

# TA35D

## TELEVISION INSTRUMENTS

### MULTI CHANNEL TV SOUND SIGNAL GENERATOR (ZENITH SYSTEM)



#### General

The TA35D generates MCS TV sound signals based on the Zenith-dbx system. The 1st sub-channel (L-R) and the 2nd sub-channel (SAP) each have their own built-in dbx noise reduction circuit, and the main channel (L+R) contains a filter in order to compensate for delays caused by the noise reduction circuits. The S/N ratio is thus improved and deterioration of stereo signal separation is prevented. Though all signals are output as composite signals, one or any combination of Main (L+R), L-R, SAP, PRO and Pilot signals can be extracted by using the switches on the front panel or via remote control.

#### Features

- Frequently-used single tone, multi tone, output signal and Pilot signal functions are selected through easy-to-operate feather touch buttons, speeding up the measuring process.
- These functions can also be operated by remote control.
- The TA35D's last-function memory feature stores the most recent operation settings into memory when the unit is turned off.
- A built-in FM detector monitors detection outputs for SAP and PRO signals.

#### Specifications

- Input signals
  - Main/L+R channel
    - Connector type BNC, 600  $\Omega$   $\pm$  5%, unbalanced
    - Input level 0 dBm
    - Pre-emphasis 75  $\mu$ s, ON/OFF selectable
    - Frequency response
      - $\pm$ 0.5 dB, 50 Hz to 12 kHz
      - +0.5 dB, - 1.0 dB, 12 to 15 kHz
    - Distortion <0.03%, (at 30 kHz LPF ON)
    - S/N ratio >80 dB, (at 1 kHz, 0 dBm reference)
    - Phase compensation
      - ON/OFF selectable

- L-R channel
  - Modulation system AM (DSB-CS)
  - Subcarrier frequency 31.468 kHz (2 fH),  $\pm 1 \times 10^{-4}$
  - External sync Synchronized to fH
  - Frequency response
    - $\pm$ 0.5 dB, 50 Hz to 12 kHz
    - +0.5 to - 1.0 dB, 12 to 15 kHz
  - Distortion <0.1% (at NR-OFF)
  - S/N ratio >65 dB
  - Noise reduction dbx IN/OUT
- SAP channel
  - Connector type BNC, 600  $\Omega$   $\pm$  5%, unbalanced
  - Input level 0 dBm
  - Modulation system FM
  - Subcarrier frequency 78.67 kHz (5 fH)  $\pm$  5 Hz
  - Frequency deviation
    - Max. 10 kHz (100% modulation)
  - Modulation frequency range
    - 50 Hz to 10 kHz
  - Distortion
    - <0.5%, 50 Hz to 1 kHz
    - <(fm/2000)%, 1 kHz to 10 kHz
    - fm = frequency modulation
  - S/N ratio >60 dB
  - Noise reduction dbx IN/OUT selectable
- PRO channel
  - Connector type BNC, 600  $\Omega$   $\pm$  5%, unbalanced
  - Input level 0 dBm
  - Pre-emphasis 150  $\mu$ s, ON/OFF selectable
  - Modulation system FM
  - Subcarrier frequency 102.271 kHz (6.5 fH)  $\pm$  5 Hz
  - Frequency deviation
    - Max. 3 kHz
  - Modulated frequency range
    - 50 Hz to 3.4 kHz
  - Distortion
    - <2%, 50 Hz to 1 kHz
    - <5%, 1 to 3.4 kHz
  - S/N ratio >50 dB

Specifications

- Stereo separation NR out:  $\geq 40$  dB at 1 kHz, 100% modulation  
NR in :  $\geq 30$  dB at 1 kHz, 100% modulation
- Crosstalk
  - From stereo to SAP  $< -60$  dB
  - From SAP to stereo  $< -65$  dB
  - From PRO to stereo  $< -65$  dB
  - From PRO to SAP  $< -60$  dB

- General Specifications
  - Power supply AC 100, 120, 220, 240 V  $\pm 10\%$ , 50/60 Hz
  - Power consumption Approx. 45 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. 14 kg

- Output signals
- Composite signals
  - Connector type BNC, 75  $\Omega$ , unbalanced
  - Output levels
    - Main/L+R channel 1.0 Vp-p, 75  $\Omega$  termination ( $\Delta f$ : 25 kHz)
    - L-R channel 2.0 Vp-p, 75  $\Omega$  termination ( $\Delta f$ : 50 kHz)
    - SAP channel 0.6 Vp-p, 75  $\Omega$  termination ( $\Delta f$ : 15 kHz)
    - PRO channel 0.12 Vp-p, 75  $\Omega$  termination ( $\Delta f$ : 3 kHz)
    - Pilot signal 0.2 Vp-p, 75  $\Omega$  termination ( $\Delta f$ : 5 kHz)
  - Note:  $\Delta f$  is the max. frequency deviation in the main modulator
- Output attenuator 0 to 30 dB (variable in 10 dB increments or continuously)
- Pilot signal
  - Output frequency 15.734 kHz (fH)  $\pm 3$  Hz
- Built-in oscillator
  - Output frequency 100, 300 Hz, 1, 3, 8, 10 kHz  $\pm 2\%$  or less
  - Distortion  $< 0.03\%$
- External horizontal drive signal input (fH)
  - Input level 2 to 4 Vp-p
  - Input frequency 15.734 kHz (fH),  $\pm 10$  Hz
  - Input impedance High impedance
- Remote Control (option)
  - QB132B GP-IB interface
  - Negative logic, TTL level
  - SINGLE TONE / MULTI TONE / OUTPUT SIGNAL / PILOT SIGNAL

Discontinued

