

Summary

The task of this diploma project consists in a calculation and development of ultrasonic device for control of wheelsets of carriages. Presently trains develop extraordinarily high-rate. Together with an increase to speed arise up and greater loading on the mechanical knots of train. The question of more frequent realization of control of wheelsets becomes yet more actual, because a wheelsets is a major element that influences on safety of motion of trains.

This project is dedicated to the development of ultrasound systems with Piezoelectric converter, which uses transverse waves. There was the conducted calculation of acoustic highway in it, optimal materials and construction of sensor, functional, structural and electric diagrams of ultrasonic device of control of wheelsets of railway carriages.