M395
12/16-bit DAC M-module with 16x Voltage Outputs

The M395 features 16 analog voltage outputs, integrated on the ANSI certified M-module standard. The digital-to-analog converters have a resolution of 12 or 16-bit.

The voltage outputs on the M395 have a software programmable common output range of 0..+10V (uni-polar) or -10V..+10V (bi-polar).
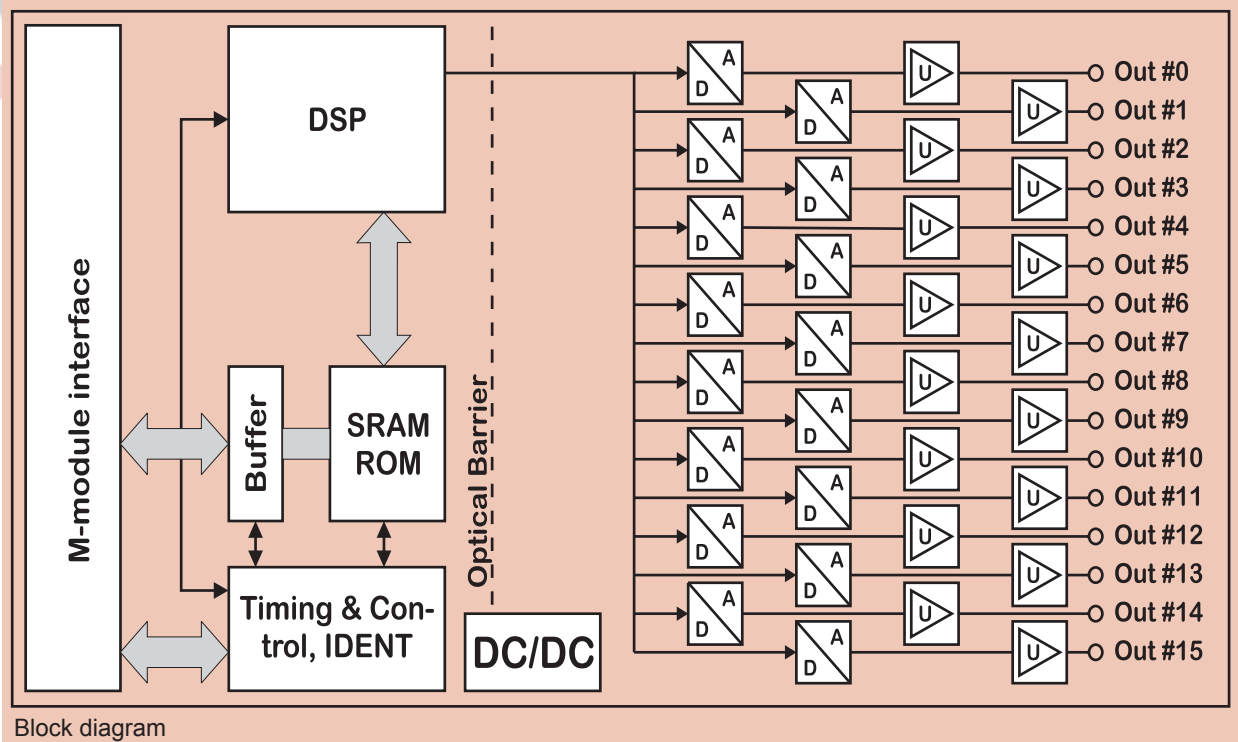
The hosting system has full control of the M395 by accessing its dual-ported memory. Each channel has its own conversion register and an output will be updated when a new value is written in the corresponding register.

The local TMS320C203 DSP is capable of executing custom algorithms for optional signal processing.

- 16 DACs with 12 or 16-bit resolution
- Simultaneously updating voltage outputs
- Software programmable common output range (0..+10V or -10V..+10V)
- 10 microseconds (max.) output response time
- No potentiometers
- Analog front-end optically isolated
- Optional onboard DC/DC converter for isolated power supply
- Features local TMS320C203 DSP
- Calibration data stored in local EEPROM
- A08/D16 M-module interface

AcQuisition Technology B.V.

Block diagram

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M-module Compliancy

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

DACs

- DAC resolution 12-bit or 16-bit
- Each channel has a dedicated
  data register that controls the
  output
- Output is updated after data
  register contents is refreshed
- Additional functionality can be
  implemented on request

Analog Outputs

- 16 common-mode voltage output
  channels available
- Uni-polar and bi-polar output range
  software programmable for all
  channels
- Outputs are optically isolated from
  the system
- Features pre-loading and
  simultaneous output update for all
  channels

Output Range

- Voltage outputs:
  - uni-polar (0..+10V)
  - bi-polar (-10V..+10V)

Ordering Information

- M395/V12/NDC
  12-bit M-module, without DCDC
- M395/V12/WDC
  12-bit M-module, with DCDC
- M395/V16/NDC
  16-bit M-module, without DCDC
- M395/V16/WDC
  16-bit M-module, with DCDC
- M395/SW
  APIS based software
- M395/MAN
  M395 manual on paper