

Welcome to the Summer 2013 edition of ChipChat.

The information provided in this newsletter is intended to keep you up-to-date with activities at CML.

In this newsletter you will find details of our new products and updates, some of the design wins achieved in the last few months by our distributors, and updates on our marketing and advertising.

Please enjoy the read,

CML Marketing.

Index

- Product News: Pages 2-3
- Design Opportunities: Page 4
- Distributor Press: Page 5
- Advertising/In the Media: Pages 6-7
- Social Media: Page 8

New CML Product Selector

CML Microcircuits Product Selector document has been updated to include all of the latest devices and information you need when selecting the right CML product for a particular design.

Version 9 of the Product Selector is a great reference guide to print and have on your desk.



CML staff raised £1,800 for charity cycling from London to Brighton

A team, including six staff from CML Microcircuits, recently completed the British Heart Foundation (BHF) London to Brighton bike ride, raising money for charity.

The team was sponsored by CML who provided transport and clothing. The team was appropriately named Sally Silicon's Flying Chips, referencing Sally Lewis, who had the mad idea in the first place and our silicon chips (often confused en-route for 'Silicone', that is entirely different).

A big thank you to Kris Knox-Crichton for all the planning and driving the support vehicle, and Shaun Raven for creating a great custom cartoon for the team shirts.



New Product News

Page 2

Precise positioning in distress situations using Marine Digital Selective Calling (DSC) expansion sequence

The CMX7031 and CMX7041 Multi-mode Two-way Radio (TWR) processors, operating in Marine VHF mode, have been enhanced to enable the ITU-R M.821 recommendation: Marine Digital Selective Calling (DSC) expansion sequences.

Continuous transmission mode has also been included for use in distress alert situations.

Standard marine DSC only allows a position resolution down to approximately one square nautical mile (1nmi^2). In distress situations this is not accurate enough to pin-point a precise position.

The DSC expansion sequences allow precise geographical coordinates to be transmitted, providing position accuracy to less than one square metre (1m^2).

Imagine the situation of a scuba diver in rough seas with strong currents, calling to be picked-up. Providing a 1nmi^2 collection position will prolong recovery and potentially put the diver at risk.

A Marine VHF radio with the DSC expansion sequences enabled, would allow the diver to transmit an accurate collection position, down to 1m^2 , ensuring a safe and swift recovery.



The CMX7031/7041 devices enable a revolutionary new platform approach to radio design, enabling multi-mode analogue two-way radios to be developed based on a single radio platform, conforming to many systems: PMR, LMR, Trunking, Marine, Aviation, Amateur radio, NOAA weather radio and packet data radio.

CMX972 Quadrature Demodulator with PLL/VCO

The new CMX972 is the latest addition to CML's RF Building Block range and features a low-power IF/RF Quadrature Demodulator with PLL/VCO, a wide operating frequency range and optimised power consumption.

The demodulator is suitable for superheterodyne architectures with IF frequencies up to 300MHz and the device may be used in low IF systems or in those converting down to baseband.

An on-chip PLL and VCO, together with uncommitted baseband differential amplifiers, provide additional flexibility. Control of the CMX972 is by serial bus.

The small, RF-optimised 32-pin VQFN package and minimal external components make the device ideal for space-constrained applications.

Features

- * 20 to 300MHz IF/RF Demodulator
- * On-chip PLL and VCO
- * 10MHz Rx I/Q Bandwidth
- * < 1 degree I/Q Phase Matching
- * < 0.5 dB I/Q Gain Matching

Benefits

- * Flexible RF Building Block Solution
- * Best in class intermodulation performance
- * Excellent phase/amplitude balance
- * Serial bus configuration
- * Simple interfacing to existing modem/baseband products



New Product News

Page 3



CML announces the expansion of its engineering department

CML Microcircuits (UK) Ltd has established a new specialist RF and mixed-signal semiconductor design team in Sheffield, England, that will operate as an extension of its existing Essex-based design team.

The move will allow CML to accelerate the design and release of new products into the market.

RF has been a recent focus for CML. This new design team builds on existing foundations and will enable CML to address new opportunities in higher frequency wide band systems. CML also expects to utilise this addition of new design engineers to further its planned and existing research activities.

Managing Director, Mike Gurry said "I am delighted to announce the expansion of our engineering resource. Adding this talented group of engineers to our design team will enhance our capability to meet our stated objective to define, develop and deliver high quality, innovative semiconductor solutions to our customers".

The new team's skill base will complement and enhance CML's capability with regard to both design experience and addressable markets.

CMX7011 Digital Voice for TWR Late-entry/re-entry added

CML Microcircuits is pleased to announce the release of a major update to the CMX7011 Digital Voice Processor which includes the addition of late-entry/re-entry functionality and output fine gain adjustment.

Late-entry/re-entry functionality has been added to the CMX7011. This offers two significant benefits to the device: It allows a receiving radio to join a call even if the initial synchronisation frame was missed, and to re-join an on-going call that had dropped out due to a fading receive signal.

The analogue output gain stage now has fine gain control in addition to the existing coarse gain. Fine gain control allows the analogue output to be adjusted in 0.2dB increments.

CML releases low-power, low-cost dPMR chipset

CML Microcircuits has released new Function Images for their successful CMX7131/7141 (dPMR) Digital PMR Processors.

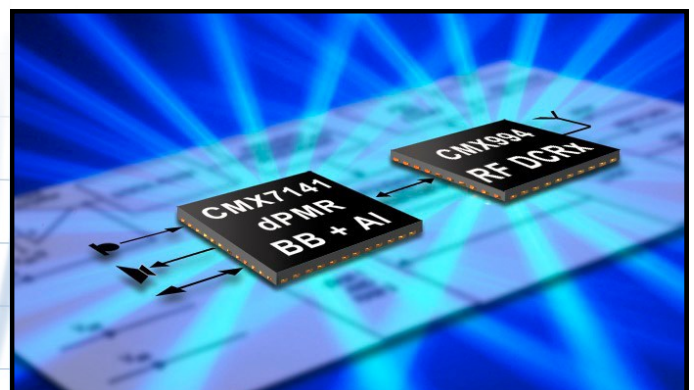
The new Function Images add to the already flexible device allowing it to be used in the design of small, low-cost, low-power digital and analogue PMR radios.

Thanks to CML's innovative chipset designing a small, low-cost, low-power analogue or digital PMR (dPMR) radio has now never been easier.

When the CMX7131/7141 using the new Function Image, is combined with a suitable host and a Direct Conversion (I/Q) receiver, such as CML's popular CMX994, a low-cost digital PMR radio can be realised.

Through the embedded functionality of the CMX7131/7141 managing the CMX994 down converter autonomously, host microcontroller interactions are minimised enabling the lowest operating power and therefore the longest battery life, for a digital PMR radio.

The chipset presents a comprehensive dPMR solution, providing RF direct conversion with minimal external components and set-up, plus baseband and AIR interface physical and data link layers complying to dPMR Mode 1, 2 & 3 TS 102 658. This market-leading solution also provides full backward compatibility to legacy analogue PMR.



Design-in Opportunities

Page 4



Application: Mobile Radio
Devices: CMX994
Territory: Italy

A major European Communications equipment manufacturer is using the CMX994 RF Direct Conversion Receiver for its next generation SDR platform. This will be rolled out over the coming months to eventually replace the current solutions and form the basis on which their future designs will be made.

The customer is an on going user of the CMX981/998 (our previous analogue products) and was an early adopter of the original release of the CMX994. We have worked closely with them and our distributor has been instrumental in supporting them over the interim period to ensure a successful design in.

In most cases the CMX994 will be used with the CMX998 and we expect to add to our share of the strategic components in this and future designs with products in development for interfacing the baseband DSP to the RF sections.

This first production run will be for a TETRA Mobile Radio and we have two further product projects expected to enter production during the coming Financial year: one is a military tank-mounted radio and the second is an avionics radio.

Application: Mobile Radio
Devices: CMX7011
Territory: Scandinavia

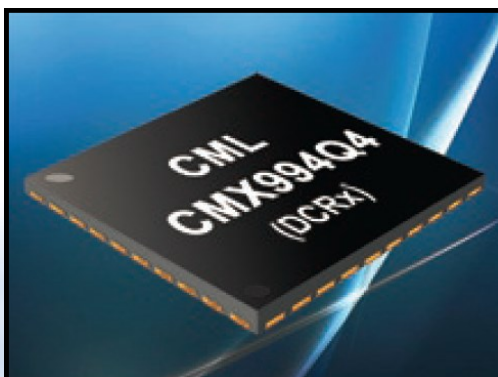
A Scandinavian manufacturer of professional radio equipment, who currently uses the CMX881 TWR processor in an Analogue PMR Handheld Radio, has now successfully added Digital Voice Encryption functionality to their design, by including the CMX7011.

The initial project was for a specific end customer requirement however the manufacturer has now adopted the CMX7011 scrambler option into their standard radio.

Several different CML solutions were discussed with the customer but the CMX7011 was the perfect fit. External competition was seen from a European module company but this proved to be a much more expensive solution, with no design support.

CML and our distributor provided a high level of technical support directly to the customer, along with visits, which allowed the customer to move the design forward quickly.

This is a good example of how an analogue two-way radio can be quickly and easily upgraded to provide digital voice encryption using the CMX7011.



Distributor/Representative Press

Page 5

We are always keen to see what marketing/advertising our distributors/Representatives are doing. We always welcome the opportunity to share ideas and discover potential ways we can promote our business together.

Please let us know if you have, or plan to do, any marketing/advertising which includes CML Micro or its products. We will be happy to assist where we can and share them here and on our social channels.

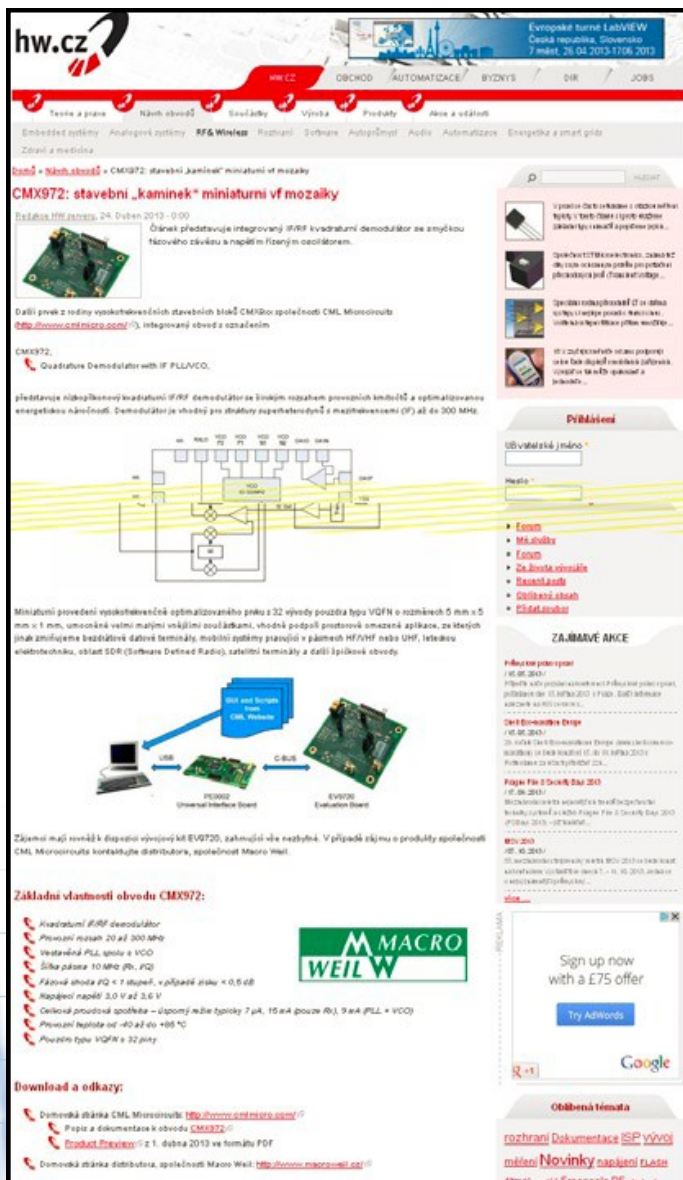
Here are a few ways our distributors have been promoting CML over the last few months...

Bis Electronics

Artem from BIS Electronics wrote a very interesting and informative article on CML Micro.

Macro Weil

Macro Weil distributed the press release below for their launch of the CMX972.



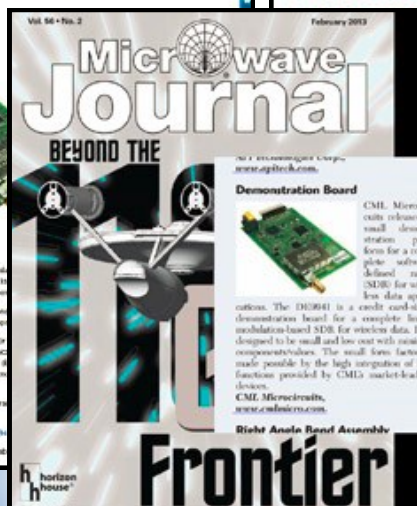
CML Products In The Media

Page 6

Product launches

We have had great coverage for the DE9941 Demo Board, CMX972 Quadrature Modulator and updates to the CMX7011 Digital Voice Processor for TWR.

On this page is a small selection of recent placements.



CML Products In The Media

Page 7

Digital/printed magazine and online advertising

CML has been supporting product launches with advertising in a wide range of local and international publications. On this page is a small selection of recent placements.

The collage consists of several overlapping magazine covers and product advertisements:

- Global Electronics China (世界电子器件):** Features a large advertisement for CML Microcircuits, highlighting their products in the medical, health, and safety sectors.
- Electronic Specifier:** Promotes CML Microcircuits as a free supplement to Embedded World, featuring various semiconductor products.
- Embedded World 2013:** A large advertisement for the Embedded World 2013 exhibition and conference, featuring CML Microcircuits as a key exhibitor.
- Medical Electronics:** A magazine cover featuring a large advertisement for CML Microcircuits, highlighting their products in the medical electronics market.
- PCB World:** A magazine cover featuring a large advertisement for CML Microcircuits, highlighting their products in the PCB manufacturing industry.
- Product Advertisements:** Several smaller advertisements for specific CML products, including the TWELP VOCODER, RF Building Blocks, and the DCA Pro digital voice processor. These ads provide detailed information about the products' features and applications.

Social Media

Page 8



Social Media

Please visit our social sites listed below and like, follow and subscribe where you can to help build our following.

If you have any content you would like to add please contact mlyman@cmlmicro.com or post directly onto the site, where possible.

Facebook

If you have any relevant news or something that might be of interest to others please post it to the timeline, if you are unsure feel free to contact us first.

Please let us know if you have a Facebook site which we can like and link to.

Please take a look and 'Like' our page: <http://www.facebook.com/CMLMicrocircuits>

Linkedin

CML Microcircuits Linkedin profile has been updated with the latest products and videos.

Please take a look and follow our page: <http://www.linkedin.com/company/cml-microcircuits>

Twitter

CML Microcircuits Twitter profile now has 2,380 followers and is a useful source of information on CML's new products and updates.

Please take a look and follow our page: <http://www.twitter.com/cmlmicro>

YouTube

CML Microcircuits YouTube channel and videos have now had over 16,000 views. New product introduction videos are available for the CMX970, CMX971 and CMX973.

Please take a look and follow our page: <http://www.youtube.com/user/cmlmicrocircuits>