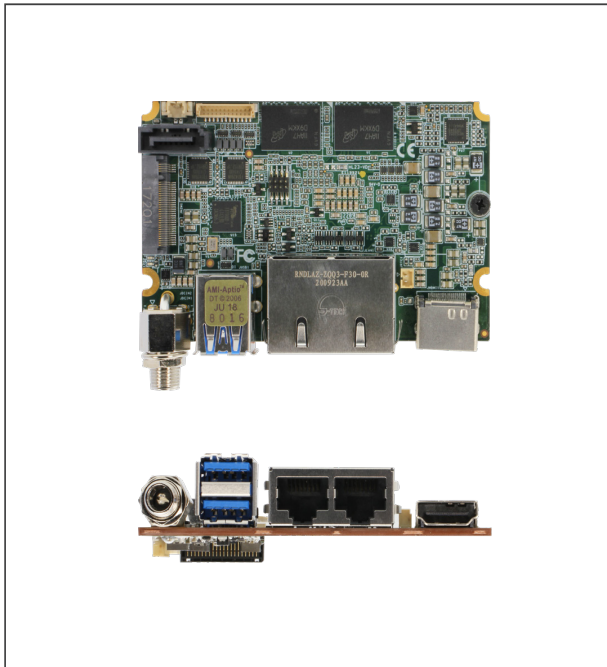


# de next-V2K8

86mm x 55mm Single Board with AMD Ryzen™ Embedded V2000 Series Processors

de next



## Features

- Onboard AMD Ryzen™ Embedded V2718/V2516 Processor
- Onboard LPDDR4x 3200MHz, up to 16GB
- HDMI 1.4b x 1, eDP x 1
- 2.5GbE x 1, GbE x 1
- USB 3.2 Gen 2 x 2, USB 2.0 x 4
- M.2 2280 M-Key x 1 (PCIe [x2]), FPC (PCIe [x4]) x 1
- COM Port x 2, DIO 8-bit, SATA III x 1
- 12V-In DC Jack

## Specifications

SYSTEM	
FORM FACTOR	86mm x 55mm, Single Board Computer
CPU	AMD Ryzen™ Embedded V2718 with Radeon™ Graphics , AMD Ryzen™ Embedded V2516 with Radeon™ Graphics
CPU TDP	10W TDP, up to 25W: V2718/V2516
CHIPSET	Integrated with AMD Ryzen™ Embedded SoC
MEMORY TYPE	Onboard LPDDR4x 3200MHz up to 16GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	fTPM
RTC Battery	Lithium Battery 3V/240mAh
DIMENSION (L X W)	3.38" x 2.17" (86mm x 55mm)
POWER	
POWER REQUIREMENT	DC in +12V
POWER SUPPLY TYPE	AT/ATX
CONNECTOR	DC Jack (Optional : 2pin Phoenix Connector)
POWER CONSUMPTION	AMD Ryzen™ V2718 Processor, LPDDR4 3200MHz 16GB, 3.92A @12V, 47.04W during full loading test (Peak) AMD Ryzen™ V2718 Processor, LPDDR4 3200MHz 16GB, 3.07A @12V, 36.84W during full loading test (Steady)
DISPLAY	
CONTROLLER	AMD Radeon™ Graphics
LVDS/eDP	eDP only, up to 3840 x 2160 Resolution
Display Interface	eDP x 1 HDMI 1.4b x 1
Multiple Display	Up to 2 Simultaneous Displays
AUDIO	
CODEC	—
AUDIO INTERFACE	—
Speaker	—
EXTERNAL I/O	
ETHERNET	de next-V2K8-A10: Realtek RTL8111H, 10/100/1000Base, RJ-45 x 1 Intel® i225LM, 10/100/2500Base, RJ-45 x 1 de next-V2K8-A11: Realtek RTL8111H, 10/100/1000Base, RJ-45 x 1 Intel® i226LM, 10/100/2500Base, RJ-45 x 1
USB	USB 3.2 Gen 2 x 2 (Type-A)
SERIAL PORT	—
VIDEO	HDMI 1.4b x 1

INTERNAL I/O	
USB	USB 2.0 x 4 (via pin header)
SERIAL PORT	COM Port x 2 (RS-232/422/485 via pin header)
VIDEO	eDP x 1
SATA	SATA III x 1 +5V SATA Power Connector x 1
AUDIO	—
DIO/GPIO	8-Bit (pin header)
SMBus/I2C	Optional
Touch	—
FAN	Smart Fan x 1
SIM	—
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
EXPANSION	
Mini PCI-E/mSATA	—
M.2	M.2 2280 M-Key x 1 (PCIe [x2])
Others	PCIe Gen 3 [x4] x 1 (via FPC)
ENVIRONMENT & CERTIFICATION	
OPERATING TEMP	32°F ~ 140°F (0°C ~ 60°C)
STORAGE TEMP	-40°F ~ 176°F (-40°C ~ 80°C)
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing
MTBF (HOURS)	609,263
EMC	CE/FCC Class A

## Optional Accessories

- **170X000512**  
de next 40 pin cable for USB2.0 x 4, COM Port x 2, DIO 8 bit
- **170X000603**  
Front Panel Cable for de next use.Length 10 cm
- **1709070200**  
SATA Cable,180D.Length 20cm
- **170X000322**  
SATA Power Cable.Length 6cm
- **170X000577**  
de next cable for USB 2.0 x 2, COM Port x 2, DIO 8 bit, adaptor card connector
- **DENEXT-FAN01**  
CPU cooler for de next-TGU8 / de next-V2K8
- **DENEXT-BRKT01**  
Easy bracket for de next series use
- **DENEXT-HSP01**  
Heatspreader for de next-TGU8/V2K8
- **PER-T642-A03-0001**  
M.2 M 2280 adaptor card to M.2 B key 2242 & M.2 E key 2230 (Only support DENEXT-V2K8-A11)
- **PER-T643-A01-0001**  
M.2 M 2280 adaptor card to M.2 B key 2242 & M.2 B key 3052 (Only support DENEXT-V2K8-A11)

## Packing List

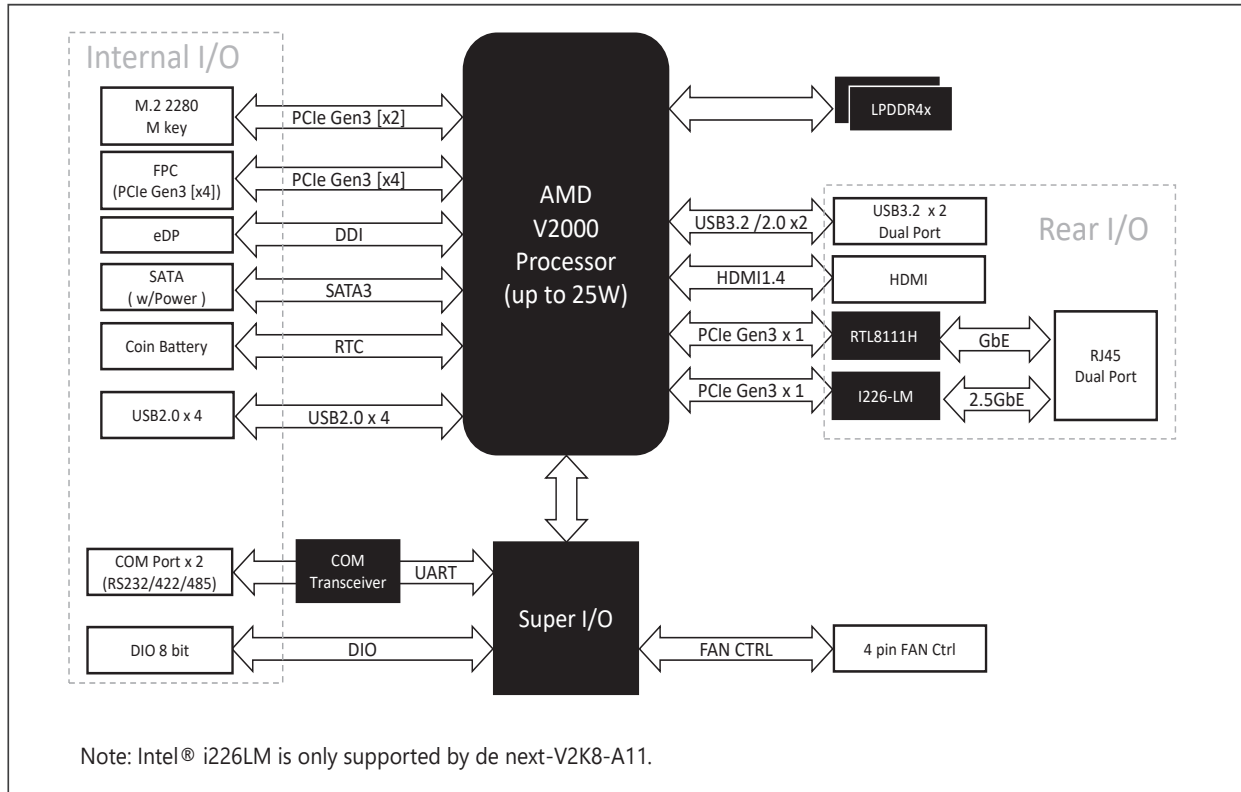
- de next-V2K8 x 1
- Copper Stud.M2.5 x 4

# de next-V2K8

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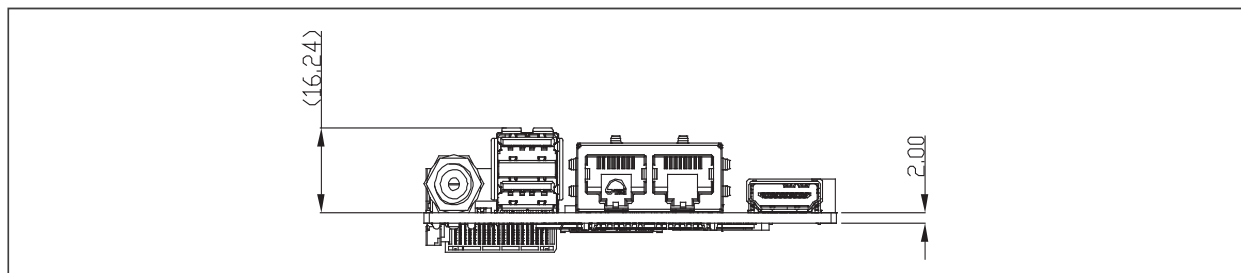
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## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part Number	CPU	Memory	Thermal	Display	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Operating Temp	Others
DENEXT-V2K8-A10-0001	V2718	Onboard LPDDR4x 16GB	Fan	eDP x 1, HDMI x 1	SATA3 x 1	2.5GbE(i225) x 1, GbE x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 4	—	2	M.2 M key 2280 x 1 PCIe[x4] Gen3 (via FPC)x 1	+12V in (DC Jack)	0°C ~ 60°C	DIO 8 bit DC Jack
DENEXT-V2K8-A10-0002	V2516	Onboard LPDDR4x 16GB	Fan	eDP x 1, HDMI x 1	SATA3 x 1	2.5GbE(i225) x 1, GbE x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 4	—	2	M.2 M key 2280 x 1 PCIe[x4] Gen3 (via FPC)x 1	+12V in (DC Jack)	0°C ~ 60°C	DIO 8 bit DC Jack
DENEXT-V2K8-A11-0001	V2718	Onboard LPDDR4x 16GB	Fan	eDP x 1, HDMI x 1	SATA3 x 1	2.5GbE(i226) x 1, GbE x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 4	—	2	M.2 M key 2280 x 1 PCIe[x4] Gen3 (via FPC)x 1	+12V in (DC Jack)	0°C ~ 60°C	DIO 8 bit PER-T642/643 adaptor card DC Jack
DENEXT-V2K8-A11-0002	V2516	Onboard LPDDR4x 16GB	Fan	eDP x 1, HDMI x 1	SATA3 x 1	2.5GbE(i226) x 1, GbE x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 4	—	2	M.2 M key 2280 x 1 PCIe[x4] Gen3 (via FPC)x 1	+12V in (DC Jack)	0°C ~ 60°C	DIO 8 bit PER-T642/643 adaptor card DC Jack
DENEXT-V2K8-A11-0003	V2718	Onboard LPDDR4x 16GB	Fan	eDP x 1, HDMI x 1	SATA3 x 1	2.5GbE(i226) x 1, GbE x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 4	—	2	M.2 M key 2280 x 1 PCIe[x4] Gen3 (via FPC)x 1	+12V in	0°C ~ 60°C	DIO 8 bit PER-T642/643 adaptor card 2pin connector
DENEXT-V2K8-A11-0004	V2516	Onboard LPDDR4x 16GB	Fan	eDP x 1, HDMI x 1	SATA3 x 1	2.5GbE(i226) x 1, GbE x 1	USB 3.2 Gen 2 x 2 USB 2.0 x 4	—	2	M.2 M key 2280 x 1 PCIe[x4] Gen3 (via FPC)x 1	+12V in	0°C ~ 60°C	DIO 8 bit PER-T642/643 adaptor card 2pin connector

Note: All specifications are subject to change without notice.

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## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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