

Optical Modulator Drivers Suit 10 GbE Transmitters



Hittite Microwave Corporation has introduced two new SMT packaged optical modulator drivers, which operate from DC to 20 GHz, and are designed to drive Lithium Niobate Mach-Zehnder (MZ) and Electro-Absorptive (EA) optical modulators with up to 8 Vp-p signals, while exhibiting low additive RMS jitter. Suitable for meeting the rigorous requirements of 10 GbE transmitters, VSR modules and 40 Gbps (D)QPSK modules, the HMC870LC5 and the HMC871LC5 also function in broadband test and measurement applications. The HMC870LC5 and the HMC871LC5 are GaAs MMIC pHEMT distributed amplifiers which also provide up to 17 dB of gain, and exhibit very low additive RMS jitter of 300 fs for 10 Gbps operation. Both devices support 20 Gbps operation, provide gain flatness of ± 0.5 dB, and feature output swing cross point adjustment. The output swing for the HMC870LC5 is adjustable from 2.5 Vp-p to 8 Vp-p, while the output swing of the HMC871LC5 can be adjusted from 1 Vp-p to 4 Vp-p. The devices operate over +3.3 V to +7 V and +5 V to +8 V supplies respectively and are appropriate for Metro and Long Haul equipment designers, since these devices feature scalable power dissipation for varying output drive requirements.

Hittite Microwave Corp.

978-250-3343, www.hittite.com [1]

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