

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Wireless Communications Association Int'l)	
Petition to Amend Section 27.53(m) of the)	RM-11614
Commission's Rules)	

Comments of GCT Semiconductor

GCT Semiconductor, in response to the Public Notice issued by the Federal Communications Commission ("FCC" or "Commission") on November 4, 2010 in the above-referenced matter^{1/} hereby submits its comments in support of the petition to amend Section 27.53(m) of the Commission's rules filed by the Wireless Communications Association International ("WCAI").

I. Discussion

WCAI asks that the Commission amend its rules governing out-of-band-emission (OOBE) limits for mobile digital stations in the 2.5 GHz band to accommodate the use of the wider channel bandwidths. Specifically, WCAI asks that the Commission relax slightly the OOBE limits for mobile digital stations in section 27.53(m)(4) from $43 + 10 \log (P)$ dB to $40 + 10 \log (P)$ dB at the channel edges, and impose a $43 + 10 \log (P)$ dB attenuation factor beyond 5MHz from the channel edges, and a $55 + 10 \log (P)$ dB attenuation factor at "X" MHz from the channel edges where "X" is the greater of 6 MHz and the actual channel

^{1/} *In the Matter of Wireless Communications Association Int'l Petition to Amend Section 27.53(m) of the Commission's Rules*, Public Notice, RM-11614 (rel. Nov. 4, 2010) ("WCAI PFR").



bandwidth. WCAI also requests that the Commission allow a resolution bandwidth of 2 percent for mobile digital stations in section 27.53(m)(6).

GTC Semiconductor supports the WCAI PFR and agrees with WCAI that amending the OOB limits in the 2.5 GHz band as requested is necessary to realize the full benefits of 4G technologies and better align the Commission's rules with the approach of the global 3rd Generation Partnership Project² (3GPP) and future WiMAX standards applicable to the 2.5 GHz band.³ Providing for operation of wider channel bandwidths will promote efficient use of the spectrum and help achieve the goals of the National Broadband Plan for mobile broadband. And harmonizing the Commission's rules with the applicable 3GPP standard and future WiMAX standards will enable manufacturers and network operators to realize enormous economies of scope and scale in 2.5 GHz mobile devices, which would otherwise need to be customized for use in the United States. In addition, GTC Semiconductor also agrees with WCAI that the proposed changes are necessary to:

- allow operators to provide the full uplink capacity available in 20 MHz or wider channels, which would greatly enhance spectrum efficiency and broadband throughput; and
- achieve a reasonable balance between smartphone design issues (e.g., size and battery life) and the spectral efficiency of wider channel bandwidths, and thus fulfill the promise of 4G technologies.

II. Conclusion

GTC Semiconductor agrees with WCAI that granting the Petition is necessary to facilitate the rapid deployment of 4G mobile broadband services in the 2.5 GHz band

² The 3rd Generation Partnership Project is a consensus-driven international partnership of telecommunications standards bodies.

³ See 3GPP TS 36.101 V8.7.0 (2009-09).

nationwide. GCT Semiconductor asks that the Commission immediately issue a notice of proposed rulemaking seeking comment on the amendments sought in the Petition.

Respectfully submitted,

GCT Semiconductor

By: /s/ Alex Sum

Alex Sum
VP Marketing
GCT Semiconductor
2121 Ringwood Ave., San Jose, CA 95131
1-408-434-8022

November 23, 2010