

5455

SD Protection Switch

The 5455 module is a fail-safe, bypass protection switch for critical standard definition serial digital paths for broadcast or satellite applications. When a fault is detected in the primary input, and the secondary input is verified as good, the switch will activate causing the secondary input to be switched to the module's output. The 5455 includes a passive, fail-safe path that ensures there is an output even in the event of a total power failure.

The health of the video signal is determined by monitoring crucial parameters in order of increasing complexity: Timing Reference Signal (TRS), or a persistent loss of digital sync is tested first. Black, Embedded Audio and Freeze are also evaluated. Each test can be configured by the user. For example, the sophisticated Black Detector includes configurable parameters for black level threshold, pixel count, and duration time.

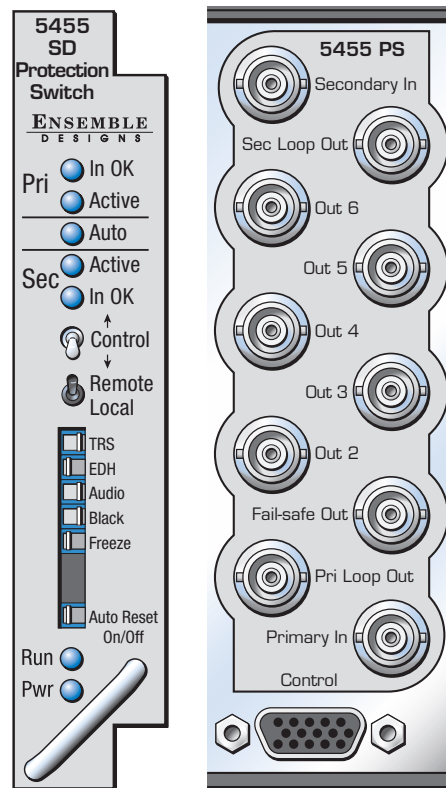
The Freeze detection system can be set to detect a clean or noisy source. Freeze Time sets the number of seconds for the 5455 to switch to the secondary input after a video freeze condition is detected in the primary input.

The switch can operate in two modes; automatic or nonresetting. In fully automatic mode, the 5455 will automatically switch back to the primary signal once it's been restored. In the nonresetting mode, the secondary input remains routed to the output, even after the primary input has recovered.

Controls are easily accessed through an Avenue Control Panel, Avenue PC, GPIs, or front edge module controls. GPI inputs allow faults detected in upstream equipment to contribute to the switching logic.

Features

- **Fail-Safe Bypass Protection Switch for Critical SD SDI Signals**
- **Detects TRS, Black, Silence, and Freeze**
- **Detection specifics are user programmable**
- **Passes embedded audio**
- **Alarm generation**
- **Remote control and monitoring**



Serial Digital Input

Number	Two
Type	SD Serial Digital 270 Mb/s SMPTE 259M 625i 50 or 525i 59.94

Automatic Cable Input Equalization

Serial Digital Loopback

Number	Two total One primary One secondary
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Impedance 75 Ω

Serial Output Signal

Number	Six total One fail-safe bypass output Five outputs
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Signal Type SD Serial Digital 270 Mb/s

Impedance 75 Ω

General Specifications

Power Consumption	<7.0 watts
Temperature Range	0 to 40°C ambient (all specs met)
Relative Humidity	0 to 95% noncondensing
Altitude	0 to 10,000 ft
Fusing	4 each 0.75 Amp PTC resettable fuse with each domain of the module independently regulated

