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INTERNATIONAL

The business magazine for broadband, IPTV, cable and satellite

Trends and
Innovations

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Panorama 2020

New Features for Headends

ASTRO Strobel: Future-proof platforms

ASTRO Strobel has come up with innovations for its headends: The professional U-series has been enhanced with new features and the compact headend segment has been expanded with the addition of an even more energy-efficient version.

The future-proof platform of the professional ASTRO U-headend enables customer- and market-oriented additions to the performance features. The streamers as well as the Edge-QAM module U 159-S could come up with further useful features in the latest software release. Thus the possible field of application was extended again.

Streamer with BISS

The streamers now offer the possibility to decrypt BISS encrypted streams. BISS, the so-called "Basic Interoperable Scrambling System" is used to encrypt satellite signals for transmission and was developed at the time by the EBU and a hardware consortium to achieve better interoperability between different manufacturers of encoders and satellite receivers. Until the introduction of BISS it was only possible to use proprietary encryption systems or to transmit unencrypted. Of course with the big disadvantage that then anyone with the correct receiver settings could receive and decode the signal. After activating a license key, the U 148-X can now receive, decode and process these BISS encrypted streams. The

decryption keys are entered globally for the complete transport stream or service-based separately for each program.

EdgeQAM Modul with Simulcrypt

In addition to the well-known features such as modulation of up to 64 QAM channels, multiplexing of SPTS and MPTS to new QAM channels and various redundancy mechanisms, the U 159-S now also offers the possibility of encrypting the generated transport streams. This feature is used by network operators who feed their input data streams separately and these streams are coded with different encryption systems. Since it is not reasonable for the end user to operate many different encryption systems for the TV program, but the rights holders insist on encryption of the content, the content must first be decrypted separately in the head-end station and then centrally encrypted in the QAM modulator before being played out to the end user. The U 159-S offers the possibility of so-called simulcrypt, i.e. the simultaneous encryption of content with different encryption systems.



ASTRO Strobel

Astro are specialists in innovative products for full service networks and digital receiversystems.

Products:

antenna-associated development, design, manufacture, sales and customer services, CATV, satellite receiver and distribution systems.

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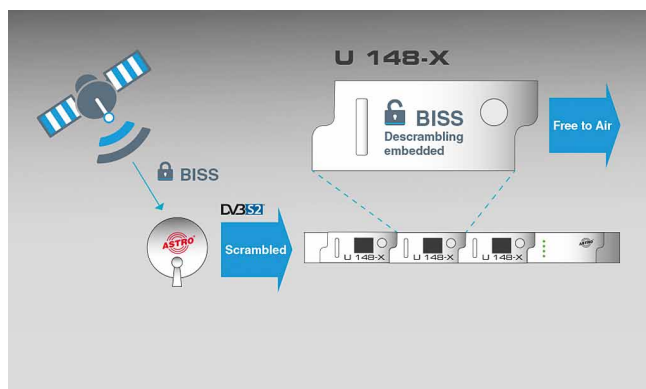
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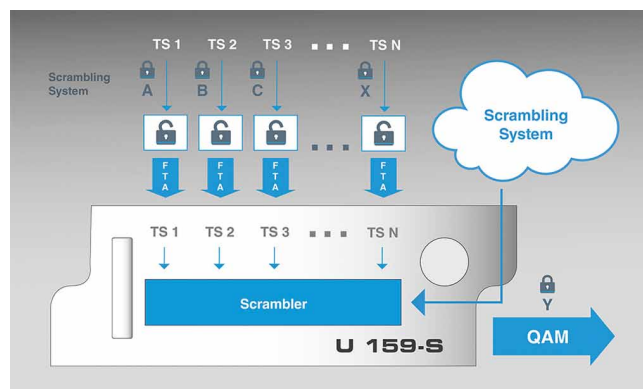
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QAM BOX eco FM with low power consumption

ASTRO has rounded off the compact headend segment with a further version: the QAM BOX eco FM. This QAM BOX version, like the already established models eco 12 and 16, has 4 SAT inputs. In addition, 16 QAM output channels and 16 FM output channels.



The U 148-X streamer can receive, decode and process BISS encrypted streams



The U 159-S offers the possibility of so-called simulcrypt, i.e. the simultaneous encryption of content with different encryption systems

Saving rack space and lowering energy consumption

Latest ASTRO streamers in Network Operation Center at SES

After the successful co-operation between ASTRO and the SES group in 2018/19, the goal of the next project phase was to modernize the SES Network Operation Center (NOC) with the space-saving latest streamer generation U 144-X and U 148-X.

These streamers are embedded in the U 100-230 base units, which are equipped with redundant, energy-saving U 100-SNT ECO power supplies. The streamers can receive up to 12 or 24 transponders in one 19" rack unit, depending on whether the signals shall be descrambled or just forwarded transparently. Those transponders are converted to 12 or 24 IP MPTS, or each service can be transmitted as SPTS simultaneously. For an easy handling of different satellite positions and polarizations, the tuners are able to use the DiSEqC protocol.



The SES NOC

In the SES NOC, broadcast signals are under surveillance at any time. To do this, an exact 1:1 conversion of the received signals is mandatory to enable an exact analysis. And also the flexible configuration and high signal density is decisive. The overall objective of saving resources with modern technology is fully achieved in this mutual project with ASTRO and SES.

In the matter of sustainability, the change to ASTRO streamers led to a tremendous

Before: seven racks filled with IP technology

After: the SES Network Operation Center with only one rack

saving of rack space and energy consumption. After the conversion, there was only one 19" rack with 11 used rack units in operation, compared to seven 19" racks equipped with approximately 150 single IRDs. The modern ASTRO streaming system is used to feed the multiviewer system for the monitoring of video and audio signals in the SES NOC.

SES is the international leading satellite operator with more than 70 satellites in different orbital positions all around the globe and worldwide provider for broadcast transmission and data services. The SES networks as international data service provider delivers modern data management amongst others for telcos, seafaring, aviation, governments and other institutions. ■

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The QAM Box models used so far are convincing in terms of sustainability due to their low power consumption. The ASTRO development team was able to further optimize this - especially nowadays - important feature. All QAM BOX eco models feature an extremely low power consumption of 31 - 35 W. A value that is only half as high as that of common headend models. A smart argument for every user who also wants to live sustainability in the hospitality sector. ■



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QAM BOX eco FM with extremely low power consumption (35 W)