

**1052.2. con't.**

- a. Equipment employing digital techniques, including "Asynchronous Transfer Mode" ("ATM"), designed to operate at a "total digital transfer rate" exceeding 1.5 Gbit/s;
- b. Equipment employing a "laser" and having any of the following:
  1. A transmission wavelength exceeding 1750 nm;
  2. Performing "optical amplification";
  3. Employing coherent optical transmission or coherent optical detection techniques (also called optical heterodyne or homodyne techniques); **or**
  4. Employing analogue techniques and having a bandwidth exceeding 2.5 GHz;

**Note:**

1052.2.b.4. does not control equipment specially designed for the "development" of commercial TV systems.

- c. Equipment employing "optical switching";
- d. Radio equipment employing quadrature-amplitude-modulation (QAM) techniques above level 128;
- e. Equipment employing "common channel signalling" operating in either non-associated or quasi-associated mode of operation.

**1053. Materials**

None.

**1054. Software**

1. "Software" specially designed or modified for the "development", "production" or "use" of equipment, functions or features controlled by Category 1050.
  2. "Software" specially designed or modified to support "technology" controlled by 1055.
  3. Specific "software" as follows:
    - a. "Software" specially designed or modified to provide characteristics, functions or features of equipment controlled by 1051. or 1052.;
    - b. "Software", other than in machine-executable form, specially designed for "dynamic adaptive routing".
  4. "Software" specially designed or modified for the "development" of any of the following telecommunication transmission or "stored programme controlled" switching equipment:
    - a. Equipment employing digital techniques, including "Asynchronous Transfer Mode" ("ATM"), designed to operate at a "total digital transfer rate" exceeding 1.5 Gbit/s;
    - b. Equipment employing a "laser" and having any of the following:
      1. A transmission wavelength exceeding 1750 nm; **or**
      2. Employing analogue techniques and having a bandwidth exceeding 2.5 GHz;
- Note:**  
1054.4.b.2. does not control "software" specially designed or modified for the "development" of commercial TV systems.
- c. Equipment employing "optical switching";
  - d. Radio equipment employing quadrature-amplitude-modulation (QAM) techniques above level 128.

**1055. Technology**

1. "Technology" according to the General Technology Note for the "development", "production" or "use" (excluding operation) of equipment, functions or features, or "software" controlled by Category 1050.
2. Specific technologies, as follows:
  - a. "Required" "technology" for the "development" or "production" of telecommunications equipment specially designed to be used on board satellites;
  - b. "Technology" for the "development" or "use" of "laser" communication techniques with the capability of automatically acquiring and tracking signals and maintaining communications through exoatmosphere or sub-surface (water) media;
  - c. "Technology" for the "development" of digital cellular radio base station receiving equipment whose reception capabilities that allow multi-band, multi-channel, multi-mode, multi-coding algorithm or multi-protocol operation can be modified by changes in "software";
  - d. "Technology" for the "development" of "spread spectrum" techniques, including "frequency hopping" techniques.
3. "Technology" according to the General Technology Note for the "development" or "production" of any of the following telecommunication transmission or "stored programme controlled" switching equipment, functions or features:
  - a. Equipment employing digital techniques, including "Asynchronous Transfer Mode" ("ATM"), designed to operate at a "total digital transfer rate" exceeding 1.5 Gbit/s;
  - b. Equipment employing a "laser" and having any of the following:
    1. A transmission wavelength exceeding 1750 nm;
    2. Performing "optical amplification" using praseodymium-doped fluoride fibre amplifiers (PDFFA);
    3. Employing coherent optical transmission or coherent optical detection techniques (also called optical heterodyne or homodyne techniques);
    4. Employing wavelength division multiplexing techniques exceeding 8 optical carriers in a single optical window; **or**
    5. Employing analogue techniques and having a bandwidth exceeding 2.5 GHz;

**Note:**  
1055.3.b.5. does not control "technology" for the "development" or "production" of commercial TV systems.

  - c. Equipment employing "optical switching";
  - d. Radio equipment having any of the following:
    1. quadrature-amplitude-modulation (QAM) techniques above level 128 **or**
    2. Operating at input or output frequencies exceeding 31 GHz;

**Note**  
1055.3.d.2. does not control "technology" for the "development" or "production" of equipment designed or modified for operation in any frequency band which is "allocated by the ITU" for radio-communications services, but not for radio-determination.

  - e. Equipment employing "common channel signalling" operating in either non-associated or quasi-associated mode of operation.