

3G/HD/SD-SDI, ASI, G.703, Video, Audio Relay Changeover Switch

FEATURES

- One video and two audio changeover switches in one package.
- Video path suitable for 3G/HD/SD-SDI, Analogue video, ASI, G.703 signals @ 2, 8, 34, 45, 144, 155 Mb/s, and unbalanced AES.
- Audio path suitable for 2 balanced, or 4 unbalanced, audio or data signals, and balanced AES.
- Married or independent operation.
- Momentary Set/Reset control.
- No path change on power fail.
- Local or remote control.
- DashBoard™ software monitoring and control.

GENERAL

The IRT-6170-AMS consists of one “video” and two “balanced audio” switches arranged as a changeover set with two inputs and two outputs. No terminations are provided on the board allowing the switcher to be used in a wide variety of applications and with signals of various types and impedances.

The “video” path uses enhanced performance relays to provide switching capabilities for high-speed data signals up to 2.97 Gb/s and may be used with analogue video, 3G/HD/SD/ASI or G.703 data signals.

The “audio” path may be used for balanced or unbalanced audio or control signals (RS232, RS422, RS485 etc).

The magnetic latching characteristic of the high performance relays allows momentary control and also provides for no change of path during power loss.

The IRT-6170-AMS is ideally suited to applications where a simple choice between two inputs or outputs is required and may be easily driven by detector circuits for automatic path selection.

Local switching is possible using front edge push button switches. Remote switching is possible using external normally open or normally closed alarms.

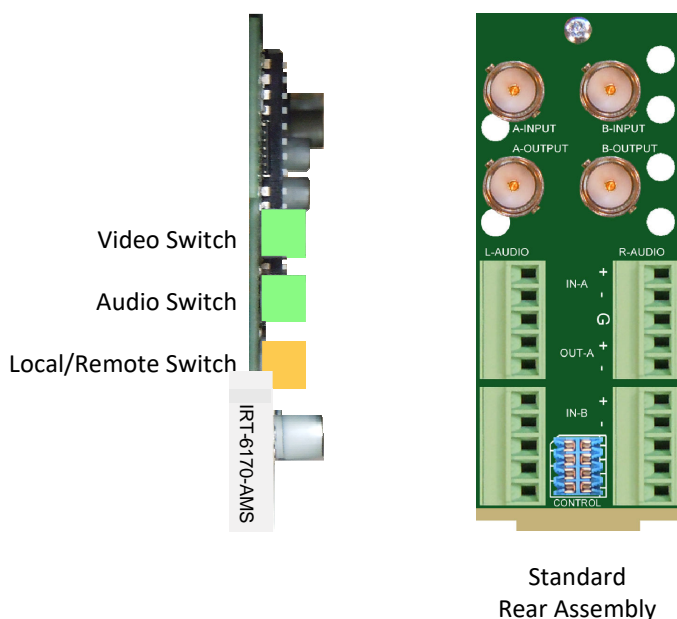
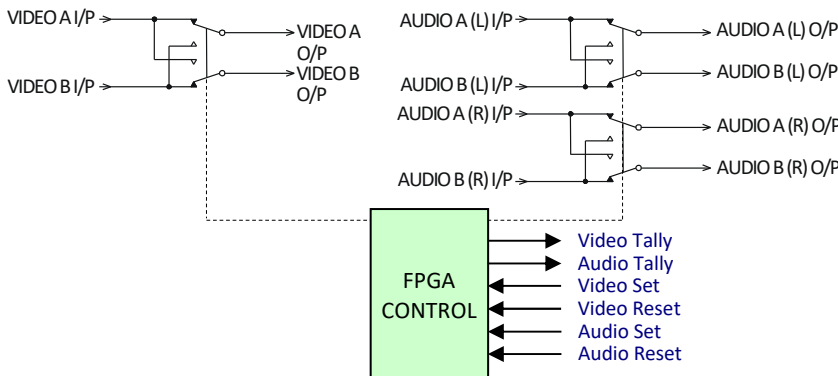
Front edge switches use a small delay to avoid accidental switching if bumped. After a period of about a minute, the IRT-6170-AMS automatically switches back into remote mode.

Remote indication of tally status is provided for integration into central alarm and monitoring systems.

The IRT-6170-AMS is designed to fit the openGear® standard 2RU frames which allow a mixture of cards from various manufacturers to be mounted within the same frame.

The DashBoard™ control software is available as a free download.

BLOCK DIAGRAM IRT-6170-AMS SIGNAL PATH



TECHNICAL SPECIFICATIONS

Video Signal path:

Signal types 3G-SDI/HD-SDI/SD-SDI/ASI/G.703/Video/unbalanced AES.

Impedance Non-terminating, designed for 75 Ω use.

Switching characteristic Magnetic latching 4 port changeover relay.

Video crosstalk between channels < -75 dB to 10 MHz (measured input terminated by 75 Ω);
< -45 dB to 270 MHz;
< -40 dB to 1.5 GHz;
< -25 dB to 3.0 GHz.

Frequency response +0/-1.5 dB 0 Hz to 3.0 GHz.

Audio/Low speed Data:

Audio Crosstalk < -90 dB (20 Hz - 20 kHz, input terminated by 600 Ω).

Control:

Mode Momentary ground or open circuit, switch selectable.

Gnd Pins 1 & 2.

Video SET Pin 3 (Video Standby).

Video RESET Pin 4 (Video Main).

Audio SET Pin 5 (Audio Standby).

Audio RESET Pin 6 (Audio Main).

NOTE: Separate Audio & Video controls, or
Audio follows Video, switch selectable.
Non-momentary contacts required in Toggle modes.

Tally Switch to Ground – Standby; Switch to Open Circuit - Main.

Video Tally Pin 7.

Audio Tally Pin 8.

Front edge switches Momentary illuminated push button.
Automatic remote default setting after about a minute.

Connectors:

Video BNC.

Audio 5 pin Phoenix pluggable screw block.

Control & Tally 8 pin HE-14 IDC.

Relay:

Contact rating 30 Vdc – 0.5 A.

Power Requirements:

Voltage + 12 Vdc.

Power consumption < 4VA.

Other:

Temperature range 0 - 50° C ambient.

Mechanical Suitable for mounting in an openGear® 2RU rack chassis.

Dimensions (openGear® standard) 33.6 mm x 2U x 325 mm;

Supplied accessories Rear connector assembly with matching connectors for audio and control input & tally outputs.

Ordering **IRT-6170-AMS** IRT-6170-AMS, programmed with DashBoard™ control.

NOTE: **Main:** IN A to OUT A, IN B to OUT B (green switch indication);
Standby: IN A to OUT B, IN B to OUT A (orange switch indication).