Phase Locked Loop Oscillator

Z-Communications, Inc., known for being a leader in providing low cost, high performance Voltage Controlled Oscillators, is proud to announce a new phase-locked loop (PLL) module designed for satellite communication terminals. The PLL1000A uses patented VCO technology to achieve a bandwidth from 988 to 1028 MHz with a 1 MHz step size while delivering remarkable phase noise performance. Furthermore, the PLL1000A incorporates a loop filter bandwidth of 2 kHz which aids in the reduction of microphonics. This innovative PLL provides phase noise performance of -101 dBc/Hz at 10 kHz offset and -126 dBc/Hz at a 100 kHz offset or, equivalently, a RMS phase error of 0.75 degrees integrated over 100 Hz to 100 KHz. This revolutionary technology frees up the circuit designer from having to characterize the critical loop filter parameters and replaces dozens of components with a single, high performance module.
With a maximum start up lock time of 5 mS and a channel-to-channel switching speed of 2 mS, the PLL1000A delivers 0.5 &#177 2.5 dBm into a 50 load and is characterized to operate over the temperature range of -40 to +85&#176C. Harmonic suppression is -20 dBc and sideband reference spurs are attenuated greater than -70 dBc. The PLL1000A will save precious space on the printed circuit board with a miniature package size of only one-half square inch and will increase battery life by drawing only 32 mA with a 5 volt supply.
The PLL1000A comes in Z-Communications' low profile PLL package measuring 0.630 in. &#215 0.8666 in. &#215 0.14 in. This revolutionary PLL is ideal for automated surface mount assembly and reflow soldering; it is available in tape and reel packaging for production requirements.

Source URL (retrieved on *03/07/2014 - 11:37pm*):
http://www.wirelessdesignmag.com/product-releases/2001/06/phase-locked-loop-oscillator