

Installation ensures clarity for worshippers in church and listening live.



Apgujung Kwanglim Church, Seoul, South Korea

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Setting the scene

The Apgujung Kwanglim Church in Gangnam, Seoul was originally designed to accommodate the sounds of the church’s large pipe organ. With marble pillars left and right of the stage, enormous floor to ceiling stained glass windows, polished wood walls and an extensive balcony that protrudes long and low over the floor seating, it presents a challenging acoustic space. “Our church has historically suffered from awful sound,” admitted church elder and Chairman of the Broadcasting Department, Jung Hawon. “Low intelligibility and very reverberant.” While the organ still dominates the stage today the needs of the church and its worshippers has changed significantly in recent years. “Of course, times have moved on,” explained Hawon, “and we now offer different styles of worship to suit all generations. Our Sunday services are broadcast to other countries, such as Japan and France, so it is not just the 3,800 worshippers in the hall who hear us.”

Establishing objectives

From the outset Hawon’s criteria was clear. “Cost always has to be one of the decisive factors when contemplating a sound system installation. The opportunity to use d&b’s new specialized installation amplifiers, the 10D and 30D, meant that the savings, when compared to other quotations, were more than persuasive.”

Kevin Kim at d&b Korea: “I explained how the new amplifiers can deliver ArrayProcessing to installed line array systems. This function maximizes the performance of a line array and delivers a consistent optimum performance to each and every listener from both newly installed and existing d&b systems. So in addition to the cost saving, the church would still have access to the features available on the D20 and D80 amplifiers.

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Jung Hawon, Chairman of the Broadcasting Department, Kwanglim Church.

"Between them, 10D and 30D cover almost all permanent applications and with comprehensive DSP capabilities they can accept new d&b firmware updates, making them future proof investments."

Hawon: "Before making the final decision, I researched and visited some of the churches and arts centres where d&b systems have been installed. Without exception, they were all very satisfied with the quality of sound, after sales service and supportive attitude of d&b Korea. I felt very confident that we were making the right decision from a quality point of view and extremely fortunate that we were able to acquire the same quality as these other venues but at a lower cost due to the new installation amplifiers."

That said Hawon was more than thorough when determining which system met his congregation's approval; from the 80,000



global worshippers a group were asked to assess the three systems vying for the contract. A V-Series system, comprising the installation specific Vi loudspeakers, together with J-SUBs and E8s won the day, all powered by the 30D and 10D amplifiers.

The solution

d&b Regional Education and Application Support Manager, Gert Sanner was onsite to help set up ArrayProcessing on the 30D. "The array still had to be flown correctly with the proper angles set, but once it was in the air, I could program multiple ArrayProcessing slots for different performance styles.

"ArrayProcessing allows you to keep up to ten slots with different characteristics, so I could either go in Power mode, which maximizes the system headroom, or Glory mode,

which applies the most accurate target level distribution and frequency response, or somewhere in between.

For Hawon, the installed line array system surpassed expectations. "I was fortunate to hear before and after applying ArrayProcessing. Even though I don't consider myself an expert, I could clearly hear the difference. To me, this means the worshipping experience can be identical for everyone, regardless of seating location."

"I have to say the result sounded pretty special," confirmed Sanner. "The balcony that used to be a little loud at the front now featured a very even coverage and we achieved tonal balance in the whole auditorium. ArrayProcessing had clearly worked its magic."

> System: Vi8, Vi12, Vi-SUB, E8, J-SUB and 10D, 30D