

Federal Communications Commission
Washington, DC

Spectrum Inventory Table, 137 MHz to 100 GHz

1996.10.16 — DA96-1704

1. Introduction:

1.1 *What is the spectrum inventory table?*

The spectrum inventory table is based on information contained in §2.106 – “Table of Frequency Allocations” of the *FCC Rules and Regulations*. This inventory table supplements the “Table of Frequency Allocations” by providing, in addition to allocations for each frequency band from 137 MHz to 100 GHz, information on common service names, FCC rule parts, operational parameters, coverage, and number of assignments. Because the “Table of Frequency Allocations”, codified in *47 C.F.R. §2.106*, is a “living” document that is routinely amended pursuant to Commission rule making proceedings, there may be some discrepancies between the “Table of Frequency Allocations” and the “Spectrum Inventory Table”.

In cases of discrepancies, the “Table of Frequency Allocations” contained in the *C.F.R.*, as updated by changes published in the *Federal Register*, is the definitive table. Readers are advised that the footnotes indicated in the table sometimes contain significant details regarding use of a frequency band and should be consulted. The spectrum inventory table provides a descriptive survey of the spectrum based on today’s allocations and usages, and does not reflect future FCC policies and rules. Thus, it should not be construed as permanent picture of the spectrum allocation and usages. This Table is our best “snapshot” of what the spectrum environment is as of the release date.

1.2 *How can this table help you?*

Are you planning to use radio spectrum in support of your telecommunications needs? If so, This table offers you, the business and academic communities as well as the general public, information on how the radio spectrum is used in the United States so that you can select the most appropriate spectrum to support your needs and determine the impact of your proposed deployment on existing operations.

1.3 *What this table is not!*

This document is not a rule making procedure. It is just a document providing the public with information. We are not soliciting comments on changes to the allocation's table or service rules. However, we would appreciate knowing about any clerical errors that are found.

1.4 *What is the current format of this table?*

The "Spectrum Inventory Table" is a WordPerfect 5.1/5.2 document (~60 pages) with a paper size of 8.5" x 11" landscape. In the future, plans include migrating this information to a relational database and developing a more friendly front-end which can be used to conduct searches on the information contained in the spectrum inventory database. We invite your suggestions on database programs that can provide a platform for valuable applications including instant searches, graphical mapping outputs, and other tools that can aid in your information gathering and decision making processes.

1.5 *Please send us your comments via E-mail!*

This table represents the **first** FCC version of a detailed spectrum inventory for the public. The FCC looks forward to receiving your **informal** comments via E-mail regarding the usefulness of such a table, and suggestions on how you feel this table should evolve. Also, if you notice any inaccuracies, please bring that to our attention too. Your informal comments on the "Spectrum Inventory Table" should be E-mailed to "**spectrum@fcc.gov**". Please put the phrase "Spectrum Inventory Comments" in the subject line of your E-mail message.

1.6 *Download the File:*

The inventory table, "SpInvTbl.wp5"; and this file, "SpInvDoc.wp5", have been compressed into a single file, "SpInv.zip" (35 kB), using the compression program "pkzip" and can be downloaded via <http://www.fcc.gov/oet/info/database/spectrum/Welcome.html>

2. **Explanation of Table Columns**

Non-Government:—

Allocation: Spectrum which the Commission has allocated/designated for use by non-governmental entities. Allocations listed in capital letters designate primary services, and lowercase indicates secondary services. The ITU nomenclature is used.

“Common” Service Name: A descriptive term used to identify spectrum designated for a specific service, e.g., Digital Electronic Message Service (DEMS) 18,870-1,8920 MHz and 19,210-19,260 MHz.

AG-CA	Air Ground, Commercial Aviation
AG-GA	Air Ground, General Aviation
AMTS	Automated Maritime Telecommunications System
BETRS	Basic Exchange Telephone Radio Systems
Big LEO	Voice Low Earth Orbiting Satellite, broadband
CARS	Cable Television Relay Service
CCP	Common Carrier Paging
CELL	Cellular Radiotelephone Service
CMRS	Commercial Mobile Radio Service
CT	Control
DEMS	Digital Electronic Messaging Service
ENG	Electronic News Gathering
GMDSS SATCOM	Global Maritime Distress and Safety System Satellite Communications
IMTS	Improved Mobile Telephone Service
ITFS	Instructional Television Fixed Service
Little LEO	Non-voice Low Earth Orbiting Satellite, wideband
LMDS	Local Multipoint Distribution Service
MAS	Multiple Address Systems
MMDS	Multichannel Multipoint Distribution Service
MO	Mobile
ORTS	Offshore Radiotelephone Service
PCS	Personal Communications Service
RR-C	Rural Radiotelephone Service - conventional
STL	Studio-to-Transmitter Link

TIRS	Transportation Infrastructure Radio Service
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Bureau / Rule Part: Identifies the Bureau responsible for licensing the noted service, and the rule part governing use of the allocated spectrum by this service.

CSB	Cable Services Bureau
IB	International Bureau
MMB	Mass Media Bureau
OET	Office of Engineering and Technology
WTB	Wireless Telecommunications Bureau
pt	Rule Part

Terrestrial Services:

Operational Parameters: Describes the general technical structure of the service; the number of individual channels and channel bandwidth, *e.g.*, 2-way voice and data; twelve 20 MHz channels.

D	Data
V	Voice
VDO	Video
I	Image

Usage: Defines the geographical area a licensee is authorized to serve per table below.

BTA	Basic Trading Area
C	Combination (PTP/P-MP)
EA	Economic Area
MP-MP	Multipoint-to-Multipoint (mobile-to-mobile)
MP-P	Multipoint-to-point
MSA	Metropolitan Statistical Area

MST	Multiple States
MTA	Major Trading Area
Omnidir	Omnidirectional
P-MP	Point-to-Multipoint
P-R	Point Radius (X distance centered on a site)
PTP	Point-to-Point
RSA	Rural Service Area
S	Site Specific
USA	National

Utilization: Indicates the numbers of links licensed ~~or applied for~~. A link is defined as a transmitter/receiver combination for a given frequency and polarization. **Note:** Utilization counts reflect only fixed and base stations; each base station supports a number of mobiles and portables. [rev. 96.10.18]

Abbreviation	Data Base	Rule Part(s)	Extraction Date (ymd)
c&g	Coast and Ground	80 & 87	96.08.06
cars	Cable Antenna Relay Service	78	96.04.05
cel	Cellular (note: does not include all transmitters in existence)	22	96.08.04
clm	Common Carrier Land Mobile — except Cellular	22	96.09.03
ils	Integrated Licensing System	101 & 74(F)	96.08.27-28
mds	Multipoint Distribution Service	21(K)	95.12.11
plm	Private Land Mobile	90 & 95	96.08.20-26

The assignment data used to in this study is available from: “www.fcc.gov/oet/info/database/raeddf.html”

Satellite Services:

License Type: This column describes the type of service (*e.g.*, MSS, FSS, BSS, ISS, Remote Sensing, *etc.*) and the direction of communication, *i.e.*, uplink or downlink. For satellites, it also contains the number of licensed services and number of applicants. For earth stations, it also indicates the emitters or receptors authorized.

BSS	Broadcast Satellite Service
EES	Earth Exploration Satellite
FSS	Fixed Satellite Service
FL	Feeder Link
ISS	Inter-Satellite Service
MSS	Mobile Satellite Service
SO	Space Operations
SR	Space Research
↑	Uplink
↓	Downlink
A()	Application (number of applications if more than one)
L()	License (number of licenses if more than one)
Cond.L()	Conditional License (number of licenses if more than one)

Orbit: This column describes the satellite service orbit:

GSO	Geostationary
NGSO	Non-geostationary

Utilization & Coverage: This column describes the coverage of the satellite service and the numbers of links licensed or applied for. A link is defined as a transmitter/receiver combination for a given frequency and polarization. Counts for Receive Only earth stations are not complete since they are not normally registered with the FCC.

D	Domestic (based on planned national service nature of BSS bands)
G	Global
R	Regional

Note: These coverage categories are based on FCC staff assessment of regulatory requirement and market deployment.

Abbreviation	Data Base	Rule Part(s)	Extraction Date (ymd)
ces	Consolidated Earth Stations	25	96.09.04

The assignment data used to in this study is available from: “www.fcc.gov/oet/info/database/raeddf.html”.

Government:–

Allocation: Spectrum which the NTIA has allocated/designated for use by governmental entities. Allocations listed in capital letters designate primary service(s), and lowercase indicates secondary service(s). The ITU nomenclature is used.

Utilization: This column indicates the number of frequency assignments (transmitter-receiver links) that NTIA has licensed to federal agencies. This count does not indicate number of ships and/or aircraft. Some assignments may be for national use with multiple transmitters/ receivers combinations.