

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

KONTRON / THALES / MATRIX

Kontron / Thales / Matrix MD-DAADIO4NFP Combination Board

Kontron / Thales / Matrix Data Acquisition Systems (DAQ). Voltage: to-Current Adapter (VCA):**.

**MODEL****Kontron / Thales /
Matrix MD-
DAADIO4NFP****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****MD-DAADIO4NFP****LISTING**[https://aumictechlabs.c
om/products/md-daadi
o4nfp-2/](https://aumictechlabs.com/products/md-daadio4nfp-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Kontron / Thales / Matrix MD-DAADIO4NFP is a VME double Eurocard (6U) combination board integrating analog-to-digital, digital-to-analog, and parallel I/O functionality for real-time data acquisition and control in embedded systems. It occupies a single VME slot and delivers flexible signal conditioning with software-configurable gain, multiple input/output modes, and full interrupt-driven parallel I/O control. Technical Specifications Analog-to-Digital Converter (ADC): 12-bit resolution with 12 μ s or 8 μ s conversion time 32 single-ended inputs (referenced to common analog ground) 32 pseudo-differential inputs (referenced to a common point) 16 differential inputs with independent reference inputs Jumper-selectable input voltage ranges: 0-10 V, ± 5 V, ± 10 V Overvoltage tolerance to ± 35 V without damage Software-programmable gain factors: 1, 2, 4, 8, 16, 10, 20, 40, 80, and 160 Dynamic gain switching between channel samples

Digital-to-Analog Converter (DAC): 12-bit resolution per channel Eight independent voltage output channels Jumper-selectable output ranges: 0-5 V, 0-10 V, ± 5 V, ± 10 V Multiplying D/A and current loop capabilities External reference input for scaling to non-standard ranges Fully independent output drive circuitry Voltage-to-Current Adapter (VCA): Converts channel pairs to current loop operation Supported modes: 4-20 mA, 0-20 mA, or 5-25 mA Plug-in configuration for any number of channel pairs Parallel I/O (PIO): 48 TTL I/O lines across six ports Individual software configuration as input or output Port A: Eight lines with interrupt source capability Per-line interrupt masking and pattern/state-change detection Key Features Single VME slot form factor (6U double Eurocard) Flexible jumper and software configuration for input/output modes Interrupt-driven parallel I/O with pattern recognition Programmable interrupt level, vector, and source registers Independent control and data registers for D/A and A/D sections Typical Applications Process control, data acquisition systems, industrial automation, sensor conditioning, and multi-channel signal routing in VME-based embedded platforms. Compatibility & Integration Designed for VME architecture with standard register-based control interface. All ADC, DAC, and PIO functions are independently configurable through board control and status registers.

MDDAADIO4NFP Characteristics / Specifications

PARAMETER	VALUE
Model	MD-DAADIO4NFP
Manufacturer	Kontron / Thales / Matrix
Instrument Type	VMEbus multifunction analog and digital I/O board
Series	MD-DAADIO
Alias	MD-DAADIO 4NFP; DAADIO 4NFP
Bus	VMEbus 6U double height
Form	single slot combination board
DAC Channels Stuffed	4 (4NFP; family max 8 on 8NFP)
DAC Resolution	12 bit
DAC Ranges	0 to 5 V, 0 to 10 V, +/-5 V, +/-10 V jumper per channel
DAC Drive	5 mA, +/-10 V into 2 kOhm class
ADC Resolution	12 bit (8 bit software selectable on some family docs)
Conversion Time	12 us or 8 us
Throughput Class	up to 160 kHz with 8 us ADC
AI Single Ended	32
AI Pseudo Differential	32
AI Differential	16
AI Ranges	0-10 V, +/-5 V, +/-10 V jumper
AI Overvoltage	up to +/-35 V without damage
AI Gain	1, 2, 4, 8, 16, 10, 20, 40, 80, 160 software
VCA Loops	4-20 mA, 0-20 mA, 5-25 mA when VCA stuffed
PIO Lines	48 TTL
PIO Ports	6 byte wide, each input or output
Interrupts	Port A 8 lines, maskable, pattern or change of state
VMEbus Slave	A16, D16 and D08 EO

PARAMETER	VALUE
Address Modifiers	29 hex and/or 2D hex
Suffix 4NFP	four DAC channels factory stuffed plus NFP packing; confirm jumpers versus 8NFP
Not Eight DAC	MD-DAADIO8NFP stuffs eight DAC channels
Status	vintage VME DAQ; Kontron/Thales/Matrix branding on different date codes
Power	VME backplane rails (confirm +5/+12/-12 current on the MD-DAADIO manual) Notes Specs from Matrix/Kontron MD-DAADIO family manuals used on 2NFP/4NFP/8NFP listings. 4NFP is four stuffed 12-bit DAC channels, not the eight-channel 8NFP build. Confirm DAC population, VCA, and 6U VME jumpers on the unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	MD-DAADIO4NFP
Manufacturer	Kontron / Thales / Matrix
Instrument Type	VMEbus multifunction analog and digital I/O board
Specifications	
PARAMETER	VALUE
Series	MD-DAADIO
Alias	MD-DAADIO 4NFP; DAADIO 4NFP
Bus	VMEbus 6U double height
Specifications	
PARAMETER	VALUE
Form	single slot combination board
DAC Channels Stuffed	4 (4NFP; family max 8 on 8NFP)
DAC Resolution	12 bit
Specifications	
PARAMETER	VALUE
DAC Ranges	0 to 5 V, 0 to 10 V, +/-5 V, +/-10 V jumper per channel
DAC Drive	5 mA, +/-10 V into 2 kOhm class
ADC Resolution	12 bit (8 bit software selectable on some family docs)
Specifications	
PARAMETER	VALUE
Conversion Time	12 us or 8 us
Throughput Class	up to 160 kHz with 8 us ADC
AI Single Ended	32

Specifications

PARAMETER	VALUE
AI Pseudo Differential	32
AI Differential	16
AI Ranges	0-10 V, +/-5 V, +/-10 V jumper

Specifications

PARAMETER	VALUE
AI Overvoltage	up to +/-35 V without damage
AI Gain	1, 2, 4, 8, 16, 10, 20, 40, 80, 160 software
VCA Loops	4-20 mA, 0-20 mA, 5-25 mA when VCA stuffed

Specifications

PARAMETER	VALUE
PIO Lines	48 TTL
PIO Ports	6 byte wide, each input or output
Interrupts	Port A 8 lines, maskable, pattern or change of state

Specifications

PARAMETER	VALUE
VMEbus Slave	A16, D16 and D08 E0
Address Modifiers	29 hex and/or 2D hex
Suffix 4NFP	four DAC channels factory stuffed plus NFP packing; confirm jumpers versus 8NFP

Specifications

PARAMETER	VALUE
Not Eight DAC	MD-DAADIO8NFP stuffs eight DAC channels
Status	vintage VME DAQ; Kontron/Thales/Matrix branding on different date codes
Power	VME backplane rails (confirm +5/+12/-12 current on the MD-DAADIO manual)

Notes

Specs from Matrix/Kontron MD-DAADIO family manuals used on 2NFP/4NFP/8NFP listings. 4NFP is four stuffed 12-bit DAC channels, not the eight-channel 8NFP build. Confirm DAC population, VCA, and 6U VME jumpers on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.