Unit 3. Hardware.

Internal components.

Part 1

Desarrollo de Aplicaciones Web

1er Curso

Curso 2020-2021

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Recordatorio

Esta presentación no sustituye los apuntes disponibles en el aula virtual.

Las apuntes oficiales son los que tenéis en el aula virtual

Contents
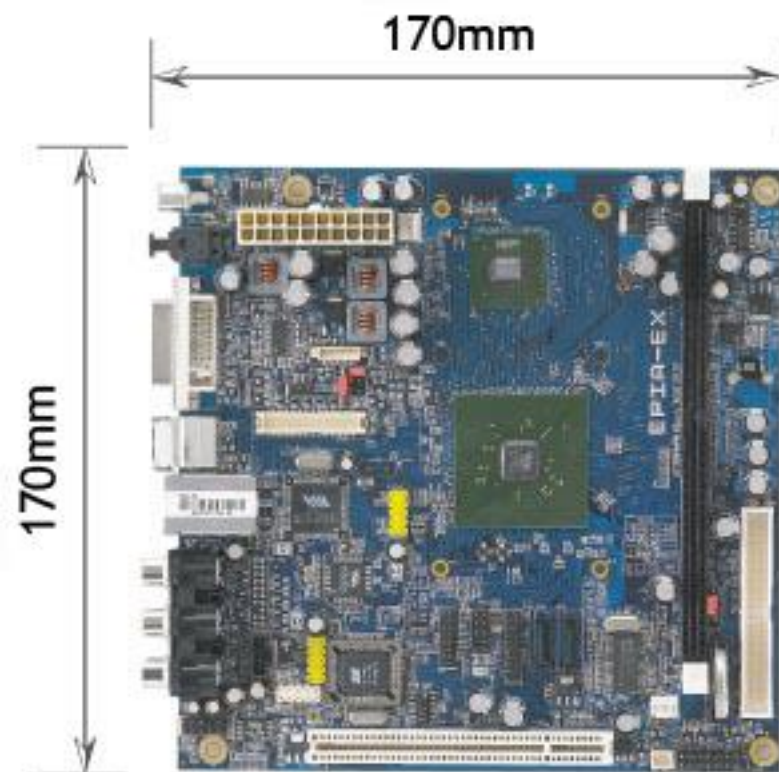
1. Motherboard

✓ Printed circuit.

✓ All components are connected to the Momo

✓ BIOS (*Basic Input Output System*) and UEFI (*Unified Extensible Firmware Interface*). Read this article uefi and bios.
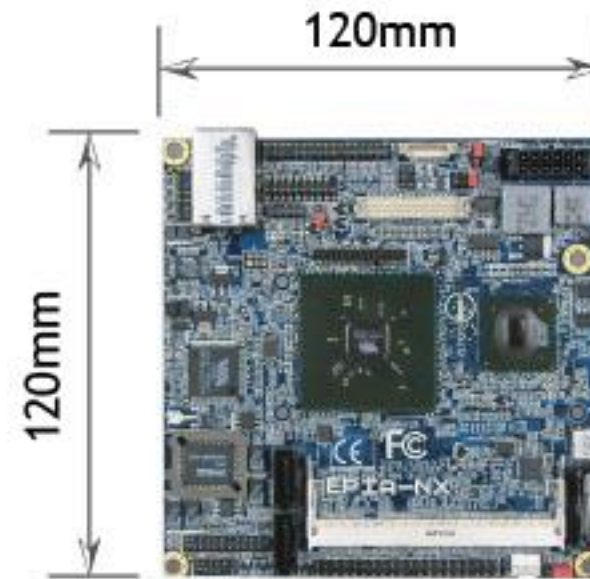
1. Motherboard. Parts

Rear Fan Connector

DIMM DDR2 Memory Slots (x2)

SuperIO Chip

24-pin ATX Power Connector

CPU Fan Connector

CPU Socket (LGA775)

Floppy Connector

IDE Connector (x1)

4-pin ATX Connector

Chasis Fan Connector

SATA Connectors (x4)

Panel Header

USB Headers

I/O Panel Connectors

Southbridge (without heatsink)

Northbridge Chipset

Integrated Ethernet chip

CMOS Battery

PCI Express x16 Slot

PCI Slots (x2)

PCI Express x1 Slot

Front Audio Header

Integrated HD-Audio codec chip

1. Motherboard. Form factor

Mini-ITX — 170mm × 170mm

Nano-ITX — 120mm × 120mm

Pico-ITX — 100mm × 72mm

Mobile-ITX — 75mm × 45mm
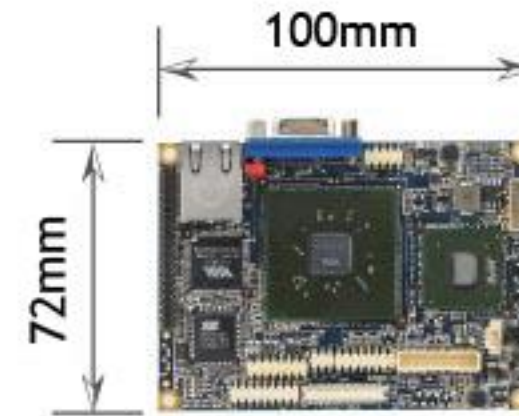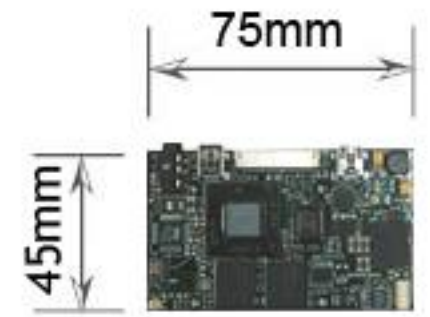
Source

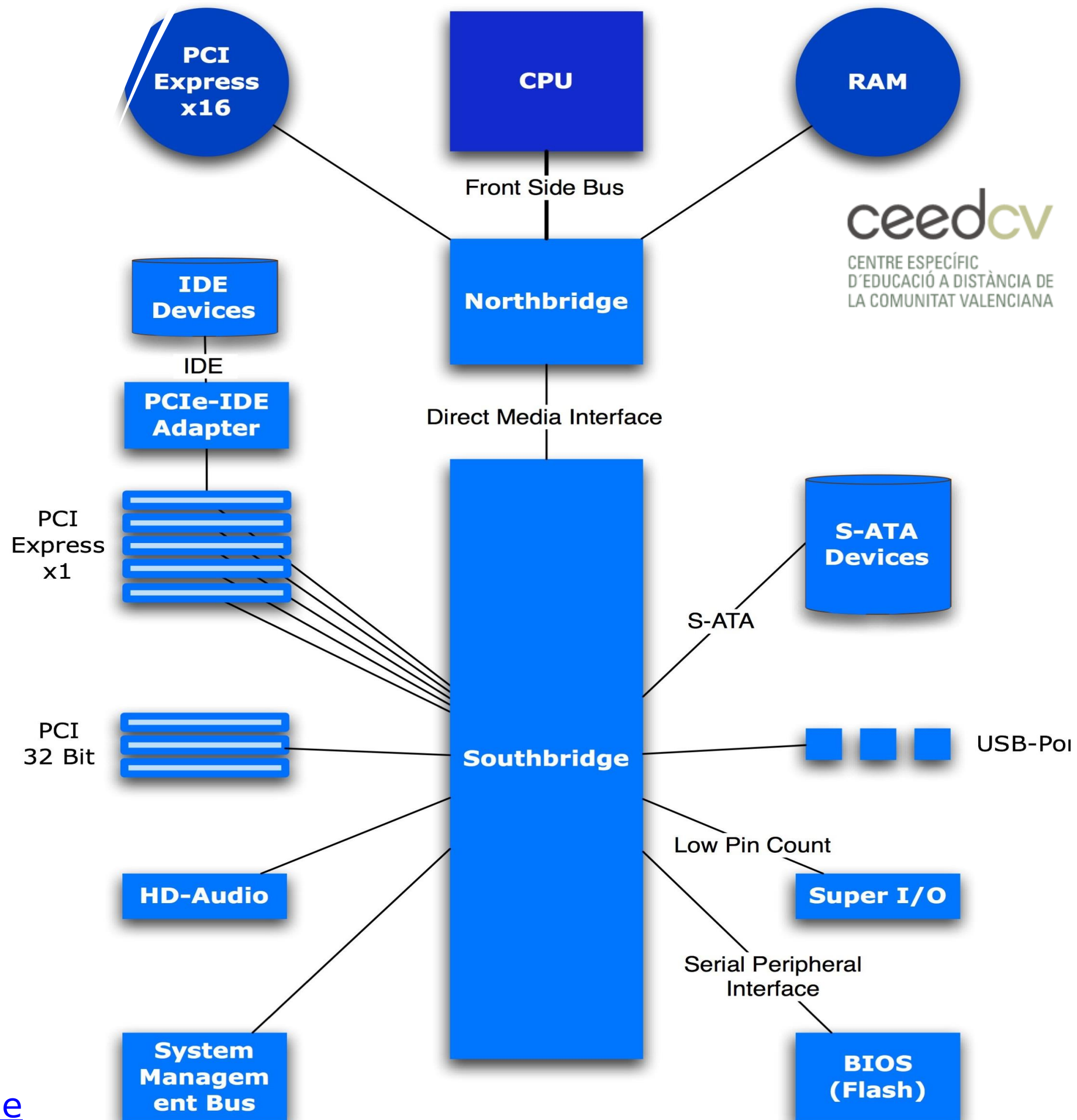# 2. Chipset

✓ Set of chips.

✓ Controls certain functions of the computer.

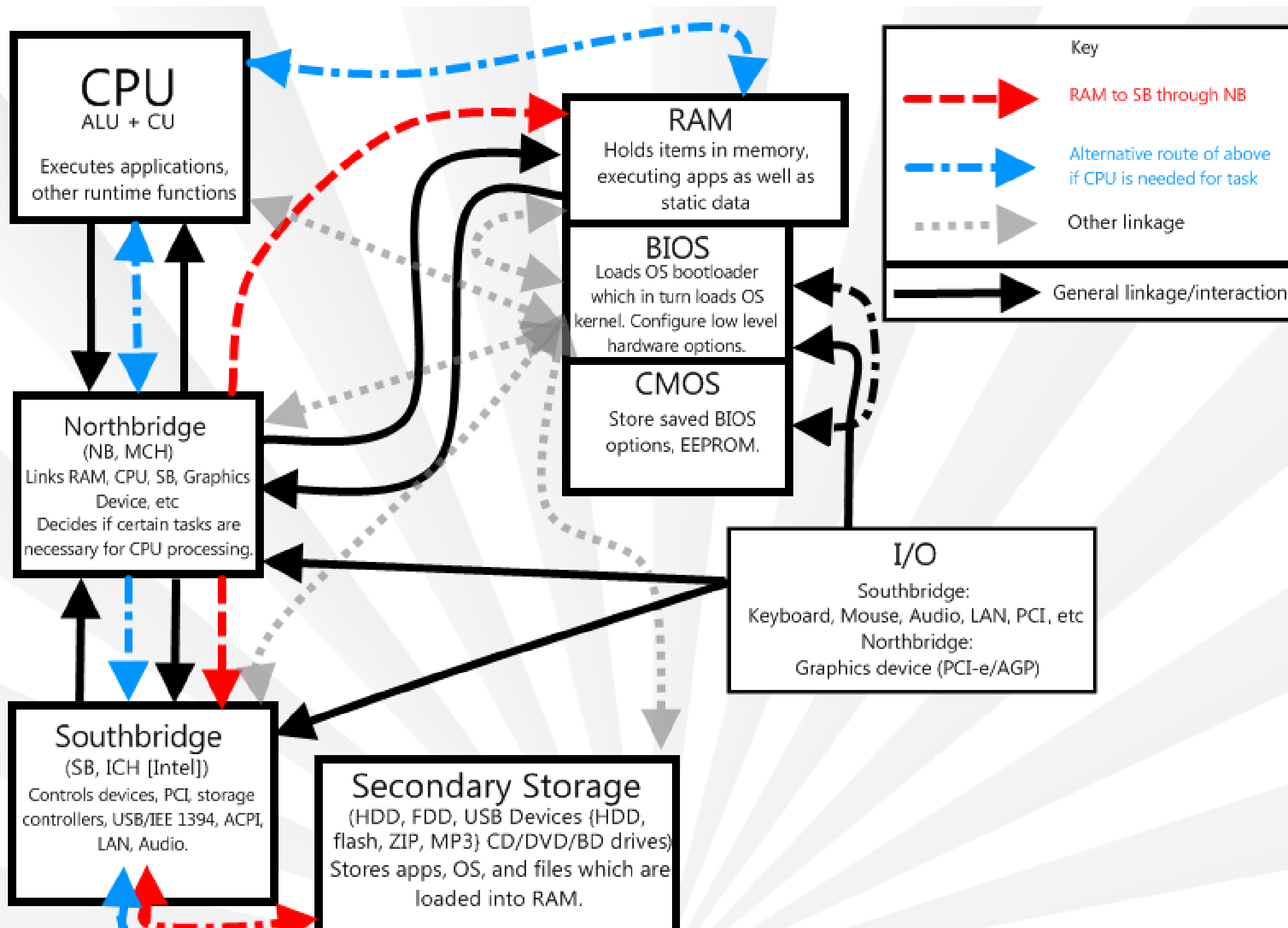✓ Evolution: more complex tasks. Chipset gains importance.

✓ NorthBridge vs SouthBridge

2. Chipset.
NorthBridge
vs
SouthBridge

✓ Intel

PCI Express x16

CPU

RAM

Front Side Bus

IDE Devices

Northbridge

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IDE

PCIe-IDE Adapter

Direct Media Interface

PCI Express x1

S-ATA Devices

PCI 32 Bit

Southbridge

S-ATA

USB-Por

HD-Audio

Low Pin Count

Super I/O

Serial Peripheral Interface

System Management Bus

BIOS (Flash)

[Source](#)

In a nutshell

Source

Find examples

✓ Take a look at the Gigabyte website, https://www.gigabyte.com/uk/Motherboard and choose two motherboards. Try to identify components, connectors, etc. which have been explained in Unit 3.

✓ Post your findings in the Unit 3 Forum.

Questions?