To
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Experimental License Branch
Washington DC

Subject: STA File # 0024-EX-ST-2001, Confirmation Number: EL10766
Reference: OET correspondence, February 05 2001, 3:30 PM

Mr. Dave Young

I made changes to the application as per our conversation and e-mail.

1. I modified the frequency to read 1930-1990 MHz (same as our earlier authorization (0447-Ex-ST-2000).
2. I modified UMTS frequency to 2150 to 2160 MHZ and the maximum transmit power to +10 dBm.

The tests will be done inside the laboratory. The laboratory is big enough to attenuate the signal by more than 50 dB. In addition the signal (+10 dBm) is spread in a 3.84 MHz BW and the following calculations show that the signal will be attenuated more than 50 dB in the lab.

Supporting calculations:

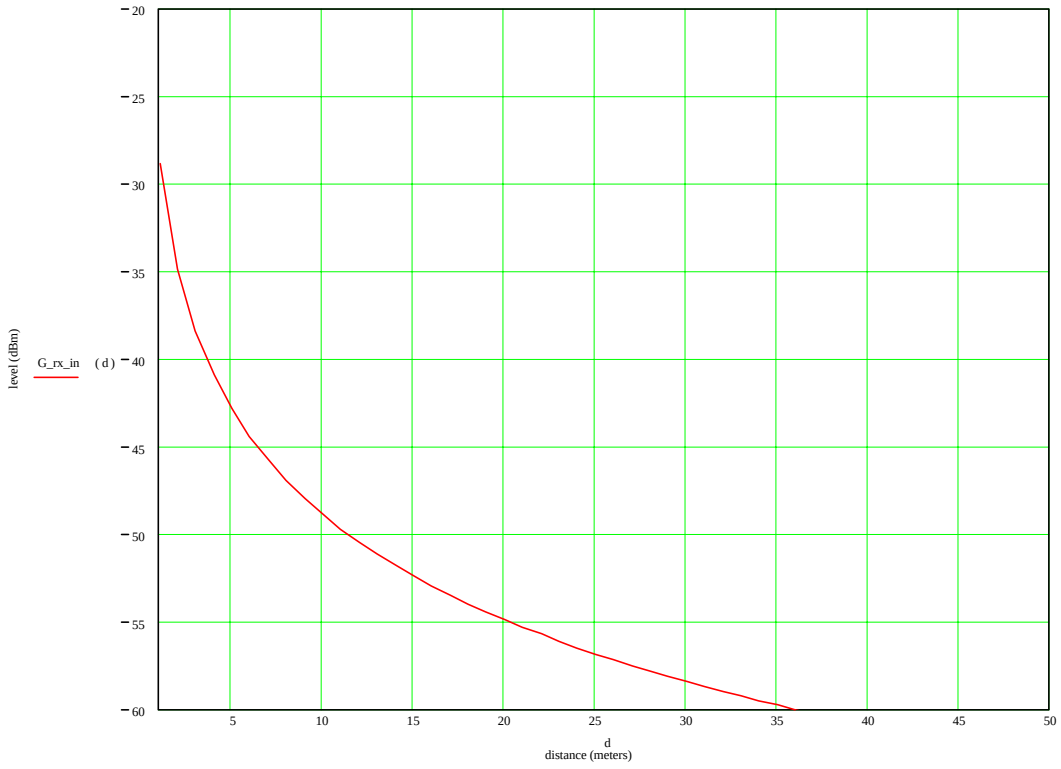
$f := 2.1 \cdot 10^{9}$ $\lambda := \frac{3 \cdot 10^{8}}{f}$ $\lambda = 0.143$

$G\_ant\_rx := 0$ $G\_ant\_tx := 0$ <== ant gains $G\_tx := 10$ <== + 10 dBm max output levell

$g\_ant\_rx := 10^{\frac{G\_ant\_rx}{10}}$ $g\_ant\_tx := 10^{\frac{G\_ant\_tx}{10}}$ $g\_tx := 10^{\frac{G\_tx}{10}} \cdot 10^{-3}$

$d := 1, 2 .. 100$ <== distance

$g\_rx\_in(d) := \frac{g\_tx \cdot g\_ant\_tx \cdot g\_ant\_rx \cdot \lambda^{2}}{(4 \cdot \pi)^{2} \cdot d^{2}}$ $G\_rx\_in(d) := 10 \cdot \log\left(\frac{g\_rx\_in(d)}{10^{-3}}\right)$



Please contact me if you have additional questions or comments.

Thanks very much.

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