

CAT XI WORKING DRAFT

18 October 2010

Category XI – Military Electronics

A. Equipment, Assemblies, and Components

* Technical parameter needed to determine which are controlled under ITAR.

1. Military electronic systems as follows:

- a. (T2) Underwater sound systems used for detection, identification, or tracking with any of the following:
 - i. Transmitting frequency thresholds below xxx KHZ and sound pressure levels above xxx dB;
 - ii. Ability to automatically track moving targets xxx*; or
 - iii. Pulse formation other than continuous wave or frequency modulation xxx *.

- b. (T2) Electronic warfare systems, including laser, radar and missile detection, and associated countermeasure systems (i.e. jammers and dispensers).

- c. Radar systems with any of the following:
 - i. (T2) Active electronic scanned arrays;
 - ii. (T2) Airborne systems with any of the following:
 - (a) Low probability of intercept xxx *;
 - (b) High jamming resistance xxx *;
 - (c) Image processing with Coherent Change Detection xxx*;
 - (d) Fire control radars (moved from Category XII); or
 - (e) Non-Cooperative Target Recognition capability (NCTR);

 - iii. (T2) Ground and sea-based systems with any of the following:

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- (a) Self defense or area defense Anti-Air Warfare (AAW) capability;
- (b) Ballistic Missile Defense (BMD) capability;
- (c) Integrated air and missile defense (IAMD) capability;
- (d) Low probability of intercept xxx *;
- (e) High jamming resistance xxx *; or
- (f) Highly adaptive beam forming xxx *.

Note: Ground and global positioning system air traffic controls, are controlled by the EAR. (T3)

- d. (T2) Command and control, and communication systems with any of the following:
 - i. Cryptographic techniques to generate the spreading code for spread spectrum or hopping code for frequency agility (excluding fixed code techniques for spread spectrum) xxx *;
 - ii. Burst techniques (e.g. time compression techniques) xxx *;
 - iii. Compromising emission/emanation suppression technology (excluding systems designed to meet Federal Communications Commission (FCC) commercial electro-magnetic interference standards or systems designed for health and safety)"; or

Note: sub-item (d)(iii) is recommended for "T3" EAR control.
 - iv. Measurement and signal intelligence (MASINT) capable systems.

e. (T3) Avionics systems and components for aircraft controlled in Category VIII not elsewhere specified are controlled by the EAR.

f. (T1) Identification of Friend or Foe ("IFF") Mode V capability.

g. (T2) Identification of Friend or Foe ("IFF") Mode IV capability.

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Note:

Mode IV is crypto-secure mode. Mode V, levels 1 and 2 are crypto-secure with enhanced encryption, spread spectrum modulation, and time-of-day authentication.

2. Components, parts, and accessories for the items controlled by this Category as follows:

a. "Specially designed" subsystems, accessories and components for systems controlled by XI.A.1 that are peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics, or functions for those systems are controlled in the same Tier as the item listed in XI.A.1.

b. "Specially designed" subsystems, accessories and components which permit modification of systems to achieve or exceed the controlled performance levels, characteristics, or functions of systems controlled by XI.A.1 are controlled in the same Tier as the item listed in XI.A.1.

B. Test, inspection, and production equipment

1. "Specially designed" test equipment peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics, or functions for systems controlled by XI.A.1 are controlled in the same Tier as the item listed in XI.A.

2. (T3) "Specially designed" production equipment and tooling peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics, or functions for systems controlled by XI.A.

C. Materials

1. (T3) "Specially designed" materials peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics, or functions for systems controlled by XI.A.

D. Software

1. (T1) Classified software libraries for systems and subsystems controlled by XI.A of this category.

Note:

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'Library' (parametric technical database) means a collection of technical information of a military nature, reference to which may enhance the performance of military equipment or systems.

2. (T1) Specially designed and "required" for the operation of systems or subsystems, controlled by XI.A of this category and designated as Tier 1.
3. (T2) Specially designed and "required" for the operation of systems or subsystems, controlled by XI.A of this category and designated as Tier 2.
4. (T3) Specially designed and "required" for the operation of systems or subsystems, controlled by XI.A of this category and not elsewhere specified.

E. Technology

1. Design or manufacturing or test technology "required" for the systems controlled in XI.A.1 as follows:
 - a. (T1) Design or manufacturing or test technology "required" for systems controlled in XI.A.1 designated as Tier 1.
 - b. (T2) Design or manufacturing or test technology "required" for systems controlled in XI.A.1 designated as Tier 2.
 - c. (T3) Design or manufacturing or test technology "required" for systems controlled in XI.A.1 and not elsewhere specified.
2. Technology "required" for the operation, maintenance, and repair of the systems controlled in this Category as follows:
 - a. (T1) Technology "required" for maintenance or operation on any systems designated as Tier 1 and controlled in this Category.
 - b. (T2) Technology "required" for intermediate or depot level maintenance of any systems designated as Tier 2 and controlled in this Category.
 - c. (T3) Technology "required" for intermediate or depot level maintenance of any systems designated as Tier 3 and controlled in this Category.

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- d. (T3) Operational manuals, operator or organizational level maintenance or repair technology for any systems controlled in this Category and not elsewhere specified.

F. Defense Services

TBD

G. Manufacturing and Production Authorizations

TBD

DEFINED TERMS:

CCL Definitions:

“Required”: As applied to technology and software, refers to only that portion of technology that is peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics or functions. Such “required” technology may be shared by different products. For example, assume product “X” is controlled if it operates at or above 400 MHz and is not controlled if it operates below 400 MHz. If production technologies “A”, “B”, and “C” allow production at no more than 399 MHz, then technologies “A”, “B”, and “C” are not “required” to produce the controlled product “X”. If technologies “A”, “B”, “C”, “D”, and “E” are used together, a manufacturer can produce product “X” that operates at or above 400 MHz. In this example, technologies “D” and “E” are “required” to make the controlled product and are themselves controlled.

“Specially designed” means that the end-item, equipment, accessory, attachment, system, component, or part has properties that (i) distinguish it for certain predetermined purposes, (ii) are directly related to the functioning of a defense article, and (iii) are used exclusively or predominantly in or with a defense article identified.

“Technology”. Specific information necessary for the “development”, “production”, or “use” of a product. The information takes the form of “technical data” or “technical assistance”.