

The invention relates to the electrical-type devices and radioelectronics and can be used for high-accuracy reproduction of floating impedances controlled in current of any type and with the possibility of independent module and phase control.

The impedance converter comprises the first and second terminals, the first and second resistors, an operational amplifier, having its inverting input connected to the first terminal and to one pole of the first resistor, its output – to the second pole of this resistor, and its noninverting input – to one pole of the second resistor, as well as a differential amplifier, having its first inverting and first noninverting inputs connected, correspondingly, to the output and to the noninverting input of the operational amplifier, a programmable phase shifter and a programmable amplifier, having its input connected to the output of the operational amplifier, and its output – to the input of the programmable phase shifter, having its output connected to the first noninverting input of the differential amplifier. The impedance converter also comprises the second operational amplifier, having its inverting and noninverting inputs connected, correspondingly, to the second terminal and to the second pole of the second resistor, the third resistor, having one pole connected to the second terminal and the second pole – to the output of the second operational amplifier, as well as an inverting amplifier, having its input connected to the output of the phase shifter and its output – to the second pole of the second resistor, and the differential amplifier additionally comprises the second noninverting and the second inverting inputs, connected, respectively, to the output and to the noninverting input of the second operational amplifier.

The resistance values of the first and third resistors are equal in value, and the inverting amplifier possesses a unit transfer ration.

The result of the invention consists in providing for the reproduction of floating impedances with independent control of the module and phase of the reproduced impedance.

Claims: 2

Fig.: 1