Revisions/Additions to:
Advanced Computing & SME Rule

December 9, 2024

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Important Dates

- **Effective date**: December 2, 2024 (Upon filing for public inspection at the OFR)
  - Red Flags, License Exceptions, TGLs
- **Publication date**: December 5, 2024
  - 89 FR 96790, FN5/SME/HBM IFR (RIN: 0694-AJ74)
  - 89 FR 96830, Entity List final rule (RIN: 0694-AJ77)
- **Public Comments due**: January 31, 2025 (for IFR)
  - https://www.regulations.gov/document/BIS-2024-0028-0001
- **Savings Clause**: must be completed no later than February 3, 2025 (except no savings clause for FN5 entities) for shipments en route aboard a carrier to a port of export, reexport, or transfer (in-country), on January 6, 2025

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Delayed Compliance

- **Dec. 2, 2024, No Delayed Compliance date:**
  - For entities that **do not have** a Footnote 5 designation.
  - For the 16 entities that have a Footnote 5 designation, **and** the item is **NOT** subject EAR pursuant to § 734.4(a)(9) or § 734.9(e), i.e., all other items subject to the EAR.
- **Dec. 31, 2024, Compliance date**:
  - For the 16 entities that have a Footnote 5 designation, **and** the item is subject to the EAR pursuant to § 734.4(a)(9) or § 734.9(e)

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What’s New?

- Controls on 24 new types of tools and revisions to Existing Cat. 3 Export Control Classification Numbers (ECCNs)
- Two Foreign Direct Product rules and related de mininis rules:
  - FN5 FDP for fabs of concern
  - SME FDP for Macau and D:5 Countries
  - Concept of “contains”
- High Bandwidth Memory controls
- New Dynamic random-access memory (DRAM) integrated circuit parameters
- National Security and Regional Stability Controls
- New Country List – Supp. No. 4 to part 742
- § 740.25 License Exception High Bandwidth Memory (HBM) [AES C71]
- § 740.26 License Exception Restricted Fabrication “Facility” (RFF) [AES C72]
- TGL Revisions [AES C65]
- Eight new Red Flags
- Software key access clarification

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Entity List Rule

- Adds 140 entities under China, People’s Republic of (China), Japan, South Korea, and Singapore
- Modifies 14 existing entries under China
- 16 of these entities will have a footnote 5 designation
- Removes three entities from the Validated End-User (VEU) Program
- These entities are connected to SME/Adv compute and China’s military civil fusion

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Revisions to CCL

Revised ECCN	Change
3A090	Added 3A090.c to control high bandwidth memory
3B001	Commodities moved from 3B001.c1.b, d.14, d.16, f.1.b.2.b, o.1, o.2, p.1, p.3 to corresponding paragraphs in 3B993
3B002	Removed 3B002.b from certain license requirements and LVS exclusion; and Added ECCN 3B993 to the related controls
3B991/3B992	Added ECCNs 3B993 and 3B994 to the Headings pertaining to the equipment not controlled by ECCNs 3B991 or 3B992
3D001/3E001	Software/Technology for 3B001.a.4, c, d, f.1, f.5, k to n, p.2, p.4, r, 3B002.c moved to 3D992 and 3E992
3D002	Heading revised to sync with WA List

Relocations

New ECCN	Where the items came from
3B993, 3D993, 3E993	Commodities moved from 3B001.c1.b, d.14, d.16, f.1.b.2.b, o.1, o.2, p.1, p.3 to corresponding paragraphs in 3B993
3B994, 3D994, 3E994	Created/moved some commodities from 3B991 and 3B992 to 3B994, and associated technology/software controls added to 3D994 and 3E994.
3D992, 3E992	3D001/3E001(for 3B001.a.4, c, d, f.1, f.5, k to n, p.2, p.4, r, 3B002.c)

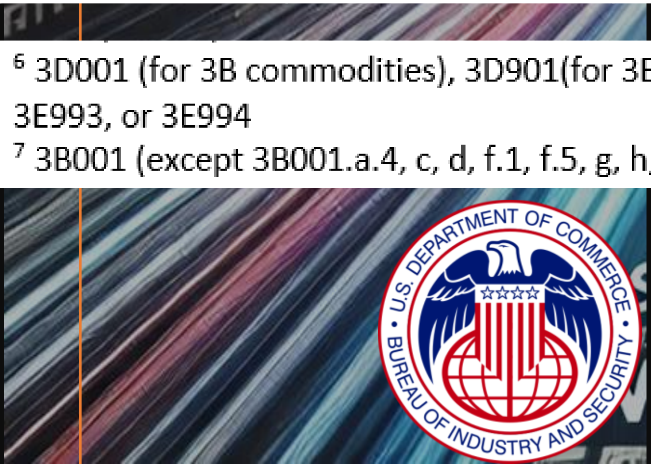
New Country List

- New Country List added to Supplement no. 4 to 742
- Participants in multilateral regimes with authority to control key SME items of concern


Australia
Austria
Belgium
Bulgaria
Canada
Croatia
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Japan
Latvia
Lithuania
Luxembourg
Netherlands
New Zealand
Norway
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
Switzerland
United Kingdom

Footnote 5 (FN5) FDPR

FDP RULE	Input: tech/soft	Output		Destination and/or End user/use
		Plant or 'major component'[2]	Foreign Product	
EL (FN 5) §734.9(e)(3)	Tech or soft (certain Cat 3) subject to the EAR	Produced by plant or 'major component' is "direct product"[1] (made in US or abroad) of input tech/soft; OR Contains a commodity produced by Plant or 'major component' is "direct product"[1] (made in US or abroad) of input tech/soft	Specified Semiconductor Manufacturing Equipment (SME)	"Knowledge" that: 1. The foreign-produced item will be incorporated into, or will be used in the "production" or "development" of any "part," "component," or "equipment" produced, purchased, or ordered by any FN5 entity; OR 2. A FN5 entity is party to transaction



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[6] 3D001 (for 3B commodities), 3D901(for 3B903), 3D991 (for 3B991 and 3B992), 3D993, 3D994, 3E001 (for 3B commodities), 3E901 (for 3B903), 3E991 (for 3B991 and 3B992), 3E993, or 3E994

[7] 3B001 (except 3B001.a.4, c, d, f.1, f.5, g, h, k to n, p.2, p.4, r), 3B002 (except 3B002.c), 3B903, 3B991 (except 3B991.b.2.a or .b.2.b), 3B992, 3B993, or 3B994

Foreign Direct Product Analysis Table on the BIS website: https://www.bis.gov/media/documents/foreign-direct-product-rules-analysis-table

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FN5 FDPR [§ 744.11(a)(2)(v)] License Requirements FROM countries outside of Country Group A:5

HQ or ultimate Parent country	Exports from abroad or Reexports	Transfers (in-country) in FN5 country
Supp 4 to 742 [1]	3B993	3B993
NON- Supp 4 to 742	Broadly specified 3B commodities[2]	Broadly specified 3B commodities[2]

[1] Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

[2] 3B001 (except 3B001.a.4, c, d, f.1, f.5, g, h, k to n, p.2, p.4, r), 3B002 (except 3B002.c), 3B611, 3B903, 3B991 (except 3B991.b.2.a through 3B991.b.2.b), 3B992, 3B993, or 3B994

SME FDPR – §734.9(k)

FDP RULE	Input: tech/soft	Output		Destination and/or End user/use
		Plant or 'major component'[2]	Foreign Product	
SME §734.9(k)	Tech or software subject to the EAR and specified in 3D992 or 3E992	Produced by plant or 'major component' is "direct product"[1] (made in US or abroad) of specified tech/soft[13]; **OR** Contains a commodity produced by Plant or 'major component' is "direct product"[1] (made in US or abroad) of tech/soft[13]	FDP is 3B001.a.4, c, d, f.1, f.5, k to n, p.2, p.4, r, or 3B002.c	"Knowledge" that the FDP is destined to Macau or a destination in Country Group D:5 of supplement no. 1 to part 740 of the EAR

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[13] 3D001 (for 3B commodities), 3D901, 3D991 (for 3B991 and 3B992), 3D992, 3D993, 3D994, 3E001 (for 3B commodities), 3E901 (for 3B903), 3E991 (for 3B991 or 3B992), 3E992, 3E993, or 3E994

Foreign Direct Product Analysis Table on the BIS website: https://www.bis.gov/media/documents/foreign-direct-product-rules-analysis-table

SME FDPR License Requirements

- NS and RS controls in §§ 742.4(a)(4) and 742.6(a)(6)(i)(A)
- License is required for exports from abroad, reexport, or transfer (in-country) to Country Group D:5 and Macau unless exclusion applies
- **Exclusions**:
  - Deemed exports/reexports
  - Reexported by an entity located in a Supp. No. 4 country, and the entity is not headquartered or have an ultimate parent company headquartered in either Macau or a destination specified in Country Group D:5.
  - Reexported by an entity located in a country that has implemented equivalent controls, and the entity is not headquartered or have an ultimate parent company headquartered in either Macau or a destination specified in Country Group D:5.

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Newly Ineligible for *De minimis* Application – §734.4

- ECCNs 3B001.a.4, c, d, f.1, f.5, k to n, p.2, p.4, r, or 3B002.c
  - Incorporated in a U.S.-origin integrated circuit or **contains** a U.S.-origin integrated circuit specified under Category 3, 4, or 5 of the CCL; *and*
  - Destined for Macau or D:5, unless excluded from the national security license requirement in §742.4(a)(4) or the regional stability license requirement in §742.6(a)(6) of the EAR.
- Category 3B (except 3B001.a.4, c, d, f.1, f.5, k to n, p.2, p.4, r, or 3B002.c
  - Incorporated in a U.S.-origin integrated circuit or **contains** a U.S.-origin integrated circuit specified under Category 3, 4, or 5 of the CCL; *and*
  - Destined for an entity with a footnote 5 designation in the license requirement column of the Entity List in supplement no. 4 to part 744 of the EAR.

§ 740.26 License Exception Restricted Fabrication "Facility" (RFF)

- Authorizes the export, reexport, export from abroad, and transfer (in-country) of items not specified in ECCNs 3B001, 3B002, 3B993, or 3B994
- Restricted end uses:
  - Items may not be used for the operation, installation, maintenance, repair, overhaul, or refurbishing of items specified in ECCNs 3B001.a.4, c, d, f.1, f.5, k to n, p.2, p.4, r, 3B002.c, 3B993, or 3B994 at a 'restricted fabrication facility'.
  - The item may not be used to produce "advanced-node integrated circuits."
- Notification and annual Reporting requirements.

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“Advanced-Node Integrated Circuits” Definition Revision

Paragraph 3. Dynamic Random-Access Memory (DRAM) Integrated Circuits	
Before	**Now**
DRAM ICs using a “production” 'technology node' of 18 nanometer half-pitch or less.	• DRAM ICs having: • A memory cell area of less than 0.0019 μm^2; or • A memory density greater than 0.288 gigabits per square millimeter.

Note 2 to definition of “Advanced-Node Integrated Circuits”: *For the purposes of paragraph (3) of this definition, the term memory density refers to the capacity of the package or stack comprising the DRAM integrated circuit measured in gigabytes divided by the footprint of the package or stack measured in square millimeters. In the case where a stack is contained in a package, use the area of the package. Cell area is defined as Wordline*Bitline (which takes into consideration both transistor and capacitor dimensions).*

§ 740.25 License Exception High Bandwidth Memory (HBM)

- The exporter, reexporter, or transferor must be headquartered in the United States or Country Group A:5, without an ultimate parent headquartered in Macau or D:5.
- Limited to 3A090.c item that has a memory bandwidth density less than 3.3 GB/s/mm^2
- Destination conditions:
    - To or within Macau or D:5 must be directly purchased by an end user not otherwise prohibited from receipt of the item.
    - Directly to the packaging site
    - For packaging at a U.S.-, or Country Group A:5 or A:6-headquartered packaging site without an ultimate parent headquartered in Macau or D:5 (with further conditions)
    - For packaging at any other packaging site, the finished, co-packaged products must be sent back to the exporter, reexporter, or transferor for export, reexport, or transfer (in-country) to the purchaser

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§ 740.25 License Exception High Bandwidth Memory (HBM)

- Restricted end users:
  - (1) To distributors.
  - (2) To intermediate consignees, unless hired by the packaging site for freight forwarding or customs clearance.
  - (3) To co-packaging at a “facility” located in Macau or a destination specified in Country Group D:5 where “production” of “advanced-node ICs” occurs.
- Reporting Requirement

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TGL General Order No. 4

Temporary General License (TGL) Supp. No. 1 to 736 paragraph (d) General Order No. 4		
Citation	**Items**	**Expiration Date**
(d)(1)(i)(A)	AT only (in current TGL)	12/31/2026 (extended)
(d)(1)(i)(B)	3B993 and 3B994 (new)	12/31/2026
(d)(2)(ii)(A)	Adv compute (in current TGL)	12/31/2025 (no change)
(d)(2)(ii)(B)	3A090.c High Bandwidth Memory (new)	12/31/2026

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8 New Red Flags

- Red flag 20 identifies a scenario where a non-advanced fab orders equipment designed for advanced-node IC production
- Red flag 21 An exporter, reexporter, or transferor receives an order for which the ultimate owner or user of the items is uncertain
- Red flag 22 foreign government requires a license to export the item, and the nature of the end-user raises questions about whether the exporter, reexporter, or transferor would have been granted a license for the item

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New Red Flags

- Red flag 23 identifies a scenario where an exporter, reexporter, or transferor receives a request to service, install, upgrade, or otherwise support an item that was altered after export by a third-party for a more advanced end use that would normally require a license for the destination.
- Red flag 24 a request for servicing, a request for an item or service from a new customer whose senior management or technical leadership is associated with a listed entity

New Red Flags

- Red flag 25 a request from a new customer for an item or service that was designed or modified for an existing or former customer that is a FN5 entity for items requiring a license for this entity.
- Red flag 26 export, export from abroad, reexport, or transfer of a foreign-produced item described in Category 3B ECCN in FN5 or SME FDP and contains at least one IC, then there is a red flag that the foreign-produced item meets the product scope of that Entity List FDP rule.

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New Red Flags

- Red flag 27 identifies a scenario where the end user is a “facility” that is connected to a “facility” where “production” of “advance compute integrated circuits” occurs.
  - The two buildings are treated as a single “facility” for purposes of § 744.23 of the EAR, unless the Red Flag is resolved through an Advisory Opinion.

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