

Multichannel Analog Multiplexed DAS

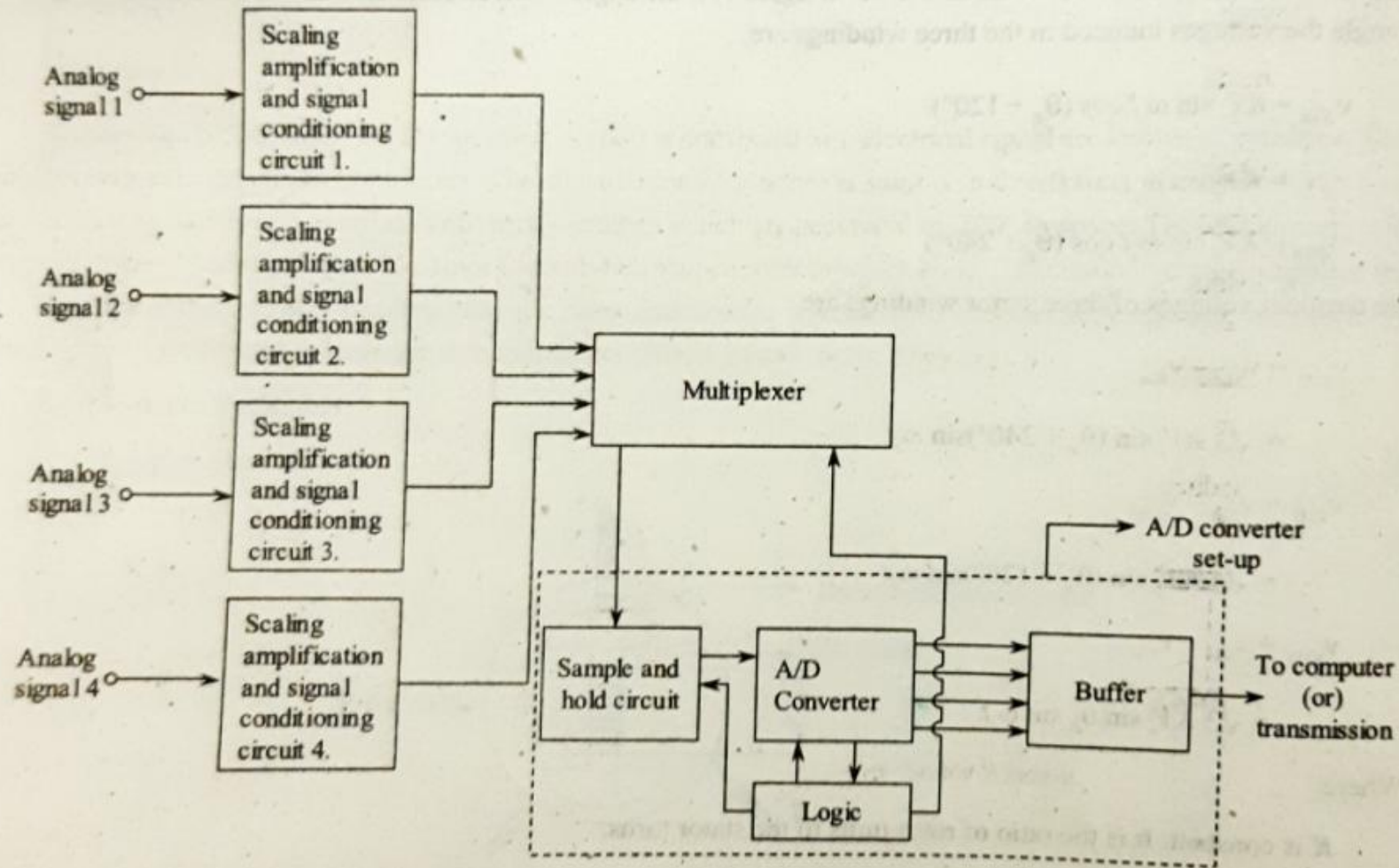


Figure: Multichannel Analog Multiplexed DAS

Multichannel analog multiplexed DAS comprises the number of analog channels or analog signals to be transmitted, scaling amplification and signal conditioning circuits, a multiplexer and an analog to digital conversion arrangement (i.e., A/D converter set-up). Each analog signal is connected to the multiplexer circuit through the respective scaling amplification and signal conditioning circuit. The multiplexer selects and allows one channel at a time to reach the A/D converter set-up, whose function is to convert the analog signal into digital. Thus, the selected input analog signal is converted into digital signal.

As soon as the conversion process of analog to digital is over, the A/D converter sends a status signal to the sample and hold circuit. Therefore, the sample and hold circuit comes back to its sample mode and takes the analog signal of the next channel through the multiplexer. After acquiring the next signal, the sample and hold circuit goes to hold mode and the conversion of analog to digital will get started. While the A/D conversion is going on the multiplexer selects the next signal and gets ready to supply it to the sample and hold circuit.