LSI LOGIC AND THE BBC ANNOUNCE IMMEDIATE AVAILABILITY OF INDUSTRY'S FIRST SINGLE-CHIP 2K/8K DIGITAL TERRESTRIAL SOLUTION

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Cost-effective solution ready in time for autumn European launch of digital terrestrial television

London, UK, May 14, 1998 - LSI Logic, the world's leader in system-on-a-chip design, and the BBC, the internationally renowned UK broadcaster, today announced the immediate availability of the L64780, a jointly developed single-chip digital terrestrial television (DTT) demodulator . LSI Logic and the BBC joined forces in June 1997 to develop a cost-effective DTT solution for deployment in 1998. The chip received both 2k and 8k modes, and decoded picture and sound from the BBC's trial service broadcast transmitter located at Crystal Palace, London.

The design of the L64780 device was implemented by a team at the BBC's Kingswood Warren R&D facility and by LSI Logic at its Paris Design Centre. It was based on a hardware prototype initially constructed by the BBC to run trials of the experimental DTT broadcasts in the UK and other European locations. By applying its G10â system-on-a-chip technology, LSI Logic has squeezed a 19 inch rack composed of over 20 programmable chips originally used in the BBC prototype design onto one tiny piece of silicon.

The L64780 is fully compliant to the European Digital Video Broadcast Terrestrial (DVB-T) standard of which the BBC and LSI Logic are members.

The DVB-T standard is suited to use in the 6 MHz, 7MHz and 8MHz channels used in different parts of the world. The device supports all DVB-T modes, including 2k and 8k carriers, and hierarchical modulation. Tolerance to fast moving and difficult channels is achieved through an innovative channel estimation algorithm working in both time and frequency domains. In addition the L64780 seamlessly interfaces with low cost tuners since common phase error measurement and compensation algorithms were incorporated on chip.

"As a result of our joint development with the BBC, we are the first semiconductor manufacturer to deliver a Right-First-Timeä, single-chip DTT solution. This chip will enable TV and set-top manufacturers to put cost-effective products in the hands of consumers in time for DTT European deployment later this year," said Elie Antoun, Executive Vice President of Consumer Products, LSI Logic.

"The BBC has been a pioneer in the area of digital television, and was the first broadcaster in the world to have a digital terrestrial pilot on air which complied with the European DVB-T standard. The BBC's expertise in compression and modulation technology, combined with the integrated circuit design skills of LSI Logic has meant that the development of the L64780 has been an outstanding cooperative achievement," said Dr. Ian Jenkins, Controller of New Technologies, BBC.

The L64780 is a single-chip Coded Orthogonal Frequency Division Multiplex (COFDM) demodulator. The device is capable of delivering up to 31.7 Mbit/sec. With each service demanding typically between 2 Mbit/sec (movies) to typically 5 Mbit/sec (mixed programming channels), several program services can be offered in the
8 MHz channel previously filled by one conventional analog PAL channel.

The L64780 chip samples a low IF signal and converts it digitally into baseband. The device then applies all digital processing steps to extract the data from the received signal, such as FFT, timing and frequency synchronization, channel estimation and equalization, generation of optimal soft decisions using the channel state information, symbol and bit de-interleaving.

"This is an outstanding example of collaboration. The BBC provided DTT expertise and an intimate knowledge of the European broadcast market, while LSI Logic provided the expertise to implement the BBC's DTT expertise into working, cost-effective silicon. By working with the BBC we have been able to deliver a highly integrated DTT system-on-a-chip solution within a record one year," said Jean-Luc Droitcourt, Marketing Director for Digital TV, LSI Logic.

L64780 samples, together with an evaluation daughter board for the set-top box development platform (SDP) are available immediately. The daughter board includes the L64780 device, software drivers and a tuner module. LSI Logic has shipped samples and evaluation platforms to lead customers. The chip is priced at sub $20 for volume purchase.

BBC company background

The BBC is a public corporation, set up by Royal Charter to provide broadcasting services at home and abroad. The BBC's core home services are funded by the television licence fee which pays for BBC-1 and BBC-2 which provide more than 12,500 hours of programs a year; national Radios 1, 2, 3, 4, and 5 Live; national radio services in Northern Ireland, Scotland and Wales, including services in Welsh and Gaelic languages; and 38 English local radio services. The BBC World Service, the international radio service funded by Government Grant-In-Aid broadcasts to 144 million regular listeners a week in 45 languages, including English. The BBC generates further revenue to support its home services by exploiting its assets at home and abroad through its commercial arm, BBC Worldwide. Additional information may be obtained from their web site at www.bbc.co.uk.

LSI Logic company background

LSI Logic (NYSE:LSI), The System on a Chip Companyâ, is a leading supplier of custom high-performance semiconductors, with operations world-wide. The company enables customers to build complete systems on a single chip with its CoreWareâ design program, which increases performance, lowers system costs and accelerates time to market. LSI Logic develops application-optimised products in partnership with trend setting customers, and operates leading-edge manufacturing facilities to produce submicron geometry chips. The company maintains a high level of quality as demonstrated by its ISO 9000 certifications. LSI Logic Corporation is headquartered at 1551 McCarthy Boulevard, Milpitas, California 95035, http://www.lsilogic.com.

LSI Logic Europe

LSI Logic Europe has its headquarters at Bracknell in the UK, and offices and design centres in France, Germany, Israel, Italy, the Netherlands, Sweden, Denmark and Switzerland. LSI Logic's sales in Europe accounted for 19 percent of the corporation's total worldwide revenue.