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VSP-X1000 ACO4
3G/HD/SD-compatible Automatic Changeover Board, with Seamless Switching Function

The VSP-X1000 ACO4 is an automatic changeover board equipped with seamless switching and monitoring function of video, audio and ancillary packets for the max. 4 lines of HD/SD input signals. Changeover control is available based on automatic switching with predefined conditions or manual command. The VSP-X1000 ACO4 has two outputs, PGM OUT for the main line and PVW OUT for monitoring.

MF730/opt
common frame for optical / converter board
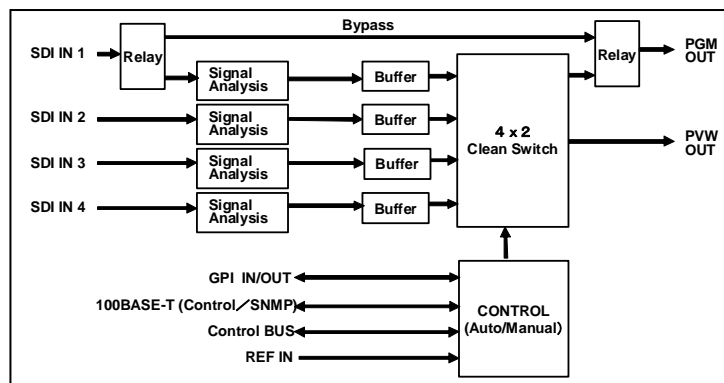
Functional block diagram of automatic seamless switching changeover board

Features

SDI signal monitoring function

· Monitoring is conducted for 4 lines of SDI input signals and if any abnormal condition is detected, an alarm signal is sent out.
  In the automatic changeover mode, automatic switchover to the standby line is carried out, based on the preset switching conditions.
◆ Examples of monitoring conditions
  * Video: Input interruption; abnormal signal format; CRC/EDH error; abnormal conditions in continuity of TRS; black detection; freeze detection
  * Audio: Abnormal audio packet; mute detection
  * ANC: Abnormal CS / CI value continuity

Automatic changeover with seamless switching function

· The board is equipped with seamless switching function, enabling changeover of video and sync audio (supporting 16 channels) without signal interruption.

Higher reliability

· The board monitors the signals of the standby line also so that you can assure the signal quality after switchover.
  Further, preview output is available for direct monitoring of the standby signals independently from the main signal output (PGM).

Manual control specifications

· Manual changeover controlled input and alarm output is available via GPI, Ethernet and the CPU board.

Emergency bypass function

· By the power shutdown, or manual operation, signals can through relay-bypass between SD1 Input 1 and Output 1.

Compact and Space-efficient

· The VSP-X1000 ACO4 is designed to be mounted in MF-730/712 integrated signal processing platform.

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Functions

- **Signal monitoring function:** Max. 4 lines of 3G/HD/SD serial digital signals can be input, and their signal quality is monitored continuously. If any abnormal input signal condition is detected, an alarm signal is sent out.
- **Automatic changeover function:** When any abnormal signal in the main system is detected, changeover to the standby system is carried out, based on the preset changeover conditions. Manual switchover via contact or LAN is also available.
- **Error detection function:** Detailed setup of monitoring items is available, including input interruption, abnormal signal format, CRC/EDH error, abnormal TRS continuity, black detection, freeze detection, abnormal audio packets, mute detection, and abnormal conditions in continuity/parity of CS/CI values of inter-station control signals / subtitles packets.
- **Monitoring LOG function:** Alarm information detected during operation can be transferred to the control PC for recording.

Specifications

Input signals	Video input signals
	SMPTE 292M (1080i) HDTV serial digital video signal, 75Ω unbalanced; or
	SMPTE 259M－C SDTV serial digital video signal, 75Ω unbalanced or 4 lines
Output signal	Video output signals
	SMPTE 292M (1080i) HDTV serial digital video signal, 75Ω unbalanced; or
	SMPTE 259M－C SDTV serial digital video signal, 75Ω unbalanced or 2 lines
Control signals	Ethernet control / GPI control
Operation temperature	0℃ to 40℃

Configuration

① VSP-X1000 ACO4 (configuration per set)
- ・ Rear board   x 1 (2-slot size)
- ・ Front board   x 1

② MF730/opt multi-function frame (For the number of boards to mount, see table below.)
- ・CPU board *1   x 1 (1 x front board and 1 x rear board)
- ・Power supply board   x 1 *2   *1··· An alarm board with contact alarm only is also available.
- ・Frame   x 1   *2··· Redundant Power Supply system is available with two power supply units.

MF730 / MF712 common frame for optical/convert board

	MF730 common frame (3RU)	MF712 common frame (1RU)
Number of boards to mount	Max. 14 boards *1	Max. 3 boards *1
Operating temperature	0℃ to 40℃	0℃ to 40℃
Configuration	① Frame x 1 ② Power supply board x 1 *2	① Frame x 1 ② Power supply board x 1 *2
Measurements	132(H) x 480(W) x 500(D) mm	132(H) x 44(W) x 500(D) mm
Power supply	① Power supply voltage : 85 to 264VAC (single phase) ② Frequency : 47 to 63Hz ③ Power consumption : 350VA (at max. load) *3	① Power supply voltage : 85 to 264VAC (single phase) ② Frequency : 47 to 63Hz ③ Power consumption : 120VA (at max. load) *3

*1 This indicates the maximum number of boards which can be installed to MF700/XF700 Series frame with 1 slot size card.
*2 Redundant Power Supply system is available with two power supply units.
*3 The power consumption value indicated is measured under maximum load. Actual power consumption varies depending on the type(s) and quantity of boards mounted in the frame.

ISO 9000 Series   ISO 14001
ISO 9001 JMI-0119   JQA-E-90066
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⚠ **Safety precautions**   To install, make connections and operate this product, please carefully read and observe instructions, precautions and recommendations in our instruction manuals.

● The colours in this brochure may differ from those of the actual unit. Designs and specifications of this product is subject to change without prior notice.

For additional information:
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