

## J.E. Broyhill Civic Center

Design Concept by Myron Surber of ONAVS

Installed by Imagine Design & Production Services Inc.



The J.E. Broyhill Civic Center features a 1,000-seat theater/auditorium and large conference facility which together host over 600 showcase, community and corporate events each year. Auditorium events include numerous musical, dance and theatrical performances. Broyhill Civic Center director Jeff Bentley worked with Myron Surber of ONAVS who designed an updated sound system to support the auditorium's diverse programming based upon a loudspeaker that provides performance and technology unlike other compact line array products: Fulcrum's FL283 Dual 8-inch Subcardioid Line Array Module.

### Challenges

- Rear low frequency (LF) rejection was crucial to keep sound from radiating off of the proscenium and from bleeding onto the stage
- High-output yet compact speakers were needed to provide requisite SPLs and LF output without interfering with the auditorium's sightlines or aesthetics

### Solution

Broyhill Civic Center director Jeff Bentley employed a simple yet flexible sound system comprised of two flown Fulcrum FL283 eight-module arrays, supported by stacked RCF subwoofers and driven by a Powersoft X8 amplifier platform. "The auditorium presented mounting position challenges which could only be solved by speakers with significant LF rejection," Bentley explains. "Fulcrum's unique passive cardioid approach was a huge selling point as it delivers the cardioid effect we need in half the footprint of an active cardioid array. The flown arrays also cleared sightlines formerly blocked by our ground stack PA."

Fulcrum FL283's full-range passive operation at 16 ohms allows up to 8 speakers to be driven from a single power amplifier and its solid LF performance down to 54 Hz minimizes the need for subwoofers. Bentley claims, "The FL283's single amp channel operation saved us money and simplified processing, and its surprising low end output supports three quarters of our events without using subwoofers." He enthuses, "The FL283 line arrays deliver seamless, full-range coverage throughout the auditorium with all the sound reinforcement and vocal intelligibility our diverse programming requires. We couldn't be happier with our new sound system."

### Project Details

#### Location

Lenoir, North Carolina

#### Product Category

Performing Arts Center

#### Project Type

1,000-seat theater/auditorium

#### Fulcrum Products

(16) FL283 Dual 8 inch Subcardioid Line Array Modules

#### Supporting Products

RCF SUB 8006-AS and RCF TTS56-A Subwoofers

Powersoft X8 Power Amplifier

DiGiCo SD9 Mixing Console

