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**DIRECT RF MODULATION TRANSMITTER, SAMPLING CLOCK FREQUENCY SETTING METHOD FOR DIRECT RF MODULATION TRANSMITTER**

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**Classification:** - **international:** *H04B1/04; H04L27/20; H04L27/36*  
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**Abstract of JP2013038461 (A)**

PROBLEM TO BE SOLVED: To provide a direct RF modulation transmitter capable of satisfying a radiation level regulation even without providing a SAW filter. SOLUTION: A direct RF modulation transmitter includes: digital/RF converters 105, 106 to which an I digital baseband signal, a Q digital baseband signal, and a differential local signal are inputted, for modulating the differential local signal with the I digital baseband signal and the Q digital baseband signal; a PLL circuit 102 for generating a sampling clock signal  $f_s$  which determines data rates of the I digital baseband signal and the Q digital baseband signal at the digital/RF converters 105, 106; and a sampling clock frequency setting circuit 101 for determining the frequency of the sampling clock signal  $f_s$  generated by the PLL circuit 102, according to an intended transmission carrier frequency. ;COPYRIGHT: (C)2013,JPO&INPITPROBLEM TO BE SOLVED: To provide a direct RF modulation transmitter capable of satisfying a radiation level regulation even without providing a SAW filter.SOLUTION: A direct RF modulation transmitter includes: digital/RF converters 105, 106 to which an I digital baseband signal, a Q digital baseband signal, and a differential local signal are inputted, for modulating the differential local signal with the I digital baseband signal and the Q digital baseband

signal; a PLL circuit 102 for generating a sampling clock signal  $f_s$  which determines data rates of the I digital baseband signal and the Q digital baseband signal at the digital/RF converters 105, 106; and a sampling clock frequency setting circuit 101 for determining the frequency of the sampling clock signal  $f_s$  generated by the PLL circuit 102, according to an intended transmission carrier frequency.