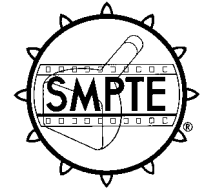


Three-Channel Parallel Analog Component High-Definition Video Interface



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1 Scope

1.1 This practice defines the physical characteristics of an interface using three parallel channels for the interconnection of equipment operating with analog component HDTV signals. For ANSI/SMPTE 240M, the signals carried across this interface have a scanning structure of 1125 lines, 60.00 fields per second, 16:9 aspect ratio, and 2:1 interlace. This interface is also appropriate for HDTV signals having other scanning structures.

1.2 The intended uses of this interface are:

- to interconnect the elements of parallel analog HDTV video subsystems which use the same component sets within larger component islands or plants. Component HDTV editing and post-production suites are examples of such subsystems;
- to interconnect equipment into complete, self-contained HDTV analog component systems of relatively small size.

1.3 This practice applies to signals carried on the connectors described in 7.1 and may not apply to component signals carried on other types of connectors. The practice also defines the preferred component video signals across the interface, including their waveform structure and levels.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this practice. At the time of publication, the edition

indicated was valid. All standards are subject to revision, and parties to agreements based on this practice are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below.

ANSI/SMPTE 240M-1995, Television — Signal Parameters — 1125-Line High-Definition Production Systems

3 Video signals

The signals carried across this interface may be those of either of two signal sets: a color set comprising E_R' , E_G' , and E_B' signals, or a color-difference set comprising E_Y' , E_{PB}' , and E_{PR}' signals. Definitions of the signal sets may be found in ANSI/SMPTE 240M and other relevant standards. Figures 1 and 2 illustrate the waveform structure, synchronizing signal, and video levels for these two component sets.

4 Impedance

Equipment using this interface shall have nominal 75-ohm input and output impedances.

5 Clamping and signal dc content

The clamp period shown in figures 1 and 2 may be used as a dc level clamp reference point. If an ac coupled system is employed, the average dc level of any signal specified herein shall not exceed ± 1 volt.

6 Component timing

The three component video signals (E_G' , E_B' , E_R') or (E_Y' , E_{PB}' , E_{PR}') should be simultaneous in real time.

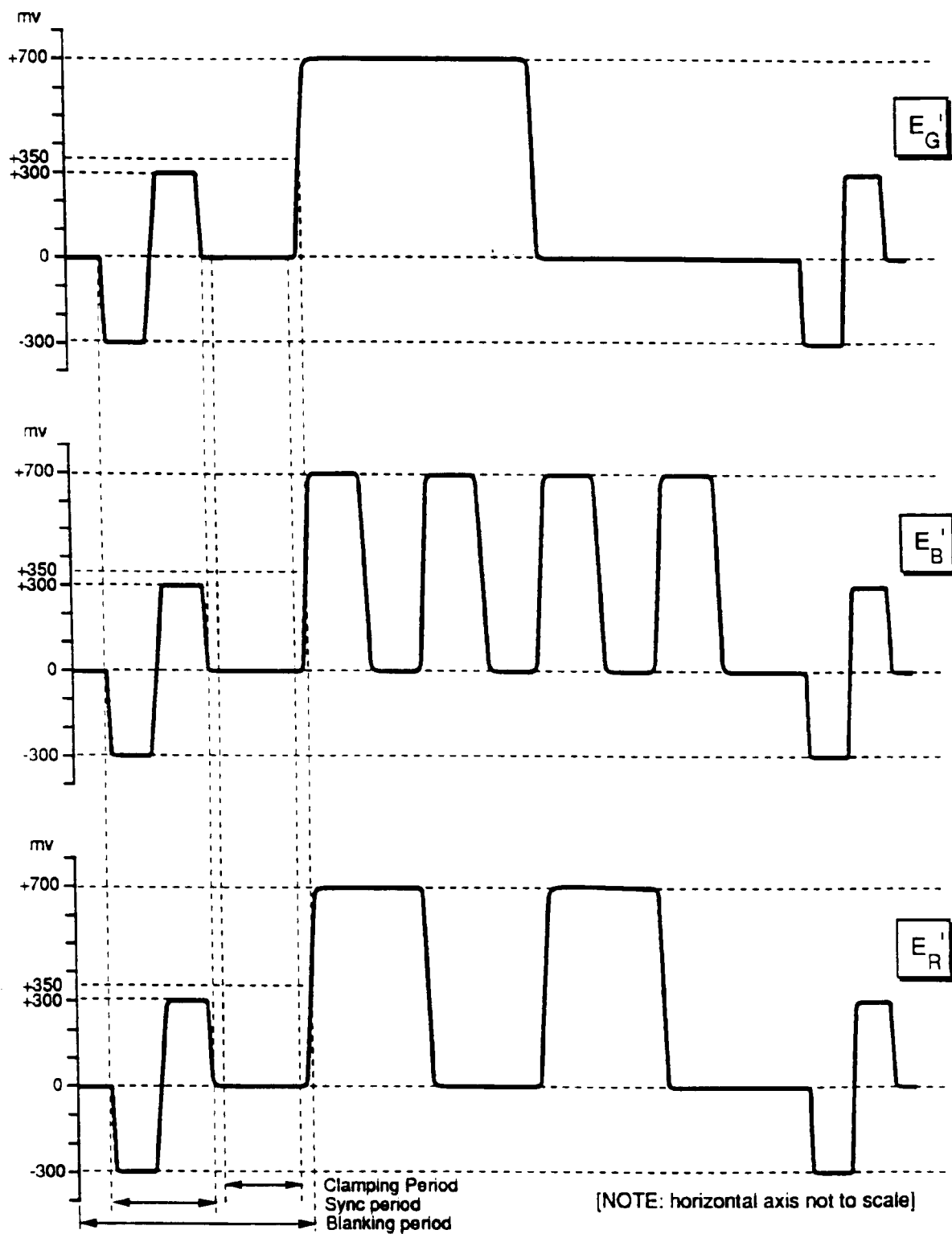


Figure 1 – Waveform structure and levels of E'_G , E'_B , E'_R signals for 100% color bars