# Flow Diagram Grammar

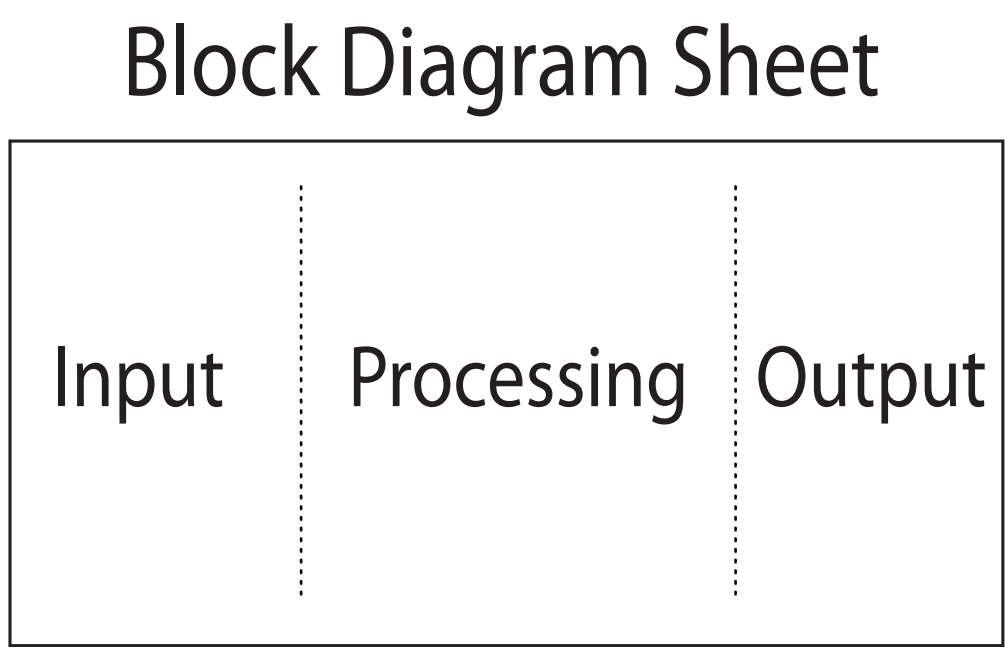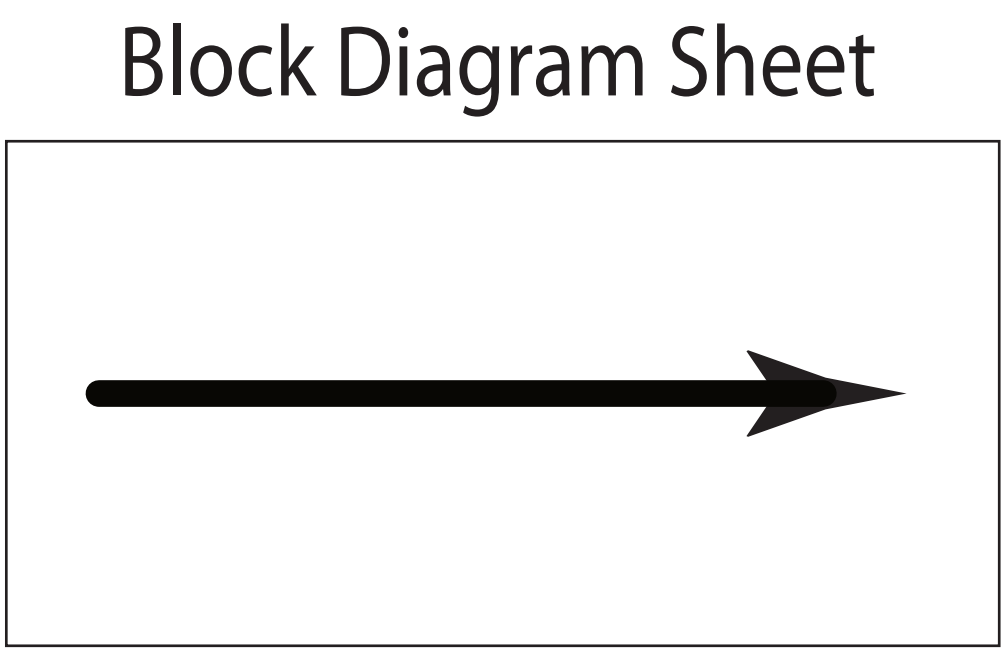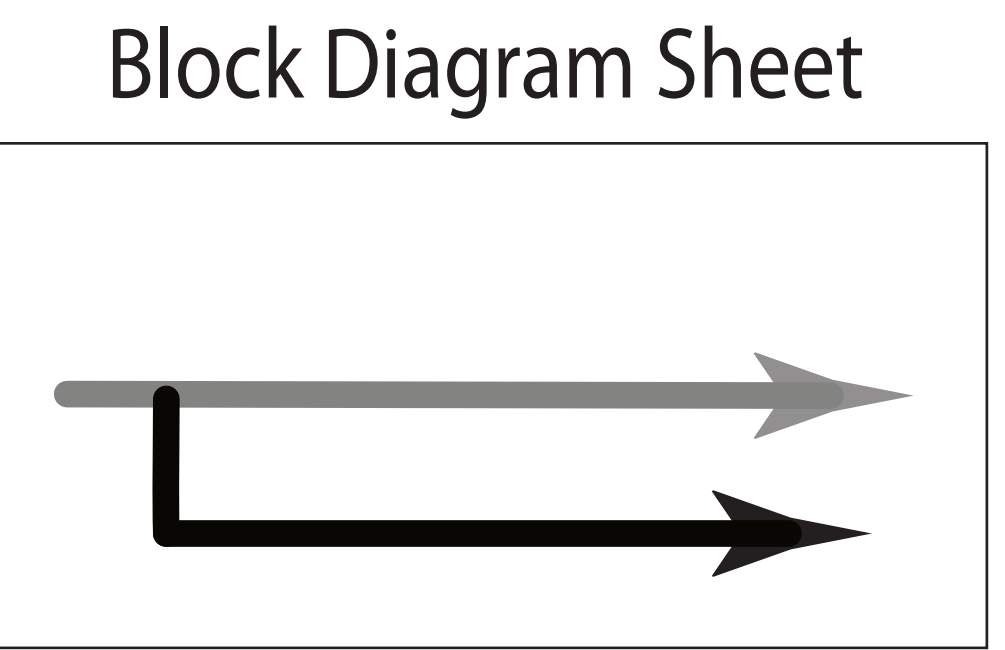## Block Diagram Sheet

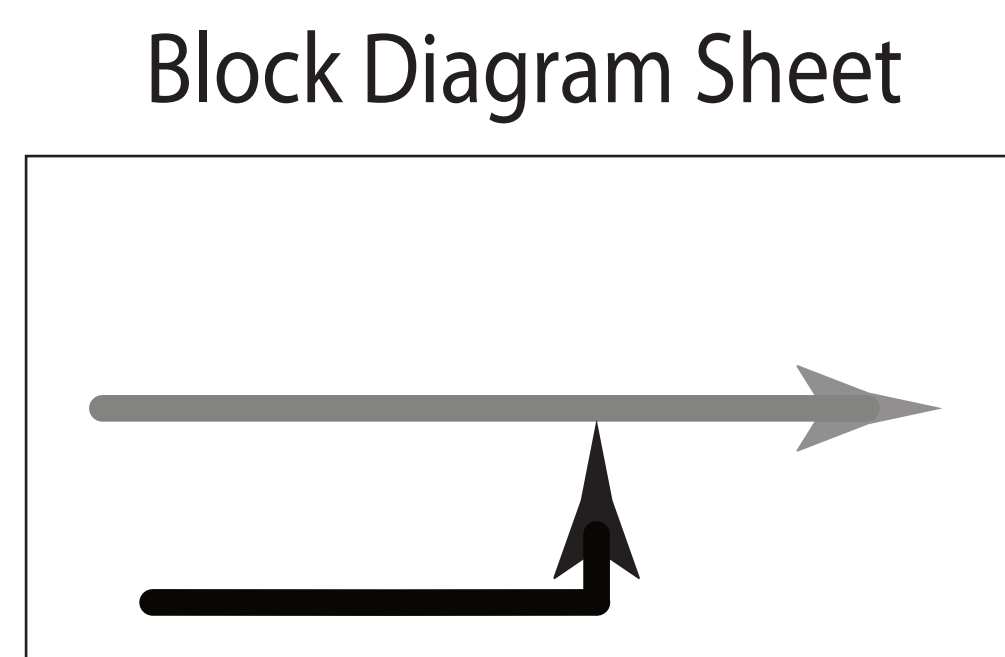| Input | Processing | Output |
|-------|-----------|--------|

Generally inputs on the left, processing in the middle and outputs on the right. This is can be adjusted if that makes the diagram easier to understand
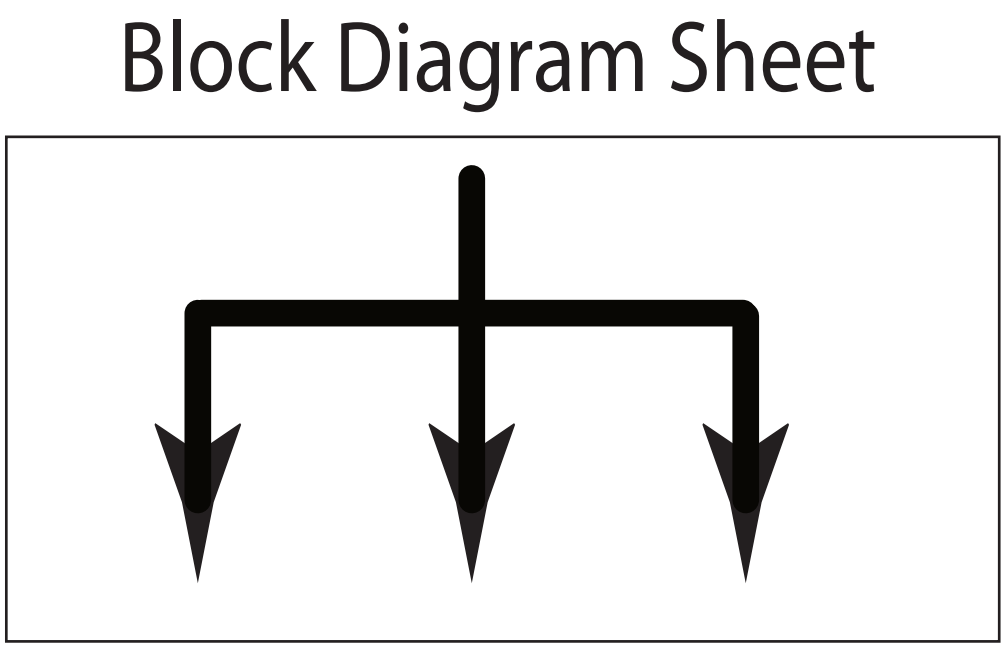
## Block Diagram Sheet

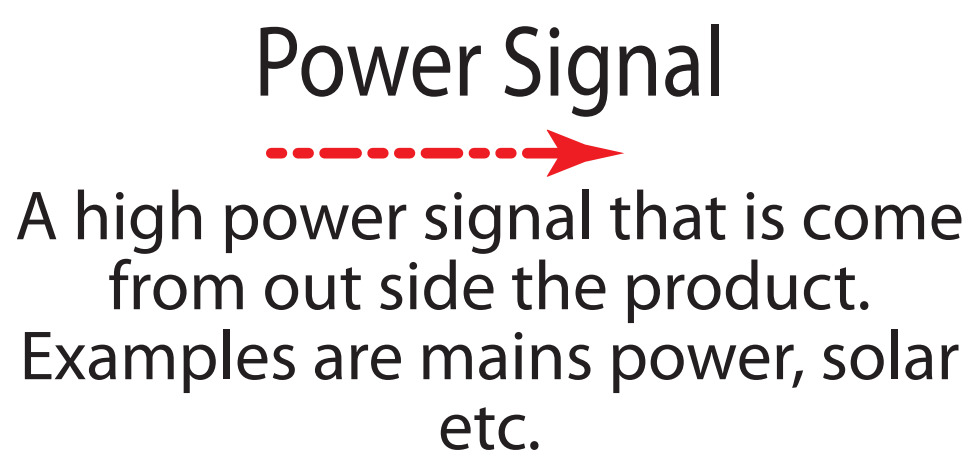Main signal path is placed in the middle of the sheet and run right to left

## Block Diagram Sheet

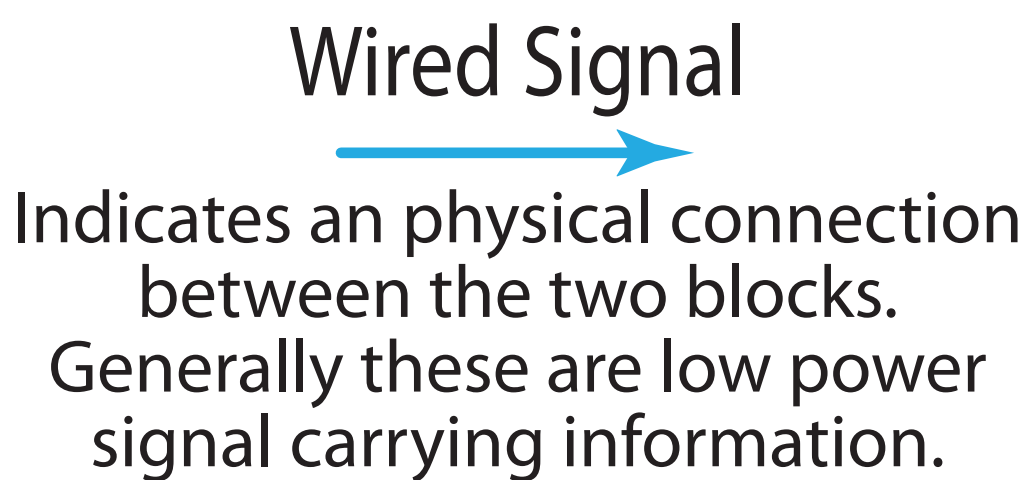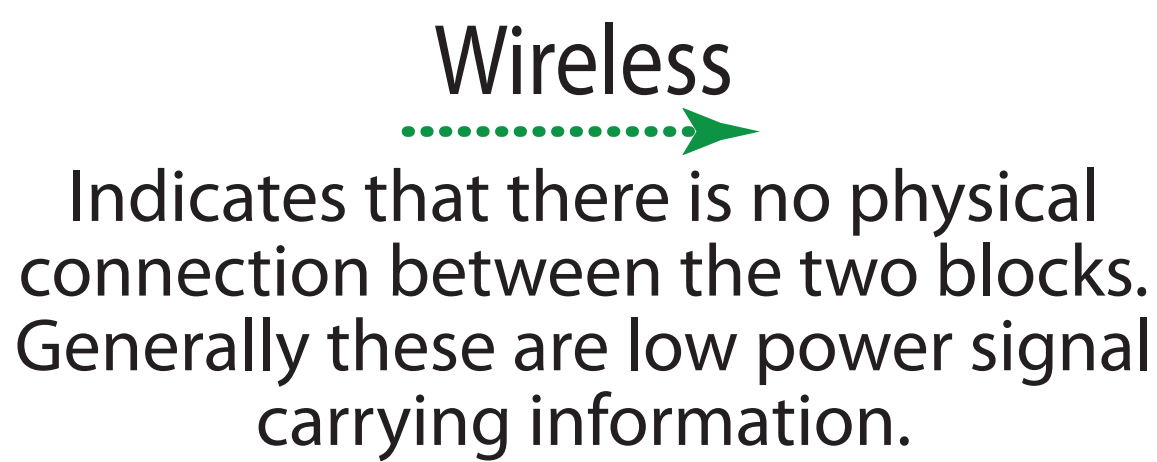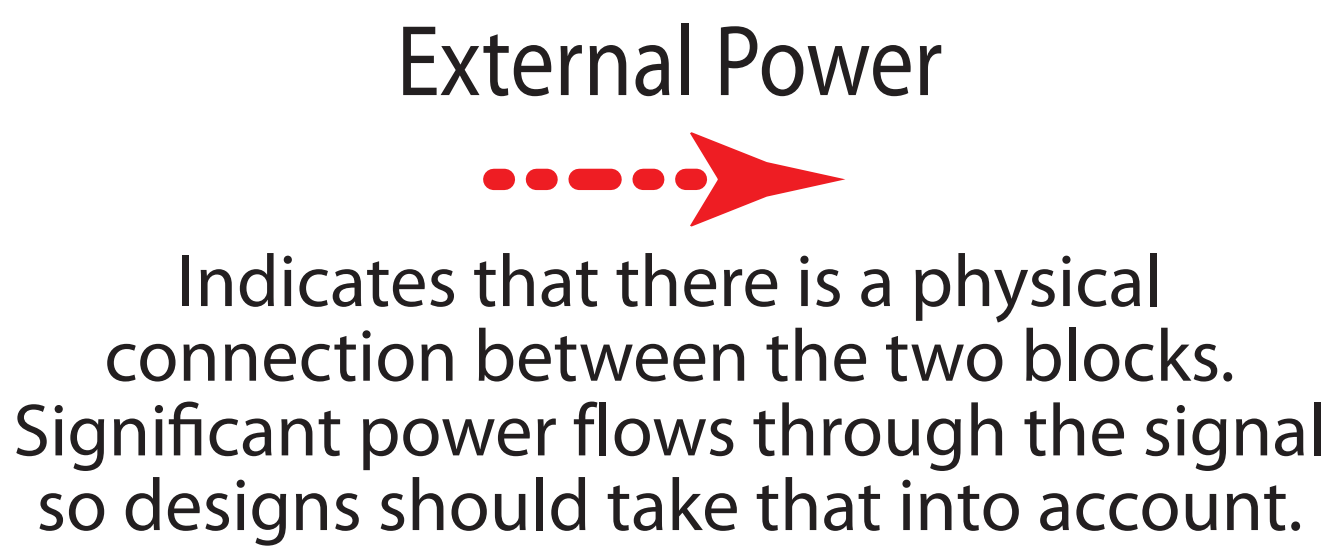Secondary signal paths run parallel to the main signal path and branch off it

## Block Diagram Sheet

Or into it

## Block Diagram Sheet

Power path is generally shown flowing vertically

## Flow Arrows

Arrows show the flow of signals between system blocks. In the Flow Diagram they are intensionally limited to a small number to simplify generation

## External Power

Indicates that there is a physical connection between the two blocks. Significant power flows through the signal so designs should take that into account.

## Wireless

Indicates that there is no physical connection between the two blocks. Generally these are low power signal carrying information.

## Wired Signal

Indicates an physical connection between the two blocks. Generally these are low power signal carrying information.

## Power Signal

A high power signal that is come from out side the product. Examples are mains power, solar etc.

## System Block

Name

A system block captures a well defined set of functionality. In implementation it maps to a IC or a circuit structure

## Series Connection

Block A — Signal A → Block B — Signal B → Block C

This indicates that the signal is sourced (starts) in Block A and sinks (ends) in Block B. Then a new signal is sourced from Block B and sinks in Block C. Generally signal A and B are DIFFERENT signals though they may be related.

## Parallel Connection
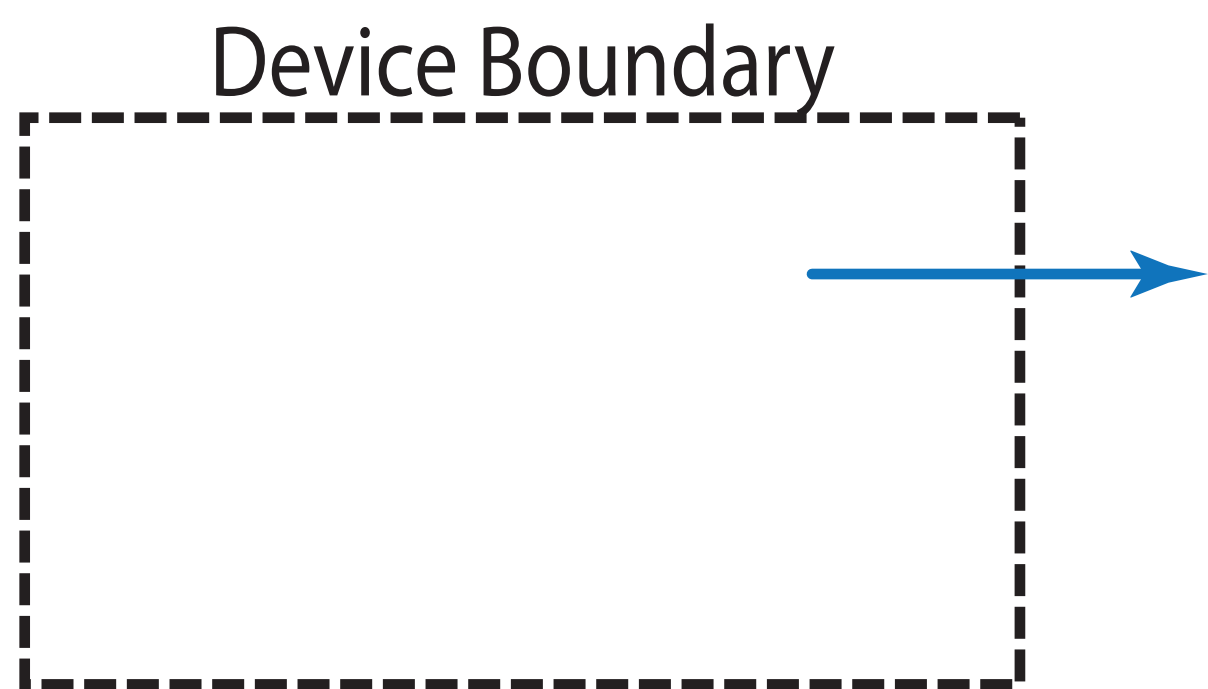
Block A — Signal A
Block B — Signal B → Block C
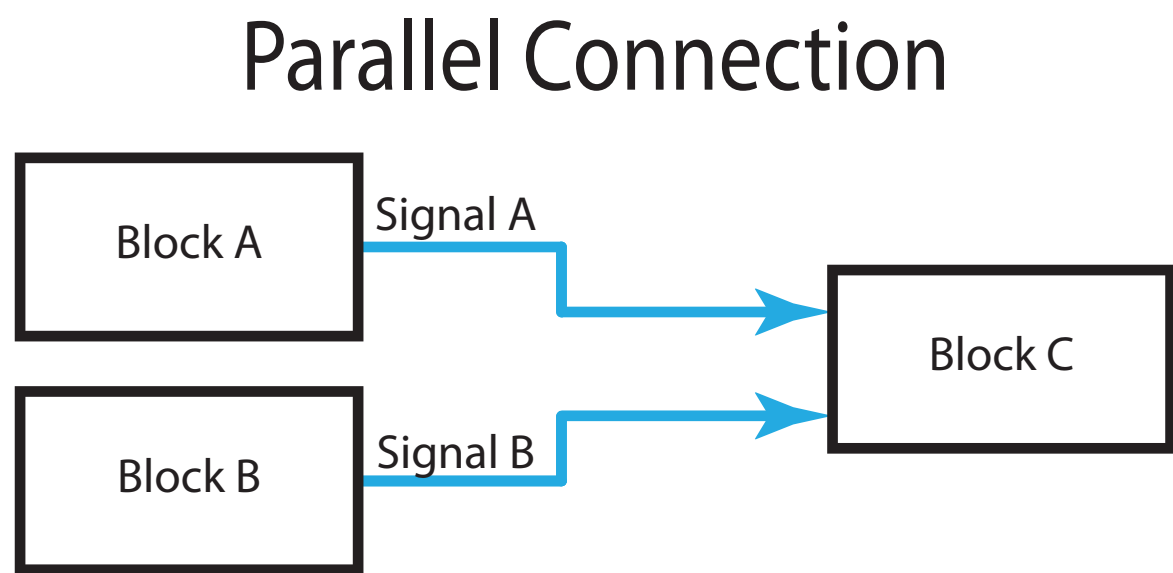
This indicates that different signal ares sourced from Block A and Block B and sinks in Block C. Also the signals from Blocks A and B are DIFFERENT signals and unrelated

## Split Connection

Block A — Signal A → Signal A → Block B
                   → Signal A → Block C
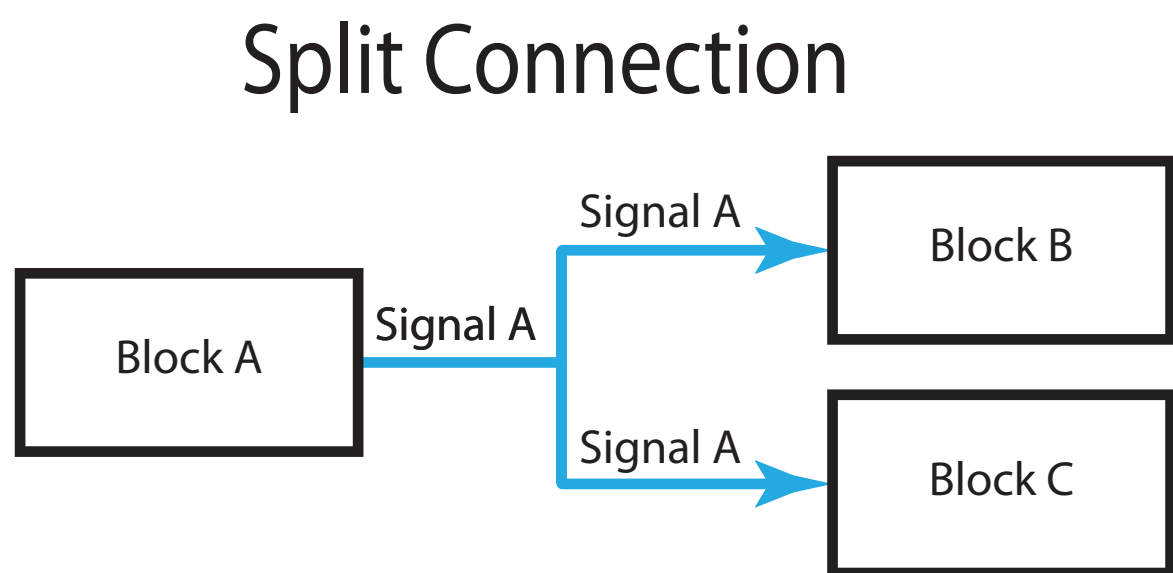
This indicates that a signal is sourced from Block A and sinks into Block B and Block C. The signals going into Blocks B and C are the SAME. Signals that are the same should always be shown connected
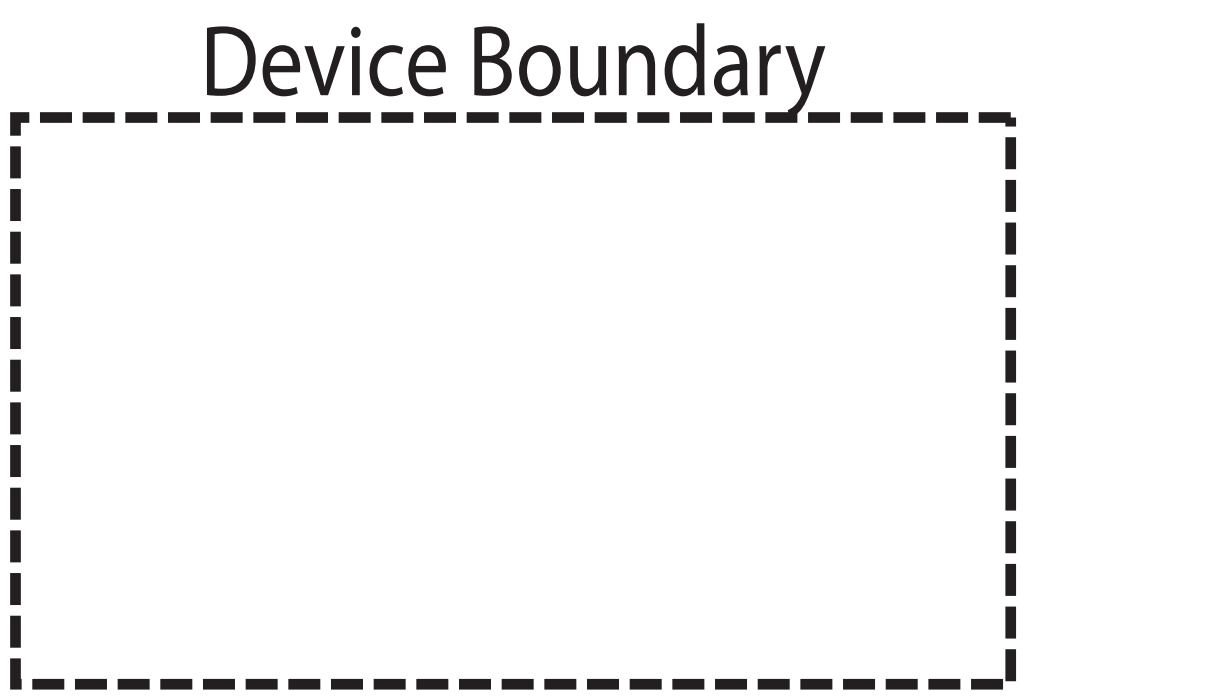
## Device Boundary

Device boundaries are indicated with a dashed line and show the grouping of systems blocks. In implementation they map to PCBs, assemblies,

## Device Boundary

A signal that crosses a boundary indicates that there is an interface there. This interface should be enumerated in the Interface List

## Device Boundary
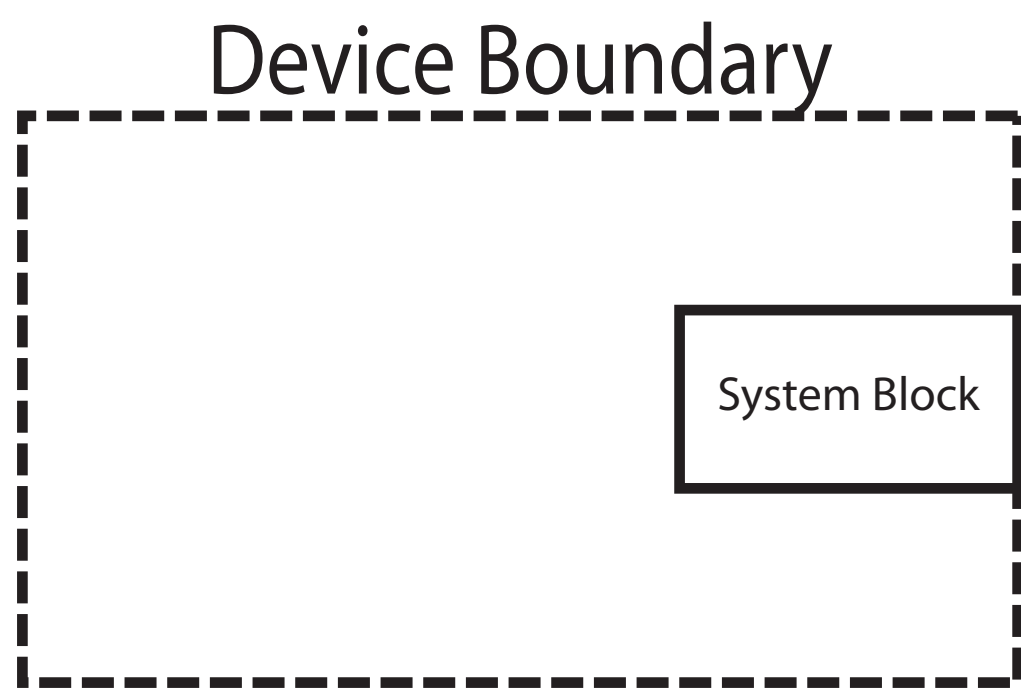
System Block

System Blocks that touches a Device Boundary indicate that the block is accessible by the user