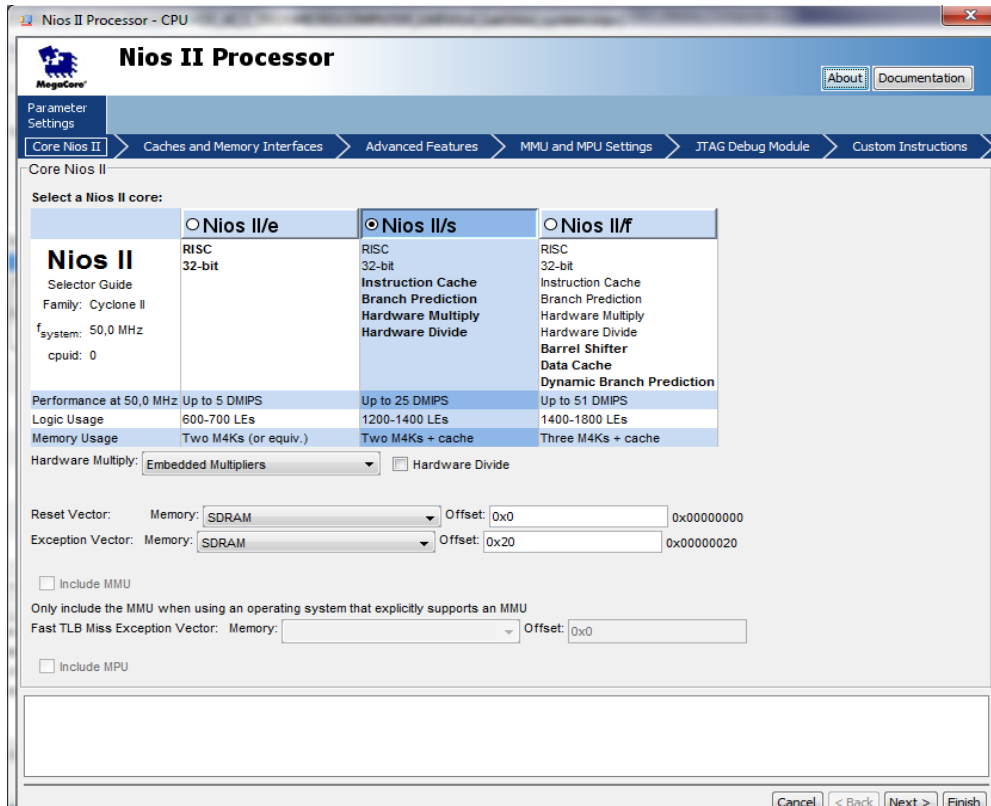
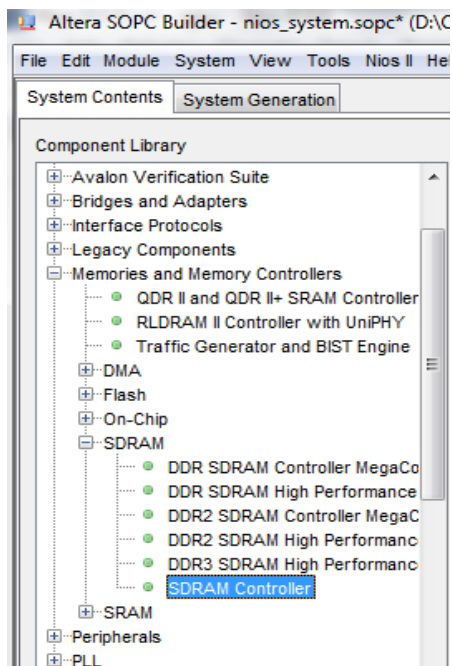


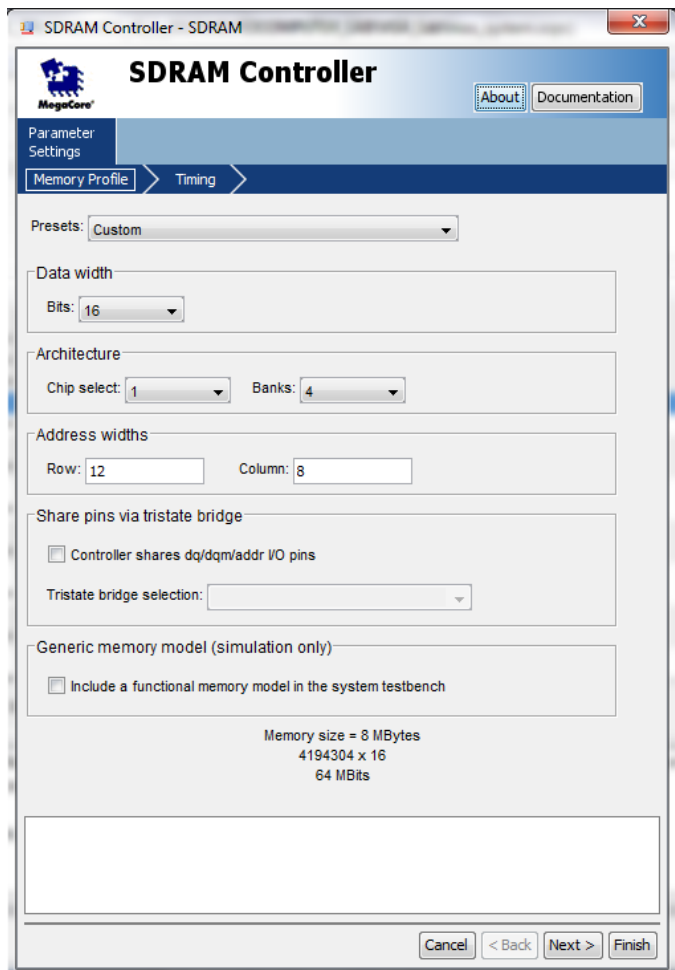
HƯỚNG DẪN BỔ SUNG BÀI LAB6 – VGA

1. CPU

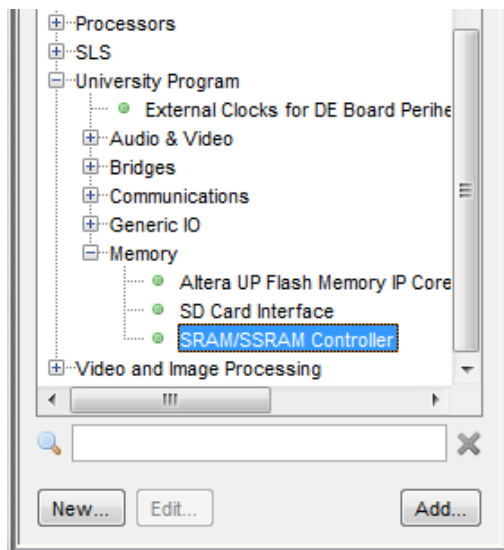


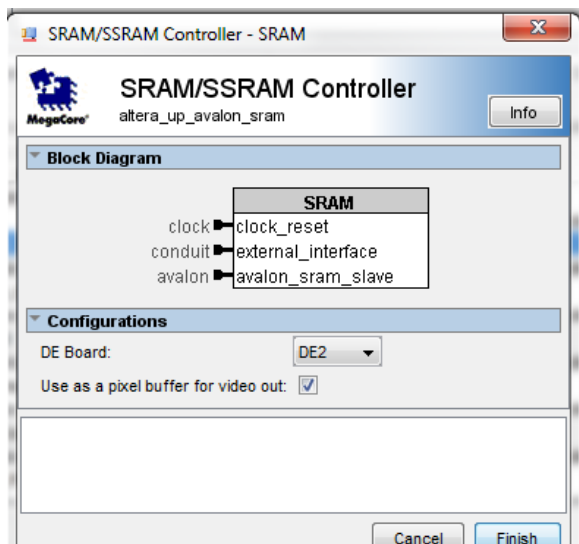
2. SDRAM



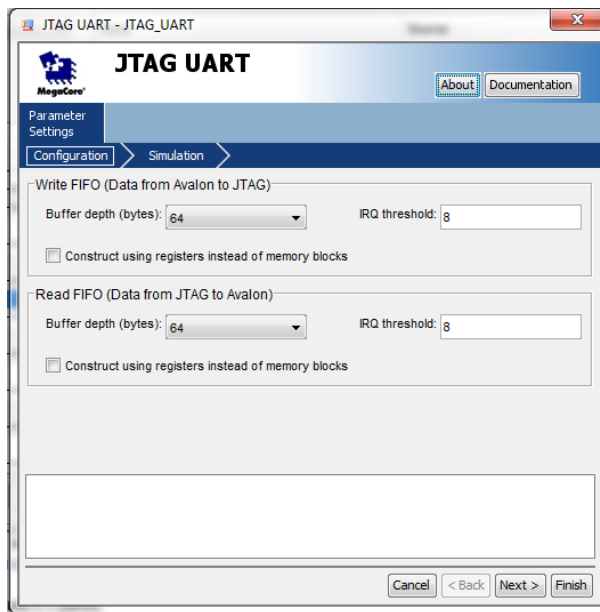


3. SRAM

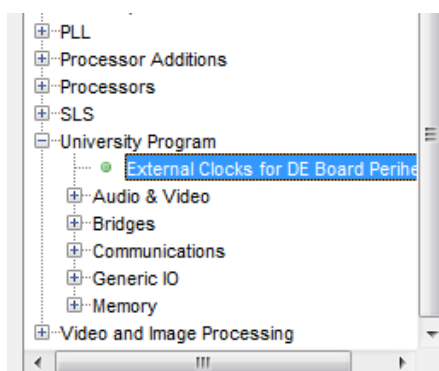


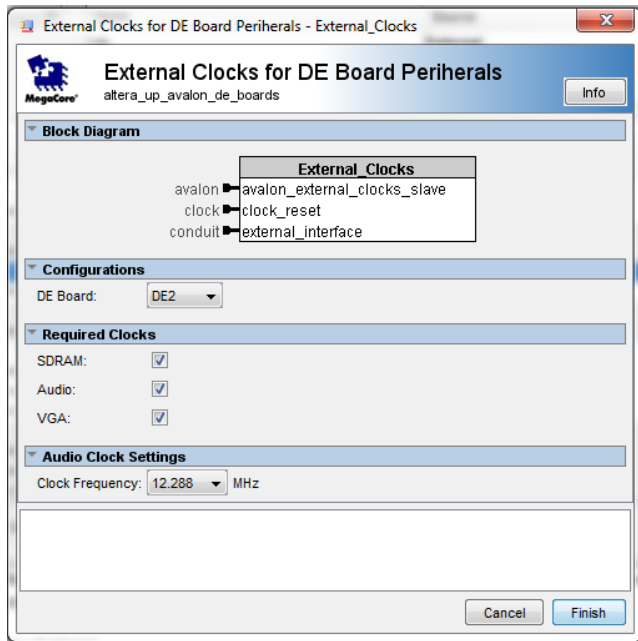


4. JTAG_UART

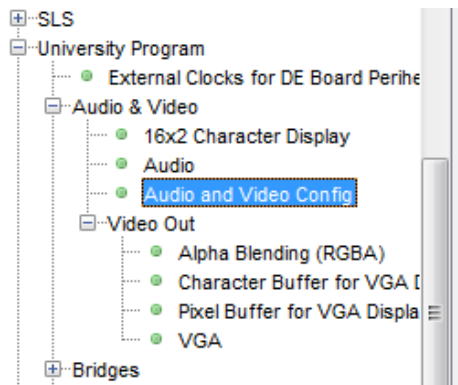


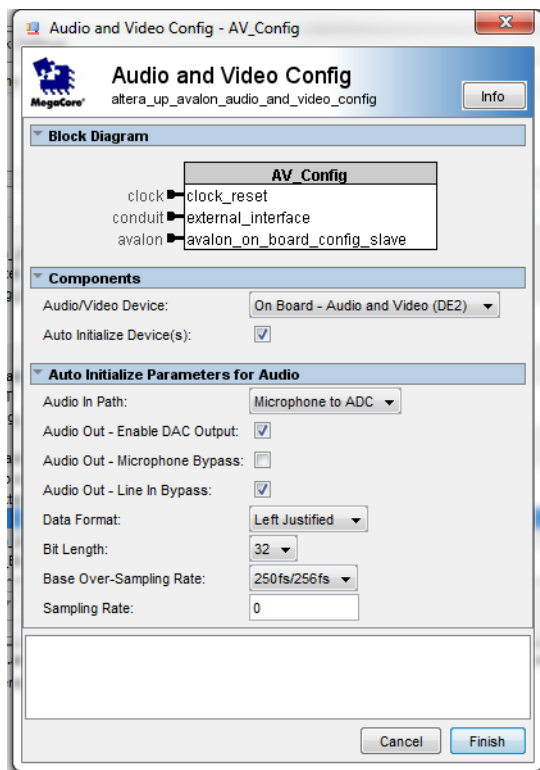
5. EXTERNAL CLOCKS



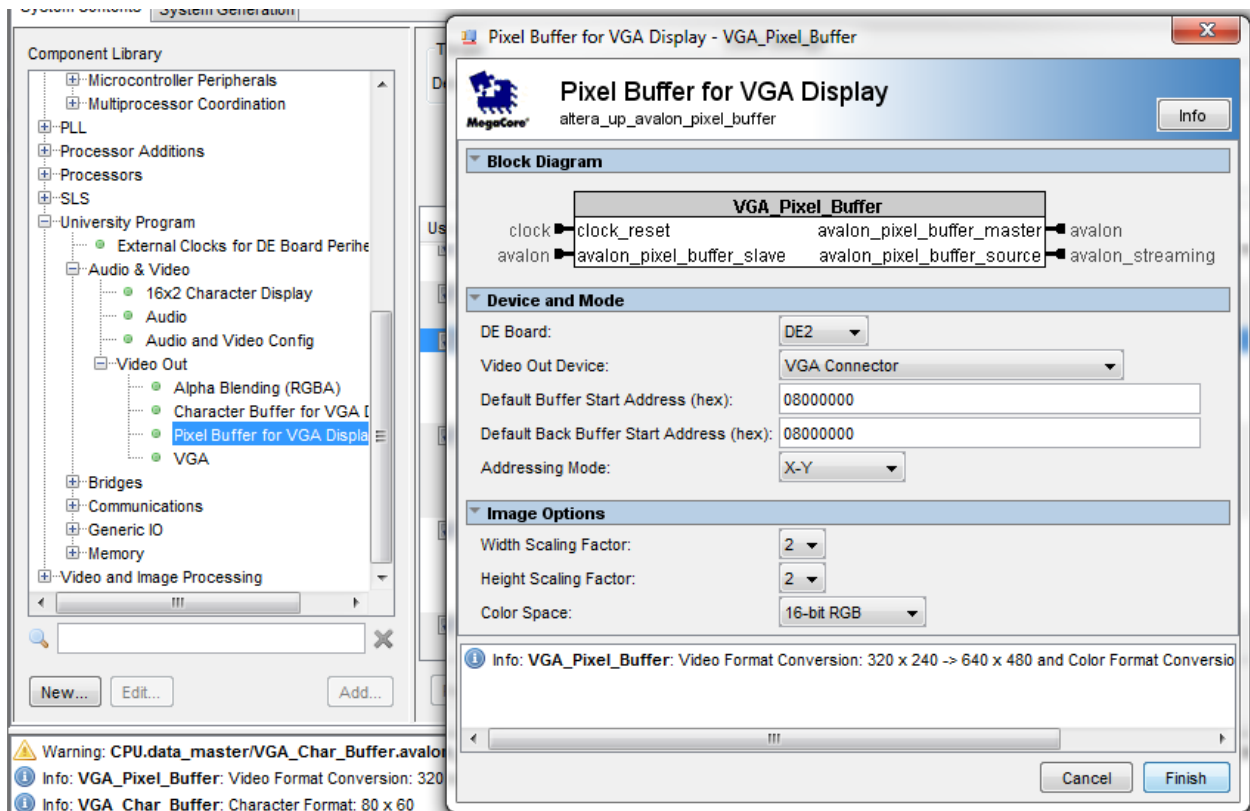


6. AV_config

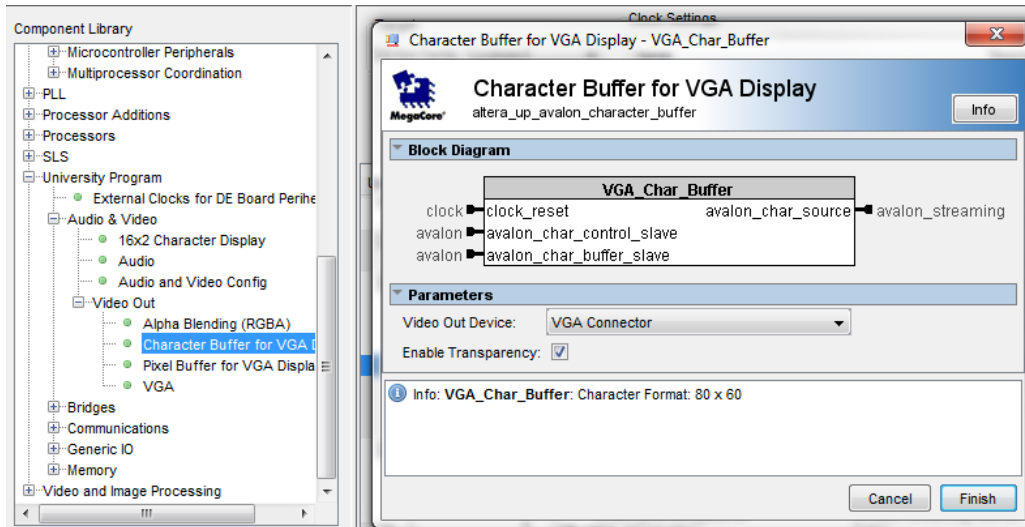




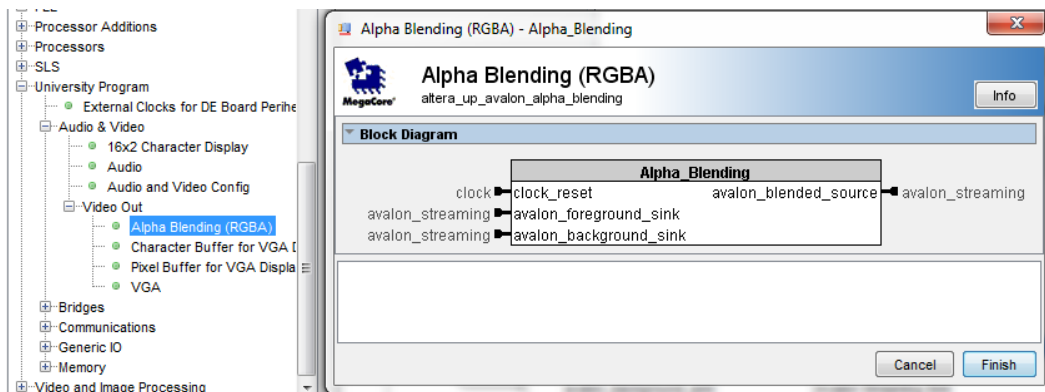
7. VGA_Pixel_Buffer



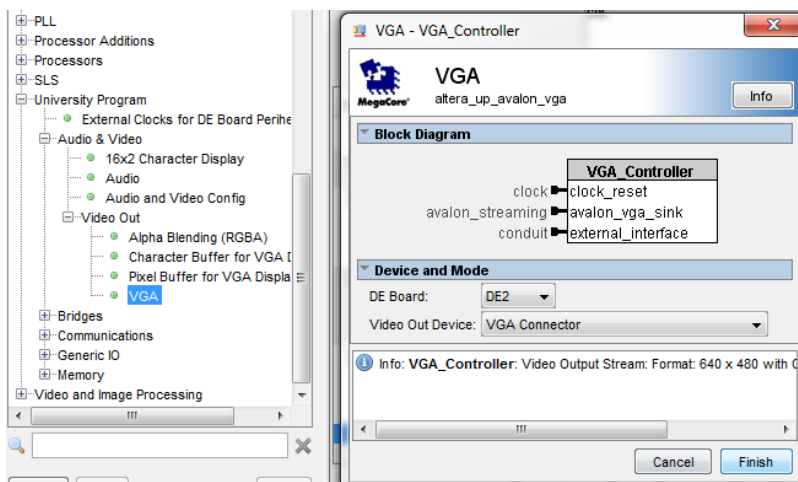
8. VGA_Char_Buffer



9. Alpha_Blending



10. VGA_Controller



11. Kết nối các thành phần lại

Altera SOPC Builder - nios_system.sopc* (D:\CONG_VIEC\TRUONG\HOC_KI_1_2013\MICROCOMPUTER_LAB\VGA_Lab\nios_system.sopc)

File Edit Module System View Tools Nios II Help

System Contents System Generation

Component Library

Target

Device Family: Cyclone II

Clock Settings

Name	Source	MHz
clk	External	50.0

Use Connections Module Name Description Clock Base End Tags IRQ

☒ **CPU** Nios II Processor

☒ **Instruction Master** Avalon Memory Mapped Master

☒ **data_master** Avalon Memory Mapped Master

☒ **jtag_debug_module** Avalon Memory Mapped Slave

☒ **SDRAM** SDRAM Controller

☒ **s1** Avalon Memory Mapped Slave

☒ **avalon_sram_slave** SRAM/SSRAM Controller

☒ **JTAG_UART** JTAG UART

☒ **avalon_jtag_slave** Avalon Memory Mapped Slave

☒ **sysid** System ID Peripheral

☒ **control_slave** Avalon Memory Mapped Slave

☒ **External_Clocks** External Clocks for DE Board Peripherals

☒ **avalon_external_clocks_slave** Avalon Memory Mapped Slave

☒ **AV_Config** Audio and Video Config

☒ **avalon_on_board_config_slave** Avalon Memory Mapped Slave

☒ **VGA_Pixel_Buffer** Pixel Buffer for VGA Display

☒ **avalon_pixel_buffer_slave** Avalon Memory Mapped Slave

☒ **avalon_pixel_buffer_master** Avalon Memory Mapped Master

☒ **avalon_pixel_buffer_source** Avalon Streaming Source

☒ **VGA_Char_Buffer** Character Buffer for VGA Display

☒ **avalon_char_control_slave** Avalon Memory Mapped Slave

☒ **avalon_char_buffer_slave** Avalon Memory Mapped Slave

☒ **avalon_char_source** Avalon Streaming Source

☒ **Alpha_Blending** Alpha Blending (RGBA)

VGA_Controller VGA

avalon_vga_sink Avalon Streaming Sink

12. Code C

Tham khảo code mẫu theo đường dẫn:

C:\altera\91sp2\University_Program\NiosII_Computer_Systems\DE2\DE2_Media_Computer\app_software_HAL\media_HAL\media_HAL.c

--- GOOD LUCK! ---