Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Amendments of Parts 0, 1, 2 and 15	)	
Of the Commission's Rules Regarding	)	ET Docket No. 13-44
Authorization of Radiofrequency	)	
Equipment	)	RM-11652
	)	
Amendment of Part 68 Regarding	)	
Approval of Terminal Equipment	)	
By Telecommunications Certification	)	
Bodies	)	

COMMENTS OF INOVONICS WIRELESS CORPORATION

Inovonics Wireless Corporation ("Inovonics"), by its attorneys, hereby comments on the Notice of Proposed Rulemaking ("NPRM") in the above-captioned proceeding.[1]

Inovonics files these comments in response to the Federal Communications Commission's ("FCC" or "Commission") proposal to adopt a new measurement standard for Part 15 devices, one published by the American National Standards Institute, Inc. ("ANSI"), titled ANSI C63.10-2009. In Inovonics' view, adoption of this proposal will be costly to many consumers without sufficient public benefit to justify imposing such costs. If, however, the Commission proceeds with its proposal, it should provide for a grandfathering period to allow consumers sufficient time to update their unlicensed systems to

[1] *In the Matter of Amendments of Parts 0, 1, 2, and 15 of the Commission's Rules Regarding Authorization of Radiofrequency Equipment; Amendment of Part 68 Regarding Approval of Terminal Equipment by Telecommunications Certification Bodies*, Notice of Proposed Rulemaking, ET Docket No. 13-44, RM-11652 (rel. Feb. 15, 2013) ("NPRM").

those that meet the Commission's certification requirements under the new ANSI C63.10-2009 measurement standard.

I. BACKGROUND

For more than twenty-five years, Inovonics, a subsidiary of Roper Industries, has produced radio products for the unlicensed 902-928 MHz band, such as alarm, personal duress, and metering systems. Inovonics serves three important markets – security, senior care, and water submetering. Uses of Inovonics products include installations by local and federal government entities to protect public officials and buildings, and by hospitals, school systems, banks, and movie theaters for security and emergency duress needs. Other uses include panic buttons worn by seniors in assisted living facilities to call for help. Most Inovonics radio products are 25-channel frequency hopping spread spectrum systems that transmit one-way at 0.05 watts peak output power and employ FSK modulation.

Inovonics, like many other manufacturers of unlicensed systems, has an installed base of millions of devices. It is not uncommon for consumers to procure unlicensed systems with the expectation that they will have a long useful life. In the security industry, for example, consumers often expect systems to last 15-20 years, and invest in systems accordingly. This creates a backwards compatibility concern for many systems: Consumers expect that they will be able to continue to use their installed transmitters and repeaters for many years, adding or replacing lower-cost mobile devices or receivers as needed. Consumers also place a very high value on long battery life.

II. DISCUSSION

The NPRM seeks to modify the Commission's equipment authorization process by updating certain rules, including Section 15.31(a), which specifies the measurement procedures to be used to determine that a device meets FCC

technical standards.[2] Presently, Section 15.31(a)(3) specifies that intentional and unintentional radiators (other than TV receivers and UPCS devices) should be measured using an ANSI standard adopted in 2003, ANSI C63.4-2003.[3] Inovonics has reviewed the impact of this proposal on its systems and has determined that, while they comply with FCC technical standards when tested under the ANSI C63.4-2003 measurement standard, due to differences in resolution bandwidth setting techniques when measuring occupied bandwidth, these products will not be able to meet FCC requirements when tested under the ANSI C63.10-2009 standard. This likely will be the case for other manufacturers as well. For this reason, should the Commission adopt the proposed ANSI C63.10-2009 standard, Inovonics requests that the Commission establish a sufficient grandfathering period to permit a reasonable period of transition to the standard. This is necessary to allow consumers of large-scale unlicensed systems the time to transition to new technologies.

A. The Commission's Proposal to Adopt the ANSI C63.10-2009 Standard Would Impose High Costs on Consumers.

The Commission proposes to remove from Section 15.31(a)(3) reference to ANSI C63.4-2003 and to incorporate a new measurement standard, ANSI C63.10-2009, into the rule.[4] The Commission states that the new standard "consolidates the various measurement procedures that the Commission staff has already allowed for intentional radiators without substantive modification and does not add any new requirements for compliance testing."[5] The Commission also states that it believes that adoption of this standard will result in "decreasing the burden on equipment manufactures."[6] However, the propose rule change would require Inovonics to redesign its future products in order to meet FCC

[2] NPRM at ¶ ¶ 60-68.
[3] 47 C.F.R. § 15.31(a)(3).
[4] NPRM at ¶ 63.
[5] NPRM at ¶ 61.
[6] NPRM at ¶ 67.

technical requirements, and would likely impact other manufacturers similarly. This would result in an undue burden on consumers.

Under the current standard, devices may comply with the Section 15.247(a)(1)(i) frequency hopping requirements for unlicensed devices by hopping across 25 channels using a bandwidth of 250 kHz or greater.[7] The 2009 standard, however, provides for a different method of setting the resolution bandwidth when measuring occupied bandwidth. The 2003 standard instructs the test body to set the measuring instrument's resolution bandwidth to a value greater than 5% of the occupied bandwidth requirement,[8] while the 2009 standard instructs the test body to set this value within or approximately 1-5% of the occupied bandwidth. With this smaller resolution bandwidth setting allowed by the 2009 standard, at least some unlicensed devices would be unable to meet the minimum 250 kHz occupied bandwidth threshold required by Section 15.247 for systems employing 25 channels (at 0.25 watt peak output power). As a result, should the Commission adopt the 2009 standard, in order to obtain equipment certification for new products, manufacturers would need to make a significant design change for future products. Doing so would require consumers to replace all transmitters and repeaters on a site in order to change or modify a system, for example to add new mobile devices or, in the alarm industry, sensors. And doing so would result in less efficient use of the spectrum and greater battery drain. Inovonics systems, for example, would need to employ a new communications protocol that would require doubling of the number of channels on which these products would hop, from 25 to 50. This would double the on-air transmit time for alarms and status changes, requiring

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[7] 47 C.F.R. § 15.247(a)(1)(i).

[8] Pursuant to Office of Engineering and Technology guidelines, manufacturers may use the Alternative Test Procedure to calculate Output Power from Field Strength measurement when antenna conducted test cannot be performed. *See Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems*, FCC Public Notice DA 00-705 (rel. March 30, 2000).

more energy use and significantly reducing battery life.[9] And, using 50 channels would make for less efficient use of the spectrum, as additional data bursts would be required to perform the same functions.

The Commission specifically seeks comment on "the costs and benefits of the rule changes proposed."[10] In many industries, including the security industry with which Inovonics is most familiar, technological plateaus are necessary to allow for the significant investments by consumers in installing a new system. Adoption of the 2009 ANSI standard would impose increased costs on many consumers. As noted above, consumers of unlicensed systems often add additional transceivers and/or repeaters throughout the useful life of these systems, either as replacements or to expand or modify a system. Should manufacturers be required to meet the 2009 standard now or any time soon, this would result in a huge cost to any consumer seeking to modify a system, as they would be required to install entirely new systems. And, consumers would incur these costs without receiving any improvement in functionality or other added benefit. Additionally, due to the drain on battery life discussed above, there would be increased cost to consumers both to purchase a greater number of batteries and, for some, to pay trained technicians to replace the batteries.

B. A Grandfathering Period Would Be in the Public Interest.

Inovonics therefore suggests that, should the new standard be adopted, the FCC include in any rule change a grandfathering period extending from the effective date of the new rule until December 31, 2020, through which manufacturers may obtain equipment authorization using the ANSI C63.4-2003 standard. This would allow manufacturers time to develop next-generation systems that could meet the Commission's Part 15 technical requirements using

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[9] Inovonics estimates that battery life would be reduced by approximately 40%, depending on the device application.
[10] NPRM at ¶ 14.

the ANSI C63.10-2009 measurement standard, without imposing undue hardship on the millions of consumers expecting long life-spans from their unlicensed systems. Grandfathering would be in the public interest, as it would enable consumers to make more economical transitions to new technology, and it would provide for better use of the spectrum. Without this grandfathering period, hundreds of thousands of existing consumers will incur increased costs in replacing their systems and in maintaining battery power.

The Commission explains in the NPRM that "it is time to revisit the equipment authorization procedures to ensure that they are appropriate for the types of equipment being marketed today and for the increasingly intensive use of the airwaves."[11] As discussed, to comply with the 2009 standard, manufacturers such as Inovonics would have to increase the occupied bandwidth of its communication protocol or increase the number of channels, the net effect of either change being an increase in spectrum usage. A grandfathering period would ensure better spectral efficiency for the foreseeable future by not requiring such changes.

Finally, adoption of the 2009 standard would not necessarily accomplish the Commission's stated goals of better consistency, lack of repeatability, and reduced confusion in its equipment certification process. The record does not demonstrate that these problems exist on a widespread basis, and in Inovonics' specific experience in obtaining equipment certification it has not encountered these issues.

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[11] NPRM at ¶ 12.

III. CONCLUSION

For the foregoing reasons, Inovonics believes that the wholesale adoption of the 2009 ANSI measurement standard, without allowing concurrent use of the 2003 standard, would not be in the public interest. However, if the Commission does eliminate the use of the ANSI C63.4-2003 measurement standard, it should provide for a grandfathering of its rules so that manufacturers may continue to obtain equipment authorization using the 2003 standard until December 31, 2020.

Respectfully submitted,

INOVONICS WIRELESS CORPORATION

By:
Henry Goldberg
Laura A. Stefani
Goldberg, Godles, Wiener & Wright LLP
1229 Nineteenth Street, N.W.
Washington, DC 20036
(202) 429-4900

Its Attorneys

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