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**DIRECT RF MODULATION TRANSMITTER**

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**Classification:** - **international:** *H03D7/00; H03D7/12; H03D7/14; H04B1/04*  
- **cooperative:**

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**Abstract of JP2013051494 (A)**

PROBLEM TO BE SOLVED: To provide a direct RF modulation transmitter capable of saving more power consumption. SOLUTION: The direct RF modulation transmitter comprises: a passive mixer circuit 100 which inputs digital baseband data D of 1 bit, inverted data DN, a first RF signal, and a second RF signal whose phase is different from that of the first RF signal by 180 degrees and outputs a first voltage signal and a second voltage signal; and a plurality of unit blocks which include a MOS transistor 107, and MOS transistors 105, 106 which convert constant current generated by the MOS transistor 107 to a first output signal and a second output signal in accordance with the first voltage signal and the second voltage signal outputted from the passive mixer circuit 100.; The direct RF modulation transmitter modulates the first RF signal and the second RF signal by a digital baseband signal comprising digital baseband data of a plurality of bits and adds the output signals from the respective unit blocks. ;COPYRIGHT: (C)2013,JPO&INPITPROBLEM TO BE SOLVED: To provide a direct RF modulation transmitter capable of saving more power consumption.SOLUTION: The direct RF modulation transmitter comprises: a passive mixer circuit 100 which inputs digital baseband data D of 1 bit, inverted data DN, a first RF signal, and a second RF signal whose phase is different from that of the first RF signal by 180 degrees and

outputs a first voltage signal and a second voltage signal; and a plurality of unit blocks which include a MOS transistor 107, and MOS transistors 105, 106 which convert constant current generated by the MOS transistor 107 to a first output signal and a second output signal in accordance with the first voltage signal and the second voltage signal outputted from the passive mixer circuit 100.; The direct RF modulation transmitter modulates the first RF signal and the second RF signal by a digital baseband signal comprising digital baseband data of a plurality of bits and adds the output signals from the respective unit blocks.