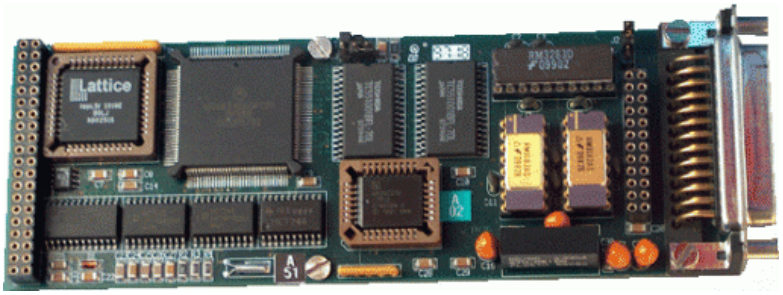
M302

ARINC-429 Controller M-module



The M302 ARINC-429 Controller M-module is based upon the popular Motorola MC68332 microcontroller. The TPU of this device has been programmed to handle the ARINC-429 transmit and receive algorithms, while the CPU neatly organizes the traffic between the bus and the host CPU. As the user remains in full control, this provides a versatile and user-friendly ARINC-429 interface.
On the M302, max. 2x transmit and 2x receive channels are available. Each receive channel has a separate receive buffer per label. After incoming data is validated, the corresponding buffer is refreshed with new data. Up to 16 labels may be selected for generating an interrupt when new data arrives. The M302 features logging of statistical information. The transmit data rate can be set to any value between 12.5 and 100kbps.
For each channel and for each label, the number of transmitted and received messages is logged into the statistics part of the local firmware. The statistical information can be obtained by issuing the appropriate command.

Also available as a PCI, CompactPCI (3U and 6U) and VMEbus (3U and 6U) product

Features:

> Onboard MC68332 runs intelligent firmware
> Transmit channels
> Receive channels
> Transmit and receive commands for specific labels
> 16 user selectable labels for interrupt generation upon reception
> Status and statistics monitoring for all channels
> Adjustable data rate from 12.5 to 100kbps
> ARINC-429 rise/fall capacitors selectable per channel
> Provides a platform for an ARINC-429 protocol analyser with additional software

M-module Compliancy

* A08/D16 (8-bit address and 16-bit data
* INTA (software end-of-interrupt)
* IDENT (identification EEPROM)

Transmitters

* Maximum of two transmit channels available
* Each channel features Raytheon RM3182A line drivers
* Capable of driving 30nF//400 Ohms
* Overvoltage- and short-circuit protected
* Transmit rate programmable to any value between 12.5 and 100kbps

Receivers

* Maximum of two receive channels available
* Both channels share one Raytheon RM3283D dual line receiver
* Bandwidth limitation for extra noise immunity
* Receiver provides internal bandgap and short-circuit protection

Product Characteristics

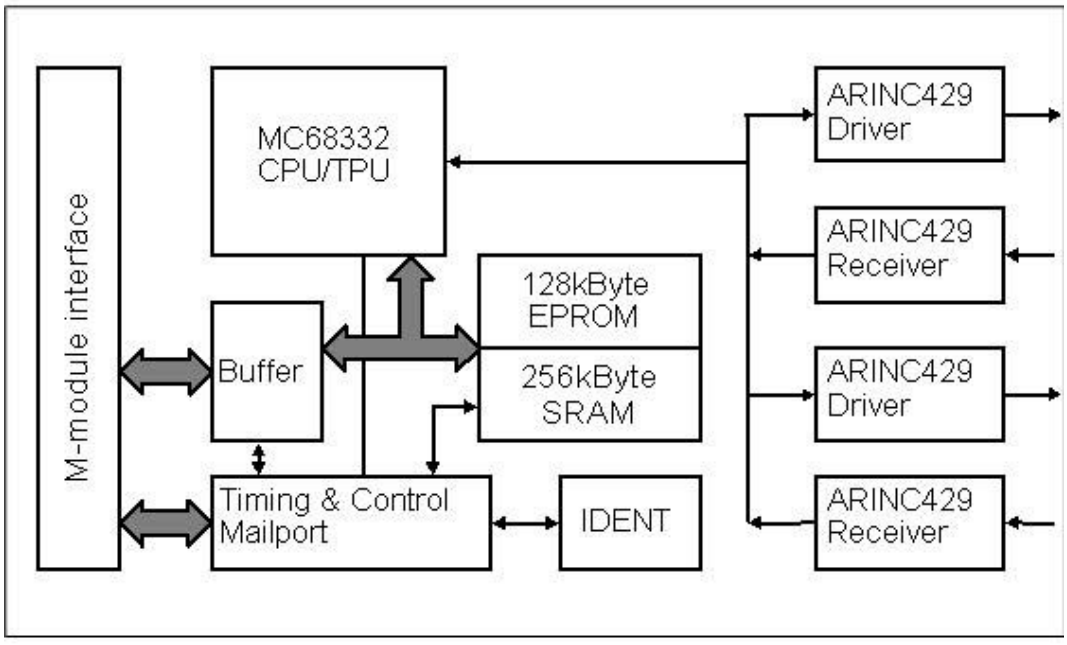
* Separate buffers for each label per receive channel
* 16 labels selectable for interrupt generation
* Statistical logging: messages per label, messages for all labels, parity errors, etc.
* User additions/improvements can be added with little effort

Ordering Information

* **M302/T01** ARINC-429 Controller with two transmitters and two receivers
* **M302/T02** ARINC-429 Controller with no transmitters and two receivers
* **M302/T03** ARINC-429 Controller with one transmitter and no receivers
* **M302/T04** ARINC-429 Controller with one transmitter and two receivers
* **M302/T05** ARINC-429 Controller with two transmitters and no receivers

Ordering Information

* **M302/T06** ARINC-429 Controller with two transmitters and two receivers (extended temperature -20°/+70°C)
* **M302/T07** ARINC-429 Controller with no transmitters and two receivers (extended temperature -20°/+70°C)
* **M302/T09** ARINC-429 Controller with two transmitters and two receivers, Bendix-King databus configuration
* **M302/T10** ARINC-429 Controller with two transmitters and two receivers (industrial temperature -40°/+85°C)
* **M302/T11** ARINC-429 Controller with no transmitters and two receivers (industrial temperature -40°/+85°C)
* **M302/SW** APIS based software for M302/MOD
* **M302/MAN** M302 manual on paper



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