

From: Phillip Coiner

To: Doug Young

Date: June 24, 2015

Subject: Request for Info - File #0406-EX-PL-2015

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Message:

Hi Doug

I apologize I can't find where to change that from 39.8pW to what should now be 100pW.

When I first started the process I thought I was going to use -74dBm (which is where the 39.pW came from) but after doing the diagrams and calculations I changed my mind to -70 .

If you could guide me on how to make the change I be very grateful.

If you care

The reason for this was that this allows me to have the -130dBm at the edge of the room.

This is where the 58' came from and why I cared about it enough to put it in my diagram

Repeater\_Radiation\_Patterns\_004.pdf.

In proper operation of a repeater the signal strength should equal the outside level and the farthest reach of you repeater but no stronger.

A stronger repeater signal than -130dBm only it does not mean that you get better reception.

I want to drive this home to my customers so I want to include this in my example.

I constantly fight with people that think more/ a stronger than is needed signal is better when it is not.

It also guarantees that you will meet the -140dBm NTIA @ 100' away from any outside wall.

L2 free space loss:

The way our repeater works i.e. the Metro (Equipment\_Drawing\_&\_BOM\_Exhibit\_001.PDF) is that the L1 and L2 frequency is split apart and the gain are controlled separately for each band.

The default setting of the Metro is that the gain the L2 side is transmitted @ 5dB less (-75dBm) than L1.

When I did the calculations for L2 the free space loss was -68dB so because of this I knew the resulting L2 envelope was 3dB less than the envelope of L1.

I'm not sure how to handle this other than submitting a second calculation showing the L2 transmit power -75dBm.

So I would rename the Free\_Space\_Loss\_Calculator\_001.pdf to

L1\_Free\_Space\_Loss\_Calculator\_001.pdf and submit a second file named

L2\_Free\_Space\_Loss\_Calculator\_001.pdf showing the lessor transmit power and lessor free space loss for L2.

Does that make sense or would you prefer/should I do it differently?

Phillip