

## CMX994, CMX994A, CMX994E & CMX994G Direct Conversion Receiver ICs With PowerTrade™ Low Power/ Enhanced Performance

The CMX994/CMX994A/CMX994E/CMX994G is a family of direct conversion receiver ICs with very high IIP2 performance for use in zero IF, near-zero IF and low IF receivers. Power consumption is a key factor in many applications; PowerTrade™ provides the ability to dynamically select power consumption vs. performance modes to optimise operating trade-offs. The latest addition, the CMX994G, offers all the benefits of CMX994E with guaranteed performance down to 30MHz.

### Features

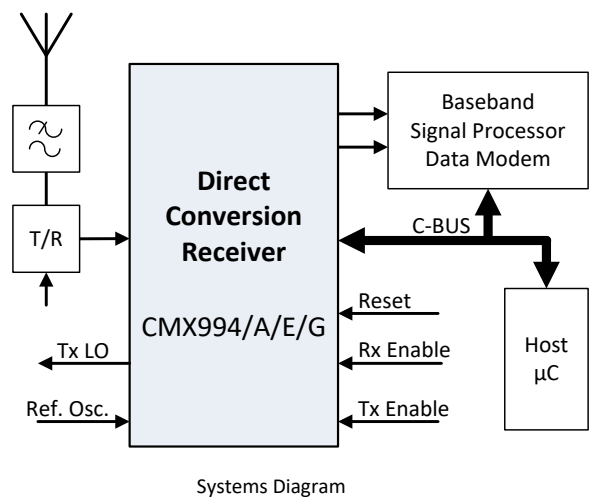
- Direct conversion to Zero IF, Near-zero IF or low IF (Zero IF eliminates image responses)
- 100 - 1000 MHz operation - CMX994A and CMX994E with extended operation 50 - 1218 MHz (30 - 1218 MHz guaranteed, CMX994G)
- 100 - 940 MHz CMX994
- PowerTrade™ delivering flexible power vs. performance trade-offs
- LNA with Gain control
- Low power consumption
- Very high mixer IIP2 for practical zero IF receiver
- Mixer bandwidth up to 20MHz
- Tx LO Output with divide by 1, 2, 4 or 6 modes
- 3.0V - 3.6V low power operation

### Applications

- Digital/analogue radio
- Software Defined Radio (SDR)
- Data telemetry modems
- Satellite communications
- Linear/non-linear modulation
- Narrowband 6.25kHz to wideband data >1MHz bandwidth

### CMX994/CMX994A/CMX994E/CMX994G Advantage

- Highest integration for an RF Rx function
- On-chip LNA with digital gain control
- Minimum of external components
- Smallest PCB area requirement
- Overall lowest cost Rx solution
- Precise filtering for digital compensation
- Can be used in zero-IF, near zero-IF and low IF systems
- Compatible with CMX998 CFBL transmitter



Small 40-pin VQFN Packages

	CMX994G	CMX994E	CMX994A	CMX994
Operating Range (MHz)	100 - 1000	100 - 1000	100 - 1000	100 - 940
Extended Operation (MHz)	30 - 1218	50 - 1218	50 - 1218	No
Low Power Operation	Yes	Yes	Yes	Yes
PowerTrade™ Feature	Yes	Yes	Yes	No
Enhanced Performance	Yes	Yes	No	No



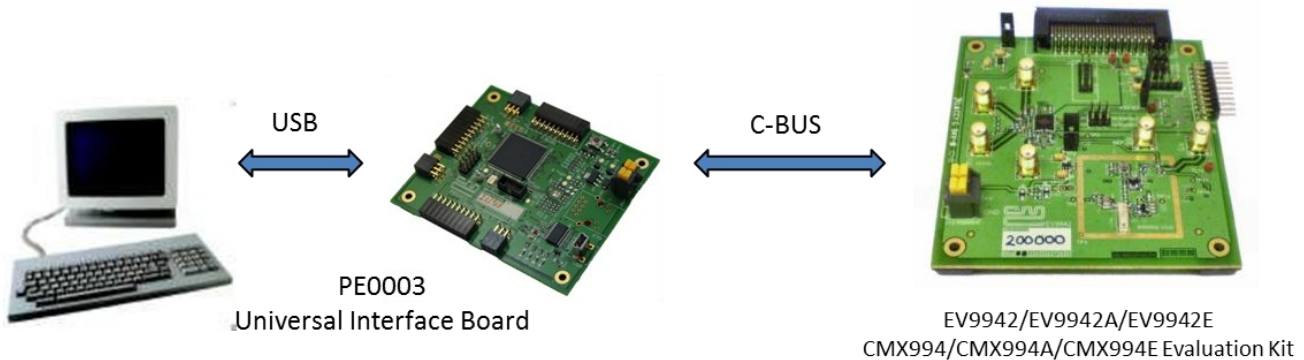
## EV9942 Evaluation Kit

The CMX994/CMX994A/CMX994E can be evaluated with the following evaluation kits:

- EV9942 – Evaluation kit (fitted with CMX994Q4)
- EV9942A – Evaluation kit (fitted with CMX994AQ4)
- EV9942E – Evaluation kit (fitted with CMX994EQ4)

Note – there are currently no plans to release an evaluation kit supporting the CMX994G.

Interfacing to a PC can be achieved with our PE0003 universal interface board, with GUI available to assist product evaluation. Alternatively any microcontroller evaluation/emulator kit can be used to drive the CMX994/CMX994A/CMX994E serial bus.





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**PRODUCT**

**DATA RESOURCE**

## 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

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