

**CATEGORY 5 - TELECOMMUNICATIONS  
AND "INFORMATION SECURITY"**

**A. SYSTEMS, EQUIPMENT AND  
COMPONENTS**

**II. "Information Security"**

**Note 1:** The control status of "information security" equipment, "software", systems, application specific "electronic assemblies", modules, integrated circuits, components, or functions is determined in Category 5, part 2 even if they are components or "electronic assemblies" of other equipment.

**Note 2:** Category 5 - part 2 encryption products, when accompanying their user for the user's personal use, are eligible for License Exceptions TMP or BAG.

**Note 3: Cryptography Note:** ECCNs 5A002 and 5D002 do not control items that meet all of the following:

- a. Generally available to the public by being sold, without restriction, from stock at retail selling points by means of any of the following:
  - 1. Over-the-counter transactions;
  - 2. Mail order transactions;
  - 3. Electronic transactions; or
  - 4. Telephone call transactions;
- b. The cryptographic functionality cannot be easily changed by the user;
- c. Designed for installation by the user without further substantial support by the supplier;
- d. Does not contain a "symmetric algorithm" employing a key length exceeding 64-bits; and
- e. 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) through (d) of this note. See §742.15(b)(1) of the EAR.

**5A002 Systems, equipment, application specific "electronic assemblies", modules and integrated circuits for "information security", and other specially designed components therefor.**

**License Requirements**

*Reason for Control:* NS, AT, EI

<i>Control(s)</i>	<i>Country Chart</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

EI applies to encryption items transferred from the U.S. Munitions List to the Commerce Control List consistent with E.O. 13026 of November 15, 1996 (61 FR 58767) and pursuant to the Presidential Memorandum of that date. Refer to §742.15 of this subchapter.

**License Exceptions**

- LVS: Yes: \$500 for components and spare parts only. N/A for equipment.
- GBS: N/A
- CIV: N/A

**List of Items Controlled**

*Unit:* \$ value  
*Related Controls:* See also 5A992. This entry does not control:

- (a) "Personalized smart cards" where the cryptographic capability is restricted for use in equipment or systems excluded from control paragraphs (b) through (f) of this note. Note that if a "personalized smart card" has multiple functions, the control status of each

function is assessed individually;

(b) Receiving equipment for radio broadcast, pay television or similar restricted audience broadcast of the consumer type, without digital encryption except that exclusively used for sending the billing or program-related information back to the broadcast providers;

(c) Portable or mobile radiotelephones for civil use (e.g., for use with commercial civil cellular radio communications systems) that are not capable of end-to-end encryption;

(d) Equipment where the cryptographic capability is not user-accessible and which is specially designed and limited to allow any of the following:

(1) Execution of copy-protected "software";

(2) access to any of the following:

(a) Copy-protected read-only media;  
*or*

(b) Information stored in encrypted form on media (e.g., in connection with the protection of intellectual property rights) where the media is offered for sale in identical sets to the public; *or*

(3) one-time encryption of copyright protected audio/video data;

(e) Cryptographic equipment specially designed and limited for banking use or money transactions;

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

These items are controlled under ECCN 5A992.

*Related Definitions:* (1) The term "money transactions" in paragraph (e) of Related Controls includes the collection and settlement of fares or credit functions. (2) For the control of global navigation satellite systems receiving equipment containing or

employing decryption (e.g., GPS or GLONASS) see 7A005.

*Items:*

**Technical Note:** Parity bits are not included in the key length.

a. Systems, equipment, application specific "electronic assemblies", modules and integrated circuits for "information security", and other specially designed components therefor:

a.1. Designed or modified to use "cryptography" employing digital techniques performing any cryptographic function other than authentication or digital signature having any of the following:

**Technical Notes:**

1. Authentication and digital signature functions include their associated key management function.

2. Authentication includes 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.

3. "Cryptography" does not include "fixed" data compression or coding techniques.

**Note:** 5A002.a.1 includes equipment designed or modified to use "cryptography" employing analog principles when implemented with digital techniques.

a.1.a. A "symmetric algorithm" employing a key length in excess of 56-bits; *or*

a.1.b. An "asymmetric algorithm" where the security of the algorithm is based on any of the following:

a.1.b.1. Factorization of integers in

excess of 512 bits (e.g., RSA);

*Reason for Control:* AT

a.1.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*

*Control(s)*

*Country Chart*

AT applies to 5A992.a

AT Column 1

AT applies to 5A992.b

AT Column 2

a.1.b.3. Discrete logarithms in a group other than mentioned in 5A002.a.1.b.2 in excess of 112 bits (e.g., Diffie-Hellman over an elliptic curve);

**License Exceptions**

LVS: N/A

GBS: N/A

CIV: N/A

a.2. Designed or modified to perform cryptanalytic functions;

**List of Items Controlled**

a.3. [Reserved]

*Unit:* \$ value

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a.4. Specially designed or modified to reduce the compromising emanations of information-bearing signals beyond what is necessary for health, safety or electromagnetic interference standards;

a. Telecommunications and other information security equipment containing encryption.

a.5. Designed or modified to use cryptographic techniques to generate the spreading code for "spread spectrum" systems, including the hopping code for "frequency hopping" systems;

b. "Information security" equipment, n.e.s., (e.g., cryptographic, cryptanalytic, and cryptologic equipment, n.e.s.) and components therefor.

a.6. Designed or modified to provide certified or certifiable "multilevel security" or user isolation at a level exceeding Class B2 of the Trusted Computer System Evaluation Criteria (TCSEC) or equivalent;

**B. TEST, INSPECTION AND PRODUCTION EQUIPMENT**

a.7. Communications cable systems designed or modified using mechanical, electrical or electronic means to detect surreptitious intrusion.

**5B002 Information Security - test, inspection and "production" equipment.**

**License Requirements**

*Reason for Control:* NS, AT

*Control(s)*

*Country Chart*

**5A992 Equipment not controlled by 5A002.**

NS applies to entire entry

NS Column 1

**License Requirements**

AT applies to entire entry

AT Column 1

**License Requirement Notes:** See §743.1 of the EAR for reporting requirements for exports under License Exceptions.

**License Exceptions**

LVS: N/A  
 GBS: N/A  
 CIV: N/A

**List of Items Controlled**

*Unit:* \$ value  
*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Equipment specially designed for:
  - a.1. The "development" of equipment or functions controlled by 5A002, 5B002, 5D002 or 5E002, including measuring or test equipment;
  - a.2. The "production" of equipment or functions controlled by 5A002, 5B002, 5D002, or 5E002, including measuring, test, repair or production equipment;
- b. Measuring equipment specially designed to evaluate and validate the "information security" functions controlled by 5A002 or 5D002.

**C. Materials [Reserved]**

**D. Software**

**5D002 Information Security - "Software".**

**License Requirements**

*Reason for Control:* NS, AT, EI

<i>Control(s)</i>	<i>Country Chart</i>
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NS applies to entire entry	NS Column 1
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AT applies to entire entry	AT Column 1
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EI applies to encryption items transferred from the U.S. Munitions List to the Commerce Control List consistent with E.O. 13026 of November 15, 1996 (61 FR 58767) and pursuant to the Presidential Memorandum of that date. Refer to §742.15 of the EAR.

**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 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.

**Note:** Encryption software controlled for "EI" reasons under this entry remains subject to the EAR even when made publicly available in accordance with part 734 of the EAR. See §§740.13(e) and 740.17(5)(i) of the EAR for information on releasing certain source code which may be considered publicly available from "EI" controls.

**Note:** After a technical review, 56-bit items, key management products not exceeding 512 bits and mass market encryption commodities and software eligible for the Cryptography Note (see §742.15(b)(1) of the EAR) may be released from "EI" and "NS" controls.

**License Exceptions**

CIV: N/A  
 TSR: N/A

*Control(s)*

AT applies to 5D992.a.1 and .b.1  
 AT applies to 5D992.a.2, b.2 and c

*Country Chart*

AT Column 1  
 AT Column 2

**List of Items Controlled**

*Unit:* \$ value

*Related Controls:* See also 5D992. This entry does not control "software" "required" for the "use" of equipment excluded from control under to 5A002 or "software" providing any of the functions of equipment excluded from control under 5A002.

*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 equipment or "software" controlled by 5A002, 5B002 or 5D002.
- b. "Software" specially designed or modified to support "technology" controlled by 5E002.
- c. Specific "software" as follows:
  - c.1. "Software" having the characteristics, or performing or simulating the functions of the equipment controlled by 5A002 or 5B002;
  - c.2. "Software" to certify "software" controlled by 5D002.c.1.

**5D992 "Information Security" "software" not controlled by 5D002.**

**License Requirements**

*Reason for Control:* AT

**Export Administration Regulations**

**License Exceptions**

CIV: N/A  
 TSR: N/A

**List of Items Controlled**

*Unit:* \$ value

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. "Software", as follows:

a.1 "Software" specially designed or modified for the "development", "production", or "use" of telecommunications and other information security equipment containing encryption (e.g., equipment controlled by 5A992.a);

a.2. "Software" specially designed or modified for the "development", "production", or "use" of information security or cryptologic equipment (e.g., equipment controlled by 5A992.b).

b. "Software", as follows:

b.1. "Software" having the characteristics, or performing or simulating the functions of the equipment controlled by 5A992.a.

b.2. "Software" having the characteristics, or performing or simulating the functions of the equipment controlled by 5A992.b.

c. "Software" designed or modified to protect against malicious computer damage, e.g., viruses.

**E. TECHNOLOGY**

**5E002 "Technology" according to the General Technology Note for the "development", "production" or "use" of equipment controlled by 5A002 or 5B002 or "software" controlled by 5D002.**

**License Requirements**

*Reason for Control:* NS, AT, EI

*Control(s)* Country Chart

NS applies to entire entry NS Column 1

AT applies to entire entry AT Column 1

EI applies to encryption items transferred from the U.S. Munitions List to the Commerce Control List consistent with E.O. 13026 of November 15, 1996 (61 FR 58767) and pursuant to the Presidential Memorandum of that date. Refer to §742.15 of the EAR.

**License Requirement Notes:** See §743.1 of the EAR for reporting requirements for exports under License Exceptions.

**License Exceptions**

CIV: N/A  
TSR: N/A

**List of Items Controlled**

*Unit:* N/A  
*Related Controls:* See also 5E992  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**Export Administration Regulations**

**5E992 "Information Security" "technology", not controlled by 5E002.**

**License Requirements**

*Reason for Control:* AT

*Control(s)* Country Chart

AT applies to 5E992.a AT Column 1

AT applies to 5E992.b AT Column 2

**License Exceptions**

CIV: N/A  
TSR: N/A

**List of Items Controlled**

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

a. "Technology" n.e.s., for the "development", "production" or "use" of telecommunications equipment and other information security and containing encryption (e.g., equipment controlled by 5A992.a) or "software" controlled by 5D992.a.1 or b.1.

b. "Technology", n.e.s., for the "development", "production" or "use" of "information security" or cryptologic equipment (e.g., equipment controlled by 5A992.b), or "software" controlled by 5D992.a.2, b.2, or c.

**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.**