

For Immediate Release

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Lanwave Launch the SATURN-II Chipset Announce Joint Marketing Promotion with NEC Corporation

Cupertino, California – January 5, 2000 – Lanwave Technology, Inc. introduces today a family of new digital signal processors for the consumer electronics and wireless communication markets. The company also announces signing a memorandum of understanding with NEC Corporation to promote a joint cordless telephone solution in NEC's Asia sales channel utilizing silicon components from both companies.

Named after the original family of Code Division Spread Spectrum (or CD/SS™) processors, the SATURN-II chip set include the L9002DX2 Wireless Voice and Packet Communication Processor, a standalone device for general digital spread spectrum wireless applications. The other two members are the L9002VX2 Multiple Handset Cordless Telephone Chip, and the L9320, a CCITT G.721 compliant ADPCM Codec, jointly targeting the personal radio, multiple handset cordless telephone and wireless PABX applications. All devices are available immediately.

Code Division Spread Spectrum (CD/SS™) technology is a cost effective implementation of the Code Division Multiple Access (CDMA) wireless principle. Its architecture is similar to *Morse Coding* but the design is optimized towards consumer applications in the 2.4GHz and 900MHz FCC (Federal Communications Commission) Part 15.247 spread spectrum environment. Since its introduction in October 1997, the SATURN family was awarded *1997 Top Product of the Year* by *Microwave & RF Magazine*, and *1998 Product of the Year* by *EE Product News*. It has been adopted by multiple cordless telephone manufacturers supplying products to the USA market under various importer brand names.

The SATURN-II has been extensively upgraded in its DSP architecture to increase bandwidth utilization and multiple client protocol efficiency. Utilizing a programmable, 12-level logarithmic sub band phase encoding technique, or VPSK, similar user data rate can be accommodated in one-half to 1/6 of the previous SATURN RF bandwidth. This improvement translates into a reduction in circuit cost while increasing radio range. Because of the programmable architecture, the same engineering design can be used from wide band spread spectrum, through narrow band digital, to hybrid frequency hopping systems. A singular architecture across several product families extends the economy of scale and reduces R&D support cost. Furthermore, a new set of link layer functions have

been added to facilitate software implementation of multiple line with multiple handset, walkie-talkie mode, antenna selection, hybrid frequency hopping and other configurations for wireless LAN and PABX systems.

Housed in a 100-pin PQFP package, the L9002DX2 and L9002VX2 are pin and software compatible with prior generations protecting existing customer investments. Additionally the L9002DX2 is available in the slim TQFP package for space critical applications. The L9320 offers a high quality, CCITT compliant codec function. It is housed in a 28-pin plastic small outline (SOP) package.

Simultaneous with the SATURN-II introduction, Lanwave announces the company is entering a joint promotion agreement with NEC Corporation targeting a focus set of consumer electronics customers where NEC has long held a significant business position. More details and results from this collaboration will be made available soon.

“These new SATURN-II chips will expand the application and market reach of our proprietary *CD/SS*[™] digital wireless technology,” said Kenneth Chan, President & CEO at Lanwave. “Furthermore, the joint promotion with NEC makes available a complete silicon solution from a world class semiconductor partner. We are very pleased to be in collaboration with NEC and for the potential with consumer brand names worldwide.”

The L9002DX2 comes in 20, 33 and 40 MHz versions in both the TQFP and PQFP packages. Pricing begins at \$4.63 for the -20P, at \$6.95 for the -33P and at \$12.88 for the -40P in 50,000 quantity. The L9002VX2 and L9320 will be sold in a 2-chip set at \$5.25 in similar quantity. A complete reference design is available. For more details, please contact Lanwave marketing or their local sales representative in each country.

Lanwave Technology, Inc. is a consumer wireless component company based in Cupertino, California. A privately held and funded startup, it specializes in digital signal processing components, software and RF technology. For more information on Lanwave's products and capabilities, please visit the company's web site at <http://www.lanwave.com>, or write to Lanwave at 20111 Stevens Creek Blvd., #260, Cupertino, California 95014, U.S.A.

NEC Corporation is a global corporation with worldwide sales of US\$42 Billion in 1998. It offers a wide range of semiconductor products from dynamic memory to consumer LSI components and has multiple manufacturing and business office worldwide. Information on NEC can be obtained from its web site at <http://www.nec.co.jp/>

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