

SABRECOM 300 Rugged Integrated Mission
Computer with Core i7 / Xeon SBC + Managed
Gigabit Ethernet Switch



COM  **Express**®  **PCIe104**



FEATURES

- Intel Core-i7 7th , 11th , or 13th gen processor
- 20-64GB RAM
- 128GB-2TB integrated solid state flashdisk
- Choice of Linux or Windows 64-bit OS
- 7 or 15 1Gb copper Ethernet ports with Layer 2 management software
- HDMI, USB3, USB2, RS-232/422/485, and GPIO (quantity varies by SBC)
- Optional 16-bit data acquisition with autocalibration
- Customizable with I/O expansion modules
- Choice of MIL-STD-461 filter or isolated power supply with MIL-STD-461/704/1275 filtering
- Rugged enclosure with IP67 rating
- MIL-DTL-38999 connectors for power and general I/O



Specialized high-speed connectors for HDMI and USB 3.0

Designed to meet MIL-STD-810H shock and vibration requirements

Internal boards qualified for MIL-STD-202H shock and vibration requirements

-40 to +75C operating temperature

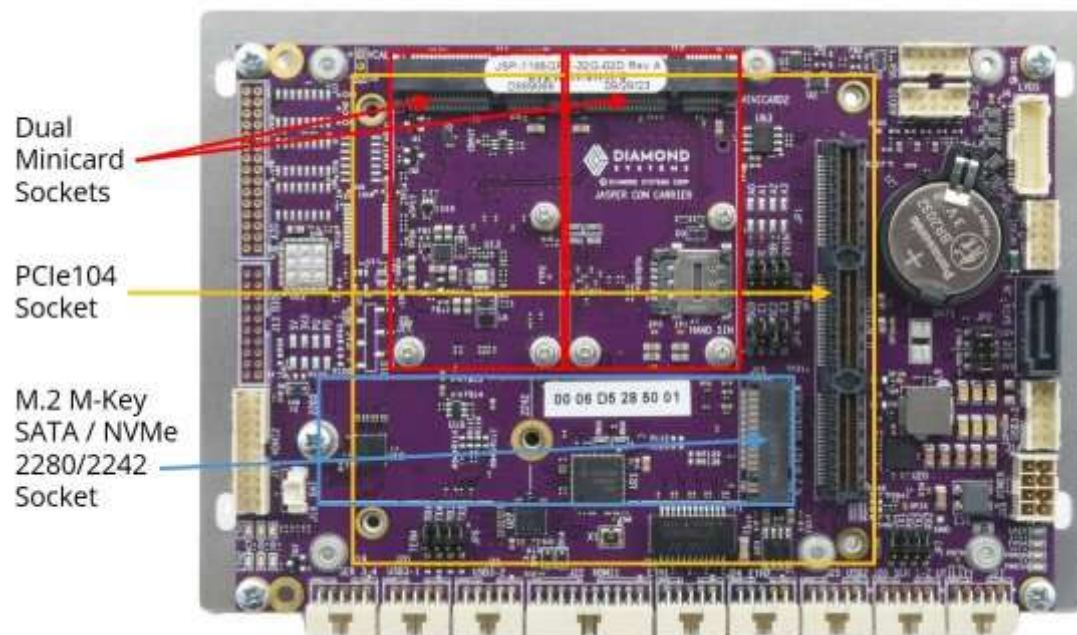
Dimensions W x H x D (overall including mounting feet): 111 x 174 x 237mm / 4.4 x 6.9 x 9.3"

SabreCom-300 series systems combine a full-featured x86 SBC with a managed Ethernet switch in a rugged, sealed enclosure designed to withstand the harshest of environments. All boards and components are tested or designed to meet MIL-STD-202 and -810 levels of shock and vibration. The flexible architecture supports multiple options for SBC configuration, solid-state mass storage, operating system, Ethernet switch, power supply, and I/O:

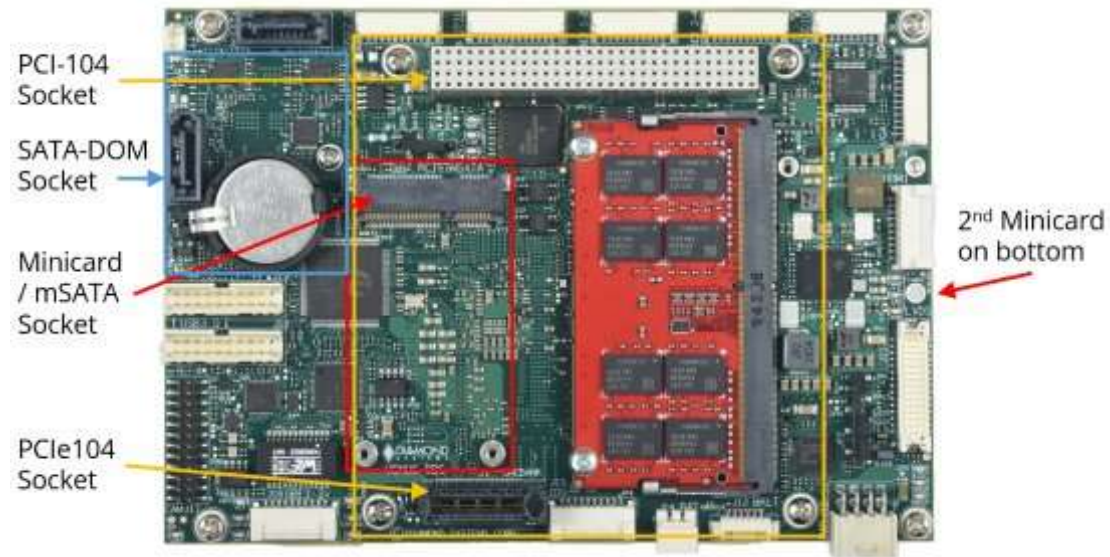
SBC	Sabrecom-300 is designed around Diamond's Jasper and Venus rugged SBCs. Choose from a variety of Intel Core i7 processors from 7th up to 13th generation, with 20-64GB RAM, depending on your power, performance, and budget.
Mass Storage	Choose from a range of solid state SATA mass storage devices ranging from 128GB up to 2TB.
Operating System	Choose from Linux or Windows 10 64-bit OS with full BSP support for all I/O available on the SBC.
Ethernet Switch	Choose from 7 or 15 1Gb copper ports with Layer 2 management software built in.

Power Supply	For full performance a rugged power supply with 9-60VDC input, MIL-STD-461/704/1275 filtering, and isolation is available. For more economical solutions a MIL-STD-461 filter board can be installed, reducing the input voltage range to the SBC's native input range.
I/O	Each system includes most or all available I/O on the integrated SBC. On systems using the Jasper SBC, an optional 16-bit analog I/O circuit is available. I/O expansion can be accomplished by installing up to 1 PCIe104 module or up to 2 PCIe/USB minicards. Space is available on the front panel to install I/O connectors for the additional I/O. High-speed interfaces such as USB3.0 and HDMI are supported via dedicated high-speed connectors.

SabreCom-300 can accommodate up to 1 PCI-104 / PCIe104 I/O module or up to 2 PCIe/USB minicards. Depending on the nature and number of added I/O signals, the I/O may be combined onto existing connectors, or a new connectors may be added to the front panel, involving a nominal design fee. The integrated SSD mass storage options range from 128GB to 2TB.



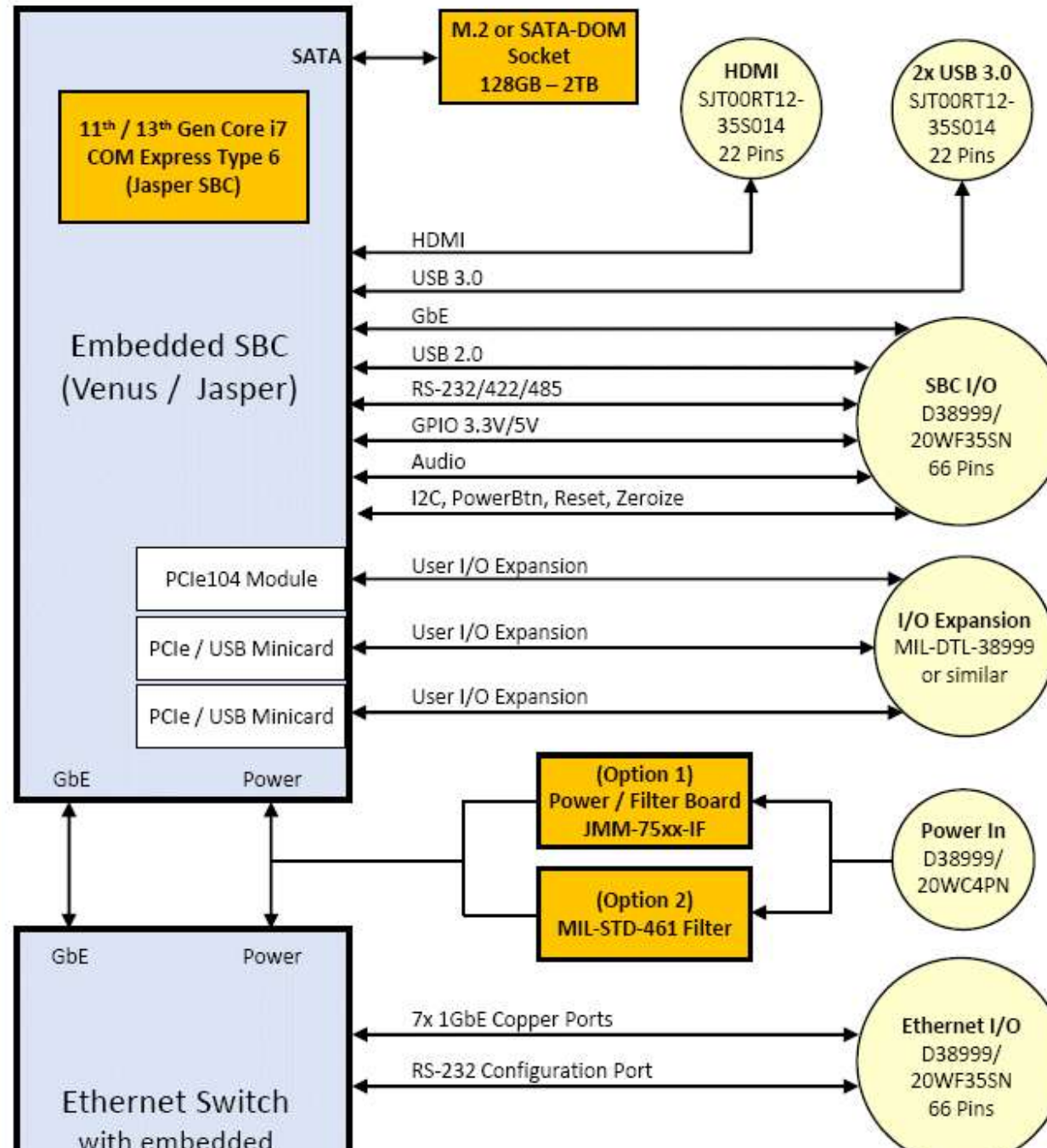
Jasper SBC expansion and mass storage sockets

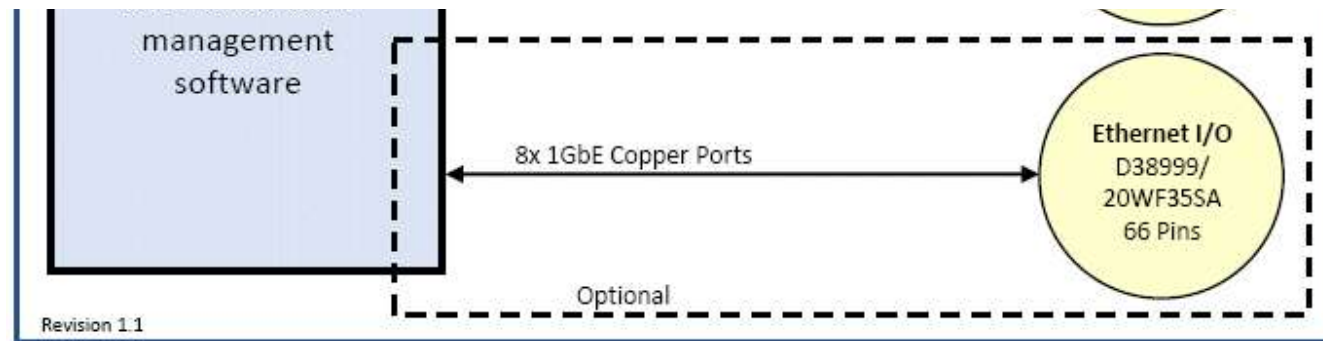


Venus SBC expansion and mass storage sockets



SabreCom-300 System Block Diagram





◆ Ordering Information

◆ How to Order

SabreCom-300 systems offer a large number of standard configuration options. They can also be customized with more I/O or modified connector types and pinouts. All the standard options are shown in the selection guide below. For custom options, please contact our Sales team to discuss.

Ordering No.: **SCM300****A****B****-C-D-E-FG-HI**

Select one option each from A-I below.
A * denotes the most common option.

A Processor & RAM

* i7-1185GRE CPU, 32GB RAM	JSP1185-32
i7-1365URE CPU, 32GB RAM	JSP1365C-32
i7-1365URE CPU, 64GB RAM	JSP1365C-64
i7-1370PRE CPU, 32GB RAM	JSP1370C-32
i7-1370PRE CPU, 64GB RAM	JSP1370C-64
i7-1186SMRE CPU, 32GB RAM	JSP11865-32
i7-1186SMRE CPU, 32GB ECC RAM	JSP11865-32E
i7-1186SMRE CPU, 64GB RAM	JSP11865-64

B Baseboard I/O

* Digital I/O	D
Analog I/O	A

C Operating System

* Linux 64-bit	-LNX
Windows 10 64-bit	-W10
Windows 11 64-bit	-W11

D Ethernet Switch

* 8 GbE copper ports	-E8
12 GbE copper ports	-E12
16 GbE copper ports	-E16
No Ethernet switch	-E0

I Connector Caps

* Plastic protective caps	(Blank)
Metal sealing caps	C

H Expansion I/O

* No additional I/O	-01
Custom I/O (factory review)	-XX

G Integrated Storage

* 1TB SSD	1
2TB SSD	2
512GB SSD	5
128GB SD	8

F Power Supply

* MIL with isolation	-J
MIL-STD-461 filter	-F

E Switch Firmware

* Webstax Layer 2+	-L2
ISaX Layer 3	-L3
No Ethernet switch	(Blank)

Example: **SCM300-JSP1370C-32D-W11-E8-L2-J1-01**

SabreCom-300, i7-1370PRE CPU, 32GB RAM, DIO, Win 11,
8-Port GbE Switch, Layer 2+ FW, MIL Iso Power, 1TB SSD

Rev 3.1

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