

## A reconfigurable active retrodirective/direct conversion receiver array for wireless sensor systems

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A reconfigurable active retrodirective/direct conversion receiver array is presented. The system can serve as both a retrodirective array transponder and a direct conversion receiver simply by changing the frequency of the LO applied to the mixers. In the retrodirective array mode, the circuit provides 20 dB gain and 20 dB RF-IF isolation. The mixers perform phase-conjugation and modulation simultaneously. When operating as a direct conversion receiver, both I and Q channels are successfully recovered.

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