Diodes single gate logic now in small DFN package

Diodes Incorporated has released new versions of its 74LVC1GXX and 74LVCE1GXX CMOS logic families in DFN1410 packages measuring 1.4mm x 1.0mm x 0.4mm high. These tiny single gate devices complement the existing SOT25 and SOT353 versions and have been developed primarily for cell phones, smart phones and tablet computers. Compared to wafer chip scale packages, the DFN1410 provides the advantages of lower cost and reduced manufacturing complexity.

The new logic parts are direct replacements for industry standard components and include AND, NAND, OR, NOR, XOR, inversion and buffering functions. In many applications, these low power logic devices draw less than 1µA of supply current, making them ideal for use in battery-powered products.

Providing a direct interface with TTL levels, the 74LVC1GXX family operates from 1.6V to 5.5V and the 74LVCE1GXX from 1.4.V to 5.5V. The wide input ranges allow both families of devices to be used for voltage level shifting. The output drive is ±24mA at 3.3V. When they are powered down, the logic devices' IOFF output circuitry ensures that outputs are disabled to prevent reverse current flow and to provide signal isolation.

Demand for single gate logic functions at the point of application is growing as the need for 4-gate logic solutions wanes. Such single gate solutions require minimal routing and provide for better board utilization with improved signal performance.

Diodes' new logic parts are priced at $0.08 USD each in 10k piece quantities. Further information is available at www.diodes.com [1]

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[1] http://www.diodes.com