

L.N. 27 of 2015

**Import and Export (Strategic Commodities) Regulations
(Amendment of Schedule 1) Order 2015**

(Made by the Director-General of Trade and Industry under section
6B of the Import and Export Ordinance (Cap. 60))

1. Commencement

Subject to section 6B of the Ordinance, this Order comes into operation on a day to be appointed by the Director-General of Trade and Industry by notice published in the Gazette.

2. Import and Export (Strategic Commodities) Regulations amended

The Import and Export (Strategic Commodities) Regulations (Cap. 60 sub. leg. G) are amended as set out in section 3.

3. Schedule 1 amended (strategic commodities)

- (1) Schedule 1, Chinese text, Dual-use Goods List, Category 3, 3A, Note 2, Nota Bene—

Repeal

“或 3A001(a)(13)”

Substitute

“及 3A001(a)(13)”.

- (2) Schedule 1, Dual-use Goods List, Category 3, 3A001(a), Note 2—

Repeal

““Optical integrated circuits”.”

Substitute

““Optical integrated circuits”;

“Three dimensional integrated circuits”.”.

- (3) Schedule 1, Dual-use Goods List, Category 3, 3A001(a)(5)(a)(1)—

Repeal

“500 million”

Substitute

“1 billion”.

- (4) Schedule 1, Dual-use Goods List, Category 3, before 3A001(b)(1)—

Add

“Technical Note:

For the purposes of 3A001(b), the parameter peak saturated power output may be referred to on product data sheets as output power, saturated power output, maximum power output, peak power output or peak envelope power output.”.

- (5) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(2)—

(a) **Repeal everything before the Notes**

Substitute

“(2) Microwave “Monolithic Integrated Circuit” (MMIC) power amplifiers that are any of the following:

- (a) Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz with a “fractional bandwidth” greater than 15%, and having any of the following:

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- (1) A peak saturated power output greater than 75 W (48.75 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;
 - (2) A peak saturated power output greater than 55 W (47.4 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;
 - (3) A peak saturated power output greater than 40 W (46 dBm) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz;
 - (4) A peak saturated power output greater than 20 W (43 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;
- (b) Rated for operation at frequencies exceeding 6.8 GHz up to and including 16 GHz with a “fractional bandwidth” greater than 10%, and having any of the following:
- (1) A peak saturated power output greater than 10 W (40 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;
 - (2) A peak saturated power output greater than 5 W (37 dBm) at any frequency exceeding 8.5 GHz up to and including 16 GHz;
- (c) Rated for operation with a peak saturated power output greater than 3 W (34.77 dBm) at any frequency exceeding

- 16 GHz up to and including 31.8 GHz, and with a “fractional bandwidth” of greater than 10%;
- (d) Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;
 - (e) Rated for operation with a peak saturated power output greater than 1 W (30 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz, and with a “fractional bandwidth” of greater than 10%;
 - (f) Rated for operation with a peak saturated power output greater than 31.62 mW (15 dBm) at any frequency exceeding 43.5 GHz up to and including 75 GHz, and with a “fractional bandwidth” of greater than 10%;
 - (g) Rated for operation with a peak saturated power output greater than 10 mW (10 dBm) at any frequency exceeding 75 GHz up to and including 90 GHz, and with a “fractional bandwidth” of greater than 5%;
 - (h) Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 90 GHz;”;
- (b) **Repeal Note 2**
- Substitute**
- “2. When the rated operating frequency of an MMIC includes frequencies listed in more

than one frequency range, as defined by 3A001(b)(2)(a) to 3A001(b)(2)(h), the control status of the MMIC is determined by the lowest peak saturated power output threshold.”.

- (6) Schedule 1, Dual-use Goods List, Category 3—

Repeal 3A001(b)(3)

Substitute

- “(3) Discrete microwave transistors that are any of the following:
- (a) Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz and having any of the following:
 - (1) A peak saturated power output greater than 400 W (56 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;
 - (2) A peak saturated power output greater than 205 W (53.12 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;
 - (3) A peak saturated power output greater than 115 W (50.61 dBm) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz;
 - (4) A peak saturated power output greater than 60 W (47.78 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;
 - (b) Rated for operation at frequencies exceeding 6.8 GHz up to and including 31.8 GHz and having any of the following:

- (1) A peak saturated power output greater than 50 W (47 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;
- (2) A peak saturated power output greater than 15 W (41.76 dBm) at any frequency exceeding 8.5 GHz up to and including 12 GHz;
- (3) A peak saturated power output greater than 40 W (46 dBm) at any frequency exceeding 12 GHz up to and including 16 GHz;
- (4) A peak saturated power output greater than 7 W (38.45 dBm) at any frequency exceeding 16 GHz up to and including 31.8 GHz;
- (c) Rated for operation with a peak saturated power output greater than 0.5 W (27 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;
- (d) Rated for operation with a peak saturated power output greater than 1 W (30 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz;
- (e) Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 43.5 GHz;

Notes:

1. When the rated operating frequency of a transistor includes frequencies listed in more than one frequency range, as defined by 3A001(b)(3)(a) to 3A001(b)(3)(e), the control

status of the transistor is determined by the lowest peak saturated power output threshold.

2. 3A001(b)(3) includes bare dice, dice mounted on carriers, or dice mounted in packages. Some discrete transistors may be referred to as power amplifiers, but the control status of these discrete transistors is determined by 3A001(b)(3).”.

- (7) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(4)—

- (a) **Repeal everything before Nota Bene**

Substitute

“(4) Microwave solid state amplifiers and microwave assemblies/modules containing microwave solid state amplifiers, that are any of the following:

- (a) Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz with a “fractional bandwidth” greater than 15%, and having any of the following:

- (1) A peak saturated power output greater than 500 W (57 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;

- (2) A peak saturated power output greater than 270 W (54.3 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;

- (3) A peak saturated power output greater than 200 W (53 dBm) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz;

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- (4) A peak saturated power output greater than 90 W (49.54 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;
- (b) Rated for operation at frequencies greater than 6.8 GHz up to and including 31.8 GHz with a “fractional bandwidth” greater than 10%, and having any of the following:
 - (1) A peak saturated power output greater than 70 W (48.54 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;
 - (2) A peak saturated power output greater than 50 W (47 dBm) at any frequency exceeding 8.5 GHz up to and including 12 GHz;
 - (3) A peak saturated power output greater than 30 W (44.77 dBm) at any frequency exceeding 12 GHz up to and including 16 GHz;
 - (4) A peak saturated power output greater than 20 W (43 dBm) at any frequency exceeding 16 GHz up to and including 31.8 GHz;
- (c) Rated for operation with a peak saturated power output greater than 0.5 W (27 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;

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- (d) Rated for operation with a peak saturated power output greater than 2 W (33 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz, and with a “fractional bandwidth” of greater than 10%;
- (e) Rated for operation at frequencies exceeding 43.5 GHz and having any of the following:
 - (1) A peak saturated power output greater than 0.2 W (23 dBm) at any frequency exceeding 43.5 GHz up to and including 75 GHz, and with a “fractional bandwidth” of greater than 10%;
 - (2) A peak saturated power output greater than 20 mW (13 dBm) at any frequency exceeding 75 GHz up to and including 90 GHz, and with a “fractional bandwidth” of greater than 5%;
 - (3) A peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 90 GHz;
- (f) Rated for operation at frequencies above 2.7 GHz and having all of the following:
 - (1) A peak saturated power output (in watts), P_{sat} , greater than 400 divided by the maximum operating frequency (in GHz) squared [$P_{\text{sat}} > 400 \text{ W} \cdot \text{GHz}^2 / f_{\text{GHz}}^2$];

- (2) A “fractional bandwidth” of 5% or greater;
- (3) Any two sides perpendicular to one another with either length d (in cm) equal to or less than 15 divided by the lowest operating frequency in GHz [$d \leq 15 \text{ cm} * \text{GHz} / f_{\text{GHz}}$];

Technical Note:

2.7 GHz should be used as the lowest operating frequency (f_{GHz}) in the formula in 3A001(b)(4)(f)(3), for amplifiers that have a rated operation range extending downward to 2.7 GHz and below [$d \leq 15 \text{ cm} * \text{GHz} / 2.7 \text{ GHz}$].”;

(b) **Repeal Note 2**

Substitute

“2. When the rated operating frequency of an item includes frequencies listed in more than one frequency range, as defined by 3A001(b)(4)(a) to 3A001(b)(4)(e), the control status of the item is determined by the lowest peak saturated power output threshold.”.

- (8) Schedule 1, Dual-use Goods List, Category 3, 3A001(e)(2), Nota Bene, after “3A201(a)”—

Add

“and the Munitions List”.

- (9) Schedule 1, English text, Dual-use Goods List, Category 3, 3A001(h), Note 3, after “ ‘modules’ ”—

Add a comma.

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- (10) Schedule 1, Dual-use Goods List, Category 3, 3A002(a)—
Repeal everything before 3A002(a)(5)

Substitute

“(a) Recording equipment and oscilloscopes, as follows:”.

- (11) Schedule 1, Dual-use Goods List, Category 3,
3A002(a)(5)(b)—

Repeal

“continuous throughput”

Substitute

“ ‘continuous throughput’ ”.

- (12) Schedule 1, Dual-use Goods List, Category 3,
3A002(a)(5)—

Repeal the Technical Note

Substitute

“*Technical Notes:*

1. For those instruments with a parallel bus architecture, the ‘continuous throughput’ rate is the highest word rate multiplied by the number of bits in a word.
2. ‘Continuous throughput’ is the fastest data rate the instrument can output to mass storage without the loss of any information whilst sustaining the sampling rate and analogue-to-digital conversion.”.

- (13) Schedule 1, Dual-use Goods List, Category 3—

Repeal 3A002(a)(6)

Substitute

“(6) Digital instrumentation data recorder systems using magnetic disk storage technique and having all of the following, and specially designed digital recorders for the systems:

(a) Digitized instrumentation data rate equal to or more than 100 million samples per second at a resolution of 8 bits or more;

(b) A ‘continuous throughput’ of 1 Gbit/s or more;

Technical Note:

Digital instrumentation data recorder systems can be configured either with a digitizer integrated within or outside the digital recorder.

(7) Real-time oscilloscopes having a vertical root mean square (rms) noise voltage of less than 2% of full scale at the vertical scale setting that provides the lowest noise value for any input 3 dB bandwidth of 60 GHz or greater per channel;

Note:

3A002(a)(7) does not apply to equivalent-time sampling oscilloscopes.”.

(14) Schedule 1, Dual-use Goods List, Category 3, 3A002(d)(1)—

Repeal

“pulses”

Substitute

“pulse-modulated signals”.

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- (15) Schedule 1, Dual-use Goods List, Category 3, 3A002(d)—
Repeal Technical Note 2
Substitute
“2. For the purposes of 3A002(d)(1)(a), ‘pulse duration’ is defined as the time interval from the point on the leading edge that is 50% of the pulse amplitude to the point on the trailing edge that is 50% of the pulse amplitude.”.
- (16) Schedule 1, Dual-use Goods List, Category 3, 3C005—
Repeal
““substrate””
Substitute
“semiconductor “substrates””.
- (17) Schedule 1, Dual-use Goods List, Category 3, 3E002(b)—
Repeal
“two”
Substitute
“four”.
- (18) Schedule 1, Dual-use Goods List, Category 4, 4A003(b)—
Repeal
“3.0”
Substitute
“8.0”.
- (19) Schedule 1, Dual-use Goods List, Category 4, after 4A004—
Add

“4A005 Systems, equipment, and components for the systems and equipment, specially designed or modified for the generation, operation or delivery of, or communication with, “intrusion software”;

- (20) Schedule 1, Dual-use Goods List, Category 4, 4D001(b)(1)—

Repeal

“0.25”

Substitute

“0.60”.

- (21) Schedule 1, Dual-use Goods List, Category 4, after 4D003—

Add

“4D004 “Software” specially designed or modified for the generation, operation or delivery of, or communication with, “intrusion software”;

- (22) Schedule 1, Dual-use Goods List, Category 4, 4E001(b)(1)—

Repeal

“0.25”

Substitute

“0.60”.

- (23) Schedule 1, Dual-use Goods List, Category 4, after 4E001(b)—

Add

“(c) “Technology” for the “development” of “intrusion software”;

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- (24) Schedule 1, English text, Dual-use Goods List, Category 5, Part 1, 5A001(b)(1)(d), after “(LEDs)”—

Add a comma.

- (25) Schedule 1, Dual-use Goods List, Category 5, Part 1, 5A001(b)(5)(b)—

Repeal

““frequency switching time””

Substitute

“‘channel switching time’”.

- (26) Schedule 1, Dual-use Goods List, Category 5, Part 1, 5A001(b)(5)—

Repeal

everything after “transmitter;”

Substitute

“Note:

5A001(b)(5) does not apply to radio equipment specially designed for use with civil cellular radiocommunications systems.

Technical Note:

‘Channel switching time’: the time (i.e., delay) to change from one receiving frequency to another, to arrive at or within $\pm 0.05\%$ of the final specified receiving frequency. Items having a specified frequency range of less than $\pm 0.05\%$ around their centre frequency are defined to be incapable of channel frequency switching.”.

- (27) Schedule 1, Dual-use Goods List, Category 5, Part 1, after 5A001(h)—

Add

“(i) Not used;

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- (j) IP network communications surveillance systems or equipment, and specially designed components for the systems or equipment, having all of the following:
- (1) Performing all of the following on a carrier class IP network (e.g., national grade IP backbone):
 - (a) Analysis at the application layer (e.g., Layer 7 of Open Systems Interconnection (OSI) model (ISO/IEC 7498-1));
 - (b) Extraction of selected metadata and application content (e.g., voice, video, messages, attachments);
 - (c) Indexing of extracted data;
 - (2) Being specially designed to carry out all of the following:
 - (a) Execution of searches on the basis of ‘hard selectors’;
 - (b) Mapping of the relational network of an individual or of a group of people;

Note:

5A001(j) does not apply to systems or equipment, specially designed for any of the following:

- (a) Marketing purpose;
- (b) Network Quality of Service (QoS);
- (c) Quality of Experience (QoE).

Technical Note:

‘Hard selectors’ data or set of data, related to an individual (e.g., family name, given name, email, street address, phone number or group affiliations).”.

(28) Schedule 1, Dual-use Goods List, Category 5, Part 1—

Repeal 5E001(d)

Substitute

“(d) “Technology” according to the General Technology Note for the “development” or “production” of Microwave “Monolithic Integrated Circuit” (MMIC) power amplifiers specially designed for telecommunications and that are any of the following:

Technical Note:

For the purposes of 5E001(d), the parameter peak saturated power output may be referred to on product data sheets as output power, saturated power output, maximum power output, peak power output, or peak envelope power output.

- (1) Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz with a “fractional bandwidth” greater than 15%, and having any of the following:
 - (a) A peak saturated power output greater than 75 W (48.75 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;
 - (b) A peak saturated power output greater than 55 W (47.4 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;
 - (c) A peak saturated power output greater than 40 W (46 dBm) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz;

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- (d) A peak saturated power output greater than 20 W (43 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;
- (2) Rated for operation at frequencies exceeding 6.8 GHz up to and including 16 GHz with a “fractional bandwidth” greater than 10%, and having any of the following:
 - (a) A peak saturated power output greater than 10 W (40 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;
 - (b) A peak saturated power output greater than 5 W (37 dBm) at any frequency exceeding 8.5 GHz up to and including 16 GHz;
- (3) Rated for operation with a peak saturated power output greater than 3 W (34.77 dBm) at any frequency exceeding 16 GHz up to and including 31.8 GHz, and with a “fractional bandwidth” of greater than 10%;
- (4) Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;
- (5) Rated for operation with a peak saturated power output greater than 1 W (30 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz, and with a “fractional bandwidth” of greater than 10%;
- (6) Rated for operation with a peak saturated power output greater than 31.62 mW (15 dBm)

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at any frequency exceeding 43.5 GHz up to and including 75 GHz, and with a “fractional bandwidth” of greater than 10%;

(7) Rated for operation with a peak saturated power output greater than 10 mW (10 dBm) at any frequency exceeding 75 GHz up to and including 90 GHz, and with a “fractional bandwidth” of greater than 5%;

(8) Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 90 GHz;”.

(29) Schedule 1, Dual-use Goods List, Category 5, Part 2, Note 3(b) before 5A2, after “components”—

Add

“, or ‘executable software’”.

(30) Schedule 1, Dual-use Goods List, Category 5, Part 2, Note 3(b) before 5A2, after “component” (wherever appearing)—

Add

“or ‘executable software’”.

(31) Schedule 1, Dual-use Goods List, Category 5, Part 2, after Note 3(b)(4) before 5A2—

Add

“*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.

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Note:

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

- (32) Schedule 1, Dual-use Goods List, Category 5, Part 2, Technical Note before 5A2—

Repeal the Technical Note.

- (33) Schedule 1, Dual-use Goods List, Category 5, Part 2, 5A002(a)(1)—

(a) **Repeal Technical Note 3;**

(b) **Repeal the Note.**

- (34) Schedule 1, Dual-use Goods List, Category 5, Part 2, after 5A002(a)(1)(a)—

Add

“Technical Note:

In Category 5, Part 2, parity bits are not included in the key length.”.

- (35) Schedule 1, Dual-use Goods List, Category 5, Part 2, 5A002(a)(9), after “use”—

Add

“or perform”.

- (36) Schedule 1, Dual-use Goods List, Category 5, Part 2, 5A002, after Note (j)—

Add

- “(k) Mobile telecommunications Radio Access Network (RAN) equipment designed for civil use, which also meets the provisions of paragraph (a)(2) to (5) of the Cryptography Note (Note 3 in Category 5, Part 2), having an RF output power limited to 0.1 W

(20 dBm) or less, and supporting 16 or fewer concurrent users;”.

- (37) Schedule 1, Definitions of terms, definition of ***Cryptography***, before the Technical Note—

Add

“*Note:*

“Cryptography” does not include “fixed” data compression or coding techniques.”.

- (38) Schedule 1, Definitions of terms, definition of ***Frequency switching time***—

Repeal

“3 5 “Frequency switching time” (頻率切換時間)”

Substitute

“3 “Frequency switching time” (頻率切換時間)”.

- (39) Schedule 1, Definitions of terms—

Add in alphabetical order

“4 “Intrusion software” (入侵軟件)

“Software” specially designed or modified to avoid detection by ‘monitoring tools’, or to defeat ‘protective countermeasures’, of a computer or network-capable device, and performing any of the following:

- (a) The extraction of data or information, from a computer or network-capable device, or the modification of system or user data;
- (b) The modification of the standard execution path of a program or process in order to allow the execution of externally provided instructions.

Notes:

1. “Intrusion software” does not include any of the following:
 - (a) Hypervisors, debuggers or Software Reverse Engineering (SRE) tools;
 - (b) Digital Rights Management (DRM) “software”;
 - (c) “Software” designed to be installed by manufacturers, administrators or users, for the purposes of asset tracking or recovery.
2. Network-capable devices include mobile devices and smart meters.

Technical Notes:

1. ‘Monitoring tools’: “software” or hardware devices, that monitor system behaviours or processes running on a device. This includes antivirus (AV) products, end point security products, Personal Security Products (PSP), Intrusion Detection Systems (IDS), Intrusion Prevention Systems (IPS) or firewalls.
2. ‘Protective countermeasures’: techniques designed to ensure the safe execution of code, such as Data Execution Prevention (DEP), Address Space Layout Randomisation (ASLR) or sandboxing.

3 “Three dimensional integrated circuit” (三維集成電路)

A collection of semiconductor die, integrated together, and having vias passing completely through at least one die to establish interconnections between die.”.

Kenneth MAK
Director-General of Trade and
Industry

22 January 2015

Explanatory Note

This Order amends Schedule 1 to the Import and Export (Strategic Commodities) Regulations (Cap. 60 sub. leg. G) (*Regulations*) to reflect the latest changes in the control lists of strategic commodities adopted by the Wassenaar Arrangement. The Order also makes minor textual amendments to Schedule 1 to the Regulations.