
8086 Board Design Project

CMPE 310
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This document provides detailed instructions to develop an 8086 microprocessor board using Cadence® OrCAD® Capture software. Included are the schematics of individual IC components and their description. Details of the ICs include decoding, programming specifications, and descriptions of IC pin outs.

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1 Introduction

The 8086 microprocessor is an enhanced version of the 8085 microprocessor developed by Intel in 1978. It is a 16-bit microprocessor, with 20 address lines and 16 data lines to provide up to 1 MB of physical memory.

1.1 Purpose

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1.2 Scope and Organization of Document

2 8086 Microprocessor

2.1 Description

2.2 Address and Data Buses

2.3 Control Bus

3 Decoding

3.1 Programming Logic Device - 16L8

3.2 Programming the PLD

4 Clock Generator - 8284

4.1 Description