CENG 5434: Microcomputer Systems Design   9/28/2022

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Agenda_9_28_2022

HW5 / Serial Communication/ DAC/Chip Selector/Interrupts/SBC/PIC Modules

Serial_Communication   _

Interrupts

SingleBoardComputers

Arduino_VS_RaspberryPi

Specifying_Single_Boards

1_HW5_A2D_timers_5434_f22d.pdf

1a_HW5_5435ANS_MATLABF2022.m

1b_HW5_5434_Answers_MATLAB_Fall 2022.docx

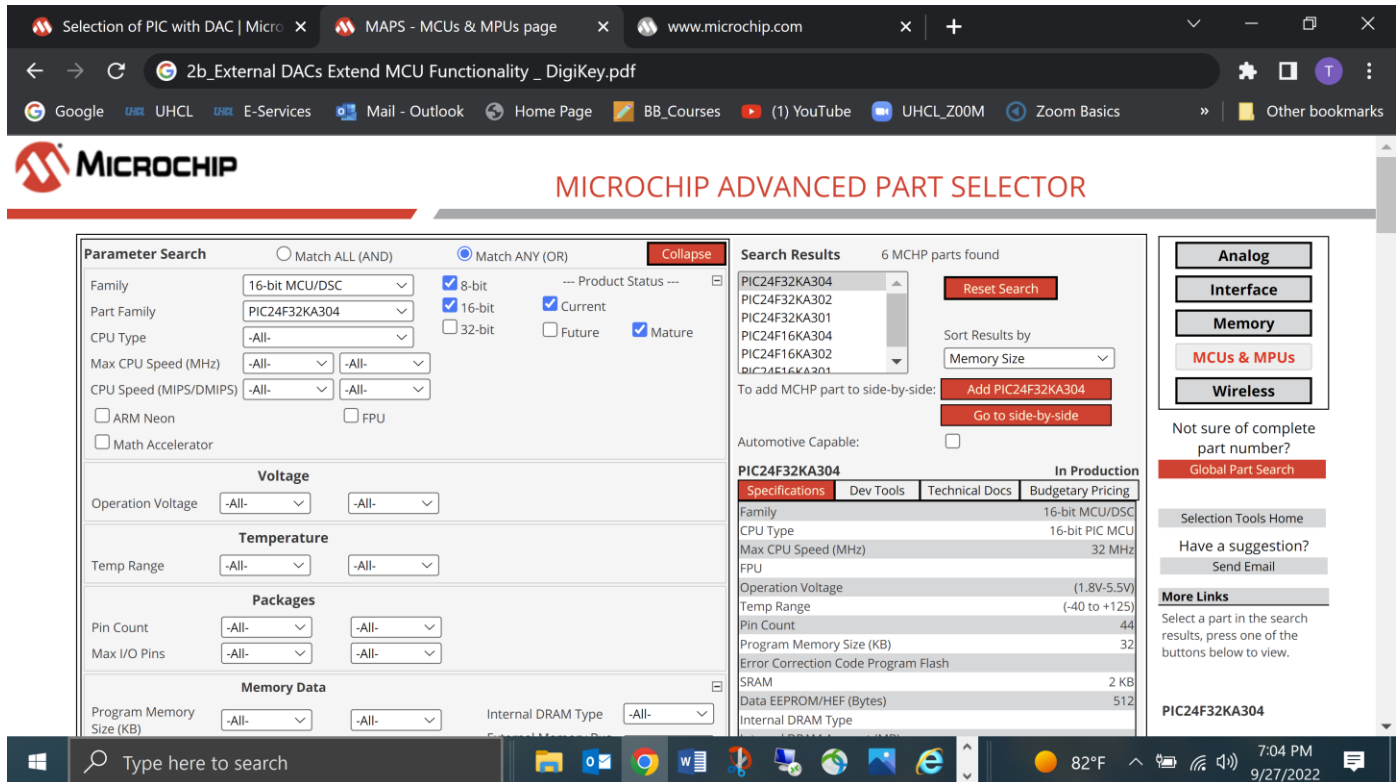**1c_HW5_ScanANS_HandJob20211115_185634.pdf**

2_SerialCommunication_review.pdf

2a_Serial_A2D_QSPI.pdf

2b_DACPresentation.pdf

2c_Microchip Advanced Part Selector – Check it out

http://www.microchip.com/maps/microcontroller.aspx

On Web – Timing of Interrupts

3_Interrupts_OnWeb54340001.pdf

Interrupts

3a_K4V219B_lst_115Pages_LineX_987_PIC16C63.doc   (Some Code)

4 EVALUATION BOARDS & SBC

An evaluation/development board is just a convenient method of creating a breadboard of a system without a lot of custom hardware design. You need to start with your requirements, two of the most important are I/O and processing capability. Analog inputs? Sampling rate? Keyboard? Push-buttons? Built-in LCD display? HDMI port to an external monitor? etc

4_1_EvaluationBoards_Single Board Computers& SOC.pdf

4_2_ArduinoVS_RaspberryPI.pdf

4_3_specifyingBoards.pdf

4_4 OFF TO THE MOVIES.

SBCs in 2021: The State of Play
152,488 views Jun 27, 2021 12:32
 https://www.youtube.com/watch?v=RcvMxC81r_g

Chapters:

00:00 Introduction

01:08 The Rise of the Maker Board

03:06 Hardware & Software

07:18 Consumer & Industrial SBCs

09:51 History Repeats

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5_PICModules_videos_9_2022.docx