



NES-MATRIX

SMALL FORM FACTOR RUGGED COMPUTER

► HIGHLIGHTS

Processors :(optional)	AMD, XEON,I7,I3,I5,Atom up to 2.8GHZ/4.4Ghz (optional)
RAM :	Up to 64GB
FPGA : (optional)	FPGA Xilinx® Zynq Ultrascale+™ MPSoCARM® quad-core Cortex™-A53 ARM dual-core Cortex™-R5 Mali-400MP2 GPU
RAM FPGA :	With up to 8 GByte of DDR4 ECC SDRAM (PS) and up to 8 GByte of DDR4 RAM (PL)
Ethernet :	Up to 4x Gigabit Ethernet ports Up to 2x 10GB Ethernet ports (optional)
I/O's :	Up to 4x Serial ports RS232/422/485 Up to 4x MIL-STD1553 BC/RT/MT (optional) Up to 4Receive/4Transmit ARINC-429 (optional)
I/O's :	Up to 4x USB ports Up to 2x CANbus ports (optional) Up to 8x Discrete I/O ports (optional) Up to 4x GPIO Up to 3x MiniPcE Slots
I/O's :	1x M2 slot 2x SATA connectors 1x Display port 1x Display (optional)
Led :	Power LED



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► OVERVIEW

The NES-MATRIX is Nolam Services & Industries new generation SFF with a unique field upgradable capabilities combining field upgradable processor and an SOC FPGA

Customer has the ability to choose between the use of a processor architecture combined with an SOC FPGA . The system can be used either with just the FPGA or the processor or together.

Nolam Services & Industries new generation SFF

NES-MATRIX integrates many features that can be used for many Aerospace ,Defense and Naval applications.

Nolam Services & Industries API NES-VAULT® is integrated in the NES-MATRIX where customer has the ability to check the health of the system and I/O interfaces and also record and play back the I/O's .

All I/O's are available thru two MIL-DTL38999 connectors



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Connectors : Power connector Type : 1x TVP00WCI111-04P
I/O Connector Type : 2x TVP00WCI119-88P

Chassis : Machined rugged Aluminium
Conductivity cooled w/custom internal heatsinks
Ingress protection against sand,dust and moisture
Anodize Coating ,MIL-A-8625, Type II,Class 2

Standards : MIL-STD-461E
MIL-STD810F
IP 68
MIL-STD1275
MIL-STD-704

Electromagnetic : MIL-STD-461E Electromagnetic compatibility
CE-102,CS-114,CS-115,CS-116,RE-102,RS-103

Shock/Vibration/Humidity MIL-STD-810F,501.4I | 501.4II |502.4I |502.4II |507.4 |
500.4II | 514 | 516I | 516VI | 514.5 |512.4

Operating Temperature : - 40°C to 85°C

ORDERING INFORMATION:
NES-MATRIX -X-X-X-X-X-X

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|---|--|---|--------------------------|
| 1 | 1x Processor (option) | 4 | 2x CanBus (option) |
| 2 | 2x MIL-1553 BC/RT/MT (option) | 5 | 8x Discrete I/O (option) |
| 3 | 2xReceive /2xTransmit ARINC-429 (option) | 6 | 2x 10GB Ethernet option |