



Case Study



La Sagrada Familia, Barcelona

Visiting Barcelona this summer? Then find out how Kenwood's NEXEDGE® digital system is being used at the La Sagrada Familia, Barcelona.



Covering an area of 4,500 square metres and with a capacity of 9,000, La Sagrada Familia (The Basilica of the Sacred Family) Barcelona is a UNESCO World Heritage Site which plays host to around 3.5 million visitors each year, making it one of most visited attractions in Spain

The expiatory church of La Sagrada Família is truly a work on a grand scale which began on 19 March 1882 as a project by the diocesan architect Francisco de Paula del Villar (1828-1901). At the end of 1883 Antoni Gaudí was commissioned to carry on the works, a task which he remained engaged with until his death in 1926. Since then different architects have continued with the work, remaining true to his original idea.

The building is situated in the centre of Barcelona, and over the years it has become one of the most universally recognised symbols of the city and indeed the country. It is visited by millions of people every year and many more have immersed themselves in the study of its architectural and religious content. La Sagrada Família has always been an expiatory church, which means that since the outset, over 130 years ago. It has been funded by donations. Gaudí himself said: "The expiatory church of La Sagrada Família is made by the people and is mirrored in them. It is a work that is in the hands of God and the will of the people." Construction is still ongoing and it is estimated that the building could be finished sometime in the first third of the 21st century.

The original two-way radio communications system employed at the Basilica comprised Kenwood ProTalk, license-free PMR446 analogue radios which while economical and fast to deploy, was outgrown as visitor numbers rose and a requirement for extended site coverage, increased security and public safety and ability to accommodate larger numbers of user groups emerged.

Expocom SA were briefed to design a new system that could meet the current and future site communications needs at La Sagrada Familia and working with JVCKENWOOD Ibérica, created a system based on Kenwood's award winning **NEXEDGE®** digital technology.

The new NEXEDGE® digital system is designed to provide full coverage of the site, from the highest point in the construction of the remaining towers to the depths of the crypt and everything in between including offices, museum and public spaces.

It is configured as a 4-channel trunked repeater network with a fixed base radio serving thirteen user groups linked via Kenwood's KAS-10 system management software to a command centre run by the Basilica's security team.

Following extensive testing, it was found that two antennas, one for reception and the other for transmission located within the building would give full coverage to all areas and over a period of time the system was installed and rolled-out by the Expocom team across the user groups including management, security, facilities management, information center, guides and hosts and the large construction team.

The 4-channel trunked repeater system serves over 140 NEXEDGE® hand-portable radios, 20 are NX-320E models with full keypad and display to send and receive text messages, alerts and alarms while the remaining 120 NX-320E2 radios feature displays and simplified keypads.







Future Proof Technology

With construction scheduled to continue for at least another 15 years, Expocom ensured the new system was designed both with redundancy to cope with peaks in traffic during major events or an incident and to be fully scalable to facilitate the expansion of channels, users and groups into the future.

Safety and security with increased coverage

While not the largest of NEXEDGE® systems, La Sagrada Familia is certainly one of the most important and prestigious and it was a privilege to have worked with the team at the Basilica and Expocom S.A. to deliver enhanced safety and security with increased coverage for the benefits of the millions of visitors each year.



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