CLAIMS

~~What is claimed is:~~

1. A passive mixer, comprising:

an output coupled to a next stage circuit, the output coupled to a plurality of baseband inputs via a first plurality of switches; and

a capacitor bank coupled via a second plurality of switches to the plurality of baseband inputs, the capacitor bank being coupled to the output via the first plurality of switches and the second plurality of switches.

2. The passive mixer of claim 1, in which the capacitor bank comprises a tunable capacitor bank.

3. The passive mixer of claim 1, in which the plurality of baseband inputs comprise different phases of a baseband signal.

4. The passive mixer of claim 3, in which the capacitor bank is configured to store a voltage associated with a previous phase of the baseband signal, the previous phase being a phase of the baseband signal different from the phase of the baseband signal present at the output.

5. The passive mixer of claim 3, in which an input capacitance of the next stage circuit is configured to store a voltage associated with a previous phase of the baseband signal.

6. The passive mixer of claim 3, in which a first switch of the first plurality of switches is coupled to a first control line and a first switch of the second plurality of switches is coupled to a second control line, a second switch of the first plurality of switches is coupled to the second control line, and a second switch of the second plurality of switches is coupled to the first control line.

7. The passive mixer of claim 6, in which the first switch of the first plurality of switches and the second switch of the second plurality of switches are configured to selectively conduct different baseband phases.

8. The passive mixer of claim 7, in which the different baseband phases are non-adjacent.

9. The passive mixer of claim 6, in which the second switch of the first plurality of switches and the first switch of the second plurality of switches are configured to selectively conduct a first same baseband phase.

10. The passive mixer of claim 9, in which a third switch of the first plurality of switches and a third switch of the second plurality of switches are both coupled to a third control line, the third switch of the first plurality of switches and the third switch of the second plurality of switches being configured to conduct a second same baseband phase that is different from the first same baseband phase.

11. The passive mixer of claim 10, in which a fourth switch of the first plurality of switches and a fourth switch of the second plurality of switches are both coupled to a fourth control line, the fourth switch of the first plurality of switches and the fourth switch of the second plurality of switched being configured to conduct different baseband phases that are non-adjacent, the fourth switch of the first plurality of switches conducting a different phase than a first switch of the first plurality of switches, and the fourth switch of the second plurality of switches conducting a different phase than a second switch of the second plurality of switches.

~~12. The passive mixer of claim 1, in which the capacitor bank is coupled to the output via the first plurality of switches and the second plurality of switches.~~

~~13.~~ 12. The passive mixer of claim 1, in which the capacitor bank is tunable and configured to provide a selectable capacitance such that a selected amount of the selectable amount of capacitance is configured to match an input capacitance of the next stage circuit and a mixer parasitic capacitance .

~~14.~~ 13. The passive mixer of claim 1, in which the next stage circuit comprises a driver amplifier.

~~15.~~ 14. A method of operating a mixer comprising:

storing a first voltage in a capacitor bank using a first switch coupled to a first baseband input during a first phase of operation, the capacitor bank being coupled between an output of the mixer and a ground node;

storing a second voltage in an output of the mixer using a second switch coupled to a second baseband input during the first phase of operation;

disconnecting the capacitor bank from the first baseband input;

connecting the capacitor bank to the output of the mixer using a third switch, the third switch coupling a third baseband input to the output during a third phase of operation; and

producing a voltage at the output using the third baseband input, the first stored voltage, and the second stored voltage during the third phase of operation.

~~16.~~ 15. The method of claim ~~15~~14, further comprising disconnecting the output from the second baseband input during a second phase of operation.

~~17.~~ 16. The method of claim ~~15~~14, in which the storing the first voltage comprises coupling a first switch of a first plurality of switches to a first control line.

~~18.~~ 17. The method of claim ~~17~~16, in which the storing the second voltage comprises coupling a first switch of a second plurality of switches to a second control line.

~~19.~~ 18. The method of claim ~~18~~17, in which the connecting comprises:

coupling a second switch of the first plurality of switches to the second control line; and

coupling a second switch of the second plurality of switches to the first control line.

~~20.~~ 19. The method of claim ~~15~~14, in which a leading phase of a baseband signal is configured to cancel a lagging phase of the baseband signal.

~~21.~~ 20. A passive mixer, comprising:

means for outputting coupled to a next stage circuit, the outputting means coupled to a plurality of baseband inputs via a first plurality of switches; and

means for storing ~~capacitance~~charge coupled via a second plurality of switches to the plurality of baseband inputs and coupled between an output of the passive mixer and a ground node.

~~22.~~ 21. The mixer of claim ~~21~~20, in which a first switch of the first plurality of switches is coupled to a first control line and a first switch of the second plurality of switches is coupled to a second control line, a second switch of the first plurality of switches is coupled to the second control line, and a second switch of the second plurality of switches is coupled to the first control line, in which a leading phase of the baseband signal is configured to cancel a lagging phase of the baseband signal.