

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
700 MHz Block A Good Faith Purchasers Alliance)	Federal Communications Commission
)	RM - 11592
Petition for Rulemaking Regarding 700 MHz Band)	
Equipment Design and Procurement Practices)	
To: The Commission		

**Reply Comments of
Rural Telecommunications Group, Inc.**

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Summary

A coalition of 700 MHz licensees has petitioned the Federal Communications Commission to establish a rulemaking to require all 700 MHz capable devices to operate on all paired 700 MHz bands. The coalition has also requested that an immediate freeze be placed on the development of all mobile equipment that does not effectuate this requirement. The Rural Telecommunications Group, Inc. filed comments supporting the coalition's petition for rulemaking and now submits these reply comments furthering its support.

Only two 700 MHz licensees, namely AT&T Inc. and Verizon Wireless, and three organizations from the vendor community, filed comments seeking to deny the petition for rulemaking. Those parties urging the Commission to deny the petition essentially argue that: 1) the coalition and other similarly situated 700 MHz licensees missed their opportunity to craft the Long Term Evolution standards development process; 2) the Lower A Block and therefore Band Class 12 is somehow technologically inferior to other 700 MHz band classes; and 3) it is in the public interest to refrain from enacting an "across-the-band" device functionality requirement. In its reply comments, the Rural Telecommunications Group, Inc. demonstrates to the contrary that inherent economic barriers prevented small and rural carriers from effectively participating in the Long Term Evolution standards development process, that any theoretical technical limitations in Band Class 12 and the Lower A Block are just as prevalent in other 700 MHz bands, including the Lower B/ C Blocks and Upper D Blocks owned by AT&T and Verizon respectively, and that next-generation public safety concerns, as well as a need for future marketplace competition necessitate an across-the-band device mandate.

For these reasons, the Federal Communications Commission should initiate a rulemaking that would require that all 700 MHz mobile devices be able to operate on all paired spectrum blocks, including Lower A Block and the Upper D Block and public safety blocks, of the 700 MHz band.

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REPLY COMMENTS OF THE RURAL TELECOMMUNICATIONS GROUP, INC.

The Rural Telecommunications Group, Inc. (“RTG”)¹, by its attorneys and pursuant to 47 C.F.R. § 1.405, hereby submits these reply comments in response to the *Public Notice*² issued by the Federal Communications Commission (“FCC” or “Commission”) on February 18, 2010 and public comments filed in response to the Petition for Rulemaking (“Petition”)³ filed by the 700 MHz Block A Good Faith Purchasers Alliance (“Alliance”).⁴

RTG filed comments in support of the Alliance’s request that the Commission both ensure that all mobile units for the 700 MHz band be capable of operating over all frequencies within that band

¹ RTG is a Section 501(c)(6) trade association dedicated to promoting wireless opportunities for rural telecommunications companies. RTG’s members are small businesses serving or seeking to serve secondary, tertiary, and rural markets. RTG’s members are comprised of both independent wireless carriers and wireless carriers that are affiliated with rural telephone companies.

² *In the Matter of 700 MHz Block A Good Faith Purchasers Alliance Petition for Rulemaking Regarding 700 MHz Band Mobile Equipment Design and Procurement Practices*, Public Notice, RM-11592, DA 10-278 (released February 18, 2010) (“*Public Notice*”).

³ *Petition for Rulemaking Regarding the Need for 700 MHz Mobile Equipment to be Capable of Operating on All Paired Commercial 700 MHz Frequency Blocks*, 700 MHz Block A Good Faith Purchasers Alliance (filed September 29, 2009) (“*Petition*”).

⁴ The Alliance is a “joint venture” consisting of King Street Wireless, L.P., Cellular South Licenses, Inc., Cavalier Wireless, LLC, and Continuum 700, LLC.

and impose an immediate freeze on the authorization of mobile equipment that is not capable of operation on all paired commercial 700 MHz frequencies.⁵ RTG, like most parties filing comments, continues to support the Alliance, and herein refutes the arguments made by the small number of commenters who oppose the Petition.

I. Introduction

Following the Commission's decision to seek public comment on the Petition, dozens of mobile operators and 700 MHz licensees, of all sizes and from across the country, offered support to the Alliance. Only two actual mobile operators – AT&T and Verizon – request that the Commission deny the Petition.⁶ AT&T and Verizon wish for this matter to be swept under the rug by essentially arguing the following three points in their respective comments: (1) the LTE standards development process governed by 3GPP (the Third Generation Partnership Project) was open and transparent and the Alliance and other similarly situated parties have already “had their day in court”; (2) the Lower A Block (Band Class 12) is somehow inferior to other 700 MHz license bands and should therefore be treated differently from those bands; and (3) there are no compelling public interest arguments for requiring the conditions requested in the Petition.

AT&T and Verizon's arguments are simply incorrect. First, the 3GPP standards development process was not an open and transparent process and did not afford the Alliance and similarly situated parties a realistic opportunity to participate. The 3GPP development process disproportionately favors large mobile operators and the mobile device manufacturers who cater to them. Second, any perceived technical shortcomings of the A Block of the Lower 700 MHz Band are shared with other paired 700 MHz license blocks and do not legitimize attempts to treat the A Block differently than the Lower 700

⁵ See generally, Comments of the Rural Telecommunications Group, Inc., filed March 31, 2010.

⁶ Three additional organizations filed comments requesting that the Commission dismiss or deny the Petition (Motorola, Inc., Qualcomm Incorporated, and the Consumer Electronics Association).

MHz B and C Blocks, or the Upper 700 MHz C and D Blocks. Third, and most importantly, numerous public interest benefits would be gained by requiring that 700 MHz devices work on all paired spectrum on both the lower and upper 700 MHz bands, and those benefits would not be limited to the subscribers of just two companies. For all of these reasons, and as set forth more fully below, the Commission should adopt rules that prohibit restrictive equipment arrangements and enact rules that ensure that consumers will have access to all paired 700 MHz spectrum that the Commission licenses.

II. The LTE Standards Development Process Was Not Open and Required Expensive 3GPP and ATIS Membership

AT&T, Verizon, and Motorola all assert that the 3GPP standards development process for LTE is open to any willing entity, including A Block licensees.⁷ While factually this is correct, in reality, it is a process that favors large, deep-pocketed mobile operators and vendors. In order to be a decision-maker within 3GPP, an organization must first be a member of a regional “3GPP Organizational Partner.” The operative word here is *member*. In the case of the United States, this 3GPP Organizational Partner is the Alliance for Telecommunications Industry Solutions (“ATIS”).

However, annual dues for ATIS start at \$1,750 and can go as high as \$281,000.⁸ Additionally, in order to participate in the global 3GPP deliberations, an ATIS member must also be designated an ATIS 3GPP IM, and annual fees for such a designation begin at \$21,500.⁹ Parties interested in developing LTE standards must pay at least \$23,250 annually to even sit at the table. For RTG members, the majority of whom have less than 10,000 subscribers in rural areas, the cost of participation is unaffordable. Accordingly, membership is effectually denied.

⁷ Motorola Comments at 4 (“The 3GPP LTE band classes at issue were developed through an open process...”); AT&T Comments at 6 (“The 3GPP standards process, as with most standards efforts, is an open, contribution-driven process.”); Verizon Comments at 3 (“Like other standards organizations, 3GPP uses an open participation process for standards setting, in which any member can submit a proposal or contribution, and any member can participate in the deliberations regarding that proposal.”).

⁸ See <http://www.atis.org/membership/value.html#1>.

⁹ See <http://www.atis.org/3gpp/index.asp>.

Moreover, these dues and fees are in addition to the necessary human resources, technical resources, travel costs and travel time to meetings around the globe, and all other operational costs associated with getting involved in the years-long decision-making process. Accordingly, ATIS, and more specifically its 3GPP IM members, do not represent all US-based organizations interested in the LTE standards development process, and this process is transparent only to those well-heeled entities that can afford to be members. As a result, only those standards that benefit the established, large operators, and the vendors that sell to them, emerge from the process. The purchasing power of companies such as AT&T and Verizon are more than enough to push vendors to develop only those devices that elicit the corresponding higher sales volumes. This is precisely why Band Class 13 and Band Class 17 exist. The rulemaking process of the FCC is the only practical “vehicle” by which A Block license holders as well as other small and rural 700 MHz licensees can make any type of impact in developing an LTE ecosystem that benefits anyone in the United States outside of AT&T and Verizon.

III. All 700 MHz Bands, Including Band Class 12, Should Be Supported By Mobile Devices.

In order to support their arguments that the Commission should refrain from requiring all 700 MHz devices to support all paired frequencies within that band, both Verizon and AT&T allude to the potential interference problems associated with Band Class 12 (which includes the Lower 700 MHz A, B and C block licenses) because of the A Block’s adjacency to Channel 51 and high-powered television transmissions. The truth of the matter is that potential interference exists throughout the 700 MHz band, and not solely in those frequencies adjacent to A Block licenses. Band 17, which incorporates only Lower 700 MHz B and C Block licenses, and which AT&T supports, is immediately adjacent to the unpaired Block D licenses. Those Block D licenses are used by Qualcomm’s “high-

power (50 kW) broadcast services” operating its MediaFLO video platform.¹⁰ Likewise, as part of its Band Class 13 specifications, and contrary to the mobile industry convention of placing uplink channels at lower frequencies, Verizon has flipped its uplink and downlink channels in the Upper 700 MHz C block.¹¹ Such a major and well intended decision is likely a tactical response to mitigate any theoretical or actual interference in the neighboring bands. As with all radiofrequency transmissions, interference is always possible when adjacent frequencies are used for other broadcast services. This truism does not negate the fact that AT&T and Verizon used their privileged position within 3GPP to push for self-serving Band Classes that would ostracize A Block licensees and potentially other Band Class 12 licensees trying to collaborate with A Block licensees. The simple fact that 3GPP has established Band Class 12 demonstrates that LTE can work across the 700 MHz band and the Commission should require that mobile devices support LTE regardless of which license blocks within that band are utilized.

IV. It Is In The Public Interest To Require All 700 MHz Mobile Devices To Support All Paired Spectrum Blocks Within The 700 MHz Band.

Both AT&T and Verizon couch their self-serving motives for opposing the Alliance’s Petition by asserting that the Petition is not in the public interest. More specifically, their arguments revolve around two central themes: (1) making any adjustments would delay a device’s introduction date, modify its preferential form factor, and potentially add to the device’s cost and size¹²; and (2) such adjustments would detrimentally harm the roaming market. Each of these assertions is without credibility based on past actions and statements by AT&T and Verizon.

¹⁰ Verizon Comments at 8.

¹¹ 3GPP Technical Specifications 36.101 (E-UTRA Band 13, Uplink 777 MHz -787 MHz, Downlink 746 MHz – 756 MHz).

¹² See generally Qualcomm Comments at 5; Verizon Comments at 7; AT&T Comments at 8; Motorola Comments at 7.

In today's domestic marketplace for mobile devices, companies like AT&T and Verizon pride themselves on offering multi-frequency, multi-mode devices, yet there is no evidence that potential delays or potential increases in costs (associated with adding new chipsets, filters and/or duplexers) will result from a Commission mandate to support all paired spectrum blocks on all 700 MHz devices. Devices such as the Apple iPhone 3GS incorporate four GSM/EDGE (2G) frequencies (850, 900, 1800 and 1900 MHz) and three UMTS/HSPA (3G) frequencies (850, 1900 and 2100 MHz) without compromising on user-friendliness and functionality. In fact, the Apple iPhone 3G/3GS has the same form factor and essentially the same dimensions and weight as its predecessor, despite the added 3G configuration; and furthermore it is offered to customers at a fraction of the original's retail price. AT&T also claims that the inclusion of all 700 MHz bands will force manufacturers "to develop 700 MHz-only devices that cannot roam onto 850 MHz cellular or 1900 MHz PCS networks."¹³ Such theoretical sacrifices were clearly not present when AT&T added 3G capabilities to its exclusive, award-winning Apple iPhone, and likely will not emerge when devices evolve from 3G to LTE.

Motorola stated that a "grant of the petition would unreasonably limit the ability of the device to support national and international roaming."¹⁴ Opponents of the Petition, including Motorola, fail to recognize that domestic roaming will suffer tremendously if all 700 MHz bands are *not* included in devices. The iPhone is just one example of a mobile device that did not compromise its domestic or international roaming capabilities by removing operational bands when it added 3G capabilities. However, if new 700 MHz devices are not capable of operating in networks broadcasting across Band Class 12, that immediately limits AT&T and Verizon customers from accessing 4G/LTE roaming on predominantly small and rural carriers while simultaneously limiting customers of those same small and rural carriers from even enjoying 4G/LTE service, let alone roam outbound on to the networks of

¹³ AT&T Comments at 9.

¹⁴ Motorola Comments at 6.

AT&T and Verizon. The only service providers objecting to an across-the-band requirement are AT&T and Verizon, and both of those service providers are purposely attempting to restrict domestic 4G/LTE roaming through this standards-selection process and by opposing automatic data roaming in general¹⁵ AT&T argues that nothing precludes “A block licensees from negotiating roaming deals with any carrier offering services on other 700 MHz blocks, including A block licensees, or with carriers offering services at 850 MHz, or 1900 MHz to allow their customers to roam.”¹⁶ This sentence is extremely misleading.

First, the particular issue at hand in this Petition is device functionality while roaming, not roaming agreements in general (which the Commission is properly addressing in separate rulemaking dockets).¹⁷ Furthermore, simply because a 700 MHz Lower A Block licensee has a roaming agreement with AT&T and Verizon does not guarantee that the smaller carrier can actually access LTE service in all markets, at least not today.

Second, because of the nature of the mobile device development process, it is the large carriers, due to their market share and bargaining clout, which dictate the specifications of those first generation LTE devices in the marketplace. Small carriers raised this precise issue of market dominance in the rulemaking docket pertaining to handset exclusivity agreements between carriers and manufacturers.¹⁸ It is common knowledge that large carriers, most notably AT&T and Verizon, engage in handset

¹⁵ *In the Matter of Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers*, WT Docket No. 05-265, Comments of Verizon Wireless (filed October 29, 2007); Comments of AT&T Inc. (filed October 29, 2007).

¹⁶ AT&T Comments at 12-13.

¹⁷ See generally, *In the Matter of Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265, Order on Reconsideration and Second Further Notice of Proposed Rulemaking, FCC 10-59 (released April 21, 2010).

¹⁸ *In the Matter of Rural Cellular Association Petition for Rulemaking Regarding Exclusivity Arrangements Between Commercial Wireless Carriers and Handset Manufacturers*, Rural Cellular Association Petition for Rulemaking, RM 11497 (filed May 20, 2008).

exclusivity agreements¹⁹ and control from cradle-to-grave which specifications the next-generation of mobile devices will contain. Mobile devices able to operate, and roam, on all frequencies within the 700 MHz band will not develop in a vacuum, and the duopoly currently held by AT&T and Verizon keep small carriers that do not have the market position, even if demand were aggregated, to requisition LTE devices in the near- or even mid-term that operate on the A Block of the Lower 700 MHz band.

Third, when AT&T suggests that small and rural mobile carriers, including any A Block licensees, can access roaming on other carriers on other bands, it presupposes that this roaming access would be at something other than LTE. While most A Block licensees would jump at the chance of offering immediate LTE services to their own customers and roaming customers of the larger mobile carriers, AT&T is going to great lengths to *not* reciprocate that same service offering, effectively denying an untold number of Americans the access to nationwide 4G coverage. A requirement that 700 MHz mobile devices operate across the entire band, combined with existing automatic roaming rules for voice services, and forthcoming automatic roaming requirements for data services, will effectuate universal “4G” mobile broadband across the country and ensure competition. Competition in the 4G mobile broadband marketplace will ensure that the AT&T/Verizon duopoly does not succeed.

Verizon too is downplaying the potential public interest benefits of intra-band LTE roaming when it states that “several years will be needed to overlay the LTE network over the entire 3G footprint,” and, instead of enabling its customers to roam on potential 4G/LTE roaming partners offering services on the A Block, that it would “want [Verizon’s] LTE customers to be able to roam

¹⁹ See generally, *In the Matter of Rural Cellular Association Petition for Rulemaking Regarding Exclusivity Arrangements Between Commercial Wireless Carriers and Handset Manufacturers*, RM 11497, Comments of Verizon Wireless Requesting Denial of Petition (filed February 2, 2009), Comments of AT&T Inc. (filed February 2, 2009).

onto its 3G network where LTE is not yet available.”²⁰ By opposing a rational policy of making 700 MHz mobile devices operate on all license blocks within the band, Verizon and AT&T are not only denying their own customers 4G/LTE access outside of their respective footprints, they are completely denying, for an indeterminate amount of time, all subscribers of A Block licensees the ability to even access 4G services in the first place. These actions are hardly in the public interest and thwart the nation’s progress towards a nationwide 4G/LTE mobile broadband network build-out that could otherwise be made available to all Americans, including those living in rural America.

The public interest benefits of having the FCC mandate universal access on all 700 MHz devices is not restricted to the private sector. Public safety, and the nation as a whole, would benefit greatly from the development and scale production of devices that operate on all paired 700 MHz bands.

As RTG stated in its comments, the *National Broadband Plan* (“NBP”) recommends that the Commission “require the D block licensee(s) and the public safety broadband licensee(s) each to operate their networks using the same air interface technology standard” and further states that the “emerging consensus of the public safety community and carriers is that 700 MHz networks will use the Long Term Evolution (LTE) family of standards.”²¹ Unfortunately, it may take years to achieve ubiquitous LTE coverage on the 700 MHz Public Safety spectrum and/or the D Block, which has yet to be auctioned. Moreover, in certain areas of the country, particularly in rural areas, it may not be inefficient to construct a stand-alone LTE public safety network and/or network operating on the D Block, or the dedicated network may need additional capacity at certain times.

In areas where there is no dedicated public safety LTE network or D Block partner, or where the public safety network requires additional capacity to respond to a particular event, it is critical that

²⁰ Verizon Comments at 10.

²¹ National Broadband Plan at p. 316.

public safety users have access LTE service on other 700 MHz license blocks throughout the country. For this reason, the NBP recommends that the Commission require CMRS licensees to give public safety users the ability to roam on commercial networks throughout the 700 MHz band.²² The NBP also recommends that public safety users be able to partner with commercial licensees generally (rather than being limited to the D Block exclusively) to achieve flexibility and the benefits of economies of scale.²³

These partnering and roaming solutions are possible and simple enough to achieve, so long as the mobile devices in the marketplace function effectively in all the Band Classes. The Public Safety Spectrum Trust Corporation²⁴ stated that “multi-band devices could facilitate nationwide roaming by public safety entities and reduce capacity on public safety broadband operations.”²⁵ By requiring that all 700 MHz devices support all frequencies within the 700 MHz band, the FCC will help fast-track the development of a nationwide, interoperable, public safety mobile data network.

V. Conclusion.

The 700 MHz Band is ideally suited to deliver mobile broadband, while LTE is the undisputed air-interface technology of the vast majority of private sector licensees and the full public safety community. Despite a diversified backing for a uniform technological standard within a single frequency band, the duopoly of AT&T and Verizon, together with a small handful of vendors, is resolute in impeding the adoption of a requirement that LTE-capable devices be able to operate on *all* license blocks within the 700 MHz Band. As explained in detail above, the 3GPP standards-

²² *Connecting America: The National Broadband Plan*, GN Docket No. 10-66 at 316 (released March 16, 2010) (“NBP”).

²³ NBP at 315.

²⁴ The Public Safety Spectrum Trust Corporation includes organizations as diverse as the National Governor’s Association, the National Fraternal Order of Police, the National Association of State EMS Officials, the National Association of State 9-1-1 Administrators, and the National Emergency Management Association.

²⁵ Public Safety Spectrum Trust Comments at 1-2.

development process which created the various Band Classes in the 700 MHz band is controlled by a fraternity of large vendors and carriers that limits participation to those organizations willing to pay large sums of money to even gain entry into the lengthy, costly process. Despite this initial barrier that prevented meaningful standards development, 3GPP endorsed Band Classes which encompass the full spectrum of licensed frequencies in the Lower 700 MHz and Upper 700 MHz band in the United States. Unfortunately, it is those same large carriers and vendors that are preventing A Block licensees from acquiring 4G/LTE mobile devices that work across the 700 MHz band. Recognizing the public interest benefits of establishing a policy of intra-band device harmony, the Commission should require that all 700 MHz devices be capable of working on all paired spectrum in the band. Additionally, it should place a freeze on the development and distribution of 4G/LTE devices until such time as all 700 MHz devices are capable of working on all paired spectrum in the band. For the foregoing reasons, and those set forth in its Comments, RTG urges the Commission to grant the Petition.

Respectfully submitted,

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