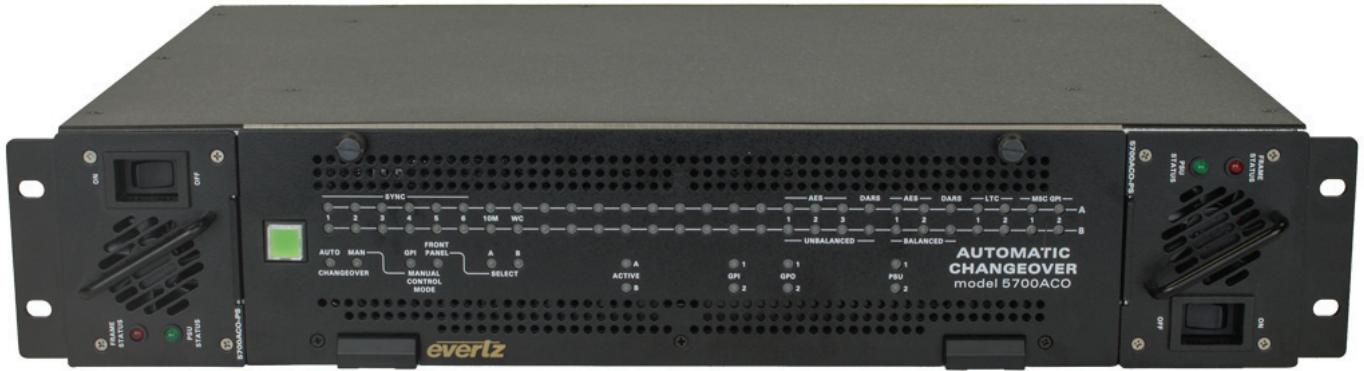


5700ACO

Automatic Changeover



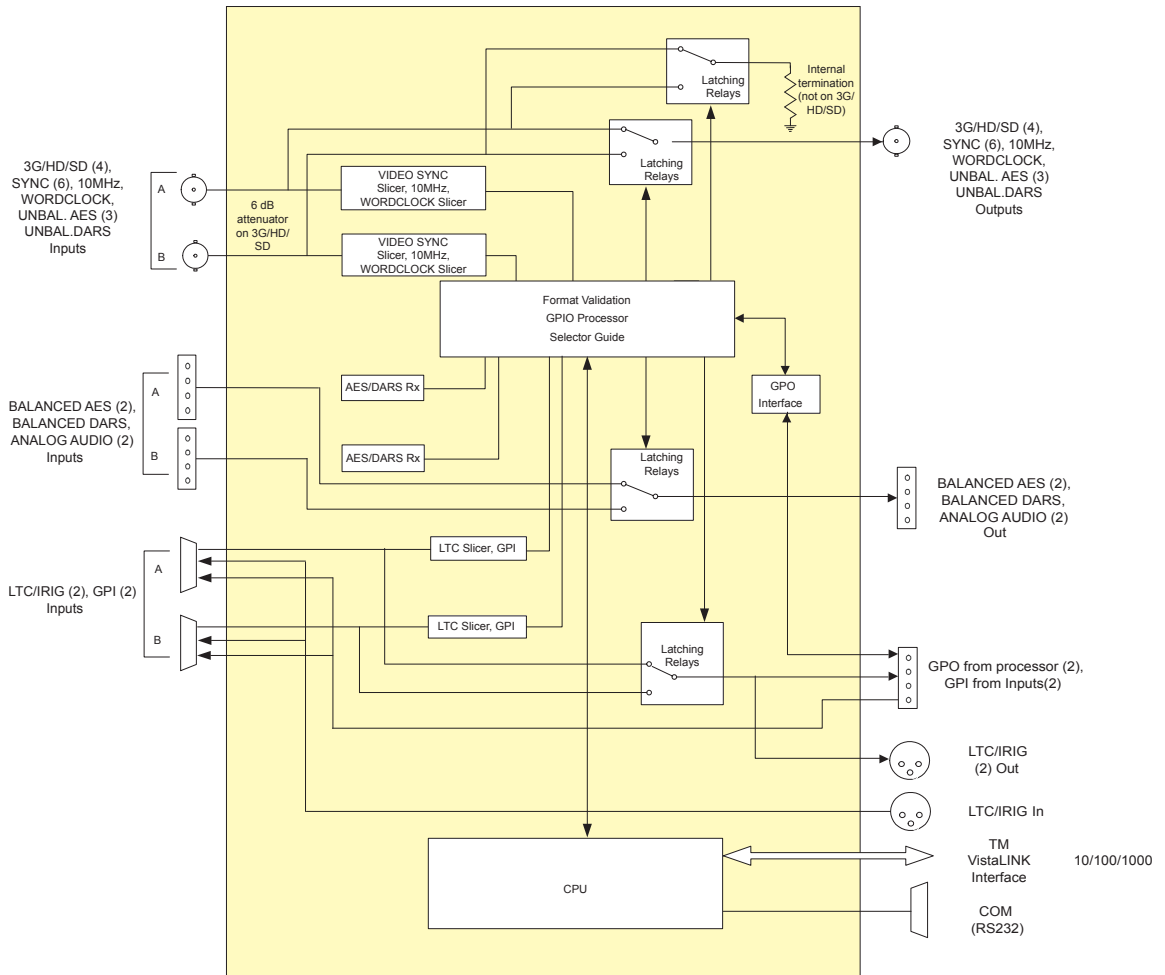
The 5700ACO Automatic Changeovers are intended for use with two 5700MSC Master Clock/Sync Generators. The 5700ACO system uses mechanically latching relays to ensure maximum reliability and minimal disruption in the event of any failure, even power failures. The complete system provides the highest level of security for television station video and time synchronization systems. The 5700ACO is a 2RU ACO for all outputs of the 5700MSC. Two power supplies are included as a standard feature, to alleviate any single point of failure concerns.

There are three switches behind the front panel for added security. There is an AUTO/MANUAL switch, a GPI/FRONT PANEL switch and an A/B select switch for manual changeover. In automatic mode, all signals from both 5700MSC are monitored to detect any abnormal signals. For example, if a level, pulse width, phase, time code error or other abnormality is detected, the 5700ACO's circuitry will trigger and the entire bank of signals will be

switched to the backup 5700MSC. In manual mode the changeover can be operated from a GPI or from the front panel switch. LEDs provide status information as to the health of the two 5700MSC, together with indication as to which one is active. In addition, two GPO outputs indicate which master is active and when the inputs from both masters are not the same.

The 5700ACO features selectable voting via VistaLINK® for autochangeover features. Individual inputs may selectively be included or excluded in the voting process to drive autochangeover logic.

Each 5700MSC is equipped with two GPI inputs and two GPO outputs. To facilitate installation, these connections are brought through to a 2x6 pin terminal block on the 5700ACO. The outputs from the 5700MSC are passed straight through the 5700ACOs. The inputs to the 5700MSC's are internally split by a 'Y' connector, to ensure that both 5700MSC's receive the same GPI contact closures.



The Complete Solution Provider



►Features & Benefits

- Three protected switches select automatic, front panel or GPI activation of changeover
- Front panel status LEDs show the health of each of the inputs
- Front panel status LEDs show the operational modes of the changeover
- Redundant power supply standard
- Push button to show cause of last changeover
- Dual hot-swappable power supplied and fans
- Hot-swappable main board
- GPIO input/outputs
- Automatic changeover is a voting system based on which source has the most valid signals and that the valid signals on the present master are also on the backup
- VistaLINK® control for device configuration and status monitoring
- Six video/sync or other coaxial signals
- 10MHz frequency reference
- Word clock output
- DARS and 3 AES
- Two Longitudinal (LTC/EBU) timecode outputs
- Four SD/HD/3G outputs

►Specifications

LTC/IRIG Inputs and Outputs:

Standard: SMPTE ST 12-1 frame rate set by 5700MSC or IRIG-B
 Inputs: 2 per 5700MSC
 Outputs: 2
 Connectors: Female DB15
 Inputs: 3-pin male XLR type
 Signal Level: Set in 5700MSC

Coaxial Inputs and Outputs:

Type: Depends on signal connected from 5700MSC
 HD-SDI, SD-SDI, Analog TG, AES, DARS, bi-level or tri-level sync, colour black, 10MHz, Word Clock
 Number: 12 groups each consisting of two inputs and one output
 Connector: BNC per IEC 61169-8 Annex A

ACO General Purpose Inputs and Output:

Inputs:
 GPI1: Master select in
 Manual GPI control mode
 Low: Selects Master A
 High: Selects Master B
 Dual GPI mode.
 GPI2: GPI 1 Low, GPI 2 High selects Master A
 GPI 1 High, GPI Low selects Master B
 Otherwise no change

Outputs:
 GPO1: Low: Master A is selected
 High: Master B is selected
 GPO2: Low: Master A and Master B differ or PSU failure
 High: Master A and B have equivalent signals
 Type:
 Inputs: Opto-isolated input with internal pull-up to +5V
 Normally closed relay to ground
 10kW internal pull-up to +5V when relay is in active position
 Outputs: Normally closed relay to ground
 10kW internal pull-up to +5V when relay is in active position
 Connector: 4 pins plus 2 ground pins on 12-pin removable terminal block +5V nominal
 Signal Level: +5V nominal

MSC General Purpose Inputs and Output:

Inputs: 2 GPI inputs connected to both Master A and Master B through AUX I/O
 Outputs: 2 GPI outputs connected from Master A through AUX I/O A
 2 GPI outputs connected from Master B through AUX I/O B
 Connector: 6 pins on 12-pin removable terminal block
 Signal Level: As specified in 5700MSC manual

1000BASE-T Control Network:

Quantity: 1
 Network Type: IEEE 802.3 (10BASE-T)
 IEEE 802.3u (100BASE-TX)
 IEEE 802.3ab (1000BASE-T)

Changeover conditions:

Changeover is a voting system based on which source has the most good signals and that the good signals on the current master are also present on the backup master. The input signals are considered good according to the following criteria:

Video: Level below 70 IRE
 Sync: H timing detect
 10MHz: 3dB level below 0.3V p-p
 DARS: Sync word error
 LTC: Level below 0.3V p-p
 Incorrect sync word

Electrical:

Power: Auto ranging 100-240V AC, 50/60Hz, 40W
 Configuration: Dual redundant supplies
 Fuse Rating: 250V, 1 amp, time delay
 Safety: TÜV Listed
 Complies with EU safety directives
 Complies with FCC Part 15 Class A
 Complies with EU EMC Directive

Physical:

Dimensions: 19" W x 3.5" H x 11.5" D
 (483mm W x 90mm H x 292mm D)
 Weight: 16lbs (3.5kg)

►Ordering Information

5700ACO 2RU Automatic Changeover System complete with 2 power supplies, 2 power cords and 2 DB15 cables (BNC cables not included)

