

MYDWP: A new digital wave processor for satellite onboard data processing

Abstract

Scientific communities nowadays benefit a lot from studies of data gathered from space through satellites [Jilla and Miller, 1997]. For instance, the main goal of the Cluster II mission is to study the small-scale plasma structures in the key plasma regions: solar wind and bow shock, magnetopause, polar cusps, magneto-tail and auroral zone [Escoubet and Schmidt, 2000]. The information helps meteorologists to understand various weather phenomena that occur at many places around the world [Escoubet et al., 1997]. Monitoring the effect of the Sun on the Earth environment through the satellite data enables us to understand several events such as disruption of power line, interference in long distance radio communications and thunderstorms that cause great impacts on human life and economy.