

# AMD Processor Recognition



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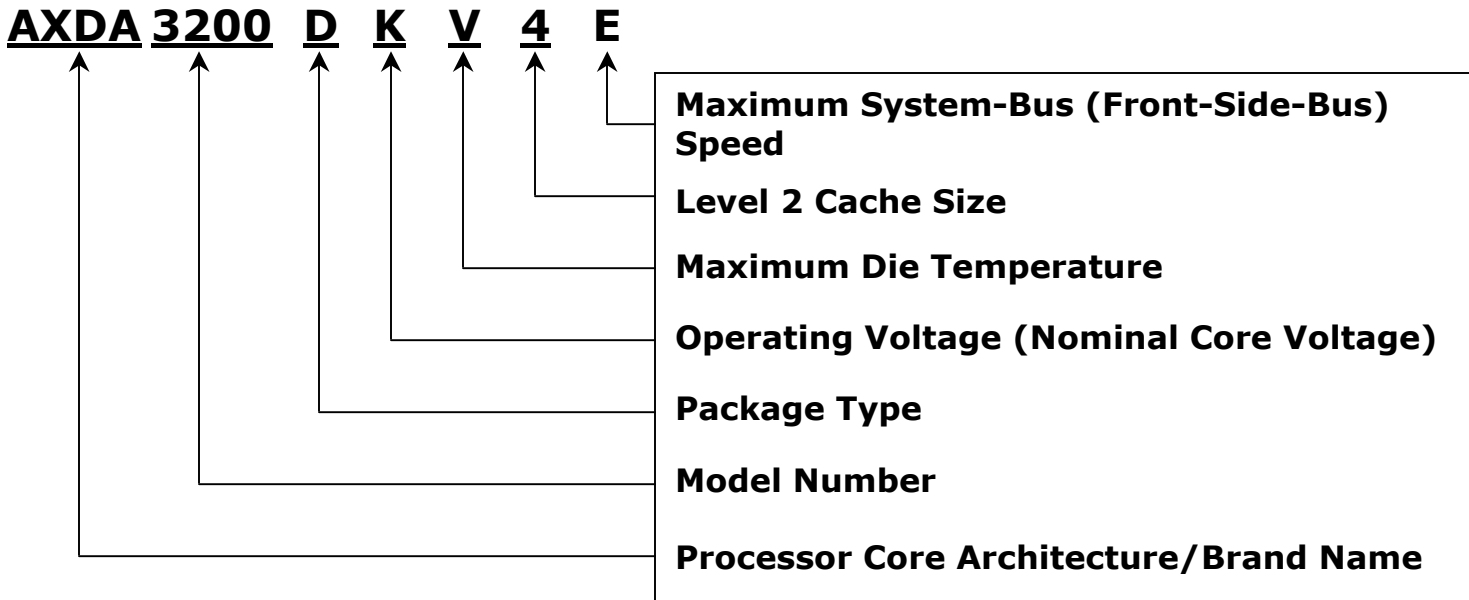
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## AMD Processor Ordering Part Number (OPN) Breakdown

Processors are identified by markings known as Ordering Part Number (OPN). The OPN identifies the processor and its specifications.



### Processor Core Architecture/Brand Name:

These alpha characters define the core architecture of the processor.

| OPN Code       | Brand Name            | Technology |
|----------------|-----------------------|------------|
| AXDA           | AMD Athlon™ XP        | 0.13μm     |
| AX             | AMD Athlon™ XP        | 0.18μm     |
| AMSN           | AMD Athlon™ MP        | 0.13μm     |
| AMP/AHX        | AMD Athlon™ MP        | 0.18μm     |
| K7/A           | AMD Athlon™           | 0.18μm     |
| AHM            | Mobile AMD Athlon™ 4  | 0.18μm     |
| AXMS/AXMD/AXDH | Mobile AMD Athlon™ XP | 0.13μm     |
| D/DHD/DHM/DHL  | AMD Duron™            | 0.18μm     |

## Model Number:

This four digit numeric field defines the speed of the processor in megahertz or Model Number as appropriate.

| OPN Code | Frequency          |
|----------|--------------------|
| 0500     | 500 MHz            |
| 0550     | 550 MHz            |
| 0600     | 600 MHz            |
| 0650     | 650 MHz            |
| 0700     | 700 MHz            |
| 0750     | 750 MHz            |
| 0800     | 800 MHz            |
| 0850     | 850 MHz            |
| 0900     | 900 MHz            |
| 0950     | 950 MHz            |
| 1000     | 1000 MHz           |
| 1100     | 1100 MHz           |
| 1133     | 1133 MHz           |
| 1200     | 1200 MHz           |
| 1300     | 1300 MHz           |
| 1333     | 1333 MHz           |
| 1400     | 1400 MHz (Desktop) |

| OPN Code | Model Number   |
|----------|----------------|
| 1400     | 1400+ (Mobile) |
| 1500     | 1500+          |
| 1600     | 1600+          |
| 1700     | 1700+          |
| 1800     | 1800+          |
| 1900     | 1900+          |
| 2000     | 2000+          |
| 2100     | 2100+          |
| 2200     | 2200+          |
| 2400     | 2400+          |
| 2500     | 2500+          |
| 2600     | 2600+          |
| 2700     | 2700+          |
| 2800     | 2800+          |
| 3000     | 3000+          |
| 3200     | 3200+          |
|          |                |

## Package Type:

This single alpha character defines the package type for this device.

| OPN Code | Package Type |
|----------|--------------|
| A        | CPGA         |
| B        | OBGA         |
| D        | OPGA         |
| E        | uPGA         |
| F        | OPGA         |
| G        | uPGA         |

## Operating Voltage (Nominal Core Voltage):

This single alpha character defines the voltage for this processor.

| OPN Code | Voltage |
|----------|---------|
| Y        | 1.10 V  |
| C        | 1.15 V  |
| T        | 1.20 V  |
| X        | 1.25 V  |
| W        | 1.30 V  |
| J        | 1.35 V  |
| V        | 1.40 V  |
| Q        | 1.45 V  |
| L        | 1.50 V  |
| H        | 1.55 V  |
| U        | 1.60 V  |
| K        | 1.65 V  |
| P        | 1.70 V  |
| M        | 1.75 V  |
| N        | 1.80 V  |

## Maximum Die Temperature:

This single alpha character defines the maximum die temperature for this processor.

| OPN Code | Temperature |
|----------|-------------|
| R        | 70 °C       |
| V        | 85 °C       |
| T        | 90 °C       |
| S        | 95 °C       |
| Q        | 100 °C      |

## Level 2 Cache Size:

This single alpha character defines the Level 2 Cache Size for this processor, in addition to 128KB Level 1 Cache.

| OPN Code | Cache Size |
|----------|------------|
| 1        | 64 KB      |
| 2        | 128 KB     |
| 3        | 256 KB     |
| 4        | 512 KB     |

## Maximum System-Bus Speed:

This single alpha character defines the maximum System-Bus speed for this processor.

| OPN Code | Speed   |
|----------|---------|
| B        | 200 MHz |
| C        | 266 MHz |
| D        | 333 MHz |
| E        | 400 MHz |

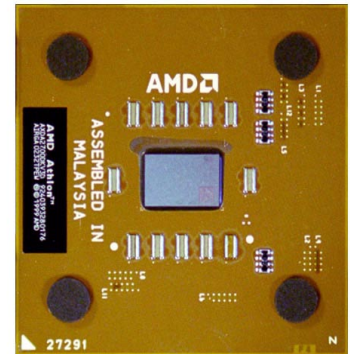
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## Examples:

### OPN example for the AMD Athlon™ XP Processor:

#### AXDA 3200 D K V 4 E

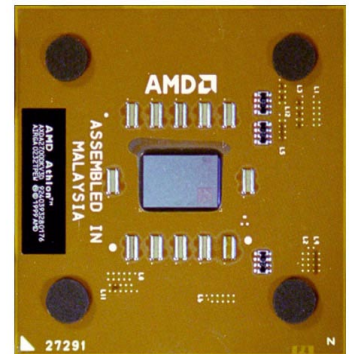
|             |                              |  |
|-------------|------------------------------|--|
| <b>AXDA</b> | Processor Core Architecture: | AMD Athlon XP Processor with Quantispeed™ Architecture |
| <b>3200</b> | Model Number:                | 3200+ operating at 2.200 GHz                           |
| <b>D</b>    | Package Type:                | Organic Pin Grid Array (OPGA)                          |
| <b>K</b>    | Operating Voltage:           | 1.65 V   |
| <b>V</b>    | Max Die Temperature:         | 85°C   |
| <b>4</b>    | Size of L2 Cache:            | 512 Kbytes   |
| <b>E</b>    | System-Bus:                  | 400 MHz  |



### OPN example for the AMD Athlon MP Processor:

#### AMSN 2800 D U T 4 C

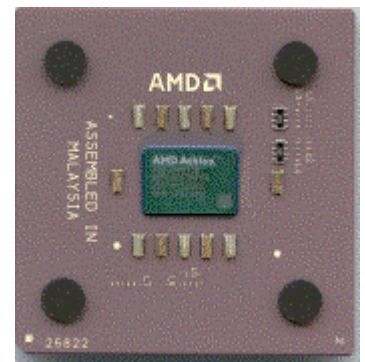
|             |                              |                               |
|-------------|------------------------------|-------------------------------|
| <b>AMSN</b> | Processor Core Architecture: | AMD Athlon MP Processor       |
| <b>2800</b> | Model Number:                | 2800+ operating at 2.133 GHz, |
| <b>D</b>    | Package Type:                | Organic Pin Grid Array (OPGA) |
| <b>U</b>    | Operating Voltage:           | 1.60 V                        |
| <b>T</b>    | Max Die Temperature:         | 90°C                          |
| <b>4</b>    | Size of L2 Cache:            | 512 Kbytes                    |
| <b>C</b>    | System-Bus:                  | 266 MHz                       |



### OPN example for the AMD Athlon Processor

#### A 1400 A M S 3 C

|             |                              |                               |
|-------------|------------------------------|-------------------------------|
| <b>A</b>    | Processor Core Architecture: | AMD Athlon Processor          |
| <b>1400</b> | Model Number:                | 1400MHz,                      |
| <b>A</b>    | Package Type:                | Ceramic Pin Grid Array (CPGA) |
| <b>M</b>    | Operating Voltage:           | 1.75 V                        |
| <b>S</b>    | Max Die Temperature:         | 95°C                          |
| <b>3</b>    | Size of L2 Cache:            | 256 Kbytes                    |
| <b>C</b>    | System-Bus:                  | 266 MHz                       |



### OPN example for the AMD Duron™ Processor

#### DHD 1300 A M T 1 B

|             |                              |                               |
|-------------|------------------------------|-------------------------------|
| <b>DHD</b>  | Processor Core Architecture: | AMD Duron Processor           |
| <b>1300</b> | Model Number:                | 1300MHz                       |
| <b>A</b>    | Package Type:                | Ceramic Pin Grid Array (CPGA) |
| <b>M</b>    | Operating Voltage:           | 1.75 V                        |
| <b>T</b>    | Max Die Temperature:         | 90°C                          |
| <b>1</b>    | Size of L2 Cache:            | 64 Kbytes                     |
| <b>B</b>    | System-Bus:                  | 200 MHz                       |

