

MATERIALS AND STRUCTURES SYMPOSIUM (C2)  
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TECHNOLOGY DISCUSSION OF SMD COMPONENTS USED FOR MICRO SPACECRAFT

**Abstract**

The current civil SMD components technology at home and abroad has been mature, but also has been verified and applied widely in the market. Its application has certain practical significance in the aerospace industry, is one of the ways to promote the aerospace industry and technology upgrading. This paper first introduces the application status and technical background of civil SMD components in the market. Be relative to the application of traditional pin-type components, through the 3D modeling technology, application of SMD components can be optimized in weight and size, and the results of mechanical and thermal simulation verify which has been greatly improved in reliability. Analysis results show that, this technology will promote the rapid promotion of miniature spacecraft products which include the components, equipments, spacecraft and so on.