

METHOD FOR PRODUCING AN AMPLIFICATION STAGE FOR A VARIABLE ENVELOPE SIGNAL

Technological advantages

- Process that is less complex and faster to employ and less costly than traditional methods,
- Process that is more universal than traditional methods.

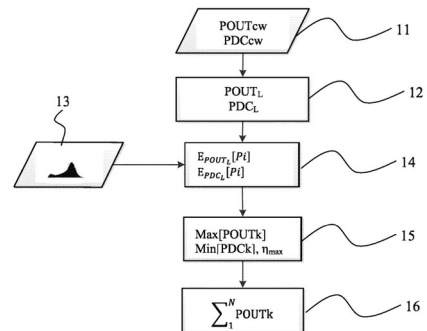
Invention synthesis

The invention proposes a method for producing a stage for amplifying the power of a variable envelope input signal having a predetermined instantaneous power statistical distribution. The amplification stage with at least one amplifier and matching circuits determining setting parameters, the value of which influences the average power, phase and consumption transfer functions of the amplification stage.

Using the instantaneous power statistical distribution of the variable envelope input signal allows the calculation of an optimization criterion value and the setting parameters selection.

Potential applications

- Satellite based or earth based telecommunication and broadcasting,
- on board/ground satellite links.



Logic diagram of the main steps

- 11) amplifier characterizing step
- 12) amplification stage
- 13) linearizer circuit selection
- 14) calculation of an optimization criterion
- 15) determination for the optimum combination of the setting parameters values
- 16) determination for the number of amplifiers to be used in the amplifier stage

Commercial benefits

- Simpler, less resource demanding, smaller and lighter system compare to traditional methods.
- Wide application range.

Patented invention - under license.