



Office of
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Authorization
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Division

Federal
Communications
Commission

The FCC Equipment Authorization Program for Radio Frequency Devices

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THE FCC EQUIPMENT AUTHORIZATION PROGRAM FOR RADIO FREQUENCY DEVICES

INTRODUCTION

The FCC has established an equipment authorization program to control radio interference from radio transmitters and certain other electronic products. This bulletin is designed to provide an overview of the program and how to obtain an equipment authorization.

Radio equipment may not be imported or marketed until it has complied with the equipment authorization procedures of the FCC. Substantial penalties may be imposed for equipment that is imported or marketed in violation of the FCC Rules. Therefore, it is important for manufacturers, importers, and vendors to familiarize themselves with the FCC equipment authorization program.

This bulletin is not designed to provide complete details on the technical requirements or application requirements. Applicants should obtain and review the FCC Rules before filing an application. They are also encouraged to use the information resources listed in the last section of this bulletin.

EQUIPMENT AUTHORIZATION PROCEDURES

There are several equipment authorization procedures: verification, notification, certification, type acceptance, type approval, and registration. The Appendix provides a list of equipment and the applicable equipment authorization procedures.

Verification is a self-approval process. The manufacturer (or importer for an imported device) is required to ensure that the measurements necessary to determine compliance with the technical standards are performed. A copy of the measurement report showing compliance with FCC standards must be retained by the manufacturer and, if

requested, submitted to the Commission. Devices subject to verification include: business computer equipment (Class A); TV and FM receivers; and, non-consumer Industrial, Scientific, & Medical Equipment.

Notification requires submittal of an abbreviated application, that does not include a measurement report, to the FCC. However, a measurement report showing compliance with the technical standards must be retained by the applicant and must be submitted upon request by the Commission. Devices subject to notification include: point-to-point microwave transmitters; AM, FM, & TV Broadcast transmitters; certain microwave auxiliary broadcast transmitters; and, other receivers (except as noted elsewhere).

Certification requires submittal of an application that includes a complete technical description of the product and a measurement report showing compliance with the technical standards. Devices subject to certification include: personal computers and peripherals (*i.e.*, printers, video monitors, modems, etc.); low power transmitters such as cordless telephones, garage door opener controls, radio control toys, and security alarm systems; scanning receivers and superregenerative receivers; and, TV Interface Devices such as VCRs.

Type Acceptance is similar to certification, except that it typically applies to radio transmitter equipment that is used in a licensed radio service. Devices subject to type acceptance include: land mobile transmitters such as cellular transmitters, or police, fire and business transmitters; transmitters used in the maritime and aeronautical safety services; and, CB and other transmitters used in the Personal Radio Services.

Type Approval involves submittal of an application that includes a complete technical

description and mandatory submittal of a sample. At the time of this writing, there are no longer any products subject to type approval.

Registration applies to telephone equipment that is intended to be connected to the public switched telephone network. This authorization procedure is designed to protect against harm to the telephone network. This bulletin does not pertain to Registration. Questions concerning telephone equipment Registration under Part 68 of the FCC Rules should be directed to:

Federal Communications Commission
Common Carrier Bureau
Domestic Facilities Division
2025 M St., NW
Room 6008, Mail Stop 1600B
Washington, D.C. 20554

HOW TO FILE AN APPLICATION

The first step before filing an application is to obtain and review the FCC Rules. The equipment authorization procedures can be found in Part 2 Subpart J of the FCC Rules. Instructions on how to obtain the rules, application forms, and additional information is provide later in this bulletin. Instructions are also provided on how to obtain a packet of information for first-time filers. A brief summary of the information required in an application for equipment authorization is given below:

Information required for Notification, Certification, and Type Acceptance applications:

- FCC Form 155. Applications must be accompanied by FCC Form 155 - Fee Processing Form - and the required fee. Fees are specified in Section 1.1103 of the Rules. Note that this rule also specifies the fee code that must be listed on the form.
- FCC Form 731. This is the application form for equipment authorization. It calls for general information, such as the applicant name and address, proposed FCC ID of the equipment and general technical information on the equipment such as operating frequency and rules

under which the equipment is designed to operate.

- Photographs. Photographs are required showing the general appearance of the product (front and back) and the identification label.

Additional Information Required for Certification & Type Acceptance

- Technical Description. A technical description is required explaining the operation of the device, and usually requiring submittal of block and schematic diagrams of the circuitry. Additional photos are generally required showing the complete construction of the equipment.
- Measurement Report. A measurement report is required showing compliance with all the pertinent technical standards. The report must fully describe how the tests were performed. The FCC rules list the measurement procedures that are applicable.
- User/Installation Instructions. For most products, a copy of the user or installation instructions must be provided.

Applications sent by mail should be addressed to:

Federal Communications Commission
Equipment Approval Services
Post Office Box 358315
Pittsburgh, PA 15251-5315

Applications sent by courier service or hand-delivered should be placed into an envelope bearing the previous address, then put into another envelope addressed to:

Federal Communications Commission
c/o Mellon Bank
Three Mellon Bank Center
525 William Penn Way
27th Floor, Room 153-2713
Pittsburgh, PA 15259-0001
Attention: Wholesale Lockbox Shift Supervisor.

Applications are generally processed within 30 days of receipt at the bank. However, delays can occur where the FCC must request additional information necessary to complete an application. Applicants are encouraged to file fully acceptable applications and to allow sufficient time for the equipment authorization process before the planned marketing or importing, in the case of foreign manufactured products.

IDENTIFICATION REQUIREMENTS

All radio frequency devices requiring an equipment authorization other than verification, are required to have an identification label that displays the FCC Identifier (FCC ID). The FCC ID consists of a three-character grantee code assigned permanently to a specific party by the FCC, and an equipment product code assigned by the applicant. (Reference Sections 2.925 and 2.926 of the Rules.) The rules may also require a compliance statement to be placed on the label. Applicants are encouraged to request a grantee code before filing an application for equipment authorization. Information on how to obtain a grantee code can be found in the First-Time Filers Packet, discussed later in this Bulletin.

In general, the label must be visible on the outside of the product. A sample label may look

FCC ID: XXX386-20
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may cause undesired operation.

like this:

REQUIREMENTS FOR TEST LABORATORIES

Parties that perform measurements for notification and certification under Parts 15 and 18 of the FCC Rules must file a description of their measurement facilities with the FCC. Parties that perform measurements for

verification must file a description upon request. See Section 2.948 for the required information. A list of facilities that perform FCC compliance measurements on a contract basis is available on the FCC Public Access Link. Parties can also request the list through the voice mail/information system. Applicants are encouraged to select a firm capable of measuring their specific device. The FCC makes no findings as to the competence or performance of laboratories on the list. Accordingly, laboratories on the list should not advertise or otherwise imply FCC approval of their measurement facilities.

Some laboratories may offer a variety of services in addition to testing, such as design recommendations and preparation of the complete application packages. Applicants who elect to authorize measurement facilities, or other parties to sign and submit applications on their behalf are advised that the applicant remains responsible for the contents of the application.

REQUESTS FOR SAMPLES

A sample of the product may be requested for testing at the FCC Laboratory in order to validate the information in a pending application. The Commission also periodically checks products to ensure that they continue to comply with the rules. Samples should not be submitted unless specifically requested. Shipping instructions will be provided with the sample request.

IMPORT REGULATIONS

Equipment may not be imported until it has been authorized as required. Part 2, Subpart K of the FCC Rules contains the importation requirements. These rules are administered by the FCC Field Operations Bureau working in conjunction with the U.S. Customs Service.

The shipping documents for radio frequency devices imported into the United States must be accompanied by a completed FCC Form 740. A copy of the form must be sent to the FCC as directed on the form.

Questions concerning Form 740 and the import regulations may be directed to a FCC field office listed under U.S. Government in the local telephone directory or to the following address:

Federal Communications Commission
Enforcement Division (FOB)
Room 744, Mail Stop 1500E
1919 M Street, N.W.
Washington, DC 20554

MARKETING REGULATIONS

The FCC Rules prohibit the marketing of radio frequency devices until they have been authorized as required. These regulations and certain exceptions are contained in Part 2, Subpart I.

For purposes of the FCC Rules, marketing means:

1. To sell, lease or offer for sale, including advertising for sale or lease.
2. To import, ship or distribute for the purpose of selling, leasing or offering for sale or leasing.

Devices that have not been authorized may be advertised or displayed, **provided that the advertisement or display is accompanied by the following conspicuous notice:**

This device has not been approved by the Federal Communications Commission. This device, is not, and may not be, offered for sale or lease, or sold or leased until approval of the FCC has been obtained.

RULE VIOLATIONS & FORFEITURES

The Commission has an ongoing program to monitor compliance with the equipment authorization requirements and vigorously prosecute rule violations. FCC personnel visit trade shows, review advertising literature, and inspect wholesale and retail outlets to ensure that equipment is not imported or marketed in violation of the rules. The Commission also investigates complaints of noncompliance from

the public. Complaints may be directed to the local FCC Field Office or the Enforcement Division at the address given above.

Several means are available to enforce the Rules. Willful violations of the equipment authorization, importation, and marketing rules can result in fines of up to \$10,000 per violation for each day of violation(s). Individuals or organizations may also be subject to a criminal penalty of up to \$100,000 (\$200,000) and/or a criminal fine totalling twice the gross gain obtained from sales of the non-compliant equipment. Working in conjunction with U.S. Marshals, FCC field personnel may also confiscate illegal equipment. Parties that do not correct rule violations may have pending applications for authorization of new equipment held in abeyance or denied for public interest reasons.

Vendors and importers are encouraged to inspect the equipment they market to see that it carries the necessary FCC Identifier.

AVAILABILITY OF ADDITIONAL INFORMATION

First-Time Filers Packet. General application packs and personal computer/peripheral certification packs are available to assist first-time filers. The packs include application forms, checksheets, reprints of pertinent rules, fee schedule, list of contract measurement facilities, application assembly format and information on obtaining applicant/grantee codes. Other information may be included depending on the type of equipment. To obtain the packs call (301) 725-1585 ext. 639, specify the type of pack desired the type of equipment, and leave your name and address. Alternatively, send your request to:

Federal Communications Commission
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046
Fax No.: (301) 344-2050

FCC Rules. The FCC Rules are found in Title 47 of the Code of Federal Regulations (CFR). Title 47 is available in 5 volumes covering FCC Rule Parts 0 to 19, 20 to 39, 40 to 69, 70 to 79, and 80 to end. New editions are usually available for purchase in February or March, and cover rule amendments up to September 30 of the previous year. The CFR is available from:

U.S. Government Printing Office
710 North Capitol Street, N.W.
Washington, DC 20402
Order Desk Phone No.: (202) 783-3238

Copies are available at most GPO bookstores, found under "U.S. Government" in local telephone directories.

Public Access Link (PAL). Information relating to the equipment authorization program is available 7 days a week on a 24 hour basis from the Public Access Link (PAL). PAL provides information on the status of pending and granted applications. PAL also explains how to obtain forms, OET bulletins, test site lists, etc. PAL includes up-to-date information on rule changes, public notices, and speed-of-service.

Computer access to PAL may be made by dialing (301) 725-1072. PAL is presently configured to accept data transfer at either a 300 or 1200 baud rate. The normal protocol is 8 bits, no parity and two stop bits (the system ignores parity on input and does not send parity on output.) Users may access PAL for five minute intervals per call from 8:00 AM to 8:00 PM, Eastern Daylight Savings Times (EDT) or Eastern Standard Time (EST), and for fifteen minute intervals per call at other times.

To access pending and granted application status, the user must know the FCC ID under which the application is pending, or the FCC ID of the authorized device. Status inquiries that cannot be made via computer access will be accepted on (301) 725-1585 ext. 300, Monday through Thursday, from 2:00 to 4:30 PM. To accommodate others who do not have computer access to the

database, status may be obtained for only 3 FCC Ids per call.

FCC Voice Mail & Information System. The FCC Laboratory has a voice-mail and information system that is on line between the hours of 8 AM and 4:30 PM Eastern Time each business day. By following instructions on the system, you can obtain information about the authorization process and leave your name and address in various mail boxes to obtain additional information. Just dial (301) 725-1585.

Information Contacts. Applicants requiring additional information concerning the equipment authorization program should contact the Equipment Authorization Branch at the address and telephone number listed above. Inquiries related to interpretation of the technical standards, particularly those in Parts 15 and 18 of the FCC Rules, should contact:

Federal Communications Commission
Technical Standards Branch
Room 7122, Mail Stop 1300B4
2025 M Street, N.W.
Washington, DC 20554

Standard Reporting Form. The Computer Business Equipment Manufacturers Association (CBEMA) has developed a standard technical report format for personal computer equipment subject to FCC certification. A copy of the report format is available by calling CBEMA at (202) 626-2732 or writing to CBEMA at 311 First Street, N.W., Suite 500, Washington, DC 20001.

Appendix

EQUIPMENT CLASSIFICATION AND AUTHORIZATION PROCEDURES

The procedures shown below as applicable to the particular classes of equipment are those required at the time of publication of this bulletin. Some categories of equipment were subject to a different form of equipment authorization in the past than is required at present, or did not require any form of equipment authorization. These differences in past and present authorization requirements are detailed in the rules governing the particular service in which the equipment is operated.

EQUIPMENT CLASSIFICATION

LICENSED TRANSMITTING EQUIPMENT

PART 5: Experimental Radio Service

- Wildlife tracking (40-66-40-70 MHz and 216-220 MHz)
- Ocean buoy (40.66-40.70 MHz and 216-220 MHz)

PART 21: Domestic Public Fixed

- Point-to-point microwave (Subpart I)
- ▣ All other transmitters except those under developmental authorization

PART 22: Domestic Mobile

- ▣ All transmitters except those under developmental authorization

PART 73: Broadcast

- Standard broadcast (AM transmitters)
- ▣ AM stereo exciter-generators
- FM transmitters
- Television transmitters
- Monitors, antenna phase
- ▣ Emergency broadcast systems (EBS) Encoders
- £ Emergency broadcast systems (EBS) Decoders

PART 74: Auxiliary Broadcast

- ▣ Remote pickup (Subpart D)
- Aural STL (Subpart E)
- Aural intercity relay (Subpart E)
- Aural STL booster (Subpart E)
- Aural intercity relay booster (Subpart E)
- ▣ Others, except TV pickup under 250 mW (Subpart F)

- TV STL (Subpart F)
- TV intercity relay (Subpart F)
- TV translator relay (Subpart F)
- TV microwave booster (Subpart F)
- ▣ Low power TV (Subpart G)
- ▣ TV translator (Subpart G)
- ▣ Low power auxiliary (Subpart H)
- ▣ Instructional TV, fixed (ITFS)(Subpart I)
- ▣ ITFS response (Subpart I)
- ▣ FM broadcast translator (Subpart L)
- ▣ FM broadcast booster (Subpart L)

PART 78: Cable Television Relay

- Cable television relay fixed
- ▣ Cable television relay mobile pickup¹

PART 80: Maritime

- ▣ Radiotelephone
- ▣ Radiotelegraph
- ▣ EPIRB
- ▣ Radar
- § Ship earth station²
- ▣ Radiotelephone alarm signal generators
- ▣ Radiotelephone distress watch receivers
- ▣ Radiotelegraph alarm signal keyers
- ▣ Radiotelegraph auto alarm receivers

PART 80: Global Maritime Distress and Safety (GMDSS). Subpart W

- ▣ All Equipment (except INMARSAT)
- INMARSAT

PART 87: Aviation

- ▣ All transmitters, except as provided in Section 87.145(d)

Key To Authorization Procedure

£ Certification ■ Notification ▣ Type Acceptance □ Type Approval § Verification

PART 90: Private Land Mobile

- ▣ All fixed transmitters, except as provided in Section 90.203(b)

PART 94: Private Operational-Fixed Microwave

- ▣ All fixed transmitters except those under developmental authorization\5

PART 95: Personal Radio Services

- ▣ General mobile
- ▣ Radio control 27 MHz\4
- ▣ Radio control 72 MHz
- ▣ Citizen band (CB)

Part 95: Interactive Video Display Services (IVDS), Subpart F

- ▣ CTS and RTU transmitters

PART 97: Amateur Radio Service

- ▣ External RF power amplifiers below 144 MHz, except as provided in Sections 2.815 and 97.75

PART 15: UNINTENTIONAL RADIATORS (SUBPART B)

- § TV broadcast receiver\6
- § FM broadcast receiver
- £ CB receiver
- £ Scanning Receivers\7
- £ Superregenerative receiver
- All other Part 15 receiver\10
- £ TV interface device\13
- ■ Cable system terminal device\12
- £ Class B personal computers as defined in Section 15.5(s)
- £ Class B personal computer peripherals as defined in Section 15.5(r)\9
- § Other Class B digital devices and peripherals\9
- § Class A digital devices and peripherals\9
- § Stand-alone cable input selector switch
- § External switching power supplies
- § All other Part 15 devices

PART 15: INTENTIONAL RADIATORS SUBPART C

- £ Auditory assistance transmitters

- £ Cordless telephones (TX section)\8 \11
- £ Field disturbance sensors
- £ Telemetry transmitters
- £ Wireless microphones

PART 18: INDUSTRIAL, SCIENTIFIC AND MEDICAL (ISM) EQUIPMENT

- £ All ISM devices for consumer use, except ultrasonic devices generating less than 500 watts and operating below 90 kHz
- § Ultrasonic devices generating less than 500 watts and operating below 90 kHz
- § All other ISM devices, except those exempt under Section 18.121

Key To Authorization Procedure

- £ Certification ■ Notification ▣ Type Acceptance □ Type Approval § Verification

NOTES TO TABLE

1. No equipment authorization is required for transmitters with output power 250 mW or less, used in the Cable Television Relay Service (CARS) pickup stations.
2. Applies to ship earth station transmitters in the INMARSAT system. See Section 80.203.
3. Citizens band and radio control transmitters are not required to be operated under a radio station license. See Part 95.
4. No equipment authorization is required when transmitter is crystal controlled and meets the technical requirements in Part 95.
5. Equipment authorization is not required for portable transmitters operating below 250 mW.
6. Television broadcast receivers which include an "RGB" (red-green-blue) terminal to permit use of the picture tube of the receiver as a display device for personal computer peripherals.
7. The definition of "scanning receiver" for this purpose is given in Section 15.3(v) as follows: "...a receiver that automatically switches among four (4) or more frequencies in the range of 30 to 960 MHz and which is capable of stopping at and receiving a radio signal detected on a frequency. Receivers designed solely for the reception of broadcast signals under Part 73 or for operation as part of a licensed station and are not included in this definition.
8. The base station of cordless telephones stations also require registration under Part 68 of the rules.
9. Computer peripherals interfacing with the telephone network also require registration under Part 68 of the rules.
10. Multiband receivers will generally fall under the Notification procedure. Exceptions are as follows:
 - (a) A multiband receiver which includes a CB band is subject to certification.
 - (b) An AM/FM/TV sound-only receiver is subject only to verification.
11. The receiver section of transceivers, the transmitter portion of which is subject to type acceptance, certification or notification, is subject to verification. See Section 15.101(b) of the rules.
12. See Section 15.3(e) for definition of Cable System Terminal Devices (CSTDs).
13. See Section 15.3(y) for definition of TV interface devices and Section 15.25 for information pertaining to kits.