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.

"2D"	two-dimensional
"3D"	three-dimensional
"3D modeling"	the process of creating a mathematical representation of a three-dimensional object or shape using specialized engine
"AI"	artificial intelligence
"AI application satellites"	a type of satellite by integrating AI payloads with AI algorithms into our satellite systems, offering AI-driven data analysis and computing services for its own operations, with enhanced remote sensing and data processing capabilities
"AI computing satellites"	a type of satellite by integrating AI payloads with AI computing power, offering advanced AI-driven data analysis and computing services not only for themselves but also for other spacecraft and ground applications
"AI satellites"	a newly developed and emerging category of satellites along with the rapid development of AI technology, include 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 power/ computing capability"	the ability of a computer or computing system to process satellite remote sensing data and execute tasks

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"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, a type of integrated circuit that can be configured by the customer or designer after production, used in satellites for flexible and efficient processing tasks
"GB"	gigabytes, a unit of information used to quantify computer memory or storage capacity
"Gbps"	gigabits per second, a measure of data transfer speed, used to indicate the capacity of satellite communication systems to transmit data
"Geosynchronous Orbit"	Earth-centered orbits with an altitude of approximately 35,786 km
"GFA"	gross floor area
"GPU"	graphics processing unit, a specialized processor designed to accelerate graphics rendering and parallel processing tasks, often used for image processing and data analysis in the context of satellites
"GTX"	gigabit transceiver
"IoT"	Internet of Things, referring to the collective network of connected devices and the technology that facilitates communication between devices and the cloud, as well as between the devices themselves
"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 5001"	an internationally recognized standard for energy management systems published by ISO
"ISO 9001"	an internationally recognized standard for quality management systems published by ISO
"IT"	information technology
"kg"	kilogram
"km"	kilometer
"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
"Mbps"	megabits per second, a measure of data transfer speed, used to indicate the rate at which satellite systems can transmit data
"Medium Earth Orbit"	Earth-centered orbits with an altitude greater than approximately 2,000 km and less than 35,786 km
"multi-mode redundancy"	a system design approach that incorporates multiple modes of operation to ensure continued functionality in the event of a failure, enhancing satellite reliability
"MPixel/s"	megapixels per second, a unit of measurement used to describe the rate at which an imaging device, such as a camera sensor, can process or capture image data
"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-edge computing technology"	a technology that facilitates sensing, computing and storage in the space environment by relying on platforms such as satellites and other spacecraft
"sq.m."	square meters
"super-resolution"	a task in computer vision that involves increasing the resolution of an image or video by generating missing high-frequency details from low-resolution input
"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
"UART"	universal asynchronous receiver/transmitter
"VR"	virtual reality
"W"	watt