TELEVISION SYNCHRONIZING WAVEFORM FOR COLOR TRANSMISSION

**NOTES**

1. \( H \) = Time from start of one line to start of next line.
2. \( V \) = Time from start of one field to start of next field.
3. Leading and trailing edges of vertical blanking should be complete in less than 0.1\( H \).
4. Leading and trailing edges of horizontal blanking must be steep enough to preserve minimum and maximum values of \( x + y \) and \( x \) under all conditions of picture content.
5. Dimensions marked with asterisk indicate that tolerances given are permitted only for long-time variations and not for successive cycles.
6. Equalizing pulse duration must be between 0.45 and 0.55 of the duration of the horizontal synchronizing pulse.
7. Color burst follows each horizontal pulse, but is omitted following the equalizing pulses and during the broad horizontal pulses.
8. It is recommended that color bursts be omitted during monochrome transmission.
9. The burst frequency shall be 3.57954 MHz. The tolerance on the frequency shall be ± 10 kHz with a maximum rate of change of frequency not to exceed ±1/10 kHz per second.
10. The horizontal scanning frequency shall be 2/305 times the burst frequency.
11. The dimensions specified for the burst determine the times of starting and stopping the burst, but not its phase. The color burst consists of amplitude modulation of a continuous sine wave.
12. Dimensions "P" represents the peak excursion of the luminance signal from blanking level, but does not include the chrominance signal. Dimensions "S" is the sync amplitude above blanking level. Dimension "C" is the peak carrier amplitude.
13. Start of Field 1 is defined by a whole line between first equalizing pulse and preceding \( H \) sync pulses.
14. Start of Field 2 is defined by a half line between first equalizing pulse and preceding \( H \) sync pulses.
15. Field 1 line numbers start with first equalizing pulse in Field 1.
16. Field 2 line numbers start with second equalizing pulse in Field 2.
17. Refer to text for further explanations and tolerances.
18. During color transmission, the chrominance component of the picture signal may penetrate the synchronizing region and the color burst penetrates the picture region.
19. Maximum horizontal and vertical blanking intervalare recommended values only.