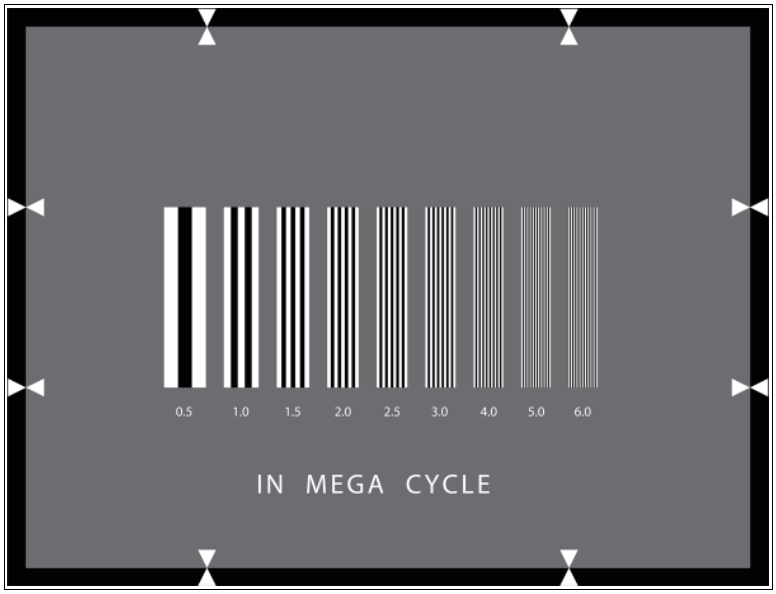
MEGA CYCLE CHART

TRANSPARENCY



The test chart is designed for measuring amplitude frequency response of the luminance channel, i.e. the amplitude of the output signal relative to a reference level as a function of frequency.

The multiburst frequencies of the chart are: 0.5, 1.0, 1.5, 2.0, 2.5 ,3, 4, 5, 6 MHz. The chart and equipment shall be arranged as shown in fig.1.

Measuring equipment: Video oscilloscope or preferably video oscilloscope with memory.

The conditions of shooting shall be as follows:

The light density of the transparency version shall be 636cd/m² +/- 5% (2000lx) at peak white. The correlated color temperature of the light source shall be 3200 K +/- 100 K. The test chart shall be shot by the camera so that the frame is limited by the arrows exactly coincides with the edges of the picture displayed on the monitor in underscan mode. The focus control shall be in auto or manual mode and shall be in best focus. The iris control shall be in auto or manual mode.

Gain control shall be set to “0 dB”.
Optical filter if any shall be set to “open” position.

The output signal shall be measured by an oscilloscope. The reference level V_{ref} shall be the level corresponding to the burst 0.5 MHz. The peak-to-peak amplitude V_n of each frequency burst of the output signal shall be related to the reference level V_{ref} to obtain the amplitude frequency response A.

$$A = 20\lg (Vn(p\text{-}p)) / Vref$$

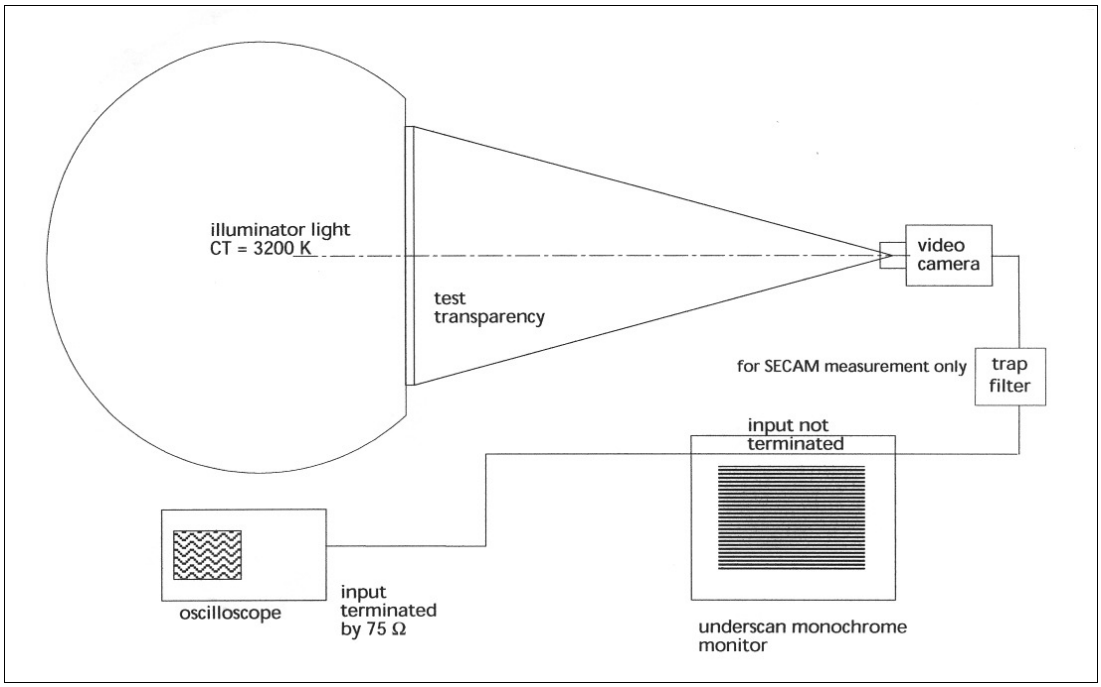

illuminator light
CT = 3200 K
test
transparency
video
camera
for SECAM measurement only
trap
filter
input not
terminated
oscilloscope
input
terminated
by 75 Ω
underscan monochrome
monitor

fig. 1