



**5301 Buckeystown Pike
Suite 306
Frederick, MD 21704**

12 January 2003

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Written Ex Parte Presentation in ET Docket 98-153

Dear Ms. Dortch:

I am providing the following comments in support of the Petition for Reconsideration submitted by Multispectral Solutions, Inc. ("MSSI") in the above referenced docket.

I am the author of Agilent Technologies' application note entitled "Radar Pulse Measurements with a Spectrum Analyzer". This document is referenced in **Agilent Measurement Solutions - Issue 1, Volume 3**¹ to assist Agilent customers in the proper use of a spectrum analyzer to measure wideband pulse parameters. Please note that Agilent now refers its customers to this document to better understand the phenomenon of pulse desensitization. The predecessor document, HP Application Note 150-2 "Spectrum Analysis of Pulsed RF", is no longer in print but is currently scheduled for revision. I am working with Agilent to update the entire 150 series of application notes.

Also, I was the co-author of three one-day seminars presented by Agilent: 'Radar Measurement Basics', 'Advanced Radar Measurements', and 'Digital Communication Measurements'. Each of the seminars has been delivered at over 35 cities worldwide. I have personally delivered each of the seminars twenty times to over 1000 engineers.

As an expert in the field of spectrum analysis and wideband measurements with over 25 years of experience, 20 years with HP/Agilent in the development of test equipment and procedures for wideband signals, I believe that I am eminently qualified to comment on the correct use of pulse desensitization correction (PDC).

Specifically, I agree with the argument made by Multispectral Solutions, Inc. (MSSI) in its Petition for Reconsideration that PDC is *not* required to determine the potential interference effects of a wideband pulse waveform. Rather, pulse power *density* (i.e.,

¹ http://www.tmintl.agilent.com/npl/tandm_news.shtml

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Watts per Hz, dBm/MHz, etc.), whether determined on an average or peak basis, is the relevant parameter of importance.

Respectfully submitted,

A handwritten signature in cursive script that reads "Randal J. Burnette".

Randal J. Burnette
Founder and President
Synergent Technologies, Inc.
5301 Buckeystown Pike, Suite #306
Frederick, MD 21704
USA