

Annotation

In this work, an ultrasonic thickness gauge was designed. The introduction substantiates the relevance and necessity of development.

In the first section, an analytical review was conducted, which considered the main methods of thickness measurement and the principle of operation of these methods: echo method, impedance method, free oscillation method, acoustic emission, and other methods of thickness measurement. In addition, a general review and regulatory framework for eddy current control and available devices on the project topic were conducted.

In the second section, calculations were performed. The results of the calculation made it possible to determine the structure of the circuit and the design of the converter, as well as to select the necessary elements from which the device was then compared, selected ADC, memory, display. A microcontroller with the ability to control the MK in real time and high signal processing performance, and its own signal processors was selected. Also display and keyboard