

u²t Photonics Presents Innovative High Power and High Linearity Photodetectors

Berlin, Germany, 9 December 2013 – u²t Photonics AG has demonstrated a high power and high linearity 50 GHz photodetector module particularly tailored to the needs of high performance analog photonics applications – the HPDV2120R. This device is now available for sampling.

The HPDV2120R shows responsivity values greater than 0.5 A/W and achieves a broad 3-dB bandwidth in excess of 50 GHz. An RF output power of 6 dBm at 20 GHz and 3 dBm at 50 GHz is demonstrated, which is over 10 times higher than what regular photodetectors achieve. Highly linear performance with Output Third Order Intercept Point (OIP3) values above 20 dBm for frequencies up to 40 GHz can be delivered from the module. The high power photodetector relies on a monolithic 4-element array and utilizes a mode-converting tapered waveguide for efficient fiber-to-chip coupling and a 1×4 Multi-Mode Interference (MMI) coupler. The device comes in a compact package and requires no external cooling. Therefore, the HPDV2120R is well suited not only for a variety of broadband and narrowband analog photonic applications up to 50 GHz and beyond but also for high power and high performance Test & Measurement applications. Detailed results of this work were presented at the IEEE Photonics Conference (IPC) 2013. For further information please visit our website www.u2t.com, contact our customer service contact@u2t.com or your local sales partner.

u²t Photonics AG, a private company headquartered in Berlin, Germany, is a leading supplier of innovative optical components up to 100 GHz. On the basis of its mature InP technology, u²t develops, manufactures and markets highly competitive products for high-speed communications, T&M equipment as well as defence and aerospace applications. u²t is ISO 9001:2010 certified and provides high quality service and a fully Telcordia qualified portfolio.

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