

Surveillance/ Video Analytics



# Nuvo-2700DS Series

AMD Ryzen™ V1000 Rugged 4x 4K Interactive Digital Signage System Supporting 2x Google Edge TPU



CE FC

## Key Features

- AMD Ryzen™ embedded V1605B series quad-core 15W CPU
- Rugged -25°C to 70°C fanless operation
- 4x 4K DP display, 3840 x 2160 resolution per output
- AI inference capability by 2x optional Edge TPU
- 1x M.2 3042/3052 B-Key for 4G/5G module
- 2x USB3.1 Gen 1 and 2x USB2.0
- 8V to 35V wide-range DC input with built-in ignition power control
- Flexible power input options: mini-DIN or terminal block

Preliminary

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## Introduction

Nuvo-2700DS series is a rugged digital signage system with AI inference capability for personalized user experience and audience measurement. Powered by AMD Ryzen™ Embedded V1605B, it can output to four 4K displays and playback 4K H.265 videos at 60fps. By supporting two Google Edge TPUs, it delivers a total of 8 TOPS AI inference performance in a fanless compact form factor.

The wide operating temperature and fanless design make it ideal for 24/7 applications in harsh indoor and outdoor environments, such as flight information display system (FIDS) or train schedule board. Furthermore, Nuvo-2700DS can also be deployed for mobile applications due to the inclusion of ignition power control and full bandwidth support of WIFI 6, 4G LTE, and 5G network modules.

The support of two Google Edge TPUs empower Nuvo-2700DS as a smart digital signage player to leverage real-time camera input and AI computer vision models (e.g., YOLO-lite or PoseNet) to offer audiences an interactive and personalized experience. Besides, it can get to know its audience by collecting anonymous data from people counting, body gesture recognition, facial recognition, attention measurement, and emotion analysis.

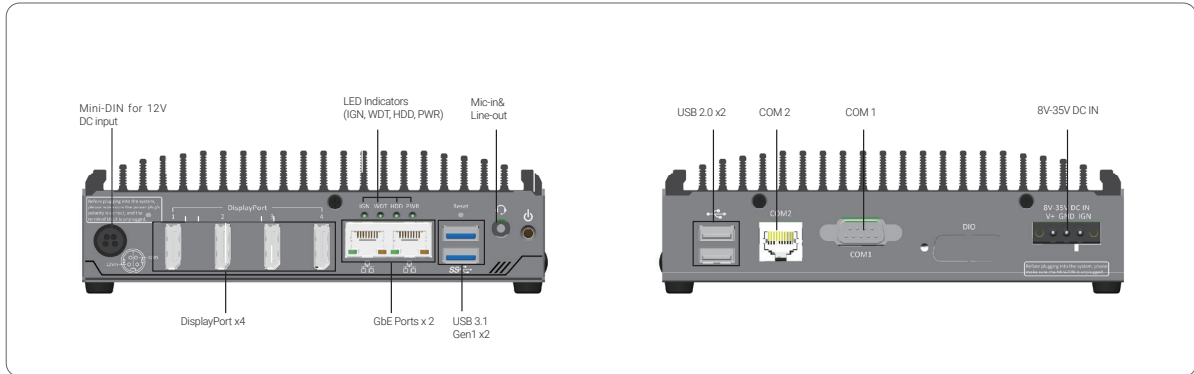
The Nuvo-2700DS series signifies a new age of AI enabled digital signage player for harsh environments and mobile applications. You can utilize Nuvo-2700DS as a video wall player to playback to 4K ultra high definition visual displays or deploy Nuvo-2700DS as a low power fanless Edge AI platform for emerging AI applications. With AI inference from Google Edge TPUs, Nuvo-2700DS creates an interactive and personalized experience, but moreover, it can quantify offline campaign like never before and offer insight data.

## Specifications

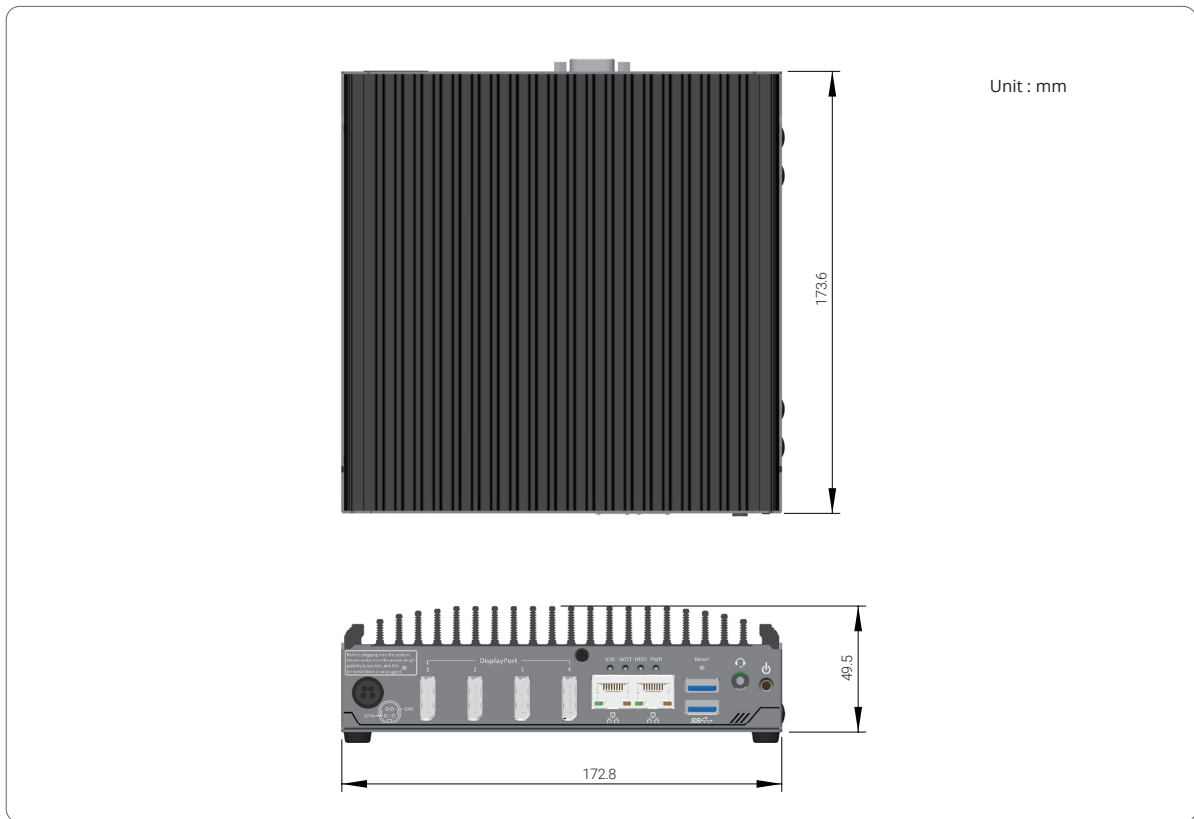
| System Core                   |  | Power Supply   |   |
|-------------------------------|--|--|---|
| Processor                     | AMD Ryzen™ Embedded V1605B CPU (4C/ 8T, 2M Cache, 2.0/ 3.6 GHz, 12W - 25W TDP)   | DC Input   | 1x mini-DIN for 12V DC input or 1x 3-pin pluggable terminal block for 8V to 35V DC input (IGN/ GND/ V+) |
| Graphics                      | Vega GPU with 8 compute units  | <b>Mechanical</b>  |   |
| Memory                        | Up to 64 GB DDR4-2400 SDRAM by two SODIMM sockets  | Dimension  | 173 mm (W) x 174 mm (D) x 50 mm (H)   |
| <b>Panel I/O Interface</b>    |  | Weight   | 1.6 kg  |
| Video Port                    | 4x DisplayPort, supporting 4K UHD resolution   | Mounting   | Wall-mount (optional)   |
| Ethernet Port                 | 2x Gigabit Ethernet ports by 2x Intel I210® controller   | <b>Environmental</b>   |   |
| USB 3.1                       | 2x USB 3.1 Gen1 (5 Gbps) ports   | Operating Temperature  | -25°C ~ 70°C  |
| USB 2.0                       | 2x USB 2.0   | Storage Temperature  | -40°C ~ 85°C  |
| Audio                         | 1x 3.5mm jack for mic-in and line-out  | Humidity   | 10% ~ 90%, non-condensing   |
| Serial Port                   | 2x RS-232 (COM1 in DB9, COM2 in RJ50)  | Vibration  | Operating, MIL-STD-810G, Method 514.7, Category 4   |
| DIO                           | 4-CH isolated DI and 4-CH isolated DO (optional)   | Shock  | Operating, MIL-STD-810G, Method 516.7, Procedure I  |
| <b>Internal I/O Interface</b> |  | EMC  | CE/FCC Class A, according to EN 55032 & EN 55035  |
| Mini PCI Express              | 2x half-size mini PCI Express socket for Google Edge TPU   | <small>* For sub-zero and over 60°C operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.</small> |   |
| M.2                           | 1x M.2 3042/ 3052 B key (USB 3.1 Gen 1 + USB 2.0) for 4G/ 5G module with Micro SIM card slot<br>1x M.2 2230 E key (PCIe Gen3 x1 + USB 2.0) for WIFI module |  |   |
| <b>Storage Interface</b>      |  |  |   |
| M.2 SATA                      | 1x M.2 2280 M key (SATA signal only) socket for SATA SSD installation  |  |   |

Nuvo-2700DS Series

## Appearance



## Dimensions



## Ordering Information

| Model No.       | Product Description   |
|-----------------|---|
| Nuvo-2700DS     | AMD Ryzen™ Embedded V1000 rugged 4x 4K interactive digital signage system                         |
| Nuvo-2700DS-1TU | AMD Ryzen™ Embedded V1000 rugged 4x 4K interactive digital signage system with 1x Google Edge TPU |
| Nuvo-2700DS-2TU | AMD Ryzen™ Embedded V1000 rugged 4x 4K interactive digital signage system with 2x Google Edge TPU |

## Optional Accessories

|                    |   |
|--------------------|---|
| Wmkit-V-Nuvo2700DS | Wall mounting assembly for Nuvo-2700DS series, vertical type  |
| PA-60W-OW          | 60W AC/DC power adapter 12V/5A; cord end terminals for terminal block. operating temperature: -30 to 60 °C.               |
| PA-120W-OW         | 120W AC/DC power adapter 20V/6A; 18AWG/120cm; cord end terminals for terminal block, operating temperature: -30 to 70 °C. |

## 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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