#### ShibaSoku original natural image for picture evaluation

#### ■ 12 bits natural image for subjectivity evaluation

21 kinds of lineups of a natural image for subjectivity evaluation of 12 bits correspondence newly. (except PC format)



#### ■ It prepares for the natural image as well the TG35 series

The attachment software of TG45AX is able to convert TG35 format to TG45AX format of the natural image.



#### **General Specifications**

- $\hfill \Box$  Operating temperature range: 5 degrees C to 40 degrees C
- Power supply: AC90 to 130 V/180 to 264 V, 47 to 63 Hz
- □ Dimensions: 426 (W) x 199 (H) x 510 (D) mm
- Relative humidity: 30% to 90% RH (non-dewing)
- Power consumption: Less than 500 VA
- Weight: Approx. 20 kg
- □ Accessories: Power code (1 pc), 3P-2P conversion connector (1 pc), Operating manual (1 pc), and Image data conversion software (1 set)



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TG45AX.2.12

# TG45AX **Test Signal Generator CC35A3 SECAM output option** 7.7.7.7.7.7.7.7.7.

# ShibaSoku Co.,Ltd.

Measures infinite possibilities by accumulative experience through a half century.

### for video equipment or flat panel display

#### General

The TG45AX is a test signal generator conforming to NTSC, NTSC-4.43, PAL-M, PAL-M, PAL-M, PAL-60, 525p, 625p and HDTV 26 formats for TV monitors and the VESA all standards for PC display monitors.

The hardware designed to support up to a 400MHz dot clock frequency can flexibly support syncs to be added in the future, such as sync in PC displays where higher resolution has been increasingly pursued. Analog composite, component, drive signal, 15-pin D-sub and parallel digital signal output are provided as standard. Other digital signal outputs including HDMI (Ver.1.3, generates xvYCC and Deep color) and SD/HD-SDI are available as option. In addition to the rich array of built-in 12 bits test signals and optional natural still pictures, the TG45AX has abundant variable function, image composing function and scrolling function. These functions allow user to check the non-standard signals and pseudo moving signals etc.

#### Features

#### ■ Multi-format correspondence

SDTV: NTSC, NTSC4.43, PAL, PAL-M, PAL-N, PAL-60, SECAM (CC35A3 option), 525p and 625p

HDTV: Supports 26 formats including 720p, 1035i, 1080i, 1080p etc. (Conforms to BTA S-001, SMPTE 274M, PP211 and 206M)

VESA: The analog PC display signal output which was based on Ver. 1.0, Rev. 0.8

#### ■ Abundant output systems

Analog: Y/Pb/Pr, G/B/R, Y/C/VBS (selectable)

Analog PC display signal: 15-pin mini D-sub connector (female)

Parallel digital: G/B/R up to 12 bits, dot clock frequency from 10 to 100 MHz by a single rink, from 20 to 200 MHz by a dual link.

CLOCK output & USER PORT (trigger signal output) equipment

Drive signal: SYNC / BB, HD, VD, FP, C.FRAME

SECAM composite output: CC35A3 (option)

SD/HD-SDI: TG45AX001 (option)



CC35A3 SECAM output option

HDMI: TG45AX003 (option), conforms to HDMI Ver. 1.1/CEA-861B 34 formats

TG45BX003 (option), conforms to HDMI Ver. 1.3 (supports xvYCC and Deep color)

LVDS: TG45AX002 (option)

#### Test signals

Signal data of standard test signals is 12 bits. (Except for PC formats)

About 50 kinds of test signals are equipped for each format.

TFZP signal can be generated. Besides its parameter can be varied. It is useful for the evaluation of 3-dimensions signal process.

Natural still pictures and Monoscope pattern are available as option.

Picture data in BMP/TIF format can be generated. (It is necessary to convert BMP/TIF data into the TG45AX format with the attached editing software.)

Test patterns conforms to SAC (Standardization Administration of China)

Test patterns conforms to SJ/T11344 to 11348-2006 standards: TG45AX501 (option)

Test patterns conforms to GB17309.1-1998 standards: TG45AX502 (option)

#### Various parameters variable function

Level variable: Analog output of 0% to 200%, each output level etc.

Frequency variable: Line frequency, field frequency, line number and dot clock frequency etc.

Width and phase of sync signal, horizontal dot and vertical line for PC display etc.

BURST signal position width variable (only for SDTV)

Each signal option: WINDOW signal width, phase and level setting etc.

#### Control panel view

#### Plane signal selection

(Cross, Marker, Circle, Frame, Character, ···)

#### Function selection

(TV/VESA system, Output form, Level, Frequency, Phase, Action, ...)

Data entry (ten keys)

(Number, delete, esc keys)



#### Main signal selection

(Signal selection: Color bar, Cross, Window, Raster, Step, Pattern, ...)

Floating signal selection & image superimposing

#### lon dial

(Number input, function selections)

#### *IG45AX*

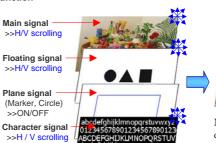
#### New functions

#### ☐ Image superimposing, Scrolling, Bounce function

Floating signal, plane signal and character signal can be superimposed on main signal. The floating signal can be provided by BMP/TIF data through a Image data conversion software. Independent scrolling of the main signal, floating signal and character signal is possible.

Main signal and floating signal have (Marker, Circle) son/OFF each 4 screens of picture memory, and switch each 4 pictures at the customized interval. (Marker, Circle) son/OFF Character signal sinterval.

High-speed switching is also available for the check of flat panel display response and so on.



# OXII.

Multiplexed 4 patterns can be stored and switching at high-speed.

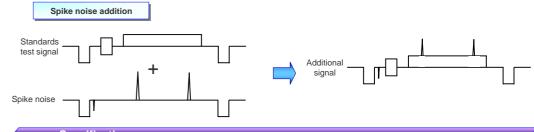
#### ☐ Generate user-owned BMP/TIF data from TG45AX

Picture data in BMP/TIF format can be converted into the TG45AX format with the attached editing software, and generated from the TG45AX.



#### ■ Spike noise & H/V Sag addition

H/V Sag and Spike noise can be added to the test signal, and the level of the noise can be set freely. These functions allow user to check the margin of the device.



#### Specifications

□ Analog video signal output: BNC connector/75 ohm unbalanced

HDTV 27 formats (conforms to BTA S-001, SMPTE 274M/RP211/296M/295M standards)

SDTV 8 formats (conforms to SMPTE 293M, ITU-R BT.1358/BT.470-4 or EIA RS-170A standards)

- □ PC display video signal output: G/B/R/HSYNC/VSYNC (conforms to VESA, Industry, CVT or CVT Red. Blanking standards)
- □ Parallel digital output: Shibasoku original standard

Parallel output 1 (single and dual, highest 8 bit) or 2 (dual, 8 highest-order bit): 68-pin half pitch connector (PCS-EX68SLFDT by Honda Tsushin Kogyo Co.,td.)

Parallel output 3 (4 low-order bit): 50-pin half pitch connector (PCS-EX50SLFDT by Honda Tsushin Kogyo Co., Ltd.)
Parallel output 4 (IUT-R BT.601-5 PART A data format): 25-pin D-sub connector (female)

- □ Drive signal output: BNC connector/75 ohm unbalanced
- □ USER PORT: 9-pin D-sub connector (female)
- Interface: RS232C (9-pin D-sub connector), USB (Type-A) and LAN (10/100 Base-T)

