

ABSTRACT

Provided a similar combination and cancellation power amplifier circuit including a combiner main circuit implemented by connecting an output of a main signal and branch similar input combination and cancellation parallel circuit or main signal and branch similar input combination and cancellation series circuit to a main power amplifier circuit. An output of a main signal and branch similar input combination combiner circuit in the main signal and branch similar input combination and cancellation parallel circuit or main signal and branch similar input combination and cancellation series circuit is connected to an input of the main power amplifier circuit, to implement a branch similar input combination and main signal combiner main circuit. In the present disclosure, a linear ACPR value of a Class C-like main power signal with extended linear gain of a main power signal of the branch similar input combination and main signal combiner main circuit is increased to above 30-35 dBc, and at the same time, a linear ACPR value of a Class C-like main power signal with extended linear gain of a main power signal of a branch similar input combination and input cancellation combiner main circuit is also increased to above 40-45 dBc.

FIG. 1