

A device for phase reflectance measurement contains two circuits of reduction of amplitudes of signal to one level, adder of harmonic components, circuit of squaring, two filters of harmonic components of receiving signal, two narrow-band filters, frequency multiplier and phase detector. In the device as a signal are used two harmonic fluctuations of two close frequencies chosen so, that the ratio of their sum to their difference is equal to an integer. The harmonics contained in the reflected signal are reduced to an equal amplitude and have the same initial phase equal to the phase of reflectance factor. From total fluctuation in the device the reference fluctuation obtained by multiplication of fluctuation frequency of beatings with zero initial phase is isolated. The comparison of the phase of reference fluctuation with high-frequency fluctuation with a frequency equal to the sum of two frequencies allows to obtain required phase of reflectance factor.