

CML Microcircuits (CML) is the leading authority in the design, manufacture and marketing of integrated circuits. Through many years' experience of designing both standard and full-custom products, CML excels in producing innovative solutions containing mixed signal, RF, analogue, memory, digital and DSP design. The information provided below is intended to keep you up to speed with all the new products released by CML.

Latest CML Product News:

8 and 16 FSK Update Now Available on the CMX7164

Machine to Machine (M2M) wireless data is an important function in our ever-expanding digital communication world. Narrowband wireless data systems form an important role in the professional markets, providing high speed, security and low latency.

The CMX7164 Multi-mode Wireless data Modem is a half-duplex device supporting 4/16/64 QAM, 2/4/8/16 FSK and GMSK/GFSK modes in multiple channel spacings, via host control.

CMX7164 Features:

- 4/16/64 QAM Modem
- 2/4/8/16 FSK and GMSK/GFSK
- Includes digital IF filters and I/O functions
- Low total BOM cost and chip count
- Replaces need for user programmed DSP plus codec ICs
- DE9941 – Evaluation board for CMX7164



DE9941 Features:

- Direct Conversion Receiver
- Cartesian Feedback Loop Transmitter
- 1W power amplifier
- VCO and Fractional-N PLL
- Operation from 452MHz to 467 MHz
- Nominal +3.6V supply



Evaluation Board: [DE9941](#)

For more information, visit the CMX7164 product overview page: [Click Here](#)

Analogue Front End for Digital Radio

The CMX983 AFE for Digital Radio bridges the gap between the DSP and the digital radio's RF section. Being flexible and high performance, this device forms the basis of a digital platform. It provides direct connection to, and support of, the RF section along with a host of auxiliary functions, effectively reducing the overall system size, cost and power consumption.

CMX983 Features:

- Dual channel I/Q converters
- Channel filtering
- Two RF Frac-N synths
- Digital gain control
- Aux ADCs/DACs
- Fast serial interface
- Low operating power
- Small 64 VQFN package
- EV9830 – Evaluation Kit for CMX983



Evaluation Kit: [EV9830](#)

EV9830 Features:

- External VCO connection option to both fractional-N synthesisers
- 900MHz and 2.1 GHz VCOs fitted
- Access to RF, control and baseband signals via connectors and test points
- On-board supply regulators operate from a dual +/-6V supply
- Command and control by PC via the PE0002 Interface Card or user's microcontroller development application or emulator
- 19.2MHz oscillator or external clock input to CMX983
- On-board access to all CMX983 signals, commands and data

For more information, visit the CMX7164 product overview page: [Click Here](#)

NXDN™ Radio Fast-Track

NXDN™ is an FDMA digital Land Mobile Radio (LMR) open standard and has evolved to become a key narrowband technology in the LMR migration from analogue to digital. NXDN™ is supported by more than 20 international radio manufacturers and organisations.

The new NXDN™ Function Image™ adds to the existing suite of CMX7131/7141 Function Images, now covering dPMR, NXDN™, ARIB STD-T98, ARIB STD-102 and legacy analogue PMR. A radio platform using the CMX7131/7141 can be switched to deliver any of these systems by uploading the appropriate Function Image™. This allows radio manufacturers to take advantage of economies-of-scale by adopting a Software Defined Radio (SDR) design route, with one radio design supporting a number of different systems and markets.

CMX7131/7141 Features:

- Multi-standard Digital PMR Processor including Analogue PMR Operations
- Automatic Frame Sync Insertion and Detection (AFSD)
- Two and four auxiliary ADCs
- Three analogue inputs with programmable gain
- Auxiliary C-BUS interface to CMX608 or CMX618
- Tx Outputs for two-point or I/Q Modulation
- Soft decision decoding option
- Two RF synthesisers (CMX7131 Only)
- Vocoder connectivity, management, control and data transport
- RALCWI, TWELP and third-party vocoders
- DE9944 – Evaluation Kit for CMX7131/7141



Evaluation Kit: [DE9944](#)

DE9944 Features:

- Direct Conversion Digital Radio demonstrator
- Frac-N PLL and VCO for 444MHz to 450MHz operation
- On-board ARM host processor (Cortex M3)
- Microphone, loudspeaker, 16 button keypad, and digital screen
- 1W power amplifier
- Powered by external 4.5V power supply or 3 x AA batteries

For more information, visit the CMX7131/7141 product overview page: [Click Here](#).