



An unprecedented viewing experience with cinema-like picture quality.

KEY FEATURES

- Satellites are Ultra HD ready with bandwidth availability and wide coverage areas
- Immediate reception of Ultra HD across the satellite coverage with consistent quality
- Potential market of 5 million cable homes via HOTBIRD
- Global distribution and local delivery of Ultra HD services to TV and multiscreen
- Direct (DTH) and indirect delivery – feeding and complementing terrestrial networks
- De-congestion of terrestrial networks from bandwidth heavy applications
- Demo channel in HEVC on HOTBIRD for cable, IPTV and pay-TV platforms

The vision of the future is fast becoming a reality for millions as the broadcast industry adapts to Ultra HD TV, the new benchmark in commercial broadcasting.

Ultra HD brings higher resolution, with a broader range of colours, progressive scanning, higher frame rates, higher Dynamic Range (HDR) and immersive audio. The combination of these elements creates a stunning, immersive experience that is surpassing consumer expectations today and will continue to do so in decades to come. The take-up of this new broadcasting mode is facilitated with the video compression standard HEVC (High Efficiency Video Coding).

SPI International's FunBox UHD channel was commercialised on HOTBIRD in 2016. The channel addresses cable and IP network operators and DTH communities in the HOTBIRD footprint, with a potential target audience of 5 million cable homes across Europe and MENA. In 2017, three new channels launched on HOTBIRD: FTV UHD, from Fashion TV, C4K360 from Clubbing TV and Travelxp 4K. All these channels have selected HEVC encoding with 10 bits of colour depth, at 50 frames per second. FTV is currently referenced in the Tivùsat platform. Travelxp 4K is the world's first commercial

4K HDR channel broadcasting with wide colour gamut and HLG HDR. HDR offers a greater dynamic range of luminosity, making the pixels on screen even brighter to represent outdoor scenes more accurately and give more detail in the dark. It can be viewed in Europe and MENA exclusively via HOTBIRD.

HEVC encoding for live events enables broadcasters and rights holders to broadcast major sports and other events at a lower bit rate than in MPEG-4. Eutelsat has been demonstrating this at the tennis French Open, where spectacular matches were broadcast via Fransat's Ultra HD Channel, on EUTELSAT 5 West A. During the Euro 2016, Italy's national broadcaster RAI delivered unprecedented live 4K coverage of the football championships, broadcasting several matches in Ultra HD to audiences in Italy via the Tivùsat platform.

Satellites are a natural platform for broadcasting Ultra HD content, with their bandwidth availability and wide coverage areas enabling viewers to receive the same signal quality throughout the coverage area. Satellite capacity is fully Ultra HD ready and requires no modifications to deliver Ultra HD transmissions.

Ultra HD via satellite





Ultra HD channels for audiences in Europe, Russia and CIS, Middle East and North Africa


Europe, North Africa, Middle East


13° East / HOTBIRD

#C4K360 #C4K360 (Clubbing TV 4K) ⁽²⁾
→ 10 727 MHz, Horizontal Pol
→ DVB-S2 8PSK 3/4
→ Symbol rate: 30 000
→ Viaccess 5.0

 **FTV UHD** ⁽²⁾
→ 12 539 MHz, Horizontal Pol
→ DVB-S2 8PSK 5/6
→ Symbol rate: 30 000

 **Travelxp 4K** ⁽²⁾
→ 10 727 MHz, Horizontal Pol
→ DVB-S2 8PSK 3/4
→ Symbol rate: 30 000
→ HDR, HLG
→ Viaccess 5.0

 **FunBox UHD** ⁽²⁾
→ 10 727 MHz, Horizontal Pol
→ DVB-S2 8PSK 3/4
→ Symbol rate: 30 000
→ Viaccess 5.0


 **HOTBIRD 4K1(*)** ⁽¹⁾⁽²⁾
→ 12 539 MHz, Horizontal Pol
→ DVB-S2 8PSK 5/6
→ Symbol rate: 30 000

7° East / EUTELSAT 7A/7B


 **Digiturk 4K**
→ 11456 MHz, Vertical Pol
→ DVB-S2, QPSK 5/6
→ Symbol rate: 22 500


Russia & CIS


36° East / EUTELSAT 36B, 36C


 **Fashion 4k**
→ 11 862 MHz, RHCP
→ DVB-S2 8PSK 3/4
→ Symbol rate: 27 500


Fashion 4k
→ 12 360 MHz, RHCP
→ DVB-S2 8PSK 3/4
→ Symbol rate: 27 500

 **Russkij Extreme**
→ 12 169 MHz, RHCP
→ DVB-S2 8PSK, FEC 3/4
→ Symbol rate: 27 500

 **Home 4K**
→ 11 826 MHz, RHCP
→ DVB-S2 8PSK, FEC 3/4
→ Symbol rate: 27 500


 **Insight UHD**
→ 12 360 MHz, RHCP
→ DVB-S2 8PSK 3/4
→ Symbol rate: 27 500

 **Sovershenno Sekretno TV**
→ 12 169 MHz, RHCP
→ DVB-S2 8PSK, FEC 3/4
→ Symbol rate: 27 500

 **Tricolor Ultra HD**
→ 12 360 MHz, RHCP
→ DVB-S2 8PSK 3/4
→ Symbol rate: 27 500


140° East / EXPRESS AT2

 **Fashion 4K**
→ 12 226 MHz, LHCP
→ DVB-S2 8PSK, FEC 3/4
→ Symbol rate: 27 500

 **Home 4K**
→ 11 826 MHz, RHCP
→ DVB-S2 8PSK, FEC 3/4
→ Symbol rate: 27 500

France

5° West / EUTELSAT 5 West A

 **Fransat UHD** ⁽¹⁾
(with a Fransat CAM and Smartcard)
→ 12 732 MHz, Vertical Pol
→ DVB-S2, 8PSK 3/4
→ Symbol rate: 29 950

(1) Eutelsat demonstration channels (HEVC, 50 fps, 10-bit colour depth - 1 billion colours) can be viewed on new Ultra HD TV sets with embedded DVB-S2 demodulator and HEVC decoder (50 / 60 fps).

(2) To find these channels on your decoder, set the symbol rate to 30 000 and scan manually.