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Minimalist Wireless Modems Are Now a Reality

CMX990: GMSK Packet-Data Modem and RF Transceiver IC

The miniature wireless modem end-product is now a reality as CML Microcircuits launches its time, space and component-saving wireless data IC, the CMX990.

A single-chip GMSK packet-data modem with RF transceiver, this innovative half-duplex IC offers: a versatile baseband modem, IF and RF processing functions, programmable synthesizers, signal level-setting functions and comprehensive on-chip and peripheral control, monitoring and interfacing.

Offering a data range of 4 to 16 kb/s with selectable BT values, at RF frequencies of 400MHz to 1GHz, the CMX990 is formattable to both freeformat and packet data schemes, is fully Mobitex compatible and can be set to comply with EN 300 113 and FCC CFR 47 Part 90 standards.

Fomattable to freeformat or packet operations, the CMX990 employs simple task-command configuration to provide simplicity and efficiency to the control and operation of the modem. FEC, CRC, data scrambling and interleaving functions are available. Automatic Rx clock extraction and signal level measurement and compensation allow the CMX990 modem to operate in all signal conditions.

Employing external VCO inputs, the two programmable on-chip synthesisers provide all the frequencies necessary for wireless data operation.

Addressable on-chip DACs and ADCs are available for control and monitoring of a wide range of external functions, including system levels and the VCO loops, with separate dedicated functions for RF PA stage and TCXO control.

To speed-up the design-in of the CMX990 and to allow designers full access to all functions of the chip and its external components, two separate full-feature PCB-based kits are available: the

EV9000 to demonstrate general data operation, and the DE9901, a total 'plug-and-play' Mobitex operation. Complete with an embedded Mobitex object code, the DE9901 will enable the user to 'log-in' directly to an on-air Mobitex network.

With an extremely low operational power requirement of 3.0 volts and available in a 'no-leads' 64 VQFN package, optimum power consumption can be assured at all times by the separate dynamic powersaving of unused functions.

Further assistance is available from CML's help-desks for implementation of the CMX990 into wireless data applications via <u>techsupport@cmlmicro.com</u>.

The CMX990 will be launched at the 2004 Mobitex Business and Networking Conference in Gothenburg, Sweden, 20^{th} – 22^{nd} September. This product, along with two additional new products, will be demonstrated at Electronica, Munich, Germany in November (hall A5 – stand 201). Ends.

For further information please contact Mark Channen at the address at the head of this release