

[Home](#) / [Wireless](#) / [Mobility Division](#)

# Lower 700 MHz Service

## Wireless Telecommunications

---

[218-219 MHz Service](#)

---

[3650-3700 MHz Radio Service](#)

---

[220 MHz Service](#)

---

[3.5 GHz Band](#)

---

[700 MHz Construction Notification Requirements](#)

---

[700 MHz Guard Bands](#)

---

[800MHz Cellular Service](#)

---

[Air-Ground Radiotelephone Service](#)

---

[Amateur Radio Service](#)

---

[Aviation Radio Services](#)

---

[Basic Exchange Telephone Radio Service \(BETRS\)](#)

---

[Broadband Personal Communications Service \(PCS\)](#)

---

[Maritime Mobile Service](#)

---

[Cellular Service](#)

---

Citizens Band Radio Service (CBRS)

---

Commercial Radio Operator License Program

---

Contraband Wireless Devices

---

Dedicated Short Range Communications (DSRC) Service

---

Family Radio Service (FRS)

---

General Mobile Radio Service (GMRS)

---

Intelligent Transportation Systems (ITS)

---

Industrial / Business

---

Lower 700 MHz Service

---

Low Power Radio Service (LPRS)

---

Maritime Mobile

---

Maritime Survivor Locating Devices (MSLDs)

---

Medical Device Radiocommunications Service (MedRadio)

---

Multi-Use Radio Service (MURS)

---

Narrowband Personal Communications Service (PCS)

---

Offshore Radiotelephone Service

---

Paging

---

Personal Locator Beacons (PLBs)

---

Personal Radio Services

---

Private Land Mobile Paging

---

Private Land Mobile Radio Services

---

Radio Control Radio Service (RCRS)

---

---

Rural Radiotelephone Service

---

Signal Boosters

---

Specialized Mobile Radio Service (SMR)

---

Wireless Communications Service (WCS)

---

Wireless Medical Telemetry Service (WMTS)

---

License Audits

---

Spectrum Cap

Commission action has significantly revised the frequency allocations and service rules for the 700 MHz band. We are in the process of updating the information on this site to reflect these changes. Please refer to the FCC Report and Order and Further Notice of Proposed Rule Making (pdf) and Second Report and Order (pdf) for information regarding the revisions to the 700 MHz band and service rules.

Also, information on Auction 73, the 700 MHz Band auction is available on the Auctions webpage.

## About

In 2002, the FCC reallocated the 698-746 MHz spectrum band (Lower 700 MHz Band) that had been allocated to television Channels 52-59. The recovery of the Lower 700 MHz Band will be made possible by the conversion of television broadcasting from the existing analog transmission system to a digital transmission system. Because the digital television (DTV) transmission system is more spectrally efficient than the analog system, less spectrum will be needed for broadcast television service after the transition to DTV on channels 2 - 51 is complete.

The reclamation of television spectrum has been addressed in two proceedings: the Upper 700 MHz Band (Channels 60-69) which comprises 60 megahertz, and the the Lower 700 MHz Band (Channels 52-59) which comprises 48 megahertz. This is primarily due to different statutory requirements applicable to the two bands and differing degrees of incumbency in the two bands. By statute, the FCC was specifically required to reclaim channels 60-69 for new services in the Upper 700 MHz Band. While Congress did not specify the amount of spectrum to be reclaimed beyond the Upper 700 MHz Band, the Commission determined that all broadcasters could operate with digital transmission systems in Channels 2-51 after the transition. Thus the Commission reallocated Channels 52-59 for new services in the Lower 700 MHz proceeding.

### Rule Part

47 C.F.R, Parts 1, 27

### Radio Service Code(s)

**WZ** - Lower 700 MHz

Commission explained that the Lower 700 MHz Band is significantly more occupied by incumbent television operations and temporary DTV assignments than the Upper 700 MHz Band. (For more information see Lower 700 MHz Band Releases).

Pursuant to Section 309(j)(14) of the Communications Act, the FCC was required to assign spectrum recovered from broadcast television using competitive bidding. The Lower 700 MHz Band Auction No. 44 and Auction No. 49 were held from August 27 to September 18, 2002 and May 28 to June 13, 2003, respectively. The statute further requires incumbent broadcasters to cease operation in the recovered spectrum by the end of 2006 unless the end of the transition is extended. As provided in the statute, the FCC is required to extend the end of the transition at the request of individual broadcast licensees on a market-by-market basis if one or more of the four largest network stations or affiliates are not broadcasting in digital, digital-to-analog converter technology is not generally available, or 15 percent or more television households are not receiving a digital signal.

During this transition period, incumbent broadcasters may continue to operate in the Lower 700 MHz Band. The FCC adopted rules for new licensees to protect incumbent broadcasters during this transition to digital broadcasting. New licensees may operate in the band prior to the end of the transition, provided they do not interfere with these existing broadcasters on Channels 52 to 59. Depending on the license, there may be significant interference protection issues for new licensees seeking to initiate service in the Lower 700 MHz Band. In addition to the existing analog broadcasters, new licensees will also need to take into account the large number of digital broadcasters who will operate temporarily in the Lower 700 MHz Band during the transition. On average, there are slightly more than ten times the number of digital stations per channel on Channels 52-59 as compared to Channels 60-69. Thus, the degree of incumbency in the Lower 700 MHz Band - consisting of both digital and analog broadcasters - is likely to make it far more difficult for new services to operate in this band, particularly in major metropolitan markets, prior to the end of the transition to digital television.

A licensee on the Lower 700 MHz Band is permitted to provide fixed, mobile, and broadcast services. Possible uses of this spectrum include digital mobile and other new broadcast operations, fixed and mobile wireless commercial services (including FDD- and TDD-based services), as well as fixed and mobile wireless uses for private, and internal radio needs.

The rules governing the Lower 700 MHz Band are generally found in the 47 CFR Part 1 and Part 27.

Data

## Band Plan

The Lower 700 MHz Band is comprised of spectrum ranging from 698 MHz to 746 MHz. The spectrum is divided into five blocks.

# Market Areas

Lower 700 MHz Band licenses are assigned on the basis of Metropolitan Statistical Areas (MSA), Rural Service Areas (RSA), and Economic Area Groupings (EAG).

## Maps & Cross References

CMA (Or MSA & RSA) Map

Cellular Market Areas (Metropolitan Statistical & Rural Service Areas)

EAG Map

Economic Area Groupings

## Licensing

# Licensing

The FCC reclaimed the spectrum between 698 MHz and 746 MHz for new services and, in 2002, completed an initial auction (Auction No. 44) of 740 licenses in the Lower 700 MHz C and D blocks (the 710-716/740-746 MHz and 716-722 MHz bands). The C block licenses consist of one 12-megahertz block combining a pair of 6 megahertz segments in each of 734 700 MHz MSA/RSAs. The D block licenses consist of one 6-megahertz block of contiguous, unpaired spectrum in each of six regions known as the 700 MHz band economic area groupings (700 MHz EAGs).

There are two ways to obtain spectrum in the Lower 700 MHz Service. You must go through the Auction Process, or Obtain Spectrum from a Current Licensee.

## Auction Process

An additional auction for the C and D blocks (Auction No. 49) was completed on June 13, 2003. Auctions for the A, B, and E Blocks have not been scheduled.

### 1. Spectrum Auction

The FCC conducts a spectrum auction of one or more licenses.

### 2. Filing Applications

Once an auction is completed, the FCC issues a public notice announcing the winning high bidders and provides instructions regarding down payments on the licenses won as well as instructions for submitting a completed long-form Form 601 application(s) covering each license. Such applications must be filed electronically through the Universal Licensing System.

### 3. Grant Announcements

The FCC will then issue a public notice announcing grant of license.

### 4. Requirements

Once licensed, FCC rules require licensees to meet additional requirements (e.g. license terms and renewal, regulatory statute changes, etc.) For more information see Operations and 47 CFR Part 1 and Part 27.

## Obtaining Spectrum from Current Licensee

There are several ways you may be able to obtain a lower 700 MHz license(s) from a current licensee. First, licensees may sell all or part of the license, subject to FCC approval, to other entities. Second, you may acquire a company, including its licenses. These transactions require Online Filing of Form 603 via the Universal Licensing System. Third, you may lease all or part of a licensee's spectrum usage rights. Most leasing transactions require Online Filing of Form 608 via the Universal Licensing System.

Method for Obtaining Spectrum	CFR Rule Part
Assignment of Authorization Sale of an entire license.	1.948
Partition Sale of part of a license based on a geographic area.	27.15
Disaggregation Sale of part of a license's spectrum.	27.15
Partition & Disaggregation A combination of the sale of a part of a license based on geographic area containing only a part of a license's spectrum.	27.15
Spectrum Leasing Leasing of all or a part of a licensee's spectrum usage rights associated with a license. More...	1.9000
Transfer of Control Acquisition of a company and its assets, including its licenses.	1.948

## Operations

A licensee must provide "substantial service" to its license service area no later than the end of its license term. "Substantial" service is defined as service which is sound, favorable, and substantially above a level of

mediocre service which might minimally warrant renewal. Failure by any licensee to meet this requirement will result in forfeiture of the license and the licensee will be ineligible to regain it. See 47 CFR 27.14(a).

The following safe harbors for licensees in the Lower 700 MHz Band may also be used to demonstrate substantial service:

1. the construction of four permanent links per one million people in the licensed service area of a licensee that chooses to offer fixed, point-to-point services;
2. the demonstration of coverage for 20 percent of the population of the licensed service area of a licensee that chooses to offer fixed, point-to-multipoint services; and
3. the demonstration of coverage for 20 percent of the population of the licensed service area of a licensee that chooses to offer mobile services.

## Releases

1/8/2003

PUBLIC NOTICE (DA 03-55)

WTB Announces New Lower 700 MHz Band Service Website

pdf - Word

6/18/2002 ERRATUM

Erratum to Memorandum Opinion and Order FCC 02-185

This Erratum revises the Memorandum Opinion and Order ("MO&O") released June 14, 2002, the Commission inadvertently failed to include a clause making its order effective immediately upon release by ERRATUM.

pdf - text - Word See MO&O, FCC 02-185

6/14/2002 ORDER (FCC 02-185)

Memorandum Opinion and Order This MO&O addresses petitions for reconsideration filed by eight parties that seek changes and/or clarifications to this Commission's decisions regarding issues relating to the transition to DTV service and the rules for auctioning and licensing new services on the Lower 700 MHz Band. (Includes changes made by the Erratum, released June 18, 2002.)

pdf - text - Word See Erratum FCC 02-185

2/5/2002 ERRATUM (DA 02-269)

Erratum to Report and Order FCC 01-364

This erratum makes the following corrections to the Report and Order and final rules, FCC 01-364, as released on January 18, 2002.

These corrections will be incorporated in the summary of the Report and Order published in the Federal Register.

pdf - text See Report & Order DA 01-364

1/18/2002 REPORT AND ORDER (FCC 01-364)

Report and Order

FCC reallocates and adopts service rules for the 698-746 MHz Spectrum band.

pdf - text See Erratum DA 02-269

3/28/2001 NOTICE OF PROPOSED RULE MAKING (FCC 01-91)

In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)

This Order proposes to reallocate the 698-746 MHz spectrum band, currently comprising television ("TV") Channels 52-59.

pdf - text - Word

---

**Bureau/Office:**

Wireless Telecommunications

**Tags:**

Lower 700 MHz - Wireless Services

**Updated:**

Wednesday, October 12, 2022

---

---

Federal Communications Commission  
45 L Street NE  
Washington, DC 20554

---

Phone: 1-888-225-5322

---

ASL Video Call: 1-844-432-2275

---

Fax: 1-866-418-0232

---

Contact Us

Visiting FCC Facilities

---