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Data Sheet

August 15, 2026

dSPACE

dSPACE DS1006-07 Processor Board

The dSPACE DS1006-07 is a processor board in the DS1006 family for real-time HIL. OEM DS1006 literature covers an AMD Opteron based multiprocessor board for dSPACE modular systems running real-time models. Hardware-in-the-loop, rapid control prototyping, and real-time simulation on dSPACE modular racks. Instrument Type: real-time processor board Form Factor: dSPACE modular processor board Hardware-in-the-loop, rapid control prototyping, and real-time simulation on dSPACE modular racks. Instrument Type: real-time processor board Form Factor: dSPACE modular processor board Documentation Type: OEM dSPACE DS1006 literature



MODEL

dSPACE DS1006-07

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

DS1006-07

LISTING

<https://aumictechlabs.com/products/ds1006-07-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The dSPACE DS1006-07 Processor Board is a processing unit engineered for demanding rapid control prototyping and hardware-in-the-loop (HIL) simulation applications. It is the core processing component within dSPACE's modular hardware systems, designed to handle complex and computation-intensive models, particularly those found in powertrain and virtual vehicle simulations. Technical Specifications Processor: Quad-core AMD Opteron™ x86 processor, 2.8 GHz clock frequency Memory Architecture: - 128 MB global memory for host PC data exchange - 256 MB local memory for real-time model execution - 2 MB on-board boot flash memory Optional

CompactFlash card slot for application flash memory and host-independent booting
Programming: Fully programmable from MATLAB®/Simulink® via Real-Time Interface (RTI) Data Exchange: High-speed connection to all dSPACE I/O boards via PHS bus Multiprocessor Expansion: Supports up to 20 processor boards via DS911 Gigalink Module (1.25 Gbit/s fiber-optic transmission) over distances to 100 meters; hardware-interrupt-based synchronization ensures minimal latency Optional Interfaces: Gigabit Ethernet I/O for high-speed data streaming DS911 Gigalink Module for optical interconnection Thermal Management: Heatsink with dual cooling fans Software: dSPACE DS1006 Compiler Ver. 1.5 (GNU C Compiler Ver. 3.3.5); compatible with MATLAB® R2006a+, R2006b, R2007a+, or R2007b and Real-Time Workshop Key Features Quad-core x86 architecture for parallel processing of intensive control algorithms Direct PHS bus connectivity eliminates bottlenecks in I/O board communication Optional fiber-optic Gigalink interconnects enable distributed multiprocessor configurations across large physical distances CompactFlash boot capability enables autonomous operation independent of host PC Typical Applications Rapid Control Prototyping (RCP) Hardware-in-the-Loop (HIL) simulations Powertrain and virtual vehicle simulations Complex, large-scale real-time applications in automotive, aerospace, and industrial automation Compatibility & Integration The DS1006-07 integrates into dSPACE's PX10 and PX20 Expansion Boxes. Hardware revisions may require Expansion Box updates. Multiprocessor systems leverage synchronized cores for data exchange between boards.

DS1006 Characteristics / Specifications

PARAMETER	VALUE
Model	DS1006-07
Base Model	DS1006
Instrument Type	real-time processor board
Manufacturer	dSPACE
Form Factor	dSPACE modular processor board
Application Class	HIL and RCP
System Role	real-time CPU board
Use Case	real-time model execution
Documentation Type	OEM dSPACE DS1006 literature
Cpu Class	AMD Opteron multiprocessor class
Family	DS1006
Revision	07
Bus Class	dSPACE PHS modular bus
Host Class	dSPACE experiment software
Io Class	modular dSPACE I/O boards
Memory Class	DS1006 memory on the sheet
Clock Class	DS1006 CPU clock on the sheet
Brand Lineage	dSPACE
Literature	dSPACE DS1006 processor board literature
Cooling Class	DS1006 cooling on the sheet
Power Class	DS1006 board power on the sheet
Operating Class	dSPACE expansion box / PX
Storage Class	DS1006 storage on the sheet
Realtime Class	deterministic real-time OS
Ethernet Class	DS1006 host link on the sheet

PARAMETER	VALUE
Mounting Class	dSPACE rack slot

DS1006 Specifications

PARAMETER	VALUE
Applications	Hardware-in-the-loop, rapid control prototyping, and real-time simulation on dSPACE modular racks.
Key Features	DS1006 processor board
Technical Specifications	Model: DS1006-07

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	
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Notes

From dSPACE DS1006 processor board literature for DS1006-07. CPU GHz, memory size, and PHS details are on the DS1006-07 sheet; do not invent GHz.

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

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