

OCXO PERFORMANCE ON A BUDGET

Valpey Fisher Corporation

Valpey Fisher Corporation introduces the VFOV600, the newest addition to its OCXO product line. The VFOV600 utilizes AT-Cut crystal technology to provide excellent performance at prices below conventional oven oscillators. At 600 milliwatts the VFOV600 consumes significantly less power than most standard OCXOs. It is built in a space saving DIL 14 pin package and generates frequencies up to 100MHz. The VFOV600 has stability performance of Stratum 3 or better and has a phase noise floor of -160dBc/Hz .

www.valpeyfisher.com.com

ULTRA LOW NOISE AMPLIFIER FOR CELLULAR INFRASTRUCTURE APPLICATIONS

Avago Technologies

Avago Technologies has announced the latest edition to its line of ultra low noise, high gain, high linearity Gallium Arsenide (GaAs) active bias amplifiers for use in cellular infrastructure applications. Avago's MGA-633P8, which is an easy-to-use GaAs monolithic microwave IC (MMIC) low noise amplifier (LNA), provides 'Best in Class' performance and has a compact footprint. Additionally, it has a common printed circuit board layout, which is ideal for front-end applications used in cellular base stations. The MGA-633P8 is designed to be used as a first stage LNA for cellular base station transceiver radio cards, tower mounted amplifiers, combiners, repeaters and remote/digital radio heads.

The MGA-633P8 uses Avago's proprietary GaAs Enhancement-mode pHEMT process to achieve such a high gain with a very low noise figure. Housed in a compact 2.0 mm by 2.0 mm by 0.75 mm 8-pin Quad-Flat-Non-Lead (QFN) package, the MGA-633P8 is designed to enable cellular applications that operate within the 450 to 2000MHz frequency range to achieve superior performance levels. As a result, designers will be able to use this active bias LNA to develop next-generation cellular applications that are more compact with more features and functions to satisfy the growing needs of designers. With its compact low-profile footprint coupled with its low noise, high gain and high linearity features the MGA-633P8 is an ideal choice for use in line terminal equipment, GSM, CDMA, WCDMA, CDMA2000 and TD-SCDMA cellular infrastructure applications. www.avagotech.com

COHERENT 100G DP-QPSK RECEIVER

u2t Photonics

The coherent receiver module CPRV consists of four balanced photoreceivers and two integrated optical 90° hybrids and is a fully differential optical front-end suited for 100 Gbit/s DP-QPSK applications featuring high-linearity and high-common mode rejection ratio. The coherent receiver contains two optical multi-mode interferometers where the incident signal is I/Q-demodulated for each respective polarization state using an external local oscillator laser as a reference. The mixing product is guided into waveguide-integrated pin-photodiodes and an electrical transimpedance amplifier (TIA) with linear transfer characteristic generates a typical differential output voltage swing of 500 mVpp. All output channels feature integrated peak-detectors for optional AGC-loop operation. The receiver offers shut-down capability which disables all rf-outputs. The integrated VGA stage offers 20 dB dynamic gain adjustment range and has very low total harmonic distortion. www.u2t.de

GENNUM CDRs WITH INTEGRATED LASER DRIVER

Gennum Corporation

Gennum Corporation is offering integrated CDRs (clock and data recovery) for telecom and datacom optical module applications. The GN2012 and GN2010, with integrated laser driver, offer customers a low power, small footprint and cost effective solution for 8Gb/s and 10Gb/s optical modules.

Gennum's newest CDR line includes three variants: the GN2012, GN2010D, and GN2010E. The GN2010D and GN2010E are an industry first in integration, combining a dual10G CDR with a limiting amplifier and a laser driver. The GN2010D includes a DML driver and the GN2010E includes an EML driver. The GN2012 is a dual 10G CDR with limiting amplifier. All three variants provide retimed support for 8G Fibre Channel allowing a single device to support Fibre Channel, 10Gb Ethernet and OC-192 SONET. The GN2010 family also integrates the APC loop, reducing the need for external components. This highly integrated solution offers performance, power and cost benefits for XFP and SFP+ modules. The GN2010D and GN2010E are pin compatible, and support a platform-based approach in customers' next generation designs.

The high level of integration in Gennum's new CDRs supports a new class

of retimed SFP+ modules. The devices enable a sub 1W CDR based 10GbE SFP+ module and a SONET compliant SFP+ module, increasing the level of density possible in telecom systems. The improved performance of a CDR based SFP+ module can be important in high density systems that use stacked SFP+ connectors, as these connectors can degrade the link performance. A CDR-based SFP+ module also supports the architecture chosen for the next Fibre Channel standard, 16G Fibre Channel, for next generation storage area networks. Designed for SFP+ applications, Gennum's low power CDR with laser driver devices use a 3.3V supply and do not require a reference clock.

For DWDM applications, a transition is required from the 300-pin module form factor to XFP to increase density and reduce power. The integration of a CDR with EML driver in the GN2010E saves power and reduces the overall footprint, making it ideal for XFP DWDM modules. The GN2010E also integrates key features to optimize dispersion penalty and OSNR performance. www.gennum.com

GESTURE TECHNOLOGY EMPOWERS NEXT-GENERATION TVS AND GAME CONSOLES

Magic Hand, LLC

Magic Hand's technology can quickly recognize hand gestures for up to 15 feet (5 m) or more using a regular webcam. With a motorized webcam, a wider coverage can be achieved. Letters and numbers can also be recognized, allowing TV widgets and movies to be categorized for easy navigation. Both single and two-hand gestures are supported, which opens up a broad range of commands. The technology also supports 3D webcams. Magic Hand's technology improves human-TV interaction by giving the consumer unrivaled living-room experience while enjoying premium-quality movies. The wireless and touch-free interface removes the need for a remote and more importantly, eliminates the need to lean forward when browsing, selecting, and replaying videos, thus making channel flipping easy, futuristic, and fun. Because of its ability to control pan, tilt and zoom with a very fast response time, it can operate at long and short distances, and is suitable for use with even the largest HDTV screens in outdoor shopping districts. The technology allows intuitive scrolling of menu items on a multimedia PC or smartphone without a mouse or touchscreen.

<http://mymagichand.com>