

**ASTROSCALE Establishes S/X-band Ground Station Optimized for Low-Earth Orbit Satellites to Develop Space Debris Removal Services**

Totsuka, Japan – ASTROSCALE Pte. Ltd. (“Astroscale”), an international company developing space debris removal services to secure long term spaceflight safety and sustainability, has established a ground station in Totsuka, Yokohama for sending and receiving satellite data. This is the first ground station for the rapidly growing company and represents an important step towards its mission of monitoring and removing space debris.

The primary purpose of the ground station is to enable the operation of ELSA-d, Astroscale’s pioneering debris removal demonstration satellite, scheduled to launch in late 2019. In addition to supporting ELSA-d and other future Astroscale missions, the ground station’s high-performance data transmission and reception services in S-band and X-band frequencies will be utilized by other low-Earth orbiting satellites. This contribution to the provision of reliable ground communications is necessary for the growing number of satellites in low-Earth orbit.

Astroscale’s ground station employs a hexapod antenna - a system for controlling the orientation with six jacks. The hexapod antenna eliminates angle limitations and restricts the operation of conventional, two-axis controlled system antennas. Astroscale’s technical team which includes experts in communications, machine control and networks, successfully led the construction of the hexapod antenna, which will enable stable communications with satellites travelling in low-Earth orbit at speeds of approximately 28,000 kilometers per hour. The successful development of Astroscale’s ground station can be attributed to the experience and extensive knowledge of its expert technical team and to its ability to cooperate and deepen relations globally.

Astroscale Totsuka Ground Station



Name	ASTROSCALE Totsuka ground station		
Construction Site	Totsuka Ward, Yokohama		
Operation	End of 2018		
Antenna Drive	Hexapod		
Diameter	3.7m		
Weight	750kg		
	S-band transmission	S-band reception	X-band reception
Frequency Range	2025~2120MHz	2200~2300MHz	7900~8500MHz
Antenna gain-to-noise temperature(G/T)		13.6dB/K	27dB/K
Equivalent isotopically radiated power(EIRP)	54dBW		

**About Astroscale:**

ASTROSCALE Pte. Ltd. is the first private company with a mission to secure long-term spaceflight safety and orbital sustainability for the benefit of future generations. Founded in 2013, Astroscale is developing innovative and scalable solutions for satellite end-of-life and active debris removal services to mitigate the growing and hazardous build-up of debris in space. With its headquarters in Singapore, a Research and Development facility in Tokyo and an Operations Centre in Harwell (UK), Astroscale is a rapidly expanding venture company, preparing to solve a growing environmental concern.

ASTROSCALE is currently developing its second mission, ELSA-d, a technology demonstration for end-of-life services and pursuing complementary missions with potential customers.

---

**For media inquiries, please contact:**

ASTROSCALE PR/Communication department

[Email: media@astroscale.com](mailto:media@astroscale.com)

Tel: +81-3-6658-8175