

DE9941

SDR Demonstrator for Linear Radio Systems

The DE9941 is a small demonstration platform for the CMX994 Direct Conversion Receiver, the CMX998 Cartesian Feedback Loop Transmitter and the CMX7164 Multi-mode Wireless Data Modem.

Features

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

Supply Requirement

- Nominal 3.6V dc regulated power supply

Applications

- SDR Wireless Data Modem Demonstration
- Direct Conversion Receiver (CMX994) and Cartesian Feedback Loop Transmitter (CMX998)
- Demonstration platform for the CMX7164 Multi-mode Modem

For further information, please refer to the 'Design Resources' section on the CMX994/CMX998/CMX7164 product page at cmlmicro.com

The DE9941 can be used to demonstrate Tx and Rx performance with QAM modulation, FSK and GMSK type modulation. Together with the PE0003 host controller, a full transceiver can be demonstrated using a Function Image and control scripts.

The DE9941 provides a Fractional-N PLL and VCO plus associated circuits to provide local oscillator signals for the CMX994/E and CMX998. The PE0003, together with the control scripts, gives the user the ability to program the RF synthesiser to the correct operating frequencies.

The design also includes a 1W power amplifier, harmonic filter and Tx/Rx switch. The RF performance is designed to be compliant with EN 302 561 and EN 300 113. All the circuits are provided with power-down capability to allow standby functionality.

Note: User Manual Rev2 is for the use with older boards containing CMX994 and CMX998 combination and User Manual Rev3 is for use with new boards containing CMX994E and CMX998 combination.



DE9941

WHAT TO DO NEXT

Visit: www.cmlmicro.com

Find: [Distributor](#)

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

Designing with CML products, 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.

www.cmlmicro.com

United Kingdom
United States
Singapore

Tel: +44 (0) 1621 875500
Tel: +1 336 744 5050
Tel: +65 62888129

email: sales@cmlmicro.com
email: us.sales@cmlmicro.com
email: sg.sales@cmlmicro.com