



### **Single-Chip MP3 Decoder with DAC and headphone driver**

Tampere, Finland, 31 October 2001 – VLSI Solution has announced an MP3 decoder chip with integrated DAC and earphone amplifier. VS1001 is targeted as an audio support chip for portable applications. As it has an integrated variable sample rate DAC and earphone amplifier, and is packaged in a 7 x 7 mm BGA, VS1001 provides the smallest physical size when implementing MP3 for portable devices.

“Unlike many other MP3 player ICs that target stand-alone applications, VS1001 is primarily a peripheral slave processor with analog interface included. Our solution is very competitive when the application already has a master processor,” says Tapani Ritoniemi, Managing Director of VLSI Solution.

VS1001 decodes all MPEG 1 & 2 layer I, II and III files, as well as MPEG 2.5 layer III extension files with all sample rates and bit rates. Variable bit rate and PCM input are also supported. VS1001 has user programmable code memory that can be used to implement new features, such as mixing MP3 decoded data with PCM data.

VS1001 uses a unique digital sample rate conversion technology to provide operation with wide range of frequencies from a single system clock. VS1001 is characterized to industrial temperature range (-30...+85) and it accepts many operating voltages (2.5...3.6V digital, 2.8...3.6V analog). Typical current consumption of digital decoding function and analog interface with 30 ohm load is about 17 mA. The device is available in two packages, SOIC-28 and BGA-49.

VS1001 is currently in a volume production. The price is US\$ 6.08 (SO28) and US\$ 6.7 (BGA49) in 1000-piece quantities.

