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### Understanding [Embedded - Microprocessors](#)

Embedded microprocessors are specialized computing chips designed to perform specific tasks within an embedded system. Unlike general-purpose microprocessors found in personal computers, embedded microprocessors are tailored for dedicated functions within larger systems, offering optimized performance, efficiency, and reliability. These microprocessors are integral to the operation of countless electronic devices, providing the computational power necessary for controlling processes, handling data, and managing communications.

### Applications of [Embedded - Microprocessors](#)

Embedded microprocessors are utilized across a broad spectrum of applications, making them indispensable in

#### Details

Product Status	Discontinued at Digi-Key
Core Processor	Xeon E3-1275 v6
Number of Cores/Bus Width	4 Core, 64-Bit
Speed	3.8MHz
Co-Processors/DSP	-
RAM Controllers	DDR3L, DDR4
Graphics Acceleration	Yes
Display & Interface Controllers	-
Ethernet	-
SATA	-
USB	-
Voltage - I/O	-
Operating Temperature	-
Security Features	-
Package / Case	1151-LGA Module
Supplier Device Package	1151-FCLGA (37.5x37.5)
Purchase URL	<a href="https://www.e-xfl.com/product-detail/advantech/96mpxe-3-8-8m11t">https://www.e-xfl.com/product-detail/advantech/96mpxe-3-8-8m11t</a>



# Intel® Xeon® Processor E3-1275 v6

8M Cache, 3.80 GHz

Spec Code

SR32A

Ordering Code

CM8067702870931

## Intel® Xeon® Silver 4116 Processor (16.5M Cache, 2.10 GHz)

Code Name	Kaby Lake
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### Essentials

Vertical Segment	Server
Processor Number	E3-1275V6
Status	Launched
Launch Date	Q1'17
Lithography	14 nm
Recommended Customer Price	\$339.00

### Performance

# of Cores	4
# of Threads	8
Processor Base Frequency	3.80 GHz
Max Turbo Frequency	4.20 GHz
Cache	8 MB
Bus Speed	8 GT/s DMI3
TDP	73 W
VID Voltage Range	0.55V-1.52V

### Supplemental Information

Embedded Options Available	Yes
Conflict Free	Yes
Datasheet	<a href="#">Link</a>

### Memory Specifications

Max Memory Size (dependent on memory type)	64 GB
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Memory Types	DDR4-2400, DDR3L-1866
Max # of Memory Channels	2
Max Memory Bandwidth	37.5 GB/s
ECC Memory Supported ‡	Yes
<b><u>Graphics Specifications</u></b>	
Processor Graphics ‡	Intel® HD Graphics P630
Graphics Base Frequency	350 MHz
Graphics Max Dynamic Frequency	1.15 GHz
Graphics Video Max Memory	1.7 GB
Graphics Output	eDP/DP/HDMI/DVI
4K Support	Yes, at 60Hz
Max Resolution (HDMI 1.4)‡	4096x2160@24Hz
Max Resolution (DP)‡	4096x2304@60Hz
Max Resolution (eDP - Integrated Flat Panel)‡	4096x2304@60Hz
Max Resolution (VGA)‡	N/A
DirectX* Support	12
OpenGL* Support	4.4
Intel® Quick Sync Video	Yes
Intel® InTru™ 3D Technology	Yes
Intel® Clear Video HD Technology	Yes
Intel® Clear Video Technology	Yes
# of Displays Supported ‡	3
Device ID	0x591D
<b><u>Expansion Options</u></b>	
Scalability	1S Only
PCI Express Revision	3.0
PCI Express Configurations ‡	1x16, 2x8, 1x8+2x4
Max # of PCI Express Lanes	16
<b><u>Package Specifications</u></b>	
Sockets Supported	FCLGA1151
Max CPU Configuration	1
Package Size	37.5mm x 37.5mm
Low Halogen Options Available	See MDDS

<b>Advanced Technologies</b>	
Intel® Optane™ Memory Supported ‡	Yes
Intel® Turbo Boost Technology	2.0
Intel® vPro™ Technology ‡	Yes
Intel® Hyper-Threading Technology ‡	Yes
Intel® Virtualization Technology (VT-x) ‡	Yes
Intel® Virtualization Technology for Directed I/O	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡	Yes
Intel® TSX-NI	Yes
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	SSE4.1/4.2, AVX 2.0
Idle States	Yes
Enhanced Intel SpeedStep® Technology	Yes
Thermal Monitoring Technologies	Yes
<b>Security &amp; Reliability</b>	
Intel® AES New Instructions	Yes
Secure Key	Yes
Intel® Software Guard Extensions (Intel® SGX)	Yes
Intel® Memory Protection Extensions (Intel® MPX)	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes
Intel® Boot Guard	Yes