

Summary of 2025 amendments to Annex I to Regulation (EU) 2021/821

OVERVIEW

The amendments reflect decisions and commitments by Member States taken within the framework of the multilateral export control regimes and export control arrangements Wassenaar Arrangement (WA), Missile Technology Control Regime (MTCR), Australia Group (AG) and Nuclear Suppliers Group (NSG). There are also a number of editorial amendments.

Publically available Regime documents containing the changes are:

MTCR – Equipment, Software and Technology Annex dated 14 March 2024 (MTCR/TEM/2024/Annex).

NSG – Guidelines for Transfer of Nuclear-Related Dual-Use Equipment, Materials, Software and Related Technology (INFCIRC/254/Part 2), July 2024.

WA – List of Dual-Use Goods and Technologies and Munitions List (WA-LIST (24) 1) dated 05 December 2024.

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SUMMARY OF CHANGES FOR EACH SECTION OF ANNEX I:

Bracketed terms mean the definition, Note or control entry has completely disappeared from Annex.

General Notes	Comment
	No amendments to the General Notes

Table of Abbreviations	Comment
AIP	Abbreviation deleted
FPLD	New Abbreviation
HBT	«Hetero-Bipolar Transistors» replaced by «Heterojunction Bipolar Transistors»
IEC	Editorial change
IFOV	Editorial change
LUT	New Abbreviation
PMAC	New Abbreviation

Definitions	
"Accuracy"	Reference to Category 8 deleted
"Active pixel"	Editorial change
"Angle random walk"	Editorial change
"Basic gate propagation delay time"	Global Definition deleted and replaced by a Local Definition
"Bias" (accelerometer)	Editorial change
"Bias" (gyro)	Editorial change
"Camming"	Global Definition deleted and replaced by a Local Definition
"Charge multiplication"	Editorial change
"Chemical laser"	Global Definition deleted and replaced by a Local Definition
"Communications channel controller"	Global Definition deleted and replaced by a Local Definition
"Contouring control"	Editorial change
"Data device"	New Global Definition replaces Local Definition
"Diffusion bonding"	Editorial change
"Drift rate"	Editorial change
"EUV"	New Global Definition replaces Local Definition
"Film type integrated circuit"	Global Definition deleted and replaced by a Local Definition
"Gate-All-Around Field Effect Transistor"	Editorial change
"Guidance set"	Classification amended
"Laser" N.B.	«Chemical laser» and «Pulsed laser» deleted

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"Local area network"	Editorial change (Linking «data devices» to Global Definition instead of Local Definition)
"Maintenance Level I"	New Global Definition replaces Local Definition
"Maintenance Level II"	New Global Definition replaces Local Definition
"Monolithic integrated circuit"	Editorial change (Link to Local Definition for «chip» deleted)
"Non-repetitive pulsed"	New Global Definition replaces Local Definition
"Network access controller"	Global Definition deleted and replaced by a Local Definition
"Numerical control"	Editorial change
"Optical switching"	Global Definition deleted and replaced by a Local Definition
"Overall current density"	Global Definition deleted and replaced by a Local Definition
"Personal area network"	Editorial change (Linking «data devices» to Global Definition instead of Local Definition)
"Program"	Reference to Category 1 added.
"Pulsed laser"	Global Definition deleted and replaced by a Local Definition
"Radar frequency agility"	Global Definition deleted and replaced by a Local Definition
"Refractory metals and alloys"	New Global Definition replaces Local Definition
"Repeatability"	Editorial change
"Run-out"	Global Definition deleted and replaced by a Local Definition
"Satellite"	New Global Definition
"Satellite navigation system"	Editorial change (Linking «satellites» to Global Definition)
"Spacecraft"	Definition text revised and reference to Category 5 added.
"Spacecraft bus"	«Payload» replaced by «mission equipment»
"Spacecraft mission equipment"	«Payload» replaced by «mission equipment» and explanation of definition reworked.
"Space probe"	New Global Definition
"Space vehicle"	New Global Definition
"Strong mechanical bond"	New Global Definition replaces Local Definition
"Sub-orbital craft"	«Perform» replaced by «Only perform» and «trajectory» replaced by «trajectories»
"Symmetric algorithm"	Global Definition deleted and replaced by a Local Definition
"Technology"	«Algorithms» added to Local Definition of «technical data»
"Three dimensional integrated circuit"	Global Definition deleted and replaced by a Local Definition
"Wall-plug efficiency"	New Global Definition replaces Local Definition

Category 0	
	No amendments to Category 0

Category 1	
1A008 & a.	Editorial change (Technical Note moved from the end of entry 1A008 to 1A008.a.)

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1B001 <i>Tech. Notes</i>	«The position» replaced by «is the positioning» in Technical Note 1 and editorial change.
1C002.c.1.a <i>Note</i>	New Note added to highlight control of nickel alloys for «aero, aero-derivative, industrial or marine gas turbine engines».
1C002.c.2.i	New entry: «Ultrasonic atomisation» added to list of processes.
1C002 <i>Tech. Notes 10&11</i>	New Local Definition for «ultrasonic atomisation» added as Technical Note 10; Local Definition for «solidify rapidly» renumbered as Technical Note 11.
1C005.b. 1. & 2.	Editorial change (Temperature conversion from K to °C updated)
1C005.c.	Editorial change (Temperature conversion from K to °C updated)
1C011 <i>N.B.</i>	Editorial change
1C116 <i>Tech. Note 1</i>	Carbon content of maraging steels specified from «very low» to «less than or equal to 0,03% by weight» and editorial changes.
1C351.d. & <i>Note</i>	«Botulinum toxins» replaced by «Botulinum neurotoxins»
1C513	New entry for «high entropy alloy or refractory metal and alloy powders».

Category 2	
2B Tech. Note 3 & 6	Editorial change
2B001.b.4.	Global Definitions replaced by Local Definitions for «run-out» and «camming».
2B002.d.1. & 2.	Editorial changes (Linking «Magnetorheological finishing» and «Electrorheological finishing» to Local Definition)
2B352.c.	Restructure of the 2B352.c. and addition of a new subentry for «single-use centrifugal separators».
2B352.j.	New entry j. for «peptide synthesizers» including new Local Definition for «system synthesis scale» & new N.B.
2B510	New entry for «additive manufacturing equipment».
2D002 <i>Note 2</i>	Editorial change
2E001 <i>Note</i>	Editorial change (Addition of Abbreviation «CMM»)
2E503.g.	New entry for «technology for the development or production of coating systems».
TABLE - DEPOSITION TECHNIQUES	Local Definition for «refractory metals and alloys» replaced by Global Definition. Cross-reference to TABLE - DEPOSITION TECHNIQUES - NOTES <i>Note 8</i> deleted.
TABLE - DEPOSITION TECHNIQUES - NOTES <i>Note 8</i>	Local Definition for «refractory metals and alloys» deleted and replaced by Global Definition.

Category 3	
3A <i>Note 1</i>	Addition of new entries to <i>Note 1</i> .
3A001.a. <i>Note</i>	Global Definitions replaced by Local Definitions for «film type integrated circuit» and «three dimensional integrated circuit».
3A001.a.2. <i>N.B.</i>	Addition of a new N.B.

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3A001.a.2., 5.a. <i>N.B.</i> , 5.b. & 7. <i>N.B.</i>	Editorial change («Analogue to Digital Converter» and «Digital to Analogue Converter» replaced by Abbreviations «ADC» and «DAC» after first usage)
3A001.a.7. <i>N.B.</i>	Addition of a new N.B.
3A001.a.9. <i>N.B.</i>	Addition of a new N.B.
3A001.a.10.b.	Global Definition replaced by Local Definition for «basic gate propagation delay time».
3A001.a.14. <i>N.B. 1</i>	Editorial change («Analogue to Digital Converter» replaced by Abbreviation «ADC»)
3A001.b.3. <i>Note 1</i>	Editorial change («through» replaced by «to»)
3A001.e.3.c.	Global Definition replaced by Local Definition for «overall current density».
3A002.a.7.	Update of technical specifications for real-time oscilloscopes. New Local Definitions for «upper 3dB frequency» and «movable bandwidth window».
3A501.a.15.	New entry for «Complementary Metal Oxide Semiconductor (CMOS) integrated circuits».
3A501.a.16.	New entry for «integrated circuits».
3A501.b.13.	New entry for «parametric signal amplifiers».
3A502.i.	New entry for «"Electronic assemblies", modules or equipment, containing one or more 'user configurable' Field Programmable Logic Devices».
3A504	New entry for «Cryogenic cooling systems and components».
3B001.a. <i>N.B.</i>	Addition of a new N.B.
3B001.f.1. <i>N.B.</i>	Addition of a new N.B.
3B001.g.	Addition of new entries.
3B001.g. <i>N.B.</i>	Addition of new N.B.
3B001.i.	Addition of new entries
3B001.j.1.	Local Definition for «Extreme Ultraviolet (EUV)» deleted and replaced by Global Definition.
3B501.a.4.	New entry for «Equipment designed for epitaxial growth of silicon (Si) or silicon germanium (SiGe)».
3B501.f.	New Entry for «Lithography equipment».
3B501.k.	New Entry for «Equipment designed for dry etching».
3B501.l.	New Entry for «"Extreme Ultraviolet" ("EUV") masks and "EUV" reticles ».
3B501.m.	New Entry for «Pellicles' specially designed for "EUV" lithography».
3B501.n.	New Entry for «Semiconductor manufacturing deposition equipment».
3B503	New Entry for «Scanning Electron Microscope (SEM) equipment».
3B504	New Entry for «Cryogenic wafer probing equipment».
3C001	Addition of cross reference to 3C507
3C005 <i>N.B.</i>	Addition of a new N.B.
3C507	New Entry for «Epitaxial materials».
3C508	New Entry for «Fluorides, hydrides, or chlorides, of silicon or germanium».
3C509	New Entry for «Silicon, silicon oxides, germanium or germanium oxides».
3D001	Addition of a new entry.

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3D002	Addition of new entries.
3D507	New Entry for «"Software" designed to extract 'GDSII' or equivalent standard layout data».
3E & 3E001 Note 3	3E001 Note 3 moved to Note in 3E
3E003.b. & Note	«Hetero bipolar transistors» replaced by «heterojunction bipolar transistors» and editorial changes.
3E505	New Entry for «"Technology" [...]for the "development" or "production" of integrated circuits or devices, using "Gate-All-Around Field-Effect Transistor" ("GAAFET") structures ».

Category 4	
4A003.g. Note	Global Definitions replaced by Local Definitions for «network access controllers» and «communications channel controllers».
4A506	New entry for «quantum computers».
4A507	New entry for «computers, electronic assemblies, and components containing one or more integrated circuits specified by 3A501a16».
4D001.b.3.	New entry for «software for the development or production of items specified by 4A506.b. or 4A506.c.»
4E001.b.3.	New entry for «technology for the development or production of items specified by 4A506.b. or 4A506.c.»

Category 5 Part 1	
5A001.a. Note 2	«Satellites» replaced by «Spacecraft».
5A001.b.3.b. Note b.	Editorial change (Linking «satellite» to Global Definition)
5A001.d. Note 2c	Editorial change (Linking «satellite» to Global Definition)
5E001.b.1.	«Satellites» replaced by «Spacecraft».
5E001.c.3.	Global Definition replaced by Local Definition for «optical switching».
Category 5 Part 2	
5A002.a.2.a. Tech note 2.a.	Global Definition replaced by Local Definition for «symmetric algorithm».

Category 6	
6A001.a.1.a. & a.1.a.1.	Editorial changes (Technical Note moved from 6A001.a.1.a.1. to 6A001.a.1.a.)
6A002.a.3.g.2.	Local Definition for «charge multiplication» deleted and replaced by Global Definition.
6A002.b.1.	Editorial change
6A002.c.3.	Editorial change
6A002.f. Tech. Note	Editorial change (Abbreviation «("FPA")» deleted)

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6A003.b.1. & 1.a.1. to 3.	Editorial change
6A003.b.1.a.1. to 3.	Editorial changes
6A003.b.4. Note 3 & Note 3.b.1.	Editorial change (Technical Note for «Instantaneous Field of View» moved from 6A003.b.4. Note 3 to 6A003.b.4. Note 3.b.1.)
6A003.b.4. & Note 3	Editorial change (Technical Note for «direct view» moved from 6A003.b.4. Note 3 to the end of entry 6A003.b.4.)
6A004.a.1. <i>Tech. Note</i>	Editorial change
6A005	Local Definition for «wall plug efficiency» deleted and replaced by Global Definition.
6A005 Note 2:	Local Definition for «non repetitive pulsed» deleted and replaced by Global Definition.
6A005 <i>Tech. Note</i>	Editorial changes (Note 6 switched into a Technical Note and M ² -factor specified as «equal to or greater than 1,3» instead of «of 1,3 or higher»).
6A005.a.6.b.1.	Editorial change (Linking «wall plug efficiency» to Global Definition instead of Local Definition)
6A005.b.	Global Definition replaced by Local Definition for «pulsed laser».
6A005.b.6.c.1.c	Editorial changes (Linking «wall plug efficiency» to Global Definition instead of Local Definition)
6A005.b.6.c.2.b.	Editorial changes (Linking «wall plug efficiency» to Global Definition instead of Local Definition)
6A005.b.6.d.1.b	Editorial changes (Linking «wall plug efficiency» to Global Definition instead of Local Definition)
6A005.b.6.d.2.b.	Editorial changes (Linking «wall plug efficiency» to Global Definition instead of Local Definition)
6A005.d.1. & 1.e.	Editorial change (Technical Notes moved from 6A005.d.1.e. to 6A005.d.1.)
6A005.d.1.a.1. & 2.	Editorial change
6A005.d.1.b.1. to 5.	Update of technical parameters for laser diode output power including addition of 2 new sub-entries.
6A005.d.1.c.1. to 3.	Editorial changes
6A005.d.5.	Global Definition replaced by Local Definition for «Chemical lasers».
6A005.d.6.	Local Definition for «non-repetitive pulsed» deleted and replaced by Global Definition.
6A008 <i>Tech. Notes</i>	Editorial change
6A008.h.2.	Global Definition replaced by Local Definition for «radar frequency agility».
6A203.c.	Editorial change
6A225 <i>Note</i>	Addition of «Microwave velocity interferometers including optic-microwave mixing velocimeters» to the Note.

Category 7	
7A003 <i>Tech. Notes</i>	Editorial change
7A008 <i>N.B.</i>	Editorial changes
7B001 <i>Note</i>	Local Definitions for «Maintenance Level I» and «Maintenance Level II» deleted and replaced by Global Definitions.

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<i>7E003 Note</i>	Editorial Change (Linking «Maintenance Level I» and «Maintenance Level II» to Global Definition instead of Local Definitions)
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Category 8	
<i>8A001.b. Tech. Note 2</i>	Reference changed from «8A001.b.» to «8A001.b.3.b.».
<i>8A001.c.1.a. to c.</i>	Technical parameter «Wireless optical data or command link exceeding 1 000 m» deleted and resulting editorial changes.
<i>8A002.a.2. & Tech. Note</i>	Control text reworked to account for «Permanent Magnet Alternating Current (PMAC) motors or thrusters».
<i>8A002.b.</i>	Addition of a Local Definition for «automated control»
<i>8A002.d.2.b.</i>	Editorial change (Linking «laser» to Global Definition)

Category 9	
<i>9A004</i>	«Payloads» replaced by «mission equipment»
<i>9A004.b. N.B.</i>	Addition of a new N.B.
<i>9A004.d.</i>	«Payloads» replaced by «mission equipment»
<i>9A004.e.1. to 3.</i>	Local Definitions for «Command and telemetry data handling», «Payload data handling» and «attitude and orbit control» deleted. In Note 9A004.e.2.: «payload data» replaced by «"spacecraft mission equipment" data».
<i>9A007.e.</i>	Local Definition for «strong mechanical bond» deleted and replaced by Global Definition.
<i>9A008.a.</i>	Local Definition for «strong mechanical bond» deleted and replaced by Global Definition.
<i>9A012.a. Tech. Notes</i>	Editorial change
<i>9B Note</i>	Addition of a new Note
<i>9B003</i>	«Gas turbine brush seals» replaced by «gas turbine engine brush seals»
<i>9B004</i>	«Gas turbine» replaced by «gas turbine engine» and editorial change.
<i>9D005 N.B.</i>	Editorial changes: «listed» replaced by «specified» and «spacecraft payloads» replaced by «spacecraft mission equipment»
<i>9D101</i>	Addition of «software for the use of goods specified in 9B107».
<i>9E003</i>	Addition of a Note.
<i>9E003.a. N.B.</i>	Editorial change
<i>9E003.a.1.</i>	«Gas turbine blades» replaced by «turbine blades».
<i>9E003.a.2.e.</i>	Editorial change: «Utilising» deleted
<i>9E003.a.2. Tech. Note 2</i>	Addition of «9E003.a.2.a.» to Technical Note 2.
<i>9E003.a.2.e. & a.2. Tech. Note 3</i>	Editorial change (Local Definition for «pressure gain combustion» moved from 9E003.a.2.e. to 9E003.a.2.)
<i>9E003.a.5. Tech. Note</i>	Addition of «9E003.a.4.» to the Technical Note.
<i>9E003.a.6.</i>	Editorial change
<i>9E003.a.8.</i>	Editorial change: «gas turbine engine» deleted.

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9E003.c. <i>Tech. Notes</i>	Editorial changes
9E003.e. <i>Tech. Note</i>	Editorial change: «widest» replaced by «largest»
9E003.i.	Editorial change: Addition of «gas turbine engine»
9E003.k. <i>N.B. 1 & 2</i>	Editorial change
9E102	Addition of «technology for the use of goods specified in 9B107».

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