DEFINITIONS OF TERMS

Notes:

1. Definitions apply throughout both the Munitions List and Dual-use Goods List. The references are purely advisory and have no effect on the universal application of defined terms throughout these Lists.

2. Words and terms contained in the Definitions of Terms only take the defined meaning where this is indicated by their being enclosed in quotations marks (“ ”). Elsewhere, words and terms take their commonly accepted (dictionary) meanings, unless a local definition for a particular control is given. *(L.N. 183 of 1999)*

3 6 “III/V compounds” (III/V化合物)

Polycrystalline or binary or complex monocrystalline products consisting of elements of groups IIIA and VA of Mendeleyev’s periodic classification table (e.g. gallium arsenide, gallium-aluminium arsenide, indium phosphide). *(L.N. 254 of 2008; E.R. 6 of 2020)*

2 3 6
7 8 “Accuracy” (精度) *(L.N. 85 of 2023)*

(Usually measured in terms of inaccuracy) is the maximum deviation, positive or negative, of an indicated value from an accepted standard or true value.

7 “Active flight control systems” (主動飛控系統)

Function to prevent undesirable “aircraft” and missile motions or structural loads by autonomously processing outputs from multiple sensors and then providing necessary preventive commands to effect automatic control.

6 “Active pixel” (工作像元) *(L.N. 89 of 2021)*

A minimum (single) element of the solid state array which has a photoelectric transfer function when exposed to light (electromagnetic) radiation.

ML8 “Additives” (添加劑)

Substances used in explosive formulations to improve their properties.

1 6 7 9
ML1
ML8
ML10
ML14
Def. “Aircraft” (飛機) *(L.N. 85 of 2023)*

A fixed wing, swivel wing, rotary wing (helicopter), tilt rotor or tilt-wing airborne vehicle. (See also “civil aircraft”)

9 “Airship” (飛船)

A power-driven airborne vehicle that is kept buoyant by a body of gas (usually helium, formerly hydrogen) that is lighter than air. *(L.N. 89 of 2013)*

2 “All compensations available” (所有補償機制)

“All compensations available” means after all feasible measures available to the manufacturer to minimize all systematic positioning errors for the particular machine-tool model or measuring errors for the particular coordinate measuring machine are considered. *(L.N. 132 of 2001; L.N. 161 of 2011)*

3 5 “Allocated by the ITU” (由國際電信聯盟指配)

The allocation of frequency bands according to the current edition of the ITU Radio Regulations for primary, permitted and secondary services. *(L.N. 95 of 2006)*

N.B.:

Additional and alternative allocations are not included. *(L.N. 132 of 2001)*

7 “Angle random walk” (角度隨機遊走)

The angular error build-up with time that is due to white noise in angular rate (IEEE STD 528-2001). *(L.N. 254 of 2008)*

2 “Angular position deviation” (角位置誤差)

The maximum difference between angular position and the actual, very accurately measured angular position after the workpiece mount of the table has been turned out of its initial position. *(L.N. 42 of 2017)*

0 1 9 “ASTM”

The American Society for Testing and Materials.

5 “Asymmetric algorithm” (非對稱演算法)

A cryptographic algorithm using different, mathematically-related keys for encryption and decryption.

Technical Note: (L.N. 132 of 2001)

A common use of “asymmetric algorithms” is key management. *(L.N. 183 of 1999)*

5 “Authentication” (核證)

Verifying the identity of a user, process or device, often as a prerequisite to allowing access to resources in an information system. This includes verifying the origin or content of a message or other information, and all aspects of access control where there is no encryption of files or text except as directly related to the protection of passwords, Personal Identification Numbers (PINs) or similar data to prevent unauthorized access. *(L.N. 89 of 2021)*

ML11 “Automated Command and Control Systems” (自動化指揮及控制系統)

Electronic systems, through which information essential to the effective operation of the grouping, major formation, tactical formation, unit, ship, sub-unit or weapons under command is entered, processed and transmitted. This is achieved by the use of computer and other specialised hardware designed to support the functions of a military command and control organization. The main functions of an automated command and control system are: the efficient automated collection, accumulation, storage and processing of information; the display of the situation and the

circumstances affecting the preparation and conduct of combat operations; operational and tactical calculations for the allocation of resources among force groupings or elements of the operational order of battle or battle deployment according to the mission or stage of the operation; the preparation of data for appreciation of the situation and decision-making at any point during operation or battle; computer simulation of operations. *(L.N. 226 of 2009)*

6 "Automatic target tracking" (自動目標追蹤)

A processing technique that automatically determines and provides as output an extrapolated value of the most probable position of the target in real time.

6 "Average output power" (平均輸出功率)

The total "laser" output energy, in joules, divided by the period over which a series of consecutive pulses is emitted, in seconds. For a series of uniformly-spaced pulses it is equal to the total "laser" output energy in a single pulse, in joules, multiplied by the pulse frequency of the "laser", in Hertz. *(L.N. 89 of 2013)*

3 "Basic gate propagation delay time" (基本閘傳遞延遲時間)

The propagation delay time value corresponding to the basic gate used in a "monolithic integrated circuit". For a 'family' of "monolithic integrated circuits", this may be specified either as the propagation delay time per typical gate within the given 'family' or as the typical propagation delay time per gate within the given 'family'.

Technical Notes:

1. "Basic gate propagation delay time" is not to be confused with the input/output delay time of a complex "monolithic integrated circuit".
2. 'Family' consists of all integrated circuits to which all of the following are applied as their manufacturing methodology and specifications except their respective functions:
   (a) The common hardware and software architecture;
   (b) The common design and process technology; *and*
   (c) The common basic characteristics. *(L.N. 132 of 2001)*

GTN
NTN
ML22 "Basic scientific research" (基本科學研究) *(L.N. 85 of 2023)*

Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

7 "Bias" (accelerometer) (原偏置) (加速度計)

The average over a specified time of accelerometer output measured at specified operating conditions that has no correlation with input acceleration or rotation. "Bias" is expressed in [m/s^2, g] (IEEE STD 528-2001) (micro g equals 1×10^{-6} g). *(L.N. 254 of 2008)*

7 "Bias" (gyro) (原偏置) (陀螺儀)

The average over a specified time of gyro output measured at specified operating conditions that has no correlation with input rotation or acceleration. "Bias" is

typically expressed in degrees per hour (deg/h) (IEEE STD 528-2001). *(L.N. 254 of 2008)*

ML7
ML22 "Biocatalysts" (生物催化劑) *(L.N. 42 of 2017)*

'Enzymes' for specific chemical or biochemical reactions or other biological compounds which bind to and accelerate the degradation of CW agents. *(L.N. 42 of 2017)*

Technical Note:

'Enzymes' means "biocatalysts" for specific chemical or biochemical reactions. *(L.N. 132 of 2001)*

1 9
ML7 "Biological agents" (生物劑)

Pathogens or toxins, selected or modified (such as altering purity, shelf life, virulence, dissemination characteristics, or resistance to UV radiation) to produce casualties in humans or animals, degrade equipment or damage crops or the environment. *(L.N. 89 of 2021)*

ML7 "Biopolymers" (生物聚合物)

Biological macromolecules as follows:

(a) Enzymes for specific chemical or biochemical reactions;

(b) 'Anti-idiotypic antibodies', 'monoclonal antibodies' or 'polyclonal antibodies'; *(L.N. 42 of 2017)*

(c) Specially designed or specially processed 'receptors'; *(L.N. 42 of 2017)*

Technical Notes: (L.N. 132 of 2001)

1. 'Anti-idiotypic antibodies' means antibodies which bind to the specific antigen binding sites of other antibodies.
2. 'Monoclonal antibodies' means proteins which bind to one antigenic site and are produced by a single clone of cells.
3. 'Polyclonal antibodies' means a mixture of proteins which bind to the specific antigen and are produced by more than one clone of cells.
4. 'Receptors' means biological macromolecular structures capable of binding ligands, the binding of which affects physiological functions. *(L.N. 183 of 1999; L.N. 42 of 2017)*

2 "Camming" (axial displacement) (軸向移位)

Axial displacement in one revolution of the main spindle measured in a plane perpendicular to the spindle faceplate, at a point next to the circumference of the spindle faceplate (Reference: ISO 230/1 1986, paragraph 5.63).

1 "Carbon fibre preforms" (碳纖維預製成形品)

An ordered arrangement of uncoated or coated fibres intended to constitute a framework of a part before the "matrix" is introduced to form a "composite". *(L.N. 183 of 1999)*

6 "Charge multiplication" (電荷倍增)

A form of electronic image amplification defined as the generation of charge carriers as a result of an impact ionization gain process. "Charge multiplication" sensors may take the form of an image intensifier tube, solid state detector or "focal plane array". *(L.N. 6 of 2025)*

6 "Chemical laser" (化學雷射器)

A "laser" in which the excited species is produced by the output energy from a chemical reaction.

1 "Chemical mixture" (化學品混合物)

A solid, liquid or gaseous product made up of two or more components which do not react together under the conditions under which the mixture is stored. *(L.N. 85 of 2023)*

Def. "Circuit element" (電路元件)

A single active or passive functional part of an electronic circuit which may be a diode, a transistor, a resistor or a capacitor.

7 "Circular Error Probable" ("CEP") (圓形機率誤差)

In a circular normal distribution, the radius of the circle containing 50% of the individual measurements being made, or the radius of the circle within which there is a 50% probability of being located. *(L.N. 85 of 2023)*

7 "Circulation-controlled anti-torque or circulation-controlled directional control systems" (循環控制式反力矩或循環控制式方向控制系統)

Systems that use air blown over aerodynamic surfaces to increase or control the forces generated by the surfaces.

1 3 4 7
ML4
ML10 "Civil aircraft" (民用飛機)

Those "aircraft" listed by designation in published airworthiness certification lists by the civil aviation authority or authorities of one or more "Participating States" to fly commercial civil internal and external routes or for legitimate civil, private or business use. *(L.N. 42 of 2017)*

1 "Commingled" (混合)

Filament to filament blending of thermoplastic fibres and reinforcement fibres in order to produce a fibre reinforcement "matrix" mix in total fibre form. *(L.N. 132 of 2001)*

1 "Comminution" (粉碎)

A process to reduce a material to particles by crushing or grinding.

4 "Communications channel controller" (通訊頻道控制器)

The physical interface which controls the flow of synchronous or asynchronous digital information. It is an assembly that can be integrated into computer or telecommunications equipment to provide communications access. *(L.N. 183 of*

1999)

6 "Compensation systems" (補償系統)

Consist of the primary scalar sensor, one or more reference sensors (e.g. vector magnetometers) together with software that permit reduction of the rigid body rotation noise of the platform. *(L.N. 254 of 2008; L.N. 85 of 2023)*

1 2 6 8 9 "Composite" (複合、複合物)

A "matrix" and an additional phase or additional phases consisting of particles, whiskers, fibres or any combination thereof, present for a specific purpose or purposes.

2 "Compound rotary table" (合成旋轉台)

A table allowing the workpiece to rotate and tilt about two non-parallel axes, which can be coordinated simultaneously for "contouring control".

2 "Contouring control" (輪廓控制)

Two or more "numerically controlled" motions operating in accordance with instructions that specify the next required position and the required feed rates to that position. These feed rates are varied in relation to each other so that a desired contour is generated (Ref. ISO/DIS 2806-1980).

1 3 5 Def. "Critical temperature" (臨界溫度) *(L.N. 89 of 2021)*

(Sometimes referred to as the transition temperature) of a specific "superconductive" material is the temperature at which the material loses all resistance to the flow of direct electrical current.

5 "Cryptographic activation" (啟動密碼)

Any technique that activates or enables cryptographic capability of an item, by means of a secure mechanism implemented by the manufacturer of the item, where this mechanism is uniquely bound to any of the following: *(L.N. 42 of 2017)*

(a) A single instance of the item;

(b) One customer, for multiple instances of the item.

Technical Notes:

1. "Cryptographic activation" techniques and mechanisms may be implemented as hardware, "software" or "technology".
2. Mechanisms for "cryptographic activation" can, for example, be serial number-based licence keys or authentication instruments such as digitally signed certificates. *(L.N. 42 of 2017)*

5 Def. "Cryptography" (密碼學) *(L.N. 85 of 2023)*

The discipline which embodies principles, means and methods for the transformation of data in order to hide its information content, prevent its undetected modification or prevent its unauthorized use. "Cryptography" is limited to the transformation of information using one or more 'secret parameters' (e.g. crypto variables) or associated key management. *(E.R. 6 of 2020)*

Note:

1. "Cryptography" does not include 'fixed' data compression or coding techniques. *(L.N. 27 of 2015; L.N. 89 of 2021; L.N. 85 of 2023)*
2. "Cryptography" includes decryption. *(L.N. 85 of 2023)*

Technical Notes: (L.N. 89 of 2021)

1. 'Secret parameter': a constant or key kept from the knowledge of others or shared only within a group. *(L.N. 89 of 2021)*
2. 'Fixed': the coding or compression algorithm cannot accept externally supplied parameters (e.g. cryptographic or key variables) and cannot be modified by the user. *(L.N. 89 of 2021)*

6 "(CW) Laser" ((連續波) 雷射器)

A "laser" that produces a nominally constant output energy for greater than 0.25 seconds. *(L.N. 254 of 2008)*

4
ML21 "Cyber incident response" (網絡事故回應)

The process of exchanging necessary information on a cybersecurity incident with individuals or organizations responsible for conducting or coordinating remediation to address the cybersecurity incident. *(L.N. 85 of 2023)*

7 "Data-Based Referenced Navigation" ("DBRN") Systems (資料庫參考導航 ("DBRN") 系統)

Systems which use various sources of previously measured geo-mapping data integrated to provide accurate navigation information under dynamic conditions. Data sources include bathymetric maps, stellar maps, gravity maps, magnetic maps or 3-D digital terrain maps. *(L.N. 65 of 2004)*

0 "Depleted uranium" (貧化鈾)

Uranium depleted in the isotope 235 below that occurring in nature.

GTN
NTN
All "Development" (發展)

Is related to all stages prior to serial production, such as: design, design research, design analyses, design concepts, assembly and testing of prototypes, pilot production schemes, design data, process of transforming design data into a product, configuration design, integration design, layouts.

1 2 "Diffusion bonding" (擴散接合) *(L.N. 85 of 2023)*

A solid state joining of at least 2 separate pieces of metals into a single piece with a joint strength equivalent to that of the weakest material, in which the principal mechanism is interdiffusion of atoms across the interface. *(L.N. 42 of 2017)*

4 5
ML21 "Digital computer" (數字式電腦) *(L.N. 85 of 2023)*

Equipment which can, in the form of one or more discrete variables:

(a) Accept data;

(b) Store data or instructions in fixed or alterable (writable) storage devices;

(c) Process data by means of a stored sequence of instructions which is modifiable; *and*

(d) Provide output of data.

Technical Note:(L.N. 132 of 2001)

Modifications of a stored sequence of instructions include replacement of fixed storage devices, but not a physical change in wiring or interconnections.

5 "Digital transfer rate" (數字傳送率)

The total bit rate of the information that is directly transferred on any type of medium. (See also "total digital transfer rate")

Def. "Discrete component" (分立零件)

A separately packaged "circuit element" with its own external connections.

7 "Drift rate" (gyro) (漂移率)(陀螺儀)

The component of gyro output that is functionally independent of input rotation. It is expressed as an angular rate. *(L.N. 85 of 2023)*

0 1 "Effective gram", "Effective gramme" (有效克)

(a) For plutonium isotopes and uranium-233, the isotope weight in grams or grammes;

(b) For uranium enriched 1 percent or greater in the isotope uranium-235, the element weight in grams or grammes multiplied by the square of its enrichment expressed as a decimal weight fraction;

(c) For uranium enriched below 1 percent in the isotope uranium-235, the element weight in grams or grammes multiplied by 0.0001. *(L.N. 132 of 2001; L.N. 161 of 2011)*

2 3 4 "Electronic assemblies" (電子組件) *(L.N. 89 of 2021)*

A number of electronic components (including "circuit elements", "discrete components" and integrated circuits) connected together to perform a specific function, which are replaceable as an entity and are normally capable of being disassembled.

2
ML17 "End-effectors" (末端效應器)

"End-effectors" include grippers, 'active tooling units' and any other tooling that is attached to the baseplate on the end of a "robot" manipulator arm.

Technical Note:

'Active tooling units' are devices for applying motive power, process energy or sensing to a workpiece. *(L.N. 42 of 2017)*

1
ML8 "Energetic materials" (高能物料) *(L.N. 85 of 2023)*

Substances or mixtures that react chemically to release energy required for their intended application. "Explosives", "pyrotechnics" and "propellants" are subclasses of energetic materials. *(L.N. 65 of 2004)*

6 "Equivalent density" (等效密度)

The mass of an optic per unit optical area projected onto the optical surface.

1
ML6
ML13 "Equivalent standards" (同等標準)

Comparable national or international standards recognized by one or more "Participating States" and applicable to the relevant entry. *(L.N. 85 of 2023)*

1
ML8
ML18
Def. "Explosives" (炸藥) *(L.N. 65 of 2004; L.N. 226 of 2009; L.N. 85 of 2023)*

Solid, liquid or gaseous substances or mixtures of substances which, in their application as primary, booster, or main charges in warheads, demolition and other applications, are required to detonate. *(L.N. 65 of 2004)*

ML7 "Expression vectors" (傳遞病媒)

Carriers (e.g. plasmid or virus) used to introduce genetic material into host cells. *(E.R. 6 of 2020)*

9 "FADEC Systems" (FADEC系統) *(L.N. 89 of 2021)*

Full Authority Digital Engine Control Systems—A digital electronic control system for a gas turbine engine that is able to autonomously control the engine throughout its whole operating range from demanded engine start until demanded engine shut-down, in both normal and fault conditions. *(L.N. 161 of 2011)*

0 1 2 8 9
ML13 "Fibrous or filamentary materials" (纖維或絲狀物料) *(L.N. 42 of 2017; L.N. 85 of 2023)*

Include:

(a) Continuous "monofilaments";

(b) Continuous "yarns" and "rovings";

(c) "Tapes", fabrics, random mats and braids;

(d) Chopped fibres, staple fibres and coherent fibre blankets;

(e) Whiskers, either monocrystalline or polycrystalline, of any length;

(f) Aromatic polyamide pulp.

3 "Film type integrated circuit" (薄膜型集成電路)

An array of 'circuit elements' and metallic interconnections formed by deposition of a thick or thin film on an insulating "substrate". *(L.N. 132 of 2001)*

ML15 "First generation image intensifier tubes" (第一代影像強化管)

Electrostatically focused tubes, employing input and output fibre optic or glass face plates, multi-alkali photocathodes (S-20 or S-25), but not microchannel plate amplifiers. *(L.N. 183 of 1999)*

7 "Flight control optical sensor array" (飛行控制光感測器陣列)

A network of distributed optical sensors, using "laser" beams, to provide real time flight control data for on-board processing. *(L.N. 161 of 2011)*

7 “Flight path optimization” (飛行航線優化)

A procedure that minimizes deviations from a four-dimensional (space and time) desired trajectory based on maximizing performance or effectiveness for mission task.

7 “Fly-by-light system” (光傳飛控系統)

A primary digital flight control system employing feedback to control an aircraft during a flight, where the commands to the effectors or actuators are optical signals. *(L.N. 42 of 2017)*

7 “Fly-by-wire system” (電傳飛控系統)

A primary digital flight control system employing feedback to control an aircraft during a flight, where the commands to the effectors or actuators are electrical signals. *(L.N. 42 of 2017)*

6 “Focal plane array” (聚焦平面陣列)

A linear or two-dimensional planar layer, or combination of planar layers, of individual detector elements, with or without readout electronics, which work in the focal plane.

Note: (L.N. 132 of 2001)

This definition does not include a stack of single detector elements or any two, three or four element detectors provided time delay and integration is not performed within the element.

3 5 “Fractional bandwidth” (分頻寬) *(L.N. 89 of 2021)*

The “instantaneous bandwidth” divided by the centre frequency, expressed as a percentage. *(L.N. 132 of 2001)*

6 “Frequency agility” (radar) (頻率跳頻) (雷達)—see “Radar frequency agility”

5 6 “Frequency hopping” (跳頻) *(L.N. 42 of 2017)*

A form of “spread spectrum” in which the transmission frequency of a single communication channel is made to change by a random or pseudo-random sequence of discrete steps. *(L.N. 132 of 2001)*

3 “Frequency switching time” (頻率切換時間)

The time (i.e. delay) taken by a signal when switched from an initial specified output frequency, to arrive at or within any of the following:

(a) ±100 Hz of a final specified output frequency of less than 1 GHz;

(b) ±0.1 part per million of a final specified output frequency equal to or greater than 1 GHz. *(L.N. 89 of 2021)*

3 “Frequency synthesiser” (頻率合成器)

Any kind of frequency source, regardless of the actual technique used, providing a multiplicity of simultaneous or alternative output frequencies, from one or more outputs, controlled by, derived from or disciplined by a lesser number of standard (or

master) frequencies. *(L.N. 161 of 2011)*

8
ML17

"Fuel cell" (燃料電池)

An electrochemical device that converts chemical energy directly into Direct Current (DC) electricity by consuming fuel from an external source. *(L.N. 161 of 2011)*

1

"Fusible" (熔融)

Capable of being cross-linked or polymerized further (cured) by the use of heat, radiation, catalysts, etc. or capable of being melted without pyrolysis (charring). *(L.N. 226 of 2009)*

1

"Gas atomization" (氣體霧化) *(L.N. 65 of 2004)*

A process to reduce a molten stream of metal alloy to droplets of 500 μm diameter or less by a high pressure gas stream.

3

"Gate-All-Around Field-Effect Transistor" ("GAAFET") (全環柵晶體管)

A device having a single or multiple semiconductor conduction channel element(s) with a common gate structure that surrounds and controls current in all of the semiconductor conduction channel elements.

Note:

This definition includes nanosheet or nanowire field-effect and surrounding gate transistors and other "GAAFET" semiconductor channel element structures. *(L.N. 85 of 2023)*

6

"Geographically dispersed" (地理上分散式)

Sensors are considered "geographically dispersed" when each location is distant from any other more than 1 500 m in any direction. Mobile sensors are always considered "geographically dispersed".

7

"Guidance set" (制導裝置)

Systems that integrate the process of measuring and computing a vehicles position and velocity (i.e. navigation) with that of computing and sending commands to the vehicles flight control systems to correct the trajectory.

5

"Hard selectors" (硬選擇器)

Data or set of data, related to an individual (e.g. family name, given name, e-mail address, street address, phone number or group affiliations). *(L.N. 85 of 2023)*

9

"High output diesel engines" (高輸出功率柴油引擎)

Diesel engines with a specified brake mean effective pressure of 1.8 MPa or more at a speed of 2 300 r.p.m., provided the rated speed is 2 300 r.p.m. or more. *(L.N. 6 of 2025)*

3
Def.

"Hybrid integrated circuit" (混合集成電路) *(L.N. 85 of 2023)*

Any combination of integrated circuit(s), integrated circuits with 'circuit elements' or 'discrete components' connected together to perform (a) specific function(s), and

having all of the following characteristics: *(L.N. 85 of 2023)*

(a) Containing at least one unencapsulated device;

(b) Connected together using typical integrated circuit production methods;

(c) Replaceable as an entity; *and*

(d) Not normally capable of being disassembled.

N.B.:

1. 'Circuit element': a single active or passive functional part of an electronic circuit, such as one diode, one transistor, one resistor, one capacitor, etc.
2. 'Discrete component': a separately packaged 'circuit element' with its own external connections.

4 "Image enhancement" (影像增強)

The processing of externally derived information-bearing images by algorithms such as time compression, filtering, extraction, selection, correlation, convolution or transformations between domains (e.g. fast Fourier transform or Walsh transform). This does not include algorithms using only linear or rotational transformation of a single image, such as translation, feature extraction, registration or false coloration. *(E.R. 6 of 2020)*

1 "Immunotoxin" (抗毒素)

A conjugate of one cell specific monoclonal antibody and a "toxin" or "sub-unit of toxin", that selectively affects diseased cells.

GTN
NTN
GSN
ML22 "In the public domain" (在公共領域內) *(L.N. 85 of 2023)*

As it applies to these Lists, means "technology" or "software" which has been made available without restrictions upon its further dissemination.

Note: (L.N. 132 of 2001)

Copyright restrictions do not remove "technology" or "software" from being "in the public domain".

NSN
GSN
GISN
4 5 "Information security" (資訊安全) *(L.N. 89 of 2021)*

All the means and functions ensuring the accessibility, confidentiality or integrity of information or communication, excluding the means and functions intended to safeguard against malfunctions. This includes "cryptography", "cryptographic activation", 'cryptanalysis', protection against compromising emanations and computer security. *(L.N. 161 of 2011)*

Technical Note: (L.N. 132 of 2001)

'cryptanalysis': the analysis of a cryptographic system or its inputs and outputs to derive confidential variables or sensitive data, including clear text. (ISO 7498-2-1988 (E), paragraph 3.3.18)

3 5 "Instantaneous bandwidth" (瞬間頻寬)

The bandwidth over which output power remains constant within 3 dB without adjustment of other operating parameters.

9 "Insulation" (絕緣襯片)

Material intended to provide protection from the effects of heat during the operation of rocket motors. The material includes cured or semi-cured compounded rubber sheet stock containing an insulating or refractory material. It is applied to the components of a rocket motor, i.e. the case, nozzle, inlets, case closures.

9 "Interior lining" (內襯套)

Suited for the bond interface between the solid propellant and the case or insulating liner. Usually a liquid polymer based dispersion of refractory or insulating materials, e.g. carbon filled hydroxyl terminated polybutadiene (HTPB) or other polymer with added curing agents sprayed or screeded over a case interior.

3 "Interleaved Analogue-to-Digital Converter (ADC)" (交叉模擬-數字轉換器)

A device that has multiple ADC units that sample the same analogue input at different times such that when the outputs are aggregated, the analogue input has been effectively sampled and converted at a higher sampling rate. *(L.N. 89 of 2021)*

6 "Intrinsic magnetic gradiometer" (固有磁梯度計)

A single magnetic field gradient sensing element and associated electronics, the output of which is a measure of magnetic field gradient.
(See also "Magnetic gradiometer")

4 5 "Intrusion software" (入侵軟件) *(L.N. 85 of 2023)*

"Software" specially designed or modified to avoid detection by 'monitoring tools', or to defeat 'protective countermeasures', of a computer or network-capable device, and performing any of the following:

(a) The extraction of data or information, from a computer or network-capable device, or the modification of system or user data;

(b) The modification of the standard execution path of a "program" or process in order to allow the execution of externally provided instructions. *(L.N. 6 of 2025)*

Notes:

1. "Intrusion software" does not include any of the following:
   (a) Hypervisors, debuggers or Software Reverse Engineering (SRE) tools;
   (b) Digital Rights Management (DRM) "software";
   (c) "Software" designed to be installed by manufacturers, administrators or users, for the purposes of asset tracking or recovery.
2. Network-capable devices include mobile devices and smart meters.

Technical Notes:

1. 'Monitoring tools': "software" or hardware devices, that monitor system behaviours or processes running on a device. This includes antivirus (AV) products, end point security products, Personal Security Products (PSP), Intrusion Detection Systems (IDS), Intrusion Prevention Systems (IPS) or firewalls.
2. 'Protective countermeasures': techniques designed to ensure the safe execution of code, such as Data Execution Prevention (DEP), Address Space Layout Randomisation (ASLR) or sandboxing. *(L.N. 27 of 2015)*

1 2 5 6 9 "ISO" *(L.N. 42 of 2017)*

The International Standards Organisation.

1 "Isolated live cultures" (獨立的活培養物)

Includes live cultures in dormant form and in dried preparations.

2 "Isostatic presses" (均壓裝置)

Equipment capable of pressurising a closed cavity through various media (gas, liquid, solid particles, etc.) to create equal pressure in all directions within the cavity upon a workpiece or material.

3 5 "ITU"

International Telecommunication Union. *(36 of 2000 s. 28)*

"Laser" (雷射器)—see also "Chemical laser" *(L.N. 89 of 2021)*

"(CW) Laser" *(L.N. 89 of 2021)*

"Pulsed laser" *(L.N. 89 of 2021)*

"Super High Power Laser"

"Transfer laser"

0 1 2 3 5 6 7 9 ML9 ML13 ML17 ML19 Def. "Laser" (雷射器) *(L.N. 85 of 2023; L.N. 6 of 2025)*

An assembly of components which produce both spatially and temporally coherent light that is amplified by stimulated emission of radiation. *(L.N. 132 of 2001)*

1 ML17 "Libraries" (parametric technical database) (圖書資料) (參數技術資料庫)

A collection of technical information, reference to which may enhance the performance of relevant systems, equipment or components. *(L.N. 42 of 2017)*

9 ML10 "Lighter-than-air vehicles" (輕於空氣載具) *(L.N. 89 of 2021)*

Balloons and airships that rely on hot air or on lighter-than-air gases such as helium or hydrogen for their lift. *(L.N. 95 of 2006)*

2 "Linearity" (線性度)

(Usually measured in terms of non-linearity) is the maximum deviation of the actual characteristic (average of upscale and downscale readings), positive or negative, from a straight line so positioned as to equalise and minimise the maximum deviations.

4 5 Def. "Local area network" (區域網絡) *(L.N. 226 of 2009; L.N. 85 of 2023)*

A data communication system having all of the following characteristics: *(L.N. 42 of*

2017)

(a) Allows an arbitrary number of independent 'data devices' to communicate directly with each other; *(L.N. 42 of 2017)*

(b) Is confined to a geographical area of moderate size (e.g. office building, plant, campus, warehouse). *(E.R. 6 of 2020)*

Technical Note:

'Data device' means equipment capable of transmitting or receiving sequences of digital information. *(L.N. 42 of 2017)*

6 "Magnetic gradiometers" (磁梯度計)

Instruments designed to detect the spatial variation of magnetic fields from sources external to the instrument. They consist of multiple "magnetometers" and associated electronics, the output of which is a measure of magnetic field gradient.

(See also "Intrinsic magnetic gradiometer")

6 "Magnetometers" (磁動計)

Instruments designed to detect magnetic fields from sources external to the instrument. They consist of a single magnetic field sensing element and associated electronics, the output of which is a measure of the magnetic field.

0 "Materials resistant to corrosion by UF_6" (可抵抗UF_6腐蝕的物料)

Include copper, copper alloys, stainless steel, aluminium, aluminium oxide, aluminium alloys, nickel or alloys containing 60% or more nickel by weight and fluorinated hydrocarbon polymers. *(L.N. 42 of 2017)*

1 2 8 9 "Matrix" (基材)

A substantially continuous phase that fills the space between particles, whiskers or fibres.

2 "Measurement uncertainty" (測量精度誤差)

The characteristic parameter which specifies in what range around the output value the correct value of the measurable variable lies with a confidence level of 95%. It includes the uncorrected systematic deviations, the uncorrected backlash and the random deviations (Reference: ISO 10360-2). *(L.N. 183 of 1999; L.N. 42 of 2017)*

1 "Mechanical alloying" (機械合金法)

An alloying process resulting from the bonding, fracturing and rebonding of elemental and master alloy powders by mechanical impact. Non-metallic particles may be incorporated in the alloy by addition of the appropriate powders.

1 "Melt extraction" (熔態抽取)

A process to 'solidify rapidly' and extract a ribbon-like alloy product by the insertion of a short segment of a rotating chilled block into a bath of a molten metal alloy.

N.B.:

'Solidify rapidly': solidification of molten material at cooling rates exceeding 1 000

K/sec.

1 "Melt spinning" (熔態旋分)

A process to 'solidify rapidly' a molten metal stream impinging upon a rotating chilled block, forming a flake, ribbon or rod-like product.

N.B.:

'Solidify rapidly': solidification of molten material at cooling rates exceeding 1 000 K/sec.

3 "Microcomputer microcircuit" (微電腦微電路)

A "monolithic integrated circuit" or "multichip integrated circuit" containing an arithmetic logic unit (ALU) capable of executing general purpose instructions from an internal storage, on data contained in the internal storage.

Technical Note:

The internal storage may be augmented by an external storage. *(L.N. 132 of 2001)*

1 2 "Microorganisms" (微生物)

Bacteria, viruses, mycoplasms, rickettsiae, chlamydiae or fungi, whether natural, enhanced or modified, either in the form of isolated live cultures or as material including living material which has been deliberately inoculated or contaminated with such cultures.

3 "Microprocessor microcircuit" (微處理器微電路)

A "monolithic integrated circuit" or "multichip integrated circuit" containing an arithmetic logic unit (ALU) capable of executing a series of general purpose instructions from an external storage.

Technical Note:

The "microprocessor microcircuit" normally does not contain integral user-accessible storage, although storage present on-the-chip may be used in performing its logic function.

Note:

This definition includes chip sets which are designed to operate together to provide the function of a "microprocessor microcircuit". *(L.N. 132 of 2001)*

Def. "Microprogramme" (微程式)

A sequence of elementary instructions, maintained in a special storage, the execution of which is initiated by the introduction of its reference instruction into an instruction register.

1 2 3 6 7 9 "Missiles" (導彈) *(L.N. 89 of 2021)*

Complete rocket systems and unmanned aerial vehicle systems, capable of delivering at least 500 kg payload to a range of at least 300 km. *(L.N. 254 of 2008)*

1 "Monofilament" or filament (單絲) 或絲

The smallest increment of fibre, usually several micrometres in diameter.

3 "Monolithic integrated circuit" (單塊集成電路)

A combination of passive or active 'circuit elements' or both which:

(a) Are formed by means of diffusion processes, implantation processes or deposition processes in or on a single semiconducting piece of material, a so-called 'chip';

(b) Can be considered as indivisibly associated; *and*

(c) Perform the function(s) of a circuit.

N.B.:

'Circuit element': a single active or passive functional part of an electronic circuit, such as one diode, one transistor, one resistor, one capacitor, etc.

3 5 "Monolithic Microwave Integrated Circuit" ("MMIC") (單塊微波集成電路)

A "monolithic integrated circuit" that operates at microwave or millimetre wave frequencies. *(L.N. 89 of 2021)*

6 "Monospectral imaging sensors" (單光譜影像感測器)

Capable of acquisition of imaging data from one discrete spectral band.

3 "Multichip integrated circuit" (多晶粒集成電路)

Two or more "monolithic integrated circuits" bonded to a common "substrate".

3 "Multiple channel Analogue-to-Digital Converter (ADC)" (多頻道模擬-數字轉換器)

A device that integrates more than one ADC, designed so that each ADC has a separate analogue input. *(L.N. 89 of 2021)*

6 "Multispectral imaging sensors" (多光譜影像感測器)

Are capable of simultaneous or serial acquisition of imaging data from two or more discrete spectral bands. Sensors having more than twenty discrete spectral bands are sometimes referred to as hyperspectral imaging sensors.

0 "Natural uranium" (天然鈾)

Uranium containing the mixtures of isotopes occurring in nature.

4 "Network access controller" (網絡存取控制器)

A physical interface to a distributed switching network. It uses a common medium which operates throughout at the same "digital transfer rate" using arbitration (e.g. token or carrier sense) for transmission. Independently from any other, it selects data packets or data groups (e.g. IEEE 802) addressed to it. It is an assembly that can be integrated into computer or telecommunications equipment to provide communications access. *(L.N. 183 of 1999; E.R. 6 of 2020)*

4 "Neural computer" (類神經式電腦)

A computational device designed or modified to mimic the behaviour of a neuron or a collection of neurons, i.e. a computational device which is distinguished by its

hardware capability to modulate the weights and numbers of the interconnections of a multiplicity of computational components based on previous data. *(E.R. 6 of 2020)*

0 1
ML9
ML17

"Nuclear reactor" (核反應堆) *(L.N. 89 of 2021)*

A complete reactor capable of operation so as to maintain a controlled self-sustaining fission chain reaction. A "nuclear reactor" includes the items within or attached directly to the reactor vessel, the equipment which controls the level of power in the core, and the components which normally contain, come into direct contact with or control the primary coolant of the reactor core. *(L.N. 183 of 1999; L.N. 89 of 2021)*

2

"Numerical control" (數值控制)

The automatic control of a process performed by a device that makes use of numeric data usually introduced as the operation is in progress (Ref. ISO 2382).

NSN
GSN
Def.

"Object code" (目標碼) *(L.N. 89 of 2021)*

"Object code": An equipment executable form of a convenient expression of one or more processes ("source code" (or source language)) which has been compiled by a programming system. *(L.N. 183 of 1999; L.N. 161 of 2011)*

5

"Operations, Administration or Maintenance" ("OAM") (操作、管理或維修)

Means performing one or more of the following tasks:

(a) Establishing or managing any of the following:

(1) Accounts or privileges of users or administrators;

(2) Settings of an item;

(3) Authentication data in support of the tasks described in subparagraph (1) or (2);

(b) Monitoring or managing the operating condition or performance of an item;

(c) Managing logs or audit data in support of the tasks described in paragraph (a) or (b).

Note:

"OAM" does not include any of the following tasks or their associated key management functions:

(a) Provisioning or upgrading any cryptographic functionality that is not directly related to establishing or managing authentication data in support of the tasks described in paragraph (a)(1) or (2) above;

(b) Performing any cryptographic functionality on the forwarding or data plane of an item. *(L.N. 42 of 2017)*

4

"Optical computer" (光學式電腦)

A computer designed or modified to use light to represent data and whose computational logic elements are based on directly coupled optical devices.

3

"Optical integrated circuit" (光集成電路)

A "monolithic integrated circuit" or a "hybrid integrated circuit", containing one or more parts designed to function as a photosensor or photoemitter or to perform (an)

optical or (an) electro-optical function(s).

5 "Optical switching" (光學式切換功能)

The routing of, or switching of, signals in optical form without conversion to electrical signals.

3 "Overall current density" (總電流密度)

The total number of ampere-turns in the coil (i.e. the sum of the number of turns multiplied by the maximum current carried by each turn) divided by the total cross-section of the coil (comprising the superconducting filaments, the metallic matrix in which the superconducting filaments are embedded, the encapsulating material, any cooling channels, etc.). *(E.R. 6 of 2020)*

0 7 9
ML1
ML4
ML10
ML101
Def. "Participating State" (參與國) *(L.N. 42 of 2017; L.N. 85 of 2023)*

A state participating in the Wassenaar Arrangement.

6 "Peak power" (峰值功率)

The highest power attained in the "pulse duration". *(L.N. 89 of 2013)*

5 "Personal area network" (個人區域網絡)

A data communication system having all of the following characteristics:

(a) Allows an arbitrary number of independent or interconnected 'data devices' to communicate directly with each other;

(b) Is confined to the communication between devices within the immediate physical vicinity of an individual person or device controller (e.g. single room, office, or automobile). *(E.R. 6 of 2020; L.N. 85 of 2023)*

Technical Notes: (L.N. 85 of 2023)

1. 'Data device' means equipment capable of transmitting or receiving sequences of digital information. *(L.N. 89 of 2013; L.N. 85 of 2023)*
2. The "local area network" extends beyond the geographical area of the "personal area network". *(L.N. 85 of 2023)*

1 2 "Plasma atomization" (等離子原子化)

A process to reduce a molten stream or solid metal to droplets with a diameter of 500 μm or less, using plasma torches in an inert gas environment. *(L.N. 42 of 2017)*

7 "Power management" (功率管理)

Changing the transmitted power of the altimeter signal so that received power at the "aircraft" altitude is always at the minimum necessary to determine the altitude.

ML8 "Precursors" (先質)

Specialty chemicals used in the manufacture of explosives. *(L.N. 65 of 2004)*

0 1 “Previously separated” (預先分開)

The application of any process intended to increase the concentration of the controlled isotope.

7 “Primary flight control” (主飛行控制)

An “aircraft” stability or manoeuvering control using force/moment generators, i.e. aerodynamic control surfaces or propulsive thrust vectoring. *(E.R. 6 of 2020)*

4 “Principal element” (主要組成元件)

As applied in Category 4, an element is a “principal element” when its replacement value is more than 35% of the total value of the system of which it is an element. Element value is the price paid for the element by the manufacturer of the system, or by the system integrator. Total value is the normal international selling price to unrelated parties at the point of manufacture or consolidation of shipment. *(L.N. 89 of 2021)*

NTN
GTN
All “Production” (生產) *(L.N. 89 of 2021)*

Means all production stages, such as: product engineering, manufacture, integration, assembly (mounting), inspection, testing, quality assurance.

1 7 9 “Production equipment” (生產裝備)

Tooling, templates, jigs, mandrels, moulds, dies, fixtures, alignment mechanisms, test equipment, other machinery and components therefor, limited to those specially designed or modified for “development” or for one or more phases of “production”. *(L.N. 183 of 1999)*

7 9 “Production facilities” (生產設施)

Equipment and specially designed software therefor integrated into installations for “development” or for one or more phases of “production”.

1 7
Def. “Programme” (程式) *(L.N. 89 of 2021; L.N. 6 of 2025)*

A sequence of instructions to carry out a process in, or convertible into, a form executable by an electronic computer.

ML8
ML18
Def. “Propellants” (推進劑) *(L.N. 85 of 2023)*

Substances or mixtures that react chemically to produce large volumes of hot gases at controlled rates to perform mechanical work. *(L.N. 65 of 2004)*

6 “Pulse compression” (脈衝壓縮)

The coding and processing of a radar signal pulse of long time duration to one of short time duration, while maintaining the benefits of high pulse energy.

6 “Pulse duration” (脈衝持續時間)

Duration of a “laser” pulse is the time between the half-power points on the leading

edge and trailing edge of an individual pulse. *(L.N. 89 of 2013)*

6 "Pulsed laser" (脈衝式雷射器)

A "laser" having a "pulse duration" that is less than or equal to 0.25 seconds. *(L.N. 254 of 2008)*

ML4
ML8 "Pyrotechnics(s)" (煙火劑)

Mixtures of solid or liquid fuels and oxidizers which, when ignited, undergo an energetic chemical reaction at a controlled rate intended to produce specific time delays, or quantities of heat, noise, smoke, visible light or infrared radiation. Pyrophorics are a subclass of pyrotechnics, which contain no oxidizers but ignite spontaneously on contact with air. *(L.N. 42 of 2017)*

5 "Quantum cryptography" (量子密碼技術)

A family of techniques for the establishment of a shared key for "cryptography" by measuring the quantum-mechanical properties of a physical system (including those physical properties explicitly governed by quantum optics, quantum field theory, or quantum electrodynamics). *(L.N. 95 of 2006)*

6 "Radar frequency agility" (雷達頻率跳頻)

Any technique which changes, in a pseudo-random sequence, the carrier frequency of a pulsed radar transmitter between pulses or between groups of pulses by an amount equal to or larger than the pulse bandwidth.

6 "Radar spread spectrum" (雷達擴散頻譜)

Any modulation technique for spreading energy originating from a signal with a relatively narrow frequency band, over a much wider band of frequencies, by using random or pseudo-random coding.

6 "Radiant sensitivity" (輻射靈敏度)

Radiant sensitivity (mA/W) = 0.807 × (wavelength in nm) × Quantum Efficiency (QE)

Technical Note:

QE is usually expressed as a percentage; however, for the purposes of this formula QE is expressed as a decimal number less than one, e.g. 78% is 0.78. *(L.N. 161 of 2011)*

6 "Real time processing" (實時處理) *(L.N. 89 of 2021)*

The processing of data by a computer system providing a required level of service, as a function of available resources, within a guaranteed response time, regardless of the load of the system, when stimulated by an external event.

7 "Repeatability" (重複性)

The closeness of agreement among repeated measurements of the same variable under the same operating conditions when changes in conditions or non-operating periods occur between measurements (Reference: IEEE STD 528-2001 (one sigma

standard deviation)). *(L.N. 254 of 2008)*

GTN 3 5 6 7 9 ML22 "Required" (所需) *(L.N. 89 of 2021; L.N. 85 of 2023)*

As applied to "technology", refers to only that portion of "technology" which is peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics or functions. Such "required" "technology" may be shared by different products.

1 ML7 "Riot control agents" (暴動控制劑) *(L.N. 85 of 2023)*

Substances which, under the expected conditions of use for riot control purposes, produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure. (Tear gases are a subset of "riot control agents".) *(L.N. 95 of 2006)*

2 8 ML17 "Robot" (機械人)

A manipulation mechanism, which may be of the continuous path or of the point-to-point variety, may use sensors, and has all of the following characteristics: *(L.N. 85 of 2023)*

(a) Is multifunctional;

(b) Is capable of positioning or orienting material, parts, tools or special devices through variable movements in three dimensional space;

(c) Incorporates three or more closed or open loop servo-devices which may include stepping motors; *and*

(d) Has "user accessible programmability" by means of the teach/playback method or by means of an electronic computer which may be a programmable logic controller, i.e. without mechanical intervention. *(E.R. 6 of 2020; L.N. 85 of 2023)*

Note: (L.N. 132 of 2001)

The above definition does not include the following devices:

(1) Manipulation mechanisms which are only manually/teleoperator controllable;

(2) Fixed sequence manipulation mechanisms, which are automated moving devices, operating according to mechanically fixed programmed motions. The programme is mechanically limited by fixed stops, such as pins or cams. The sequence of motions and the selection of paths or angles are not variable or changeable by mechanical, electronic or electrical means;

(3) Mechanically controlled variable sequence manipulation mechanisms, which are automated moving devices, operating according to mechanically fixed programmed motions. The programme is mechanically limited by fixed, but adjustable stops, such as pins or cams. The sequence of motions and the selection of paths or angles are variable within the fixed programmes pattern. Variations or modifications of the programme pattern (e.g. changes of pins or exchanges of cams) in one or more motion axes are accomplished only through mechanical operations;

(4) Non-servo-controlled variable sequence manipulation mechanisms, which are automated moving devices, operating according to mechanically fixed programmed motions. The programme is variable but the sequence proceeds only by the binary signal from mechanically fixed electrical binary devices or

adjustable stops;

(5) Stacker cranes defined as Cartesian coordinate manipulator systems manufactured as an integral part of a vertical array of storage bins and designed to access the contents of those bins for storage or retrieval.

1 "Rotary atomization" (旋轉霧化) *(L.N. 65 of 2004)*

A process to reduce a stream or pool of molten metal to droplets to a diameter of 500 μm or less by centrifugal force.

1 "Roving" (絞線)

A bundle (typically 12－120) of approximately parallel 'strands'.

N.B.:

'Strand' is a bundle of "monofilaments" (typically over 200) arranged approximately parallel.

2 "Run out" (out-of-true running) (位置偏擺)

Radial displacement in one revolution of the main spindle measured in a plane perpendicular to the spindle axis at a point on the external or internal revolving surface to be tested (Reference: ISO 230/1－1986, paragraph 5.61).

3 "Sample Rate" (樣本率)

For an Analogue-to-Digital Converter (ADC), the maximum number of samples that are measured at the analogue input over a period of 1 second, except for oversampling ADCs. For oversampling ADCs, the "sample rate" is taken to be its output word rate. "Sample rate" may also be referred to as sampling rate, usually specified in Mega Samples Per Second (MSPS) or Giga Samples Per Second (GSPS), or conversion rate, usually specified in Hertz (Hz). *(L.N. 89 of 2021)*

5
7
ML11 "Satellite navigation system" (衞星導航系統) *(L.N. 85 of 2023)*

A system consisting of ground stations, a constellation of satellites, and receivers, that enables receiver locations to be calculated on the basis of signals received from the satellites. It includes Global Navigation Satellite Systems (GNSS) and Regional Navigation Satellite Systems (RNSS). *(L.N. 89 of 2021)*

7 "Scale factor" (gyro or accelerometer) (尺度因素) (陀螺儀或加速度計)

The ratio of change in output to a change in the input intended to be measured. Scale factor is generally evaluated as the slope of the straight line that can be fitted by the method of least squares to input-output data obtained by varying the input cyclically over the input range.

6 "SHPL"— see "Super High Power Laser"

3 "Signal analysers" (訊號分析器)

Apparatus capable of measuring and displaying basic properties of the single-frequency components of multi-frequency signals.

3 4 5 6 “Signal processing” (訊號處理)

The processing of externally derived information-bearing signals by algorithms such as time compression, filtering, extraction, selection, correlation, convolution or transformations between domains (e.g. fast Fourier transform or Walsh transform). *(L.N. 132 of 2001; E.R. 6 of 2020)*

NSN
GSN
GISN
All “Software” (軟件) *(L.N. 89 of 2021)*

A collection of one or more “programmes” or “microprogrammes” fixed in any tangible medium of expression. *(L.N. 183 of 1999)*

4 6
7 9 “Source code” (or source language) (原始碼) (或原始語言) *(L.N. 226 of 2009)*

A convenient expression of one or more processes which may be turned by a programming system into equipment executable form (“object code” (or object language)).

9
ML11 “Spacecraft” (太空船) *(L.N. 42 of 2017)*

Active and passive satellites and space probes.

9 “Spacecraft bus” (太空船本體)

Equipment that provides support infrastructure for a “spacecraft” and locations for a “spacecraft payload”. *(L.N. 42 of 2017)*

9 “Spacecraft payload” (太空船有效負載)

Equipment attached to a “spacecraft bus”, designed to perform a mission in space (e.g. communications, observation, science). *(L.N. 42 of 2017)*

3 6 7
ML19 “Space-qualified” (太空級) *(L.N. 42 of 2017)*

Designed, manufactured, or qualified through successful testing, for operation at altitudes greater than 100 km above the surface of the Earth.

Note:

A determination that a specific item is “space-qualified” by virtue of testing does not mean that other items in the same production run or model series are “space-qualified” if not individually tested. *(L.N. 89 of 2013)*

0 “Special fissile material” (特別可裂變物料)

Plutonium-239, uranium-233, uranium enriched in the isotopes 235 or 233, and any material containing the foregoing.

0 1 9 “Specific modulus” (比模數) *(L.N. 89 of 2021)*

Young’s modulus in pascals, equivalent to N/m^2 divided by specific weight in N/m^3, measured at a temperature of (296 ± 2)K ((23 ± 2)°C) and a relative humidity of (50 ± 5)%. *(L.N. 226 of 2009)*

0 1 9 “Specific tensile strength” (比抗拉強度) *(L.N. 89 of 2021)*

Ultimate tensile strength in pascals, equivalent to N/m^2 divided by specific weight in

N/m^3, measured at a temperature of (296 ± 2) K ((23 ± 2)°C) and a relative humidity of (50 ± 5)%. *(L.N. 226 of 2009)*

7 "Spinning mass gyros" (旋轉物體陀螺儀)

Means gyros that use a continually rotating mass to sense angular motion. *(L.N. 42 of 2017)*

1 "Splat quenching" (噴濺急冷)

A process to 'solidify rapidly' a molten metal stream impinging upon a chilled block, forming a flake-like product.

N.B.:

'Solidify rapidly': solidification of molten material at cooling rates exceeding 1 000 K/sec.

5 "Spread spectrum" (展頻)

The technique whereby energy in a relatively narrow-band communication channel is spread over a much wider energy spectrum. *(L.N. 183 of 1999)*

6 "Spread spectrum" radar (展頻) 雷達—see "Radar spread spectrum"

7 "Stability" (穩定度)

Standard deviation (1 sigma) of the variation of a particular parameter from its calibrated value measured under stable temperature conditions. This can be expressed as a function of time.

9 "Steady State Mode" (穩定狀態模式)

Engine operation conditions, where the engine parameters, such as thrust/power, rpm and others, have no appreciable fluctuations, when the ambient air temperature and pressure at the engine inlet are constant. *(L.N. 89 of 2021)*

9 "Sub-orbital craft" (次軌道太空船)

A craft having an enclosure designed for the transport of people or cargo which is designed to:

(a) Operate above the stratosphere;

(b) Perform a non-orbital trajectory; *and*

(c) Land back on Earth with the people or cargo intact. *(L.N. 85 of 2023)*

3 "Substrate" (基片)

A sheet of base material with or without an interconnection pattern and on which or within which 'discrete components' or integrated circuits or both can be located.

N.B.:

'Discrete component': a separately packaged "circuit element" with its own external connections.

3 6 “Substrate blanks” (基板)

Monolithic compounds with dimensions suitable for the production of optical elements such as mirrors or optical windows. *(L.N. 89 of 2013)*

1 “Sub-unit of toxin” (毒素子單位)

A structurally and functionally discrete component of a whole “toxin”.

6 “Super High Power Laser” (“SHPL”) (超高功率雷射器)

A “laser” capable of delivering (the total or any portion of) an output energy exceeding 1 kJ within 50 ms or having an average or CW power exceeding 20 kW.

2 9 “Superalloys” (超合金)

Nickel-, cobalt- or iron-base alloys having a stress rupture life greater than 1 000 hours at 400 MPa and an ultimate tensile strength greater than 850 MPa, at 922 K (649°C) or higher. *(L.N. 85 of 2023)*

1 3 5 6 8 ML20 Def. “Superconductive” (超導體) *(L.N. 89 of 2021)*

Refers to materials, i.e. metals, alloys or compounds, which can lose all electrical resistance, i.e. which can attain infinite electrical conductivity and carry very large electrical currents without Joule heating. *(E.R. 6 of 2020)*

Technical Note: (L.N. 132 of 2001)

The “superconductive” state of a material is individually characterized by a “critical temperature”, a critical magnetic field, which is a function of temperature, and a critical current density which is, however, a function of both magnetic field and temperature.

1 2 “Superplastic forming” (超塑性成形)

A deformation process using heat for metals that are normally characterised by low values of elongation (less than 20%) at the breaking point as determined at room temperature by conventional tensile strength testing, in order to achieve elongations during processing which are at least 2 times those values.

5 “Symmetric algorithm” (對稱演算法) *(L.N. 89 of 2021)*

A cryptographic algorithm using an identical key for both encryption and decryption.

Technical Note: (L.N. 132 of 2001)

A common use of “symmetric algorithms” is confidentiality of data. *(L.N. 183 of 1999)*

4 “Systolic array computer” (心臟收縮陣列電腦)

A computer where the flow and modification of the data is dynamically controllable at the logic gate level by the user.

1 “Tape” (帶狀)

A material constructed of interlaced or unidirectional “monofilaments”, ‘strands’, “rovings”, “tows”, or “yarns”, etc., usually preimpregnated with resin.

N.B.:

'Strand' is a bundle of "monofilaments" (typically over 200) arranged approximately parallel.

GTN
NTN
All

"Technology" (技術)

Specific information necessary for the "development", "production" or "use" of a product. The information takes the form of 'technical data' or 'technical assistance'. Controlled "technology" for the Dual-Use Goods List is defined in the General Technology Note and in the Dual-Use Goods List. Controlled "technology" for the Munitions List is specified in ML22. *(L.N. 95 of 2006)*

Technical Notes: (L.N. 132 of 2001)

1. 'Technical data' may take forms such as blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape, read-only memories.
2. 'Technical assistance' may take forms such as instruction, skills, training, working knowledge, consulting services. 'Technical assistance' may involve transfer of 'technical data'.

3

"Three dimensional integrated circuit" (三維集成電路)

A collection of semiconductor dies or active device layers, integrated together, and having through semiconductor via connections passing completely through an interposer, substrate, die or layer to establish interconnections between the device layers. An interposer is an interface that enables electrical connections. *(L.N. 27 of 2015; L.N. 89 of 2021)*

2

"Tilting spindle" (傾斜主軸)

A tool-holding spindle which alters, during the machining process, the angular position of its centre line with respect to any other axis.

6

"Time constant" (時間常數)

The time taken from the application of a light stimulus for the current increment to reach a value of 1-1/e times the final value (i.e. 63% of the final value).

9

"Tip shroud" (葉尖覆環)

A stationary ring component (solid or segmented) attached to the inner surface of the engine turbine casing or a feature at the outer tip of the turbine blade, which primarily provides a gas seal between the stationary and rotating components. *(L.N. 161 of 2011)*

7

"Total control of flight" (飛行全控)

An automated control of "aircraft" state variables and flight path to meet mission objectives responding to real time changes in data regarding objectives, hazards or other "aircraft".

5

"Total digital transfer rate" (總數字傳送率)

The number of bits, including line coding, overhead and so forth per unit time passing

between corresponding equipment in a digital transmission system. (See also "digital transfer rate")

1 "Tow" (纖束)

A bundle of "monofilaments", usually approximately parallel.

1 2 "Toxins" (毒素)

Toxins in the form of deliberately isolated preparations or mixtures, no matter how produced, other than toxins present as contaminants of other materials such as pathological specimens, crops, foodstuffs or seed stocks of "microorganisms".

6 "Transfer laser" (傳送雷射器)

A "laser" in which the lasing species is excited through the transfer of energy by collision of a non-lasing atom or molecule with a lasing atom or molecule species.

6 "Tunable" (可調式)

The ability of a "laser" to produce a continuous output at all wavelengths over a range of several "laser" transitions. A line selectable "laser" produces discrete wavelengths within one "laser" transition and is not considered "tunable".

2 "Unidirectional positioning repeatability" (單向定位重複性)

The smaller of values R ↑ (forward) and R ↓ (backward) of an individual machine tool axis, as defined by paragraph 3.21 of ISO 230/2 (2014) or national equivalents. *(L.N. 42 of 2017)*

1 5 6 7 9 ML10 "Unmanned aerial vehicles" ("UAVs") (無人駕駛飛行載具) *(L.N. 89 of 2021)*

Any "aircraft" capable of initiating flight and substaining controlled flight and navigation without any human presence on board. *(L.N. 89 of 2013)*

0 "Uranium enriched in the isotopes 235 or 233" (濃縮同位素235 或 233的鈾)

Uranium containing the isotopes 235 or 233, or both, in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is more than the ratio of the isotope 235 to the isotope 238 occurring in nature (isotopic ratio 0.71%). *(L.N. 161 of 2011; L.N. 89 of 2021)*

GTN NTN All "Use" (使用)

Operation, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing.

6 Def. "User accessible programmability" (由使用者進行程式更改) *(L.N. 89 of 2021; L.N. 85 of 2023)*

The facility allowing a user to insert, modify or replace "programmes" by means other than:

(a) A physical change in wiring or interconnections; *or*

(b) The setting of function controls including entry of parameters.

1 "Vaccine" (預防疫苗)

A medicinal product in a pharmaceutical formulation licensed by, or having marketing or clinical trial authorization from, the regulatory authorities of either the country of manufacture or of use, which is intended to stimulate a protective immunological response in humans or animals in order to prevent disease in those to whom or to which it is administered. *(L.N. 89 of 2021)*

1 "Vacuum atomization" (真空霧化) *(L.N. 65 of 2004)*

A process to reduce a molten stream of metal to droplets of a diameter of 500μm or less by the rapid evolution of a dissolved gas upon exposure to a vacuum.

3 "Vacuum electronic devices" (真空電子裝置)

Electronic devices based on the interaction of an electron beam with an electromagnetic wave propagating in a vacuum circuit or interacting with radio-frequency vacuum cavity resonators. "Vacuum electronic devices" include klystrons, travelling-wave tubes, and their derivatives. *(L.N. 89 of 2021)*

4 "Vulnerability disclosure" (漏洞披露)
ML21

The process of identifying, reporting or communicating a vulnerability to, or analysing a vulnerability with, individuals or organizations responsible for conducting or coordinating remediation for the purposes of resolving the vulnerability. *(L.N. 85 of 2023; L.N. 6 of 2025)*

1 "Yarn" (紗線)

A bundle of twisted 'strands'.

N.B.:

'Strand' is a bundle of "monofilaments" (typically over 200) arranged approximately parallel.

(E.R. 6 of 2020)

(Schedule 1 replaced L.N. 247 of 1997. L.N. 183 of 1999; L.N. 132 of 2001; L.N. 65 of 2004; L.N. 95 of 2006; L.N. 254 of 2008; L.N. 226 of 2009; L.N. 161 of 2011; E.R. 2 of 2012; L.N. 89 of 2013; L.N. 42 of 2017; L.N. 89 of 2021; L.N. 85 of 2023; L.N. 6 of 2025)

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