

SERVICE RULES
August 15, 2007

The Federal Communications Commission ("FCC") has released the full text of its new rules for the 700 MHz commercial and public safety spectrum, which address the Upper and Lower 700 MHz band plans, build-out requirements, open access for the Upper 700 MHz C Block, the Public/Private Partnership for the public safety broadband spectrum and the Upper 700 MHz commercial D Block, technical requirements, and auction rules. Federal statute requires that the auction of the commercial spectrum must begin on or before January 28, 2008.

I. THE BAND PLANS

The final band plan adopted by the FCC provides for auctioning a total of 62 megahertz of spectrum – 30 megahertz in a "Lower 700 MHz Band" and 32 megahertz in an "Upper 700 MHz Band." This band plan is as follows:

700 MHz BAND PLAN FOR COMMERCIAL SERVICES

										757	763	775	787	793	805			
A	B	C	D	E	A	B	C	C	A	D	Public Safety	B	C	A	D	Public Safety	B	
CH. 52	CH. 53	CH. 54	CH. 55	CH. 56	CH. 57	CH. 58	CH. 59	CH. 60	CH. 61	CH. 62	CH. 63	CH. 64	CH. 65	CH. 66	CH. 67	CH. 68	CH. 69	
698	704	710	716	722	728	734	740	746	752	758	764	770	776	782	788	794	800	806
LOWER 700 MHz BAND (CHANNELS 52-59)									UPPER 700 MHz BAND (CHANNELS 60-69)									

<u>Block</u>	<u>Frequencies</u>	<u>Bandwidth</u>	<u>Pairing</u>	<u>Area Type</u>	<u>Licenses</u>
A	698-704, 728-734	12 MHz	2 x 6 MHz	EA	176
B	704-710, 734-740	12 MHz	2 x 6 MHz	CMA	734
C	710-716, 740-746	12 MHz	2 x 6 MHz	CMA	734*
D	716-722	6 MHz	unpaired	EAG	6*
E	722-728	6 MHz	unpaired	EA	176
C	746-757, 776-787	22 MHz	2 x 11 MHz	REAG	12
D	758-763, 788-793	10 MHz	2 x 5 MHz	Nationwide	1**
A	757-758, 787-788	2 MHz	2 x 1 MHz	MEA	52***
B	775-776, 805-806	2 MHz	2 x 1 MHz	MEA	52***

*Blocks have been auctioned.

**Block is associated with the 700 MHz Public/Private Partnership.

***Guard Bands blocks have been auctioned, but are being relocated.

a. Lower 700 MHz Band

Three commercial spectrum blocks will be auctioned in the Lower 700 MHz portion of the band. Block A, which is comprised of 12 MHz of paired spectrum, is divided into 176 Economic Areas ("EAs") as defined by the U.S. Department of Commerce. Spectrum Block B, which is also comprised of 12 MHz of paired spectrum, is divided into 734 Cellular Market Areas ("CMAs") for auction and licensing. The CMAs are made up of: 1) 305 Metropolitan Statistical Areas ("MSAs") as defined by the Department of Commerce, and 2) 429 Rural Service Areas ("RSAs"), which are clusters of rural counties specified in the FCC's rules. Block E, with 6 MHz of unpaired spectrum, is divided into 176 EAs. The Lower 700 MHz Blocks C and D were auctioned previously.

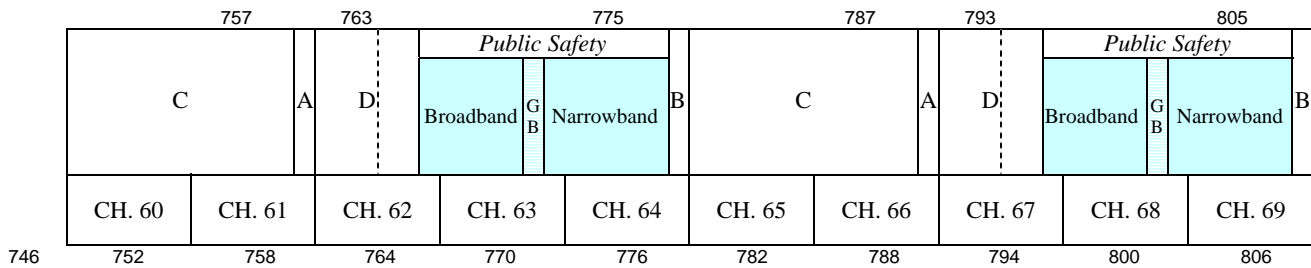
b. Upper 700 MHz Band

The C Block in the upper 700 MHz Band was expanded by 2 MHz and, as a result, now contains 22 MHz of paired spectrum. It was divided into 12 Regional Economic Area Groupings ("REAGs"). Block D, with 10 MHz of paired spectrum, will be auctioned as one nationwide license. The Block D licensee is required to enter into a 700 MHz Public/Private Partnership with the licensee that will be assigned the public safety broadband spectrum.

The FCC's final band plan also locates the Guard Band Block A, consisting of 2 MHz of paired spectrum, at a position between the Upper 700 MHz C and D Blocks. Guard Band Block B was reduced from 4 MHz of paired spectrum to 2 MHz of paired spectrum and relocated to a position just above the public safety portion of the Upper 700 MHz spectrum.

The Upper 700 MHz band plan is as follows:

FINAL UPPER 700 MHz BAND PLAN INCLUDING GUARD BANDS



c. Public Safety Spectrum

The FCC changed the final public safety allocation from its original proposal by: 1) eliminating a proposed wideband block; 2) consolidating the narrowband spectrum into one block of 12 MHz of paired spectrum at the upper end of the allocation; 3) creating a broadband block of 10 MHz of paired spectrum at the lower end of the allocation; and 4) inserting an internal guard band consisting of 2 MHz of paired spectrum between the broadband and narrowband blocks.

The final 700 MHz public safety spectrum band plan is as follows:

REVISED 700 MHz BAND PLAN FOR PUBLIC SAFETY SERVICES

	763	769	775		793	799	805	
	<i>Public Safety Allocation</i>			<i>Commercial Allocation</i>	<i>Public Safety Allocation</i>			
<i>Commercial Allocation</i>	Broadband	G B	Narrowband			Broadband	G B	Narrowband
	CH. 62	CH. 63	CH. 64	CH. 65	CH. 66	CH. 67	CH. 68	CH. 69
758	764	770	776	782	788	794	800	806

Under the FCC's rules, the public safety broadband block will be licensed to a single nationwide entity that will act as the Public Safety Broadband Licensee. The Public Safety Broadband Licensee is to be a non-profit organization with an eleven member board of directors consisting of representatives from nine public safety and governmental organizations identified by the FCC as well as two representatives from the FCC. No commercial interest may hold or manage the Public Safety Broadband Licensee.

II. OPEN PLATFORM REQUIREMENT

Upper 700 MHz C Block licensees are required to allow customers, device manufacturers, third-party application developers, and others to use or develop the devices and applications of their choosing for use over the C Block networks, subject to applicable regulatory and network management requirements. Note that this requirement only applies to the Upper 700 MHz C Block licenses. The FCC rules specifically prohibit the Upper 700 MHz Block C licensee from:

- Blocking, degrading, or interfering with the ability of end users to download and utilize applications of their choosing on the licensee’s Block C network, subject to reasonable network management requirements. For example, providers may not “lock” handsets to prevent their transfer from one system to another.
- Blocking Wi-Fi access, MP3 playback ringtone capability, or other services that compete with the licensee's offerings.
- Prohibiting applications or devices solely on the basis that they would increase bandwidth demands.
- Prohibiting access by a customer’s device solely because it makes use of other wireless spectrum bands.
- Imposing any discriminatory one-time or recurring charges or conditions on customers who seek to use devices or applications outside of those provided by the licensee.
- The FCC further required the Upper C Block licensees to take certain steps to ensure that device manufacturers and application developers have the ability to design products for this spectrum in a timely manner. Specifically, the Upper C Block licensee must:

- Publish standards no later than the time at which it makes such standards available to any preferred vendors.
- Provide potential customers with notice of the customers' rights to request the attachment of a device or application to the licensee's network, and of any relevant network criteria and process for the same.
- Ensure that their networks and devices comply with applicable regulatory requirements (e.g., power and emission limits, E911, CALEA, etc.).

III. 700 MHZ PUBLIC/PRIVATE PARTNERSHIP

The FCC mandated that the Public Safety Broadband licensee and the Upper 700 MHz Block D licensee must enter into a network sharing agreement ("NSA") for the purpose of creating a scalable public safety wireless network for use in time of emergency. Negotiations must commence within 30 days of 1) the Upper 700 MHz Block D licensee filing its long form application or 2) the FCC designating the Public Safety Broadband Licensee, whichever is later. Negotiations of the NSA must be completed within six months, and the NSA is subject to the approval of the FCC. The FCC will mediate, and if necessary, arbitrate any issues that are causing an impasse to the negotiations. The term of the NSA is to be commensurate with the term of the license, (ten years commencing on February 17, 2009). Compliance with the NSA will be a condition of the Upper 700 MHz Block D license.

a. Spectrum Leasing

Under the FCC's rules, the NSA must include a requirement that the Public Safety Broadband licensee lease its spectrum to the Upper 700 MHz Block D licensee on a secondary basis, with the ability of public safety to preempt the use of the spectrum at any time without notice and commercial users may not cause interference to public safety users and must accept interference from public safety users. The NSA must also provide for the 700 MHz D Block licensee to lease the use of its spectrum to the Public Safety Broadband licensee on a priority basis during times of emergency.

b. Shared Network Build-Out

The NSA must also include terms requiring the Upper 700 MHz D Block licensee to build out its network to be shared with the Public Safety Broadband Licensee and in conformity with public safety network specifications in terms of equipment, technology, reliability, robustness, and security. It must also satisfy the needs of the public safety users, as represented by the Public Safety Broadband licensee. The Public Safety Broadband licensee must have operational control of the network to the extent necessary to ensure public safety requirements are met. In addition, at least one model handset must be made available to the Public Safety Broadband Licensee that includes an integrated satellite solution capable of operating on both the 700 MHz public safety broadband spectrum and mobile satellite frequencies.

The FCC mandated a build out requirement that 75 percent of the population must be covered within 4 years, 95 percent of the population within seven (7) years, and 99.3 percent of the population

within ten (10) years of the commencement of the license term (February 17, 2009). A specific build-out schedule is to be included in the NSA.

c. Reimbursement for Relocation of Public Safety Narrowband Licensees

There are some public safety narrowband licensees who have already built out their wireless systems who will be required to retune their equipment to operate on the lower frequencies. The FCC's rules require that the Upper 700 MHz Block D licensee reimburse the public safety entities for the actual cost of retuning equipment, provided that such equipment is operational and the cost information is provided to the FCC no later than 30 days after adoption of the new rules. The FCC capped the total reimbursement amount at \$10 million.

d. Protection of the Public Safety Network

The FCC's rules require the Upper 700 MHz D Block licensee to set up bankruptcy remote special purpose entities to hold the Block D license, the network assets, and to lease the spectrum associated with the Block D license. Opinion letters will be required to ensure the bankruptcy protection provided by the special purpose entities. The FCC further established procedures for special temporary operation, transfer of the network assets and issuance of a new license in the event of cancellation of the Upper 700 MHz Block D license for failure to comply with the FCC's rules or in the event of business failure. Partitioning and disaggregation of the spectrum will not be permitted.

IV. BUILD-OUT REQUIREMENTS

In the new rules, the FCC replaced its current "substantial service" performance requirement with new, more stringent performance requirements for the commercial licenses in the 700 MHz Band. These substantial service requirements include the use of interim and end-of-term benchmarks, with geographic area benchmarks for licenses based on CMAs and EAs, and population benchmarks for licenses based on REAGs. Licensees must meet the interim requirements within four (4) years of the commencement of the license term and the end-of-term requirements within ten (10) years of the commencement of the license term, which begins on February 17, 2009. Failure to meet the interim requirement will result in a two-year reduction in license term from ten years (i.e., ending February 17, 2019) to eight years (i.e., ending February 17, 2017), as well as possible enforcement action, including forfeitures. The FCC also reserves the right for those that fail to meet the interim benchmarks to impose a proportional reduction in the size of the licensed area. Licensees that fail to meet the end-of-term benchmarks will be subject to a "keep-what-you-use" rule, under which the licensee will lose its authorization for unserved portions of its license area, which will be returned to the FCC for reassignment.

a. Lower 700 MHz Band Build Out

For licenses in the Lower 700 MHz band must provide signal coverage and offer service to: 1) at least 35 percent of the geographic area of their license within four years, and 2) at least 70 percent of the geographic area of their license at the end of the license term.

b. Upper 700 MHz C Block Build Out

Upper 700 MHz C Block licensees must provide signal coverage and offer service to: 1) at least 40 percent of the population of the license area within four (4) years, and 2) at least 75 percent of the population of the license area by the end of the license term. In addition, for licenses based on REAGs, the build-out requirements will be applied on an EA by EA basis. Accordingly, to meet their benchmarks, REAG licensees must provide signal coverage and offer service to at least 40 percent of the population in each EA in its license area within four (4) years and 75 percent of the population of each of these EAs at the end of the license term.

*For questions regarding the 700 MHz Auction, Please contact
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