

# Harris — Your Partner for Complete DVB-T/DVB-T2 Delivery System Deployments

## Full Baseband-to-RF Solution

As global broadcasters seek new opportunities to diversify programming, gain efficiency improvements and generate new revenue streams, the next-generation DVB-T2 digital terrestrial transmission standard — an extension of the DVB-T standard — has gained considerable momentum.

Harris continues to innovate to meet the needs of customers looking to embrace digital terrestrial transmission. The new Harris® Selenio™ media convergence platform combines traditional baseband video/audio processing, video/audio compression and IP networking features — all in a single, space-saving 3RU frame. Its second-to-none flexibility makes it ideal for any DVB-T/DVB-T2 terrestrial head end, as well as cable or satellite networks, fixed or mobile production environments or broadcast facilities.

### Head End/Gateway

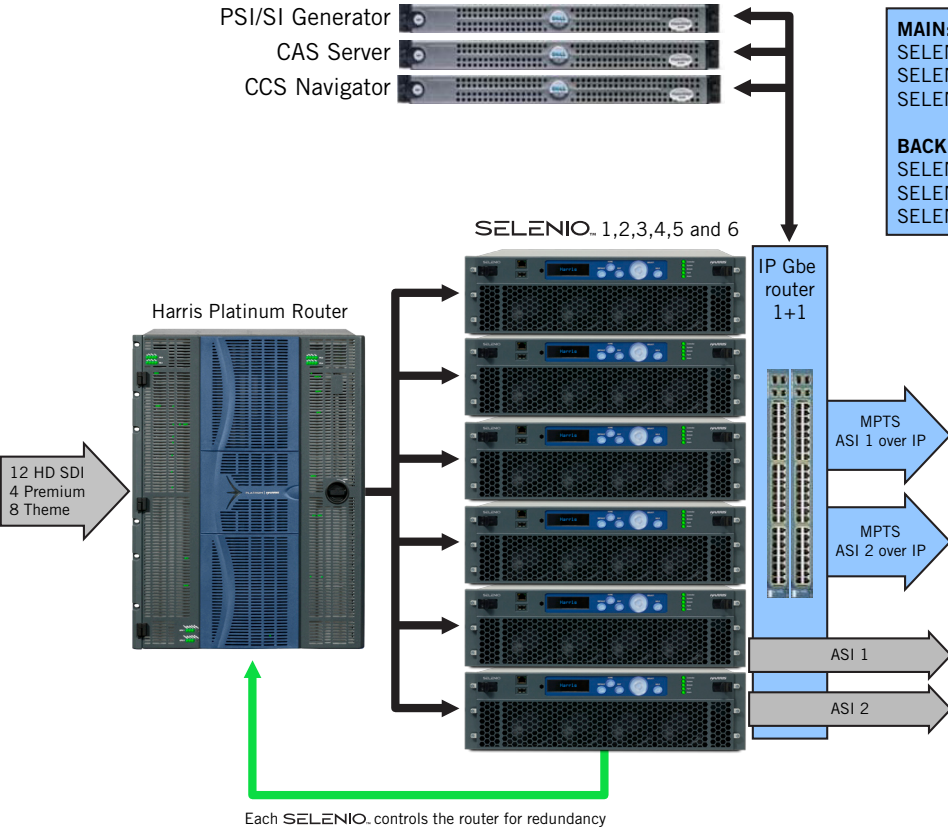
Harris draws a new line with Selenio by offering an integrated video head end and DVB-T2 gateway system that brings these two complex elements together under the same infrastructure — enabling easier control and monitoring and maximum redundancy. No other vendor offers this level of integration for DVB-T or DVB-T2 solutions in the head end environment.

The Selenio platform's unmatched density means fewer rack units and lower initial capital outlay. Less hardware means lower installation costs. Ultra-green technology means lower operating costs. Fewer modules mean lower maintenance costs. Software license upgrades mean lower shipping costs. And lightning-fast troubleshooting via a highly intuitive GUI means elimination of costly downtime.

### Transmitters (with integrated modulator)

Harris Maxiva™ and Platinum™ transmitters are highly integrated and use the latest LDMOS technology for a wide variety of modulation schemes in both VHF and UHF bands. With the built-in Apex M2X™ exciter supporting all global digital terrestrial standards, including DVB-T2, Harris offers the most complete and widely deployable common transmission technology solution. Covering a wide range of power levels and available with liquid or air cooling, Harris transmitters deliver ultra-reliable operation and outstanding operational efficiency.

# All You Need For DVB<sup>®</sup>



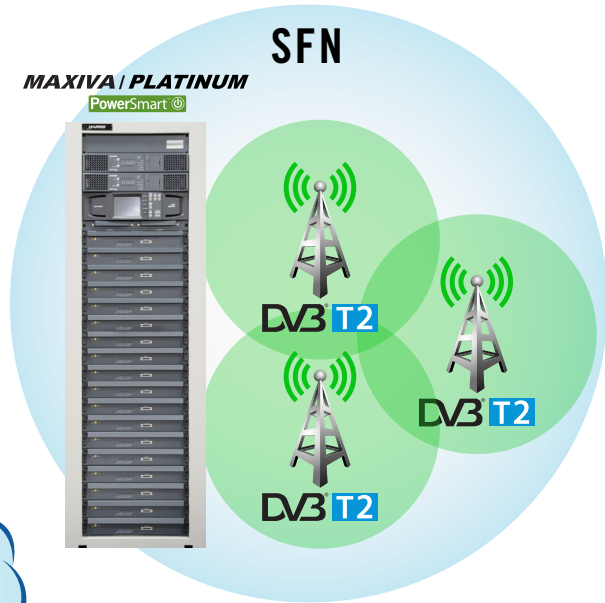
**UPGRADE PATH TO DVB-T2:**  
 Step 1: In Selenio 3 and 6 add 1 DVB-T2 Gateway c  
 Step 2: Upgrade software in Apex M2X exciter of Ma

## A Fully Redundant 12-HD Chann

# T2 From **HARRIS**<sup>®</sup>

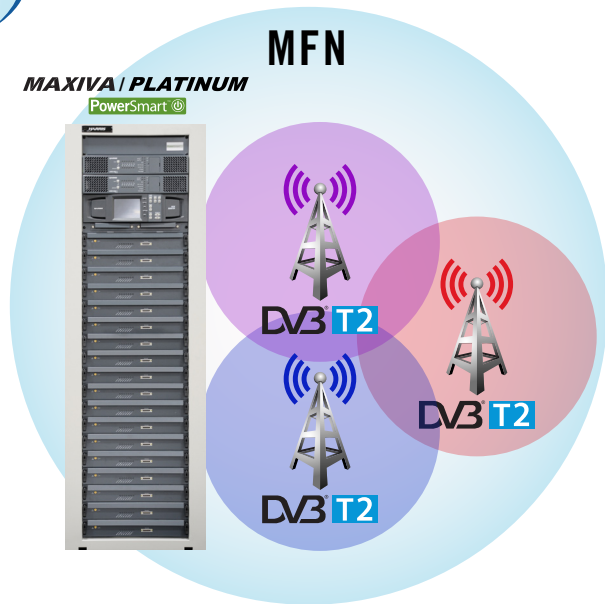
IO 1: 8 SD + 4XD + 1 MUX  
 IO 2: 8 SD + 4XD + 1 MUX  
 IO 3: 8 SD + 4XD

IP:  
 IO 4: 8 HD + 4XD + 1 MUX  
 IO 5: 8 HD + 4XD + 1 MUX  
 IO 6: 8 HD + 4XD



**Distribution Network**  
 (Microwave, Fibre Optics, Satellite)

ard, 2 for redundancy.  
 xiva or Platinum transmitter.



## el DVB-T2 End-to-End Solution

# Benefits

## Exceptionally Low Total Cost of Ownership

### DVB-T2-Upgradeable and Future-Proof Investment

Harris delivery solutions ensure your investment is safe for the future. With a built-in Single Frequency Network (SFN) adaptor in the Selenio multiplexer, your DVB-T head end is already highly integrated. Add to that the Selenio T2 gateway, and your head end future-proofing is secured by merely adding one extra card to an empty Selenio slot. The Apex M2X exciter is software-based and can easily be upgraded to DVB-T2 with only a software change, and at the hardware level, the exciter is already equipped to handle this new, complex and demanding waveform.

### DVB-T2 Reliability and Highest Mean Time Between Intervention

Harris systems are built with reliability and redundancy in mind at all stages. The amplifiers in the Maxiva and Platinum series transmitters are highly reliable and utilize parallel, wideband LDMOS devices and multiple DC power supplies. Coupled with dual exciters and a redundant transmission controller — for liquid- and air-cooled environments — the system is assured to stay on air. Reliability and redundancy are also key for the head end and networking components in any terrestrial transmission network. Selenio brings to both DVB-T and DVB-T2 head ends an unparalleled level of built-in redundancy switching and automatic service protection. The modular, high-density Selenio chassis concept brings the highest mean time between interventions to your network, and thus, offers the lowest operational cost possible.

### High Power Efficiency

High power efficiency is present throughout the Harris DVB-T2 transmission solution. By tightly integrating the head end into a modern, highly flexible modular chassis — right up to and including the T2 gateway — total power consumption is greatly reduced when compared with traditional, discrete modules and their associated management systems. The truly green Selenio solution — low energy usage (80 Plus Gold-certified) — coupled with the Maxiva and Platinum PowerSmart® technology makes the overall Harris solution as green as possible in our carbon footprint-conscious world.

### Overall Ease of Use

The control and management of complex DVB-T or DVB-T2 networks involving head ends, gateways, distribution and transmission equipment should not involve complicated, multiple control systems or hugely expensive network-wide management platforms. Harris simplifies the use of such networks for all elements of the chain by combining system-level control and monitoring into the industry-recognized and widely deployed CCS Navigator™ platform. From the encoders, multiplexers and gateways, to the satellite reception and national terrestrial transmitter networks, CCS Navigator controls and monitors it all.

### Unique Baseband Video-to-RF Transmission Solution

Harris offers a complete end-to-end solution for broadcasters who need a partner in terrestrial transmission. We provide best-in-class services and are able to deliver, integrate and support your mission-critical workflows.

For more information, please visit [www.broadcast.harris.com/selenio](http://www.broadcast.harris.com/selenio).

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