

**Export Control Classification Numbers (ECCN)s – Technology for the “Use” of...
Commerce Control List dated October 12, 2004
As of May 2005**

Note: Once you have the ECCN, you can go to: http://www.access.gpo.gov/bis/ear/ear_data.html
And scroll down to Part 774 to see the detailed specifications of what equipment is controlled.

ECCNs - Commodities with a Use Technology Control	
Category 0 – Nuclear Materials, Facilities, and Equipment (and Miscellaneous Items)	
ECCN:	Controls Technology for the Use of:
0E001	0A001 Nuclear reactors 0A002 Power generating or propulsion equipment 0B Isotope separation equipment
0E018	0A018 Construction equipment built to military specs, specially designed for airborne transport; Components designed for ammunition; Muzzle loading firearms
0E918	0A918 Bayonets
Category 1 – Materials, Chemicals, “Microorganisms,” and Toxins	
ECCN:	Controls Technology for the Use of:
1E101	1A101 Devices for reduced observables for use in missiles and their subsystems 1A102 Resaturated pyrolyzed carbon-carbon components designed for missiles 1B001 Equipment for the production of composite structures or laminates or fibrous or filamentary materials 1B101 Equipment for the production of structural composites, fibers, prepregs or performs 1B102 Metal powder production equipment 1B115 Equipment for the production of propellant or propellant constituents 1B116 Nozzles for producing pyrolytically derived materials formed on mold, mandrel or other substrate from precursor gasses 1B117 Batch mixers with provision for mixing under vacuum in the range from 0 – 13.326 kPa 1B118 Continuous mixers with provision for mixing under vacuum in the range from 0 – 13.326 kPa 1B119 Fluid energy mills usable for grinding or milling propellant Materials under 1C001, 1C007, 1C011, 1C101, 1C107, 1C116, 1C117
1E201	1A002 Composite structures or laminates with an organic matrix or metal or carbon matrix 1A202 Composite structures not under 1A002 in the form of tubes 1A225 Platinized catalysts 1A226 Specialized packings for separating heavy water from ordinary water 1A227 High-density radiation shielding windows 1B201 Filament winding machines

	1B225 Electrolytic cells for fluorine production 1B226 Electromagnetic isotope separators 1B227 Ammonia synthesis converters 1B228 Hydrogen-cryogenic distillation columns 1B229 Water-hydrogen sulphide exchange tray columns and internal contractors 1B230 Pumps capable of circulating solutions of concentrated or dilute potassium amide catalyst 1B231 Tritium facilities or plants 1B232 Turboexpanders or turboexpander-compressor sets 1B233.b Equipment for the separation of lithium isotopes Materials under 1C002.a.2.c or .d, 1C010.a, 1C010.b, 1C010.e.1, 1C202, 1C210, 1C216, 1C225, 1C240
1E994	1C990 Fibrous and filamentary materials
Category 2 – Materials Processing	
ECCN:	Controls Technology for the Use of:
2E003	Equipment designed or modified for densification of carbon-carbon composites, structural composite rocket nozzles and reentry vehicle nose tips.
2E018	2B018 Specialized machinery, equipment and gear for producing rocket systems, space launch vehicles and missile systems
2E101	2B004 Hot isostatic presses 2B009 Spin-forming machines and flow-forming machines 2B104 Isostatic presses other than those in 2B004 2B105 Chemical vapor deposition furnaces 2B109 Flow-forming machines not under 2B009 2B116 Vibration test systems 2B117 Equipment and process controls modified for the densification and pyrolysis of structural composite rocket nozzles 2B119 Balancing Machines & related equipment 2B120 Motion simulators or rate tables 2B121 Positioning tables 2B122 Centrifuges capable of imparting accelerations above 100g
2E201	2A225 Crucibles made of materials resistant to liquid actinide metals 2A226 Valves (5mm or greater), with bellows seal, and made of or lined with aluminum 2B001 Machine tools for removing metals or composites which can be equipped with electronic devices for numerical control 2B006 Dimensional inspection or measuring systems and equipment 2B007.b Robots designed to comply with national safety standards applicable to explosive munitions environments 2B007.c Robots designed as radiation-hardened 2B008 Assemblies/units designed for machine tools or dimensional inspection or measuring systems 2B201 Machine tools not under 2B001 2B204 Isostatic presses not under 2B004 or 2B104

	<p>2B206 Dimensional inspection machines not under 2B006</p> <p>2B207 Robots, end-effectors and control units not under 2B007</p> <p>2B209 Flow forming machines, spin forming machines not under 2B109</p> <p>2B225 Remote manipulators that can do remote actions in radiochemical separation operations or hot cells</p> <p>2B226 Controlled atmosphere induction furnaces and power supplies therefor</p> <p>2B227 Vacuum or other controlled atmosphere metallurgical melting and casting furnaces</p> <p>2B228 Rotor fabrication and assembly equipment, rotor straightening equipment, bellows-forming mandrels and dies</p> <p>2B229 Centrifugal multiplane balancing machines</p> <p>2B230 Pressure transducers</p> <p>2B231 Vacuum pumps</p> <p>2B232 Multistage light gas guns</p>
2E290	<p>2A290 Generators and other equipment for use with nuclear plants</p> <p>2A291 Equipment related to nuclear material handling and processing and to nuclear reactors not under 2A290</p> <p>2A292 Piping, fittings and valves made of stainless steel, copper-nickel alloy or other alloy with 10% or more nickel or chromium</p> <p>2A293 Pumps designed to move molten metals by electromagnetic force</p> <p>2B290 Numerically controlled machine tools not under 2B001 or 2B201</p>
2E301	<p>2B350 Chemical manufacturing facilities and equipment</p> <p>2B351 Toxic gas monitoring systems</p> <p>2B352 Equipment capable of use in handling biological materials</p>
2E983	2A983 Explosives or detonator detection equipment
2E991	<p>2B991 Numerical control units for machine tools and numerically controlled machine tools not elsewhere specified</p> <p>2B993 Gearmaking and finishing machinery capable of producing gears better than AGMA 11</p> <p>2B996 Dimensional inspection or measuring systems or equipment not under 2B006</p> <p>2B997 Robots not under 2B007 or 2B207 capable of employing feedback in real-time processing</p>
2E994	2A994 Portable electric generators and specially designed parts
Category 3 - Electronics	
ECCN:	Controls Technology for the Use of:
3E101	<p>3A001.a.1 or .2 Radiation hardened integrated circuits</p> <p>3A101 Analog to digital converters and accelerators not under 3A001</p>
3E201	<p>3A001.e.2 or .e.3 High energy storage capacitors and superconductive electromagnets and solenoids</p> <p>3A201 Electronic components not under 3A001</p> <p>3A225 Frequency changers or generators not under 0B001.c.11</p> <p>3A226 High-power direct current power supplies not in 0B001.j.6</p> <p>3A227 High-voltage direct current power supplies not in 0B001.j.5</p> <p>3A228 Switching devices</p> <p>3A229 Firing sets and equivalent high-current pulse generators</p>

	3A230 High-speed pulse generators 3A231 Neutron generator systems 3A232 Detonators and multipoint initiation systems 2A233 Mass spectrometers not under 2B002.g capable of measuring ions of 230 atomic mass units or greater
3E292	3A292 Oscilloscopes and transient recorders not under 3A002.a.5
3E980	3A980 Voice print identification and analysis equipment 3A981 Polygraphs
3E991	3A991 Electronic devices and components not under 3A001 3A992 General purpose electronic equipment not under 3A002 3B991 Equipment for the manufacture of electronic components and materials not under 3B001 3B992 Equipment for the inspection or testing of electronic components and materials not under 3B002
Category 4 – Computers	
Note: Desktop computers and office equipment are excluded from the use technology control.	
ECCN:	Controls Technology for the Use of:
4E001	4A001 Electronic computers and related equipment and electronic assemblies 4A003 Digital computers, electronic assemblies and related equipment 4A004 Computers 4A101 Analog computers, digital computers or digital differential analyzers not under 4A001 4A102 Hybrid computers
4E980	4A980 Computers for fingerprint equipment
4E992	4A994 Computers, electronic assemblies and related equipment not under 4A001 or 4A003 4B994 Equipment for the development and production of magnetic and optical storage equipment 4C994 Materials specially formulated for the fabrication of head/disk assemblies for controlled disk drives
Category 5 – Telecommunications and “Information Security”	
ECCN:	Controls Technology for the Use of:
5E001	See characteristics for the telecommunications equipment controlled
5E101	5A101 Telemetry and telecontrol equipment designed for unmanned aerial vehicles
5E991	5A991 not under 5A001 – see characteristics 5B991 Telecommunications test equipment not elsewhere specified
5E002	5A002 Systems, equipment, modules and integrated circuits for information security 5B002 Information security test, inspection and production equipment
5E992	Information security technology not under 5E002
Category 6 – Sensors and Lasers	
ECCN:	Controls Technology for the Use of:
6E003	Acoustics, optical sensors, cameras, optical surface coating, optical fabrication, lasers, magnetometers – see list
6E101	6A002 Optical sensors, space-qualified solid-state detectors, image intensifier tubes, focal plane arrays, imaging sensors (more)

	6A007.b and .c Gravity meters designed for mobile platforms and gravity gradiometers 6A008 Radar systems 6A102 Radiation hardened detectors not under 6A002 6A107 Gravity meters and components for gravity meters and gravity gradiometers 6A108 Radar systems and tracking systems not under 6A008 6B108 Systems designed for radar cross section measurement usable for missiles not under 6B008
6E210	6A003.a.2 Mechanical high speed cameras 6A003.a.3 Mechanical or electronic streak cameras 6A003.a.4 Electronic framing cameras 6A005.a.1.c Gas lasers 6A005.a.2.a Metal vapor lasers 6A005.a.4.c Carbon dioxide lasers 6A005.a.6 Krypton ion or argon ion lasers 6A005.c.1.b Tunable lasers 6A005.c.2.c.2 Other non-tunable lasers 6A005.d.2.c Dye and other liquid lasers 6A202 Photomultiplier tubes 6A203 Cameras and components not under 6A003 6A205 Lasers, laser amplifiers and oscillators not controlled by 6A005 6A225 Velocity interferometers 6A226 Pressure sensors
Category 7 – Navigation and Avionics	
ECCN:	Controls Technology for the Use of:
7E101	7A001 Linear accelerometers 7A002 Gyros and angular/rotational accelerometers 7A003 Inertial systems 7A004 Gyro-astro compasses and other tracking devices 7A005 Global navigation satellite systems 7A006 Airborne altimeters 7A101 Accelerometers 7A102 All types of gyros not under 7A002 and usable in missiles 7A103 Instrumentation, navigation not under 7A003 7A104 Gyro-astro compasses not under 7A004 7A105 Receiving equipment for Global Navigation Satellite Systems 7A106 Altimeters not under 7A006 7A115 Passive sensors for determining bearings 7A116 Flight control systems

	7A117 Guidance sets 7B001 Test, calibration or alignment equipment designed for equipment listed above 7B002 Equipment designed to characterize mirrors for ring laser gyros 7B003 Equipment designed for the production of the equipment listed above 7B101 Production, test, calibration and alignment equipment not described above 7B102 Equipment designed to characterize mirrors for laser gyro equipment not under 7B002 7B103 Production facilities for guidance sets
7E994	Technology not elsewhere specified for the use of navigation, airborne communication and other avionics equipment
Category 8 - Marine	
ECCN:	Controls Technology for the Use of:
8E992	8A992 Underwater systems or equipment not under 8A001 or 8A018
Category 9 – Propulsion systems, space vehicles and related Equipment	
ECCN:	Controls Technology for the Use of:
9E018	9A018 Military trainer aircraft, ground transport vehicles for fitted with materials to provide ballistic protection, pressure refusers, pressurized breathing equipment, military parachutes, military instrument flight trainers
9E102	9A004 Space launch vehicles and spacecraft 9A005 Liquid rocket propulsion systems 9A006 Systems and components for liquid rocket propulsion systems 9A007 Solid rocket propulsion systems 9A008 Components designed for solid rocket propulsion systems 9A009 Hybrid rocket propulsion systems 9A010 Components for launch vehicles and launch vehicle propulsion systems 9A011 Ramjet, scramjet or combined cycle engines 9A012 Non-military unmanned aerial vehicles 9A101 Lightweight turbojet and turbofan engines 9A104 Sounding rockets 9A105 Liquid propellant rocket engines 9A106 Systems or components usable in missiles non under 9A006 9A107 Solid propellant rocket engines 9A108 Solid rocket propulsion components 9A109 Hybrid rocket motors 9A110 Composite structures, laminates not under 9A010 for use in missiles 9A111 Pulse jet engines 9A115 Apparatus, devices and vehicles for transport, handling, control, activation and launching of rockets, missiles, etc. 9A116 Reentry vehicles 9A117 Staging mechanisms, separation mechanisms and interstages therefore usable in missiles

	9A118 Devices to regulate combustion in engines usable in rockets 9A119 Individual rocket stages 9B105 Wind tunnels 9B106 Environmental chambers and anechoic chambers 9B115, 9B116 production equipment and facilities for equipment listed above 9B117 Test benches and test stands for solid or liquid propellant rockets or rocket motors
9E990	9A990 Diesel engines and tractors 9B990 Vibration Test equipment
9E991	9A991 Aircraft and gas turbine engines not under 9A001 or 9A101 9B991 Equipment, tooling or fixtures for manufacturing or measuring gas turbine blades, vanes or tip shroud castings