



BUILDING GLOBAL COMMUNICATIONS

EX PARTE – FILED ELECTRONICALLY

October 6, 2004

Ms. Marlene Dortch, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: NPSTC Petition For Reconsideration on FCC Docket 00-32

Dear Ms. Dortch,

The Private Radio Section ("PRS") of the Wireless Communications Division ("WCD") of the Telecommunications Industry Association ("TIA")¹ respectfully submits the following industry consensus recommendations for modification of Commission Rule Section 90.1215 (47 CFR §90.1215) to re-harmonize the power measurement procedure contained in the existing Commission Rule Section 90.1215 with the power measurement procedure contained in the recently modified Commission Rule Section 15.407 (47 CFR §15.407). Commission adoption of these recommendations would expedite the availability of 4.9 GHz MHz products for public safety providers in full accordance with the Commission's goals.

The Commission when adopting the newly defined power measurement procedure contained in the modified Commission Rule Section 15.407 was apparently unaware of the need to adopt complementary modifications to the power measurement procedure in Commission Rule section 90.1215 in order to maintain the harmonization between the Commission Rule sections 15.407 and 90.1215. Therefore, PRS believes the Commission can adopt the modifications to Commission Rule section 90.1215, recommended herein, "on the Commission's own motion."

TIA is an American National Standards Institute ("ANSI")-accredited standards development organization and its product-oriented divisions and their associated engineering committees include technical experts from equipment manufacturers who serve the wireless industry as well as technical user representatives. TIA's engineering committees develop various standards and technical bulletins to address a wide range of requirements, including system performance, interference abatement, compatibility and interoperability. Within this context, TIA's PRS focuses in part on the necessary requirements to support reliable wireless communications responding to the needs of public safety entities. TIA's PRS (through its' sponsored TR-8.8 subcommittee on Broadband Data) prepared the recommendations contained herein.

¹ TIA is the leading trade association serving the communications and information technology industry, with approximately 1,000 member companies that manufacture or supply the products and services used in global communications. TIA represents the communications sector of the Electronic Industries Alliance (EIA). On occasion, a TIA division or section of a TIA division will file in a regulatory proceeding representing the views of only the members of that division or section. These comments are from the Private Radio Section of the Wireless Communications Division.

Summary of recent FCC Ruling addressing maximum power output definition for U-NII devices:

In July, 2004 the FCC adopted rules changes in docket 04-165, which provided modifications to Part 15 of the Commission's Rules regarding the regulation of devices operating in the U-NII band. As part of these modifications, the FCC harmonized the definitions for maximum output power measurement for U-NII devices and spread spectrum devices. Prior to adoption of these modifications to Commission Rule section 90.407, the power measurement procedure defined in Commission Rule sections 15.407 and 90.1215 were harmonized and defined the same measurement technique. After adoption of the modifications to Commission Rule section 15.407 in July 2004, the power measurement procedures outlined in Commission Rule sections 15.407 and 90.1215 are no longer harmonized.

The expressed Commission rationale for adoption of the changes to Commission Rule section 15.407 (as described in the July 2004 Report and Order adopted in 04-165) is as follows:

30. In the *Notice*, the Commission explained that unlicensed devices designed to use digital modulation techniques may be authorized under either the U-NII rules (Subpart E) or Section 15.247 of Part 15. When operating under either of these requirements the devices are limited to 1 watt maximum output power. However, the method used to determine the maximum power varies for U-NII and spread spectrum devices. Specifically, the output power measurement required under the Commission's U-NII device test procedure is an RMS average measurement, while the output power measurement required under the Commission's digitally-modulated spread spectrum device test procedure is a measurement of the overall peak emission. In adopting the U-NII rules, the Commission recognized that digital modulation techniques often display short duration peaks that do not cause increased interference to other operations. Measuring the peak level of short duration spikes overestimates interference potential. Accordingly, the Commission established measurement procedures for digital U-NII devices which allow for averaging output power in order to disregard these insignificant spikes.²³

31. In the *Notice*, the Commission noted that the current rules may lead to inconsistent treatment of similar devices. Accordingly, it proposed to harmonize the measurement procedures for digital modulation devices authorized under Section 15.247 with the digital U-NII devices authorized under Section 15.407. Specifically, we proposed to allow entities performing compliance testing for Section 15.247 devices to use an average, rather than overall peak, emission as provided by Section 15.407, paragraphs (a)(4) and (a)(5) when measuring transmit power. We proposed this change for devices using digital modulation that operate in the 915 MHz, 2.4 GHz and 5.7 GHz bands.

The language in Commission Rule section 15.407, prior to the modification adopted in July 2004 defined the maximum output power as "peak transmit power." This "peak transmit power" term is the same language used in Commission Rule section 90.1215 for the 4.9 GHz band. The current Commission Rule Section 90.1215 language was adopted by the Commission in the spring of 2003. The "peak transmit power" term continues to be the effective language in Commission Rule Section 90.1215 because none of the changes adopted in July 2004 for U-NII devices were made effective for Commission Rule section 90.1215 despite the technical similarity between U-NII devices and assumed 4.9 devices.

Summary of New U-NII Rules:

As noted above, to better account for digital modulation formats such as OFDM, which can have high peak-to-average ratios, the FCC modified the definitions for maximum power. First, they created a new definition in Commission Rule section 15.403 for "maximum conducted output power" which is repeated below:

