

RC51C

TELEVISION INSTRUMENTS

SYNTHESIZED FREQUENCY CONVERTER



General

When combined with the RM54B vision-sound IF modulator, the RC51C synthesized frequency converter converts output signals from the IF modulator into television RF frequencies. The RC51C is an ideal signal source for manufacturing plants of television sets and CATV equipment. It is also ideal for the design and testing of a variety of TV-related components.

Features

- Output from the IF modulator is converted into a frequency of approximately 370 MHz and can be mixed with a synthesized local signal, generating a frequency in the range of 25 to 999.99 MHz.
- The synthesized local signal is composed of a standard signal generating section and two phase-locking loops.
- Any frequency in the 25 to 999.99 MHz range can be generated in 10 kHz increments.

Specifications

- Input signals
 - Vision IF signal
 - Number of inputs 1
 - Connector type BNC-R, 50 Ω, unbalanced
 - Input frequency 38.9 MHz
 - Input level 111 dB/μV
 - Sound IF signal
 - Number of inputs 1
 - Connector type BNC-R, 50 Ω, unbalanced
 - Input frequency
 - System M 34.4 MHz
 - System B/G 33.4 MHz
 - System I 32.9 MHz
 - System D/K, L 32.4 MHz
 - Input level P/S ratio depends on the TV system.

- RF output signals
 - Connector type N-R, 50 Ω, unbalanced
 - Output frequency 25 to 999.99 MHz (in 10 kHz increments)
 - Frequency accuracy $\pm 2 \times 10^{-6} \pm 100$ Hz
 - Output level 4 to 110 dB μV (in 1 dB μV increments)
 - Frequency response ± 1 dB at 25 to 999.99 MHz
 ± 0.5 dB at $F_v \pm 6.5$ MHz
 - Spurious ≤ -60 dB, in band (without $F_v \pm 50$ kHz)
 ≤ -50 dB, out band (expect 3rd spurious of F_v and F_s)
 - DG/DP 1%, 1°
 - Interface GP-IB
- General specifications
 - Power supply AC 100, 120, 220, 240 V $\pm 10\%$, 50/60 Hz
 - Power consumption Approx. 150 VA
 - Operating temperature range 0°C to 40°C
 - Relative humidity 25% to 90% RH (non-dewing)
 - Dimensions 426 (W) x 149 (H) x 510 (D) mm
 - Weight Approx. 20 kg

Example of system configuration

