

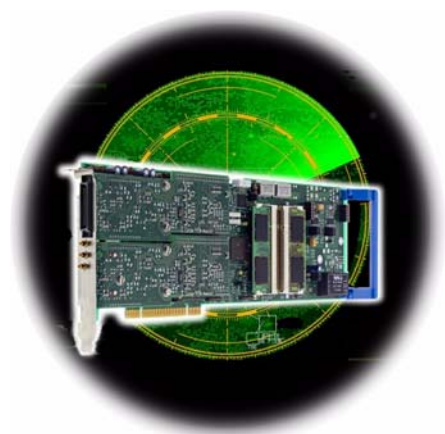


# SPECTRUM

SYSTEMENTWICKLUNG MICROELECTRONIC GMBH

## **M2i.40x8 - 50 MS/s combined A/D + Digital Digitizer - RADAR optimized**

- Available as PCI/PCI-X and PCI Express version
- Based on M2i.40xx series
- Versions with 20 MS/s and 50 MS/s available
- Simultaneous sampling on one 14 bit analog channel and 16 digital channels
- Acquisition of angle encoder for azimuth and elevation angle
- Special marker mode for segment acquisition marking segments with the corresponding angle setup
- Very short dead-time between segments
- 6 A/D input ranges:  $\pm 200$  mV up to  $\pm 10$  V
- 128 MSample standard memory installed
- Up to 2 GSample (4 GByte) on-board memory
- Available as PCI/PCI-X version as well as PCI Express x1 version



Model	A/D channel	Digital inputs
M2i.4028	20 MS/s	20 MS/s
M2i.4038	50 MS/s	50 MS/s

### **General Information**

The both cards of the M2i.40x8 series combine fast A/D data acquisition with the feature to acquire digital data in parallel. With this feature it is possible to either acquire 16 digital bit in parallel from one or more angle decoders or acquiring one or two encoder signals directly by using internal counters. Digital data is either stored continuously and synchronously with the analog data or as an angle marker with each data segment (Option Multiple Recording needed).

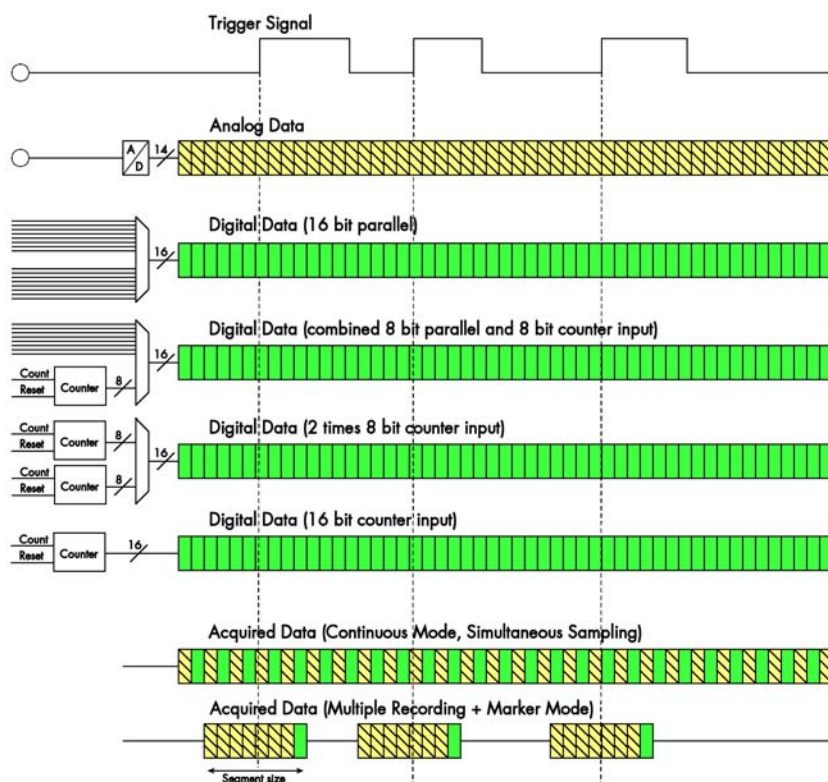
### **Operating Modes of the M2i.4028/4038**

Digital data can be either acquired fully in parallel or as a combination of a counter input and parallel digital data. The acquisition mode can be programmed by software.

When operating in continuous mode the analog and digital data is stored alternating in the on-board memory. For each 14 bit analog sample there is one corresponding 16 bit digital sample.

When operating in segmented marker mode there is one 16 bit digital sample stored at the end of each acquired segment holding the azimuth and elevation angle for this segment of analog data.

Acquisition can run with full sampling speed independent of the selected mode.



**Please see the main data sheet of the M2i.40xx series for further technical and ordering details.**

Technical changes and printing errors possible