

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

In the Matter of	)	
	)	
QUALCOMM Incorporated	)	WT Docket No. 05-7
	)	
Petition for Declaratory Ruling	)	
That OET-69 is Acceptable to Demonstrate	)	
Compliance with Section 27.60	)	

**COMMENTS OF FLARION TECHNOLOGIES, INC.**

Flarion Technologies, Inc. (“Flarion”) respectfully submits these comments on the Petition for Declaratory Ruling (“Petition”) of QUALCOMM Incorporated (“QUALCOMM”) regarding certain rules applicable to 700 MHz licensees.<sup>1</sup> The Petition requests the Commission: 1) find that Office of Engineering and Technology Bulletin No. 69 (“OET-69”) is an acceptable method of demonstrating compliance with Section 27.60 of the Commission’s rules; 2) set a *de minimus* standard of acceptable interference of 2%; and 3) establish a streamlined procedure for 700 MHz licensees to show compliance with OET-69 and the *de minimus* interference standard.<sup>2</sup> Flarion urges the Commission to consider carefully the requested use of OET-69, as granting this request may have the unintended effect of increasing the risk of interference to Part 27 users operating on adjacent channels.

**I. INTRODUCTION**

Flarion’s interest in this proceeding is as a provider of technologies used by 700 MHz licensees to provide IP-based broadband wireless services. Flarion has developed and commercialized a mobile broadband communication system using technology known as FLASH-OFDM™ (Orthogonal Frequency Division Multiplexing). FLASH-OFDM enables

---

<sup>1</sup> See *In the Matter of QUALCOMM Incorporated Petition for Declaratory Ruling that OET-69 is Acceptable to Demonstrate Compliance with Section 27.60*, Petition for Declaratory Ruling, WT Docket No. 05-7 (filed Jan. 14, 2005) (“Petition”).

<sup>2</sup> Petition at 1.

users to obtain LAN-like communications in a cellular environment. Mobile users of devices that will operate in the 700 MHz band, such as PDAs, handheld PCs, laptops, and smart phones, can now access the Internet, voice over IP and other multimedia services at speeds previously available only over broadband connections such as DSL and cable.<sup>3</sup> Flash-OFDM technology is a very spectrally efficient, low cost technology that provides end users with broadband mobile data communications using existing Internet protocols and applications. In sum, Flarion's products offer mobile network operators breakthrough speed, reliability and cost effectiveness.

The continued presence of television station licensees on non-core channels 52-69 limits the availability and deployment of new equipment and technologies in the 700 MHz band. QUALCOMM offers its Petition as a means to making the spectrum more attractive to Part 27 users during the remainder of the DTV transition process. In general, Flarion supports proposals that encourage new and additional uses of the 700 MHz band. Flarion, however, urges the Commission to proceed carefully in addressing the Petition, and to consider the possible increase in the risk of interference to Part 27 users operating on channels adjacent to those being used for higher power applications permitted under Part 27.

## **II. THE COMMISSION SHOULD CONSIDER CAREFULLY THE USE OF OET-69 AS A METHOD FOR DEMONSTRATING COMPLIANCE WITH SECTION 27.60.**

The Commission should move cautiously in examining the Petition's proposal that 700 MHz licensees be allowed to use OET-69 methodology to demonstrate compliance with Section 27.60 of the Rules.<sup>4</sup> Flarion is not opposed to the Commission allowing the use of additional methodologies to conduct analysis of the interference of Part 27 licensees with television broadcasters. Certainly, OET-69 is a well-accepted methodology and is useful for evaluating interference in the broadcast industry.

---

<sup>3</sup> For a demonstration on how Flarion's technologies work, go to [www.flarion.com](http://www.flarion.com).

<sup>4</sup> 47 C.F.R. § 27.60(b).

Flarion's concern with the proposal is that OET-69 may not be suitable to evaluate interference between broadcast towers and cellular towers because these objects will generally be in line of sight. For example, QUALCOMM's product, MediaFLO, may typically use antenna heights of more than 300m.<sup>5</sup> Given that typical cellular base station heights are greater than 30m, line of sight will exist over a large area, potentially including hundreds of base stations. Flarion questions whether OET-69 was designed for interference analysis in such situations.

A second concern is that Part 27 allows relatively high transmit power, and unlimited antenna height above average terrain.<sup>6</sup> This raises concerns that some Part 27 users may cause significant interference to other Part 27 users in adjacent channels. Because Part 27 users will have higher deployment density than TV broadcast locations, the use of a contour analysis methodology such as OET-69 may be sufficient to protect broadcasters but not other Part 27 users. As Corr Wireless Communications noted in its comments, it is unclear how useful OET-69 will be in predicting interference between 700 MHz licensees.<sup>7</sup> The effect may be that use of the methodology, combined with the high power levels and high transmit antenna heights allowed in the band, could raise interference levels in adjacent frequencies. For this reason as well, Flarion urges the Commission to proceed slowly to determine whether the requested use of OET-69 will create problems among 700 MHz users, and whether it is an appropriate methodology in these circumstances.

---

<sup>5</sup> See Attachment B of Petition.

<sup>6</sup> See 47 C.F.R. § 27.50(c)(4)(ii) (allowing 50 kW ERP as compared to 1 kW ERP in other systems).

<sup>7</sup> Comments of Corr Wireless Communications, LLC. at 2.

