

Case Study

CS 002E

Sony Selects Belden® to Meet SKY Italia's HD Needs



More than 1.2 million meters of Belden high performance cables were used for the new headquarters SKY Italia during the world's largest new installation in broadcasting, where the key focus is on High Definition (HD).

SKY Italia is a fast growing broadcaster with a leading market position. The company, which is owned by News Corporation, provides a wide range of programs, with a strong emphasis on sports broadcasting. The total SKY digital platform includes more than 185 television, audio, interactive and pay-per-view channels. More than 4.8 million SKY subscribers enjoy an unprecedented choice of national and international programs including movies, sports, news, entertainment, and music. SKY Italia's digital service provides viewers with high quality pictures and sound through satellite, IPTV and mobile TV – with a growing emphasis on High Definition (HD) television.

Operating previously from three major facilities in Milan, Italy, Sky Italia wanted to centralize all its activities in one single location to support and reinforce its strong growth. To do so effectively, a greenfield site was selected in Milano Santa Giulia, Italy, to build their new, prestigious building. Designed in a U-shape, the new headquarters houses the company's extensive studio complex, transmission facilities and administrative offices.

In addition to ensuring that the new facility meets today's specifications for HD programming, the entire installation needed to be future proofed, as the industry's output improves and/or customer requirements and expectations rise. A key technical challenge was that throughout all relocation and installation processes, Sky programming would need to continue as normal, without any interruptions to services.

Meeting HD Requirements

Sky Italia selected Sony to manage the installation throughout the entire complex. As one of the world's leading installation companies, Sony has an impressive track record both in terms of quality and scheduling. Sony's proven ability to run a project of this size was key to the decision.

Sky Italia's disposition was to move to HDTV 1080i. In the future, Sky expects to operate more HD channels – and therefore Sony was asked to ensure that all new cable systems could meet their more extensive demands for the future.

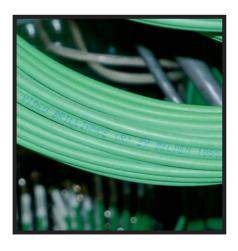


Belden® HD Solutions

Sony had teamed up with Belden for the first time in 2006 for the Winter Olympics in Turin and this event was a key reference where Belden proved that it was very well equipped to deliver the quality required and be trusted to meet all the tight schedules. After having assessed the various options available for Sky Italia, Sony chose to work with Belden to accommodate all cabling needs of this huge project. This choice was made for a number of reasons, with quality and reliability being the leading factors. Tests carried out on cables – especially on HD coaxial cables – delivered excellent results.

Sony was looking to work directly with a wire & cable manufacturer for an optimized relationship on technical, operational and commercial levels, to offer them access to an extended portfolio and provide them with the most cost effective and the highest quality solutions. Belden's ability to offer constant support through samples and tests was seen as a significant benefit in providing Sony with technical and commercial support at high levels.

In addition to its excellent service track record, Belden was also able to offer an extended product portfolio, including broadcast, industrial



and networking cables and end to end structured cabling solutions. Non-halogenated (NH) cable offering for many types was also very important as NH was mandatory for all cable products to be deployed in Sky Italia headquarters.

According to Marco De Maldé from Sony, Belden was able to offer more than just the right materials: "Thanks to their extensive international experience in major events and installations, we found that the Belden team was very well qualified to deliver practical solutions, saving measurable time and money whilst ensuring the highest possible performance."









Coaxial Cables Designed for HD & 3G

Belden® offers more than 3.000 different products for applications in Broadcast and Entertainment, as well as for Computer/Networks, CATV (Broadband), Fiber Optics, Industrial and Security applications.

Belden's HD designed coaxial cables can support high frequencies, are physically robust and require simple connectivity. Considering Sky Italia's HD needs and the large scope of this project, Sony decided to deploy, among other Belden cabling products, the following coaxial cables for excellent picture quality:

- 450,000 m of 1855ENH VideoFlex® Snake Cable with recommended HD distance of 100 m featuring solid copper center conductor for low attenuation and easier termination
- 170,000 m of 1694ANH Brilliance® Banana Peel Precision Video Snake Cables with recommended HD distance of 140m providing excellent digital video performance using multiple coaxes in a single pull
- 87,000 m of 7731ANH coaxial cables with recommended HD distance of 230 m for extended transmission distances

Belden's Marketing Manager for Broadcast Werner Eich says: "As the first cable manufacturer to increase its sweep testing from 3 GHz to 4.5 GHz for all coaxes, we perform 100% sweep testing to 4.5 GHz on every reel of HD cable. We provide certification to assure unequalled levels of cable signal integrity and reliability, with lower Return Loss at higher frequencies."



Marco De Maldé at Sony, concludes that Belden broadcast cables met all the necessary requirements for the Sky Italia installation: "Belden cables are designed for maximum bandwidth, minimum Return Loss and minimum attenuation loss. They deliver top performance, and meet extended international and European standards."

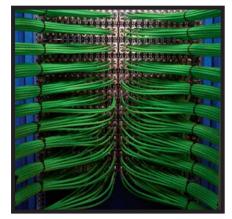




Belden®: Your Link to High Definition

Belden cables are able to meet the very tight specifications for electrical properties and they are also able to withstand the rigors of a typical installation such as pulling, bending, kinking, coiling and crushing. In short, they are ideally suited for digital broadcast, post-production and other critical video applications delivering the best results.

When comparing cables from different manufacturers, it is important to note that the real place to measure performance is after the cable has been installed, not when it is still on a reel, or laid gently on a floor. This is where Belden's cables really shine, because their performance after installation is unequalled. This is due primarily to high-density nitrogen-gas-injected foam dielectric. This resists deformation when bent or crushed, assuring stable impedance and low return loss. Belden Installable Performance™ guarantees maximum performance and reliability – both after the installation and while in use.



Belden for HD Applications

Belden has extensive experience in supplying wire and cable solutions for use in TV/radio, post-production and entertainment industries.

Major installations include:

- BskyB (London, UK)
- Philips Hightech Campus (Eindhoven, Netherlands)
- MTV (Berlin, Germany)
- VIVA (Berlin, Germany)
- TopVision OB van (Germany)
- TV3 Televisió de Catalunya (Barcelona, Spain)
- TV Channel Zvezda (Moscow, Russia)
- Alfacam OB van (Belgium)
- A-Media (Moscow, Russia)
- TV Yugra (Khanty-Mansyisk, Russia)
- Radio Bremen (Germany)
- WDR10 (Germany)

Belden's HD cables are used in many leading sport events.

Key examples include:

- Football FIFA World Cup™, Korea/Japan 2002
- Athletics World Cup, Paris, France 2003
- Football UEFA European Cup, Portugal 2004
- Games, Greece 2004
- Athletics World Cup, Helsinki, Finland 2005
- Games, Torino 2006
- Football FIFA World Cup™, Germany 2006
- Athletics European Cup, Sweden 2006
- Football UEFA European Cup, Austria/Switzerland 2008