

GLOSSARY OF TECHNICAL TERMS

This glossary of technical terms contains definitions of certain terms used in this document in connection with our Company and our business. Certain terms are company-specific or emerging industry terms and are explained in the context of this document. The terms and their meanings may not always correspond to standard industry meaning or usage of these terms, and may not be directly comparable to similarly titled terms adopted by other companies operating in the same industries as our Company.

“3C”	computer, communication and consumer electronics
“AI” or “artificial intelligence”	a field of computer science focused on developing systems that can perform tasks that typically require human intelligence, such as perception, learning, reasoning, prediction, recognition and decision support
“anti-spoofing”	the ability of a biometric system to detect and reject fraudulent attempts to deceive the system using forged or artificial biometric samples, such as printed photographs, digital screens, 3D masks or synthetic fingerprints
“AR”	augmented reality, a technology that overlays computer-generated images, information or other digital content onto a user’s view of the real world through devices such as smart glasses
“automated data annotation”	the use of automated or AI-assisted technologies to label and structure data for model training, evaluation or iteration
“BSI” or “backside illumination”	an image sensor fabrication process that allows light to enter the photodiodes from the back side of the sensor chip, generally improving light sensitivity and image quality compared with front-side illumination processes
“capacitive fingerprint sensor”	a type of fingerprint sensor that detects minute variances in electrical capacitance between the ridges and valleys of a fingerprint to construct a biometric map
“CIS” or “CMOS image sensor”	a type of image sensor manufactured using complementary metal-oxide-semiconductor technology that converts light into electrical signals, and may be used in cameras, imaging modules, optical fingerprint sensors and other optical sensing applications
“computer vision”	a field of AI that enables computer systems to acquire, process and analyze visual information from images, videos or sensor data

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“contactless biometric recognition”	a technology that allows for the identification and authentication of individuals without physical contact, utilizing unique physical or behavioral characteristics such as facial features, voice, or fingerprints
“controller-free interaction”	a form of user interaction that enables control of a device through natural hand, eye, gesture or other perceptual signals without using a physical controller
“CSP”	chip-scale package, a type of integrated circuit packaging with a package size close to that of the semiconductor die
“deep learning”	a subset of machine learning that uses multi-layer neural networks to learn representations and patterns from data
“EMG” or “electromyography”	a technique for recording and measuring the electrical activity produced by skeletal muscles
“fabless”	a business model in which a company designs semiconductor chips or related solutions but outsources wafer fabrication, assembly and testing to third-party foundries and contractors
“FAR” or “false acceptance rate”	the probability that a biometric security system incorrectly accepts an unauthorized user, which is a key metric for evaluating biometric authentication security
“field of view”	the angular extent of the observable scene captured by an imaging module, camera or sensor
“foundation model”	an AI model trained on broad datasets, often through self-supervised learning, that can be adapted to, or used for, a range of downstream tasks or application scenarios
“FPC” or “flexible printed circuit”	a flexible circuit integration component used in compact wearable modules such as hand-tracking and eye-tracking solutions
“fps”	frames per second, a measure of imaging or sensing frame rate used to describe how many frames an imaging module or sensor can capture or output each second
“FSI” or “front-side illumination”	a conventional CMOS image sensor design where light enters through the front of the sensor, passing through metal wiring and transistors before reaching the photodiode
“generalization”	the ability of a model or algorithm to maintain performance when applied to new tasks, scenarios, device types or data that differ from those used during training

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“gesture interaction”	a form of natural human-machine interaction that interprets tracked body movements, primarily hand and finger gestures, to enable intuitive control of digital systems
“hardware-agnostic”	capable of operating across different hardware configurations without relying on one specific hardware layout or fixed component arrangement
“human-device interaction” or “human-machine interaction”	the interaction between users and devices or machines through input and output methods such as vision, non-semantic sound, motion and other perceptual signals
“IC” or “integrated circuit”	a semiconductor chip consisting of electronic circuits used in hardware engineering, sensing and system functions
“image sensor”	a semiconductor device that converts light into electronic signals to capture images or other visual information
“IMU” or “inertial measurement unit”	a sensing unit used to capture motion or orientation information
“IPD” or “interpupillary distance”	the distance between the centers of a user’s pupils
“JFinger Algorithm”	our proprietary AI-powered fingerprint algorithm
“distillation”	a model compression technique that transfers knowledge from a larger model to a smaller model to reduce computational requirements while preserving performance
“large language model”	a deep-learning AI model trained on large volumes of text or other language data to understand, generate or interact using natural language.
“LED array”	an arrangement of light-emitting diodes used as an illumination or optical component in devices such as cameras, sensors, displays, and lighting modules
“lightweight deployment”	the optimization and compression of AI models to enable efficient execution on resource-constrained devices such as smartphones, smart glasses and robotic terminals while maintaining accuracy and performance
“liveness detection”	a security feature in biometric systems that determines whether a biometric sample is from a live human being rather than a spoofing medium such as a photograph, video playback, digital screen or 3D mask
“MIPI”	Mobile Industry Processor Interface, an input/output interface used by certain imaging or eye-tracking modules

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“model compression”	a set of techniques used to reduce the computational and storage requirements of AI models, including pruning, knowledge distillation and quantization
“monochrome image sensor”	an image sensor that captures light intensity information without full color information
“multi-modal”	the ability of a system or model to process, fuse and analyze data from multiple types of input signals or sensory modalities, such as optical, infrared, depth, acoustic, inertial and capacitive signals
“NPS” or “Net Promoter Score”	a customer experience metric that measures the likelihood of customers recommending a product, service or company
“NRE” or “non-recurring engineering”	customized engineering, development or technical support work performed for a specific customer or product project, typically in connection with product design, prototyping, testing, validation or pre-mass-production development
“optical fingerprint sensor”	a fingerprint sensor that uses light reflected from a user’s fingertip to generate a fingerprint image or map, commonly used in under-display fingerprint recognition applications
“optical system”	a system of optical components, such as lenses, light sources, filters and sensors, designed to capture, guide, filter or process light for sensing or imaging functions
“palm vein recognition”	a biometric technology that identifies individuals using the unique vein patterns inside their palms
“PCCR” or “Pupil Center Corneal Reflection”	a traditional eye-tracking method that estimates gaze based on the relationship between the pupil center and corneal reflection, and typically requires calibrated hardware components and fixed illumination points
“Physical AI”	AI systems embedded in machines that can sense their surroundings, make real-time decisions, and perform actions using hardware
“pixel size”	the physical dimension of an individual pixel in an image sensor, which may affect image capture characteristics and module design
“polarized light imaging”	a non-invasive optical technique that uses a specially filtered infrared camera paired with a compact polarized light source to distinguish real human skin from spoofing materials, without relying on complex depth-sensing hardware

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“PoLi ID”	our proprietary AI-powered contactless biometric sensor solution that uses polarized light imaging to perform facial liveness detection and palm recognition, including palmprint and palm vein recognition
“pre-training”	the process of training a model on broad or large-scale data to learn general representations or capabilities before task-specific adaptation or fine-tuning
“pruning”	a model compression technique that transforms dense neural networks into sparse networks or removes less important parameters while preserving performance
“quantization”	a model compression technique that converts high-precision numerical values into lower-precision representations to reduce model size and accelerate inference
“sensing chip”	a semiconductor chip designed to capture, process or support sensing signals for functions such as fingerprint recognition, eye-tracking, hand-tracking or other perceptual interaction applications
“sensor”	a device or component that detects physical, optical, electrical, acoustic, inertial, tactile or other signals and converts them into data for processing
“signal-to-noise ratio”	a measure of the strength of useful signal relative to background noise, used as a performance indicator for sensors and recognition systems
“single-modal” or “single-modality”	relying on one type of input signal or sensory modality, as compared with multi-modal approaches that process and fuse multiple modalities
“smart device”	an electronic device with computing, sensing and interaction capabilities, including among others smartphones, smart glasses and embodied robotics
“spatial landmark”	a model output or reference point used for motion and pose tracking in perceptual interaction tasks
“spatial positioning”	the determination or estimation of the position of a user, device, object or body part in physical or three-dimensional space
“SPI” or “Serial Peripheral Interface”	a synchronous serial communication protocol widely used in embedded systems and digital communication applications
“structured light”	a method that measures the shape and depth of a three-dimensional object by projecting a pattern of light onto the object’s surface

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“tactile perception”	the acquisition and interpretation of tactile information such as pressure, contact, force, slippage or surface texture
“tactile sensing”	the ability of a device or system to perceive physical interactions with its environment, such as pressure, vibration, texture, or temperature, and convert these interactions into measurable signals for processing and response
“temporal alignment”	the synchronization or alignment of data streams captured at different times or frequencies so that they can be processed together for model training or analysis
“ToF” or “Time-of-Flight”	a 3D sensing technology used for depth measurement that calculates distance based on the time taken for emitted light to travel to an object and return to the sensor
“training-ready dataset”	a dataset that has been processed, cleaned, aligned and annotated to a quality and structure suitable for model training, evaluation or iteration
“Transformer”	a type of neural network architecture that excels at processing sequential data
“trusted execution environment”	a secure execution environment paired with mobile platforms to support protected deployment and operation of algorithms and related system functions
“VCSEL” or “vertical-cavity surface emitting laser”	a type of semiconductor laser that emits light straight up from its surface rather than out the edge
“visuo-tactile”	a sensing approach that integrates visual perception and tactile feedback to enable coordinated sensing of object contact states, surface textures, force variations and manipulation processes
“VR”	virtual reality, a technology that creates an immersive computer-generated environment, typically experienced through head-mounted or wearable devices
“wafer”	a semiconductor substrate used in chip manufacturing
“XR”	extended reality, an umbrella term encompassing AR, VR and related immersive technologies