

TA05C

TELEVISION INSTRUMENTS

UK STEREO ENCODER



General

The TA05C is a TV sound multiplex encoder conforming to the UK or China television systems, in which the second carrier is added to the television modulation system based on CCIR, ...etc. standards. Sound and data signals of two channels are digitized, and the resulting digital signal is modulated to a 6.552 MHz sound carrier by the four-phase DPSK and output.

One of five sound modes can be selected: Stereo, Monaural, Data, Data with monaural sound, or Error test. Since the TA05C's digital signal processing technique outputs a high-quality sound MPX, this unit is ideal for both the development and production of demodulating devices incorporating UK or China sound MPX signals, as well as for the development, production, and inspection of television receiver sets and VCRs conforming to the UK's or Chinese sound MPX TV systems.

Features

- Combined with the TA05CU UK stereo adaptor, the TA05C can generate a 5.85 MHz sound carrier which is the TV sound MPX signal of the Scandinavian television system.
- Error rate measuring instrument is connected to the error input connector, the TA05C is able to measure the error rate of transmission circuits.
- The oscillation level of the built-in 400 Hz and 1 kHz oscillators is variable in eight settings: -30, -24, -18, -12, -6, 0, +6, and +12 dBm.
- Mute function facilitates measurement of sound separation performance between the left and right channels.
- Data mode function is included, enabling external data (except sound signals), input through the 14 bits data input connector on the rear panel, to be digitally encoded.
- External sound input connector can be set for 600 Ω (balanced) or 10 k Ω (unbalanced).
- A GP-IB interface is provided, permitting remote operating of all control functions of the TA05C from the remote controller or from other external equipment.

Specifications

- Sound inputs
 - Input level 0 dBm (at 600 Ω)
 - Connector type and input impedance (selectable)
 - Cannon connector, 600 Ω , balanced
 - BNC, 10 k Ω , unbalanced
 - Number of inputs 2 (L/R for 1 each)
 - Frequency range 30 Hz to 15 kHz
 - Input level Max. +12 dBm (at 600 Ω)
- Built-in oscillator
 - Output frequency 1 kHz, 400 Hz by ROM
 - Output amplitude +12, +6, 0, -6, -12, -18, -24, and -30 dBm
- Encoder outputs
 - Output level 100 dB/ μ V
 - Sound frequency response
 - < ± 0.5 dB, 30 Hz to 15 kHz
 - Connector type BNC, 50 Ω
 - Carrier frequency 6.552 MHz, $\pm 1 \times 10^{-6}$ (transmission bit rate $\times 9$)
 - Carrier modulation method 4-phase DPSK, 2-bit pair
 - Transmission bit rate 728 kbits/sec ($\pm 1 \times 10^{-6}$)
- Clock outputs
 - Clock frequency 728 kHz
 - Output level TTL
- Coding characteristics (Conforming with UK standards)
 - Sound coding characteristics
 - Sampling frequency 32 kHz ($\pm 1 \times 10^{-6}$)
 - Initial resolution 14 bits/sample
 - Compression/extension characteristics
 - Compressing is made approx. instant, from a block of 32 samples (1 ms) to 10 bits/sample.
 - Compression sample coding Two's complement (10 bits)
 - Pre-emphasis Based on J. 17 of CCITT reports (6.5 dB attenuation at 800 Hz)
 - Sampling time Same as L and R (in Stereo mode)

Specifications

- Base-band frame construction
 - Frame sync signal (FAW)
 - 8 kbits/sec
 - Control information (C)
 - 5 kbits/sec
 - Additional data (AD)
 - 11 kbits/sec
 - Sound & data parity (An, Bn)
 - 704 kbits/sec
- Error Detection
 - Even parity check By adding a parity (P) for the 10 bits data (X0 to X9)
- Scramble
 - Generative polynomial
 - $X^9 + X^4 + 1$
 - Initializing word 1 1 1 1 1 1 1 1 1 1
- General specifications
 - Power supply AC 100, 120, 220, 240 V \pm 10%,
50/60 Hz
 - Power consumption
 - Approx. 110 VA
 - Operating temperature range
 - 0°C to 40°C
 - Relative humidity 25% to 90% RH (non-dewing)
 - Dimensions 426 (W) x 149 (H) x 460 (D) mm
 - Weight Approx. 16 kg

Discontinued

