~~**WHAT IS CLAIMED IS:**~~

CLAIMS

1. An apparatus comprising:

a control circuit comprising a supply sense circuit configured to sense variations between a power supply to ground ~~potential and to generate a control signal in response to the variation;~~and output a supply sense circuit signal, and a bias circuit configured to generate a potential that is relatively constant relative to high frequency changes between the power supply to ground, the potential is combined with the supply sense circuit signal to set a control signal to an operation point; a variable impedance circuit coupled to the control circuit and a driver, the impedance level of the variable impedance circuit adjusted in response to the control signal.

~~a variable impedance circuit coupled to the control circuit and a signal distribution network, the impedance level of the variable impedance circuit adjusted in response to the control signal.~~

~~2. The apparatus of claim 1, further comprising a bias circuit configured to generate a potential that is combined with the control signal to set the control signal to a desired nominal operating range.~~

~~3.~~2. The apparatus of claim 1, wherein the variable impedance circuit comprises a variable capacitor.

~~4~~3. The apparatus of claim 1, wherein the variable impedance circuit comprises a capacitor in series with a transistor.

~~5~~4. The apparatus of claim ~~4~~3, wherein the transistor is configured as a switch, and is switched on and off in response to the control signal.

~~6~~5. The apparatus of claim ~~4~~3, wherein the transistor is configured as a variable resistor, and the resistance is varied in response to the control signal.

~~7~~6. The apparatus of claim 1, wherein the variable impedance circuit comprises a plurality of capacitor transistor branches connected in parallel ~~to the signal distribution network~~.

~~8~~7. The apparatus of claim ~~7~~6, wherein the transistors are configured as switches and selected ones of the transistors are switched on to obtain a desired impedance.

~~9~~8. The apparatus of claim 1, wherein ~~the~~ a driver output signal ~~distribution network~~ comprises a Serialized/Deserialized (SerDes) data ~~transmission network.~~signal.

~~10~~9. The apparatus of claim 1, wherein ~~the~~a driver output signal ~~distribution network~~ comprises a clock ~~distribution network.~~signal.

10. The apparatus of claim 1, wherein a driver input signal comprises a Serialized/Deserialized (SerDes) data signal.

11. The apparatus of claim 1, wherein a driver input signal comprises a clock signal.

12. An apparatus comprising:

a driver coupled to a ~~signal distribution network, the driver connected to a~~ power supply and ground~~;~~

~~a~~ , the driver configured to receive an input signal and output an output signal; a supply compensated delay circuit comprising; a control circuit comprising a supply sense circuit configured to sense ~~a variation in~~ variations between a power supply to ground and output a supply sense circuit signal, and a bias circuit configured to generate a potential that is relatively constant relative to high frequency changes between the power supply to ground, the potential is combined with the supply sense circuit signal to ~~ground potential and to generate~~set a control signal ~~in response to the variation;~~ to an operation point; a variable impedance circuit coupled to the ~~signal distribution network~~driver, the impedance of the variable impedance ~~network~~circuit varied in response to the ~~control~~supply sense circuit signal.

~~12~~13. The apparatus of claim ~~11~~12, wherein the variable impedance circuit comprises a variable capacitor.

~~13~~14. The apparatus of claim ~~11~~12, wherein the variable impedance circuit comprises a capacitor in series with a transistor.

~~14~~15. The apparatus of claim ~~13~~14, wherein the transistor is controlled in response to the control signal to produce a variable resistance.

~~15. An apparatus comprising:~~

~~a receiver coupled to a signal distribution network, the receiver connected to a power supply and ground;~~

~~a control circuit configured to sense a variation in the power supply to ground potential and to generate a control signal in response to the variation;~~

~~a variable impedance circuit coupled to the signal distribution network, the impedance of the variable impedance network varied in response to the control signal.~~

16. The apparatus of claim ~~15~~12, wherein the ~~variable impedance~~control circuit further comprises a ~~variable capacitor.~~bias circuit and a combiner circuit.

17. The apparatus of claim ~~15~~16, wherein the ~~variable impedance~~bias circuit ~~comprises~~outputs a ~~capacitor in series with a transistor.~~signal and the combiner circuit combines the bias circuit output and the supply sense circuit signal and outputs the control signal.

18. The apparatus of claim 17, wherein the ~~transistor is controlled in response to~~bias circuit output sets an operating point of the ~~control signal to produce a~~ variable ~~resistance.~~impedance circuit.

19. The apparatus of claim 12, wherein the input signal is a clock signal.

20. The apparatus of claim 12, wherein the input signal is a Serialized/Deserialized (SerDes) data signal.

21. The apparatus of claim 12, wherein the driver is configured as a receiver.

22. A method of compensating for delays ~~introduced in a signal distribution network~~in a driver circuit by variations in a power supply to ground ~~potential~~, the method comprising:

sensing variations between ~~a~~the power supply to ground ~~potential;~~

and generating a sense signal; generating a control signal based at least in part on the ~~variations; and~~

sense signal; generating a potential that is combined with the sense signal to set the control signal to an operation point, the potential is relatively constant relative to high frequency changes between the power supply to ground; and adjusting a variable impedance coupled to the ~~signal distribution network~~driver in response to the control signal.

~~20~~23. An apparatus comprising:

means for sensing variations between a supply to ground potential~~;~~

and generating a sense signal; means for generating a control signal based at least in part on the ~~variations; and~~

sense signal; means for generating a potential that is combined with the sense signal to set the control signal to an operation point, the potential is relatively constant relative to high frequency changes between the power supply to ground; and means for adjusting a variable impedance coupled to ~~a signal distribution network~~the driver in response to the control signal.

24. An apparatus comprising: a control circuit comprising a supply sense circuit configured to sense variations between a power supply to ground and output a supply sense circuit signal, and a bias circuit configured to generate a potential that is relatively constant relative to high frequency changes between the power supply to ground, the potential is combined with the supply sense circuit signal to set a control signal to an operation point; a driver with an output, the output coupled to a fixed capacitor in series with a variable resistor to ground, the variable resistor adjusted in response to the control signal.

25. The apparatus of claim 24, wherein the output comprises a Serialized/Deserialized (SerDes) data signal.

26. The apparatus of claim 24, wherein the output comprises a clock signal.