

## Lab 2.3.4: Identify ROM and BIOS Chips

**Estimated time:** 30 Minutes

### Objective

This lab will focus on the student's ability to locate and identify the ROM chip, BIOS chip, and BIOS manufacturer on a motherboard.

### Equipment

The following equipment is required for this exercise:

- A complete motherboard
- Motherboard manuals
- Internet access for research

**Note:** A functioning system is not necessary to complete this lab. Be sure to observe proper care concerning power supplies and ESD.

### Scenario

A client that you built a PC for a few months ago recently purchased a used computer. He wants to install an expansion card into the machine to add some video editing capabilities. Before he purchases an expansion card, he wants to make sure that the BIOS will support it.

### Procedures

BIOS – The Basic Input-Output System is a ROM chip that has built-in commands, which allow the system to power-up and perform a self-test of its hardware before turning over control to the operating system.

ROM – Read-Only Memory, as its name implies, can be read, but not changed. It is used to store basic information the computer needs to operate (for example, the BIOS).

Determine the manufacturer and version number of the BIOS. Research the BIOS manufacturer's website to see if there are newer versions available. Also, examine the physical ROM chip to help answer the questions below.

### Step 1

Describe the physical appearance of the ROM chip and its location on the board:

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## Step 2

What type of BIOS is used?

Manufacturer:	
Version/Type:	
Battery Type:	
Rewrite-able?	

## Step 3

If an Internet connection is available, visit the manufacture's website and list the version number and any new features that are supported.

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## Step 4

Can the BIOS be upgraded?

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## Step 5

What are the steps that must be taken to upgrade the BIOS?

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## Troubleshooting

Use extreme caution when flashing the BIOS. Make sure to use the correct file and that it is not corrupt. If you flash your BIOS with the incorrect BIOS type or with a corrupt file, you may render the board inoperable!

## Reflection

1. How many BIOS manufacturer's can you list?

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2. Why is the BIOS needed?

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