CMX910

Class A and B AIS Baseband Signal Processor

The CMX910 is designed for use in all current AIS operational modes and is capable of performing data-handling and formatting, timing, distribution and control functions under host control. Both mandated GF(M)SK Rx channels and a single Tx channel are provided.

The processor is selectable to 12.5 and 25kHz modes for Marine AIS and accommodates (in Rx and Tx), full AIS data packet assembly and disassembly and a basic ‘raw’ data facility.

Features

- Half duplex GF(M)SK, FSK and DSC capabilities
- Marine AIS formatted data and raw data modes
- 12.5 and 25kHz modes for marine AIS
- I and Q radio interface
- Supports carrier-sensing channel access (CSTDMA)
- Slot/sample counter with UTC timing interface
- Auxiliary ADC and DAC functions
- Flexible signal channels:
  - Two simultaneous Rx
  - One Tx
  - Optional-FSK interface

Applications

- Marine AIS class A and B transponders
- Rx only AIS monitors
- Marine AIS search and rescue transponders (SART)

Supply Requirement

- 3.0 to 3.6V

Integration of all marine AIS functions, including versatile synchronisation and timing and control facilities are available. Control interfacing and ‘data-streaming’ are via the CML C-BUS serial interface, with a host-controlled expansion port for the addition of other ICs.

A third parallel (Rx) decode path, accommodates DSC (FSK) signalling from an external modem for Class A marine. The provision of the C-BUS expansion port, an RF device enabling port and a number of auxiliary ADCs and DACs, simplifies the system hardware implementation, reducing equipment cost and size.

The use of a single multi-function product offers significant reduction in power requirements. The CMX910 is available in compact 64-pin LQFP and VQFN packages.

Enhancement:

To further enhance the CMX910, its Special Command Interface can be used to reconfigure the CMX910’s functionality to fully implement and improve its CS-TDMA reception capability.
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.