

CUSTOM AUDIO SOLUTION FOR A REVERBERANT WORSHIP SPACE



PROJECT OVERVIEW

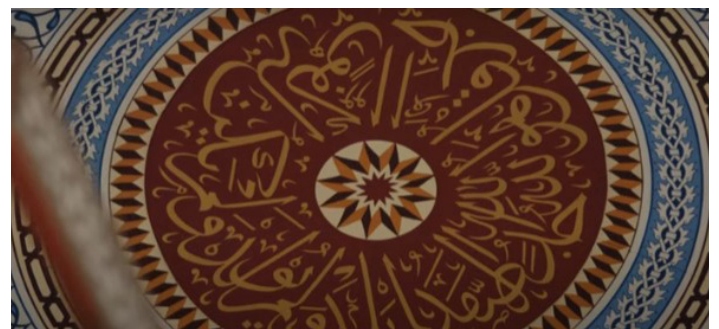
Amber Technology was engaged to design and supply a tailored audio solution for a newly constructed house of worship. The brief called for a system capable of delivering clear and consistent audio across a large, acoustically reflective space both indoors and outdoors—while supporting multiple zones, wireless microphones, and paging for calls to prayer.

PROJECT REQUIREMENTS

The building's impressive architectural design featured high ceilings, large open areas, and hard surfaces, all of which contributed to a highly reverberant acoustic environment. This required a carefully considered approach to minimise audio spill and preserve clarity. The system also needed to support multiple zones with independent control, as well as outdoor coverage.

TECHNICAL REQUIREMENTS

To meet these challenges, Amber Technology specified a range of high-performance components that could address speech intelligibility, audio consistency, and precise control. Renkus-Heinz beam-steering column speakers were selected to direct sound only where needed, minimising reflections. Time alignment was implemented between zones—including a balcony area to ensure audio remained synchronised throughout the venue.



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PRODUCTS SUPPLIED

Australian Monitor

- IMGC450 – 450mm Gooseneck Cardioid Microphone
- ES250P – 250W Power Amplifier
- MP30 – 30W Music Horn, IP65
- QFC6CS – 6" Ceiling Speaker, 20W, 100V
- SH30 – 30W Horn Speaker, 100V & 8 Ohm
- ZONEMIX8 – 8-Zone Audio Controller
- WP-BREAKOUT – Wall Panel Accessory Box
- WPBT-W – Bluetooth Wall Panel (White)
- WP10-W – 10-Button Wall Control Panel (White)
- FLEX15W – 15W IP65 Wall Mount Speaker (White)
- VC25 – 25W 100V Attenuator with Relay

JTS

- JP-8012DBKITBBB4 – Wireless Mic System (RU-8012DB with Beltpack Transmitters and Lavalier Mics)
- JP-UDA49AP – Wideband Directional Antenna with Selectable Gain

SONANCE

- PS-P63T – 6.5" Pendant Speakers (White), Professional Series

LEA Professional

- CS354 – Connect Series 4-Channel Amplifier, 350W per channel (70V/100V/Low-Z)

Renkus-Heinz

- UBX16-W – 16 x 3" Passive Column Speaker, IP64 Rated (White)

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INSTALLATION HIGHLIGHTS

Amber Technology's Technical Sales and Support team played a crucial role in overcoming the complex acoustic challenges presented by the space. With its tall ceilings, reflective surfaces, and open layout, the venue required detailed acoustic modelling to ensure precise sound placement and even coverage. Leveraging beam-steering technology within the Renkus-Heinz column speakers, the team was able to direct audio exactly where it was needed, significantly reducing reverberation and unwanted spill. Time delay adjustments were applied across different zones, including between the main floor and balcony, to deliver a synchronised and natural listening experience throughout. Outdoors, robust Australian Monitor horn speakers were installed to extend audio coverage beyond the building, ensuring clear and consistent communication for external gatherings and announcements.

OUTCOME

The final system delivered excellent clarity across all zones—both inside and out. Voice and music playback was clear, evenly distributed, and well controlled despite the acoustically difficult environment. The client was extremely satisfied with the result, citing the quality of sound and reliability of the system as key successes.

This project demonstrates Amber Technology's capability in designing audio solutions for large, complex worship environments where precision and clarity are paramount.

Installation completed by:
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