Shockless
Increasing TS circuit reliability

UFM-80TSCS
TS Changeover Switcher (2 inputs)

This modular type TS changeover switcher that can be mounted in a UFM frame constantly monitors TS signals on a redundant circuit, and switches the output swiftly to the other line when an error occurs without disrupting output to achieve automatic seamless switching.

Mounting multiple switchers into a single unit greatly reduces the installation space.
Downsizing can be achieved by equipping multiple modules to a single UFM frame. Up to five modules can be equipped to the UF-106B, and up to nine modules to the UF-112. In addition, different module types can also be simultaneously equipped.

Features

Seamless switching function between the outputs of the same encoder
Seamless switching can be performed between the dual output distribution of the same encoder using a single module. This supports completely seamless switching without disrupting the video or audio (single TS module configuration).

Auto and manual switching
When an error occurs in the signal, the UFM-80TSCS automatically switches to the other line. Manual switching and auto/manual assignment of each line are also possible. For example, the following assignment can be selected: automatic switching from the current line to the reserve line, and manual switching from the reserve line to the current line.

Delay adjustment function
The delay difference between different lines is absorbed quickly and both phase inputs are automatically aligned to achieve seamless switching that does not disrupt the output. The delay adjustment range is ±500 ms.

GUI
The status of each signal input can be monitored and unit control settings can be made using the dedicated GUI. A log of error contents and switching events are saved together with time information in the computer as a CSV file.

Error detection
In addition to TR101 290, the UFM-80TSCS monitors the error content occurring in the transmission path, and performs error detection with an emphasis on achieving seamless switching. This helps protect transmission signals from SYNC errors, CC errors, packet loss, NULL only, and other errors that can fatally damage signal quality. Detection of each error type can be set to on or off. The PID error detection threshold can be set to an arbitrary time (1 ms steps). Up to four sets of multi program signals are supported.

Bypass-through function
When the power is off, the bypass-through function operates so that the INPUT1 input signal is output to OUTPUT1.

External control functions
Each module is equipped with a GPI interface (7-pin, 36 items) and Ethernet, enabling a wide range of remote monitoring and control according to the operation format. The dedicated GUI can be used to make settings and graphically display error monitoring contents via Ethernet. An event log viewer, automatic CSV file generation, and other functions are also provided to facilitate signal management requiring historical condition data.
System Configuration Examples

External View

Specifications

**UF-106B Universal Frame (6 Modules)**
- Capable of holding up to 6 modules (boards) according to the system.
- Capable of holding UF-106PS redundant power supply (optional). Max 4 modules with a redundant power supply.
- Permits hot swapping of power supply and modules.
- All modules can be replaced through the front side.
- Alarm detections and status indications are displayed on the front-side LED.
- Includes loop-through connector as Genlock input. Genlock input signal can be distributed to all modules.
- Control module is prepared for remote control (optional).

**UF-112 Universal Frame (12 Modules)**
- Capable of holding up to 12 modules (boards) according to the system.
- Capable of holding UF-112PS redundant power supply (optional).
- Permits hot swapping of power supply and modules.
- All modules can be replaced through the front side.
- Alarm detections and status indications are displayed on the front-side LED.
- Includes loop-through connector as Genlock input. Genlock input signal can be distributed to all modules.
- Control module is prepared for remote control (optional).

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