Microsatellite Laser Altimeter Feasibility Study

STEFANIA MATTEI
MARIA ROSARIA SANTOVITO
ANTONIO MOCCIA
CNR-IST.A.
Italy

A feasibility study is presented of a laser altimeter conceived as an auxiliary device of an imaging camera to perform stereo pairs correction by high accuracy range measurements. System configuration is compliant to microsatellite constraints and is integrated to a high-resolution imaging sensor. System performance analysis is carried out by means of analytical models and computer code; and plots are presented to select key parameters allowing definition of a preliminary laser altimeter configuration.