Contribution ID : 160

The service telemetry and control device for space experiment "GRIS"

Saturday, 10 October 2015 11:00 (15)

Problems of scientific devices control (for example, fine control of measuring paths), collecting auxiliary (service information about working capacity, conditions of carrying out experiment, etc.) and preliminary data processing are actual for any space device. Modern devices for space research it is impossible to imagine without devices that didn't use digital data processing methods and specialized or standard interfaces and computing facilities. For realization of these functions in "GRIS" experiment onboard ISS for minimization of dimensions, power consumption purposes, the concept "system-on-chip" was chosen and realized. In the programmable logical integrated scheme by Microsemi from ProASIC3 family with maximum capacity up to 3M system gates, the computing kernel and all necessary peripherals is created. In this paper we discuss structure, possibilities and resources the service telemetry and control device for "GRIS" space experiment.

Presentation type

Section talk (10+5 min)

Primary author(s): Dr. GLYANENKO, Alexander (National Nuclear Research University "MEPHI")
Presenter(s): Dr. GLYANENKO, Alexander (National Nuclear Research University "MEPHI")
Session Classification: Methods of experimental physics - parallel V

Track Classification : Methods of experimental physics