

The Research Group of China's First New Generation Beidou Navigation Satellite Academy of micro satellite Innovation Research Institute of China Academy of Sciences

With the belief of innovation motivates the development, the R&D team has accomplished dozens of break-through technologies, including the CAS navigation dedicated platform (which consists of the frame-panel light-weight structure, single star sensor positioning and high-density integrated electronic architecture), the designing concept of "functional chain", the Ka band inter-satellite link technology of phased array antenna, the seamless time frequency transform, the solid state amplifier made of gallium nitride as well as the high functional anti-radiation CPU and FPGA ("Loongson" LS1E and LS1F model). All these advanced technologies symbolize the icebreaking improvement of CAS into the navigation satellite field, and also make great contributions to China's Beidou Navigation System from regional operation to the global expansion.

Outstanding contributors of this research group

Lin Baojun

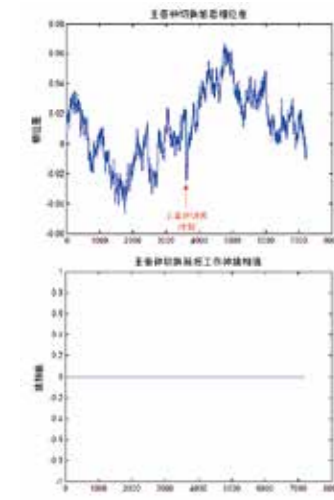
Chief Designer. Dr. Lin is in charge of the R&D work the first generation of Beidou navigation satellite in every aspect, including key technologies solutions, proposal verification and project operations. Under Dr. Lin's leadership, the team has overcome several difficult key technologies. Dr. Lin has made the prominent contributions to the successful launch of the first New Generation Beidou Navigation Satellite.

Li Guotong

executive deputy commander. Dr. Li is in charge of the R&D work the first generation of Beidou navigation satellite in many aspects, including key technologies solutions, proposal verification and project operations as well as the EE components localization and verification. He organized the writing and publishing of CAS standards for Beidou navigation satellite R&D work and formed the professional management teams for schedules planning, QA and components reliability control. Dr. Li has made the important contributions to the successful manufacturing of the first New Generation Beidou Navigation Satellite.

Shen Xuemin

deputy chief designer. Dr. Shen is responsible for the overall design, assembly, integrated tests and environmental experiments of the satellite. He is mainly in charge of two functional trains: the structure and thermal as well as the payload. Dr. Shen has made the important contributions to the successful manufacturing of the first New Generation Beidou Navigation Satellite.



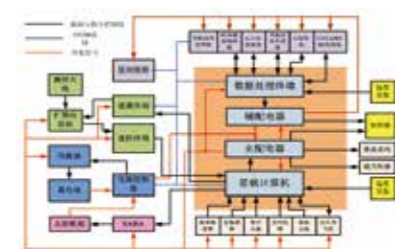
高精度时频无缝切换技术
The accurate seamless time frequency transform



基于相控阵的Ka星间链路技术
The Ka band inter-satellite link technology of phased array antenna

Major contributors

- Lin Baojun
- Li Guotong
- Shen Xuemin
- Gong Wenbin
- Xiong Shujie
- Shen Yuan
- Jiang Guizhong
- Chen Zhifeng
- Zhang Jun
- Wang Xueliang
- An Yang
- Li Kai
- He Yun
- Gu Qijun
- Chen Yong
- Kong Chenjie
- Bai Tao
- Lin Shifeng
- Liu Jing



基于龙芯的综合电子技术
The integrated electronics based in Loongson



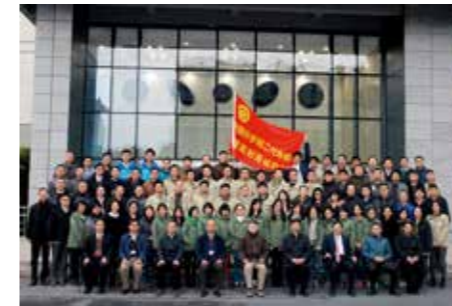
新一代北斗导航卫星首发星发射照片
The Launch of China's First New Generation Beidou Navigation Satellite



整星状态下所有任务剖面闭环测试技术
The ACDS close-looped tests under the satellite level



新一代北斗导航卫星首发星与上面级联合转场
The transportation of the satellite with the upper-stage



新一代北斗导航卫星首发星研制团队
China's first New-Generation Beidou Navigation satellite team

新一代北斗导航卫星首发星研究集体

推荐单位:



林宝军 Lin Baojun



林宝军



李国通 Li Guotong

李国通

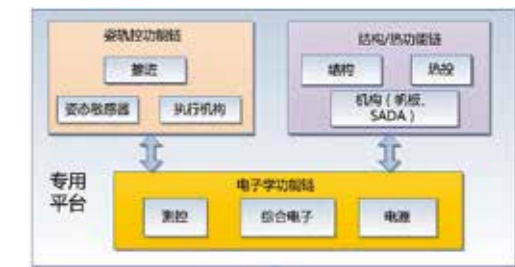


沈学民 Shen Xuemin

沈学民



框架面板式构型设计技术
The frame-panel light-weight structure



"功能链"设计理念
The designing concept of the "functional chain"