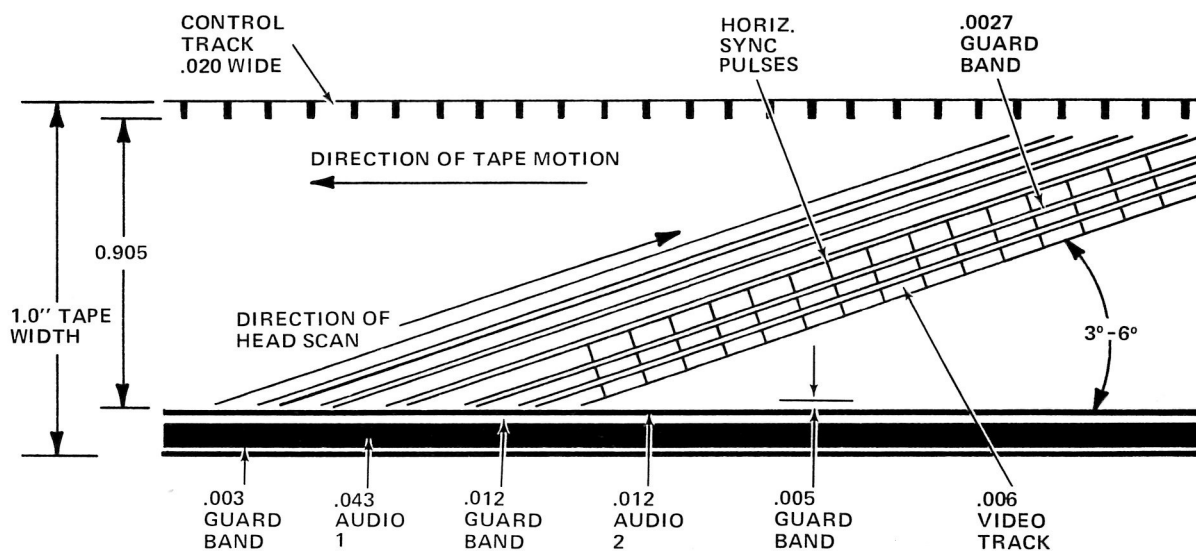




AMPEX

1" Type-A Video Format Information

Type-A is a non-segmented, single-head format recording system with one field per scan, thus requiring a drum speed of 3,600 rpm. The scan length for NTSC is 16.6 inches with a drum diameter of 5.28 inches.



The diagram above is the Ampex specification for NTSC. The tape speed of 9.6 IPS yields a center-to-center video track spacing of 0.0087 inches.

While the track layout remained the same, there were several changes through the years in the signals that were recorded on the tape. The original system was intended for B&W only and after the introduction of later systems, became known as Low-Band (Ampex used the terms "Band" and "Carrier" interchangeably in machines and manuals). Next came High-Band which was intended for color, and finally Very-High-Band which was the last standard and used the same frequencies as Hi-Band Quad and Type-C. All were directly recorded, full bandwidth systems. The High-Band mode originally included a Pilot Tone added for heterodyne color recovery. However, that function was not employed in later models. Carrier frequencies were as follows:

Low-Band 3.5 to 5.5 MHz Hi-Band 5.5 to 6.6 MHz Very-High-Band 7.06 to 10.0 MHz

Another change through the years involved the control track signal. The original frequency was 60Hz. It was later changed to 30 Hz, and beginning with the VPR-7900 series, 12.5Hz was used for PAL.

Also beginning with the VPR-7900, the head crossover dropout was moved from the active video area into the vertical blanking interval.