

1. Instrumentation

INDEX

Task:

Get acquainted with the principles of operation, control and properties of instruments used in the laboratories of the course "Electronics". Verify the products of voltage division and of AC average.

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Fig. 1 Simplified block diagram of a twin-channel oscilloscope

The measured signal is connected to the input BNC connectors (Input CH1 and Input CH2); where separate capacitors are connected to the oscilloscope chassis, and therefore to the ground. This fact must be kept in mind not only in all cases when these are conducted twin-channel measurements (i.e. two different signals are connected to the inputs at the same time) but also in circuit connections including other measurements, having one of their terminals permanently connected to ground (like the BK124 A.P. ground), or when a point marked 0 or GND is available to facilitate the seeking of zero position on the screen. Marking the input signal and showing the amplifier input to ground). In order to display the zero level, the scope has an automatic in the AUTO mode.

Both CH1 and CH2 inputs permit (DC/AC switch or push-button) a D.C. or A.C. coupling of the measured signal. Both CH1 and CH2 inputs permit (DC/AC switch or push-button) a D.C. or A.C. coupling of the measured signal. If at all possible, always use the D.C. coupling. The A.C. coupling should only be used when there is need to suppress a D.C. component of the signal.