New nanosatellite to use NTU's micro-propulsion technology and Kyutech's wifi technology in space. PHOTO: NANYANG TECHNOLOGICAL UNIVERSITY

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SINGAPORE - The first Singapore satellite launched from the International Space Station took place successfully on Monday (Jan 16) evening.

Called AOBA VELOX-III, it is a joint project between Nanyang Technological University (NTU) and Japan's Kyushu Institute of Technology (Kyutech).

It will be conducting tests to evaluate the durability of commercial off-the-shelf microprocessors in space while orbiting at 400km above sea level.

These include testing a micro-propulsion system, consumer-grade electronic components and a wireless communication system.

The 2kg nano-satellite has micro-thrusters which will enable it to remain in space for six months - twice as long as it usually would.

Instead of being launched from a rocket, the satellite was shot into orbit around earth by a Japanese astronaut at the station using a special launcher.

It is the 7th satellite that NTU has launched. The university's last two satellites were launched in December 2015.
"Building up the local satellite talent pool and developing disruptive technologies like the micro-thruster in the AOBA VELOX-III is important for Singapore's budding space industry," said Mr Lim Wee Seng, director of the NTU Satellite Research Centre.

"Riding on the success of the AOBA VELOX III, we are now developing our second joint satellite with Kyutech which could lead to small and manoeuvrable satellites being used as space probes in future," he added.

Professor Mengu Cho, Director of Kyutech's Laboratory of Spacecraft Environment Interaction Engineering, said, "We are looking forward to another joint satellite that is under development and scheduled to be launched in 2018. The long-term goal of the Kyutech-NTU joint space programme is to do a lunar mission using the technologies demonstrated by these two satellites."