Exhibit C

Bandwidth Justification

Our main objective is to determine coverage and performance statistics for various adaptive array configurations. Coverage implies that the measurement of each small area in the building includes enough samples to completely capture the small-scale multipath fading description. To capture these performance statistics, we collect a population of matrix or vector channel responses, sampled over a range of frequencies, separated by 20 MHz, and sampled for small spatial displacements (on the order of a wavelength) in the transmit and receive arrays. The 20 MHz separation in sample frequencies ensures that the sampled channel gains are statistically uncorrelated, which is necessary for a good statistical characterization. Our channel sounding system has a maximum bandwidth of 500 MHz, therefore we can get 25 samples in the frequency domain. We get our spatial samples by moving a single transmit antenna to N points in space and similarly by moving the receive antenna to M points in space. For example, if we are modeling a 4-element uniform linear transmitter array, and we sample a 5X4 rectangle of 20 sample points, then we have 8 samples of the 4X1 array. If we take 4 samples in space at the receiver to model a single-antenna receiver, then we will have a total of 8X4X25=800 uncorrelated flat-fading vector channel responses for the 4X1 multiple-input-single-output (MISO) link. 800 is barely an adequate sample size to get a probability distribution function (PDF) of the channel performance statistic. We cannot expand the number of spatial samples much because the channel would not be static long enough to take the measurement. Therefore, the frequency samples are extremely important to us, to create a large enough sample size.