron housings provide structure, rigidity, and high IP ratings, protecting against the devices.



#### 3. Receiving Cards

The receiving cards are responsible for processing signal and displaying them on the panels, finally displaying attractive rich media.



#### 4. Power Units

Safely and efficiently distribute power to lights to provide a crisp and uniform image.

### Hardware

#### **Surface Mounted Device**

Surface mounted devices (SMD) are 3-in-1 packages of 3 colors of red, green, and blue (RGB). The physical combination reduces the space required for output and allows for tighter pixel pitch and the millimeters between each LED diode, resulting in high-definition LED displays.

### **Dual In-Line Packages**

Dual In-Line Packages (DIP) are units comprised of 3 individual lamps. Color intensity and brightness are higher in DIPs, allowing your LED displays to shine brightly at outdoors and competing with the sunlight to provide a comfortable view to eyes.

### **Accessories**

- Video processors
- Sending cards
- Receiving cards
- Aircraft-grade connectors
- Locking pin
- Side hook

### More Full Featured Add-on:

- Content management
- Interactive functions
- Audio system



## PRESENTATION AND STREAMING

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Presentation and streaming solution is a team collaboration technology for creating, sharing, and managing content from any device – PC, Mac, tablet, smartphone and more to a display screen wirelessly.

Our presentation and streaming solution specializes for recording in training and meeting scenarios. It supports recording, live streaming, and playback of video signals and presentation signals. It is easy to install and operate, and is therefore suitable for various enterprises and organizations.

To record and share training videos, the solution supports concurrent recording, live streaming, and playing on-demand of video signals and presentation signals. It is easy to operate and deploy, allowing users to rapidly construct a video sharing platform of their own.

Securing your content on an internal hard drive while allowing immediate access and portability on a thumb drive, this solution is suitable for a wide variety of applications and live events.

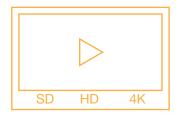




- Up to HD 1080p video and presentation signals
- USB storage
- MP4 file format
- Local playback
- FTP
- Ease of use

## Playout

### Server

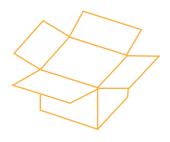


A high-performance streaming media playout server supports multi-channel SD, HD, and even 4K streaming. Output streams can be fully synchronized. Any type of uploaded MPEG-TS files can be streamed out to a variety of IP video and IPTV applications.

### Player



The player enables users to view live and video on-demand (VOD) streams. All important functions for replaying videos and the basic control of the server are directly integrated into the player: playback, setting up recordings, broadcasts, archiving, metadata, and category definition.



Your own streaming media TV station with a built-in video library: for intranet IPTV and for professional in-house streaming, allowing digital distribution, management and recording of TV channels, and camera signals.

### Recorder



Designed for a wide range of professional video recording and archiving applications including content management, the recorder supports multi-channel SD, HD and even 4K.

## **Applications**

- Digital signage
- Control room
- Broadcast
- Digital corporate TV

- File hosting
- Presentation and information
- Documentation and training





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