

**CATEGORY 5 – TELECOMMUNICATIONS
AND “INFORMATION SECURITY”**

Part 2 – “INFORMATION SECURITY”

Note 1: [RESERVED]

Note 2: Category 5–Part 2, “information security” products, when accompanying their user for the user's personal use or as tools of trade, are eligible for License Exceptions TMP or BAG, subject to the terms and conditions of these license exceptions.

Note 3: Cryptography Note: ECCNs 5A002, 5D002.a.1, .b, .c.1, z.1, z.5, and z.6, do not control items as follows:

a. Items meeting all of the following:

1. Generally available to the public by being sold, without restriction, from stock at retail selling points by means of any of the following:

- a. Over-the-counter transactions;
- b. Mail order transactions;
- c. Electronic transactions; or
- d. Telephone call transactions;

2. The cryptographic functionality cannot be easily changed by the user;

3. Designed for installation by the user without further substantial support by the supplier; and

4. When necessary, details of the items are accessible and will be provided, upon request, to the appropriate authority in the exporter's country in order to ascertain compliance with conditions described in paragraphs a.1 through a.3 of this Note;

b. Hardware components or ‘executable software’, of existing items described in paragraph a. of this Note, that have been designed for these existing items, and meeting all of the following:

1. “Information security” is not the primary function or set of functions of the component or ‘executable software’;

2. The component or ‘executable software’ does not change any cryptographic functionality of the existing items, or add new cryptographic functionality to the existing items;

3. The feature set of the component or ‘executable software’ is fixed and is not designed or modified to customer specification; and

4. When necessary, as determined by the appropriate authority in the exporter's country, details of the component or ‘executable software’, and details of relevant end-items are accessible and will be provided to the authority upon request, in order to ascertain compliance with conditions described above.

Technical Note: For the purposes of the Cryptography Note, ‘executable software’ means “software” in executable form, from an existing hardware component excluded from 5A002, by the Cryptography Note.

Note: ‘Executable software’ does not include complete binary images of the “software” running on an end-item.

Note to the Cryptography Note:

1. To meet paragraph a. of Note 3, all of the following must apply:

a. The item is of potential interest to a wide range of individuals and businesses; and

b. The price and information about the main functionality of the item are available before purchase without the need to consult the vendor or supplier. A simple price inquiry is not considered to be a consultation.

2. In determining eligibility of paragraph a. of Note 3, BIS may take into account relevant factors such as quantity, price, required technical skill, existing sales channels, typical customers, typical use or any exclusionary practices of the supplier.

N.B. to Note 3 (Cryptography Note): You must submit a classification request or self-classification report to BIS for certain mass market encryption commodities and software eligible for the Cryptography Note employing a key length greater than 64 bits for the symmetric algorithm (or, for commodities and software not implementing any symmetric algorithms, employing a key length greater than 768 bits for asymmetric algorithms described by Technical note 2.b to 5A002.a or greater than 128 bits for elliptic curve algorithms, or any asymmetric algorithm described by Technical Note 2.c to 5A002.a) in accordance with the requirements of § 740.17(b) of the EAR in order to be released from the “EI” and “NS” controls of ECCN 5A002 or 5D002. For mass market commodities and software that do not require a self-classification report pursuant to § 740.17(b) and (e)(3) of the EAR, such items are also released from “EI” and “NS” controls and controlled under ECCN 5A992 or 5D992.

**A. “END ITEMS,” “EQUIPMENT,”
“ACCESSORIES,” “ATTACHMENTS,”
“PARTS,” “COMPONENTS,” AND
“SYSTEMS”**

**I. CRYPTOGRAPHIC
“INFORMATION SECURITY”**

5A002 “Information security” systems, equipment and “components,” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, RS, AT, EI

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry (except 5A002.z)	NS Column 1
RS applies to items controlled by 5A002.z	To or within destinations specified in Country Groups D:1, D:4, and D:5 of supplement no. 1 to part 740 of the EAR, excluding any destination also specified in Country Groups A:5 or A:6. See § 742.6(a)(6)(iii) of the EAR.
AT applies to entire entry	AT Column 1
EI applies to entire entry	Refer to §742.15 of the EAR.

License Requirements Note: See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

LVS: Yes: \$500 for “components,” except for 5A002.z.

N/A for systems and equipment.

GBS: N/A

ENC: Yes for certain EI controlled commodities, see §740.17 of the EAR for eligibility, except for 5A002.z.

NAC: Yes, for 5A002.z; N/A for all other 5A002 commodities.

List of Items Controlled

Related Controls: (1) ECCN 5A002.a controls “components” providing the means or functions necessary for “information security.” All such “components” are presumptively “specially designed” and controlled by 5A002.a. (2) See USML Categories XI (including XI(b)) and XIII(b) (including XIII(b)(2)) for controls on systems, equipment, and components described in 5A002.d or .e that are subject to the ITAR. (3) For “satellite navigation system” receiving equipment containing or employing decryption see 7A005, and for related decryption “software” and “technology” see 7D005 and 7E001. (4) Noting that items may be controlled elsewhere on the CCL, examples of items not controlled by ECCN 5A002.a.4 include the following: (a) An automobile where the only ‘cryptography for data confidentiality’ having a ‘described security algorithm’ is performed by a Category 5 – Part 2 Note 3 eligible mobile telephone that is built into the car. In this case, secure phone communications support a non-primary function of the automobile but the mobile telephone (equipment), as a standalone item, is not controlled by ECCN 5A002 because it is excluded by the Cryptography Note (Note 3) (See ECCN 5A992.c). (b) An exercise bike with an embedded Category 5 – Part 2 Note 3 eligible web browser, where the only controlled cryptography is performed by the web browser. In this case, secure web

browsing supports a non-primary function of the exercise bike but the web browser (“software”), as a standalone item, is not controlled by ECCN 5D002 because it is excluded by the Cryptography Note (Note 3) (See ECCN 5D992.c). (5) After classification or self-classification in accordance with § 740.17(b) of the EAR, mass market encryption commodities that meet eligibility requirements are released from “EI” and “NS” controls. These commodities are designated 5A992.c. (6) See also ECCNs 3A090 (including Note 4 to ECCN 3A090), and 4A090.

Related Definitions: N/A

Items:

a. Designed or modified to use ‘cryptography for data confidentiality’ having a ‘described security algorithm’, where that cryptographic capability is usable, has been activated, or can be activated by any means other than secure “cryptographic activation”, as follows:

a.1. Items having “information security” as a primary function;

a.2. Digital communication or networking systems, equipment or components, not specified in paragraph 5A002.a.1;

a.3. Computers, other items having information storage or processing as a primary function, and components thereof, not specified in paragraphs 5A002.a.1 or .a.2;

N.B.: For operating systems see also 5D002.a.1 and .c.1.

a.4. Items, not specified in paragraphs 5A002.a.1 to a.3, where the ‘cryptography for data confidentiality’ having a ‘described security algorithm’ meets all of the following:

a.4.a. It supports a non-primary function of the item; *and*

a.4.b. It is performed by incorporated equipment or “software” that would, as a standalone item, be specified by ECCNs 5A002, 5A003, 5A004, 5B002 or 5D002.

N.B. to paragraph a.4: See Related Control Paragraph (4) of this ECCN 5A002 for examples of items not controlled by 5A002.a.4.

Technical Notes:

1. For the purposes of 5A002.a, ‘cryptography for data confidentiality’ means “cryptography” that employs digital techniques and performs any cryptographic function other than any of the following:

1.a. “Authentication;”

1.b. Digital signature;

1.c. Data integrity;

1.d. Non-repudiation;

1.e. Digital rights management, including the execution of copy-protected “software;”

1.f. Encryption or decryption in support of entertainment, mass commercial broadcasts or medical records management; or

1.g. Key management in support of any function described in paragraphs 1.a to 1.f of this Technical Note paragraph 1.

2. For the purposes of 5A002.a, ‘described security algorithm’ means any of the following:

2.a. A “symmetric algorithm” employing a key length in excess of 56 bits, not including parity bits;

2.b. An “asymmetric algorithm” where the security of the algorithm is based on any of the following:

2.b.1. Factorization of integers in excess of 512 bits (e.g., RSA);

2.b.2. Computation of discrete logarithms in a multiplicative group of a finite field of size greater than 512 bits (e.g., Diffie-Hellman over Z/pZ); or

2.b.3. Discrete logarithms in a group other than mentioned in paragraph 2.b.2 of this Technical Note in excess of 112 bits (e.g., Diffie-Hellman over an elliptic curve); or

2.c. An “asymmetric algorithm” where the security of the algorithm is based on any of the following:

2.c.1. Shortest vector or closest vector problems associated with lattices (e.g., NewHope, Frodo, NTRUEncrypt, Kyber, Titanium);

2.c.2. Finding isogenies between Supersingular elliptic curves (e.g., Supersingular Isogeny Key Encapsulation); or

2.c.3. Decoding random codes (e.g., McEliece, Niederreiter).

Technical Note: An algorithm described by Technical Note 2.c. may be referred to as being post-quantum, quantum-safe or quantum-resistant.

Note 1: Details of items must be accessible and provided upon request, in order to establish any of the following:

a. Whether the item meets the criteria of 5A002.a.1 to a.4; or

b. Whether the cryptographic capability for data confidentiality specified by 5A002.a is usable without “cryptographic activation.”

Note 2: 5A002.a does not control any of the following items, or specially designed “information security” components therefor:

a. Smart cards and smart card ‘readers/writers’ as follows:

a.1. A smart card or an electronically readable personal document (e.g., token coin, e-passport) that meets any of the following:

a.1.a. The cryptographic capability meets all of the following:

a.1.a.1. It is restricted for use in any of the following:

a.1.a.1.a. Equipment or systems, not described by 5A002.a.1 to a.4;

a.1.a.1.b. Equipment or systems, not using ‘cryptography for data confidentiality’ having a ‘described security algorithm’; or

a.1.a.1.c. Equipment or systems, excluded from 5A002.a by entries b. to f. of this Note; and

a.1.a.2. It cannot be reprogrammed for any other use; or

a.1.b. Having all of the following:

a.1.b.1. It is specially designed and limited to allow protection of ‘personal data’ stored within;

a.1.b.2. Has been, or can only be, personalized for public or commercial transactions or individual identification; and

a.1.b.3. Where the cryptographic capability is not user-accessible;

Technical Note to paragraph a.1.b.1 of Note 2: For the purposes of 5A002.a Note 2. a.1.b.1, ‘personal data’ includes any data specific

to a particular person or entity, such as the amount of money stored and data necessary for “authentication.”

a.2. ‘Readers/writers’ specially designed or modified, and limited, for items specified by paragraph a.1 of this Note;

Technical Note to paragraph a.2 of Note 2: ‘For the purposes of 5A002.a Note 2.a.2, ‘readers/writers’ include equipment that communicates with smart cards or electronically readable documents through a network.

b. Cryptographic equipment specially designed and limited for banking use or ‘money transactions’;

Technical Note to paragraph b. of Note 2: For the purposes of 5A002.a Note 2.b, ‘money transactions’ in 5A002 Note 2 paragraph b. includes the collection and settlement of fares or credit functions.

c. Portable or mobile radiotelephones for civil use (e.g., for use with commercial civil cellular radio communication systems) that are not capable of transmitting encrypted data directly to another radiotelephone or equipment (other than Radio Access Network (RAN) equipment), nor of passing encrypted data through RAN equipment (e.g., Radio Network Controller (RNC) or Base Station Controller (BSC));

d. Cordless telephone equipment not capable of end-to-end encryption where the maximum effective range of unboosted cordless operation (i.e., a single, unrelayed hop between terminal and home base station) is less than 400 meters according to the manufacturer’s specifications;

e. Portable or mobile radiotelephones and similar client wireless devices for civil use, that implement only published or commercial cryptographic standards (except for anti-piracy functions, which may be non-published) and also meet the provisions of paragraphs a.2 to a.4 of

the Cryptography Note (Note 3 in Category 5 – Part 2), that have been customized for a specific civil industry application with features that do not affect the cryptographic functionality of these original non-customized devices;

f. Items, where the “information security” functionality is limited to wireless “personal area network” functionality implementing only published or commercial cryptographic standards;

g. Mobile telecommunications Radio Access Network (RAN) equipment designed for civil use, which also meet the provisions of paragraphs a.2 to a.4 of the Cryptography Note (Note 3 in Category 5 -- Part 2), having an RF output power limited to 0.1W (20 dBm) or less, and supporting 16 or fewer concurrent users;

h. Routers, switches, gateways or relays, where the “information security” functionality is limited to the tasks of “Operations, Administration or Maintenance” (“OAM”) implementing only published or commercial cryptographic standards;

i. General purpose computing equipment or servers, where the “information security” functionality meets all of the following:

i.1. Uses only published or commercial cryptographic standards; and

i.2. Is any of the following:

i.2.a. Integral to a CPU that meets the provisions of Note 3 in Category 5–Part 2;

i.2.b. Integral to an operating system that is not specified by 5D002; or

i.2.c. Limited to “OAM” of the equipment; or

j. Items specially designed for a ‘connected civil industry application’, meeting all of the following:

j.1. Being any of the following:

j.1.a. A network-capable endpoint device meeting any of the following:

j.1.a.1. The “information security” functionality is limited to securing ‘non-arbitrary data’ or the tasks of “Operations, Administration or Maintenance” (“OAM”); or

j.1.a.2. The device is limited to a specific ‘connected civil industry application’; or

j.1.b. Networking equipment meeting all of the following:

j.1.b.1. Being specially designed to communicate with the devices specified by paragraph j.1.a. above; and

j.1.b.2. The “information security” functionality is limited to supporting the ‘connected civil industry application’ of devices specified by paragraph j.1.a. above, or the tasks of “OAM” of this networking equipment or of other items specified by paragraph j. of this Note; and

j.2. Where the “information security” functionality implements only published or commercial cryptographic standards, and the cryptographic functionality cannot easily be changed by the user.

Technical Notes:

- 1. For the purposes of 5A002.a Note 2.j, ‘connected civil industry application’ means a network-connected consumer or civil industry application other than “information security”, digital communication, general purpose networking or computing.*

2. For the purposes of 5A002.a Note 2.j.1.a.1, ‘non-arbitrary data’ means sensor or metering data directly related to the stability, performance or physical measurement of a system (e.g., temperature, pressure, flow rate, mass, volume, voltage, physical location, etc.), that cannot be changed by the user of the device.

b. Being a ‘cryptographic activation token’;

Technical Note: For the purposes of 5A002.b, a ‘cryptographic activation token’ is an item designed or modified for any of the following:

1. Converting, by means of “cryptographic activation”, an item not specified by Category 5-Part 2 into an item specified by 5A002.a or 5D002.c.1, and not released by the Cryptography Note (Note 3 in Category 5-Part 2); or
2. Enabling by means of “cryptographic activation”, additional functionality specified by 5A002.a of an item already specified by Category 5- Part 2;

c. Designed or modified to use or perform “quantum cryptography”;

Technical Note: For the purposes of 5A002.c, “quantum cryptography” is also known as Quantum Key Distribution (QKD).

d. Designed or modified to use cryptographic techniques to generate channelizing codes, scrambling codes or network identification codes, for systems using ultra-wideband modulation techniques and having any of the following:

- d.1. A bandwidth exceeding 500 MHz; or
- d.2. A “fractional bandwidth” of 20% or more;

e. Designed or modified to use cryptographic techniques to generate the spreading code for “spread spectrum” systems, not specified by 5A002.d, including the hopping code for “frequency hopping” systems.

f. through y. [Reserved]

z. Other commodities, as follows:

z.1. Commodities that are described in 5A002.a and that also meet or exceed the performance parameters in 3A090 or 4A090;

z.2 Commodities that are described in 5A002.b and that also meet or exceed the performance parameters in 3A090 or 4A090;

z.3 Commodities that are described in 5A002.c and that also meet or exceed the performance parameters in 3A090 or 4A090;

z.4 Commodities that are described in 5A002.d and that also meet or exceed the performance parameters in 3A090 or 4A090; or

z.5 Commodities that are described in 5A002.e and that also meet or exceed the performance parameters in 3A090 or 4A090.

5A992 Equipment not controlled by 5A002 (see List of Items Controlled).

License Requirements

Reason for Control: RS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
RS applies to items controlled by 5A992.z	To or within destinations specified in Country Groups D:1, D:4, and D:5 of supplement no. 1 to part

	740 of the EAR, excluding any destination also specified in Country Groups A:5 or A:6. See § 742.6(a)(6)(iii) of the EAR.
AT applies to entire entry	AT Column 1

License Requirements Note: See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

LVS: N/A
 GBS: N/A
 NAC: Yes, for 5A992.z; N/A for all other 5A992 commodities.

List of Items Controlled

Related Controls: See also ECCNs 3A090 (including Note 4 to ECCN 3A090) and 4A090.

Related Definitions: N/A

Items:

- a. [Reserved]
- b. [Reserved]
- c. Commodities classified as mass market encryption commodities in accordance with § 740.17(b) of the EAR.
- d. through y. [Reserved]

z. Commodities that are described in 5A992.c and that also meet or exceed the performance parameters in 3A090 or 4A090.

II. NON-CRYPTOGRAPHIC “INFORMATION SECURITY”

5A003 “Systems,” “equipment” and “components,” for non-cryptographic “information security,” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

List Based License Exceptions (See Part 740 for a description of all license exceptions)

LVS: Yes: \$500 for “components.”
 N/A for systems and equipment.
 GBS: N/A

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items:

- a. Communications cable systems designed or modified to use mechanical, electrical or electronic means to detect surreptitious intrusion;

Note: 5A003.a applies only to physical layer security. For the purpose of 5A003.a, the physical layer includes Layer 1 of the Reference Model of Open Systems Interconnection (OSI) (ISO/IEC 7498-1).

b. “Specially designed” or modified to reduce the compromising emanations of information-bearing signals beyond what is necessary for health, safety or electromagnetic interference standards.

III. DEFEATING, WEAKENING OR BYPASSING “INFORMATION SECURITY”

5A004 “Systems,” “equipment” and “components” for defeating, weakening or bypassing “information security,” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, RS, AT, EI

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry (except 5A004.z)	NS Column 1
RS applies to items controlled by 5A004.z	To or within destinations specified in Country Groups D:1, D:4, and D:5 of supplement no. 1 to part 740 of the EAR, excluding any destination also specified in Country Groups A:5 or A:6. See § 742.6(a)(6)(iii) of the EAR.
AT applies to entire entry	AT Column 1
EI applies to entire entry	Refer to §742.15 of the EAR.

License Requirements Note: See §744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

- LVS:** Yes: \$500 for “components,” except for 5A004.z.
N/A for systems and equipment.
- GBS:** N/A
- ENC:** Yes for certain EI controlled commodities, except for 5A004.z. See §740.17 of the EAR for eligibility.
- NAC:** Yes, for 5A004.z; N/A for all other 5A004 commodities.

List of Items Controlled

Related Controls: (1) ECCN 5A004.a controls “components” providing the means or functions necessary for “information security.” All such “components” are presumptively “specially designed” and controlled by 5A004.a. (2) See also ECCNs 3A090 (including Note 4 to ECCN 3A090) and 4A090.

Related Definitions: N/A

Items:

a. Designed or modified to perform ‘cryptanalytic functions.’

Note: 5A004.a includes systems or equipment, designed or modified to perform ‘cryptanalytic functions’ by means of reverse engineering.

Technical Note: For the purposes of 5A004.a, ‘cryptanalytic functions’ are functions designed to defeat cryptographic mechanisms in order to derive confidential variables or sensitive data, including clear text, passwords or cryptographic keys.

b. Items, not specified by ECCNs 4A005 or 5A004.a, designed to perform all of the following:

b.1. ‘Extract raw data’ from a computing or communications device; *and*

b.2. Circumvent “authentication” or authorisation controls of the device, in order to perform the function described in 5A004.b.1.

Technical Note: For the purposes of 5A004.b.1, ‘extract raw data’ from a computing or communications device means to retrieve binary data from a storage medium, e.g., RAM, flash or hard disk, of the device without interpretation by the device’s operating system or filesystem.

Note 1: 5A004.b does not apply to systems or equipment specially designed for the “development” or “production” of a computing or communications device.

Note 2: 5A004.b does not include:

- a. Debuggers, hypervisors;
 - b. Items limited to logical data extraction;
 - c. Data extraction items using chip-off or JTAG; or
 - d. Items specially designed and limited to jail-breaking or rooting.
- c. through y. [Reserved]
- z. Other commodities, as follows:
- z.1. Commodities that are described in 5A004.a and that also meet or exceed the performance parameters in 3A090 or 4A090; *or*
 - z.2. Commodities that are described in 5A004.b and that also meet or exceed the performance parameters in 3A090 or 4A090.

B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”

5B002 “Information Security” test, inspection and “production” equipment, as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

List Based License Exceptions (See Part 740 for a description of all license exceptions)

LVS: N/A
GBS: N/A
ENC: Yes for certain EI controlled equipment, see §740.17 of the EAR for eligibility.

List of Items Controlled

Related Controls: N/A
Related Definitions: N/A
Items:

- a. Equipment “specially designed” for the “development” or “production” of equipment controlled by 5A002, 5A003, 5A004 or 5B002.b;
- b. Measuring equipment “specially designed” to evaluate and validate the “information security” functions of equipment controlled by 5A002, 5A003 or 5A004, or of “software” controlled by 5D002.a, z.1 through z.4, or 5D002.c or z.6 through z.9.

C. “MATERIALS” - [RESERVED]

D. “SOFTWARE”

5D002 “Software” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, RS, AT, EI

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry (except 5D002.z)	NS Column 1
RS applies to “software” controlled by 5D002.z	To or within destinations specified in Country Groups D:1, D:4, and D:5 of supplement no. 1 to part 740 of the EAR, excluding any destination also specified in Country Groups A:5 or A:6. See § 742.6(a)(6)(iii) of the EAR.
AT applies to entire entry	AT Column 1
EI applies to “software” in 5D002.a.1, a.3, .b, c.1 and c.3, for commodities or “software” controlled for EI reasons in ECCN 5A002, 5A004 or 5D002.	Refer to §742.15 of the EAR. <i>Note: Encryption software is controlled because of its functional capacity, and not because of any informational value of such software; such software is not accorded the same treatment under the</i>

	<i>EAR as other “software”; and for export licensing purposes, encryption software is treated under the EAR in the same manner as a commodity included in ECCN 5A002.</i>
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License Requirements Note: See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

- TSR:* N/A
- ENC:* Yes for certain EI controlled software, except for 5D002.z. See §740.17 of the EAR for eligibility.
- NAC:* Yes, for 5D002.z; N/A for all other 5D002 software.

List of Items Controlled

Related Controls: (1) After classification or self-classification in accordance with § 740.17(b) of the EAR, mass market encryption software that meets eligibility requirements is released from “EI” and “NS” controls. This software is designated as 5D992.c. (2) See also ECCNs 3D001.z and 4D001.z. (3) See also Note 4 to ECCN 3A090.

Related Definitions: 5D002.a controls “software” designed or modified to use “cryptography” employing digital or analog

techniques to ensure “information security.”
Items:

a. “Software” “specially designed” or modified for the “development,” “production” or “use” of any of the following:

a.1. Equipment specified by 5A002 or “software” specified by 5D002.c.1;

a.2. Equipment specified by 5A003 or “software” specified by 5D002.c.2; *or*

a.3. Equipment or “software”, as follows:

a.3.a. Equipment specified by 5A004.a or “software” specified by 5D002.c.3.a;

a.3.b. Equipment specified by 5A004.b or “software” specified by 5D002.c.3.b;

b. “Software” having the characteristics of a ‘cryptographic activation token’ specified by 5A002.b;

c. “Software” having the characteristics of, or performing or simulating the functions of, any of the following:

c.1. Equipment specified by 5A002.a, .c, .d or .e;

Note: 5D002.c.1 does not apply to “software” limited to the tasks of “OAM” implementing only published or commercial cryptographic standards.

c.2. Equipment specified by 5A003; *or*

c.3. Equipment, as follows:

c.3.a. Equipment specified by 5A004.a;

c.3.b. Equipment specified by 5A004.b.

Note: 5D002.c.3.b does not apply to “intrusion software”.

d. [Reserved]

N.B.: See 5D002.b for items formerly specified in 5D002.d.

e. through y. [Reserved]

z. Other software, as follows:

z.1. Software that is described in 5D002.a.1, and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090;

z.2. Software that is described in 5D002.a.2, and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090;

z.3. Software that is described in 5D002.a.3a, and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090;

z.4. Software that is described in 5D002.a.3.b, and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090;

z.5. Software that is described in 5D002.b and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090;

z.6 Software that is described in 5D002.c.1 and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090;

z.7 Software that is described in 5D002.c.2 and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090;

z.8 Software that is described in 5D002.c.3.a and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090; *or*

z.9 Software that is described in 5D002.c.3.b and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090.

NAC: Yes, for 5D992.z; N/A for all other 5D992.z software.

5D992 “Information Security” “software,” not controlled by 5D002, as follows (see List of Items Controlled).

List of Items Controlled

Related Controls: (1) This entry does not control “software” designed or modified to protect against malicious computer damage, e.g., viruses, where the use of “cryptography” is limited to authentication, digital signature and/or the decryption of data or files. (2) See also ECCNs 3D001.z and 4D001.z. (3) See also Note 4 to ECCN 3A090.

License Requirements

Reason for Control: RS, AT

Related Definitions: N/A

Control(s)	Country Chart (See Supp. No. 1 to part 738)
RS applies to “software” controlled by 5D992.z	To or within destinations specified in Country Groups D:1, D:4, and D:5 of supplement no. 1 to part 740 of the EAR, excluding any destination also specified in Country Groups A:5 or A:6. See § 742.6(a)(6)(iii) of the EAR.
AT applies to entire entry	AT Column 1

Items:

- a. [Reserved]
- b. [Reserved]
- c. “Software” classified as mass market encryption software in accordance with § 740.17(b) of the EAR.
- d. through y. [Reserved]
- z. Other software that is described in 5D992 and that also meet or exceed the performance parameters in 3D001 for 3A090 or 4D001 for 4A090.

License Requirements Note: See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

E. “TECHNOLOGY”

List Based License Exceptions (See Part 740 for a description of all license exceptions)

5E002 “Technology” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, AT, EI

TSR: N/A

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry (except “technology” for commodities controlled by 5A002.z or 5A004.z or “software” specified by 5D002 (for 5A002.z or 5A004.z commodities))	NS Column 1
RS applies to “technology” for commodities controlled by 5A002.z or 5A004.z or “software” specified by 5D002 (for 5A002.z or 5A004.z commodities)	To or within destinations specified in Country Groups D:1, D:4, and D:5 of supplement no. 1 to part 740 of the EAR, excluding any destination also specified in Country Groups A:5 or A:6. See § 742.6(a)(6)(iii) of the EAR.
AT applies to entire entry	AT Column 1
EI applies to “technology” in 5E002.a for commodities or “software” controlled for EI reasons in ECCNs 5A002, 5A004 or 5D002, and to “technology” in 5E002.b.	Refer to § 742.15 of the EAR.

License Requirements Notes:

(1) See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

(2) When a person performs or provides technical assistance that incorporates, or otherwise draws upon, “technology” that was either obtained in the United States or is of U.S.-origin, then a release of the “technology” takes place. Such technical assistance, when rendered with the intent to aid in the “development” or “production” of encryption commodities or software that would be controlled for “EI” reasons under ECCN 5A002, 5A004 or 5D002, may require authorization under the EAR even if the underlying encryption algorithm to be implemented is from the public domain or is not of U.S.-origin.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

TSR: N/A

ENC: Yes for certain EI controlled technology. See §740.17 of the EAR for eligibility.

List of Items Controlled

Related Controls: See also 5E992. This entry does not control “technology” “required” for the “use” of equipment excluded from control under the Related Controls paragraph or the Technical Notes in ECCN 5A002 or “technology” related to equipment excluded from control under ECCN 5A002.

Related Definitions: N/A

Items:

- a. “Technology” according to the General

Technology Note for the “development,” “production” or “use” of equipment controlled by 5A002, 5A003, 5A004 or 5B002, or of “software” controlled by 5D002.a, z.1 through z.3, or 5D002.c, z.6 through z.8.

Note: 5E002.a does not apply to “technology” for items specified by 5A004.b, z.3 or z.4, 5D002.a.3.b, z.4, or 5D002.c.3.b.

b. “Technology” having the characteristics of a ‘cryptographic activation token’ specified by 5A002.b, z.2.

Note: 5E002 includes “information security” technical data resulting from procedures carried out to evaluate or determine the implementation of functions, features or techniques specified in Category 5—Part 2.

5E992 “Information Security” “technology” according to the General Technology Note, not controlled by 5E002, as follows (see List of Items Controlled).

License Requirements

Reason for Control: AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to “technology” for commodities controlled by 5A992.z or “software” controlled by 5D992.z	To or within destinations specified in Country Groups D:1, D:4, and D:5 of supplement no. 1 to part 740 of the EAR, excluding any destination also specified in Country Groups A:5 or A:6. See § 742.6(a)(6)(iii) of the EAR.
AT applies to entire entry	AT Column 1

License Requirements Note: See § 744.17 of the

EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

TSR: N/A

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items:

a. [Reserved]

b. “Technology”, n.e.s., for the “use” of mass market commodities controlled by 5A992 or mass market “software” controlled by 5D992.

EAR99 Items subject to the EAR that are not elsewhere specified in this CCL Category or in any other category in the CCL are designated by the number EAR99.