EMCORE Introduces New DFB Laser Modules for Wireless and Distributed Antenna System Applications

The increasing demands on wireless networks from social media, texting, email, and uploading and downloading of applications, music, videos and photos is creating greater and greater need for deployment of cost-effective, integrated wireless DAS systems. Both the new 1764 and 1615 Series laser modules are designed, tested and optimized specifically to support highly-linearized wireless applications. These lasers are matched to 50 Ohm systems typical of wireless networks and have a wide operating temperature range of -40°C to +85°C for reliable performance in harsh node environments and narrow transmitter designs. Both models have bandwidth up to 2.7 GHz.

The 1764 1550 nm C-Band DWDM Laser Module features low adiabatic chirp to maximize signal quality over both short and long fiber lengths. The laser's superior linearity minimizes degradation of the broadcast signals caused by distortions and non-linear effects. The 1764 is available in all C-Band ITU grid wavelengths. The 1615 1310 nm DFB Laser Module also delivers superior linearity and supports fiber lengths up to 10 km without dispersion issues.

All EMCORE lasers utilize the highly-linear, directly-modulated DFB technology which has become synonymous with the highest-quality, high-speed photonics that drove the wide-scale deployment of fiber optics in CATV networks, satellite earth stations and mobile phone antenna sites. EMCORE's new 1764 and 1615 DFB lasers extend that heritage of performance and reliability to today's demanding DAS applications and are compatible with the 4G LTE (Long-Term Evolution) standard for wireless high-speed data communications over mobile devices.