

**§ 97.23, 97.25, 97.27, 97.29, 97.31, 97.33, 97.95 [Amended]**

By amending: § 97.23 VOR, VOR/DME, VOR or TACAN, and VOR/DME or TACAN; § 97.25 LOC, LOC/DME, LDA, LDA/DME, SDF, SDF/DME; § 97.27 NDB, NDB/DME; § 97.29 ILS, ILS/DME, ISMLS, MLS/DME, MLS/RNAV; § 97.31 RADAR SIAPs; § 97.33 RNAV SIAPs; and § 97.35 COPTER SIAPs, Identified as follows:

\* \* \* *Effective Upon Publication*

FDC date	State	City	Airport	FDC Number	Subject
12/11/02 .....	PA	Bedford .....	BEDFORD COUNTY .....	2/2732	GPS RWY 32, Orig-B
12/16/02 .....	MD	Annapolis .....	LEE .....	2/2859	RNAV (GPS) RWY 30, Orig.
12/18/02 .....	VA	Roanoke .....	ROANOKE REGIONAL/ WOODRUM FIELD.	2/2903	RNAV (GPS) RWY 33, Orig-A.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2955	NDB RWY 28R, Amdt 11.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2956	ILS RWY 10L, Amdt 1C.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2957	ILS RWY 28L Orig-B.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2958	ILS RWY 28R, Amdt 12B.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2959	LOC/DME RWY 21, Amdt 7A.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2961	VOR/DME RWY 21, Orig-A.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2962	VOR RWY 28R, Amdt 2.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2963	VOR-A, Amdt 9A
12/20/02 .....	NY	New York .....	JOHN F. KENNEDY INTL	2/2966	ILS RWY 4R, Amdt 29A.
12/20/02 .....	OR	Portland .....	PORTLAND INTL .....	2/2967	ILS RWY 10R (CAT I, II, III) Amdt 31A.
12/30/02 .....	NM	Las Cruces .....	LAS CRUCES INTL .....	2/3098	ILS RWY 30, Amdt 1.

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## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### 15 CFR Parts 744 and 774

[Docket No. 021216312-2312-01]

RIN 0694-AC66

#### Revision of Export Controls for General Purpose Microprocessors

**AGENCY:** Bureau of Industry and Security, Commerce.

**ACTION:** Final Rule.

**SUMMARY:** The Bureau of Industry and Security (BIS) is amending the Export Administration Regulations (EAR) to implement revisions to national security controls for microprocessors that were agreed upon in the February 2002 meeting of the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies (Wassenaar Arrangement). This final rule removes license requirements for exports and reexports of general purpose microprocessors to most destinations to conform with changes in the List of Dual-Use Goods and Technologies maintained and agreed to by governments participating in the Wassenaar Arrangement. This rule retains license requirements for exports and reexports to designated terrorist-supporting countries. In addition, this rule establishes a new license requirement for the export or reexport of general purpose

microprocessors if, at the time of the export or reexport, the exporter or reexporter knows, has reason to know, or is informed by BIS that the item will be or is intended to be used for a "military end-use" in a country that is of concern for national security reasons or by a "military end-user" in such a country. This license requirement does not apply to items for the official use by personnel and agencies of the U.S. Government or agencies of a cooperating government in a country of concern for national security reasons. The license review standard for applications to export or reexport general purpose microprocessors subject to this license requirement is a presumption of denial. No license exceptions are available for this license requirement.

**EFFECTIVE DATE:** This rule is effective: January 14, 2003.

**FOR FURTHER INFORMATION CONTACT:** Sharron Cook, Office of Exporter Services, Bureau of Export Administration, Telephone: (202) 482-2440.

#### SUPPLEMENTARY INFORMATION:

##### Background

This rule implements changes in the List of Dual-Use Goods and Technologies maintained and agreed to by governments participating in the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies (Wassenaar Arrangement) in February 2002. General purpose microprocessors, which are produced in very large volumes and sold through a variety of channels, are used in numerous civilian applications worldwide, such as

personal computers, cellular telephones, personal digital assistants, and wireless base stations. General purpose microprocessors may also be used in a wide variety of military applications and weapons systems. The continuous, rapid increase in microprocessor capabilities has necessitated frequent adjustment to export control parameters to avoid expending limited export control resources on mass market items.

While some general purpose microprocessors will remain under the classification of Export Control Classification Number (ECCN) 3A001 on the Commerce Control List (CCL) (Supplement No. 1 to part 774 of the EAR), this rule moves most general purpose microprocessors to ECCN 3A991. Specifically, 3A001.a.3.a is removed and reserved and 3A991.a.1 is created to control the export and reexport of "microprocessor microcircuits", "microcomputer microcircuits", and microcontroller microcircuits having a "composite theoretical performance" ("CTP") of 6,500 million theoretical operations per second (MTOPS) or more and an arithmetic logic unit with an access width of 32 bit or more to countries in "AT column 1" of the Commerce Country Chart (see Supplement No. 1 of part 738 of the EAR) for anti-terrorism (AT) reasons. Currently, North Korea, Sudan and Syria are listed in "AT column 1." However, the Commerce Country Chart directs you to part 746 of the EAR to determine license requirements for other state sponsors of terrorism, *i.e.*, Cuba, Iran, Iraq, and Libya.

This rule also creates a new § 744.17, "Restrictions on certain exports and reexports of general purpose microprocessors for 'military end-uses' and to 'military end-users.'" In addition to the license requirements for AT reasons specified in ECCN 3A991.a.1 on the CCL and §§ 742.9, 742.10 and 742.18 of the EAR, no one may export or reexport an item classified under ECCN 3A991.a.1 without a license if, at the time of the export or reexport, the exporter or reexporter knows, has reason to know, or is informed by BIS, that the item will be or is intended to be used for a 'military end-use,' as defined in paragraph (d) of this section, in Country Group D:1 (see Supplement No. 1 to part 740 of the EAR); or by a 'military end-user,' as defined in paragraph (e) of this section, in Country Group D:1. The definitions of the term "know" and "knowledge" set forth in section 772.1 of the EAR apply to this license requirement. This rule also defines, for purposes of the newly created § 774.17, the terms 'military end-use' and 'military end-user.' In addition, this rule adds a new Supplement No. 1 to part 744 to give examples of military items in which this type of microprocessor could be used. This license requirement does not apply to items for the official use by personnel and agencies of the U.S. Government or agencies of a cooperating government in a Country Group D:1 country. See § 740.11(b)(3) of the EAR for definitions of "agency of the U.S. Government" and "agency of a cooperating government." The license review standard for applications to export or reexport general purpose microprocessors under section 744.17 is a presumption of denial. No license exceptions are available for this license requirement.

Although the Export Administration Act expired on August 20, 2001, the President, through Executive Order 13222 of August 17, 2001 (66 FR 44025, 3 CFR, 2001 Comp., p. 783), as extended by the Notice of August 14, 2002 (67 FR 53721, August 16, 2002), has continued the Export Administration Regulations in effect under the International Emergency Economic Powers Act.

### Rulemaking Requirements

1. This final rule has been determined to be not significant for purposes of E.O. 12866.

2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information, subject to the requirements of the Paperwork Reduction Act, unless that collection of

information displays a currently valid Office of Management and Budget Control Number. This rule involves a collection of information subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). This collection has been approved by the Office of Management and Budget under control number 0694-0088, "Multi-Purpose Application," which carries a burden hour estimate of 45 minutes for a manual submission and 40 minutes for an electronic submission.

3. This rule does not contain policies with Federalism implications as that term is defined under E.O. 13132.

4. The provisions of the Administrative Procedure Act (5 U.S.C. 553) requiring notice of proposed rulemaking, the opportunity for public participation, and a delay in effective date, are inapplicable because this regulation involves a military and foreign affairs function of the United States (5 U.S.C. 553(a)(1)). Further, no other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this interim rule. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule under the Administrative Procedure Act or by any other law, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) are not applicable. Therefore, this regulation is issued in final form. Although there is no formal comment period, public comments on this regulation are welcome on a continuing basis. Comments should be submitted to Sharron Cook, Office of Exporter Services, Bureau of Industry and Security, Department of Commerce, P.O. Box 273, Washington, D.C. 20044.

### List of Subjects

#### 15 CFR Part 744

Exports, Foreign trade, Reporting and recordkeeping requirements.

#### 15 CFR Part 774

Exports, Foreign trade.

Accordingly, parts 744 and 774 of the Export Administration Regulations (15 CFR parts 730-799) are amended as follows:

### PART 744—[AMENDED]

1. The authority citation for 15 CFR part 744 is revised to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 22 U.S.C. 3201 *et seq.*; 42 U.S.C. 2139a; Sec. 901-911, Publ. L. 106-387; Sec. 221, Publ. L. 107-56; E.O. 12058, 43 FR 20947, 3 CFR, 1978 Comp., p. 179; E.O. 12851, 58 FR 33181, 3 CFR, 1993 Comp., p.

608; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 12947, 60 FR 5079, 3 CFR, 1995 Comp., p. 356; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13099, 63 FR 45167, 3 CFR, 1998 Comp., p. 208; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; E.O. 13224, 66 FR 49079, 3 CFR, 2001 Comp., p. 786; Notice of November 9, 2001, 66 FR 56965, 3 CFR, 2001 Comp., p. 917; Notice of August 14, 2002, 67 FR 53721, August 16, 2002.

2. Part 744 is amended by adding a new § 744.17, and adding a new Supplement No. 1, to read as follows:

### § 744.17 Restrictions on certain exports and reexports of general purpose microprocessors for "military end-uses" and to "military end-users."

(a) *General prohibition.* In addition to the license requirements for anti-terrorism reasons set forth in part 742 of the EAR, you may not export or reexport commodities described in ECCN 3A991.a.1 on the CCL ("microprocessor microcircuits", "microcomputer microcircuits", and microcontroller microcircuits having a "composite theoretical performance" ("CTP") of 6,500 million theoretical operations per second (MTOPS) or more and an arithmetic logic unit with an access width of 32 bit or more), without a license if, at the time of the export or reexport, you know, have reason to know, or are informed by BIS that the item will be or is intended to be used for a "military end-use," as defined in paragraph (d) of this section, in Country Group D:1 (see Supplement No. 1 to part 740 of the EAR); or by a "military end-user," as defined in paragraph (e) of this section, in Country Group D:1. This license requirement does not apply to exports or reexports of items for the official use by personnel and agencies of the U.S. Government or agencies of a cooperating government. See § 740.11(b)(3) of the EAR for definitions of "agency of the U.S. Government" and "agency of a cooperating government".

(b) *Additional prohibition on exporters or reexporters informed by BIS.* BIS may inform an exporter or reexporter, either individually by specific notice or through amendment to the EAR, that a license is required for export or reexport of items described in ECCN 3A991.a.1 to specified end-users, because BIS has determined that there is an unacceptable risk of diversion to the uses or users described in paragraph (a) of this section. Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration. When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration.

The absence of any such notification does not excuse the exporter or reexporter from compliance with the license requirements of paragraph (a) of this section.

(c) *License review standards.* There is a presumption of denial for applications to export or reexport items subject to this section.

(d) *Military end-use.* In this section, the phrase "military end-use" means incorporation into: a military item described on the U.S. Munitions List (USML) (22 CFR part 121, International Traffic in Arms Regulations) or the International Munitions List (IML) (as set out on the Wassenaar Arrangement website at <http://www.wassenaar.org>); commodities listed under ECCN's ending in "A018" on the Commerce Control List (CCL) in Supplement No. 1 to part 774 of the EAR; or any item that is designed for the "use", "development", "production", or deployment of military items described on the USML, the IML, or commodities listed under ECCN's ending in "A018" on the CCL. Supplement No. 1 of this part lists examples of 'military end-use.'

(e) *Military end-user.* In this section, the term "military end-user" means the national armed services (army, navy, marine, air force, or coast guard), as well as the national guard and national police, government intelligence or reconnaissance organizations, or any person or entity whose actions or functions are intended to support "military end-uses" as defined in paragraph (d) of this section.

(f) *Exceptions.* No License Exceptions apply to the prohibitions described in paragraphs (a) and (b) of this section.

#### Supplement No. 1 to Part 744—Military End-Use Examples for § 744.17

(a) *Examples of military end-uses (as described in § 744.17 (d) of this part) of general-purpose microprocessors classified as ECCN 3A991.a.1 includes employing such microprocessors in the "use", "development", "production", or deployment of:*

- (1) Cruise missiles;
- (2) Electronic suites of military aircraft and helicopters;
- (3) Radar for searching, targeting, or tracking systems;
- (4) Command/control/communications or navigation systems;
- (5) Unmanned aerial vehicles capable of performing military reconnaissance, surveillance, or combat support;
- (6) Rocket or missile systems;
- (7) Electronic or information warfare systems; or
- (8) Intelligence, reconnaissance, or surveillance systems suitable for supporting military operations.

(b) [Reserved]

#### PART 774—[AMENDED]

3. The authority citation for 15 CFR part 774 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 10 U.S.C. 7420; 10 U.S.C. 7430(e); 18 U.S.C. 2510 *et seq.*; 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.*, 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 46 U.S.C. app. 466c; 50 U.S.C. app. 5; Sec. 901–911, Pub. L. 106–387; Sec. 221, Pub. L. 107–56; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; notice of August 14, 2002, 67 FR 53721, August 16, 2002.

4. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A001 is amended by revising the License Exception section, and the Items paragraph of the List of Items Controlled section, to read as follows:

#### 3A001 Electronic Components, as Follows (see List of Items Controlled)

\* \* \* \* \*

#### License Exceptions

LVS: N/A for MT or NP

Yes for:

\$1500: 3A001.c

\$3000: 3A001.b.1, b.2, b.3, .d, .e and .f

\$5000: 3A001.a, and .b.4 to b.7

GBS: Yes for 3A001.a.1.b, a.2 to a.12, b.2, and b.8 (except for TWTAs exceeding 18 GHz).

CIV: Yes for 3A001.a.3.b, a.3.c, a.4, a.7, and a.11.

#### List of Items Controlled

Unit: \* \* \*

Related Controls: \* \* \*

Related Definitions: \* \* \*

Items:

a. General purpose integrated circuits, as follows:

**Note 1:** The control status of wafers (finished or unfinished), in which the function has been determined, is to be evaluated against the parameters of 3A001.a.

**Note 2:** Integrated circuits include the following types: "Monolithic integrated circuits"; "Hybrid integrated circuits"; "Multichip integrated circuits"; "Film type integrated circuits", including silicon-on-sapphire integrated circuits; "Optical integrated circuits".

a.1. Integrated circuits, designed or rated as radiation hardened to withstand any of the following:

a.1.a. A total dose of  $5 \times 10^3$  Gy (Si), or higher; or

a.1.b. A dose rate upset of  $5 \times 10^6$  Gy (Si)/s, or higher;

a.2. "Microprocessor microcircuits", "microcomputer microcircuits", microcontroller microcircuits, storage integrated circuits manufactured from a compound semiconductor, analog-to-digital converters, digital-to-analog converters,

electro-optical or "optical integrated circuits" designed for "signal processing", field programmable logic devices, neural network integrated circuits, custom integrated circuits for which either the function is unknown or the control status of the equipment in which the integrated circuit will be used is unknown, Fast Fourier Transform (FFT) processors, electrical erasable programmable read-only memories (EEPROMs), flash memories or static random-access memories (SRAMs), having any of the following:

- a.2.a. Rated for operation at an ambient temperature above 398 K (125°C);
- a.2.b. Rated for operation at an ambient temperature below 218 K (–55°C); or
- a.2.c. Rated for operation over the entire ambient temperature range from 218 K (–55°C) to 398 K (125°C);

**Note:** 3A001.a.2 does not apply to integrated circuits for civil automobile or railway train applications.

a.3. "Microprocessor microcircuits", "micro-computer microcircuits" and microcontroller microcircuits, having any of the following characteristics:

**Note:** 3A001.a.3 includes digital signal processors, digital array processors and digital coprocessors.

a.3.a. [Reserved]

a.3.b. Manufactured from a compound semiconductor and operating at a clock frequency exceeding 40 MHz; or

a.3.c. More than one data or instruction bus or serial communication port that provides a direct external interconnection between parallel "microprocessor microcircuits" with a transfer rate exceeding 150 Mbyte/s;

a.4. Storage integrated circuits manufactured from a compound semiconductor;

a.5. Analog-to-digital and digital-to-analog converter integrated circuits, as follows:

a.5.a. Analog-to-digital converters having any of the following:

a.5.a.1. A resolution of 8 bit or more, but less than 12 bit, with a total conversion time of less than 5 ns;

a.5.a.2. A resolution of 12 bit with a total conversion time of less than 200 ns; or

a.5.a.3. A resolution of more than 12 bit with a total conversion time of less than 2 μs;

a.5.b. Digital-to-analog converters with a resolution of 12 bit or more, and a "settling time" of less than 10 ns;

**Technical Note:** 1. A resolution of n bit corresponds to a quantization of 2<sup>n</sup> levels.

2. Total conversion time is the inverse of the sample rate.

a.6. Electro-optical and "optical integrated circuits" designed for "signal processing" having all of the following:

a.6.a. One or more than one internal "laser" diode;

a.6.b. One or more than one internal light detecting element; and

a.6.c. Optical waveguides;

a.7. Field programmable logic devices having any of the following:

a.7.a. An equivalent usable gate count of more than 30,000 (2 input gates);

a.7.b. A typical "basic gate propagation delay time" of less than 0.1 ns; or

a.7.c. A toggle frequency exceeding 133 MHz;

**Note:** 3A001.a.7 includes: Simple Programmable Logic Devices (SPLDs), Complex Programmable Logic Devices (CPLDs), Field Programmable Gate Arrays (FPGAs), Field Programmable Logic Arrays (FPLAs), and Field Programmable Interconnects (FPICs).

N.B.: Field programmable logic devices are also known as field programmable gate or field programmable logic arrays.

a.8. [Reserved]

a.9. Neural network integrated circuits;

a.10. Custom integrated circuits for which the function is unknown, or the control status of the equipment in which the integrated circuits will be used is unknown to the manufacturer, having any of the following:

a.10.a. More than 1,000 terminals;

a.10.b. A typical "basic gate propagation delay time" of less than 0.1 ns; or

a.10.c. An operating frequency exceeding 3 GHz;

a.11. Digital integrated circuits, other than those described in 3A001.a.3 to 3A001.a.10 and 3A001.a.12, based upon any compound semiconductor and having any of the following:

a.11.a. An equivalent gate count of more than 3,000 (2 input gates); or

a.11.b. A toggle frequency exceeding 1.2 GHz;

a.12. Fast Fourier Transform (FFT) processors having a rated execution time for an N-point complex FFT of less than  $(N \log_2 N)/20,480$  ms, where N is the number of points;

**Technical Note:** When N is equal to 1,024 points, the formula in 3A001.a.12 gives an execution time of 500  $\mu$ s.

b. Microwave or millimeter wave components, as follows:

b.1. Electronic vacuum tubes and cathodes, as follows:

**Note 1:** 3A001.b.1 does not control tubes designed or rated for operation in any frequency band which meets all of the following characteristics:

(a.) Does not exceed 31 GHz; and

(b.) Is "allocated by the ITU" for radio-communications services, but not for radio-determination.

**Note 2:** 3A001.b.1 does not control non-'space-qualified' tubes which meet all the following characteristics:

(a.) An average output power equal to or less than 50 W; and

(b.) Designed or rated for operation in any frequency band which meets all of the following characteristics:

(1.) Exceeds 31 GHz but does not exceed 43.5 GHz; and

(2.) Is "allocated by the ITU" for radio-communications services, but not for radio-determination.

b.1.a. Traveling wave tubes, pulsed or continuous wave, as follows:

b.1.a.1. Operating at frequencies exceeding 31 GHz;

b.1.a.2. Having a cathode heater element with a turn on time to rated RF power of less than 3 seconds;

b.1.a.3. Coupled cavity tubes, or derivatives thereof, with a "fractional

bandwidth" of more than 7% or a peak power exceeding 2.5 kW;

b.1.a.4. Helix tubes, or derivatives thereof, with any of the following characteristics:

b.1.a.4.a. An "instantaneous bandwidth" of more than one octave, and average power (expressed in kW) times frequency (expressed in GHz) of more than 0.5;

b.1.a.4.b. An "instantaneous bandwidth" of one octave or less, and average power (expressed in kW) times frequency (expressed in GHz) of more than 1; or

b.1.a.4.c. Being "space qualified";

b.1.b. Crossed-field amplifier tubes with a gain of more than 17 dB;

b.1.c. Impregnated cathodes designed for electronic tubes producing a continuous emission current density at rated operating conditions exceeding 5 A/cm<sup>2</sup>;

b.2. Microwave integrated circuits or modules having all of the following:

b.2.a. Containing "monolithic integrated circuits" having one or more active circuit elements; and

b.2.b. Operating at frequencies above 3 GHz;

**Note 1:** 3A001.b.2 does not control circuits or modules for equipment designed or rated to operate in any frequency band which meets all of the following characteristics:

(a.) Does not exceed 31 GHz; and

(b.) Is "allocated by the ITU" for radio-communications services, but not for radio-determination.

**Note 2:** 3A001.b.2 does not control broadcast satellite equipment designed or rated to operate in the frequency range of 40.5 to 42.5 GHz.

b.3. Microwave transistors rated for operation at frequencies exceeding 31 GHz;

b.4. Microwave solid state amplifiers, having any of the following:

b.4.a. Operating frequencies exceeding 10.5 GHz and an "instantaneous bandwidth" of more than half an octave; or

b.4.b. Operating frequencies exceeding 31 GHz;

b.5. Electronically or magnetically tunable band-pass or band-stop filters having more than 5 tunable resonators capable of tuning across a 1.5:1 frequency band ( $f_{\max}/f_{\min}$ ) in less than 10  $\mu$ s having any of the following:

b.5.a. A band-pass bandwidth of more than 0.5% of center frequency; or

b.5.b. A band-stop bandwidth of less than 0.5% of center frequency;

b.6. Microwave "assemblies" capable of operating at frequencies exceeding 31 GHz;

b.7. Mixers and converters designed to extend the frequency range of equipment described in 3A002.c, 3A002.e or 3A002.f beyond the limits stated therein;

b.8. Microwave power amplifiers containing tubes controlled by 3A001.b and having all of the following:

b.8.a. Operating frequencies above 3 GHz;

b.8.b. An average output power density exceeding 80 W/kg; and

b.8.c. A volume of less than 400cm<sup>3</sup>

**Note:** 3A001.b.8 does not control equipment designed or rated for operation in any frequency band which is "allocated by the ITU" for radio-communications services, but not for radio-determination.

c. Acoustic wave devices, as follows, and specially designed components therefor:

c.1. Surface acoustic wave and surface skimming (shallow bulk) acoustic wave devices (*i.e.*, "signal processing" devices employing elastic waves in materials), having any of the following:

c.1.a. A carrier frequency exceeding 2.5 GHz;

c.1.b. A carrier frequency exceeding 1 GHz, but not exceeding 2.5 GHz, and having any of the following:

c.1.b.1. A frequency side-lobe rejection exceeding 55 dB;

c.1.b.2. A product of the maximum delay time and the bandwidth (time in  $\mu$ s and bandwidth in MHz) of more than 100;

c.1.b.3. A bandwidth greater than 250 MHz; or

c.1.b.4. A dispersive delay of more than 10  $\mu$ s; or

c.1.c. A carrier frequency of 1 GHz or less, having any of the following:

c.1.c.1. A product of the maximum delay time and the bandwidth (time in  $\mu$ s and bandwidth in MHz) of more than 100;

c.1.c.2. A dispersive delay of more than 10  $\mu$ s or

c.1.c.3. A frequency side-lobe rejection exceeding 55 dB and a bandwidth greater than 50 MHz;

c.2. Bulk (volume) acoustic wave devices (*i.e.*, "signal processing" devices employing elastic waves) that permit the direct processing of signals at frequencies exceeding 1 GHz;

c.3. Acoustic-optic "signal processing" devices employing interaction between acoustic waves (bulk wave or surface wave) and light waves that permit the direct processing of signals or images, including spectral analysis, correlation or convolution;

d. Electronic devices and circuits containing components, manufactured from "superconductive" materials specially designed for operation at temperatures below the "critical temperature" of at least one of the "superconductive" constituents, with any of the following:

d.1. Current switching for digital circuits using "superconductive" gates with a product of delay time per gate (in seconds) and power dissipation per gate (in watts) of less than  $10^{-14}$  J; or

d.2. Frequency selection at all frequencies using resonant circuits with Q-values exceeding 10,000;

e. High energy devices, as follows:

e.1. Batteries and photovoltaic arrays, as follows:

**Note:** 3A001.e.1 does not control batteries with volumes equal to or less than 27 cm<sup>3</sup> (*e.g.*, standard C-cells or R14 batteries).

e.1.a. Primary cells and batteries having an energy density exceeding 480 Wh/kg and rated for operation in the temperature range from below 243 K ( $-30^{\circ}$ C) to above 343 K ( $70^{\circ}$ C);

e.1.b. Rechargeable cells and batteries having an energy density exceeding 150 Wh/kg after 75 charge/discharge cycles at a discharge current equal to C/5 hours  $\odot$  being the nominal capacity in ampere hours) when operating in the temperature range from below 253 K ( $-20^{\circ}$ C) to above 333 K ( $60^{\circ}$ C);

**Technical Note:** Energy density is obtained by multiplying the average power in watts (average voltage in volts times average

current in amperes) by the duration of the discharge in hours to 75% of the open circuit voltage divided by the total mass of the cell (or battery) in kg.

e.1.c. "Space qualified" and radiation hardened photovoltaic arrays with a specific power exceeding 160 W/m<sup>2</sup> at an operating temperature of 301 K (28°C) under a tungsten illumination of 1 kW/m<sup>2</sup> at 2,800 K (2,527°C);

e.2. High energy storage capacitors, as follows:

e.2.a. Capacitors with a repetition rate of less than 10 Hz (single shot capacitors) having all of the following:

e.2.a.1. A voltage rating equal to or more than 5 kV;

e.2.a.2. An energy density equal to or more than 250 J/kg; and

e.2.a.3. A total energy equal to or more than 25 kJ;

e.2.b. Capacitors with a repetition rate of 10 Hz or more (repetition rated capacitors) having all of the following:

e.2.b.1. A voltage rating equal to or more than 5 kV;

e.2.b.2. An energy density equal to or more than 50 J/kg;

e.2.b.3. A total energy equal to or more than 100 J; and

e.2.b.4. A charge/discharge cycle life equal to or more than 10,000;

e.3. "Superconductive" electromagnets and solenoids specially designed to be fully charged or discharged in less than one second, having all of the following:

**Note:** 3A001.e.3 does not control "superconductive" electromagnets or solenoids specially designed for Magnetic Resonance Imaging (MRI) medical equipment.

e.3.a. Energy delivered during the discharge exceeding 10 kJ in the first second;

e.3.b. Inner diameter of the current carrying windings of more than 250 mm; and

e.3.c. Rated for a magnetic induction of more than 8 T or "overall current density" in the winding of more than 300 A/mm<sup>2</sup>;

f. Rotary input type shaft absolute position encoders having any of the following:

f.1. A resolution of better than 1 part in 265,000 (18 bit resolution) of full scale; or f.2. An accuracy better than ± 2.5 seconds of arc.

5. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A991 is amended by revising the License Requirement section, and the Items paragraph of the List of Items Controlled section, to read as follows:

**3A991 Electronic Devices and Components Not Controlled by 3A001**

*License Requirements*

Reason for Control: AT

Control(s)	Country chart
AT applies to entire entry .....	AT Column 1

*License Requirements Notes*

1. Microprocessors with a CTP below 550 MTOPS listed in paragraphs (a)(2) or (a)(3) of this entry may be shipped NLR (No License

Required) when destined to North Korea, provided restrictions set forth in other sections of the EAR (e.g., end-use restrictions), do not apply.

2. See 744.17 of the EAR for additional license requirements for commodities classified as 3A991.a.1.

\* \* \* \* \*

*List of Items Controlled*

Unit: \* \* \*

Related Controls: \* \* \*

Related Definitions: \* \* \*

Items:

a. "Microprocessor microcircuits", "microcomputer microcircuits", and microcontroller microcircuits having any of the following:

a.1. A "composite theoretical performance" ("CTP") of 6,500 million theoretical operations per second (MTOPS) or more and an arithmetic logic unit with an access width of 32 bit or more;

a.2. A clock frequency rate exceeding 25 MHz; or

a.3. More than one data or instruction bus or serial communication port that provides a direct external interconnection between parallel "microprocessor microcircuits" with a transfer rate of 2.5 Mbyte/s.

b. Storage integrated circuits, as follows:

b.1. Electrical erasable programmable read-only memories (EEPROMs) with a storage capacity;

b.1.a. Exceeding 16 Mbits per package for flash memory types; or

b.1.b. Exceeding either of the following limits for all other EEPROM types:

b.1.b.1. Exceeding 1 Mbit per package; or

b.1.b.2. Exceeding 256 kbit per package and a maximum access time of less than 80 ns;

b.2. Static random access memories (SRAMs) with a storage capacity:

b.2.a. Exceeding 1 Mbit per package; or

b.2.b. Exceeding 256 kbit per package and a maximum access time of less than 25 ns;

c. Analog-to-digital converters having a resolution of 8 bit or more, but less than 12 bit, with a total conversion time of less than 10 ns;

d. Field programmable logic devices having either of the following:

d.1. An equivalent gate count of more than 5000 (2 input gates); or

d.2. A toggle frequency exceeding 100 MHz;

e. Fast Fourier Transform (FFT) processors having a rated execution time for a 1,024 point complex FFT of less than 1 ms.

f. Custom integrated circuits for which either the function is unknown, or the control status of the equipment in which the integrated circuits will be used is unknown to the manufacturer, having any of the following:

f.1. More than 144 terminals; or

f.2. A typical "basic propagation delay time" of less than 0.4 ns.

g. Traveling wave tubes, pulsed or continuous wave, as follows:

g.1. Coupled cavity tubes, or derivatives thereof;

g.2. Helix tubes, or derivatives thereof, with any of the following:

g.2.a. An "instantaneous bandwidth" of half an octave or more; and

g.2.b. The product of the rated average output power (expressed in kW) and the maximum operating frequency (expressed in GHz) of more than 0.2;

g.2.c. An "instantaneous bandwidth" of less than half an octave; and

g.2.d. The product of the rated average output power (expressed in kW) and the maximum operating frequency (expressed in GHz) of more than 0.4;

h. Flexible waveguides designed for use at frequencies exceeding 40 GHz;

i. Surface acoustic wave and surface skimming (shallow bulk) acoustic wave devices (*i.e.*, "signal processing" devices employing elastic waves in materials), having either of the following:

i.1. A carrier frequency exceeding 1 GHz; or

i.2. A carrier frequency of 1 GHz or less; and

i.2.a. A frequency side-lobe rejection exceeding 55 Db;

i.2.b. A product of the maximum delay time and bandwidth (time in microseconds and bandwidth in MHz) of more than 100; or

i.2.c. A dispersive delay of more than 10 microseconds.

j. Batteries, as follows:

**Note:** 3A991 .j does not control batteries with volumes equal to or less than 26 cm<sup>3</sup> (e.g., standard C-cells or UM-2 batteries).

j.1. Primary cells and batteries having an energy density exceeding 350 Wh/kg and rated for operation in the temperature range from below 243 K (-30°C) to above 343 K (70°C);

j.2. Rechargeable cells and batteries having an energy density exceeding 150 Wh/kg after 75 charge/discharge cycles at a discharge current equal to C/5 hours "being the nominal capacity in ampere hours) when operating in the temperature range from below 253 K (-20°C) to above 333 K (60°C);

**Technical Note:** Energy density is obtained by multiplying the average power in watts (average voltage in volts times average current in amperes) by the duration of the discharge in hours to 75 percent of the open circuit voltage divided by the total mass of the cell (or battery) in kg.

k. "Superconductive" electromagnets or solenoids specially designed to be fully charged or discharged in less than one minute, having all of the following:

**Note:** 3A991.k does not control "superconductive" electromagnets or solenoids designed for Magnetic Resonance Imaging (MRI) medical equipment.

k.1. Maximum energy delivered during the discharge divided by the duration of the discharge of more than 500 kJ per minute;

k.2. Inner diameter of the current carrying windings of more than 250 mm; and

k.3. Rated for a magnetic induction of more than 8T or "overall current density" in the winding of more than 300 A/mm<sup>2</sup>.

l. Circuits or systems for electromagnetic energy storage, containing components manufactured from "superconductive" materials specially designed for operation at temperatures below the "critical temperature" of at least one of their "superconductive" constituents, having all of the following:

l.1. Maximum energy stored per unit volume of more than 100 J/cm<sup>3</sup>;

l.2. Inner diameter of the current carrying windings of more than 250 mm; and

l.3. Rated for a magnetic induction of more than 8T or "overall current density" in the winding of more than 300 A/mm<sup>2</sup>.

m. Circuits or systems for electromagnetic energy storage, containing components manufactured from "superconductive" materials specially designed for operation at temperatures below the "critical temperature" of at least one of their "superconductive" constituents, having all of the following:

m.1. Maximum energy stored per unit volume of more than 100 J/cm<sup>3</sup>;

m.2. Inner diameter of the current carrying windings of more than 250 mm; and

m.3. Rated for a magnetic induction of more than 8T or "overall current density" in the winding of more than 300 A/mm<sup>2</sup>.

- 1.1. Resonant operating frequencies exceeding 1 MHz;
- 1.2. A stored energy density of 1 MJ/M<sup>3</sup> or more; and
- 1.3. A discharge time of less than 1 ms;
- m. Hydrogen/hydrogen-isotope thyratrons of ceramic-metal construction and rate for a peak current of 500 A or more;
- n. Digital integrated circuits based on any compound semiconductor having an equivalent gate count of more than 300 (2 input gates).

\* \* \* \* \*

Dated: December 30, 2002.

**James J. Jochum,**

*Assistant Secretary for Export Administration.*

[FR Doc. 03-714 Filed 1-13-03; 8:45 am]

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## DEPARTMENT OF THE TREASURY

### Customs Service

#### 19 CFR Part 4

[T.D. 02-62]

RIN 1515-AD11

#### **Presentation of Vessel Cargo Declaration to Customs Before Cargo Is Laden Aboard Vessel at Foreign Port for Transport to the United States; Technical Correction**

**AGENCY:** U.S. Customs Service, Department of the Treasury.

**ACTION:** Final rule; technical correction.

**SUMMARY:** This document contains a technical correction to the final

regulations (T.D. 02-62), which were published Thursday, October 31, 2002. The regulations required the advance and accurate presentation of certain vessel cargo declaration information to Customs prior to lading the cargo aboard the vessel at the foreign port and encouraged the presentation of this information electronically.

**EFFECTIVE DATE:** December 2, 2002.

**FOR FURTHER INFORMATION CONTACT:** Kimberly Nott, Office of Field Operations, (202-927-0042).

**SUPPLEMENTARY INFORMATION:**

**Background**

On October 31, 2002, Customs published a final rule document in the **Federal Register** (67 FR 66318) as T.D. 02-62. The final rule concerned the requirement to provide advance and accurate presentation to Customs of certain vessel cargo declaration information prior to lading the cargo aboard the vessel at the foreign port and encouraged the presentation of this information electronically.

This correction concerns when a transmission of the required cargo declaration information must be made by an eligible non-vessel operating common carrier (NVOCC). Specifically, in T.D. 02-62, § 4.7(b)(2) of the Customs Regulations (19 CFR 4.7(b)(2)) correctly provided that Customs must receive from the vessel carrier the vessel's Cargo Declaration, Customs Form 1302, or a Customs-approved electronic equivalent, 24 hours before such cargo was laden aboard the vessel at the foreign port. By contrast, § 4.7(b)(3)(i)

inadvertently stated in effect that if an eligible NVOCC elected to file such cargo declaration information with Customs, the NVOCC would have to electronically transmit this information to Customs 24 hours before the related cargo was laden aboard the vessel at the foreign port.

However, under T.D. 02-62, both vessel carriers and NVOCCs were properly intended to be subject to the same 24-hour advance presentation requirement. As such, it was intended that under § 4.7(b)(3)(i) Customs likewise receive from a participating NVOCC the necessary cargo declaration information 24 hours before the related cargo was laden aboard the vessel at the foreign port. This document corrects that unintended inconsistency.

**Correction of Publication**

Accordingly, the publication on October 31, 2002 of the final regulations (T.D. 02-62), which were the subject of FR Doc. 02-27661, is corrected as follows:

On page 66331, in the second column, in § 4.7, in the first sentence of paragraph (b)(3)(i), on line 14, add between the words "Vessel Automated Manifest System (AMS)" and "24 or more hours" the words "that must be received".

Dated: January 9, 2003.

**Michael T. Schmitz,**

*Assistant Commissioner, Office of Regulations and Rulings.*

[FR Doc. 03-741 Filed 1-13-03; 8:45 am]

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