



Ibsen Photonics' DWDM power monitor reduces operational costs

The Danish component maker, Ibsen Photonics, has developed a monitor for real-time measurement of channel power in dense wavelength-division multiplexing (DWDM) systems. The D-MON uses a diffraction grating to split incoming signals onto a custom diode array, simultaneously measuring the individual intensities of up to 80 optical channels at 50 GHz spacing. The D-MON Channel Power Monitor aims at reducing operational costs in DWDM networks by saving space, lowering power consumption and lowering installation and maintenance costs of DWDM networks. The power monitor is based on Ibsen's Diffractor platform, a patent-pending optical design that enables parallel processing of individual channels. The company manufactures the diffraction gratings in-house using a holographic manufacturing technique.

<http://www.ibsen.dk>

Austriamicrosystems introduces new ASIC library for PON

Austriamicrosystems unveiled its new generation of electro-optical interface ICs for passive optical networks (PON). The system's high bandwidth is designed to support teleworking, video distribution and high speed data sharing. The KEOPE (Key Electro-Optical Elements) chipset was implemented on Austriamicrosystems' silicon-germanium manufacturing process.

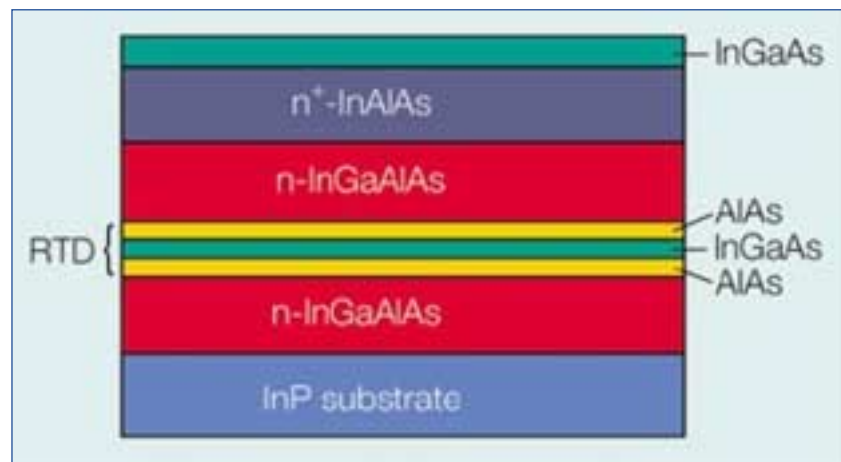
<http://www.austriamicrosystems.com>

Essient Photonics brings new thinking to optical modulation technology

Essient Photonics, a spin-off from Glasgow University in Scotland and specialised in optical modulators and photodetectors, develops devices which take advantage of the properties of resonant tunneling diodes (RTDs). Essient's novel RTD-based technology for making 10 and 40 Gbit/s optical modulators and photodetectors will significantly lower the drive voltage and footprints compared to current devices. Essient announced that its modulators could operate with a drive of 0.1 V, significantly lower than the several volts needed for lithium niobate and InP- or GaAs-based devices. The company is headquartered in Glasgow and is following a fabless business model. Essient uses Compound Semiconductor Technologies in Glasgow to manufacture the devices currently in the development phase.

RTDs use a quantum well between two thin barrier layers to create an electron resonator. The patented Essient technology describes an RTD structure as consisting of a 6 nm InGaAs QW between two 2 nm AlAs barrier layers. The RTD is sandwiched between two InGaAlAs spacers that form the waveguide core. The InP substrate and a top InAlAs layer provide waveguide cladding, and an InGaAs contact layer is grown on the top cladding layer. Ridge waveguides are then etched and ohmic contacts deposited.

<http://www.essient.com>



The Essient RTD structure

Pirelli Sirocco® blown fiber solution for low cost customer connections

Pirelli Telecom Cables & Systems has introduced a 12-fiber single-mode module that extends the range of Sirocco blown fiber products used to achieve low cost network start-up, flexibility for network growth and re-routing. The Sirocco 12-fiber module provides an important addition to the range of options for network operators and IT managers assessing the most practical and cost effective solutions to their network building strategy. The standard design is a 3-layer UV-cured acrylate matrix, with an inner low modulus layer to prevent micro-bending, a high modulus layer for protection, and finally a low friction coating containing microspheres to optimize blowing performance. These designs are manufactured exclusively by Pirelli under license from BT Group plc.

<http://www.pirelli.com>