

Editor AXING AG

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In June 2019, the Swiss manufacturer AXING exhibits its product innovations at the ANGA COM trade fair.

IPQAM and IP to DVB-T2

For more than a decade, the AXING product range has included head-ends (HE). Those convert a vast array of different input signals into a large number of different output signals.

In the past, it was primarily necessary to convert satellite signals into DVB-C/T or IP based signals. Now the opposite direction is gaining in importance. Due to high-speed fibre-optic networks, many network operators now only provide IP-based TV and multimedia signals. Now head-end devices are needed for hotels, hospitals or residential facilities with DVB-C/T/T2 modulation.

MIE 16-/32-00 units are cost-effective, compact and modular IP to DVB-C/T modulators while MIE 4-/8-02 are IP-to-DVB-T2 modulators. The latter are mainly used in South-East Asia.

All devices consist of one or two modules. Each module supports 512 SPTS or 16 MPTS at the input. The software makes it easy to re-multiplex the incoming streams which means that individual program lists can be achieved.

The modules convert the programs into 16 × DVB-C, 12 × DVB-T or 4 × DVB-T2 output channels. This modular layout creates great flexibility: MIE 16-00 has 16 DVB-C or 12 DVB-T output channels. MIE 32-00 has 32 DVB-C or 24 DVB-T output channels. MIE 4-02 has 4 DVB-T2 output channels. MIE 8-02 has 8 DVB-T2 output channels.

These modules are housed in a 19-inch rack-mount with 1RU and have 2 redundant, hotswappable power supplies (100...240 VAC, optional 48 VDC). The modules are configured via a web interface and can be linked into the AXING SMARTPortal. SNMP control is also integrated.

The hybrid solution for IPTV retrofitting

Many people know the benefits from their stays in large, recently built hotels: The TV welcomes each guest personally, the TV menu and programs appear in the guest's native language, and any kind of information and services are interactive. In older buildings without a professional LAN infrastructure, the question comes up how IP signals can reach the subscriber. Especially in buildings such as hospitals, hotels or airports, most of which have coaxial cabling and which are in operation around the clock, a changeover to a new infrastructure entails operational restrictions and losses of revenue for the operator.

For exactly this target group, AXING can now provide the "hybrid solution". Previously, TV was distributed by coaxial cable, and this feature is retained. The existing head-end or a cable TV or SAT connection continues to deliver the full range of TV channels. Communication with the AXING IPTV middleware server is handled by WiFi. This communication only needs a low data rate. Hotel Smart TVs with WiFi or an appropriate set-top box with a standard TV act as terminal devices.







Ethernet over Coax - as simple as a switch!

For several years, AXING has successfully been providing Ethernet over Coax solutions. Experience with the first generation of devices has now been incorporated into a completely revised portfolio of products. The EoC series of devices pursues two types of solution – Peer-to-Peer or Master - Endpoint.

The EoC devices EoC 1-11 and 2-11 use the G.hn standard to build an Ethernet-over-Coax network for a coaxial infrastructure. Up to 16 devices can be connected together with a gross data speed of 720 Mbps. These devices all have equal rights in this peer-to-peer network and can establish connections with one another.

This EoC network acts like a big Ethernet switch. Two Ethernet-capable devices (PCs, notebooks, servers, printers, smart TVs - and the list goes on) can be connected to every EoC device. In addition, the EoC 2-11 has WiFi access.

The peer-to-peer solution is especially well suited to the private sector or to a small company network where every PC needs to be connected to every other device.

The EoC devices EoC 20-01 and 20-02 form a master-endpoint solution. The Internet signals are applied by the EoC 20-01 at a central point to the coaxial network (e.g. in a hotel, a hospital or a retirement home) and are available at every antenna socket through the EoC 20-02 endpoints. Up to 31 endpoints can be connected in a single network with a gross data speed of 720 Mbps. With the EoC solution, every guest or resident has access to his own WiFi. The notebooks, tablets and smartphones of the residents are arranged within a dedicated 'WiFi parcel'.

The highest possible level of security for residents is achieved by signal encryption and network access control

Optical distribution technology

The devices for optical SAT distribution were revised completely in early 2019. All devices now have SC/APC connectors.

The cascadable optical transmitter converts the SAT-IF signals of a satellite position and terrestrial signals into a 1310 nm wavelength signal. The optical signal is available on the SC/APC connector to which the single-mode fibre-optic cable is connected.

With optical splitters, the optical signal can be sent to several optical receivers. The optical receiver converts these optical signals back into an electrical signal with four polarization levels. These are then distributed by multi-switches in the usual manner into the in-house coax distribution

Available devices and accessories: Optical transmitter OTX 51-00, optical receiver ORX 15-00, pre-installed optical cables (1...500 m), optical splitters (2, 3, 4, 8-way), optical attenuators (1, 3, 5, 10, 15, 20 dB), optical connectors.





