



IUBAT - International University of Business Agriculture and Technology

Course Name: COMPUTER HARDWARE AND MAINTENANCE LAB

Course Code: CSC 348

Title: Table of CPU Specifications

Submitted To

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Make r	CPU Type	Package	Clock Speed(GHz)	FSB Speed(MHz or GT/s)	L2 Cache (MB)	Number of Cores
Intel	Core 2 Quad Q9650	LGA 775	3.00	1333 MHz	6	4
AMD	Phenom II X3 710	AM3	2.60	-	1.5	3
AMD	Phenom III X4 965	AM3	3.40	-	2	4
Intel	Celeron M 575	PGA 478	2.00	533MHz	1	1
AMD	Athelon X2 7750 Black Edition	AM2	2.50	3600 MT/s	1	2
Intel	Pentium 4 650	LGA775	3.40	800MHz	2	1
Intel	Atom 330	BGA437	1.60	533MHz	1	2
Intel	Xeon X5570	LGA1366	2.93	6.4GT/s	1	4
Intel	Core i-7960	LGA1366	3.20	4.8GT/s	8	4

Given PC's CPU-Z(from the report):

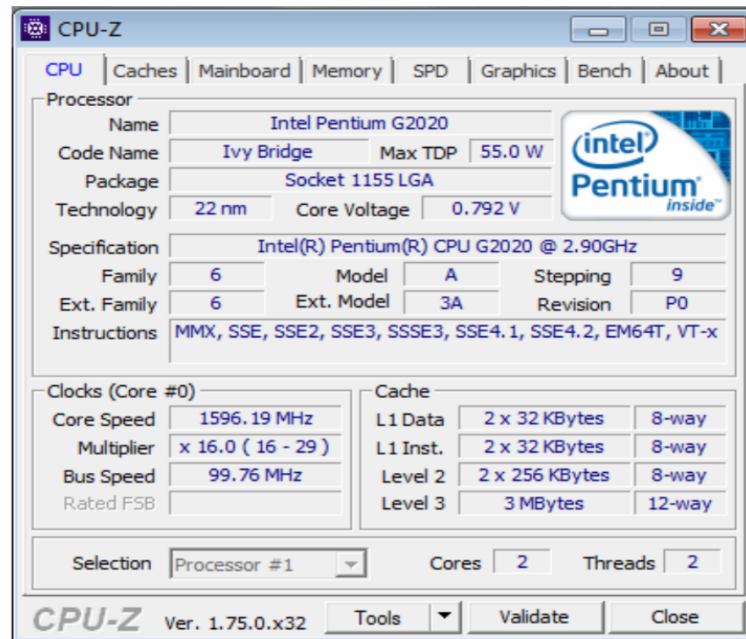
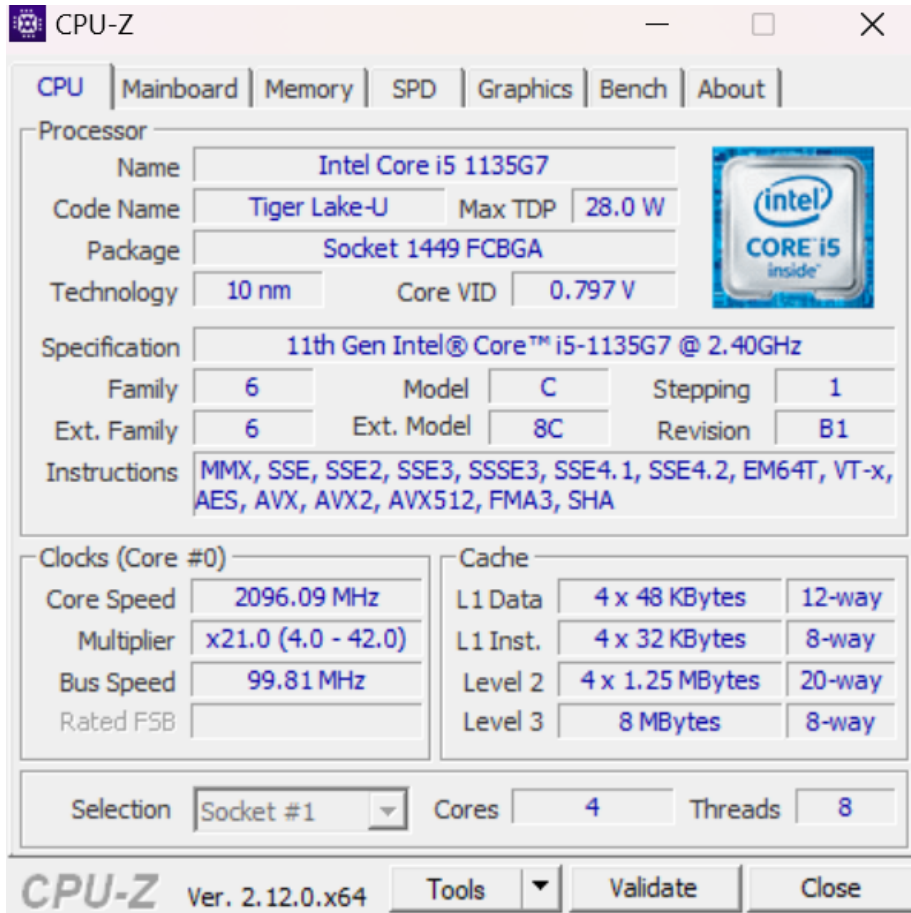


Figure 5.5. The CPU-Z utility

Information Based on CPU-Z screenshot in the given Report :

- **Name:** Intel Pentium G2020
- **Code Name:** Ivy Bridge
- **Package:** Socket 1155 LGA
- **Core Speed:** 1596.19 MHz
- **Multiplier:** x 16.0 (16 - 29)
- **Bus Speed:** 99.76 MHz
- **L2 Cache:** 2 x 256 KBytes, 8-way

From my PC's CPU-Z:



Information Based on the CPU-Z screenshot from my PC:

- **Name:** Intel Core i5-1135G7
- **Code Name:** Tiger Lake-U
- **Package:** Socket 1449 FCBGA
- **Core Speed:** 2096.09 MHz
- **Multiplier:** x21.0 (4.0 - 42.0)

- **Bus Speed:** 99.81 MHz
- **L2 Cache:** 4 x 1.25 MBytes, 20-way

Let's compare the two processors mentioned: Intel Pentium G2020 and Intel Core i5-1135G7.

Comparison:

Intel Pentium G2020

- **Architecture:** Ivy Bridge
- **Cores/Threads:** 2/2
- **Base Clock Speed:** 2.9 GHz
- **Cache:** L2: 2 x 256 KB, L3: 3 MB
- **TDP:** 55W
- **Year Released:** 2013

Intel Core i5-1135G7

- **Architecture:** Tiger Lake
- **Cores/Threads:** 4/8
- **Base Clock Speed:** 2.4 GHz (with boost up to 4.2 GHz)
- **Cache:** L2: 4 x 1.25 MB, L3: 8 MB
- **TDP:** 12-28W
- **Year Released:** 2020

Conclusion:

Feature	Intel Pentium G2020	Intel Core i5-1135G7
Code Name	Ivy Bridge	Tiger Lake
Max TDP	55.0 W	12-28W
Package	Socket 1155 LGA	BGA1449
Technology	22 nm	10 nm SuperFin
Core Voltage	0.792 V	Dynamic, varies with workload
Clock Speed	2.90 GHz (Rated)	Base Frequency ~2.4 GHz, Turbo Boost up to 4.2 GHz
Cores	2	4
Threads	2	8
L1 Cache	2 x 32 KB, 8-way	4 x 48 KB (Data) + 4 x 32 KB (Instruction)
L2 Cache	2 x 256 KB, 8-way	4 x 1.25 MB
L3 Cache	3 MB, 12-way	8 MB (Shared)
Instructions	Basic SSE versions, VT-x	including AVX-512, DL Boost, SSE4.1/4.2, VT-x, VT-d
Process Node	22 nm	10 nm SuperFin
Cores/Threads Ratio	1:1	1:2

The **Intel Pentium G2020** is an entry-level, outdated processor with 2 cores, 2 threads, and a fixed 2.90 GHz clock speed. Built on the 22 nm Ivy Bridge architecture, it is suitable only for basic tasks like web browsing and office work, but lacks modern efficiency and advanced features. In contrast, the **Intel Core i5-1135G7**, based on the 10 nm Tiger Lake architecture, features 4 cores, 8 threads, and a turbo boost up to 4.2 GHz. It offers advanced instruction sets, better power efficiency (12-28W), and Iris Xe integrated graphics, making it ideal for multitasking, productivity, and light gaming.