Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies	)	ET Docket No. 03-108
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	)	
	)	

TO: The Commission

COMMENTS OF NATIONAL ASSOCIATION OF MANUFACTURERS AND MRFAC, INC.

The National Association of Manufacturers ("the NAM") and MRFAC, Inc. ("MRFAC") (collectively, "NAM/MRFAC"), by their counsel, hereby submit their comments on certain aspects of the Notice of Proposed Rulemaking ("Notice"), FCC 03-332, released December 30, 2003, in the above-captioned proceeding. These comments are limited to the portion of the Notice dealing with proposals to allow the marketing of unlicensed devices in the United States, which would have the capability of operating on frequencies not authorized for their use in this country.

Introduction

The NAM -- 18 million people who manufacture products in the United States -- is the nation's largest and oldest multi-industry trade association. The NAM represents 14,000 member companies (including 10,000 small and mid-sized manufacturers) and 350 member associations serving manufacturers and employees in every industrial sector and all 50 states. Headquartered in Washington, D.C., the NAM has 10 additional offices across the country.

MRFAC is one of the Commission's certified frequency coordinators for the private land mobile bands from 30 to 900 MHz. MRFAC began its operations over 25 years ago as the frequency coordinating arm for NAM. For the past two decades, MRFAC has operated independently, providing coordination and licensing-related services for manufacturers and other industrial/business entities. MRFAC has long participated in spectrum rule makings affecting the interests of manufacturers.

Background

Part 15 of the Commission's Rules precludes authorization of devices capable of operating on frequencies not authorized for that purpose in the U.S. By means of the subject Notice, the Commission proposes to allow certification of such devices as long as they are able to automatically select a U.S.-authorized frequency range. Notice at para. 97. The Notice suggests that this proposed change would reduce production costs associated with the manufacture of wireless devices by eliminating the need to manufacture multiple versions of a device for use in different countries. Id.

The Notice proposes several methods by which automatic frequency selection could be accomplished. Notice at para. 97. One method includes the use of geolocation technology, such as GPS. Id. Another method is the use of a network access point for LAN card devices. Id. The Commission invites comment on these proposals. Notice at para. 98.

Discussion

NAM/MRFAC are concerned about interference which could be created by devices operating pursuant to the proposed rule changes. As explained below, if employed in a manufacturing setting, there is a potential for significant interference to both licensed and unlicensed systems and operations.

The Notice suggests the use of GPS as a method for automatic frequency selection. However, GPS signals are not receivable inside factories or other buildings due to the shielding effect created by these structures. See, e.g., GPS Guide for Beginners, Garmin Corporation, December 2000, at page 9 ("GPS units will not work indoors (typically), underwater, or underground.").[1] A GPS-equipped device would be unable to determine the appropriate operating frequency range in this setting. This could result in interference to other devices or systems used in the plant as part of the manufacturing process. Indeed, since the subject devices might never be used out-of-doors, reliance on GPS would seem particularly problematic.

The potential for interference within the plant from a device employing GPS is magnified where the user of the device is not an employee. For example, a visitor or vendor using his or her own wireless device could cause interference with other plant systems. The operators of the plant would not be able to easily locate the user in order to eliminate the interference.

Reliance on network access points (another option specified in the Notice) may offer no better assurance of determining/relaying location information to a wireless device. Other methods, such as requiring that such devices be able to determine their location based on non-RF means, might be a safer course to follow.

If the Commission should determine to proceed with the proposed change in Part 15, it should consider requiring any such device to incorporate a fail-safe mechanism such that the unit be incapable of operating in the US, at least on non-US frequencies, until its position has been determined. Clearly, further information should be developed on the record in this proceeding as to the efficacy of this or other methods of preventing interference.

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[1] On the web at http://www.garmin.com/manuals/GPSGuideforBeginners_Manual.pdf.

Conclusion

For the reasons stated, the Commission should not adopt the proposed changes absent more information as to reliable methods of controlling interference from Part 15 devices in industrial and business settings.

Respectfully submitted,

NATIONAL ASSOCIATION OF MANUFACTURERS and MRFAC, INC.

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