Live Content Producer
AWS-G500
AWS-G500HD

Anycast Station
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The Anycast Station™ Live Content Producer is a development that combines decades of Sony AV expertise together with industry-leading IT technology. Designed as a powerful content creation tool for live event programming, it comprises a high-quality video switcher, an audio mixer, a large LCD display, and a streaming encoder and server - all packed into an attaché case-size chassis weighing only about 8 kg (17 lb 10 oz).

To accommodate today's growing needs to integrate video, audio, and a variety of PC input sources in live events, the Anycast Station system provides a comprehensive set of AV and IT inputs. Two versions of the Anycast Station system are available: AWS-G500 for SD operations and AWS-G500HD for HD operations. The AWS-G500 provides SD video interfaces including composite, S-Video, and RGB as standard, while the AWS-G500HD provides HD interfaces including HD analog component and HD-SDI. As an option, there are five types of interface modules, which allow users to flexibly establish interface configurations depending on their operational needs.

The Anycast Station system performs the unique processing that allows live switching between these video and computer sources without the use of external line converters and without degrading picture quality.

When it comes to program delivery, the Anycast Station system is also very flexible. Straight from the Anycast Station system, the user can feed programs to a TV transmitter for live broadcast, record onto tape, feed the switched program output directly to large venue displays, store input sources and a PGM output to external hard disk drives, and stream the program on the web on a live or on-demand basis.

With all these unique features, plus a logical design for ultimate ease of use, the Anycast Station AWS-G500 and AWS-G500HD systems are tools that can be used by anyone, anytime, and anywhere - for remote television broadcast operations, church productions, product promotions, event and live staging, music clip creation, conferences, seminars, and distance learning. Just plug in the power cord, turn on the power, and deliver the program.
**All-in-one design**

The Anycast Station system comes equipped with a video switcher, an audio mixer, an LCD display, and camera control functions, all packed into a compact attaché case design.

This approach eliminates any external wiring and cumbersome signal adjustments, making setup extremely easy and quick. On the large LCD screen, there are two windows for monitoring the program and preview outputs, together with seven windows to view each individual input source plus one internal still picture source, eliminating the need for multiple video monitors. These factors make the Anycast Station system a powerful device for producing live events, virtually anywhere and with a minimum production crew and setup time. Despite its compact design, each function of the Anycast Station system provides uncompromising power and quality.
D: PVW Viewer
Displays the next source selected for output after the transition.

E: Effect Display
The currently selected effect pattern is indicated with an effect icon. Effect and DSK transition durations are also displayed.

F: Guide Display
Displays guides for controlling compatible Sony Pan/Tilt/Zoom cameras such as zoom, pan, tilt, focus, and iris. Also displays the camera position memory numbers/names of a camera selected on the NEXT button row, as well as the general menu selections and settings.

G: Audio Level Display
Displays the audio output levels of PGM, MIX, AUX1, and AUX2.

H: Built-in Stereo Speakers

I: Key Status Display
Indicates the status (On/Off) of the key.

* Please contact your nearest Sony office or authorized dealer for information on compatible displays.
**Please contact your nearest Sony office or authorized dealer for information on compatible keyboards and mice.
**Easy and integrated operation**

The Anycast Station system makes live event programming as simple as possible. This is because the Anycast Station system requires very little or no technical knowledge of switcher and mixer setup and operations, due to its extremely intuitive control surface and large LCD display.

With the Anycast Station system, switching between the desired input signals is an extremely easy task. This is because all input sources, as well as the preview and program outputs, are shown on one large LCD screen - simply select the next desired signal from the NEXT button row and slide the transition fader or hit the Cut button.

The window frames of the input sources chosen for the program and preview outputs are highlighted in the same color as the program and preview window markers. This gives operators complete comfort that the correct inputs have been selected.

**Text Typing Tool software**

The Anycast Station system comes with Text Typing Tool software, which is controlled via an easy-to-use GUI displayed in full size on the LCD screen. This GUI can be easily toggled between the main GUI of the Anycast Station system. The Text Typing Tool software allows operators to easily generate still text for superimposition on the program output using the DSK or keyer. In addition, wipe and dissolve effects can be used for text overlaying. A number of text files can be created and stored in advance for instant recall during the live event, and it is possible to install TrueType fonts from third parties. The Text Typing Tool of the Anycast Station system supports ten languages, as listed below.

Languages available on the GUI display and Text Typing Tool:

1. English
2. Chinese (Simplified)
3. Chinese (Traditional)
4. French
5. German
6. Italian
7. Japanese
8. Korean
9. Portuguese
10. Spanish

**Camera remote control capability**

The Anycast Station system allows operators to easily control one or more compatible pan/tilt/zoom camera at remote locations, since it allows pan and tilt adjustments from its position controller, in addition to iris, focus, and zoom control using the jog and shuttle dials. Sony offers a variety of compatible cameras such as BRC-300, BRC-H700, and EVI-HD1. (For details of compatible models, refer to the chart in page 9.)
Seamless switching between video and PC sources

In live events, there’s no telling what types of signal source need to be presented or distributed. With the Anycast Station system this dilemma is a thing of the past. The Anycast Station system allows live switching between a variety of signal sources - from standard definition video (analog composite, S-Video, DV, SD-SDI), high-definition video (HD analog component, HD-SDI) to PC images with various resolutions.

Two important features make this possible - the sophisticated built-in line converters and the high-resolution internal processing. Each input source supplied to the Anycast Station system is up-converted and processed within a 1280 x 1024 progressive domain to allow switching between sources of different resolutions, while keeping picture degradation to a minimum. The program can be output from a variety of interfaces including analog composite, S-Video, SD-SDI*1 for video, HD analog component*2, HD-SDI*3, and D-Sub 15-pin outputs for projectors and plasma displays*4.

*1 When using the optional BKAW-580 Serial Digital Interface Module.
*2 When using the optional BKAW-560 HD Video Interface Module.
*3 When using the optional BKAW-590 HD-SDI Module.
*4 Available output depends on the interface module used.

Flexible video input configurations

As standard, the AWS-G500 and AWS-G500HD Anycast Station systems offer the following video and PC inputs. These are provided as interface modules installed in each system’s rear panel slots.

**AWS-G500:**
Pre-installed modules:
- BKAW-550 PC Video Interface Module x1
- BKAW-570 SD Video Interface Module x2

Primary inputs 1 to 4:
- Composite, S-Video, DV
Primary inputs 5 to 6:
- RGB (XGA, SXGA, WXGA)

**AWS-G500HD:**
Pre-installed modules:
- BKAW-560 HD Video Interface Module x1
- BKAW-590 HD SDI Module x1
  (one empty slot available)

Primary inputs 1 to 2: HD analog component
Primary inputs 3 to 4: HD SDI
Primary inputs 5 to 6: Can be extended by installing an optional module

SD/HD mixed operations

The Anycast Station system can handle SD and HD signals simultaneously, which characterizes it as a highly versatile system. For PGM output, three types of aspect ratio (4:3, 16:9 SD, and 16:9 HD mode) are provided. For SD/HD mixed operation in 16:9 SD mode, it is possible to record PGM output onto an external HDD connected to the Anycast Station system via the BKAW-570 SD Video Module or BKAW-580 SD-SDI Video Module.
External hard disk drives (HDD) operation

During a live event, the Anycast Station system allows synchronized recording (DV-AVI format) of two primary standard definition video input sources to an external third-party hard disk drive* via an IEEE1394 interface. This means that with only two hard disk drives, four primary inputs can be recorded. What’s more, the PGM output of the Anycast Station system can also be recorded to them as DV files. After recording, the DV files can be played back on a PC by connecting the hard disk drives to it, as well as on the Anycast Station system. Loop playback between designated IN and OUT points is possible, and six pairs of IN and OUT points can be set for one clip file. In addition to recording, external HDDs can be used to supply the Anycast Station system with externally created video sources in the DV-AVI format. Furthermore, the Anycast Station system has the capability to automatically create an EDL (Edit Decision List) based on its switching information, which allows users to edit DV files on a PC very efficiently.

Streaming Encoder and Streaming Server – Live and On-demand Video Streaming

The Anycast Station system provides a built-in Streaming Encoder and Streaming Server as a standard feature for live and on-demand video streaming. This function allows the high-quality program output of the Anycast Station system to be streamed in real-time - with minimum degradation and through very simple procedures - for distribution over the Internet, LANs, or leased lines. When the number of clients is relatively small, the built-in Streaming Server function allows the streamed video to be distributed right from the Anycast Station system without the need for an external streaming server connection. Since the built-in Streaming Encoder also allows connection to external streaming servers, the live event can be widely distributed to hundreds or even thousands of viewers. The Anycast Station system can also store internally encoded video files on its own hard disk drive and stream them as video-on-demand. This allows a relatively small number of clients to connect directly to the Anycast Station system and view video files when they wish. In addition, the stored video files can also be exported via Memory Stick or USB flash drive to an external server for full-fledged on-demand video streaming to a larger number of clients.

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* Please contact your nearest Sony office or authorized dealer for compatible hard disk drives and their conditions for use in recording of two primary input sources.
OTHER FEATURES

Device control capability

The i.LINK interface provided on the BKAW-570 SD Video Interface Module enables remote controls of devices connected via the i.LINK connector such as VTRs, and camcorders. Controlling the Play and Stop buttons and the Jog/Shuttle dials on the Anycast Station system’s control panel provides these respective commands to the connected devices. Up to six cue-up points can be set for one device. Pressing the ONLINE button on the control panel enables a connected recorder device to start and stop recording PGM output.

Connectivity with PC

The i.LINK interface provided on the BKAW-570 SD Video Interface Module also allows PGM output signals to be supplied to external devices as a DV stream. With this capability, the DV stream from the Anycast Station system, for example, can be captured on a PC for later use such as viewing and editing it.

Tally functions and remote selection of PGM/NEXT buttons

The FACTORY USE connector on the side panel gives two convenient functions to the Anycast Station system during live events. From this connector, tally outputs are provided for up to five cameras via their Camera Control Units (CCUs). What’s more, when used with the Sony RM-BR300, a remote controller for VISCA-compatible pan/tilt/zoom cameras, selection of PGM and PVW signals on the Anycast Station system is remotely enabled by the signals from the RM-BR300.

Audio-follow-video function

The Audio-follow-video function allows video and audio signals on a same channel to be selected at the same time just by selecting a desired video source on the PGM row. This is convenient when one operator needs to perform both video switching and audio mixing.

Operation screen (GUI) output to an external display

The operation screen (GUI) of the Anycast Station system can be supplied to an external display* at WXGA size (1,280 x 800), at 60 Hz.

*Please contact your nearest Sony office or authorized dealer for information on compatible displays.

Video effect snapshots

Effect patterns and settings can be registered as snapshots, and instantly recalled when necessary. Up to 54 snapshots can be registered. Another 54 snapshots are available in key mode.

FUNCTIONS

### Video Switcher

**Configuration**
- 6 Primary inputs and 1 Internal Still Picture
- 1 M/E + 1 Keyer + DSK + LOGO

**Input Level Control**
- Lum Level / Lum Offset (Setup) / Chroma Level / Hue (NTSC only)

**Video Effect**
- Mix and 16 patterns of Wipe
- P in P 3 patterns (Large, Medium, and Small)
- Fade to Black

**Key Source**
- Keyer: Input Signals or Internal Still Picture
- DSK: Internal Still Picture
- LOGO: Internal Still Picture

**Key Type**
- Keyer: Luminance Key / Alpha Channel / Chroma Key
- DSK: Luminance Key / Alpha Channel
- LOGO: Luminance Key / Alpha Channel

**Internal Still Picture**
- Matte, Color Bar (SMPTE/EBU)
- Import Picture Format: BMP, TIFF, TGA, JPG

**Picture Aspect**
- 4 : 3 / 16:9

### Audio Mixer

**Configuration**
- Input: 8 Monaural inputs or DV Stereo Audio
- Output: PGM (Stereo) / MIX (Stereo) / AUX1 / AUX2

**Input Control**
- Input Trim: -15dB to +15dB
- Filter: High Cut 8kHz, Low Cut 100Hz
- EQ: 3 Band Parametric Equalizer
- Limiter: 100:1
- Compressor: 2:1
- Pan
- Audio-follow-video

**Tone Signal**
- 10kHz, 44kHz, 1kHz, 10kHz

### Camera Control

**Recommended Camera**
- BRC-300 / EVI-D100 / EVI-D70 / BRC-H700
- BRC-300P / EVI-D100P / EVI-D70P / EVI-HD1

**Max. Controllable cameras**
- Up to 6 Cameras

**Snap Shot Memory**
- Memory: 6 items
- Pan / Tilt / Zoom / Focus / Iris

### Streaming

**Streaming Control**
- Online Button / Pointer / Jog Shuttle Dial

**Metadata Description**
- Title, Author, Copyright

**Movie during preparing broadcast**
- Sony Original Movie: “Sony Network Tunnel”

### Text Typing Tool

**Resolution**
- 1280 x 960 RGB 8 bit

**Objects**
- Text, Line, Background Color

**Modification**
- Bold, Italic, Underline

**Font**
- Three English True Type Font

**Import format**
- True Type Fonts (.ttf)

**Export format**
- TIFF, TGA

**Color Tool**
- RGB/HSL, Slider type, Color Picker type

**Others**
- Kerning, Spacing, Centering, Ordering, Safe Area
- *Please contact your nearest Sony office or authorized dealer for availability of other languages.

### Job Management

**Save/Load**
- Setup data can be stored on or recalled from a built-in hard disk drive.

**Import/Export**
- Setup data can be exported to or imported from a Memory Stick® media or USB flash memory device.
Applications

A range of features make the Anycast Station system suitable for virtually limitless applications. The following are typical examples:

- Church production
- Product promotion
- Remote television broadcast productions
- Corporate videos
- Event staging
- Live stages/music clip creation
- Conferences/seminars
- Distance learning

Example: Large projection application

The Anycast Station system is a convenient live content creation system that allows easy integration of PC images, such as Microsoft PowerPoint® slides and Excel® spreadsheets, into live video programming. The Anycast Station system is designed so that PC image quality and/or video quality are not degraded during source switching, keeping the final program output quality at its best. Since image quality is important when displaying presentations on large projection systems, the Anycast Station system serves as a powerful tool in such applications. The preview monitor on the LCD screen further assists in selecting the next source to be put on screen, allowing for a very smooth, seamless presentation.

What’s more, by preparing video clips to be used in the presentation on third-party hard disk drives, operation of the entire presentation becomes much smoother, especially compared to using conventional tape-based playback devices. And, of course, using the built-in streaming capability or signing up with a streaming service provider allows the impressive screen projection to be distributed across the web, delivering the message wherever desired.
DIMENSIONS

unit : mm (inches)

OPTIONAL ACCESSORIES

BKAW-550 PC Video Interface Module
- D-Sub Shrink 15pin Type x 2 (female)
- Y PB PR IN
- Analog Component 1080 50i / 59.94i, 720 50p / 59.94p
- Sync on Y: 0.70V, Pb & Pr: ± 0.35V
- Y PB PR OUT*
- Analog Component 1080 50i / 59.94i, 720 50p / 59.94p
- Sync on Y: 0.70V, Pb & Pr: ± 0.35V

BKAW-560 HD Video Interface Module
- D-Sub Shrink 15pin Type (female)
- Y PB PR IN
- Analog Component 1080 50i / 59.94i, 720 50p / 59.94p
- Sync on Y: 0.70V, Pb & Pr: ± 0.35V
- Y PB PR OUT*
- Analog Component 1080 50i / 59.94i, 720 50p / 59.94p
- Sync on Y: 0.70V, Pb & Pr: ± 0.35V

BKAW-570 SD Video Interface Module
- Composite: BNC Type x 2 / Video: 1.0 Vp-p, 75 Ω, Sync negative
- S-Video: DIN Type x 2 / Y: 1.0 Vp-p, 75 Ω, Sync negative / C: 0.286
- Y Pb Pk-p at burst, 75 Ω (NTSC); / C: 0.3 Vp-p at burst, 75 Ω (PAL)
- DV IN/OUT: IEEE 1394 6-pin type x 2
- LINK: IEC 61833-2 compliant

BKAW-580 Serial Digital Interface Module
- SD SDI IN
- BNC Type x 2 / Video: 800m Vp-p (75 Ω) / SMPTE259M-C, ITU-R656 compliant / Audio sampling rate: 20 bit 48 kHz 2 channels (channel 1 and 2, or 3 and 4) / SMPTE273M-A compliant
- SD SDI OUT
- BNC Type x 1 / Video: 800m Vp-p (75 Ω) / SMPTE259M-C, ITU-R656 compliant / Audio sampling rate: 20 bit 48 kHz 2 channels (channel 1 and 2) / SMPTE273M-A compliant
- LINK: IEEE 1394 6pin Type x 1 / HDD IF: SBP2

BKAW-590 HD SDI Module
- HD SDI IN
- BNC type x 2, 800 mVp-p, 75 Ω
- Video: SMPTE 292M / 1080 50i / 59.94i, 720 50p / 59.94p
- Audio: SMPTE 299M (48kHz, 20bit, 1/2CH, 3/4CH selectable)
- HD SDI OUT*
- BNC type, 800 mVp-p, 75 Ω
- Video: SMPTE 292M / 1080 50i / 59.94i, 720 50p / 59.94p
- Audio: SMPTE 299M (48kHz, 20bit, 1/2CH)

* The output is active when 16:9 HD mode is selected for Program Output Aspect Ratio.
**SPECIFICATIONS**

**AWS-G500**

**AWS-G500HD**

### General

- **Power Requirements**: AC 100-240 V, 50/60 Hz
- **Operating Voltage**: AC 90-260 V, 47/63 Hz
- **Power Consumption**: 100 W
- **Operating temperature**: 5 to 40 °C (42 to 104 °F)
- **Dimensions (W x H x D)**: 424 x 114 x 354 mm (16 3/4 x 4 1/2 x 14 inches)
- **Wt****: 8.9 kg (19.3 lb) (w/o 10 cc)

### Video Signals

#### VIDEO INPUTS (in factory configuration)

- **Composite**: BNC Type x 4
  - Video: 1.0 Vp-p, 75 Ω, Sync negative
- **S-Video**: DIN Type x 4
  - Y: 1.0 Vp-p, 75 Ω, Sync negative
  - C: 0.286 Vp-p at burst, 75 Ω (NTSC)
- **RGB**: D-Sub Shrink 15-pin type x 2 (Female)
- **HD Analog Component**: D-Sub Shrink 15-pin type x 2 (Female)

#### VIDEO OUTPUTS (in factory configuration)

- **Composite**: BNC Type x 1
  - Video: 1.0 Vp-p, 75 Ω, Sync negative
- **S-Video**: DIN Type x 1
  - Y: 1.0 Vp-p, 75 Ω, Sync negative
  - C: 0.286 Vp-p at burst, 75 Ω (NTSC)
- **RGB**: D-Sub Shrink 15-pin type x 2 (Female)
- **HD Analog Component**: D-Sub Shrink 15-pin type x 2 (Female)

### VIDEO INPUTS/OUTPUTS

- **DV IN/OUT**: IEEE 1394-6-pin type x 4
  - EIA-608/3.2 compliant

#### Video Signals Performance

- **Quantization and Sampling**: 8 bit
  - Frequency (SD Video): 13.5 MHz
  - Frequency: NTSC: 0 to +2.95 MHz +3 dB / -3 dB / PAL: 0 to +4.85 MHz +3 dB / -3 dB
  - Interlace/Progressive: 50i or 60Hz (Composite Y)
  - Audio: SMPTE 299M (48kHz, 20bit, 1/2CH, 3/4CH Selectable)

#### Audio Inputs

- **Anycast Station automatically selects the frame rate according to bit rate and picture resolution. Therefore the frame rate cannot be manually selected.

#### Audio Outputs

- **RAW OUT**: TRS type x 2, Ref. = -4 dBu, Impedance: 150 Ω
- **MIC IN**: TRS type x 2, Ref. = -10 dBu, Impedance: 150 Ω
- **AUX OUT**: TRS type x 2, Ref. = -4 dBu, Impedance: 150 Ω

### Other Interfaces

- **Network**: RJ-45 type x 1, 10 base-T/100 base-TX
- **USB**: Type A x 2, Type B compatible
- **RS-232C**: D-Sub Shrink 15-pin type (Male), 9600 bps
- **REMOTE**: IEC-958-1 pin type (Male), RS-232C
- **FACTORY USE**: D-Sub 5 pin (Male), Original Parallel I/O
- **MEMORY STICK**: Memory Stick Slot / Memory Stick Pro / Pro Duo
- **VISCA OUT**: BNC type x 1 / Sony VISCA camera commands are supported.
- **CCD**: 1/4" High Brightness LDL, 1280 x 800 60 Hz
- **Speaker**: Built-in speaker (x 2, Size: 20 x 40 x 30 mm)

### Streaming Performance

- **Source**: Real Video 9, Real Audio 8
- **Stream Server**: Helix DNA Server
- **Protocol**: RTSP (Streaming), UDP, TCP, RTSP (Transport)
- **Audio Sampling Frequency**: 44.1 kHz
- **Resolution**: 1920 x 1080, 2560 x 1080, 3840 x 2160, 1280 x 720
- **Bit Rate**: (Video / Audio): Compression Scheme: Variable Bit Rate / Preference: Average (Max. Bit Rate)
- **Frame Rate**: 15fps (Typical) ***
- **Distribution Delay**: 10 seconds or more (inc. player’s minimum buffering delay)
- **Event Number**: 5, 50, 150kbps: Up to 20 / 10, 225kbps: Up to 10 / 450, 700kbps: Up to 15 (The number is influenced by network condition.)

**LINK** is a Sony trademark used only to designate that a product is equipped with an IEEE1394 connector. All products with an *LINK* connector may not communicate with each other.

Please refer to the documentation that comes with any device having an *LINK* connector for information on compatibility, operating conditions, and proper connection.

**For VOD files only**

**The Anycast Station automatically selects the frame rate according to bit rate and picture resolution. Therefore the frame rate cannot be manually selected.**

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