

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the matter of)	
)	
Implementation of Sections 309(j) and 337)	WT Docket No. 99-87
Of the Communications Act of 1934, as Amended)	
)	
Promotion of Spectrum Efficient)	RM-9332
Technologies on Certain Part 90)	
Frequencies)	

COMMENTS OF RITRON, INC.

On November 30, 2012, the Federal Communications Commission released DA 12-1913, which requested comments on a petition by Ritron Inc. (Ritron) to delay indefinitely implementation of section 90.203(j)(5) of the commission's rules.¹ That section mandates that after January 1, 2013, the commission will no longer accept applications for equipment in the 150-174 MHz and 450-512 MHz bands that cannot operate in a 6.25 kHz mode or with equivalent efficiency. With one exception, the comments were favorable to Ritron's position. Ritron's petition made a prima facie case for an indefinite delay in the 6.25 kHz certification date, but a few points could benefit from clarification.

Ritron is a small, but successful, two-way manufacturing company that was founded in 1977. It designs and builds its products in Carmel, IN, USA. Ritron is not a stranger to 6.25 kHz technology and has designed and currently sells 6.25 kHz equipment for both data and voice and plans to continue to do so in a variety of protocols and with various vocoders as determined by market demands. In fact, Ritron is a charter member of the NXDN forum and was the first radio manufacturer outside of the NXDN founders, Kenwood and Icom, to receive NXDN certification for a radio product. To date, Ritron's 6.25 kHz offerings have resulted from a demand in the market, not by order from the Commission. Because of Ritron's size, it is in a unique position to gauge the impact of making 6.25 kHz certification mandatory after January 1, 2013. It is indisputable that the vocoder alone has an impact on the cost of a 6.25 kHz voice product; a vocoder licensing fee of \$100,000+ (plus a royalty per radio sold) must be amortized over a significant number of radios to make the impact insignificant. In lieu of a licensing fee, a custom integrated circuit can be used at a cost of approximately \$25. These fees are a burden for smaller manufacturers.

¹ See Petition to Delay Indefinitely Implementation of Section 90.203(j)(5) of the Commission's Rules (filed September 21, 2012).

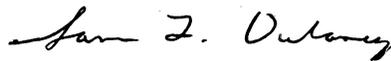
It is certainly understandable that manufacturers who have already developed 6.25 kHz technology would want to ensure that that technology is mandated to be available in their products considering the R&D effort required to develop such technology and the barrier to entry that the development of that technology represents to potential competitors. Ritron itself is very familiar with that effort. If an obvious need exists for a given, more expensive technology, an inherent technology-based barrier to entry can exist, but that need is not apparent and the Commission's mandate can be seen as anticompetitive to smaller manufacturers. In addition, Ritron is very familiar with the market that it sells into and certain segments of that market do have a need/desire for 6.25 kHz technology, but a larger segment does not have that need and is resistant to paying the resultant higher product cost.

Ritron wishes to be clear that it does not oppose a move to 6.25 kHz technology in general, but does not want the commission to mandate such a move, at least until:

- 1) A real need has been established for PLMR frequencies beyond those already created by the transition to 12.5 kHz.
- 2) The technology exists which will allow the transition to occur in such a way that the benefits of the change to 6.25 kHz channels outweigh the associated development and product cost, including the cost of the vocoder.
- 3) Some type of standard has emerged that uses a more cost-effective vocoder or the cost of the vocoder used in the current most popular standards becomes less onerous to smaller manufacturers.

Respectfully submitted,

Sam L. Dulaney



Chief Engineer

Ritron, Inc.

505 West Carmel Dr.

Carmel, IN 46032