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论文

轻便式气球、火箭高空大气探测共用系统

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摘要： 鉴于对高空大气探测日益增多的需求，而常用的接收、跟踪定位设备却比较笨重而 且灵活性差，不能适应既需要机动灵活又能适合于多种场合使用的要求. 本文介绍通过提 高接收系统的信噪比同时采用宽波束接收天线，研制了一套低成本、轻便式高空大气探测简 便系统. 〖JP2〗该系统调频发射机和高空大气探测有关仪器和地面抛物面接收天线、低噪 声接收机及数据处理设备组成. 主要用于探空气球和微型火箭对高空大气探测数据的接收和处理

关键词： 高空大气探测 双球式电场仪 微火箭电场仪

A portable sharing upper atmospheric sound ing system composed of balloon and micro rocket

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Abstract: The requirements of upper atmospheric exploration systems are increasing, but us ual receiving and tracking equipment are ponderous and with bad agility, and mor e and more unsuitable for multi purpose situation which need more flexibility. A low cost portable upper atmospheric sounding system used by both balloon and m icro rocket is presented, which has much lower ratio of signal to noise and wid er bandwidth. The system is composed of a frequency modulated transmi tter, upper atmospheric sounding instruments, a wide beam parabolic receiving an tenna on the ground, a receiver with low noise and data processing equipment. It is mainly used to receive and process the data from balloons and micro rockets

Keywords: Atmospheric sounding in upper air Two sphere electric field instrument Micro rocket electric field instrument

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