

System In a Chip Conforms to the ETSI Standard



Maldon, Essex - CML Microcircuits

(www.cmlmicro.com [1]) has announced the launch of the world leading single chip Digital Private Mobile Radio (dPMR) Baseband Processor, the CMX8341.

The CMX8341 is targeted directly at low cost, licence free digital PMR (dPMR) radios conforming to the ETSI standard, TS102 490. Dual mode analogue/digital PMR operation, high integration, low power consumption and small size are key factors for this market segment; the CMX8341 addresses all of these and its 6.25kHz digital mode supports FCC part 90 narrowbanding requirements.

This highly integrated device offers direct connection to the microphone, speaker and RF transceiver section of the radio. Utilising a conventional limiter discriminator/VCO modulator, this RF architecture is considered to be the lowest cost RF solution and is already widely used by the analogue PMR market and ideally suited to the licence-free digital PMR systems.

Complete analogue PMR audio processing is included with CTCSS and DCS sub-audio signalling. In digital PMR (dPMR) mode, the ETSI TS 102 490 air interface; physical, data link and control layers are embedded along with a soft decision 4FSK modem and a licence/royalty free RALCWI[1] vocoder. This comprehensive-function package enables a very small, low power microcontroller to be utilised making the overall system a true leading-edge digital PMR (dPMR®) technology solution.

Built on CML's proprietary FirmASIC component technology, the CMX8341 offers field proven performance and a highly flexibly comprehensive feature set.

In support of the overall radio, the CMX8341 includes PLL system clock outputs, auxiliary ADCs with four selectable inputs, three auxiliary DACs and a RAMDAC to

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automate transmitter power ramping. Tx enable and Rx enable outputs are also available to facilitate transmit/receive switching.

The CMX8341 operates from a 3.3V supply, includes comprehensive powersaving operating modes and is available in a 100pin-LQFP package.

[1] RALCWI is a CML digital voice technology.

For a datasheet, application notes and product support information, visit CML: www.cmlmicro.com [1].

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[1] <http://www.cmlmicro.com>