CMX7164
Multi-mode Wireless Data Modem IC
GMSK/GFSK · 2/4/8/16 FSK · 4/16/32/64 QAM · V.23

The CMX7164 is a Multi-mode Wireless Data Modem that supports multiple modulation schemes and coding systems, all configurable under host control. Adaptive Coded Modulation (ACM) features allow modulation type and block format to be changed on the fly to dynamically select data block size, coding rate and CRC size.

**Features**
- Supports multiple modulation schemes
  - GMSK/GFSK
  - 2/4/8/16 FSK
  - 4/16/32/64 QAM
  - V.23
- Adaptive Coded Modulation (ACM)
- High-performance I/Q radio interface
- Direct connection to zero IF receiver/transceiver
- Reconfigurable digital IF filters
- Supports multiple RF channel spacings
- Deviation control without manual trim (Tx)
- I/Q trimming
- Serial bus (C-BUS) controlled
- Read/write 128-byte FIFOs and data buffers streamline transfers and relax host service latency

**Applications**
- High-performance narrowband data radio
- Telemetry/SCADA/M2M data modems
- Satellite communications
- 6.25kHz to 25kHz channels
- ETSI, FCC, ARIB compliant
- FCC part 90 spectral efficiency requirements
- Software Defined Radio (SDR)
- High-speed wireless data

**CMX7164 Advantage**
- No external codecs or DSP processing required
- Provides a complete modem function, data to modulated signal and analogue signal to data
- Ensures the highest performance and multi-modulation operation
- Combining the CMX7164 with CML’s RF devices ensures the highest integration solution
- ACM features support an efficient, flexible and robust over-air protocol/coding system
- FirmASIC® component technology provides maximum flexibility and a platform for custom modulation schemes

---

© 2017 CML Microsystems Plc
Evaluation / Demonstration

Microcontroller Emulator

PE0601-7164
CMX7164 Evaluation Kit

OR

PE0003
Universal Interface board

DE9941 SDR Demonstrator
CMX7164 Multi-mode Wireless Data modem
CMX998 Cartesian Feedback Loop Transmitter
CMX994 Direct Conversion Receiver

CML Microcircuits Benefits

Faster time to market
Developing proven high performance and field tested ASSP ICs, CML is helping engineers to cope with increasing pressure in delivering shorter project design cycles.

Design flexibility
CML's FirmASIC® reconfigurable technology with the use of a Function Image™ upload enables a single hardware platform to be used for multiple communications systems.

High Quality
With 100% of products being tested before shipping, customers are assured of the highest reliability.

Product Longevity
CML’s product enjoys a long lifespan. Designing with CML, manufacturers are rewarded with longer product life cycles and a stable BOM, ensuring minimum engineering costs and maximum profit.

Low Power
Being at the forefront of low power chip technology, manufacturers can develop smaller equipment with extended battery life.

Superior Support
Internal and field based applications teams worldwide provide focused customer support to ease the development process.

WHAT TO DO NEXT
Download: Datasheet
Find: Distributor

www.cmlmicro.com

© 2017 CML Microsystems Plc