

ABSTRACT

The diploma project entitled "Multispectral pyrometer" is devoted to the development of contactless device for spectral ratio temperature measuring. This work was performed by a student of the department of PSNK (Igor Sikorsky Kyiv Polytechnic Institute) Anastasia Nakonechna.

During the work on project the theoretical bases of temperature measurement, physical bases of pyrometry were considered, the functional scheme of the device was developed, the optical system of a multispectral pyrometer was synthesized and calculated, components were selected, the electric schematic diagram and assembly drawing were developed.

The volume of the work consists of 77 pages (without appendices), 3 chapters, general conclusions, list of references, contains 8 tables, 41 figures and 22 references.

Key words: non-contact temperature measurement, pyrometry, multispectral pyrometer, spectral ratio pyrometer, color pyrometer, optical system, non-destructive testing.