

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Interference Immunity Performance)
Specifications for Radio Receivers) ET Docket No. 03-65

COMMENTS OF E.F. JOHNSON COMPANY

E.F. Johnson Company would like to file comments in response to the *Notice of Inquiry* in the above captioned proceeding.

E.F. Johnson Company, a subsidiary of EFJ, Incorporated, is a manufacturer of Private Land Mobile equipment, with offices in Washington, D.C, Lincoln, NE, and Waseca, MN. E.F. Johnson has been a manufacturer of radio equipment for 80 years, with a history of private radio equipment manufacturing for over thirty years. Currently our products cover Public Safety systems, as well as Business and Industrial products. E.F. Johnson Company's experience is principally focused on Private Land Mobile Radio systems. Therefore, the comments that are offered are directed principally toward those radio services.

Current Private Land Mobile equipment that is on the market represents some of the highest performing receiver products that are available in any service. In many respects, performance this class of product approaches state-of-the-art. Although there are multiple tiers of product offered by the various manufacturers, receiver standards tend to be of a fairly high specification level throughout. E.F. Johnson believes that the

Private Land Mobile radio market would not be best served by mandated receiver standards. We believe that there are several reasons for this.

Competitive pressures within the industry cause manufacturers to focus their design efforts on product performance. This marketplace is a highly competitive one, in which product performance, including receiver specifications, can be a product differentiator. In addition, customers in this marketplace tend to be very technically astute, and understand the implications of factors, such as receiver performance. This causes manufacturers to focus on receiver performance, and to offer products of high standards. In addition, voluntary industry standards, such as the various standards published by the Telecommunications Industry Association (TIA), serve as a minimum standard for these types of products. These standards are developed by industry consensus, and in many cases, have user input in their formulation. Recent TIA standards for Private Land Mobile Radio have been updated to include two levels of specifications, the higher level being recommended for mission critical communications.

The state of technology is changing rapidly. Technology improvements that may result in receiver performance improvements are being made, and will continue to occur in the future. Mandating requirements based on current state-of-the-art may result in a stifling of innovation. Industry standards development organizations, in contrast, meet regularly and update their standards periodically. The result is a standard that is up-to-date with current technology.

Many of the receiver standards are interdependent. In many instances it is possible to improve a specific performance parameter at the expense of other performance parameters. Manufacturers often make decisions on performance trade-off when designing equipment. This is often done with specific applications in mind. Quite often, sacrificing some receiver performance parameter may be advantageous if some other receiver parameter is more desirable. Mandated specifications may limit the ability to design product for specific applications.

Additionally, in many markets, the cost of the highest specification products may not be justified by the application. In many sparsely populated areas, interference may not be an issue. In some applications the reliability of the communications may not be paramount. In such applications the availability of less expensive products may be more desirable. As such, the requirements of the market, as opposed to mandated technical requirements, may result in more economical products. Mandated technical requirements, on the other hand, will tend to drive the cost of equipment higher.

As a result of the above factors, E.F. Johnson believes that mandated receiver standards are not the most effective way to ensure that interference issues are minimized, and that spectrum is efficiently utilized. We believe that this is best accomplished by competitive pressures to provide receivers of the highest standards, along with the demands of critical users for interference free operation. In addition, we believe that industry standards, such as the various TIA standards, are effective in setting minimum

performance standards, while allowing for flexibility for manufacturers to innovate performance improvements, or to manage design trade-off issues.

E.F. Johnson Company would like to express its appreciation for the opportunity to comment on these matters.

Respectfully Submitted,

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July 21, 2003