

The invention relates to the field of measuring equipment and radioelectronics and can be used for reproducing virtual impedances with independent control of modulus and phase.

The impedance converter comprises an operational amplifier (1) with two inputs and one output, two terminals (2, 7), connected respectively to the inverting input of the operational amplifier (1) and to the common wire, a fixed resistor (6), connected between the noninverting input of the operational amplifier (1) and the common wire, the first variable resistor (4) with the nominal resistance value  $R_B$ , having one pole connected to the inverting input of the operational amplifier (1), and a differential amplifier (7) with stepwise-variable transmission coefficient, having its inputs connected respectively to the output and to the noninverting input of the operational amplifier (1). The converter further comprises a controllable phase shifter (8) with the possibility of controlling the phase in the value range  $0 \dots 360^\circ$  and with unit amplification coefficient, having its input connected to the output of the differential amplifier (7) and its output – to the noninverting input of the operational amplifier (1). The converter also comprises a second variable resistor (5) with the nominal resistance value  $R_F = 0,1R_B$ , having one pole connected to the output of the operational amplifier (1) and the second pole to the second pole of the first variable resistor (4), and the phase shifter (8) is provided with control bodies for step, smooth coarse and smooth fine control of the phase shift.

Claims: 1

Fig.: 1

