

TABLE 3-4

Measured Gain, Cost Summary for UHF Indoor Antennas
(Gain in dB Referenced to a Half Wave Dipole)

<u>Antenna Type</u>	<u>Range</u>	<u>Most Likely</u>	<u>Average</u>	<u>Average Cost</u>	<u>Number of Measured Antennas</u>
Single Bowtie ⁵	-1.5 to 2.3	-	0.6	2.00	1
Loop ⁵	-4.0 to 3.3	-2.0 to 2.7	0.4	1.00	3
2-Bay Bowtie with screen	-4.0 to 8.5	-	4.7	7.00	2
Monopole	-1.9 to 9.5	-	-5.5	3.00	1
Top of the Line with VHF rabbit ears UHF loops and phasing switch	-18.5 to 1.0	-10.2 to 1.15	-5.65	22.00	7

NOTES:

1. Data compiled from GIT (Free & Smith, 1978; Free et al., 1980) and ITS (FitzGerrell, 1979).
2. Cost data from manufacturers.
3. "Most Likely" is computed from sum and difference of arithmetic mean and sample standard deviation. Those antennas that do not have an entry in this column had an insufficient number of measurements to make these values meaningful.
4. Data presented includes measurements on frequencies between channels 14 and 64 inclusive.
5. The single bowtie and loop antennas are the types most often included with television receivers.

perceived snow in television pictures is examined (Felker, 1980). That report suggests that relatively inexpensive television preamplifiers may improve the quality for some systems using indoor antennas. Preamplifiers will be more closely examined in a later section of this chapter, also.

A unique advantage UHF receiving antennas have that VHF antennas do not, is the relative compactness of their size. Many of the outdoor antennas evaluated by GIT and ITS are small enough to be utilized indoors. Although their physical appearance may not be perfect for all decor, their small size may make them suitable for mounting inside closets or attics. Their high gain characteristics, relative to the indoor antenna models examined, combined with increased directional characteristics, may be exactly what the viewer desires in an indoor antenna system. In addition, the cost of many UHF-only outdoor antennas are not much greater than some of the "top of the line" indoor antennas, while their gain characteristics are much greater.

Transmission Lines

Once the television signal is intercepted by the receiving antenna, it must be delivered to the receiver. This task is performed by a cable called a "transmission line." Television receiving systems generally use one of two types of transmission lines: unbalanced or balanced. While these two types of lines each perform the task of delivering the signal to the receiver, they are physically dissimilar and possess different electrical properties.

Unbalanced transmission line (generally referred to as coaxial cable or coax) consists of one conductor surrounded by another with the two separated by a non-conducting medium. The entire cable is encapsulated by a plastic or rubber compound.

CERTIFICATE OF SERVICE

I, Tammi A. Foxwell, a secretary at the law firm of Dow, Lohnes & Albertson, do hereby certify that on this 18th day of February, 1997, I caused copies of the foregoing "Comments of The Network Affiliated Stations Alliance" to be served via first-class U.S. mail, postage prepaid, to the following:

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