GLOSSARY OF TECHNICAL TERMS

This glossary of technical terms contains explanations of certain technical terms used in this document. As such, these terms and their meanings may not correspond to standard industry meanings or usage of these terms.

"5G"	the fifth-generation wireless technology standard that aims to provide significantly faster data speeds, lower latency, and greater connectivity compared to previous generations of mobile networks
"ABF"	Ajinomoto build-up film, a specialised insulating film used in IC packaging
"ADAS"	advanced driver assistance systems
"AI"	artificial intelligence
"ASIC"	application specific integrated circuit, an IC designed for specific purposes and manufactured for specific user requirements and electronic systems
"BT"	bismaleimide triazine resin, a polymer used as a substrate material for IC packaging
"CAGR"	compound annual growth rate, calculated by subtracting one from the result of dividing the ending value by its beginning value raised to the power of one divided by the period length
"CMOS"	complementary metal-oxide-semiconductor
"CoWoS"	chip-on-wafer-on-substrate, which is an advanced semiconductor packaging technology for ultra-high performance computing applications, such as artificial intelligence (AI) and supercomputing
"CPU"	central processing unit, a complex set of electronic circuitry that runs the machine's operating system and apps
"CSP"	chip sale package, a type of IC package whose area is no more than 1.2 times the area of the die itself
"CSP Substrate"	IC substrate using wire-bonding method for CSP packaging, excluding FCCSP Substrates
"CTE"	coefficient of thermal expansion
"die"	a small block of semiconducting material on which a given functional circuit is fabricated

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"DRAM"	dynamic random-access memory, which is a type of random-access semiconductor memory that stores each bit of data in a memory cell
"FCBGA"	flip-chip ball grid array, a high-density, high-performance semiconductor packaging technology where the IC die is flipped and soldered directly onto a substrate using conductive bumps
"FCBGA Substrate"	IC substrate for FCBGA packaging
"FCCSP"	flip-chip chip scale package, an advanced semiconductor packaging technology combining flip-chip bonding with a chip-scale format
"FCCSP Substrate"	IC substrate for FCCSP packaging
"FIB"	focused ion beam, which is an advanced manufacturing and analysis tool using a beam of electrons to image a sample
"GDP"	gross domestic product
"GFA"	gross floor area
"GPU"	graphics processing unit, a general-purpose processor designed to handle graphics processing and parallel computing tasks
"I/O"	input/output, which refers to the communication and signal or data transfer
"IC"	integrated circuit or "chip", a semiconductor device that combines a number of transistors and electronic circuits onto a piece of silicon
"IC substrate"	a specialised platform composed of multiple layers of composite materials that connects the bare chip to the printed circuit board, providing electrical connectivity, mechanical support, and thermal dissipation pathways for the chip
"IC packaging" or "packaging"	the process of enclosing a semiconductor chip in a protective case that facilitates electrical connections and heat dissipation
"IoT"	Internet of Things, the network of physical objects that are embedded with sensors, software, and other technologies to connect and exchange data with other devices and systems over the internet
"IPD"	integrated passive devices

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"IVR"	integrated voltage regulator
"LDI"	laser direct imaging
"mSAP"	modified semi-additive process, which is an advanced manufacturing method used to produce ultra-fine copper circuit line
"PCB"	acronym for printed circuit board, a flat panel composite with alternating layers of printed conductors and electrical insulation, typically interconnected by conductive holes; PCBs provide platforms to connect semiconductors and other electronic, optical or mechanical devices to form a circuit or functional system
"prepreg"	pre-impregnated material, which is a material composited of fiberglass and resin
"RF"	radio frequency
"SiP"	system in package, an advanced semiconductor packaging technology that integrates multiple ICs into a single module
"wafer"	a thin slice of semiconductor used for the fabrication of ICs
"sq.m."	square metres