

**Spectrum Dashboard – How to Find Information and What’s Included**  
**November 17, 2010**

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## **1 Introduction**

The Spectrum Dashboard is a “one-stop-shopping” portal where the public can browse, review and analyze radio licenses. The Spectrum Dashboard makes information transparent and readily available to interested stakeholders (*e.g.*, service providers, manufacturers, innovators, investors) to better enable them to gain access to spectrum and to better help the Commission in our spectrum policy decisions.

The Spectrum Dashboard allows detailed, user-friendly access to information regarding spectrum bands (*e.g.*, how spectrum bands are allocated and for what uses) and licenses (*e.g.*, who holds licenses and in what areas). While the Commission currently maintains publicly available databases containing information on millions of licenses, the Spectrum Dashboard was developed in response to the growing need for diverse stakeholders to more conveniently browse, review, and analyze spectrum data as it relates to broadband deployment, both at the local level and nationwide. A “first-of-its kind” resource at the Commission, the Spectrum Dashboard provides enhanced research and calculation capabilities, and more in-depth information that is quickly accessible, which, in turn, will better inform those who seek to tap into the possibilities of wireless broadband.

The Spectrum Dashboard provides basic, plain language information about frequencies generally deemed appropriate for mobile broadband (225 MHz to 3700 MHz). In addition, the Spectrum Dashboard contains more detailed information, mapping, and research capabilities for the following bands where broadband service is either already available, or potentially could be provided:

- 700 MHz
- 800 MHz Cellular
- Advanced Wireless Service (AWS)
- Broadband Personal Communications Service (PCS)
- Broadband Radio Service (BRS) and Educational Broadband Service (EBS)
- 2300 MHz Wireless Communications Service (WCS)
- Full Power TV Broadcast
- Mobile Satellite Services (MSS)

The Spectrum Dashboard contains four search functions: Browse Spectrum Bands, Browse Using a Map, Search by Name, and an Advanced Search. Practical examples of how you can use the search functions are described below in the section “What can you do with the Spectrum Dashboard?”.

## **2 Understanding Your Results**

The data and analyses provided in the Spectrum Dashboard are for informational purposes and research assistance only. The Spectrum Dashboard does not constitute the official licensing records for the Commission. Specifically, the FCC makes no representations regarding the accuracy or completeness of the information maintained in the Spectrum Dashboard.

The data and analyses contained herein are not relied upon by the Commission in analyzing the competitive marketplace or assessing the spectrum holdings of wireless service providers in any particular geographic area.

The Spectrum Dashboard is also not an endorsement by the FCC of any particular service, technology, product, or service provider, and the FCC makes no representations or warranties about the provision of service on the spectrum included in this database.

Users should be aware that matters not reflected in the Spectrum Dashboard may relate to and affect the status of FCC licenses, including spectrum leasing arrangements, transactions pending before the FCC, transactions approved by the FCC but not consummated by applicants, future proceedings before the FCC, or actions in the courts. Further, actions taken by the FCC that may affect the status of licenses will not be reflected in the Spectrum Dashboard until the next system update.

Updating Information: The information in the Spectrum Dashboard is updated at the end of each month except the licensing information for full power TV stations, which is

current as of the June 2009 transition to digital television. As a result, it is possible for information in the Spectrum Dashboard to be out of date when compared to licensing data found in other Commission databases (*e.g.*, Universal Licensing System (ULS), International Bureau Filing System (IBFS), and Consolidated Database System (CDBS)).

Common Name: For purposes of the Spectrum Dashboard, Common Name is defined as an entity that: (1) wholly owns or has majority interest in the license; (2) is the general partner of the limited partnership or manager of an LLC that holds the license; or (3) is the name under which the service being provided via the license is marketed to the public.

Spectrum Totals by County: For purposes of the Spectrum Dashboard, spectrum totals may be overestimated in a particular county. For instance, spectrum will be counted towards a licensee's spectrum total for a county if at least one percent of the county falls within a license or service boundary. Each county is then marked as being "fully" or "partially" covered. (*See Fully Covered and Partially Covered in the Glossary of Terms.*) For 800 MHz Cellular, the spectrum totals by county may reflect spectrum covered by service area boundaries that extend beyond the Cellular Geographic Service Area, which is the area in which the carrier is licensed to provide service. This is not the method the Commission uses for determining spectrum totals in other contexts, including the Annual CMRS Competition Report and other Commission reports, or for conducting competitive review of license transactions for merger orders.

800 MHz Cellular Map (Individual License): The map provides an estimate of the areas where cellular service is likely to be available (but does not take into account factors like local variations in terrain). More specifically, the map depicts "service area boundaries" of cell sites as defined in Section 22.911 of the FCC Rules. In many locations, the service area boundaries extend beyond the Cellular Geographic Service Area, which is the area in which the carrier is licensed to provide service

Full Power TV Map (Individual License): When an individual full power TV license is mapped, the map shows the predicted service contour for the TV station based on the station's authorized transmission facilities (transmitter location, transmit power, antenna height and antenna pattern) and a receive system that uses an outdoor directional antenna mounted 30 feet above ground. Factors such as terrain, specific reception hardware, and nearby structures may affect TV reception. Propagation of radio (television) signals is statistical, therefore in some instances reception will be possible beyond the contour and some areas within the contour may not be able to receive the signal.

Mobile Satellite Services Map (Individual License): Maps are not generated because licensees provide coverage on a national/international basis.

Other Maps (Individual License): When an individual license is mapped for 700 MHz, Advanced Wireless Service (AWS), Broadband PCS, Broadband Radio Service (BRS)/Educational Broadband Service (EBS), or Wireless Communications Service

(WCS), the map shows the area where the licensee is exclusively authorized to use the radio spectrum. In general, licensees are required to make use of the spectrum in some (but not all) of that area.

Geographic Heat Map (Generated When Using Browse Through a Map Search): This map presents an indication of the total amount of spectrum licensed within each county based on the counties selected in the search criteria. The total amount of spectrum can change depending on the Filters selected by the user. Note: For certain types of licenses, this map does not use the method used by the FCC in other contexts (e.g., competition analysis) for determining spectrum totals for any particular county. *See Spectrum Totals by County* (above).

Geographic Heat Map (Generated When Using Search by Name or the Advanced Search): This map presents an indication of the total amount of spectrum licensed within each county based on the licenses presented on the License Results page. The total amount of spectrum can change depending on the Filters selected by the user. Note: For certain types of licenses, this map does not use the method used by the FCC in other contexts (e.g., competition analysis) for determining spectrum totals for any particular county. *See Spectrum Totals by County* (above).

Geographic Heat Map (Generated When Using Spectrum Availability by County Search): This map represents where spectrum is available for future licensing in one or more of the following radio services: 700 MHz, Advanced Wireless Service (AWS), Broadband PCS, Broadband Radio Service (BRS), and Wireless Communications Service (WCS).

Broadband Radio Service and Educational Broadband Service: These services are currently transitioning to a new band plan. Broadband Radio Service and Educational Broadband Service licenses will reflect the transition to the new band plan, which may not be updated on the Universal Licensing System.

Broadband Radio Service BTA Licenses: Broadband Radios Service BTA licenses may show channels that are not included in this license. Specifically, the BTA authorization's geographic service area does not include those areas and channels with overlapping incumbent BRS or EBS licenses within the BTA. *See 47 C.F.R. Sec. 27.1206(a)(2).*

### **3 What can you do with the Spectrum Dashboard?**

#### **3.1 Search**

# SPECTRUM DASHBOARD BETA

## Exploring America's Spectrum

The Spectrum Dashboard allows new ways for citizens to search spectrum in the United States. Use the dashboard to find out how spectrum is being used, who owns spectrum licenses around the country, and what spectrum is available in your county.

[LEARN MORE](#)



### Browse Spectrum Bands

Learn more about the current spectrum distribution by browsing a chart of the spectrum bands, or by searching specific frequency ranges.



### Browse Using a Map

Use an interactive map to find information on licensees in a particular county or state.



### Search by Name

Search by "common name" (AT&T, Verizon, etc) to learn who holds spectrum licenses around the country. You can also view a map of spectrum totals by county.



### Advanced Search

Search by name, radio service, frequency range, channel block, or call sign to learn who holds spectrum licenses around the country. You can also view a map of spectrum totals by county.

### SPECTRUM DASHBOARD REPORTS

1-click access to commonly requested data and popular reports.



[VIEW REPORTS](#)

### SPECTRUM AVAILABILITY MAP BY COUNTY

An instant look at counties where spectrum is available for future licensing.



[VIEW MAP](#)

## 3.1.1 Find out how frequencies are allocated and for what uses

You can use the Browse Spectrum Bands search to find information about spectrum bands. The search results will include the service(s) that are allocated within each spectrum band. By clicking on the actual service, additional information is provided, including the general use of the service, licensing mechanism and specific frequencies used.

### Browse Spectrum Bands (225 MHz - 3700 MHz)

Frequency Range:  to  MHz

Radio Service:  
Select Radio Service(s):  
1290 - 1292 MHz  
1292 - 1295 MHz  
1432 - 1435 MHz  
1670 - 1675 MHz  
3650 - 3700 MHz  
700 MHz  
Aurora  
Aurora Auxiliary  
Aviation

Frequency Purpose (Tags):  
Select Tags:  
Broadband  
Fixed Wireless  
Mobile Radio  
Personal Use  
Phone  
Radar  
Radio  
Safety of Life  
Satellite

[Search](#) [Clear](#)

Select Using Frequency Band:  
Browse non-federal spectrum bands by entering a frequency range, selecting one or more tags or by using the graphical tool.  
To use the graphical tool, click in a box to display the range of frequencies for the service(s) or click in a box and drag your cursor to select a wider range of frequencies. The frequencies will appear in the Frequency Range box.

Highlighted sections represent the portion of the band that can be used for the listed service.

**Tips:** See Glossary of Terms for descriptions of Allocations, Radio Service, and Tags.

### 3.1.2 Get a list of all licenses held by a single company, even if the company holds licenses under many different names

You can use the Search by Name search to either select a name from a drop-down list of the largest spectrum holders (based on the total number of licenses held under a Common Name) or by entering either a Common Name or Licensee Name. The results will include a list of licenses associated with a Common Name as well as the actual licensee name for each license. From the results page, you can filter results, view individual licenses, and create maps.

Spectrum Holdings

SEARCH CRITERIA  
Spectrum Holder: Verizon Wireless  
Refine Search  
New Search

FILTERS  
Filter by Name  
Filter by Geographic Area  
Filter by License Category  
Apply Filter

License Results Map View  
Export Search Results

Showing 1 to 100 of 1512 1 | 17 | 1 | Next > | Show 100 per page

#	Common Name	Radio Service	Tags	Frequency Band (MHz)	Licensee Name	Market	Call Sign
1	Verizon Wireless	700 MHz	Broadband, Fixed Wireless, Mobile Radio, Phone, Television	698 - 704 728 - 734	Celco Partnership	BEA010 - NYC-Long Is. NY-NJ-CT-PA-MA-VT	WQJQ696
2	Verizon Wireless	700 MHz	Broadband, Fixed Wireless, Mobile Radio, Phone, Television	698 - 704 728 - 734	Celco Partnership	BEA012 - Phil.-Ab. City PA-NJ-DE-MD	WQJQ697
3	Verizon Wireless	700 MHz	Broadband, Fixed Wireless, Mobile Radio, Phone, Television	698 - 704 728 - 734	Celco Partnership	BEA013 - Wash.-Ball DC-MD-VA-WV-PA	WQJQ698
4	Verizon Wireless	700 MHz	Broadband, Fixed Wireless, Mobile Radio, Phone, Television	698 - 704 728 - 734	Celco Partnership	BEA030 - Orlando FL	WQJQ699
5	Verizon Wireless	700 MHz	Broadband, Fixed Wireless, Mobile Radio, Phone, Television	698 - 704 728 - 734	Celco Partnership	BEA031 - Miami-Fort Lauderdale FL	WQJQ700
6	Verizon Wireless	700 MHz	Broadband, Fixed Wireless, Mobile Radio, Phone, Television	698 - 704 728 - 734	Celco Partnership	BEA034 - Tampa-St. Petersburg FL	WQJQ701
7	Verizon Wireless	700 MHz	Broadband, Fixed Wireless, Mobile Radio, Phone, Television	698 - 704 728 - 734	Celco Partnership	BEA040 - Atlanta GA-AL-NC	WQJQ702

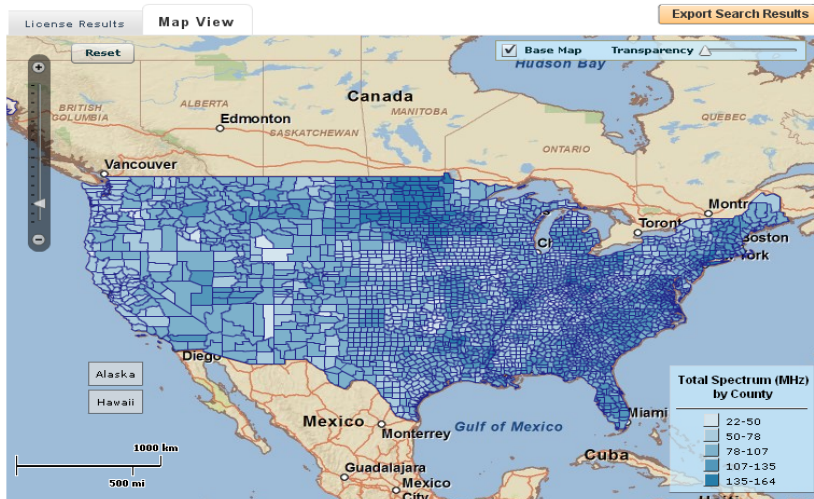
**Tips:** See Glossary of Terms for descriptions of Common Name and Licensee Name.

## 3.2 Map

### 3.2.1 Get a map of all the spectrum a company holds throughout the country

You can use the Search by Name search to either select a name from a drop-down list of the largest spectrum holders (based on the total number of licenses held under a Common Name) or by entering either a Common Name or Licensee Name. The results will include a list of licenses associated with a Common Name as well as the actual licensee name for each license. From the results page, you can filter results, view individual licenses, and create maps.

To view a map of the total amount of spectrum held by the company on a county-by-county basis, click the Map View button.



This map presents an indication of the total amount of spectrum licensed within each county based on the licenses presented on the License Results page. The total amount of spectrum can change depending on the Filters selected by the user. Note: For certain types of licenses, this map does not use the method used by the FCC in other contexts (for example, such as competition analysis) for determining spectrum totals for any particular county. See Help document for additional information.

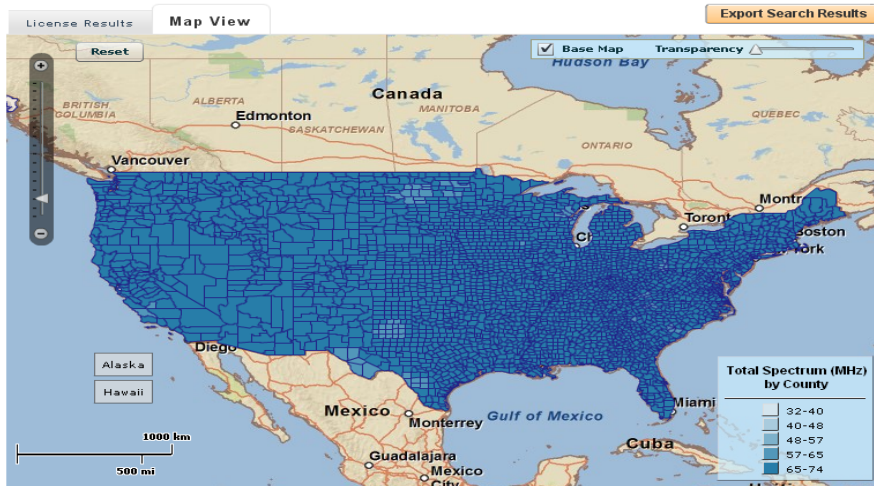
**Tips:** See Glossary of Terms for descriptions of Common Name and Licensee Name. See Section 2 to learn how spectrum is totaled by county.

### 3.2.2 Get a map of all the spectrum licensed for a specific radio service

You can use the Advanced Search to view the licenses associated with a specific radio service as well as create maps. This feature works for the following radio services: 700 MHz; 800 MHz Cellular; Advanced Wireless Service (AWS); Broadband Personal Communications Service (PCS); Broadband Radio Service (BRS) and Educational Broadband Service (EBS); 2300 MHz Wireless Communications Service (WCS); Full Power TV Broadcast; and Mobile Satellite Services (MSS).

The results will include a list of licenses associated with a Common Name as well as the actual licensee name for each license. From the results page, you can filter results, view individual licenses, and create maps.

To view a map of the total amount of spectrum held by the company on a county-by-county basis, click the Map View button.



This map presents an indication of the total amount of spectrum licensed within each county based on the licenses presented on the License Results page. The total amount of spectrum can change depending on the Filters selected by the user. Note: For certain types of licenses, this map does not use the method used by the FCC in other contexts (for example, such as competition analysis) for determining spectrum totals for any particular county. See Help document for additional information.

**Tips:** See Glossary of Terms for descriptions of Common Name, Licensee Name, and Radio Service. See Section 2 to learn how spectrum is totaled by county.

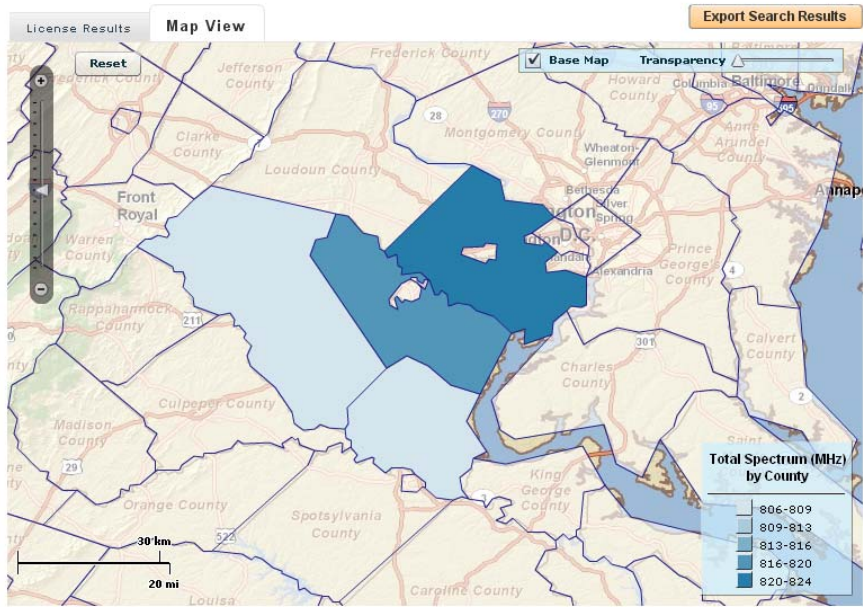
### 3.2.3 Get a map of the spectrum licensed in one or more counties within a state

You can use the Browse Using a Map search to select one or more counties within a state (multiple states cannot be searched at one time).

The results will include a list of licenses associated with a Common Name as well as the actual licensee name for each license. From the results page, you can filter results, view individual licenses, and create maps.

To view a map of the total amount of spectrum held by the company on a county-by-county basis, click the Map View button.





This map presents an indication of the total amount of spectrum licensed within each county based on the counties selected in the search criteria. The total amount of spectrum can change depending on the Filters selected by the user. Note: For certain types of licenses, this map does not use the method used by the FCC in other contexts (for example, such as competition analysis) for determining spectrum totals for any particular county. See Help document for additional information.

**Tips:** See Glossary of Terms for descriptions of Common Name, License Name, and Radio Service. See Section 2 to learn how spectrum is totaled by county.

### 3.3 Download Data

#### 3.3.1 Download the results of your searches in an easy-to-use spreadsheet format

If your search results included a list of licenses, you can download your results by clicking on the Export Results link. You can open your results in a spreadsheet format such as Excel or save the file as a text file. The data in the file will include a county-by-county list of the spectrum for each license.

1	Call Sign	Licensee Name	Common Name	Radio Service Code	Radio Service Desc	Market Code	Market Name	Channel Block	County	State
67	KMLF376	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS116	New Bern, NC	C	Jones County	NC
68	KMLF376	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS116	New Bern, NC	C	Pamlico County	NC
69	KMLF376	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS116	New Bern, NC	C	Pamlico County	NC
70	KMLF379	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS177	Roanoke Rapids, NC	C	Halifax County	NC
71	KMLF379	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS177	Roanoke Rapids, NC	C	Halifax County	NC
72	KMLF379	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS177	Roanoke Rapids, NC	C	Northampton County	NC
73	KMLF379	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS177	Roanoke Rapids, NC	C	Northampton County	NC
74	KMLF380	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS382	Rocky Mount-Wilson, NC	C	Edgecombe County	NC
75	KMLF380	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS382	Rocky Mount-Wilson, NC	C	Edgecombe County	NC
76	KMLF380	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS382	Rocky Mount-Wilson, NC	C	Naah County	NC
77	KMLF380	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS382	Rocky Mount-Wilson, NC	C	Naah County	NC
78	KMLF380	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS382	Rocky Mount-Wilson, NC	C	Wilson County	NC
79	KMLF380	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAS382	Rocky Mount-Wilson, NC	C	Wilson County	NC
80	KMLF459	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAD076	Chattanooga, TN	C	Bladesee County	TN
81	KMLF459	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAD076	Chattanooga, TN	C	Bladesee County	TN
82	KMLF459	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAD076	Chattanooga, TN	C	Catoosa County	GA
83	KMLF459	Cricket License Company, LLC	Leap	CW	PCS Broadband	BTAD076	Chattanooga, TN	C	Catoosa County	GA

Note: If the results include more than 65,000 rows, you will be prompted to enter an e-mail address. Once the results are ready, an e-mail will be sent to you and include a link where a file can be downloaded.

**Tips:** See Glossary of Terms for descriptions of Common Name, CSV File, Licensee Name, and Radio Service. See Section 2 to learn how spectrum is totaled by county.

## 4 System Requirements

The Spectrum Dashboard supports Internet Explorer 7.0 or greater and Firefox 3.0 or greater. Other web browsers may be compatible, but have not been tested at this time. In addition, it is recommended that the screen resolution be no smaller than 1024 x 768.

## 5 Glossary of Terms

*Common Name* – The name associated with one or more licenses. An entity that: (1) wholly owns or has majority interest in the license; (2) is the general partner of the limited partnership or manager of an LLC that holds the license; or (3) is the name under which the service being provided via the license is marketed to the public.

*CSV File* – CSV is a delimited data format that has fields/columns separated by the comma character and records/rows separated by new lines. This format can easily be downloaded into a spreadsheet.

*Frequency Band* – A range of frequencies that have been grouped together for the purpose of defining how the frequencies may be used and under what conditions.

*Fully Covered County* – A county that is geographically covered by at least 99% for a specific license.

*Licensee Name* – The legal name associated with one or more licenses.

*Partially Covered County* – A county that is geographically covered by at least 1% and no more than 99% for a specific license.

*Radio Service* – Licenses grouped together based on common attributes, including frequency bands, and regulatory requirements.

*Spectrum Allocations* – The spectrum allocations include each radio service allocated within a range of spectrum based on the Table of Frequency Allocations found in the FCC's Rules (47 C.F.R. § 2.106). See Radio Service in the Glossary of Terms.

*Tags* – One or more tags are associated with a Radio Service in order to provide additional information on how the spectrum within a Radio Service can be used.