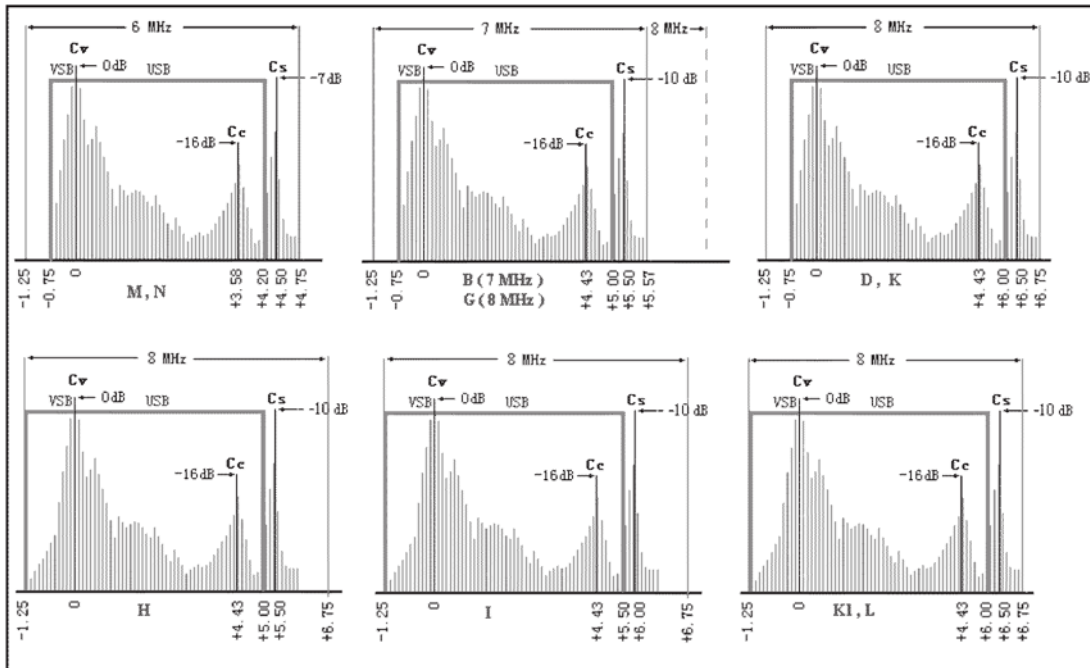


CATV Standards & Systems

2

There are many different TV standards in use around the world defining in detail the base band and RF structure of the signal. But for the broadband engineer and technician the key parameters are the bandwidth, the shape of the lower (vestigial) and upper sidebands, and the frequency and amplitude relationships of the vision (luminance), color (chrominance) and audio sub carriers. In terms of these parameters, the vast majority of TV transmissions fall into just six categories, which are illustrated in the figure below.



Note that the figure on the previous page does not define such parameters as field frequency, line frequency, or color encoding technique, which distinguish the NTSC, PAL, and SECAM systems. The letters B, G, M, etc. are referred to as TV standards, and the encoding techniques (NTSC, PAL, etc.) are referred to as systems. (Refer to the figure below.)

Standard	Can Be Used With These Systems
B	PAL, SECAM
D	SECAM
G	PAL, SECAM
H	PAL, SECAM
I	PAL
K	SECAM
K1	SECAM
L	SECAM
M	NTSC, PAL
N	PAL

When measuring or specifying CCN, it is important to define the noise bandwidth in which the noise is specified. The bandwidths for various TV systems are as shown in the following table.

System	I	B, G	K1, L	D, K	M, N
Video Bandwidth* (*including lower sideband)	6.75	5.75	7.25	6.75	4.95
Noise Bandwidth	5.08	4.75	5.58	5.75	4.00