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(54) **DELAY COMPENSATED ANALOG BEAM FORMING NETWORK**

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(57) **ABSTRACT**

Techniques are provided for a delay compensated analog beam forming network. A transceiver implementing the techniques according to an embodiment includes an array of circuit elements. Each of the circuit elements includes an analog frequency converter to up-convert an analog signal to radio frequency (RF) for transmission and to down-convert an RF signal to an analog signal for reception. The circuit element also includes an analog beam weighting circuit configured to apply a beam weight to both of the analog signals to form a beam for transmission and reception. The circuit element further includes an analog delay element configured to impart a time delay to the analog signals. The time delay is based on the position of the circuit element in the array and is selected to compensate for propagation delay of the analog signals along the electrical path that couples the circuit elements of the array, reducing beam squint.

Transceiver with Delay Compensated Beam Forming Network
(Single Beam Configuration)
100