

Newsletter

Issue number 1 - 2011

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Newsletter information!

This is the first issue of a MicroComp Nordic Newsletter. Our intention is to deliver a few issues per year with information that we believe might be of interest for you. Focus will be on presenting new products available through MicroComp Nordic AB. If you don't want to receive those newsletters, please send us an email: info@microcomp-nordic.se or give us a call: +46 (0) 8 607 39 10.

Luciol Instruments



Since late autumn 2010 MicroComp Nordic has been working together with the Swiss company Luciol Instruments. By this we have added another line of products to our portfolio of optical instruments (since earlier we are working with Apex-T for optical spectrum analyzers).

The specialty of Luciol is to use photo-counting technology for designing OTDRs (Optical Time Domain Reflectometers) which gives those instruments a very high resolution. The ν -OTDR, figure 1, can give a resolution as high as less than 10mm. The ν -OTDR works with almost all types of fiber and connects to a PC via a USB connector.

Airbus are among the companies using OTDRs from Luciol and more information about Luciol can be found on their web page: www.luciol.com



Figure 1: A ν -OTDR from Luciol Instruments

Mendocino Laser



Calmar Laser produces among the best fiber lasers, and their $1\mu\text{m}$ Mendocino FPL-M, Fiber Laser Module, is the most compact commercially available passively modelocked fiber laser. The wavelength can for the FPL-M be selected from 1030 to 1065 nm and the pulse width from 0.4 to 10 ps, with near transform-limited pulse shape. The timing jitter is as low as 60 fs. The repetition rate can be specified from 10 to 50 MHz. The FPL-M series features a robust architecture that is insensitive to shock and vibration and provides exceptional stability and reliability for demanding OEM applications. With up to 20 mW output power, the FPL-M series is the most economical solution for applica-

tions requiring low power, such as seeding amplifier systems. An RF synchronization output is provided as a trigger signal. The FPL-M series can be used either as a stand-alone laser source with a 5 VDC power supply or a separate driver, or for integration as an OEM module.

New Miteq Mixer



MITEQ is offering a new line of mixers designed specifically for Satellite applications. The TBS2731LW1 is ideally suited for converting from L-band to Ka-band or Ka-band to L-band. The mixer has superb conversion loss and VSWRs as well as excellent spurious response and outstanding LO isolations. This device meets rugged environmental MIL specs, operates over a -54 to $+85^{\circ}\text{C}$ temperature range and is ideal for rugged Military and Commercial system applications.

InnoSent GmbH



The German company InnoSent GmbH is a market leader when it comes to design and production of radar sensor transceivers.

The sensors use patch antennas, see figures 2 and 3, and operate at the 250 MHz wide ISM band at 24 GHz. Typically the modules are equipped with one TX and one RX antenna and can be operated with CW, FMCW, FSK modulation or as pulsed radars. They can thus be used for detection of speed, range and direction of motion of a target. Some models have two RX antennas and those radars can thus be used for estimation of the angle to a target.

The modules uses 5 or 3.5 V and the modulation is controlled by the user through a VCO. Out from the radar one can read In-phase and Q-phase IF-signals which for a moving target would represent the Doppler shift due to the speed of the target.

The output power is 20 dBm EIRP and the antenna pattern ranges from $5 \times 5^{\circ}$ up to around $90 \times 90^{\circ}$ with an operating temperature from -20 to $+60^{\circ}\text{C}$.

Typical applications are: door openers, intrusion detection, automotive collision warner and cruise controllers.

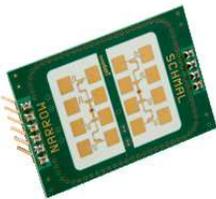


Figure 2: An IVS-162 Radar Module



Figure 3: A small form factor radar module

Desktop Amplifier



MicroComp Nordic also designs and builds equipment for our customers and the desktop amplifier MCN-AMPL-10007-XX-YY-ZZZ is an example of such a product. The amplifier is suitable for driving devices such as TWTs, mixers, power amps and optical modulators. It is also well suited for increasing a test system's dynamic range and for antenna measurements as well as compensating for the power loss in connectors, cables, switches or signal routing components. The amplifier can be ordered with customer specific small signal gain, noise figure and the following different options:

- 001 - Frequency 0.03-3 GHz
- 002 - Frequency 2-8 GHz
- 003 - Frequency 8-12 GHz
- 004 - Frequency 12-18 GHz
- 005 - Monitor output
- 006 - Detector output
- 007 - High performance

The amplifier is designed so that it can withstand operating at 1dB compression point. It is mounted in a chassis and is powered with AC 100 to 240 Volt. The unit is designed to comply with CE demands.

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