A Ni-MH Battery Charger with dT/dt
End-of-Charge Detection

Tudor CRIŞAN

Abstract

This article presents the design and the functionality of a Ni-Mh battery charger driven by SEPIC converter. The switching frequency and duty cycle are given by a microcontroller, these parameters representing the input of a specialized PWM controlling driver. Based on the current and voltage feedback the parameters are software adjusted in order to keep a constant current at the output. The microcontroller establishes end-of-chage detection based on temperature criteria. Throughout this article all the charging stages will be described.