

Serial Digital Protection DA

The 7160 Serial Digital Protection DA module is a fail-safe bypass protection switch for monitoring and switching critical SD and HD paths in broadcast and satellite applications. When a fault is detected in the Primary input, the switch will activate, causing the Secondary (backup) input to be switched to the module's distributed outputs. The switch can operate in two modes; automatic or nonresetting.

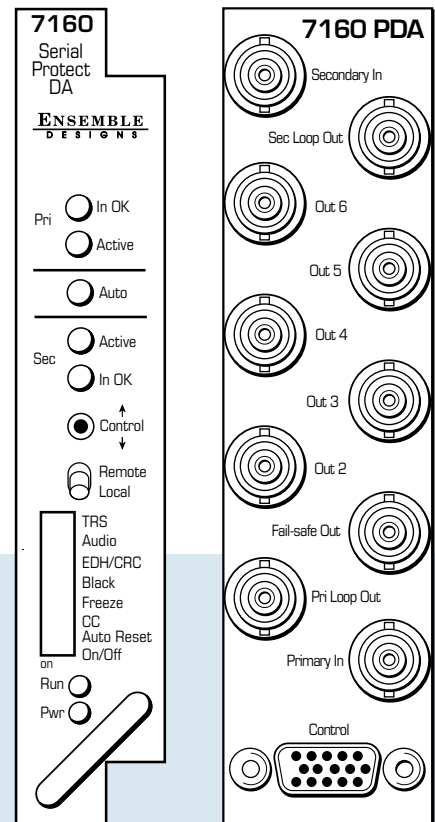
The 7160 monitors the integrity of the Primary serial digital input stream and analyzes the audio and video content. Signal health and fault detection is determined by monitoring any or all of the following parameters: Closed Caption Data, Timing Reference Signal (TRS), Black, Embedded Audio, Error Detection and Handling (EDH), CRCs, and Freeze.

A sophisticated Black detection system is employed to activate the switch in the event signal is lost. It allows the user to select not only the threshold and percentage of non-black pixels, but also the portion of the picture to be considered.

The Freeze detection system can be set to detect a clean or noisy source. Freeze Time sets the number of seconds for the 7160 to switch to the secondary input after a video freeze condition is detected in the primary input.

Features

- » Use for critical paths in broadcast and transmission to ensure staying on-air in case of primary signal fault
- » Two serial digital inputs, four serial digital outputs
- » Accepts SD and HD SDI inputs
- » Detects Closed Caption Data, TRS, CRCs, EDH, Black, Silence and Freeze
- » Embedded audio detection
- » Passes embedded audio
- » Alarm generation
- » Remote control and monitoring



Input Signal

Number Two
Signal Type HD Serial Digital 1.485 Gb/s SMPTE 274M, 292M or 296M or SD Serial Digital 270 Mb/s SMPTE 259M
Impedance 75 Ω
Return Loss >15 dB to 1.485 GHz
Automatic Cable Input Equalization

Serial Output Signal

Number Six
Signal Type Includes One Fail-safe bypass output
Impedance Follows selected input 75 Ω

Standards Supported (auto-detected)

1080i (SMPTE 274M -4,5,6) 50, 59.94 or 60 Hz
 720p (SMPTE 296M -1,2,3) 50, 59.94 or 60 Hz
 1080p (SMPTE 274M -9,10,11) 23.98, 24, 25 Hz
 1080sF (RP211 -14,15,16) 23.98, 24, 25 Hz
 625i 50
 525i 59.94

General Specifications

Connectors BNC
Power Consumption <5 watts
Temperature Range 0 to 40°C ambient (all specs met)
Relative Humidity 0 to 95%, noncondensing
Altitude 0 to 10,000 ft
Fusing 1.5 Amp PTC resettable fuse

Serial Digital Loopback

Number Two total
 One primary
 One secondary
Signal Type Follows input
Impedance 75 Ω

