News Release



Hitachi Kokusai Electric Comark Releases PARALLAX™ Doherty VHF Transmitter for Spectrum Repack and ATSC 3.0

SOUTHWICK, MA, March 29, 2017 — Hitachi Kokusai Electric Comark LLC (hereinafter "COMARK"), a manufacturer and supplier of DTV transmitters, encoding systems, and associated field services for over 45 years, has announced the release of PARALLAXTM for VHF band 3. PARALLAX is the transmitter that is "designed for repack". At NAB 2017, the transmitter design will be on display at the company's booth (C4309). PARALLAX is ready for the upcoming broadcast spectrum repack and ATSC 3.0.

PARALLAX has the unique flexibility to ensure top-notch performance for large and small stations. It is the industry's next generation medium and high power, liquid cooled, solid state transmitter available in UHF and now VHF band 3. The VHF Band 3 version of PARALLAX shares all the mechanical architecture, user interface, and performance with the award winning UHF version of PARALLAX.

With up to 16 VHF Power Amplifiers (PA's) stacked in a single rack cabinet, it delivers an industry best of up to 23kW. Power levels can be scaled higher with multiple cabinets or scaled back to as few as 3 x 1.6kW amplifiers for 4.3kW output power. The VHF PA's utilize Doherty LDMOS technology that delivers up to 50% efficiency. These devices not only provide high efficient operation, but also have the benefit of providing the equivalent output power in ATSC 1.0 (8VSB) and ATSC 3.0 (OFDM).

According to Richard E. Fiore, Jr., Hitachi Kokusai Electric Comark LLC President and CEO, "It was a natural progression for us to expand the PARALLAX family from UHF to VHF. We anticipate a large market demand for VHF band 3 transmitters thanks to the conclusion of the FCC's Incentive Spectrum Auction and subsequent repack. We have embedded the latest technology and features into the PARALLAX to meet market demands. The vertical PA configuration in PARALLAX is easier to handle and the transmitter delivers the highest RF output power capability and power density of any transmitter on the market."

Hitachi Kokusai Electric Group has delivered many transmitters over the past 60 years. By taking the advantage of Hitachi Kokusai Electric Group's vast experience in designing and manufacturing transmitter equipment, the new PA is the state-of-the-art; designed by experience engineers and manufactured to perform with the highest quality standards.

PARALLAX features liquid cooling, an optimized RF design, and can be controlled and monitored via an optional Wi-Fi connection using a smart phone or digital tablet. PARALLAX also features a built-in control soft-fail in case of emergency operation, keeping the unit on air at all times. The control system also enables Comark's customer service group to remotely diagnose during transmitter operation and perform remote software updates.

About Hitachi Kokusai Electric Comark LLC:

For over 45 years COMARK has been synonymous with broadcast expertise and innovation. A trusted partner to the world's leading broadcasters, COMARK has pioneered many developments that have shaped the industry, leading innovation in IOT & MSDC-IOT technology, transistorized solid-state technology, Digital Adaptive Pre-correction (DAP), and also winning multiple Emmy[®] Awards; and gaining numerous patents in technologies that have become fundamental to broadcasting. COMARK is now building on this great heritage with the release of an entire new range of transmission products for terrestrial television broadcasting, and state-of-the-art products for scientific/industrial RF applications. With thousands of active COMARK transmission systems deployed worldwide and a global support presence, COMARK plans to continue to develop technologies for the future, with efficiency and performance initiatives for improving coverage and saving power.

Look for Hitachi Kokusai Electric Group at NAB 2017, booth # C4309.

Information about products from Hitachi-Comark is available at www.comarktv.com.

Contact: Joseph Turbolski

Director of Sales Operations Tel: +1 413 998 1100

Email: jturbolski@comarktv.com