

Gothic Grandeur Custom Sound



Constructed during 1883-1888, the Catholic Cathedral of the Immaculate Conception is an imposing Gothic style building in cruciform shape with a tower at the intersection of nave and transepts. It is the symbol of Christianity in Hong Kong and a symbol of religious freedom. While its stone columns, stained glass, large marble surfaces and elegant wood paneling create a suitable setting for church

services, they also produce a highly reverberant acoustic environment.



The challenge was to create a system that would increase speech intelligibility, and provide even sound distribution in all public areas of the building while meeting the needs of functions ranging from smaller weekday masses and large choir masses to TV broadcasts for large events such as Christmas services. The system also had to be easy to use and maintain, and blend seamlessly with the interior of the historic building.

To design a solution, we used our exclusive Modeler® software design and Auditorer® demonstrator technology tools. The main nave and back nave are fitted with six line arrays constructed with FreeSpace® 32 SE speakers mounted on columns around the main and back altars. In the balcony area, which houses the pipe organ and choir platform,

we used 302A speakers. The side areas are fitted with Acoustimass® 5 double-cube speakers and FreeSpace 32 SE speakers. FreeSpace 6 speakers are used as monitors for priests and Panaray 402® Series II and 802® Series II environmental speakers are used in outdoor areas.

Given the function of the cathedral, a good sound system is important. "We have a heavy responsibility to ensure each and every one of the over 1,000 faithful can listen clearly to the word of God, so audio is very important," said Reverend Dominic Chan, the client and final decision maker. "We did not see any other parties as scientific and convincing as Bose."

"Using small FreeSpace Model 32 SE speakers to construct much larger line array is not a 'conventional approach' to many," said Peter Tsui, Bose Greater China. "The success of this project illustrates that Bose not only sells boxes of equipment, we custom designed, high-quality sound solutions for our clients, even under the most extreme acoustic challenges." Renovation of the 1,100-seat church has won the 2003 United Nation's UNESCO Cultural Heritage Conservation -Honourable Mention Award.



THE VENUE:

An historic Gothic church at the center of Hong Kong religious life needs even coverage, good speech intelligibility and the sound solutions must be used by many different people for many different purposes.

THE CHALLENGE:

Highly reverberant acoustic characteristics in church that is used for a multitude of services and events. Improve speech intelligibility while not interfering with the sight lines or the overall elegance of the church.

THE SOLUTION:

Custom line arrays reduce harmful reflections and blend with historic architecture. FreeSpace speakers meet needs inside, Panaray speakers provide high quality sound outdoors.

THE RESULT:

Improved speech intelligibility, even coverage and a sound system that integrates with the visual beauty of the building.

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