

DE70322T

Marine AIS Class B Demonstration Kit

AIS Class B CSTDMA/SOTDMA

The DE70322T is a complete AIS Class B (IEC 62287-1) technology demonstrator/reference design package that will enable manufacturers to quickly deploy an AIS Class B transceiver in to the market. This flexible platform provides a new low cost route to developing an AIS class B transceiver, taking it through approval and getting to market in a fast and trouble-free manner.

Features

- AIS Class B transceiver
- Technology demonstrator
- Designed to meet IEC62287-1
- On-board ARM host microcontroller
- 2W Tx output power
- On-board GNSS receiver
- Market leading performance
- Dual UART interface
- Dual, independent GMSK receiver channels
- USB interface
- Small size (122mm x 55mm)
- AIS stack support path

Applications

- AIS Class B transceiver SOTDMA/CSTDMA
- Dual AIS receiver operation

Key Advantages

- Small compact design
- Fast path to AIS Class B transceiver
- Designed to be certification ready
- Embedded programmable ARM controller for application code
- Reference design files available
- Low cost solution

The DE70322T implements a dual channel receiver / single transmitter on 161.975MHz (AIS channel 1) and 162.025MHz (AIS channel 2) with 25kHz channel spacing and 9600bps over-air data rate.

The receivers are programmable across the entire marine band (156.000 to 162.050 MHz) while the transmitter is optimised for use in the upper marine band (160.000 to 162.050 MHz).

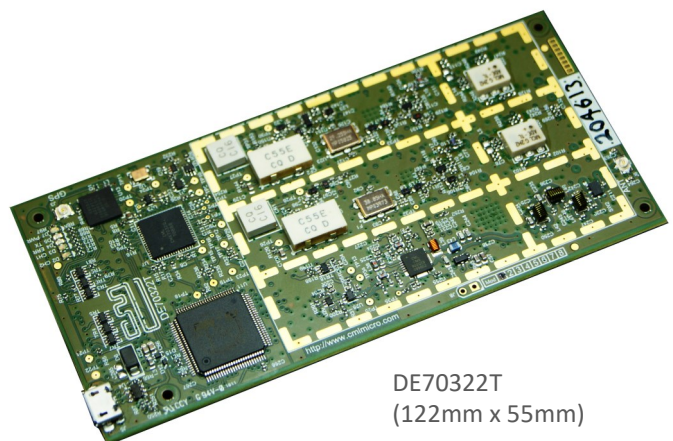
The design is a flexible platform based around the CMX7032 Marine AIS baseband and protocol processor. Two Function Images™ are available :

- 7032/7042FI-1.x - full AIS Class B operation
- 7032/7042FI-3.x - full marine AIS Class B operation with the addition of ExactTrax™ operation

The on-board ARM microcontroller (STM32F411VET6) allows a USB-connected host to directly control the CMX7032 using the CML script processing language or to run an in-built Rx-only application.

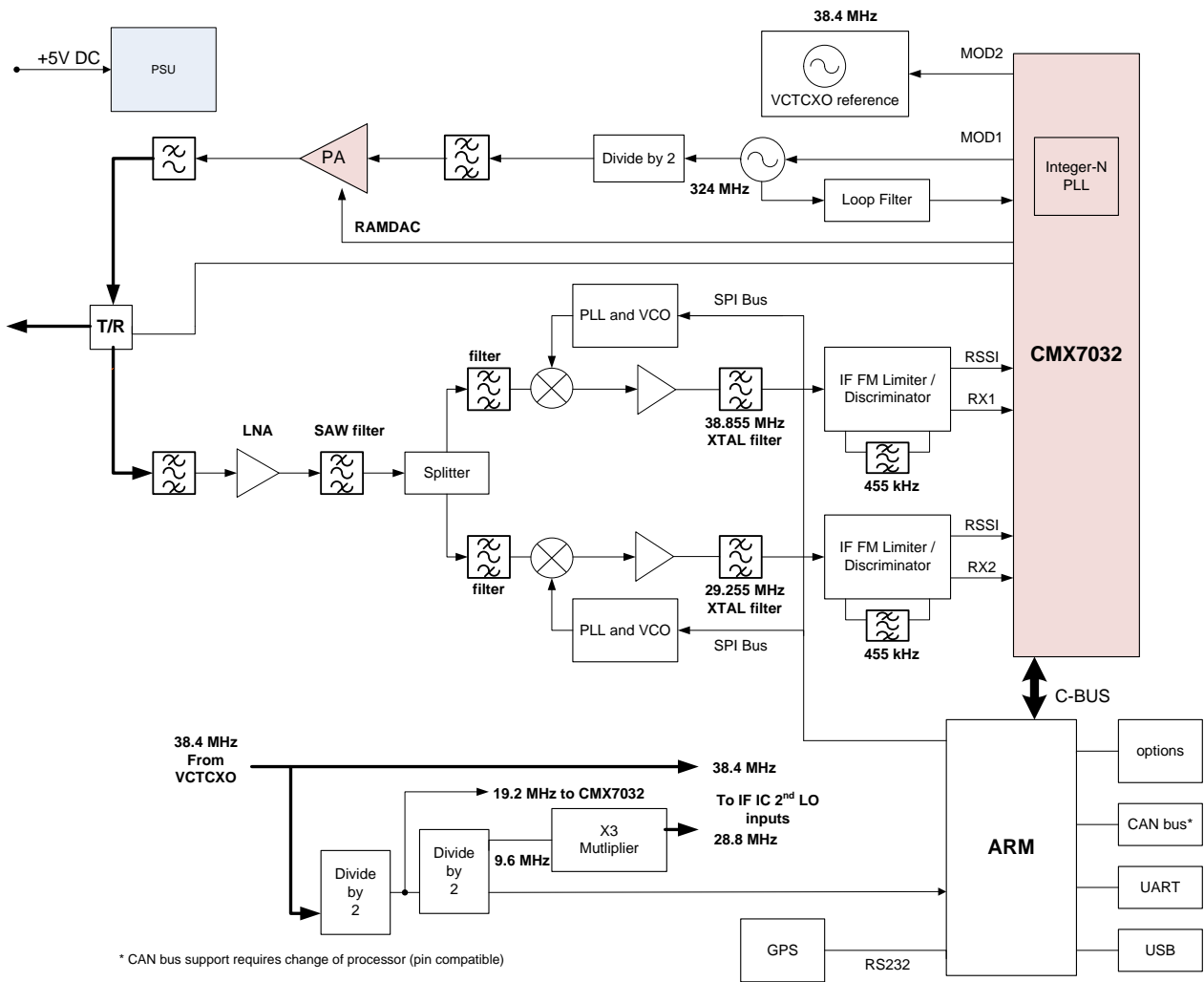
A JTAG header is also provided so that designers can implement their own code and/or implement a complete Class-B CSTDMA protocol stack.

There is sufficient memory and processing capability to implement a Class-B SOTDMA (IEC 62287-2) protocol stack, however the RF output on-board is limited to 2W.



DE70322T
(122mm x 55mm)

Function Block Diagram



Ordering Information

- DE70322T— Marine AIS Class B Demonstration Kit



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

CML is qualified to the latest ISO standards and tests 100% of all devices in-house prior to shipment, ensuring customers the highest standards in quality and 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