

Recursive filter relates to area of radio engineering, in particular to synthesis of devices of receiving-transmitting section and increase of quality of communication. It can be used in devices for correction of automated control systems. Principle of operation is based on recursive description of reaction of filter represented with normalized fraction-rational transfer function of  $n$ -th order. Recursive filter consists of at least two sequential blocks each of which includes input amplifier, amplifier of output of filter, with inverting output connected together with output of previous block and output of input amplifier to input of second adder connected through scaling amplifier to input of second adder second input of which is connected to output of delay element output of which is connected to output of second adder that is output of the block. Besides that input of filter is connected to all amplifiers of output with respective coefficients. Parallel processing of input signal by means of blocks provides high operation speed of the filter.