

# JNAF791 Series

*ATX Embedded Motherboard, 8th Generation Intel® Xeon® E, Core™ i7/ i5 /i3, Pentium® Celeron LGA1151 Socket Processor, Max. 95W TDP*

## Features

1. Intel® Coffee Lake Processor (Max. 95W TDP)
2. 4 \* DDR4 2666MHz U-DIMM up to 128GB (ECC for C246 only)
3. 2 \* 10/100/1000 Base-TX Ethernet Ports
4. 1 \* HDMI, 1 \* DP, 1 \* VGA, 1 \* DVI-D
5. 10 \* COM (COM1/2 support RS232/422/485), 4 \* USB3.1 Gen.2, 4\* USB3.1 Gen.1 & 4\* USB2.0
6. 2 \* PCIe x16 slots, 1 \* PCIe x4 slot, 1 \* PCIe x1 1 \* PCIe x1 slot, 2 \* PCI slots, 1 \* M.2 (PCIex4 with SATA interface, M-key support NVMe, 2242/2260/2280/22110), 1\* M.2(2230, E-key)
7. 5\* SATA III (6Gb/s) support RAID 0, 1, 5, 10
8. Support TPM1.2/2.0 (on board option)



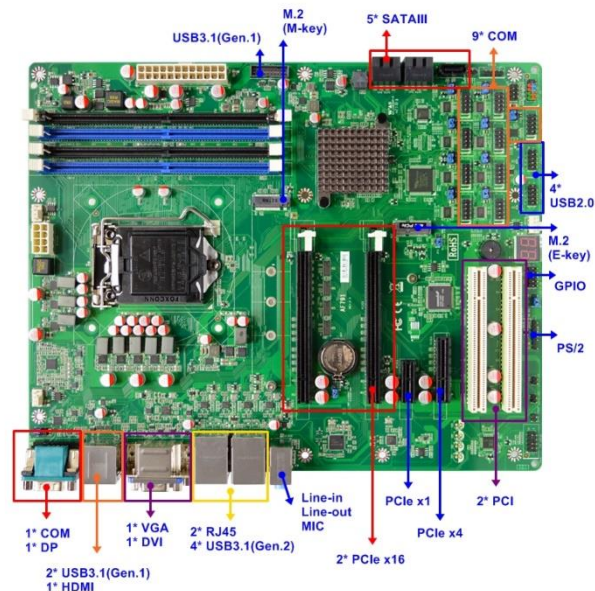
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## Overview

The JETWAY JNAF791 Series are ATX form factor board adopts the Intel®8<sup>th</sup> generation Xeon® E, Core i7/i5/i3, Pentium and Celeron Processor. The board supports four U-DIMM DDR4 2666MHz memory slot, up to 128GB (with ECC for C246). Featuring the integrated Intel® Gigabit Ethernet controller, the JNAF791 offers two 10/100/1000Base-TX Ethernet devices for network transmission. Five SATAIII (6Gb/s) interface and one M.2 (PCIex4 with SATA interface, M-key support NVMe, 2242/2260/2280/22110) offer storage devices. One M.2 (E-key, 2230), four USB3.1 Gen.2 ports, four USB3.1 Gen.1 ports, four USB2.0 ports and ten COM ports provide versatile expansion. TheJNAF791 provides two PCI slots, one PCIe x1 slot, one PCIe x4 slot, two PCIe x16 slots (there are two configurations if plug one PCIe x16 card in one slot, the other slot is disable; or plug one PCIe x8 card in one slot, the other slot is able to plug one PCIe x8/x4/x1 card)can support different function expansion. The JNAF791 offers one HDMI1.4 port, one DP1.2 port, one VGA port and one DVI-D port which can support 3 independent displays. Because of the above features, JNAF791 is suitable for ATM machine, Industrial PCs, Factory Automation, Public Sector, Digital Security and Surveillance applications.

**Application:** ATM Machine / Industrial PCs / Factory Automation / Public Sector / Digital Security / Surveillance

## I/O Diagram



## Specifications

<b>Model</b>	<ul style="list-style-type: none"> <li>JNAF791-Q370</li> <li>JNAF791-C246</li> </ul>
<b>Form Factor</b>	<ul style="list-style-type: none"> <li>ATX (305 * 244mm)</li> </ul>
<b>Processor System</b>	<ul style="list-style-type: none"> <li>Intel® LGA1151 Gen 8 Coffee Lake Processor (Max. 95W TDP)</li> <li>Intel Chipset Q370 with Core i7/i5/i3, Pentium, Celeron (only JNAF791-Q370)</li> <li>Intel Chipset C246 with Xeon E, Core i7/i5/i3, Pentium, Celeron (only JNAF791-C246)</li> <li>AMI Flash ROM BIOS</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>4* DDR4 2666MHz Dual CH U-DIMM SDRAM up to 128GB non-ECC (only for JNAF791-Q370)</li> <li>4* DDR4 2666MHz Dual CH U-DIMM SDRAM up to 128GB W/ECC (only for JNAF791-C246)</li> </ul>
<b>Storage</b>	<ul style="list-style-type: none"> <li>5 * SATAIII support RAID 0, 1, 5, 10</li> <li>1* M.2 M-key (2242/2260/2280/22110 PCIe4 with SATA interface) support NVMe</li> </ul>
<b>Expansion</b>	<ul style="list-style-type: none"> <li>2* PCI</li> <li>1* PCIe x1</li> <li>1* PCIe x4 support NVMe (share SATA interface with M.2 M-key)</li> <li>2* PCIe x16</li> <li>1* M.2 E-key</li> </ul> <p><i>*Note: there are two configurations if plug one PCIe x16 card in one slot, the other slot is disable; or plug one PCIe x8 card in one slot, the other slot is able to plug one PCIe x8/x4/x1 card.</i></p>
<b>Ethernet</b>	<ul style="list-style-type: none"> <li>2* Intel GbE (1* i219LM, 1* i210AT)</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>Intel® HD Graphics, shared memory</li> <li>1* VGA (Max Resolution: 1920x1080@60Hz)</li> <li>1* HDMI 1.4 (Max Resolution: 4096x2160@30Hz)</li> <li>1* DVI-D (Max. Resolution: 1920x1200@60Hz)</li> <li>1* DP (Max Resolution: 4096x2304@60Hz)</li> </ul> <p>Support Triple Displays</p>
<b>Audio</b>	<ul style="list-style-type: none"> <li>HD audio: Realtek ALC888S</li> <li>6 Channel</li> </ul>
<b>Watchdog Timer</b>	<ul style="list-style-type: none"> <li>From Super I/O to drag RESETCON#</li> <li>256 segments (10sec ~ 255min)</li> </ul>
<b>Internal I/O</b>	<ul style="list-style-type: none"> <li>2 * USB3.1 (Gen. 1), 4 * USB 2.0</li> <li>1* PS/2</li> <li>9* COM (COM2 support RS232/422/485)</li> <li>5* SATAIII</li> <li>1* M.2 E-key (2230) slot</li> <li>1* M.2 M-key (2242/2260/2280/22110) slot</li> <li>1* GPIO</li> <li>1* Chassis intrusion</li> <li>1* Audio Header</li> <li>1* SMBUS / I2C</li> <li>1* AT mode</li> </ul>
<b>External I/O</b>	<ul style="list-style-type: none"> <li>1* VGA</li> <li>1* DVI-D</li> <li>1* HDMI</li> <li>1* DP</li> <li>2* RJ45</li> <li>4* USB3.1 (Gen.2)</li> <li>2* USB3.1 (Gen.1)</li> <li>1* Line-In, 1* Line-Out, 1* MIC</li> <li>1* RS232/422/485</li> </ul>
<b>Power</b>	<p>ATX PWR (8+24 pin), AT/ATX Supported</p> <ul style="list-style-type: none"> <li>- AT: Directly PWR on as Power input ready</li> <li>- ATX: Press Button to PWR on after Power input ready</li> </ul>
<b>Compliance</b>	CE, FCC, LVD, RoHS, REACH
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 0 ~ 60° C</li> <li>Storage Temperature: -20 ~ 85° C</li> <li>Humidity: 10% ~ 90% RH @40°C (non-condensing)</li> </ul>
<b>Warranty</b>	<ul style="list-style-type: none"> <li>2 Years limited warranty</li> </ul>

\* Specifications subject to change without notice, not responsible for typographical errors. Does not include HDD or OS.

## Standard Accessories

Part Number	Description
MU11 Series	JNAF791 M/B
F04-MB-007-1F	JNAF791 I/O shield
G01-SATA3-BL-1F	SATAIII cable * 2
G01-COM9X3-30A-F	COM cable * 1

## Mechanical Drawings (Unit=mm)

