

# RM54B

## TELEVISION INSTRUMENTS

### VISION-SOUND IF MODULATOR



#### General

The RM54B is an IF modulator for video and sound signals of all seven television broadcast systems. When combined with the RC51C, the RM54B can generate RF signals for any of these seven television systems, making it an ideal signal source for use in manufacturing plants of television receiver sets, VCRs, and cable TV equipment, as well as in designing and testing a variety of TV-related equipment.

#### Features

- IF modulation signals can be switch selected and generated for systems B/G, D/K, M, I, and L.
- Video and sound signals are output separately, and their P/S ratios are variable in 1 dB increments between 1:1 and 1: 800.
- A surface acoustic wave filter is employed for the vestigial sideband filter of each TV system, providing sufficient VSBF and group delay characteristics, meeting the requirements of recommended television broadcast systems.
- Monitoring connectors are equipped to accommodate the output of a signal which is quench-pulse inserted for accurate modulation degree supervision.
- An output detected by the FM linearity detector is available from the sound monitoring connector.

#### Specifications

- Television systems  
B/G, D/K, M, I, and L. (selectable)
- Input signal
- Video inputs  
Number of inputs 3 (NTSC/PAL/SECAM, 1 each)  
Input impedance 75  $\Omega$  (bridge connection is selectable)  
Input level 0.5 to 1.5 Vp-p
- Sound inputs  
Input impedance High-Impedance  
Input level 0 dBs  $\pm$  6 dB/10 k $\Omega$   
Frequency range 40 Hz to 100 kHz

- Output signal
  - Output impedance 50  $\Omega$ , balanced
  - VSWR  $\leq$  1.3
  - Video carrier frequency  
38.9 MHz
  - Sound carrier frequency  
32.4 MHz (D/K, L)  
33.4 MHz (B/G)  
32.9 MHz (I)  
34.4 MHz (M)
  - Output level 111 dB  $\mu$ V, 50  $\Omega$
  - Sound level adjustment  
Max. 29 dB, in 1 dB increments
- Video Characteristics
  - S/N ratio  $\geq$  -58 dB rms (except synchronization noise)  
 $\leq$  2%,  $\leq$  2°
  - DG/DP  $K \geq$  1.2 (compared std. caves)
  - Sin<sup>2</sup>
  - Group delay equalization  
 $\pm$  25 ns against standard curve
- Sound characteristics
  - Modulation method  
FM, AM
  - Frequency range 40 Hz to 100 kHz Pre-OFF
  - Pre-emphasis 75  $\mu$ s (M)  
50  $\mu$ s (B/G, D/K, I)
  - Modulation distortion  
1% (except system L); 3% (L)
- Internal oscillator 400 Hz, 1, 5, 10 kHz (selectable)
- Optional functions
  - Remote control (GP-IB function)  
System selection D/K, I, B/G, M, L  
Modulation Video: 3-point preset  
Sound: 3-point preset  
Video input 3ch selectable input  
Sound input Internal/External selectable  
Internal oscillator Internal oscillator 400 Hz, 1, 5, 10 kHz (selectable)

## Specifications

## ● General specifications

Power supply AC 100, 120, 220, 240 V  $\pm$  10%,  
50/60 Hz, Approx. 110 VA

Power consumption

Dimensions 426 (W) x 149 (H) x 510 (D) mm

Weight Approx. 17 kg

# Discontinued

