GLOSSARY OF TECHNICAL TERMS

The following is a glossary of certain terms used in this document in connection with us and/or our business. As such, these terms and their meanings may not correspond to standard industry meanings or usage of these terms.

"3D modeling"	the process of creating a mathematical representation of a three-dimensional object or shape using specialized engine
"Additive technology"	a manufacturing process in which physical three-dimensional objects are produced by joining materials based on 3D model data, typically layer upon layer, as opposed to subtractive or formative manufacturing methods
"AI application satellites"	a type of satellite that integrates AI payloads and algorithms to perform onboard data analysis and computing, offering enhanced remote sensing and data processing capabilities
"AI computing satellites"	a type of satellite that integrates AI payloads with computing power to deliver advanced data analysis and computing services for themselves, other spacecraft, and ground applications
"AI satellites"	a newly developed, emerging category of satellites enabled by rapid AI advancements, including AI application satellites and AI computing satellites
"CAGR"	compound annual growth rate
"CAN"	controller area network
"CCD"	charge coupled device
"cloud detection"	detection of the clouds in remote sensing data to facilitate the subsequent analysis and interpretation of remote sensing data
"CIIO"	critical information infrastructure operator
"computing node"	a point of connection in a computing network
"computing power/ computing capability"	the ability of a computer or computing system to process satellite remote sensing data and execute tasks
"digital twin "	a virtual representation of a physical object, system or process, created to simulate and analyse its real-world counterpart
"ECC verification"	error correction code verification, a process used to detect and correct errors in data transmission or storage, ensuring data integrity in satellite communications

"FPGA"	field-programmable gate array, an integrated circuit that can be configured after production, enabling flexible and efficient processing for satellite tasks
"Geosynchronous Orbit"	Earth-centered orbits with an altitude of approximately 35,786 km
"GFA"	gross floor area
"GPU"	graphics processing unit, a specialized processor for accelerating graphics rendering and parallel processing, commonly used in satellites for image processing and data analysis
"GTX"	gigabit transceiver
"IoT"	Internet of Things, the network of interconnected devices that communicate with each other and the cloud, enabling data exchange and remote monitoring
"ISO"	the International Organization for Standardization, an independent, non-governmental organization that develops and publishes international standards
"ISO 14001"	an internationally recognized standard for environmental management system published by ISO
"ISO 9001"	an internationally recognized standard for quality management systems published by ISO
"LEO(s)"	low earth orbit, encompassing Earth-centered orbits with an altitude lower than 2,000 km
"Lingjing Engine"	an advanced ground-based infrastructure designed for cost-effective and efficient remote sensing data analysis and 3D modeling
"LVDS"	low-voltage differential signaling
"Medium Earth Orbit"	Earth-centered orbits with an altitude greater than approximately 2,000 km and less than 35,786 km
"NVME"	non-volatile memory express
"payload"	the specific instruments, equipment or subsystems designed to perform the satellite's intended functions or missions once it is in orbit
"PCIE"	peripheral component interconnect express

"POPS"	peta operations per second, a measure of computing performance that indicates the ability of a system to perform one quadrillion (10^15) operations per second
"R&D"	research and development
"remote sensing"	the acquisition of information about an object or phenomenon without making physical contact with the object, in contrast to in situ or on-site observation
"RS422"	known as TIA/EIA-422, a technical standard originated by the Electronic Industries Alliance that specifies electrical characteristics of a digital signaling circuit
"satellite constellation"	a group of satellites working together in a coordinated manner to provide enhanced coverage and capabilities
"space radiation"	the ionising radiation present in space, which can affect satellite components and operations, necessitating protective measures
"space-based computing"	a technology deploying computational hardware, software, algorithm and networks in orbit to process data, run applications and conduct analysis in space
"sq.m."	square meters
"TLK2711"	a type of multigigabit transceivers, intended for use in ultrahigh-speed bidirectional point-to-point data transmission systems
"TOPS"	tera operations per second, a measure of computing performance representing the ability of a system to perform one trillion (10^12) operations per second
"Telemetry, Tracking and Command, or TT&C services"	a satellite operations service that enables monitoring, tracking and control of satellites from the ground
"UART"	universal asynchronous receiver/transmitter
"W"	watt