

Figure 5-4 shows a signal strength map for a simple square room with a standard metal desk and an open doorway. Figure 5-4 is a static snapshot; the propagation patterns change dynamically as STAs and objects in the environment move. In Figure 5-4 the dark (solid) blocks in the lower left are a metal desk and there is a doorway at the top right of the figure. The figure indicates relative differences in field strength with different intensities and indicates the variability of field strength even in a static environment. The difference between the greatest signal strength and the least signal strength in Figure 5-4 is 50 dB.

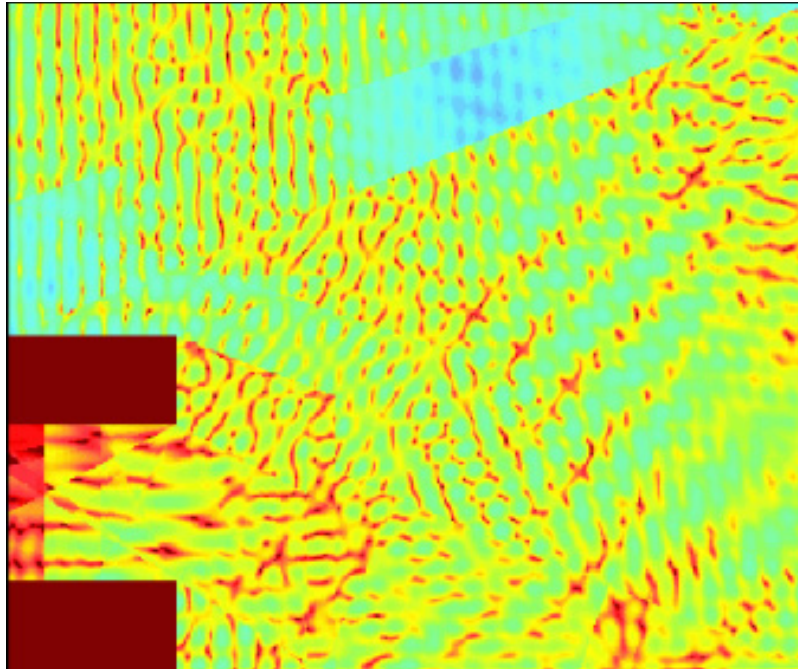


Figure 5-4—A representative signal intensity map

While the architecture diagrams show sharp boundaries for BSSs, this is an artifact of the pictorial representation, not a physical reality. Because dynamic three-dimensional field strength pictures are difficult to draw, well-defined shapes are used by IEEE 802.11 architectural diagrams to represent the coverage of a BSS.

Further description difficulties arise when attempting to describe collocated coverage areas. Consider Figure 5-5, in which STA 6 could belong to BSS 2 or BSS 3.

While the concept of sets of STAs is correct, it is often convenient to talk about areas. For many topics the concept of area is sufficient. *Volume* is a more precise term than area, though still not technically correct. For historical reasons and convenience, this standard uses the common term *area*.