

L.N. 89 of 2013

**Import and Export (Strategic Commodities) Regulations
(Amendment of Schedule 1) Order 2013**

(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, Munitions List, ML2(a)—

Repeal Note 2

Substitute

“2. ML2(a) does not apply to the following:

- (a) Muskets, rifles and carbines, manufactured before 1938;
- (b) Reproductions of muskets, rifles and carbines, the originals of which were manufactured before 1890;
- (c) Guns, howitzers, cannons and mortars, manufactured before 1890.

3. ML2(a) does not apply to hand-held projectile launchers specially designed to launch tethered projectiles having no high explosive charge or communications link, to a range of less than or equal to 500 m.”.

(2) Schedule 1, Munitions List, ML6, after Note 3—

Add

“4. ML6 does not apply to vehicles that meet all of the following:

(a) Were manufactured before 1946;

(b) Do not have items specified in the Munitions List and manufactured after 1945, except reproductions of original components or accessories for the vehicle;

(c) Do not incorporate weapons specified in ML1, ML2 or ML4 unless they are inoperable and incapable of discharging a projectile.”.

(3) Schedule 1, Munitions List, ML8(f)(3)—

Repeal

“(CAS 9003-18-3)”.

(4) Schedule 1, Munitions List, ML8, after Note 6—

Add

“7. ML8 does not apply to ammonium perchlorate (ML8(d)(2)) that:

(a) Is specially shaped and formulated for civil-use gas generation devices;

(b) Is compounded or mixed with non-active thermost binders or plasticizers;

(c) Has a maximum of 80% ammonium perchlorate (ML8(d)(2)) in mass of active material; *and*

(d) Has an individual mass of less than 250 g.

8. ML8 does not apply to NTO (ML8(a)(18)) that:
- (a) Is specially shaped and formulated for civil-use gas generation devices;
 - (b) Is compounded or mixed with non-active thermostet binders or plasticizers;
 - (c) Has less than or equal to 4 g of NTO (ML8(a)(18));
and
 - (d) Has an individual mass of less than 250 g.”.
- (5) Schedule 1, Munitions List—

Repeal ML10

Substitute

“ML10 “Aircraft”, “lighter-than-air vehicles”, “Unmanned aerial vehicles” (“UAVs”), aero-engines and “aircraft” equipment, related equipment, and components, as follows, specially designed or modified for military use:

N.B.:

For guidance and navigation equipment, see ML11.

- (a) Manned “aircraft” and “lighter-than-air vehicles”, and specially designed components for the manned “aircraft” and “lighter-than-air vehicles”;
- (b) Deleted;
- (c) Unmanned aircraft and related equipment, as follows, and specially designed components for the unmanned aircraft and related equipment:
 - (1) “UAVs”, Remotely Piloted Air Vehicles (RPVs), autonomous programmable vehicles and unmanned “lighter-than-air vehicles”;

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- (2) Launchers, recovery equipment and ground support equipment;
 - (3) Equipment designed for command or control;
 - (d) Propulsion aero-engines and specially designed components for the propulsion aero-engines;
 - (e) Airborne equipment, including airborne refuelling equipment, specially designed for use with the “aircraft” specified in ML10(a) or the aero-engines specified in ML10(d), and specially designed components for the airborne equipment;
 - (f) Pressure refuellers, pressure refuelling equipment, equipment specially designed to facilitate operations in confined areas and ground equipment, developed specially for the “aircraft” specified in ML10(a) or for the aero-engines specified in ML10(d);
 - (g) Military crash helmets and protective masks, and specially designed components for the military crash helmets and protective masks, pressurized breathing equipment and partial pressure suits for use in “aircraft”, anti-g suits, liquid oxygen converters used for “aircraft” or missiles, and catapults and cartridge actuated devices, for emergency escape of personnel from “aircraft”;
 - (h) Parachutes, paragliders and related equipment, as follows, and specially designed components for the parachutes, paragliders and related equipment:
 - (1) Parachutes not specified elsewhere in the Munitions List;

- (2) Paragliders;
- (3) Equipment specially designed for high altitude parachutists (e.g., suits, special helmets, breathing systems, navigation equipment);
- (i) Controlled opening equipment or automatic piloting systems, designed for parachuted loads;

Notes:

1. ML10(a) does not apply to “lighter-than-air vehicles” or “aircraft” (or variants of “aircraft”), specially designed for military use, that are:
 - (a) Not combat “aircraft”;
 - (b) Not configured for military use and not fitted with equipment or attachments specially designed or modified for military use; *and*
 - (c) Certified for civil use by the civil aviation authority in a “participating state”.
2. ML10(d) does not apply to:
 - (a) Aero-engines, designed or modified for military use, that have been certified by civil aviation authorities in a “participating state” for use in “civil aircraft”, or specially designed components for the aero-engines;
 - (b) Reciprocating engines or specially designed components for the reciprocating engines, except those specially designed for “UAVs”.
3. For the purposes of specially designed components and related equipment for non-

military “aircraft” or aero-engines modified for military use, ML10(a) and ML10(d) only apply to those military components and to military related equipment required for the modification to military use.

4. For the purposes of ML10(a), military use includes: combat, military reconnaissance, assault, military training, logistics support, and transporting and airdropping troops or military equipment.
 5. ML10(a) does not apply to “aircraft” that:
 - (a) Were first manufactured before 1946;
 - (b) Do not incorporate any item specified in the Munitions List, unless the item is required to meet safety or airworthiness standards of a “participating state”; *and*
 - (c) Do not incorporate any weapon specified in the Munitions List, unless the weapon is inoperable and incapable of being returned to operation.”.
- (6) Schedule 1, Munitions List, after ML13(a)(2)—

Add

“*N.B.*:

For body armour plate, see ML13(d)(2).”.

- (7) Schedule 1, Munitions List—

Repeal ML13(d)

Substitute

- “(d) Body armour or protective garments, and components for the body armour or protective garments, as follows:

- (1) Soft body armour or protective garments, manufactured according to military standards or specifications, or to their equivalents, and specially designed components for the body armour or protective garments;

Note:

For the purposes of ML13(d)(1), military standards or specifications include, at a minimum, specifications for fragmentation protection.

- (2) Hard body armour plates providing ballistic protection equal to or greater than level III (NIJ 0101.06, July 2008) or national equivalents;”.
- (8) Schedule 1, English text, Munitions List, ML19, Note 2(h) and (k)—

Repeal

“Space qualified”

Substitute

“Space-qualified”.

- (9) Schedule 1, Dual-use Goods List, Category 1, before 1A004(a)(1)—

Add

Note:

1A004(a) includes Powered Air Purifying Respirators (PAPR) that are designed or modified for defence against agents or materials, listed in 1A004(a).”.

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

Repeal 1A005

Substitute

“1A005 Body armour and its components, as follows:

- (a) Soft body armour not manufactured according to military standards or specifications, or to their equivalents, and its specially designed components;
- (b) Hard body armour plates providing ballistic protection equal to or less than level IIIA (NIJ 0101.06, July 2008) or national equivalents;

N.B.:

- 1. For “fibrous or filamentary materials” used in the manufacture of body armour, see 1C010.
- 2. For body armour manufactured according to military standards or specifications, see ML13(d).

Notes:

- 1. 1A005 does not apply to body armour when accompanying its user for the user’s own personal protection.
 - 2. 1A005 does not apply to body armour designed to provide frontal protection only from both fragment and blast from non-military explosive devices.
 - 3. 1A005 does not apply to body armour designed to provide protection only from knife, spike, needle or blunt trauma.”.
- (11) Schedule 1, Chinese text, Dual-use Goods List, Category 1—
- (a) 1A008(b)(1)—

Repeal

“40克／立方米”

Substitute

“40克／米”；

(b) 1A008(c)—

Repeal

“64克／立方米”

Substitute

“64克／米”。

(12) Schedule 1, Dual-use Goods List, Category 1, after 1C006(d)(4)—

Add

“*Note:*

1C006(d) does not apply to materials specified and packaged as medical products.”.

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

Repeal 1C008(a)(4)

Substitute

“(4) Aromatic polyetherimides having a ‘glass transition temperature (T_g)’ exceeding 563 K (290°C);”.

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

Repeal 1C008(f)

Substitute

“(f) Polybiphenylenethersulphone having a ‘glass transition temperature (T_g)’ exceeding 563 K (290°C);”.

(15) Schedule 1, Dual-use Goods List, Category 1, 1C008, Technical Note—

Repeal

“The glass transition temperature (T_g)”

Substitute

“The ‘glass transition temperature (T_g)’”.

- (16) Schedule 1, Chinese text, Dual-use Goods List, Category 1, 1C101—

Repeal

“次系統”

Substitute

“子系統”.

- (17) Schedule 1, Dual-use Goods List, Category 1, 1C111(a)(4)(a), before the semicolon—

Add

“(CAS 1741-01-1)”.

- (18) Schedule 1, Dual-use Goods List, Category 1, 1C111(a)(4)(b), before the semicolon—

Add

“(CAS 6415-12-9)”.

- (19) Schedule 1, Dual-use Goods List, Category 1, 1C111(a)(4)(d), before the semicolon—

Add

“(CAS 7422-78-8)”.

- (20) Schedule 1, Dual-use Goods List, Category 1, 1C111(a)(4)(h), before the semicolon—

Add

“(CAS 14546-44-2)”.

- (21) Schedule 1, Chinese text, Dual-use Goods List, Category 1—

- (a) 1C350(13)—

Repeal

“酉同”

Substitute

“醇”;

(b) 1C350(37)—

Repeal

“醇”

Substitute

“酉同”.

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

Repeal 1C351(a)(1) to (32)

Substitute

- “(1) Andes virus;
- (2) Chapare virus;
- (3) Chikungunya virus;
- (4) Choclo virus;
- (5) Congo-Crimean haemorrhagic fever virus;
- (6) Dengue fever virus;
- (7) Dobrava-Belgrade virus;
- (8) Eastern equine encephalitis virus;
- (9) Ebola virus;
- (10) Guanarito virus;
- (11) Hantaan virus;
- (12) Hendra virus (Equine morbillivirus);
- (13) Japanese encephalitis virus;
- (14) Junin virus;
- (15) Kyasanur Forest virus;
- (16) Laguna Negra virus;

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- (17) Lassa fever virus;
 - (18) Louping ill virus;
 - (19) Lujo virus;
 - (20) Lymphocytic choriomeningitis virus;
 - (21) Machupo virus;
 - (22) Marburg virus;
 - (23) Monkey pox virus;
 - (24) Murray Valley encephalitis virus;
 - (25) Nipah virus;
 - (26) Omsk haemorrhagic fever virus;
 - (27) Oropouche virus;
 - (28) Powassan virus;
 - (29) Rift Valley fever virus;
 - (30) Rocio virus;
 - (31) Sabia virus;
 - (32) Seoul virus;
 - (33) Sin nombre virus;
 - (34) St Louis encephalitis virus;
 - (35) Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus);
 - (36) Variola virus;
 - (37) Venezuelan equine encephalitis virus;
 - (38) Western equine encephalitis virus;
 - (39) Yellow fever virus;”.
- (23) Schedule 1, Dual-use Goods List, Category 2, after 2A001—
Add

- “2A101 Radial ball bearings, other than those specified in 2A001, having all tolerances specified in accordance with ISO 492 Tolerance Class 2 (or ANSI/ABMA Std 20 Tolerance Class ABEC-9 or other national equivalents), or better, and having all the following characteristics:
- (a) An inner ring bore diameter between 12 mm and 50 mm;
 - (b) An outer ring bore diameter between 25 mm and 100 mm;
 - (c) A width between 10 mm and 20 mm;”.
- (24) Schedule 1, Dual-use Goods List, Category 2, 2B, Technical Note 5—

Repeal

“ISO 230/2 (1997)” (wherever appearing)

Substitute

“ISO 230/2 (2006)”.

- (25) Schedule 1, Dual-use Goods List, Category 2, 2B, after Technical Note 5—

Add

“6. For the purposes of 2B, measurement uncertainty for the positioning accuracy of machine tools, as defined in the ISO 230/2 (2006) or national equivalents, must not be considered.”.

- (26) Schedule 1, Dual-use Goods List, Category 2—

Repeal 2B001(a)(1)

Substitute

“(1) Positioning accuracy with “all compensations available” equal to or less (better) than 4.5 μ m according to ISO 230/2 (2006) or national equivalents along one or more linear axis;”.

- (27) Schedule 1, Dual-use Goods List, Category 2—

Repeal 2B001(b)(1)(a)

Substitute

“(a) Positioning accuracy with “all compensations available” equal to or less (better) than 4.5 μm according to ISO 230/2 (2006) or national equivalents along one or more linear axis;”.

- (28) Schedule 1, Dual-use Goods List, Category 2, 2B001(b)(3)—

Repeal

“ISO 230/2 (1997)”

Substitute

“ISO 230/2 (2006)”.

- (29) Schedule 1, Dual-use Goods List, Category 2—

Repeal 2B001(c)(1)(a)

Substitute

“(a) Positioning accuracy with “all compensations available” equal to or less (better) than 3.0 μm according to ISO 230/2 (2006) or national equivalents along one or more linear axis;”.

- (30) Schedule 1, Dual-use Goods List, Category 2, 2B001(c),
Note 2—

Repeal

“ISO 230/2 (1997)”

Substitute

“ISO 230/2 (2006)”.

- (31) Schedule 1, Dual-use Goods List, Category 2—

Repeal 2B008(a) and (b)

Substitute

“(a) Linear position feedback units having an overall “accuracy” less (better) than $(800 + (600 \times L/1\ 000))$ nm (L equals the effective length in mm);

N.B.:

For “laser” systems, see also 2B006(b)(1)(c) and (d).

(b) Rotary position feedback units having an “accuracy” less (better) than 0.00025°;

N.B.:

For “laser” systems, see also 2B006(b)(2).

Note:

2B008(a) and 2B008(b) apply to units, that are designed to determine the positioning information for feedback control, such as inductive type devices, graduated scales, infrared systems or “laser” systems.”.

(32) Schedule 1, Dual-use Goods List, Category 2—

Repeal 2B009(a)

Substitute

“(a) 3 or more axes that can be coordinated simultaneously for “contouring control”;”.

(33) Schedule 1, Dual-use Goods List, Category 2, after 2B350(g)(8)—

Add

“(9) Ceramic materials as follows:

(a) Silicon carbide with purity of 80% or more by weight;

(b) Aluminium oxide (alumina) with purity of 99.9% or more by weight;

(c) Zirconium oxide (zirconia);”.

(34) Schedule 1, Dual-use Goods List, Category 2, at the end of 2E001—

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Add

“Note:

2E001 includes “technology” for the integration of probe systems into coordinate measuring machines (CMM) specified in 2B006(a).”.

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

(a) Notes 1 and 2—

Repeal

“or 3A001(a)(12)”

Substitute

“, 3A001(a)(12) or 3A001(a)(13)”;

(b) Note 2, Nota Bene—

Repeal

“and 3A001(a)(12)”

Substitute

“, 3A001(a)(12) and 3A001(a)(13)”.

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

Repeal

“automobiles”

Substitute

“automobile”.

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

Repeal 3A001(a)(7)(a) and (b)

Substitute

“(a) A maximum number of single-ended digital input/ outputs of 500 or greater;

(b) An ‘aggregate one-way peak serial transceiver data rate’ of 200 Gb/s or greater;”.

- (38) Schedule 1, Dual-use Goods List, Category 3, 3A001(a)(7), after Technical Note 2—

Add

“3. ‘Aggregate one-way peak serial transceiver data rate’ is the product of the peak serial one-way transceiver data rate times the number of transceivers on the FPGA.”.

- (39) Schedule 1, Dual-use Goods List, Category 3, after 3A001(a)(12)—

Add

“(13) Direct Digital Synthesizer (DDS) integrated circuits having any of the following:

- (a) A Digital-to-Analogue Converter (DAC) clock frequency of 3.5 GHz or more and a DAC resolution of 10 bit or more, but less than 12 bit;
- (b) A DAC clock frequency of 1.25 GHz or more and a DAC resolution of 12 bit or more;

Technical Note:

The DAC clock frequency may be specified as the master clock frequency or the input clock frequency.”.

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

Repeal

“6 GHz”

Substitute

“6.8 GHz”.

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

(a) **Repeal**

“37.5 GHz”

Substitute

“37 GHz”;

(b) before the semicolon—

Add

“(-70 dBm)”.

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

Repeal

everything after “exceeding”

Substitute

“37 GHz up to and including 43.5 GHz and with an average output power greater than 1.0 W (30 dBm);”.

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

Repeal 3A001(b)(2)(f)

Substitute

“(f) Rated for operation at frequencies exceeding 43.5 GHz up to and including 75 GHz and with an average output power greater than 31.62 mW (15 dBm) with a “fractional bandwidth” greater than 10%;

(g) Rated for operation at frequencies exceeding 75 GHz up to and including 90 GHz and with an average output power greater than 10 mW (10 dBm) with a “fractional bandwidth” greater than 5%;

(h) Rated for operation at frequencies exceeding 90 GHz and with an average output power greater than 0.1 nW (-70 dBm);”.

(44) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(4)(f)(3), before “length d”—

Add

“either”.

- (45) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(4), after Note 2—

Add

“3. 3A001(b)(4) includes transmit/receive modules and transmit modules.”.

- (46) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(10)—

Repeal

“designed”

Substitute

“specified”.

- (47) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(10)(a) and (b)—

Repeal

“for 10”

Substitute

“anywhere within the range of 10”.

- (48) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(11)(a)—

Repeal

“312 ps”

Substitute

“156 ps”.

- (49) Schedule 1, Dual-use Goods List, Category 3, 3A001(b)(11)(b)—

Repeal

“3.2 GHz”

Substitute

“4.8 GHz”.

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

Repeal 3A001(b)(11)(e)

Substitute

- “(e) Less than 1 ms for any frequency change exceeding 550 MHz within the synthesized frequency range exceeding 43.5 GHz but not exceeding 56 GHz;
- (f) Less than 1 ms for any frequency change exceeding 2.2 GHz within the synthesized frequency range exceeding 56 GHz but not exceeding 75 GHz;
- (g) Less than 1 ms within the synthesized frequency range exceeding 75 GHz;”.

- (51) Schedule 1, Dual-use Goods List, Category 3, 3A001(e)(1)(b)—

Repeal

“250 Wh/kg”

Substitute

“300 Wh/kg”.

- (52) Schedule 1, Dual-use Goods List, Category 3, 3A002(c)(2) and (3)—

Repeal

“70 GHz”

Substitute

“75 GHz”.

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

Repeal 3A002(c)(4)

Substitute

- “(4) “Signal analysers” having all of the following:

- (a) “Real-time bandwidth” exceeding 85 MHz;
- (b) 100% probability of discovery with less than a 3 dB reduction from full amplitude due to gaps or windowing effects of signals having a duration of 15 μ s or less;

Technical Notes:

1. Probability of discovery in 3A002(c)(4)(b) is also referred to as probability of intercept or probability of capture.
2. For the purposes of 3A002(c)(4)(b), the duration for 100% probability of discovery is equivalent to the minimum signal duration necessary for the specified level measurement uncertainty.

Note:

3A002(c)(4) does not apply to those “signal analysers” using only constant percentage bandwidth filters (also known as octave or fractional octave filters).

- (5) “Signal analysers” having a “frequency mask trigger” function with 100% probability of trigger (capture) for signals having a duration of 15 μ s or less;”.
- (54) Schedule 1, Dual-use Goods List, Category 3—

Repeal 3A002(d)(1)

Substitute

- “(1) Specified to generate pulses having all of the following, anywhere within the synthesized frequency range exceeding 31.8 GHz but not exceeding 75 GHz:
 - (a) ‘Pulse duration’ of less than 100 ns;
 - (b) On/off ratio equal to or exceeding 65 dB;”.
- (55) Schedule 1, Dual-use Goods List, Category 3, 3A002(d)(2)—

Repeal

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“70 GHz”

Substitute

“75 GHz”.

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

Repeal 3A002(d)(3)(a).

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

Repeal

“3.2 GHz”

Substitute

“4.8 GHz”.

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

Repeal

“70 GHz”

Substitute

“75 GHz”.

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

Repeal 3A002(d)(4)

Substitute

“(4) Single sideband (SSB) phase noise, in dBc/Hz, specified as being all of the following:

- (a) Less (better) than $-(126 + 20 \log_{10}F - 20 \log_{10}f)$ anywhere within the range of $10 \text{ Hz} < F < 10 \text{ kHz}$ anywhere within the synthesized frequency range exceeding 3.2 GHz but not exceeding 75 GHz;

(b) Less (better) than $-(114 + 20 \log_{10}F - 20 \log_{10}f)$ anywhere within the range of $10 \text{ kHz} \leq F < 500 \text{ kHz}$ anywhere within the synthesized frequency range exceeding 3.2 GHz but not exceeding 75 GHz;”.

- (60) Schedule 1, Dual-use Goods List, Category 3, 3A002(d)(5)—

Repeal

“70 GHz”

Substitute

“75 GHz”.

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

Repeal Technical Note 1

Substitute

“1. The maximum synthesized frequency of an arbitrary waveform or function generator is calculated by dividing the sample rate, in samples/second, by a factor of 2.5.”.

- (62) Schedule 1, Dual-use Goods List, Category 3, 3A002(d), Technical Note 2—

Repeal

“3A002(d)(1)”

Substitute

“3A002(d)(1)(a)”.

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

Repeal 3A002(e)(1) and (2)

Substitute

“(1) Output power exceeding 31.62 mW (15 dBm) anywhere within the operating frequency range exceeding 43.5 GHz but not exceeding 75 GHz;

- (2) Output power exceeding 1 mW (0 dBm) anywhere within the operating frequency range exceeding 75 GHz but not exceeding 110 GHz;
- (3) ‘Nonlinear vector measurement functionality’ at frequencies exceeding 50 GHz but not exceeding 110 GHz;

Technical Note:

‘Nonlinear vector measurement functionality’ is an instrument’s ability to analyse the test results of devices driven into the large-signal domain or the non-linear distortion range.

- (4) A maximum operating frequency exceeding 110 GHz;”.
- (64) Schedule 1, Dual-use Goods List, Category 3, 3A002(f)(1)—

Repeal

“43.5 GHz”

Substitute

“110 GHz”.

- (65) Schedule 1, Chinese text, Dual-use Goods List, Category 3, 3A101(b)—

Repeal

“次系統” (wherever appearing)

Substitute

“子系統”.

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

Repeal 3B001(a)(2)

Substitute

- “(2) Metal Organic Chemical Vapour Deposition (MOCVD) reactors designed for compound semiconductor epitaxial growth of material having 2 or more of the following elements:

- (a) aluminium;
 - (b) gallium;
 - (c) indium;
 - (d) arsenic;
 - (e) phosphorus;
 - (f) antimony;
 - (g) nitrogen;”.
- (67) Schedule 1, Dual-use Goods List, Category 3—
Repeal 3B001(b)(1).
- (68) Schedule 1, Dual-use Goods List, Category 3—
Repeal 3B001(b)(2) and (3)
Substitute
“(2) Being designed and optimized to operate at a beam energy of 20 keV or more and a beam current of 10 mA or more for hydrogen, deuterium or helium implant;
(3) Direct write capability;”.
- (69) Schedule 1, Dual-use Goods List, Category 3, after 3B001(b)(4)—
Add
“(5) Being designed and optimized to operate at a beam energy of 20 keV or more and a beam current of 10 mA or more for silicon implant into a semiconductor material “substrate” heated to 600°C or greater;”.
- (70) Schedule 1, Dual-use Goods List, Category 3—
Repeal 3B001(d).
- (71) Schedule 1, Dual-use Goods List, Category 3, 3B001(e)(1)—
Repeal
“, 3B001(c) or 3B001(d)”

Substitute

“or 3B001(c)”.

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

Repeal 3B001(h)

Substitute

“(h) Multi-layer masks with a phase shift layer not specified in 3B001(g) and having any of the following:

- (1) Made on a mask “substrate blank” from glass specified as having less than 7 nm/cm birefringence;
- (2) Designed to be used by lithography equipment having a light source wavelength less than 245 nm;

Note:

3B001(h) does not apply to multi-layer masks with a phase shift layer designed for the fabrication of memory devices not specified in 3A001.”.

- (73) Schedule 1, Dual-use Goods List, Category 3, 3C001(d)—

Repeal the Technical Note

Substitute

Note:

3C001(d) does not apply to a “substrate” having one or more P-type epitaxial layers of GaN, InGaN, AlGa_{0.5}N, InAlN, InAlGa_{0.5}N, GaP, InGaP, AlInP or InGaAlP, independent of the sequence of the elements, except if the P-type epitaxial layer is between N-type layers.”.

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

Repeal 3C002(a)

Substitute

“(a) Resists designed for semiconductor lithography as follows:

- (1) Positive resists adjusted (optimized) for use at wavelengths less than 245 nm but equal to or greater than 15 nm;
- (2) Resists adjusted (optimized) for use at wavelengths less than 15 nm but greater than 1 nm;”.
- (75) Schedule 1, Dual-use Goods List, Category 3—
Repeal 3C002(c).
- (76) Schedule 1, Dual-use Goods List, Category 3—
Repeal 3C002(d)
Substitute
“(d) All resists optimized for surface imaging technologies;”.
- (77) Schedule 1, Dual-use Goods List, Category 3, 3E003(b), after “semiconductor”—
Add
“electronic”.
- (78) Schedule 1, Dual-use Goods List, Category 4—
Repeal 4A003(a).
- (79) Schedule 1, Dual-use Goods List, Category 4, 4A003(b)—
Repeal
“1.5”
Substitute
“3.0”.
- (80) Schedule 1, Chinese text, Dual-use Goods List, Category 4, 4A003(g)—
(a) **Repeal**
“藉著”
Substitute

“藉着”;

(b) **Repeal**

“滙集”

Substitute

“滙集”.

- (81) Schedule 1, Dual-use Goods List, Category 4, 4D, Note—

Repeal

“the “development”, “production”, or “use” of”.

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

Repeal everything before 4D001(b)

Substitute

“4D001 “Software” as follows:

- (a) “Software” specially designed or modified for the “development” or “production” of equipment or “software” specified in 4A or 4D;”.

- (83) Schedule 1, Dual-use Goods List, Category 4, 4E001, Technical Note on “Adjusted Peak Performance”, at the end of Note 6—

Add

“*Technical Note:*

Aggregate all processors and accelerators operating simultaneously and located on the same die.”.

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

Repeal the Note

Substitute

“*Note:*

5A001(b)(3)(b) does not apply to radio equipment specially designed for use with any of the following:

- (a) Civil cellular radiocommunications systems;
- (b) Fixed or mobile satellite earth stations for commercial civil telecommunications.”.

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

Repeal 5A001(f)

Substitute

“(f) Mobile telecommunications interception or jamming equipment, and monitoring equipment, as follows, and specially designed components for those equipments:

- (1) Interception equipment designed for the extraction of voice or data, transmitted over the air interface;
- (2) Interception equipment not specified in 5A001(f)(1), designed for the extraction of client device or subscriber identifiers (e.g., IMSI, TIMSI or IMEI), signalling, or other metadata transmitted over the air interface;
- (3) Jamming equipment specially designed or modified to intentionally and selectively interfere with, deny, inhibit, degrade or seduce mobile telecommunication services and performing any of the following:
 - (a) Simulate the functions of Radio Access Network (RAN) equipment;
 - (b) Detect and exploit specific characteristics of the mobile telecommunications protocol employed (e.g., GSM);
 - (c) Exploit specific characteristics of the mobile telecommunications protocol employed (e.g., GSM);

- (4) Radio Frequency (RF) monitoring equipment designed or modified to identify the operation of items specified in 5A001(f)(1), 5A001(f)(2) or 5A001(f)(3);

Note:

5A001(f)(1) and 5A001(f)(2) do not apply to any of the following:

- (a) Equipment specially designed for the interception of analogue Private Mobile Radio (PMR), IEEE 802.11 WLAN;
- (b) Equipment designed for mobile telecommunications network operators;
- (c) Equipment designed for the “development” or “production” of mobile telecommunications equipment or systems.

N.B.:

- 1. See also the Munitions List.
- 2. For radio receivers, see 5A001(b)(5).”.

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

Repeal 5A001(h)

Substitute

“(h) Counter Improvised Explosive Device (IED) equipment and related equipment, as follows:

- (1) Radio Frequency (RF) transmitting equipment, not specified in 5A001(f), designed or modified for prematurely activating or preventing the initiation of Improvised Explosive Devices;
- (2) Equipment using techniques designed to enable radio communications in the same frequency channels on which co-located equipment specified in 5A001(h)(1) is transmitting;

N.B.:

See also the Munitions List.”.

- (87) Schedule 1, Dual-use Goods List, Category 5, Part 1, 5B001—

Repeal everything before 5B001(b)

Substitute

“5B001 Telecommunication test, inspection and production equipment, components and accessories, as follows:

- (a) Equipment and specially designed components or accessories for the equipment, specially designed for the “development” or “production” of equipment, functions or features, specified in 5A001;

Note:

5B001(a) does not apply to optical fibre characterization equipment.”.

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

Repeal 5B001(b)(2)(c) and (d)

Substitute

- “(c) Employing coherent optical transmission or coherent optical detection techniques;

Note:

5B001(b)(2)(c) applies to equipment specially designed for the “development” of systems using an optical local oscillator in the receiving side to synchronize with a carrier “laser”.

Technical Note:

For the purposes of 5B001(b)(2)(c), these techniques include optical heterodyne, homodyne and intradyne techniques.

- (d) Employing analogue techniques and having a bandwidth exceeding 2.5 GHz;

Note:

5B001(b)(2)(d) does not apply to equipment specially designed for the “development” of commercial TV systems.”.

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

Repeal 5B001(b)(4) and (5)

Substitute

“(4) Radio equipment employing quadrature-amplitude-modulation (QAM) techniques above level 256;”.

- (90) Schedule 1, Dual-use Goods List, Category 5, Part 1, 5E001(b)(4)—

Repeal the Note

Substitute

Note:

5E001(b)(4) does not apply to “technology” for the “development” of any of the following:

- (a) Civil cellular radiocommunications systems;
- (b) Fixed or mobile satellite earth stations for commercial civil telecommunications.”.

- (91) Schedule 1, Dual-use Goods List, Category 5, Part 1, 5E001(c)(1)—

Repeal

“50 Gbit/s”

Substitute

“120 Gbit/s”.

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

Repeal 5E001(c)(2)(c)

Substitute

- “(c) Employing coherent optical transmission or coherent optical detection techniques;

Note:

5E001(c)(2)(c) applies to “technology” for the “development” or “production” of systems using an optical local oscillator in the receiving side to synchronize with a carrier “laser”.

Technical Note:

For the purposes of 5E001(c)(2)(c), these techniques include optical heterodyne, homodyne or intradyne techniques.”.

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

Repeal 5E001(c)(5).

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

Repeal 5E001(d)(4), (5) and (6)

Substitute

- “(4) Rated for operation at frequencies exceeding 31.8 GHz up to and including 37 GHz and with an average output power greater than 0.1 nW (-70 dBm);
- (5) Rated for operation at frequencies exceeding 37 GHz up to and including 43.5 GHz and with an average output power greater than 1.0 W (30 dBm);
- (6) Rated for operation at frequencies exceeding 43.5 GHz up to and including 75 GHz and with an average output power greater than 31.62 mW (15 dBm) with a “fractional bandwidth” greater than 10%;
- (7) Rated for operation at frequencies exceeding 75 GHz up to and including 90 GHz and with an average output power greater than 10 mW (10 dBm) with a “fractional bandwidth” greater than 5%;

- (8) Rated for operation at frequencies exceeding 90 GHz and with an average output power greater than 0.1 nW (-70 dBm);”.
- (95) Schedule 1, Dual-use Goods List, Category 5, Part 2—

Repeal Note 3

Substitute

“3. *Cryptography Note:*

5A002 and 5D002 do not apply to 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;
 - (d) Telephone call transactions;
 - (2) The cryptographic functionality cannot easily be changed by the user;
 - (3) Designed for installation by the user without further substantial support by the supplier;
 - (4) Deleted;
 - (5) 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 paragraph (a)(1), (2) and (3) above;
- (b) Hardware components of existing items described in paragraph (a) of this Note, that have been designed for these existing items, meeting all of the following:

- (1) “Information security” is not the primary function or set of functions of the component;
- (2) The component 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 is fixed and is not designed or modified to customer specification;
- (4) When necessary as determined by the appropriate authority in the exporter’s country, details of the component and relevant end-items are accessible and will be provided to the authority upon request, in order to ascertain compliance with conditions described in paragraph (b)(1), (2) and (3) above.

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;
 - (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.
 2. In determining paragraph (a) of Note 3, national authorities 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.”.
- (96) Schedule 1, Dual-use Goods List, Category 5, Part 2, 5A002(a)(1)—

(a) **Repeal**

“or digital signature”

Substitute

“, digital signature or the execution of copy-protected
“software”, and”;

(b) **Repeal Technical Note 1**

Substitute

“1. Functions for authentication, digital signature and
the execution of copy-protected “software”
include their associated key management
function.”.

- (97) Schedule 1, Dual-use Goods List, Category 5, Part 2, at the
end of 5A002(a)(2)—

Add

“*Note:*

5A002(a)(2) includes systems or equipment, designed or
modified to perform cryptanalysis by means of reverse
engineering.”.

- (98) Schedule 1, Dual-use Goods List, Category 5, Part 2—

Repeal 5A002(a)(7)

Substitute

“(7) Non-cryptographic information and communications
technology (ICT) security systems and devices that
have been evaluated and certified by a national
authority to exceed class EAL-6 (evaluation assurance
level) of the Common Criteria (CC) or equivalent;”.

- (99) Schedule 1, Dual-use Goods List, Category 5, Part 2, at the
end of 5A002(a)(8)—

Add

“*Note:*

5A002(a)(8) applies to physical layer security only.”.

- (100) Schedule 1, Dual-use Goods List, Category 5, Part 2, 5A002, Note (g)—

Repeal

“paragraphs (b) to (e)”

Substitute

“paragraph (a)(2), (3), (4) and (5)”.

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

Repeal Note (i)

Substitute

“(i) Wireless “personal area network” equipment that implements only published or commercial cryptographic standards and where the cryptographic capability is limited to a nominal operating range not exceeding 30 metres according to the manufacturer’s specifications, or not exceeding 100 metres according to the manufacturer’s specifications for equipment that cannot interconnect with more than 7 devices;”.

- (102) Schedule 1, Dual-use Goods List, Category 5, Part 2, 5D002—

Repeal the Note.

- (103) Schedule 1, Dual-use Goods List, Category 5, Part 2, after 5E002(b)—

Add

“*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.”.

- (104) Schedule 1, Dual-use Goods List, Category 6, 6A001(a)(1)(b)—

Repeal

“Object detection or location systems”

Substitute

“Systems or transmitting and receiving arrays, designed for object detection or location,”.

- (105) Schedule 1, Dual-use Goods List, Category 6, 6A001(a)(2)(a), after the Note—

Add

“Technical Note:

Hydrophones consist of one or more sensing elements producing a single acoustic output channel. Those containing multiple elements can be referred to as a hydrophone group.”.

- (106) Schedule 1, Dual-use Goods List, Category 6, before 6A001(a)(2)(b)(1)—

Add

“Technical Note:

Hydrophone arrays consist of a number of hydrophones providing multiple acoustic output channels.”.

- (107) Schedule 1, Dual-use Goods List, Category 6, 6A001(a)(2)(e)—

Repeal

“bay cable systems”

Substitute

“bay-cable hydrophone arrays”.

- (108) Schedule 1, English text, Dual-use Goods List, Category 6—
(a) 6A002(a)(1)—

Repeal

“Space qualified” (wherever appearing)

Substitute

“Space-qualified”;

- (b) 6A002(a)(3)—

Repeal

“space qualified” (wherever appearing)

Substitute

“space-qualified”;

- (c) 6A002(b)(1), Note—

Repeal

“space qualified” (wherever appearing)

Substitute

“space-qualified”;

- (d) 6A002(b)(2)(b)(1)—

Repeal

“Space qualified”

Substitute

“Space-qualified”;

- (e) 6A002(d)(1)—

Repeal

“Space qualified”

Substitute

“Space-qualified”;

- (f) 6A002(d)(2)—

Repeal

“space qualified”

Substitute

“space-qualified”.

(109) Schedule 1, English text, Dual-use Goods List, Category 6—

(a) 6A004(c)—

Repeal

“Space qualified”

Substitute

“Space-qualified”;

(b) 6A004(d)(1)—

Repeal

“space qualified”

Substitute

“space-qualified”.

(110) Schedule 1, Dual-use Goods List, Category 7—

Repeal 7A004

Substitute

“7A004 ‘Star trackers’ and their components, as follows:

- (a) ‘Star trackers’ with a specified azimuth accuracy of equal to or less (better) than 20 seconds of arc throughout the specified lifetime of the equipment;
- (b) Components specially designed for equipment specified in 7A004(a) as follows:
 - (1) Optical heads or baffles;
 - (2) Data processing units;

Technical Note:

‘Star trackers’ are also referred to as stellar attitude sensors or gyro-astro compasses.”.

Section 3

- (111) Schedule 1, English text, Dual-use Goods List, Category 7, 7A103(a), Note—

Repeal

“sensors for use in down-hole”

Substitute

“Sensors for use in downhole”.

- (112) Schedule 1, Dual-use Goods List, Category 7—

Repeal 7D002

Substitute

“7D002 “Source code” for the operation or maintenance of any inertial navigation equipment, including inertial equipment not specified in 7A003 or 7A004, or Attitude and Heading Reference Systems (‘AHRS’);

Note:

7D002 does not apply to “source code” for the operation or maintenance of gimballed ‘AHRS’.

Technical Note:

‘AHRS’ generally differs from Inertial Navigation Systems (INS) in that an ‘AHRS’ provides attitude and heading information and normally does not provide the acceleration, velocity and position information associated with an INS.”.

- (113) Schedule 1, Dual-use Goods List, Category 7—

Repeal 7D003(d)(7)

Substitute

“(7) Three dimensional displays;”.

- (114) Schedule 1, Dual-use Goods List, Category 7—

Repeal 7E004(a)(1).

- (115) Schedule 1, Dual-use Goods List, Category 8—

Repeal 8A002(c)

Substitute

“(c) Fibre optic pressure hull penetrators;”.

(116) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9A012

Substitute

“9A012 “Unmanned aerial vehicles” (“UAVs”), unmanned “airships”, related systems, equipment and components, as follows:

- (a) “UAVs” or unmanned “airships”, having any of the following:
 - (1) An autonomous flight control and navigation capability (e.g., an autopilot with an Inertial Navigation System);
 - (2) Capability of controlled flight out of the direct visual range involving a human operator (e.g., televisual remote control);
- (b) Related systems, equipment and components, as follows:
 - (1) Equipment specially designed for remotely controlling the “UAVs” or unmanned “airships”, specified in 9A012(a);
 - (2) Systems for navigation, attitude, guidance or control, other than those specified in Category 7, specially designed to be integrated into “UAVs” or unmanned “airships”, specified in 9A012(a);
 - (3) Equipment or components, specially designed to convert a manned “aircraft” or a manned “airship” to a “UAV” or unmanned “airship”, specified in 9A012(a);

- (4) Air breathing reciprocating or rotary internal combustion type engines, specially designed or modified to propel “UAVs” or unmanned “airships”, at altitudes above 50 000 feet (15 240 metres);

Note:

9A012 does not apply to model “aircraft” or model “airships”.”.

- (117) Schedule 1, Dual-use Goods List, Category 9, 9A108—

Repeal everything before Technical Note

Substitute

“9A108 Components, other than those specified in 9A008, as follows, specially designed for solid rocket propulsion systems:

- (a) Rocket motor cases and “insulation” components for the rocket motor cases, usable in “missiles”, space launch vehicles specified in 9A004 or sounding rockets specified in 9A104;
- (b) Rocket nozzles, usable in “missiles”, space launch vehicles specified in 9A004 or sounding rockets specified in 9A104;
- (c) Thrust vector control subsystem, usable in “missiles”.”.

- (118) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9A109

Substitute

“9A109 Hybrid rocket motors and specially designed components as follows:

- (a) Hybrid rocket motors usable in complete rocket systems or “unmanned aerial vehicles”, capable of 300 km, other than

those specified in 9A009, having a total impulse capacity equal to or greater than 0.841 MNs, and specially designed components for the hybrid rocket motors;

- (b) Specially designed components for hybrid rocket motors specified in 9A009 that are usable in “missiles”;

N.B.:

See also 9A009 and 9A119.”.

- (119) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9A110

Substitute

“9A110 Composite structures, laminates and manufactures other than those specified in 9A010, specially designed for use in ‘missiles’ or the subsystem specified in 9A005, 9A007, 9A105, 9A106(c), 9A107, 9A108(c), 9A116 or 9A119;

N.B.:

See also 1A002.

Technical Note:

In 9A110, ‘missiles’ means complete rocket systems and “unmanned aerial vehicle” systems capable of a range exceeding 300 km.”.

- (120) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9A115(a) and (b)

Substitute

- “(a) Apparatus and devices for handling, control, activation or launching, designed or modified for space launch vehicles specified in 9A004, “unmanned aerial vehicles” specified in 9A012 or sounding rockets specified in 9A104;
- (b) Vehicles for transport, handling, control, activation or launching, designed or modified for space launch vehicles specified in 9A004 or sounding rockets specified in 9A104;”.

(121) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9B116

Substitute

“9B116 Specially designed “production facilities” for the space launch vehicles specified in 9A004, or systems, subsystems, or components specified in 9A005 to 9A009, 9A011, 9A101, 9A102, 9A104 to 9A109, 9A111 or 9A116 to 9A120, or ‘missiles’;

Technical Note:

In 9B116, ‘missiles’ means complete rocket systems and “unmanned aerial vehicle” systems capable of a range exceeding 300 km.”.

(122) Schedule 1, Dual-use Goods List, Category 9, 9B117—

Repeal

“usable for ‘missiles’ and their subsystems,”.

(123) Schedule 1, Dual-use Goods List, Category 9, 9B117—

Repeal the Technical Note.

(124) Schedule 1, Dual-use Goods List, Category 9, before 9C110—

Add

“9C108 “Insulation” material in bulk form and “interior lining”, other than those specified in 9A008, for rocket motor cases usable in ‘missiles’ or specially designed for ‘missiles’;

Technical Note:

In 9C108, ‘missiles’ means complete rocket systems and “unmanned aerial vehicle” systems capable of a range exceeding 300 km.”.

(125) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9D004(d).

(126) Schedule 1, Dual-use Goods List, Category 9, 9D004(e)—

(a) **Repeal**

““use””

Substitute

“operation”;

(b) **Repeal**

“controlled by”

Substitute

“specified in”.

(127) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9D103

Substitute

“9D103 “Software” specially designed for modelling, simulation or design integration of the space launch vehicles specified in 9A004 or sounding rockets specified in 9A104, or the subsystems specified in 9A005, 9A007, 9A105, 9A106(c), 9A107, 9A108(c), 9A116 or 9A119;

Section 3

Note:

“Software” specified in 9D103 remains controlled when supplied with specially designed hybrid computers specified in 4A102.”.

- (128) Schedule 1, Dual-use Goods List, Category 9, 9D105—

Repeal

everything after “modified for “use” in”

Substitute

“space launch vehicles specified in 9A004 or sounding rockets specified in 9A104;”.

- (129) Schedule 1, Dual-use Goods List, Category 9, 9E—

Repeal the Note

Substitute

Note:

“Development” or “production” “technology” specified in 9E for gas turbine engines remains specified in 9E when used for repair or overhaul. Excluded from 9E are: technical data, drawings or documentation for maintenance activities directly associated with calibration, removal or replacement of damaged or unserviceable line replaceable units, including replacement of whole engines or engine modules.”.

- (130) Schedule 1, Dual-use Goods List, Category 9, 9E002—

Repeal the Note.

- (131) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9E003(a)(2)

Substitute

“(2) Combustors having any of the following:

- (a) Thermally decoupled liners designed to operate at ‘combustor exit temperature’ exceeding 1 883 K (1 610°C);
- (b) Non-metallic liners;
- (c) Non-metallic shells;
- (d) Liners designed to operate at ‘combustor exit temperature’ exceeding 1 883 K (1 610°C) and having holes that meet the parameters specified in 9E003(c);

Note:

The “required” “technology” for holes in 9E003(a)(2) is limited to the derivation of the geometry and location of the holes.

Technical Note:

‘Combustor exit temperature’ is the bulk average gas path total (stagnation) temperature between the combustor exit plane and the leading edge of the turbine inlet guide vane (i.e., measured at engine station T40 as defined in SAE ARP 755A) when the engine is running in a ‘steady state mode’ of operation at the certificated maximum continuous operating temperature.

N.B.:

See 9E003(c) for “technology” “required” for manufacturing cooling holes.”.

(132) Schedule 1, Dual-use Goods List, Category 9—

Repeal 9E003(c)

Substitute

- “(c) “Technology” “required” for manufacturing cooling holes, in gas turbine engine components incorporating any of the “technologies” specified in 9E003(a)(1), 9E003(a)(2) or 9E003(a)(5), and having any of the following:

- (1) Having all of the following:
 - (a) Minimum ‘cross-sectional area’ less than 0.45 mm²;
 - (b) ‘Hole shape ratio’ greater than 4.52;
 - (c) ‘Incidence angle’ equal to or less than 25°;
- (2) Having all of the following:
 - (a) Minimum ‘cross-sectional area’ less than 0.12 mm²;
 - (b) ‘Hole shape ratio’ greater than 5.65;
 - (c) ‘Incidence angle’ more than 25°;

Note:

9E003(c) does not apply to “technology” for manufacturing constant radius cylindrical holes that are straight through and enter and exit on the external surfaces of the component.

Technical Notes:

1. For the purposes of 9E003(c), the ‘cross-sectional area’ is the area of the hole in the plane perpendicular to the hole axis.
2. For the purposes of 9E003(c), ‘hole shape ratio’ is the nominal length of the axis of the hole divided by the square root of its minimum ‘cross-sectional area’.
3. For the purposes of 9E003(c), ‘incidence angle’ is the acute angle measured between the plane tangential to the aerofoil surface and the hole axis at the point where the hole axis enters the aerofoil surface.
4. Techniques for manufacturing holes in 9E003(c) include “laser”, water jet, Electro-Chemical Machining (ECM) or Electrical Discharge Machining (EDM) methods.”.

Section 3

- (133) Schedule 1, Definitions of terms—
- (a) definition of *Average output power*;
 - (b) definition of *Common channel signalling*;
 - (c) definition of *Dynamic signal analysers*;
 - (d) definition of *Family*;
 - (e) definition of *Fault tolerance*;
 - (f) definition of *Laser duration*;
 - (g) definition of *Peak power*;
 - (h) definition of *Personal area network*;
 - (i) definition of *Pulse duration*;
 - (j) definition of *Real time bandwidth*;
 - (k) definition of *Signal analysers (dynamic)*;
 - (l) definition of *Space-qualified*;
 - (m) definition of *Substrate blanks*;
 - (n) definition of *Unmanned aerial vehicle*—

Repeal the definitions.

- (134) Schedule 1, Definitions of terms—

Add in alphabetical order

“9 “Airship” (飛船)

A power-driven airborne vehicle that is kept buoyant by a body of gas (usually helium, formerly hydrogen) that is lighter than air.

6 “Average output power” (平均輸出功率)

The total “laser” output energy, in joules, divided by the period over which a series of consecutive pulses is emitted, in seconds. For a series of uniformly-spaced pulses it is equal to the total “laser” output energy in a single pulse, in joules, multiplied by the pulse frequency of the “laser”, in Hertz.

3 “Frequency mask trigger” (頻率罩觸發)

For “signal analysers”, a mechanism where the trigger function is able to select a frequency range to be triggered on as a subset of the acquisition bandwidth while ignoring other signals that may also be present within the same acquisition bandwidth. A “frequency mask trigger” may contain more than one independent set of limits.

6 “Peak power” (峰值功率)

The highest power attained in the “pulse duration”.

5 “Personal area network” (個人區域網絡)

A data communication system having all of the following characteristics:

- (a) Allows an arbitrary number of independent or interconnected ‘data devices’ to communicate directly with each other;

(b) Is confined to the communication between devices within the immediate vicinity of an individual person or device controller (e.g., single room, office, or automobile, and their nearby surrounding spaces).

Technical Note:

‘Data device’ means equipment capable of transmitting or receiving sequences of digital information.

6 “Pulse duration” (脈衝持續時間)

Duration of a “laser” pulse is the time between the half-power points on the leading edge and trailing edge of an individual pulse.

3 “Real time bandwidth” (實時頻寬)

For “signal analysers”, the widest frequency range for which the analyser can continuously transform time-domain data entirely into frequency-domain results, using a Fourier or other discrete time transform that processes every incoming time point without gaps or windowing effects that causes a reduction of measured amplitude of more than 3 dB below the actual signal amplitude, while outputting or displaying the transformed data.

3 6 “Space-qualified” (太空級)
ML 19
Designed, manufactured, or qualified through successful testing, for operation at altitudes greater than 100 km above the surface of the Earth.

Note:

A determination that a specific item is “space-qualified” by virtue of testing does not mean that other items in the same production run or model series are “space-qualified” if not individually tested.

3 6 “Substrate blanks” (基板)
Monolithic compounds with dimensions suitable for the production of optical elements such as mirrors or optical windows.

9 “Unmanned aerial vehicles” (“UAVs”) (無人駕駛飛行載具)
ML10
Any “aircraft” capable of initiating flight and sustaining controlled flight and navigation without any human presence on board.”.

Kenneth MAK
Director-General of Trade and
Industry

14 May 2013

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 various international non-proliferation regimes. The Order also makes minor textual amendments to Schedule 1 to the Regulations.