Networking and Servers > Network Appliance > Entry-level network appliances

PUZZLE-3034

Desktop Network Appliance with Intel® Atom® Processor C3000 Processor, with 8 x 2.5 GbE and 4 x 10 GbE, 1 x eMMC 64GB

Features

» Intel® Atom® C3758R 8C/8T (16M Cache, 2.4 GHz)

» 2 x DDR4 2400MHz Non-ECC UDIMM

» 8 x 2.5GbE RJ45 LAN ports, 4 x 10 GbE SFP+

» 1 x RJ45 Console, 2 x USB 3.0

» SATA DOM, 64GB eMMC

Specifications

尺寸类型	
尺寸类型	Desktop
系统	
CPU	Intel® Atom® C3758R 8C/8T (16M Cache, 2.4 GHz)
芯片组	Intel® Denverton-R
内存	DDR4 2400MHz Non-ECC UDIMM
内存最大值	Up to 64GB
散热方案/系统风扇	2 x Cooling Fans
物理特性	
尺寸 (LxWxH) (mm)	285 x 236.6 x 46.65
存储	
存储	eMMC : 64GB
I/O 接口	
网络	4 x SFP+ : 10 GbE
	8 x LAN : 2.5 GbE RJ45
I/O接口	1 x Console port(s) : RJ45
	2 x USB 3.0
扩展	4 x M.2(NGFF) -
	1 x 2242 B-Key M.2 slot for M2 SATA
	1 x 3052 B-Key M.2 slot + SIM Card Socket for 5G/LTE Card
	2 x 2280 M-Key M.2 slots for NVMe
电源	
Input	100 V ~ 240 V
电源供电	Open Frame DPS-60AP-5D; Vin : 90 ~ 264VAC; 70W
环境	
操作温度	0°C ~ 40°C (32°F ~ 104°F)
存储温度	-10°C ~ 50°C
Humidity	5% ~ 90% non-condensing
认证	
Safety & EMC	CE, FCC, VCCI, RCM
OS Support	
OS Support	Linux Ubuntu 18.04

Ordering Information

PUZZLE-3034-C3758R/8G-R10	Desktop Network Appliance with Intel® ATOM® C3758R Processor , 1 x 8GB RAM , 8 x 2.5GbE , 4 x 10 GbE, eMMC 64GB, 1 x console port, 4x M.2 slot , RoHS.

Packing List

1 x Power cord	2 x Rack mounting ears
6 x Screw for rack mounting ears	

Flexibility & Security Boost for Accelerated Digital Transformation

The working scenarios have changed in recent years, switching to the new hybrid work model which allows employees to work partly in the office, and partly remotely. With the adaption to the hybrid workplace environment, organizations need to move to the cloud for constant and uninterrupted data access for their employees. As the number of bandwidth-intense applications and security issues are growing, modern solutions like SD-WAN are must-have for businesses to ensure the high-speed and secure connectivity, plus greater flexibility than the traditional network.

Small Form Factor Network Appliance Powered by High-Speed LAN Ports

Featuring low power consumption, powerful computing performance and high-speed LAN ports from 2.5GbE to 10GbE, IEI's PUZZLE-3034 desktop network appliance is designed to facilitate the SD-WAN deployment by offering reliable and rapid data transmission, as well as a flexible way to develop uCPE platforms with reduced overhead costs. Its desktop form factor (285 x 236.6 x 46.65 mm) makes it suitable to fit in offices with limited space. The PUZZLE-3034 is optimal for small and medium-sized companies when it comes to building a SD-WAN infrastructure with additional virtual network functions to accelerate the digital transformation and, afterwards, improve business productivity.

High-Speed LAN Ports   Small Form Factor   Low Power Consumption


WiFi CTRL   SD-WAN   Firewall NGFW

Small office

Hybrid workplace

Low Power, Efficient Performance for Network Solutions

Powered by server-grade Intel® Atom® C3758R processor with DDR4 2400 memory support and SoC design, the PUZZLE-3034 is capable of processing data intensive workloads to the network edge, while requiring less power, thanks to Intel optimized 14nm process technology with the range of TDP from only 17 to 26 watts. Built-in hardware virtualization with Intel® Virtualization Technology (Intel® VT) enables dynamic provisioning, providing faster performance for NFV extension.
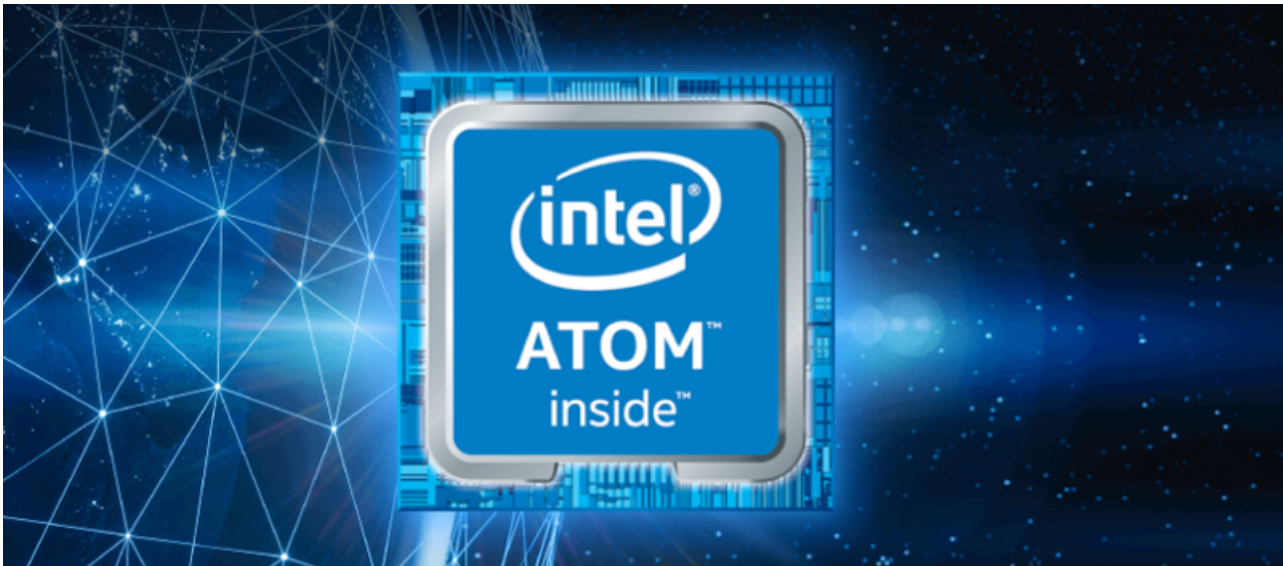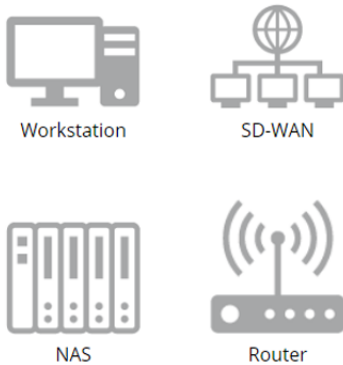

Affordable Multi-Gigabit Upgrade for Enhanced Performance

With eight 2.5GbE and four 10GbE SFP+ ports, the PUZZLE-3034 provides 2.5x or even 10x increase in throughput compared with the 1GbE solution, empowering network possibilities with faster data transfer speeds in virtualization environments.

	CAT 5e	CAT 6e	CAT 6A & CAT 7	SFP+ DOC / AOC /Fiber
100 Mbps	V	V	V	X
1 Gbps	V	V	V	X
2.5 Gbps	V	V	V	X
5 Gbps	V	V	V	X
10 Gbps	X	V (55m)	V	V

10 GbE Connection

Workstation   SD-WAN

NAS   Router

2.5 GbE Connection

PC   Laptop   TV

Router   VoIP Phone   Printer

The 10 GbE connectivity is characterized by high-speed data transmission and reliable security, which meets high-bandwidth requirements on transferring large amounts of data quickly in corporate networks and reducing traffic jam on enterprise servers. The 10 GbE SFP+ solution that the PUZZLE-3034 comes with can support distances more than 10 kilometers with single-mode optical fiber, consumes less power and provides lower latency, which makes it ideal for network architecture across large distances.

For small businesses, 2.5 GbE is a more attractive option since it supports various connection speeds between 100 Mbps and 2.5 Gbps on CAT 6 and CAT 5e cables, which means user can experience the full capability of high-performance network solutions without significant costs for upgrading cables.

x2.5

2.5x faster data transfer
speeds than 1GbE
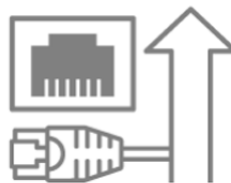
Effortless upgrade with
existing CAT 5e cables

Cost saving for hardware
upgrade

Performance Acceleration with Intel® QuickAssist Technology

The PUZZLE-3034 is equipped with Intel® QuickAssist Technology that can accelerate encryption and compression workloads in order to significantly improve the performance and efficiency of your network devices by saving time, network bandwidth and CPU cycles.

Improvement for hardware performance and network security.

» Maximize CPU utilization
» Increase encrypted traffic performance
» Lossless data compression/decompression
» Accelerating compute-intense symmetric and asymmetric cryptography

Intel® QuickAssist Technology

Multipe Expansion Options for Rapid Data Leverage & Additional Storage

In addition to its built-in storage of 64GB eMMC, the PUZZLE-3034 comes with one M.2 2242 and dual M.2 2280 NVMe SSD slots, which provide faster file access, more efficient data processing and storage expansion.
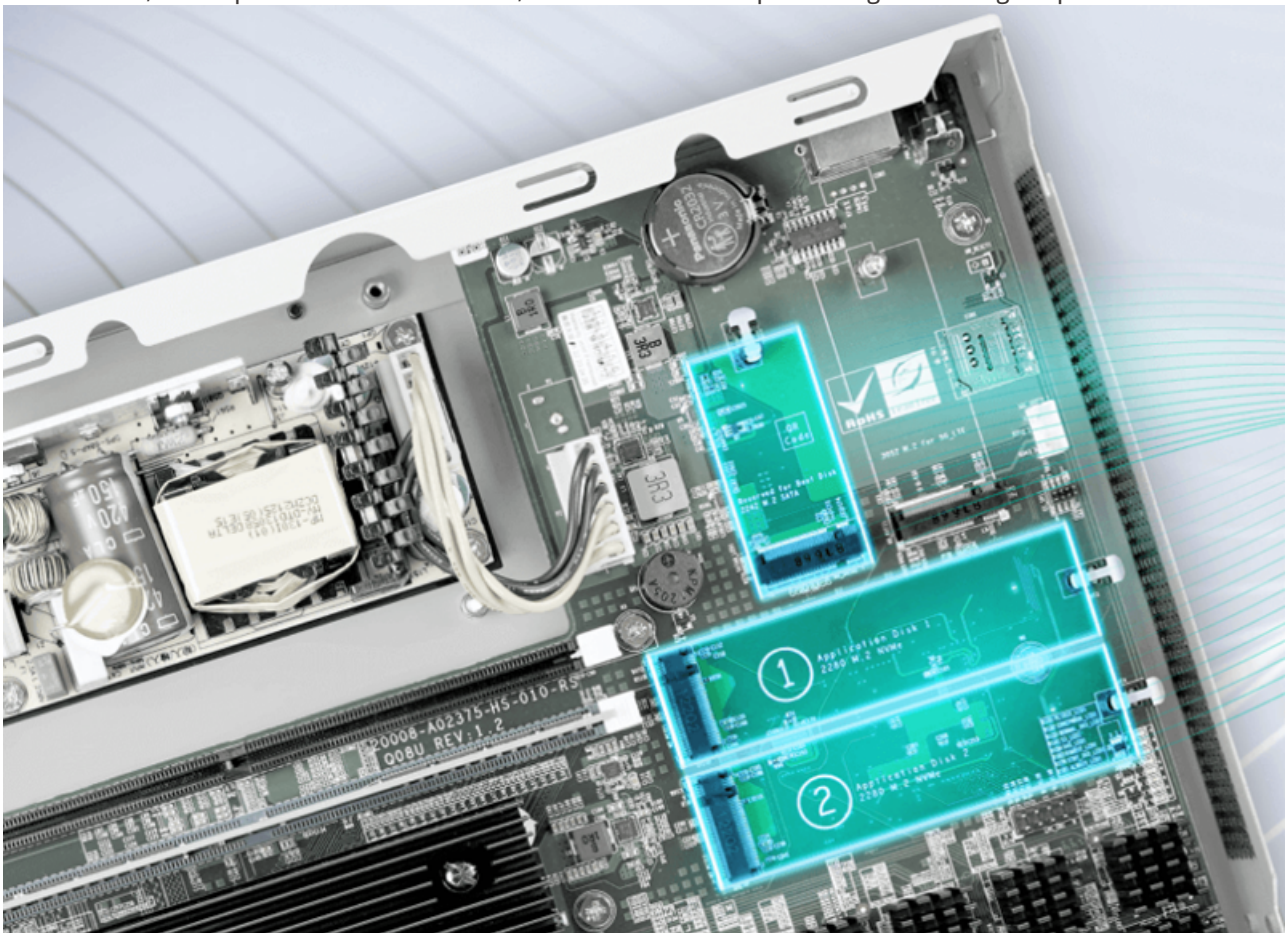
Flexible & Agile uCPE Solution for Diverse Applications

uCPE (Universal Customer Premise Equipment) integrates computing, storage, and network on COTS products (commercial off-the-shelf) that offer networking services on SD-WAN. Based on the SD-WAN architecture, white boxes uCPEs can not only perform networking functions but also contribute to SD-WAN security thanks to its security function virtualization. Given these characteristics, capex and network opex are also reduced alongside less demand for hardware replacement and lower maintenance costs.

As a cost-effective and flexible uCPE solution, the PUZZLE-3034 can be served to easily build wide range of use cases in an SD-WAN environment to enhance performance and security for efficient hybrid working strategy.

SD-WAN Solution

The PUZZLE-3034 can be used to connect branch locations and remote workers' PC to an organization's headquarters and server. The use of PUZZLE-3034 not only easily improves enterprise network through remote software upgrades, but also makes the deployment of new branches and network operation less expensive.
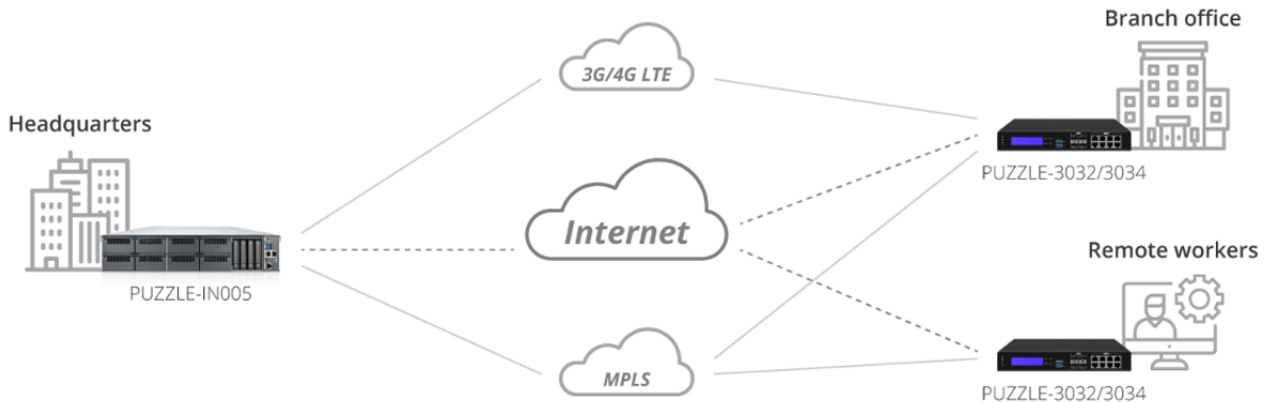
Next-Generation Firewalls

The compact form factor and high-speed LAN ports of PUZZLE-3034 enable it to deploy firewall services in virtualized network where the work space is limited, without additional costs for hardware-based equipment
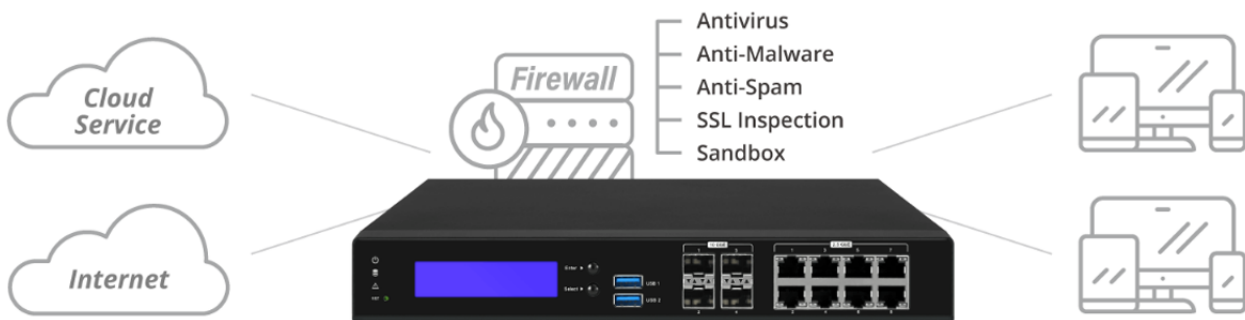
Product Comparison

	PUZZLE-3032	PUZZLE-3034
CPU	Intel® Atom® C3558R 4C/4T	Intel® Atom® C3758R 8C/8T
Memory	2 x DDR4 2400MHz	2 x DDR4 2400MHz
Storage	eMMC 64GB	eMMC 64GB
2.5GbE LAN Port	8	8
10GbE LAN Port	2	4

Hardware I/O & Dimensions

PUZZLE-3034

Power LED
Storage LED
Alert LED

2 x USB 3.0

4 x 10 GbE SFP+

8 x 2.5 GbE RJ-45

Power Button
Console

Power Inlet