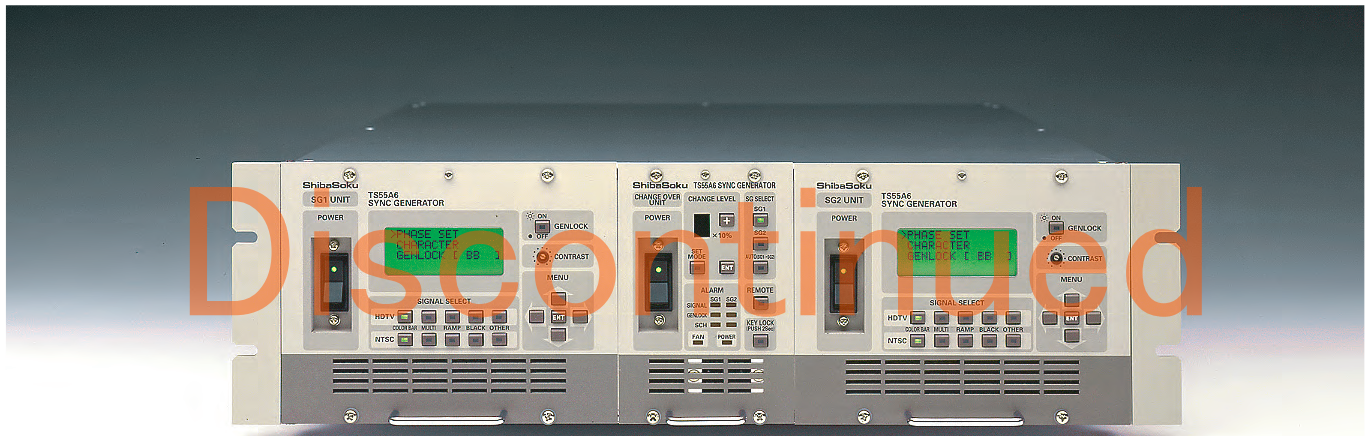


TS55A6

BROADCAST INSTRUMENTS

SYNC SIGNAL GENERATOR



General

The TS55A6 Sync Signal Generator generates NTSC and HDTV sync/test signals having a vertical sync frequency of 59.94 Hz synchronized to the input black burst (BB) and tri-level HDTV sync signals.

Equipped with two sync signal generators (SG1 for normal operation and SG2 for emergency operation), if any trouble occurring in the SG1 unit for normal operation is detected, the changeover function instantly selects the SG2 in place of SG1 if an alarm is detected in the SG1. Independent phase adjustment of each output signal (black burst signal or tri-level HDTV sync signal) is possible. In addition, subcarrier phase of black burst signal is also adjustable.

HD-SDI (1080I) is the standard test signal. D1 and D2 test signal generators can also be installed optionally. Two connectors are provided for each of the HD-SDI, D1 and D2 signal outputs (D1 and D2 are optional). Either HD-SDI, D1 or D2 signal can be selected independently.

Features

- Four sets of black burst (BB) and tri-level HDTV sync signals, which are synchronized to the input BB and tri-level HDTV sync signals, are output.
- Independent phase adjustment for each of BB and tri-level HDTV sync output signals is possible.
- HD-SDI (1080I) test signal generator is a standard equipment.
- D1 or D2 test signal generator is optionally installable.
- A pair of independent test signals are generated from SG1 and SG2. Signals are also output from them independently.
- Two sync signal generators are equipped: SG1 for normal operation and SG2 for emergency operation. When an alarm is detected in the SG1, SG2 is automatically selected (changeover function).
- Power cut-off, genlock release and other abnormalities are detected and the alarm signal is output.
- Signal selection, genlock ON/OFF and other operations are remotely controllable.
- Independent power unit is provided for each of the SG1, SG2 and changeover units. Moreover, the changeover unit is equipped with the duplicated power supplies.
- Characters can be superposed on the test signal output.

Configuration

The TS55A6 Sync Signal Generator is consisted of following units.

- Sync signal generator unit—SG1 for normal operation
The SG1 unit is consisted of a sync signal generator and a test signal generator, and is used for normal operation. Test signal generator is equipped with the HD-SDI unit and optional D1 or D2 unit.
- Sync signal generator unit—SG2 for emergency operation
The SG2 unit has the same configuration as the SG1 unit. The SG2 unit is used for emergency operation instead of the SG1 unit.
- Changeover unit
This unit is monitoring alarm generation. In the event when an abnormality is detected in the SG1 unit, it switches the signal generator to the SG2 unit for emergency operation.
- Optional units
D1 and D2 are optional units for the SG1 and SG2 test signal generator units. Either of them is installable. Both of them cannot be installed at the same time. Their model codes are as follows.

D1 unit: TS55A6211

D2 unit: TS55A6212

Specifications

- Changeover function
The changeover function monitors alarms (genlock and signal level) to be generated in the SG1 unit for normal-operation use. If an alarm is found in the SG1 unit, it automatically selects the SG2 for emergency-operation use (when SG selector has been set to the "AUTO" position). However, if an alarm is also detected in the SG2 unit, signal generator changeover is not made.
- Genlock function
It performs genlock (sync coupling) operation for BB or tri-level HDTV sync signal input. Genlock input selection is made independently for each of the SG1 and SG2 units by the corresponding control on the front panel.

Specifications

- Output drive signal phase adjusting function
Vertical, horizontal and subcarrier phases of a BB signal, and vertical and horizontal phases of a tri-level HDTV sync signal outputs, can be set independently. When the protect status is established, relative phases among outputs 1 to 4 are adjustable while maintaining the phase difference between BB and tri-level HDTV sync signals of each output.
- Alarm function
Alarms for signal level, power supply and other abnormalities are monitored at all times by the alarm function. When the alarm is detected, the SG2 unit is automatically selected for emergency operation in place of the SG1 unit. In addition, alarm signal is output and alarm contents are also displayed.
- Test signal output function
In addition to sync signals, the TS55A6 can also output test signals that are generated the HD-SDI (1080I), D1 or D2 unit (D1 and D2 are optional). Two signals, which are mutually independent, are output from these signal generators.
- Test signal output character superposing function
Characters can be superposed on a test signal.
- Remote function
Following controls can be made remotely.
 - (1) Independent selection of test signals from the SG1 and SG2 units is controllable. Test signals from the HD-SDI, D1 or D2 unit are also independently controllable.
 - (2) Manual selection of test signals from the SG1 and SG2 units, and automatic selection (changeover) of the SG2 in the event of alarm detection are controllable.
 - (3) Genlock ON/OFF of the SG1 and SG2 units is independently controllable.
- Remote enable function
Remote operation can be set to the "Enable" status by using the switch on the front panel. Under the "Enable" status, panel switches become inoperable.
- Keylock function
Panel switch operation can be locked by using the switch on the front panel.

- Duplicated power supply function
The changeover unit is powered by duplicated power sources. If the supplied power voltage lowered below 90%, the standby power source is automatically selected for uninterrupted operation.
- General specifications
 Power supply AC 100 to 220 V, 50/60Hz
 Power consumption Approx. 350VA
 Operating temperature range 5°C to 35°C
 Non-operating temperature range -20°C to 65°C
 Relative humidity 0% to 85%RH (non-dewing)
 Rack type (Also installable on the millimeter rack by relacing the mounting metal fittings.)
 Dimensions 426(W) x 132(H) x 540(D) mm
 Rack type (Also installable on the millimeter rack by relacing the mounting metal fittings.)
 Weight Approx. 17kg
 Safety standards E M C : Conformance with FCC PART 15 SUB. PART B CLASS A.
 SAFETY : Conformance with UL1419 safety standards of the U.S.
 Accessories
 Operating Instructions manual x1
 Remote connector x1
 Alarm connector x1
 AC power cable x1
 3P-2P converter x1

