The vision of the future is fast becoming a reality for millions as the broadcast industry adapts to Ultra HD (UHD), the new benchmark in commercial broadcasting. 4k and 8k UHD bring higher resolution, progressive scanning, higher frame rates, a broader range of colours, higher Dynamic Range, and immersive audio. Creating a stunning immersive experience, it is surpassing consumer expectations today and will continue to do so for decades to come.

Satellites are a natural platform for broadcasting UHD content. Their bandwidth availability enables several 4k UHD channels to be broadcast per transponder. They are also ideal for 8k UHD requirements. With their wide coverage areas, they are the best solution for viewers to receive UHD in optimum quality, wherever they are located within the satellite coverage.

HEVC encoding for live events enables broadcasters and rights holders to deliver sports and other events at a lower bit rate than in MPEG-4. Several key sport events have been retransmitted live in 4k UHD, via satellite, such as the French Tennis Open and the FIFA World Cup France 2018, with DTT broadcasting via satellite encryption protecting geographical rights.

As 4k UHD takes off, with the number of UHD TV shipments forecast to be almost 120 million units worldwide by end 2019*, broadcasters are looking at UHD to differentiate their offer. Satellite provides the perfect distribution platform to handle bandwidth requirements, delivering consistent quality to a maximum of viewers across wide geographic regions.

**KEY FEATURES**

- Bandwidth availability and wide coverage areas
- Immediate reception of UHD content across the satellite coverage with consistent quality
- Potential market of five million connected cable homes via HOTBIRD
- Global distribution and local delivery of UHD services to TV and multiscreen
- Direct (DTH) and indirect delivery feeding and complementing terrestrial networks
- De-congestion of terrestrial networks from bandwidth heavy content
- Demo channel in HEVC on HOTBIRD for cable, IPTV and pay-TV platforms
- 8k demo channel launched on HOTBIRD in September 2019

* IHS
### 65° West / EUTELSAT 65 West A
- **4.77 GHz** (C-band) Vertical pol
  - DVB-S2 - 8PSK – FEC 5/6 – Pilot: off
  - Symbol rate: 45000

### 5° West / EUTELSAT 5 West A
- **12732 MHz** Vertical Pol.
  - DVB-S2, 8PSK, 2/3
  - Symbol rate: 29950
  - Viaccess encryption

### 7° East / EUTELSAT 7A/7B
- **11513 MHz** Horizontal Pol. (Europe)
  - DVB-S2, QPSK, 5/6
  - Symbol rate: 29900
  - Irdeto encryption

### 13° East / HOTBIRD
- **10727 MHz** Horizontal Pol.
  - DVB-S2, 8PSK, 3/4
  - Symbol rate: 30000
  - Viaccess encryption (NTV Plus)
- **12539 MHz** Horizontal Pol.
  - DVB-S2, 8PSK, 5/6
  - Symbol rate: 30000

### 36° East / EUTELSAT 36B/36C
- **11862 MHz** RHCP
  - DVB-S2, 8PSK, 3/4
  - Symbol rate: 27500
  - Viaccess encryption (NTV Plus)
- **12360 MHz** RHCP
  - DVB-S2, 8PSK, 3/4
  - Symbol rate: 27500
  - DRE Crypt (Tricolor TV)

### 56° East / Express AT1
- **12092 MHz** RHCP
  - DVB-S2, 8PSK, 5/6
  - Symbol rate: 27500
  - Viaccess encryption (NTV Plus)

### 140° East / Express AT2
- **12226 MHz** LHCP
  - DVB-S2, 8PSK, 3/4
  - Symbol rate: 27500
  - Viaccess encryption (NTV Plus)