CO326 : Computer Systems Engineering: Industrial Networks

Assignment : Designing an ISA Interface
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Q) Importance of nIOW, nIOR, AEN lines in an ISA BUS based interface Design

AEN

Address Enable is used to delegate the system microprocessor and other devices from the bus during DMA transfers. When this signal is active the system DMA controller has control of the address, data, and read/write signals. This signal should be included as part of ISA board select decodes to prevent incorrect board selects during DMA cycles.

IOR

I/O Read is driven by the owner of the bus and instructs the selected I/O device to drive read data onto the data bus.

IOW

I/O Write is driven by the owner of the bus and instructs the selected I/O device to capture the write data on the data bus.