Fluxgate Magnetometer with an Orthogonal Flux Guide

Abstract

This paper will examine the developed ANSYS model to test advanced materials, i.e. amorphous and metaglas, as well as to optimise the geometry of the fluxgate magnetometer. In other words, the current chapter presents an optimised study of the materials and geometry of the magnetometer which provides savings in terms of material usage as well as the employed electric current to produce an equivalent magnetic field. This design has been developed using the PCB wherein a magnetometer consisting of a planar fluxgate structure with an orthogonal ferromagnetic fluxguide has centrally been situated over the magnetic core.

References


**Index Terms**

Computer Science

Circuits and Systems

**Keywords**

Amorphous and metaglas materials, Fluxgate magnetometer, Flux guide, geometry of the magnetometer.