SATELLITE 2014 EXHIBITOR PREVIEW

WORK Microwave — Stand 6101

At SATELLITE 2014, WORK Microwave will demonstrate enhancements to its DVB-S2 Broadcast Modulator, Video ACM System, and Fifth-Generation Frequency Converter Series, designed to help operators optimize satellite bandwidth, improve signal quality, and reduce operating expenses.

WORK Microwave platforms span a wide range of applications within the broadcast, satellite, and telco markets, including SNG, digital terrestrial TV, local cable distribution, direct-to-home, IP trunking and backhaul, teleport, remote location, and more.

Key Products and Technology Demos

DVB-S2 Broadcast Modulator

Powered by a combination of video and IP technologies, WORK Microwave’s DVB-S2 Broadcast Modulator provides operators with the ideal solution for IP network links and TV contribution. Through an advanced feature set, the modulators help operators get the most out of expensive satellite bandwidth, optimize data transport, and dramatically improve satellite signal quality. Innovative features include DVB-S2 multistream, TSoIP, wideband (up to 80Mbaud), and carrier ID. In addition, the DVB-S2 Broadcast Modulator platform supports next-generation DVB-S2 extensions, providing operators with a future-proof solution.

The DVB-S2 Broadcast Modulator’s most recent enhancement — carrier ID support — defines the modulation, channel coding, and signaling protocol intended for the identification of the host carrier, enabling operators to eliminate or reduce radio frequency interference between satellite signals. Utilizing this important tool, satellite operators can deliver a higher quality of service to customers.

Video ACM System

At SATELLITE 2014, WORK Microwave will also demonstrate its Video ACM system, an integrated data/video (DaVid) modem and encoding solution for enhanced video contribution. Combining WORK Microwave’s DVB-S2 Modem SK-DV and the EN-91 MPEG-4 HD ultra-low delay encoder from Adtec Digital, Video ACM automatically improves an operator’s satellite link budget, enhancing video quality and reducing operational expenses.
The Video ACM solution can transport multiple MPEG transport streams — up to six — and IP data into a DVB-S2 multistream, enabling simultaneous transportation of data (network connection) and live broadcasting (video content) over a single satellite carrier. Multichannel ACM functionality dramatically reduces the margin traditionally required for rain fade, enhancing video quality. Satellite link performance is optimized in real time, as link and weather conditions change, resulting in increased link availability and cost savings for satellite operators. Transport stream null packet deletion and re-insertion further optimize satellite capacity, enabling operators to reuse bandwidth for IP data. As the MODCOD changes, WORK Microwave's DVB-S2 Modem SK-DV seamlessly communicates with Adtec Digital’s EN-91 encoder and automatically changes the video rate, ensuring the best possible video quality and optimum bandwidth allocation.

During a live, interactive demonstration at the booth, visitors can see interoperability between the DVB-S2 Modem SK-DV and Adtec Digital’s EN-91 encoder. The demonstration will highlight the following key features and benefits: reuse of clear sky margin for improved video quality, automatic scaling to the maximum MODCOD for optimal video quality, improved link availability resulting in reduced operational costs, and optimized Ka-band usage for video contribution.

**Fixed Frequency Block Converters**

At SATELLITE 2014, WORK Microwave will highlight improvements to its fixed frequency block converter product line, including Ka-band support for uplink and downlink services, superior phase noise, and adjustable slope compensation. Designed to optimize the performance and bandwidth of satellite communications links, the enhancements enable operators to cost-effectively deliver a superior signal quality.

The fixed frequency block converters are based on a new compact, multichannel module design that allows operators to support up to four channels within 19-inch housing, lowering their operational expenses and saving valuable space. Leveraging the converter's unique four-channel design, satellite operators have access to the full capacity of the Ka-band, spanning 27.5MHz to 31GHz (3.5GHz). The converters are perfect for operators looking to expand their satellite capacity into next-generation spectrums like Ka-band to support high-bandwidth telecommunications and broadcast services.

**Company Overview:**

**About WORK Microwave (www.work-microwave.de)**

Headquartered in Holzkirchen (near Munich), Germany, and comprised of four operating divisions — Satellite Technologies, Navigation Simulators, Defence Electronics, and Sensors and Measurement — WORK Microwave leverages more than 27 years of experience to anticipate market needs and apply an innovative and creative approach to the development of frequency converters, DVB-S2 equipment, and other digital signal processing technologies while maintaining the highest standards for quality, reliability, and performance.

WORK Microwave's Satellite Technologies division develops and manufactures high-performance, advanced satellite communications equipment for telecommunications companies, broadcasters, integrators, and government organizations that are operating satellite earth stations, satellite news gathering vehicles, fly-aways, and other mobile or portable satellite communication solutions.

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