

## Audio System Requirements

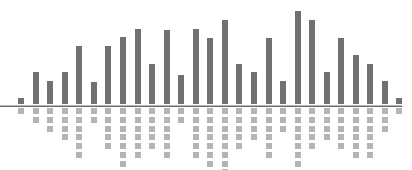
1. Courtroom, analog phone lines and VTC require echo-free audio conferencing among them.
2. 10 gooseneck mics arranged around courtroom connect to DSPs via Dante™ network.
3. One dedicated sidebar microphone used exclusively for archival purposes.
4. A bench-controlled “Sidebar Mode” instantly mutes all microphones (except sidebar mic) while routing pink noise into the system for private Sidebar conversations.
5. 5 discrete recording channels ensure a clear trial archive, including: judge/sidebar mics, witness, defense, prosecution and a full courtroom mix.
6. Secured comprehensive system control from clerk’s desk, including mic mix, conferencing levels and instant privacy muting.
7. Simple controls at the bench, including zone volume, “Sidebar Mode” triggering and privacy mute.
8. Zone volume controls for both defense and prosecution.
9. Automatic gain adjustment at presentation podium inputs to handle a wide variety of unknown sources.

## Symetrix Components

Qty	Description	Notes
2	Radius AEC	DSP with 8 dedicated AEC channels, 4 Line inputs, 8 outputs and expansion card slot.
1	2 Line Analog Telephone Interface Card	2 POTS lines with RJ11 connectors - fits into Radius AEC card slot.
3	ARC-K1e	Wall panel with 2 volume controls in the space of one.
1	ARC-EX4e	4 push-button wall panel combined with the ARC-K1e to create a Modular ARC.
1	Composer	Windows software - design & configure all items.
1	SymVue	Windows runtime control interface software - generated from Composer.

## Solution Overview

Requirement	Notes
Echo-free conferencing between all areas	The Radius AEC has dedicated DSP processing reserved exclusively for echo cancellation.
Ten Dante-enabled mics for full coverage in the Courtroom	Audio-Technica ATND8677 Dante-enabled mic base stations are natively supported in Composer, allowing for seamless integration.
The ability to switch between “Sidebar On” and “Sidebar Off” presets	Two presets were created in Composer to toggle between muting all room mics/routing pink noise into system and normal operation. Easily triggered by an ARC-EX4e at the bench and the SymVue panel at the clerk’s desk.
Uncomplicated controls at the bench	An ARC-K1e + ARC-EX4e combination provides easy-to-understand control over necessary functions from the bench.
5 channels are routed to a recording device for archival purposes (including dedicated Sidebar mic)	Routing/processing is accomplished via Composer’s myriad DSP modules. A Gain-sharing Automixer ensures all sources are automatically captured at adequate levels. EQ and additional dynamics processing are in-line and set by the integrator.
Secured control of the entire system from the clerk’s station	A password-protected SymVue control screen generated within Composer provides full system control.
Volume controls for both defense and prosecution areas	An ARC-K1e at each table for zone volume with clear LED level indication.
Automatic level adjustment of presentation sources	Automatic Gain Controller DSP modules for both podium AUX inputs help to regulate a variety of presentation input levels.

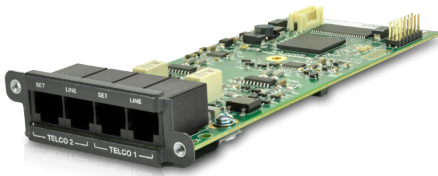


## Digital Signal Processor - Radius AEC



- Dedicated AEC processing, with 8 AEC inputs, 3 aux inputs and 8 outputs.
- Universal DSP building block with a 64x64 channel Dante network audio port.
- Configurable input/output option card slot reduces total system cost.
- Add an Analog Telephone Interface card, or a VoIP card, for an all-in-one conferencing solution.
- Industry-leading audio performance specifications.

## POTS Lines to DSP - 2 Line Analog Telephone Interface Card



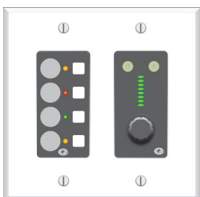
- 2 PSTN (POTS) lines – Telco Connections via RJ11.
- Fits into Edge and Radius card slots for a multitude of applications – e.g. teleconferencing, paging, remote monitoring and broadcast.
- Deskset functionality - Answer, dial, redial, speed-dial, ignore (DND), decode (DTMF), ID callers, detect progress, monitor line status and faults, plus more.

## Wall Mounted Volume Control - ARC-K1e



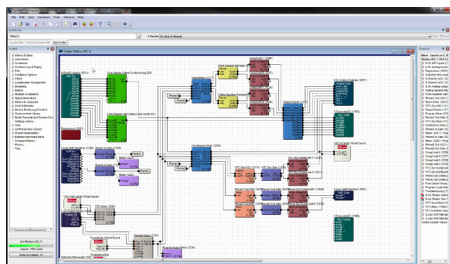
- Single volume knob with two encoders. Can be used to control one or two volume faders.
- An 8-segment LED ladders shows the volume level.
- Power and signal arrive and depart via CAT-5/6.
- Supports “idle” mode for light-sensitive environments.

## Push-button Wall Panel Controller - Modular ARC (ARC-K1e + ARC-EX4e)

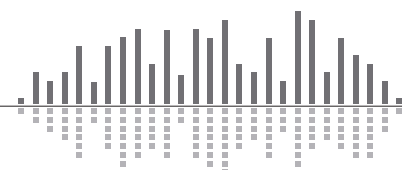


- Single volume knob with two encoders.
- An 8-segment LED ladder shows the volume level.
- Power and signal arrive and depart via CAT-5/6.
- Supports “idle” mode for light-sensitive environments.
- Modular user wall panel with four push-buttons that are programmable as momentary, latched or radio.
- Well-suited for control of mute, source selection and presets.
- Tri-color LEDs provide user feedback. LEDs and buttons may be linked or programmed independently.

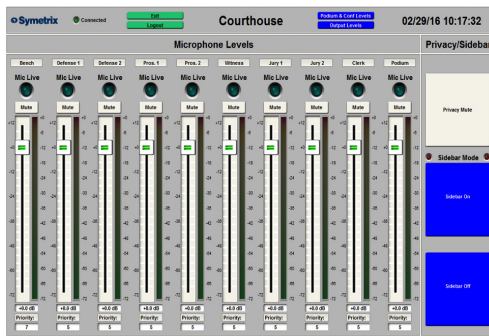
## Windows Design Program - Composer



- Composer is an award winning CAD program used to create site file designs perfectly suited to each and every application.
- Management of all aspects of audio routing, processing, mixing, user control and security for Edge, Radius and Prism series DSP's and accessories.
- Native configuration and control of select Dante third-party endpoints.
- Over 600 DSP modules and dozens of control and logic modules.

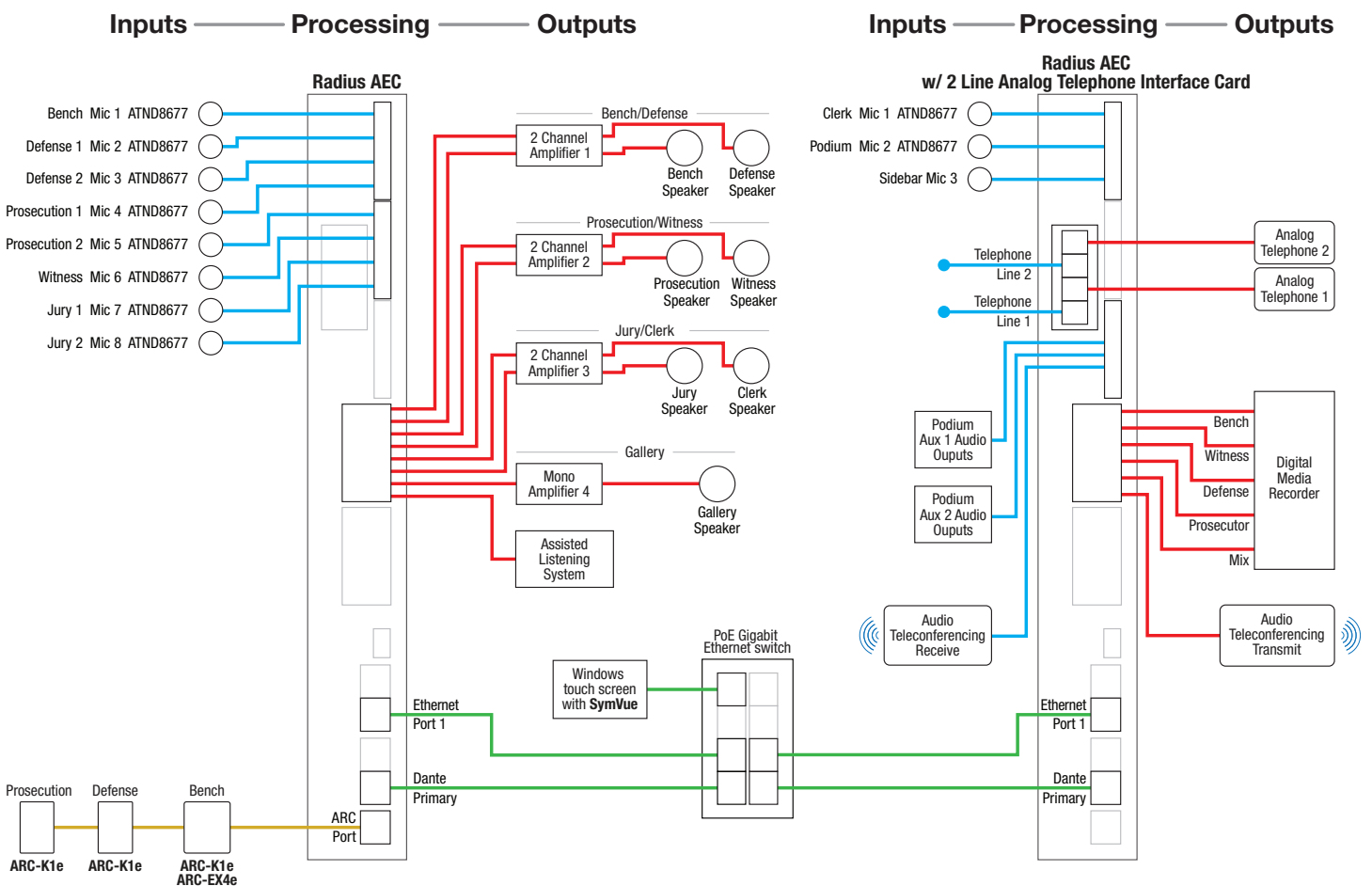


## Windows Control Program - SymVue



- Easily generated using Composer, a SymVue control screen is used to control all audio levels, engage privacy mutes and trigger presets – all from the clerk’s desk.
- An LED for each microphone channel shows if the mic’s push-to-talk button is engaged and the mic is live.
- When Sidebar Mode is engaged, LEDs light up to remind the clerk to toggle the Sidebar Off preset if the bench forgets post-conference.
- Real-time meters are used as a visual indication of level for each fader.
- A SymVue Logout button and Exit button is integrated into this control screen. A SymVue Online LED indicates live connection to the system.

## System Hookup Diagram



## Downloads and Links

- [Courtroom - Composer Site File](#)
- [Courtroom - SymVue Windows File](#)
- [Courtroom - System Hookup Diagram](#)
- [Questions? / Comments? - Symetrix Tech Support](#)

