NRD-1800

Main Features

- Intel® Core™ Gen13 Processor (Raptor Lake-PS)
- 2 x 262-pin DDR5 Non-ECC SO-DIMM Socket (up to 4800MT/s)
- 1 x DP and 1 x HDMI
- Support 2 x 2.5G Ethernet
- Support M.2 NVMe
- 4x USB3.2 Type A Gen2x1
- 2x USB3.2 Type-C Gen 2x2
- Support Windows 10 and Linux

Product Overview

NRD-1800 is 3.5 inch PC onboard Intel® Core™ (Raptor Lake-PS) Processor (support for Intel® Core™ i3/i5/i7) processor to support 15W CPU. NRD-1800 operates temperature range from 0°C ~65°C. This is aimed at embedded applications for outdoor or semi-outdoor environment. Such as Kiosk, small smart equipment, outdoor systems installed in harsh environments, home automation and thin clients…etc.

NRD-1800 supports SO-DIMM a maximum memory of 64GB DDR5. Also, it offers display outputs of one DP supporting 3840x2160@60Hz and1x HDMI 2.1 Connector Convert DP1.4a to HDMI 2.1 interface, the HDMI port supports display resolutions up to 7680x4320@60Hz, in order to provide the flexibility of supporting a range of peripherals and high resolution.

Specifications

CPU Support
- Intel® Core™ 7 processor 160UL LGA1700 PS Socket
- Intel® Core™ 5 processor 130UL LGA1700 PS Socket
- Intel® Core™ 5 processor 120UL LGA1700 PS Socket
- Intel® Core™ 3 processor 100UL LGA1700 PS Socket
- CPU Watts limits to 15W

Memory
- 2 x 262-pin DDR5 Non-ECC SO-DIMM Socket (up to 4800MT/s)
- Up to DDR5 64G support

Display
- 1x DP1.4a and 1x HDMI 2.1 Connector
- The DP port supports display resolutions up to 3840x2160@60Hz
- 1x HDMI 2.1 Connector Convert DP1.4a to HDMI 2.1 interface.
- The HDMI port supports display resolutions up to 7680x4320@60Hz

Ethernet
- 1 x RJ45 from Intel I225-LM GbE controller, support Intel® Active Management Technology 11.0
- 1 x RJ45 from Intel I225-V GbE controller

Storage Device
- 1 x M.2 M-key. SSD module is connected through a PCIe lane from CPU. PCIe G4x4.
- Support 2280 NVMe(PCIe G3x4) SSD

Expansion
- 1 x M.2 E-key 2232

Power Requirements
- 1x DC jack with lock 12V/120W

I/O Interface
- 4x USB3.2 Type A Gen2x1 (Support USB wake up)
- 2x USB3.2 Type-C Gen 2x2 (Support USB wake up)
- 2x RJ45, Gigabit LAN ports
- 1x DP 1.4a and 1 x HDMI 2.1
- 1x 12V DC jack with lock

Mechanical & Environment
- Operating temperature: 0°C~65°C
- Storage semperature: -20°C~85°C
- Relative humidity: operating 10%~90%, non-condensing

Dimension
- 3.5": 145mm x 104mm

Operating System
- Windows 10 64-bit & Linux

Certificate
- EMC & Safety
- CE/FCC Class A