

ASTRO Strobel at IBC 2019

New technology for broadcast, IPTV and optical networks

Satellite transponder monitoring for broadcasters

Especially for the requirements of satellite operators, further outstanding features have been added to ASTRO's U-series platform, which has already been proven for several years. For example, in the U 148 satellite receivers, with which it is possible to receive up to 48 transponders in a single base unit (19 inches, 1 height unit), the so-called blind scan has been integrated. Thanks to this function, satellite transponders are scanned and monitored fully automated with respect to wanted or unwanted content. Any frequency ranges used by pirate stations will be automatically detected and remotely signaled so that broadcasters can take timely and efficient action to protect their satellites.

High Density EdgeQAM

The U 159 module allows the reception of IP multicast groups and the conversion and modulation into 64 QAM channels. It is thus possible to generate up to 192 QAM channels in one 19" rack height unit when using three modules in one U 100 base unit. Reception of streams in SPTS and/or MPTS format is possible as well as the

multiplexing and CSA scrambling of the output streams. The QAM channel frequency allocation is 100 percent freely and independently adjustable. The U 159 offers fully scalable link and source redundancies, separately configurable for each IP receiver. Also service based redundancy configuration is one of the basic functionalities. The signal is supplied via SFPs, so electrical and optical connection to the IP backbone is possible by standard. The digital IP to QAM headend with 64 channels and 1 + 1 modulator hardware redundancy can thus be realized in just one height unit using manual or automatic redundancy switching options.



U 159 module

High-quality IPTV platforms

In the new IPTV era of TV, services provided over a data network are playing an increasingly important role. Thus, television in the hospitality industry is supplemented by special informa-



U 149-X streamer

tion platforms, which continue to offer various television programs in addition to websites, advertisements and presentations. Therefore, a modular design with the greatest possible flexibility and central control is often required.

As the transition to highly professional head-end technology is still limited, ASTRO will present solutions for linear IPTV solutions at the IBC 2019. This works well with Panasonic TVs and also with other manufacturers' IPTV set-top boxes. In a height unit (19 inches), the best IPTV solutions can be configured with a U 149-X streamer. Up to 48 DVB-S2 or DVB-S2X transponders are converted into IP multicast groups in a 19-inch one rack unit. It is possible to stream MPTS (Multiple Program Transport Streams) for cable network applications and Single Program Transport Streams (SPTS) for IPTV networks in parallel with the same hardware. Each module can be complemented with a multiplex function to configure transponders as needed and to save bandwidth.

The transport from SAT to IP for the flexible distribution of DVB-S, DVB-C or DVB-T signals in the network is possible. SAT input signals are transmitted in IP signals. Afterwards another transport via LAN or WLAN can be easily installed. As a result, TV sets with TV IP client function can be centrally controlled and supplied. An optimal solution for medium and large projects in the hospitality industry.

In addition to the multiplex option, the ASTRO IP streamers of the U series also offer the reception of multistream transponders. Depending on the



Professional Head-end System configured by ASTRO

device, the scope of application ranges from DVB-S2 to IP or DVB-T/-T2/-C to IP. The production of SPTS or MPTS with RTP and FEC is just as possible as a 4 in 4 multiplexer. The hardware will be presented live at the IBC 2019. In the future, the systems will also be able to supply OTT and IPTV systems with a license update – for limitless solutions in the area of broadcasting as well.

Optical network technology for extreme outdoor installations

Modern TV services require highest bandwidths. To ensure this or, in special cases, allow greater distances than with a coaxial cable network, ASTRO also offers a fiber-optic network architecture. In addition to optical transmitters, optical amplifiers and optical network terminations, the portfolio also includes a range of directly modulated optical transmitters for the DOCSIS 3.1 standard. These transmitters are optimized for digital television and allow transmission over a fiber length of up to 65 kilometers with excellent performance. With fiber data solutions from ASTRO, isolated locations or widely ramified



© ASTRO Strabel

OHPAo – the new outdoor amplifier from ASTRO – completely accessible from the front

housing structures can be optimally supplied. For very special conditions, ASTRO will showcase its first outdoor solutions at the IBC 2019. With the new optical amplifiers of the OHPAo series (Optical High Power Amplifier Outdoor), ASTRO offers solutions for HFC transmission networks even under extreme climatic conditions. The compact 19-inch dimensions with a depth of 24 cm allow a modular exterior concept with dust filter and low volume, which is fully accessible from the front.

individual setup requirements as well as go-live or maintenance status. In addition to engineering and development, ASTRO provides a service partnership for the entire process, from conceptual system consulting, pre-configuration to on-site and off-site engineering. So that all projects can be completed perfectly at any time. Trust us your project!

Meet ASTRO at IBC Hall 3 – 3.C41.

ASTRO Service Partnership means 100 percent customer care during the whole project

High professional Head-end technology as well as optical networks require special attention regarding planning,



© ASTRO Strabel

ASTRO-Service in Head-end and Optical Network Technology