

At 8 p.m. of 8<sup>th</sup> August, 2008, when 29 gigantic footprints outlined in fireworks strode from ancient Forbidden City to the “Bird’s Nest” that attracted the attention of the whole world, when prince of gymnastics, Li Ning, as the 2008<sup>th</sup> torch bearer, lit the Olympic Flame after running in lucky clouds in the air, the whole world’s television audience began to experience a feast that had no match in history.

The television relay broadcast of Beijing Olympics set a record in Olympics history, with 4.5 billion people worldwide watched the Games simultaneously. The television stations from over 200 countries and regions offered over 5000 hours’ continuous relay broadcast of Beijing Olympics, tripling that of Athens Olympics. IOC Television Relay Broadcast & Market Service Department director Timmo Lumme frankly commented that Beijing Olympics brought about the greatest miracle in Olympic Games relay broadcast history. There had never been so many viewers watching the Games at the same time. Among them were not only traditional television viewers, but also mobile phone and internet viewers. The emerging media have been employed sufficiently.



The fluent television relay system and multi-purpose signals of the Beijing Olympics satisfied the demands of the whole world. From the perspectives of either service variety or business operation, Beijing Olympics television relay broadcast has set an excellent model for future Olympic Games.

Standardized high definition signal was realized for the first time, which is undoubtedly one of the most splendid attractions of Beijing Olympics. Upon hearing that during Beijing Olympics real standardized high definition signal service would be realized for the first time, Romero could not hide his high praises. “Adopting ‘high definition’ technology in television relay broadcast will bring exquisite images to more audience for them to experience the power, speed and aesthetics of the games at site. This will not only forcefully promote the rapid global development of digital television and ‘high definition’ television technology, but also enable the world to enjoy higher quality spiritual cultural life from Olympics relay broadcast.”

Beijing Olympic Broadcasting Co., Ltd (BOB) was jointly set up by Beijing Organizing Committee of Olympic Games and IOC Olympic Broadcasting Services (OBS), whose mission is serving as the main broadcasting organization to provide Olympic Games radio and television public signal, construct and operate International Broadcast Centre and the broadcasting facilities of other stadiums, as well as to provide other news report-related services for worldwide radio and television media during Beijing Olympic Games and Beijing Paralympic Games.

## International Broadcast Centre (IBC)

International Broadcast Centre, abbreviated as IBC, is a radio and television broadcasting building, whose design, equipment configuration and operation are undertaken by OBO/OBS. Here,



OBO/OBS receives and transmits the international television and radio signal made at various stadiums. All radio and telecommunications equipment, including receiving and transmitting equipment, are concentrated here. IBC was designed as the workplace for rights-holding broadcasters, and it provides radio equipment, builds work sites and provides basic services according to their demands. IBC and the general services inside IBC are provided by Olympic Organizing Committee and OBO/OBS via negotiation in accordance with the agreement terms signed with rights holders. The total building area of IBC is 140,000 square meters, with a usable area of 90,000 square meters, among which 40,000 square meters are rented by broadcasters. It's the biggest international broadcast centre in Olympic history.

## **Building for the first time multi-purpose TV tower**

Besides IBC, the organizing committee also built and operates a multi-purpose TV tower inside the Olympic Common Domain (OCD), which serves as an extension of IBC's broadcasting function, providing for rights holders studios and video camera positions for shooting of the OCD. This is also the first ever in Olympic history.

And IBC includes main hall that is equipped with various services facilities, office area and technology area of BOB, information centre and support centre that provide multiple

support and information services, specialized workshops built to meet broadcasters' demands, and a daily press conference room that can accommodate 300 people.

During the Games, IBC will provide all weather, around the clock services in facility, information and other related fields for over 16000 radio and television workers from nearly 120 radio and television organizations worldwide, including BOB's 4000 personnel and 12000 rights holders.

### **Providing high definition television signal entirely for the first time**

For the first time, this Olympics in Beijing provides high definition television signal entirely, adopts entirely high definition, 5.1 track surround stereo for global television broadcast. During the Games, BOB provides for rights holders 5400-hour live signal, which greatly exceeds the 3400-hour live signal of



Athens Games, and the total television audience amounts to 0.5 billion. Meanwhile, this Games also for the first time provides live broadcast via emerging platforms such as internet and mobile phone.

### **Belden cable ensures error-free transmission of radio and television signals**

Belden radio cables are installed at but not limited to the following stadiums:

- Beijing National Stadium (Bird's Nest)
- The National Indoor Stadium
- Beijing National Aquatic Centre (Water Cube)
- Beijing Shooting Range Hall
- Beijing Olympic Green Tennis Centre
- Olympic Sports Centre Gymnasium
- Beijing Indoor Arena
- Capital Indoor Stadium
- Qingdao International Sailing Centre
- Hong Kong Equestrian Venues (Beas River and Shatin)
- Shanghai Stadium
- Tianjin Olympic Centre Stadium
- Shenyang Olympic Sports Centre Stadium
- Qinhuangdao Olympic Sports Centre Stadium



In total, 44 stadiums and gymnasiums, IBC, CCTV Olympic Studio, and right holders installed and used Belden's high definition coaxial cable, audio cable, optical fiber/copper

composite camera cable, tri-coaxial cable, mobile microwave communication cable, sound amplification cable, optical fiber cable etc., and the total length of which exceeds 2200 kilometers. IBC also used Belden's patented bonded-pair technology Category 6 cable 1872A, providing Belden's exclusive installable performance, providing for rights holders high quality network services.

The following Belden cable products have been installed and used:

- HDTV RG cables:
  - Mini RG59: 1855ENH, 36km
  - RG6: 1694A(YR52540), 378km
  - RG11: 7731A (YR52541) , 240km
- Camera Cables:
  - SMPTE311: 7804R(YR52473), 277km
  - Triax Φ11: 7784AF,119km
  - Triax Φ14: 7785A, 58km
- Multi-pair and single pair Audio cables: 337km, including 1800B, 8761, 9451(YM52475), 8450, 8723, BE46349, BE46315, 1227A1, YE00728, etc.
- Fiber cables: 65km, including 6 cores,12 cores, 24 cores fiber cable
  - Networking Category Cables: total 466km, including 1583A (UTP, Cat.5e), 1624R (FTP Cat.5), and 1872A (UTP Cat6 with bonded-pair)
- Other cables: total 139km
  - CATV Coax: H126D02 (RG6)
  - Telecom cables: 9309 (YM52474), 1232A1 (25 paires UTP)



More than 2200km length of Belden cables was installed in the venues, IBC, etc. Belden HDTV coax cables with Gas-injected Foam HDPE insulation provide very strong pulling tension and crash resistant and keep the excellent performance even in critical installation conditions which name Installable Performance™, that's what the user 's real request.

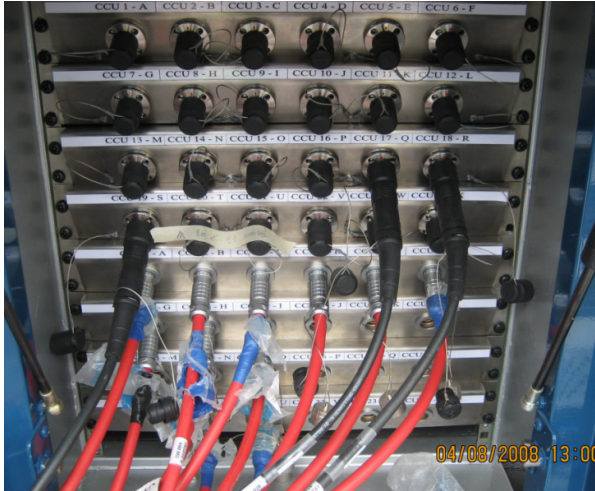
High definition television signal was provide during Beijing Olympics Games with the format of 1080/50i. The longest run for Belden 7731A (HDTV coax, RG11 type) was up to 200 meters, exceeded 168 meters what was the suggestion of SMPTE292.

**BOB's engineer responsible for IBC support comments on Belden cables in this way:  
When a giant system is running, it's fairly common that the most secure and reliable**



products are those that are generally neglected. Belden products are such items.

Beijing Olympics and Paralympics have satisfactorily concluded. BOB's CEO, Romero sings high praises for the normal operation of television broadcasting during the games,



and also recognizes CCTV's signal support. The enormous glamour of sports conquered billions of people globally, bringing unmatched success to Beijing Olympics. Today's Olympics is no longer simply a sports event. Its influence has surpassed the sports community and national borders and become a feast that attracts the whole mankind...

For details about Belden cable's application in Beijing Olympics, please consult:  
8610- 65918801

