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(54) **NETWORK-CONTROLLED REPEATER**

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(57) **ABSTRACT**

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A network-controlled repeater including a first transmission pathway for amplifying a first signal received from at least a first antenna port and transmitted by at least a second antenna port; a second transmission pathway for amplifying a second signal received from at least the second antenna port and transmitted by at least the first antenna port; means for self-interference cancelling including a feedback pathway to modify the first signal associated with the first transmission pathway; and a controller. The controller includes means for causing the first signal to be propagated and amplified along the first transmission pathway; means for causing the second signal to be propagated and amplified along the second transmission pathway; and means for causing a self-interference cancelling signal to be propagated along the feedback pathway to modify the first signal associated with the first transmission pathway. The second transmission pathway is reused for the feedback pathway.

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