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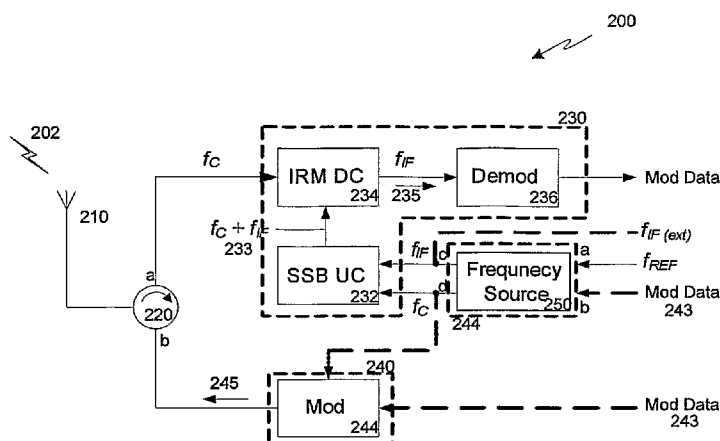
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(54) Title: ARCHITECTURE FOR RFID TAG READER/WRITER



(57) Abstract: An RFID transceiver (200) includes a common frequency source (250), a receiving channel (230) and a transmitting channel (240). The common frequency source (250) is configured to provide a predefined intermediate frequency signal f_{IF} , and a predefined carrier frequency signal f_c . The RFID receiving channel (230) includes an upconverting mixer (232) having a first input coupled to receive the predefined intermediate frequency signal f_{IF} , a second input coupled to receive the predefined carrier frequency signal f_c , and an output, the upconverting mixer (232) operable to produce an upconverted signal at a frequency defined by $f_c \pm f_{IF}$. The RFID receiving channel (230) further includes an image rejection downconverting mixer (234) having a first input coupled to receive an RFID signal having a carrier frequency substantially at the predefined carrier frequency f_c , a second input coupled to receive the upconverted signal, and an output, the image rejection downconverting mixer (234) operable to produce an output a downconverted signal at substantially the predefined intermediate frequency f_{IF} . The RFID transmitting channel (240) includes a modulator (244) operable to modulate modulation data onto the predefined carrier frequency signal f_c .

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