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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	Active
Core Processor	Celeron G540
Number of Cores/Bus Width	2 Core, 64-Bit
Speed	2.5GHz
Co-Processors/DSP	-
RAM Controllers	-
Graphics Acceleration	-
Display & Interface Controllers	-
Ethernet	-
SATA	-
USB	-
Voltage - I/O	-
Operating Temperature	-
Security Features	-
Package / Case	1155-LGA Module
Supplier Device Package	1155-FCLGA
Purchase URL	<a href="https://www.e-xfl.com/product-detail/advantech/96mpcl-2-5-2m11t">https://www.e-xfl.com/product-detail/advantech/96mpcl-2-5-2m11t</a>



# Intel® Celeron® Processor G540 (2M Cache, 2.50 GHz)


## Specifications

Essentials	
Status	Launched
Launch Date	Q3'11
Processor Number	G540
# of Cores	2
# of Threads	2
Clock Speed	2.5 GHz
Intel® Smart Cache	2 MB
Bus/Core Ratio	25
DMI	5 GT/s
Instruction Set	64-bit
Instruction Set Extensions	SSE4.1/4.2
Embedded Options Available	 Yes
Lithography	32 nm
Max TDP	65 W
Recommended Customer Price	\$52 - \$58

## Memory Specifications

Max Memory Size (dependent on memory type)	32 GB
Memory Types	DDR3-1066
# of Memory Channels	2
Max Memory Bandwidth	21 GB/s

## Graphics Specifications

Processor Graphics	 Intel® HD Graphics
Graphics Base Frequency	850 MHz
Graphics Max Dynamic Frequency	1 GHz
Intel® Quick Sync Video	No
Intel® InTru™ 3D Technology	No
Intel® Insider™	No
Intel® Wireless Display	No
Intel® Flexible Display Interface (Intel® FDI)	Yes
Intel® Clear Video HD Technology	No
Dual Display Capable	Yes








## Expansion Options

PCI Express Revision	2.0
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## Package Specifications

Max CPU Configuration	1
T <sub>CASE</sub>	69.1°C
Package Size	37.5mm x 37.35mm
Sockets Supported	FCLGA1155
Low Halogen Options Available	Yes

## Advanced Technologies

Intel® Turbo Boost Technology		No
Intel® vPro Technology		No
Intel® Hyper-Threading Technology		No
Intel® Virtualization Technology (VT-x)		Yes
Intel® Virtualization Technology for Directed I/O (VT-d)		No
Intel® Trusted Execution Technology		No
AES New Instructions		No
Intel® 64		Yes
Idle States		Yes
Enhanced Intel SpeedStep® Technology		Yes
Thermal Monitoring Technologies		Yes
Intel® Fast Memory Access		Yes
Intel® Flex Memory Access		Yes
Execute Disable Bit		Yes

## ORDERING AND SPEC INFORMATION

### Ordering and Spec Information

**Intel® Celeron® Processor G540 (2M Cache, 2.50 GHz) FC-LGA10D, Tray**

Socket	Step	Step TDP	Ordering Code	Spec Code	Low Halogen	VT-x
FCLGA1155		65 W	CM8062301046804	SR05J	Yes	Yes

**Boxed Intel® Celeron® Processor G540 (2M Cache, 2.50 GHz) FC-LGA10D**

Socket	Step	Step TDP	Ordering Code	Spec Code	Low Halogen	VT-x
FCLGA1155		65 W	BXC80623G540	SR05J	Yes	Yes