

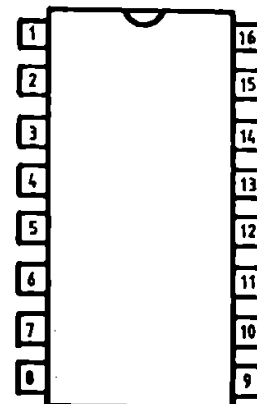
**TCA 660  
CONTRAST, SATURATION AND BRIGHTNESS CONTROL CIRCUIT  
FOR COLOR DIFFERENCE AND LUMINANCE SIGNALS**

The TCA 660 is an integrated circuit performing the control functions of contrast, saturation and brightness in color TV sets. The contrast is controlled by three tracking electronic potentiometers, one for the luminance signal ( Y ), and the two others for the ( R-Y ) and ( B-Y ) color difference signals. In addition, two tracking electronic potentiometers provide the saturation control of the color difference signals ( R-Y ) and ( B-Y ). The brightness is controlled by varying the black level of the luminance signal at the output. An inverting amplifier is also included for external matrixing of the ( G-Y ) signal.

**Features**

- Operating temperature ..... -25 ... +70 oC
- Storage temperature ..... -25 ... +125 oC
- Supply voltage ..... max. 13.2 V
- Supply current ..... typ. 25 mA
- Black level variation with brightness setting 2.2 ... 5.2 V
- Bandwidth of luminance signal at 6 MHz ..... min. -3 dB
- ( R-Y ) output signal ..... typ. 1.25 Vpp
- ( B-Y ) output signal ..... typ. 1.60 Vpp
- Luminance ( Y ) output signal ..... typ. 3 Vpp
- Gain of the ( G-Y ) amplifier ..... -1 ... 0.5 dB

- | 1. Luminance output
- | 2. Clamping pulse input
- | 3. Blanking pulse input
- | 4. GND
- | 5. Contrast control
- | 6. Saturation control
- | 7. -( B-Y ) output
- | 8. -( B-Y ) input
- | 9. -( R-Y ) input
- | 10. -( R-Y ) output
- | 11. -( G-Y ) input
- | 12. -( G-Y ) output
- | 13. V+
- | 14. Brightness control
- | 15. Storage capacitor
- | 16. Luminance input



**PACKAGE MP-117 / TOP VIEW**