

DVB-T/T2

COMPREHENSIVE BROADCAST DISTRIBUTION SOLUTION



The release of the 700-MHz band will reduce spectrum availability for DVB-T/T2 broadcasters by up to 30%, while competition with distribution platforms such as satellite, cable and telco is only increasing. As broadcasters migrate to HD and seek to deliver an enhanced user experience, they are also under constant pressure to offer more services per multiplex as a means for reducing transmission costs.

A comprehensive DVB-T/T2 distribution solution from Harmonic can help digital terrestrial television (DTT) operators overcome these challenges by combining high compression efficiency with the ability to deliver outstanding video and audio regardless of the format and standard. The Harmonic DVB-T/T2 solution also helps the bottom line by offering statmux generation, regionalization, satellite distribution to towers, and support for Hybrid Broadcast Broadband TV (HbbTV) service delivery.

Monetization

Regionalization – the ability to customize content for national, regional and local markets – is a key differentiator for the DTT platform, allowing broadcasters to deliver local news and programs either 24/7 or on a timeshare basis, and to increase their revenue by offering advertising slots in particular markets. The DTT platform further enables revenue optimization through the delivery of pay-TV services. In this value chain the Harmonic solution offers content protection and access rights distribution to subscribers.

Broadband & Interactive Services

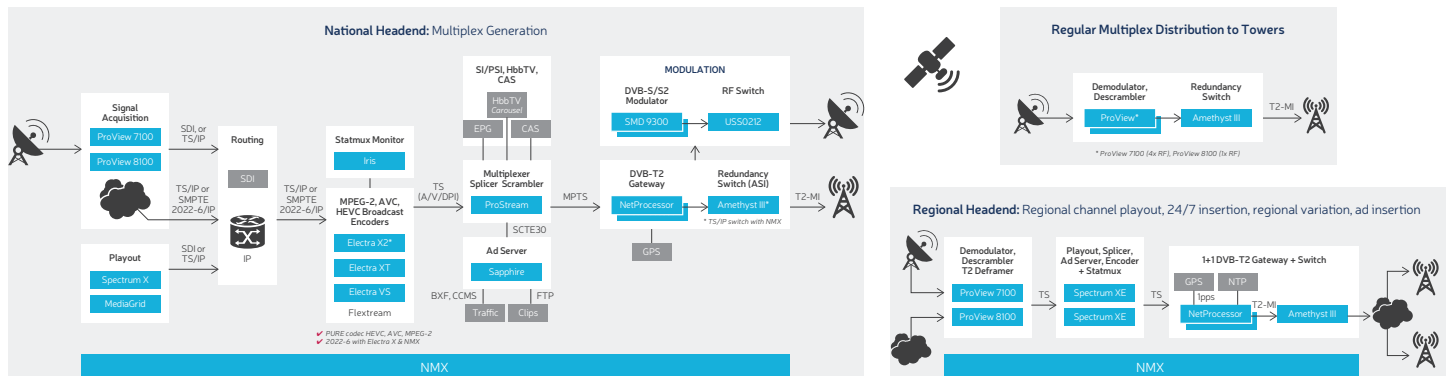
HbbTV is the broadcasters' answer to OTT competition. Live TV streaming, enhanced EPG, start-over TV, catch-up TV, VOD and Push VOD can all be offered via HbbTV v2.0 – a capability addressed by the Harmonic DVB-T/T2 solution.

Complete Coverage

Country regulations often require high-population coverage for DTT operators. The Harmonic DVB-T/T2 solution simplifies the ability to satisfy this requirement by enabling satellite service to viewers in white spaces, provided that a single satellite feed supports both DVB-T/T2 multiplex distribution and DTH satellite reception.

HIGHLIGHTS

- Superior video and audio quality
- Optimized multiplexes to reduce costs
- Support for all formats and standards
- Addresses any business model: free to air, free to view, and pay TV
- Support for all market CAS solutions
- Broadband support via HbbTV v2.0
- Powerful and flexible toolkit for satellite distribution
- Robust system design and high resilience



Harmonic offers a complete DTT solution for DVB-T/T2 broadcasters.

The Harmonic DVB-T/T2 solution is built from the company's industry-leading compression, multiplexing and distribution systems. Future-proof and robust, the solution supports all formats and standards – SD, HD, UHD, MPEG-2, MPEG-4 AVC and HEVC – and addresses fixed and mobile DVB-T2 devices via a powerful integrated processor that enables T2-Base and T2-Lite sharing over the RF channel. Secure operation is assured thanks to the robust design and high resilience of the individual components.

Compression

The Harmonic Electra™ X2 advanced media processor offers premium MPEG-2/AVC/HEVC encoding of SD and HD channels with sophisticated preprocessing and statistical multiplexing that allows a maximum number of channels per multiplex. The Electra VS convergent video platform is the solution for UHD HDR compression. The Electra XT Xtream™ high-density transcoder, with its unrivaled ability to process 180 channels in 2 RU, is the ideal cost-effective solution for turnaround of a vast number of long-tail channels.

Multiplexing

High-efficiency stream processing and multiplexing is a key feature of the Harmonic solution. The ProStream® 9100 high-density stream processor performs advanced multiplexing, scrambling (DVB-CS, AES), data injection (ECM, EMM, HbbTV, etc.) and SI/PSI processing. The NetProcessor™ 9030/40 multiplexer and video processor functions as an SFN adaptor and DVB-T2 Gateway with the ability to deliver multiple T2-MI streams.

Management & Seamless Redundancy

NMX™ Digital Service Manager unifies the Harmonic solution by performing service provisioning and scheduling, as well as redundancy reconfiguration (SDI, full IP architecture, N+M, 1+1). Seamless failover impact is also achievable with the Amethyst™ III smart redundancy switch, which always selects the best stream. Adding Iris® advanced video analytics software provides a complete toolset for monitoring and optimizing video quality in a Harmonic statmux.

Headend Reception & Distribution to Towers

The ProView™ range of integrated receiver-decoders address the vast spectrum of content reception applications and powers the launch of value-added services. The IRDs boast a high-density footprint and the capability to receive channels with high QoS via off-air antennas, satellite, managed IP networks or even over the open internet. By placing ProView IRDs at tower sites, the units can receive a satellite feed and feed the tower to reach white spaces and rural areas.

The Harmonic DVB-T/T2 solution is flexible and scalable, and can be tuned to fit any customer-specific requirement. Possessing the widest DVB-T/T2 experience in the market, with headends installed in more than 60 countries, Harmonic is the ideal company to help you overcome today's complex business challenges while delivering low total cost of ownership.