

SM STRUCTURES

DESIGN

SM CubeSat structure is a family of CubeSat structures (1U-2U-3U-6U-8U-12U-16U) designed by NPC SPACEMIND in order to provide a modular and flexible solution for nanosatellite applications.

The design aims at maximizing accessibility, ease of integration, flexibility and compatibility with commercial off the shelf and custom-made CubeSat components.

Nevertheless, the modular integration concept allows the customer to customize the configuration on the basis of different payloads and subsystem chosen. Full compatibility covers important aspects such as side panels hole configuration and stack option configuration.



Developed on flight-proven heritage and customers insights, the new generation of Spacemind CubeSat structures introduces key enhancements for greater usability and mission efficiency.

Standardized hole patterns enable faster integration, while optimized surface finishes improve visibility and ensure electrical continuity. The modular design allows seamless scalability from 1U to 16U with consistent assembly procedures across all formats.

Fully compatible with Spacemind solar panels and equipped with upgraded electrical interfaces, it provides a launch-ready foundation for streamlined integration and reliable deployment.



PRODUCT	SM01	SM02	SM03	SM06	SM08	SM12	SM16
Form Factor	1U	2U	3U	6U	8U	12U	16U
Measures	113.5 x 100 x 100 mm	227 x 100 x 100 mm	340.5 x 100 x 100 mm	340.5 x 226.3 x 100 mm	454 x 226.3 x 100 mm	340.5 x 226.3 x 226.3 mm	454 x 226.3 x 226.3 mm
n. max Deployment Switches	6	8	8	8	8	8	8
Board Stacks	Custom	Custom	Custom	Custom	Custom	Custom	Custom
Compatibility	PC104/ PC104 PLUS	PC104/ PC104 PLUS	PC104/ PC104 PLUS	PC104/ PC104 PLUS	PC104/ PC104 PLUS	PC104/ PC104 PLUS	PC104/ PC104 PLUS
OPTIONS AND CUSTOMIZATION:							
Intermediate Rings	Optional 1U	Optional 1U	Optional 1U	Optional 1U Optional 2U	Optional 1U Optional 2U	Optional 1U Optional 2U Optional 4U	Optional 1U Optional 2U Optional 4U
Stand-off Kill Switches	Until 4	Until 4	Until 4	Until 4	Until 4	Until 4	Until 4
Rail Switches	Until 2	Until 4	Until 4	Until 4	Until 4	Until 4	Until 4