Motorola MVME31006E-1152

Technical Reference | exact-model engineering dossier

Motorola MVME31006E-1152 is a 6E MVME3100 VME computer specified with a 667 MHz MPC8540, 256 MB DDR SDRAM, 64 MB flash, Gigabit Ethernet and SATA.

Exact offered identity	MVME31006E-1152
Engineering role	VMEbus MPC8540 Single-Board Computer
Installed-system reference	MVME3100 6E VME single-board computer

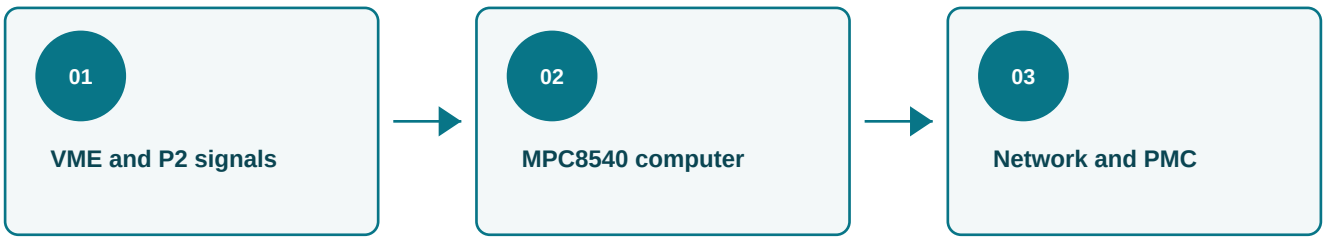
Functional identity

The exact MVME31006E-1152 order row identifies its 667 MHz processor, 256 MB DDR, 64 MB flash, Gigabit Ethernet, SATA and IEEE handles. The higher-memory -1263 version is a different order code.

Engineering decision points

Match the complete marking	Include MVME31006E-1152 and every visible revision or serial identity in your enquiry. Keep the same complete reference on the quotation.
Check the offered item before ordering	Request available label and connector photos. Have your maintenance team compare the offered MVME31006E-1152 with the installed equipment and applicable Motorola documentation.

Engineering path



Source basis

SMART Embedded Computing MVME3100 Data Sheet, MVME3100-DS, 21Feb2020

02 System position and boundaries

VME application processing

Use the MPC8540 board to run a supported PowerPC application with the installed VME address and interrupt map.

Backplane data exchange

Apply 2eSST only where peer boards and the chassis backplane are verified for that protocol; legacy VME transfers remain an integration consideration.

Networked control

Route the intended Gigabit or 10/100 port through its documented front or rear path and restore host addressing.

Peripheral expansion

Use PMC-X and SATA functions only with the fitted cards, power budget and software drivers recorded for the machine.

Installed system

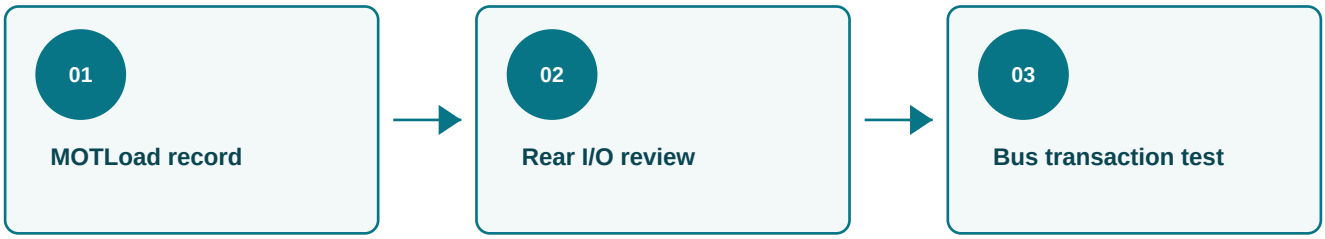
Confirm the exact 6E board and any PMC cards, rear transition module, storage device and firmware image in the offer; these accessories are installation-dependent.

The 6E-1152 row specifies 256 MB DDR and 64 MB flash; -1263 has a different processor and memory build.

03 Verified technical data

CPU	667 MHz MPC8540 PowerPC e500
DDR memory	256 MB
Soldered flash	64 MB
VME protocol	VME64 with 2eSST-capable series interface
Ethernet topology	Two Gigabit and one 10/100 ports in series design; rear access requires matching RTM
Serial ATA	SATA controller in -1152 order configuration
Expansion	PMC-X sites in MVME3100 architecture; check -1152 population
Firmware monitor	MOTLoad
Front-panel execution	IEEE handles, 6E

Review sequence



04 Integration and diagnostic review

Order-code boundary

The 6E-1152 row specifies 256 MB DDR and 64 MB flash; -1263 has a different processor and memory build.

Rear interface

Match the installed MVME721-type rear transition arrangement before using P2 network or serial ports.

Isolate power

Shut down the VME chassis and connected peripherals before removing the processor.

6E mechanical match

Check IEEE handle, slot and rear-transition clearance for this 6E execution.

Acceptance sequence

STEP	ACTION	ACCEPTANCE
01	MOTLoad state	Preserve firmware and environment settings before changing flash or boot selection.
02	Acceptance testing	Run board diagnostics, confirm memory and flash identification, then exercise VME, network and application I/O.
03	Record the functional result	Confirm MOTLoad and memory tests, expected VME transactions, selected network and SATA functions, and all application-specific PMC channels against the prior system record.

05 Engineering questions and source record

Why should MVME31006E-1152 not be treated as the -1263 build?	The original ordering rows separate 667 MHz/256 MB/64 MB for -1152 from the higher processor and memory option. Firmware and software capacity planning must follow the exact row.
How is rear Ethernet access established for MVME31006E-1152?	Identify the P2 signals and the fitted MVME721-type RTM, then prove the selected network port with its host configuration.

What determines 2eSST operation with MVME31006E-1152?	The controller supports the protocol, but effective use requires a matching backplane and other boards. Validate bus negotiation and actual transactions in the installed chassis.
What should MOTLoad reveal before MVME31006E-1152 enters service?	Check startup diagnostics, 256 MB memory discovery, flash/boot selection and interface initialization before the plant application is loaded.
How should SATA devices be checked with MVME31006E-1152?	Confirm controller mode, cable route, device power and boot configuration, then verify the device is visible to the chosen software image.
Which PMC checks matter when exchanging MVME31006E-1152?	Compare mezzanine identity, slot position, PCI/PMC driver and field cable path; a working base processor does not prove optional I/O.

Document identity

Apter Power technical reference based on SMART Embedded Computing MVME3100 Data Sheet, MVME3100-DS, 21Feb2020. The exact offered code and installed revision govern applicability.

Discuss the complete model and fitted revision with Apter Power.
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Other Motorola references

Catalog navigation only; confirm each complete model for its own installation.

Motorola MVME2304 64-W5206C01B	View product reference
Motorola MVME5100	View product reference
Motorola MVME172PA-652SE	View product reference