RSS-6ASI Digital ASI/SDI Redundancy Switching Station

The RSS-6ASI station incorporates (6) Automatic A/B switches that monitor independently digital Video feeds in ASI or SDI format, for automatic switchover to their respective backup feeds. The threshold level at which the unit switches to the backup feed can be separately adjusted for each of the main and backup inputs in each automatic switch module in the chassis.

The RSS-6ASI monitors independently the main & backup ASI input feeds of each switch module for automatic switching and alarming, and is designed to prevent automatic switching to the backup input while it is in alarm condition. The RSS-6ASI offers high isolation environment between the ASI input feeds with a minimal insertion loss. It is designed with fail-safe to prevent service interruption. It will pass the main input on power loss to the unit.

A TCP/IP port is available at the back of the chassis for remote monitoring, alarm & control over the Network. While the SNMP protocol is used for alarming to and for remote monitor/control by NOC "Network Operation Center", an embedded Web-Server allows regional & local technical personal to remotely access the unit (password protected) for status monitoring & switch override/control of each switch in the chassis, and to change some internal settings from a Web-page using any standard Web browser.

Remote control functions over the TCP/IP-Network include settings of switching Hysteresis & delays, and commands to disable automatic-return that would allow technical staff to resolve an ASI feed intermittent problem before returning to normal automatic switch operation. Monitoring the backup input feed can also be disabled remotely to set it for alarm only, thus preventing it from affecting the automatic switch operation.

The Hysteresis & delays between switchover to the backup input and switching back to the main input are designed for reliable automatic switching, and are remotely modifiable to allow the operator to set them to suit a particular system condition.

Local indication of the two input feeds and switch status are also available at the front panel, with a locking toggle for emergency switch override & control, with the capability for remote access via SNMP & Web-page to override the front panel manual control switch.

Tekron Communication manufactures a complete line of automatic switching RSS products for the Redundancy & Monitoring of CATV Broadband feeds, LNB/L-Band feeds, analog Video & audio/4.5 or RF channels in disaster recovery applications. Some models are suitable and also in use for community (PEG) channel automation/sharing or redundancy applications.

Switch Control:

Monitoring Threshold switch adjustment: Front panel fine adjustment available to set the level at which the input feed monitoring circuits switch automatically to the backup input ASI feed. The threshold for each input is separately adjustable from the front panel.

Disabling switch-back to main input: In normal condition, the RSS-6ASI sensing mechanism automatically switches to the backup input when the main input drops below its set (adjustable) Threshold level, with automatic switch return to the main input upon its level restoration, with an internal adjustable Hysteresis. Remote (Web-page & SNMP) control allows the operator however to disable the automatic return of the switch. This is intended to allow technical staff to investigate the cause of an intermittent problem before resuming automatic return switching (front-panel or remotely) to the main input.

Manual switch: A front panel 3-way toggle switch is available to disable automatic switch operation, and force the switch to either the main or the backup position. Front panel LED indicates if the unit is in manual or automatic mode, and the switch status.

Remote Control: The TCP/IP back-chassis connection allows operator remote access for switch control , disabling the switch automatic operation and override the front panel toggle switch, to force the switch to either input.

Monitoring and alarm:

Remote alarm: Alarms are sent as snmp-traps & E-mail text messages to selected recipient as set by the supervisor from the Web-page Network Setup menu.
Alarms are sent for any change in status of main input, backup inputs, switch position, and switching (automatic or manual-override) mode.

Remote status monitoring: Monitoring is available via snmp and from Web-page. Status indication is available for main & back inputs, switch position & mode.

Remote settings:

The following parameters can be set remotely over the TCP/IP Network:
Unit Network settings and access passwords.
Web-page monitor/control & alarm input names.
Switch operation setting of Hysteresis & delays, and disabling backup input status & automatic return.

SPECIFICATIONS

The RSS-6ASI station incorporates six (6) independent automatic switching modules to provide redundancy to DVB-ASI & SDI digital TV channel feeds.

SWITCH MODULE SPECIFICATIONS

Switch: **Two inputs to one output.**

Signal: **DVB-ASI & SDI format**

Typical Input Level: **800mv Peak-to-Peak**

Isolation: **75 dB minimum**

Switch Threshold: **30dB minimum front panel adjustable Threshold, separate for each switch module.**

Built-in: **Hysterisis & Delays before switching adjustable remotely.**

Fail-safe: **Switches to or passes main input on power loss.**

Remote Access: **TC/IP Port that incorporates embedded Web-server for remote Monitor & control from any Web-browser, SNMP protocol for NOC monitor & control and to receive SNMP-trap alarms, and configurable Email-alert Text-messages.**

Switch Control: **Front-panel: Toggle manual switch control.**
                                 Back-panel: Remote override/switch control.

Status Indication: **Front-panel: Switch position and signal presence status LED.**
                                 Back chassis: Remote switch & signal monitor & alarm status.

Remote settings: **Disable automatic return to main input (SNMP & Web-page).**
                                 Limit backup input status to monitoring & alarm functions.
                                 Set Hysteresis (dB) & delays (seconds) for automatic switching.

IP- Network MnC   **IP-port incorporates embedded Web-server for remote Monitor & control from any Web-browser, and SNMP protocol for NOC monitor & control and to receive alarm SNMP-traps.**
                                 Optional: Configurable Email-alert Text-messages.

Chassis: **1U Rack-mount 19" high X 9.75" deep chassis (Weight 10 lbs)**

Power Supply: **85-235 Volt-AC (60/50 Hz)**
                                 Optional: NEG 48V-DC & RDP Dual Redundant Power

AUTOMATIC SWITCHING PRODUCTS

TCP/IP Network remote monitor Alarm and Control capabilities

RMS-RSS monitoring & automatic switching products incorporate TCP-IP & RS-232 port for remote monitor/alarm & controls over IP-Networks and dial-up line.

ASI-SDI-SMPTE310M Digital Automatic Redundancy Switch

RSS1-ASI DVB-ASI Dual-Output (1-RU) 2X1 Automatic Switch

RSS-2ASI ASI/SDI/SMPTE Channel Dual-switch Automatic Switching (1-RU) Station

RSS-6ASI ASI/SDI/SMPTE Channel Six-switch Automatic Switching (2-RU) Station

CATV BROADBAND & Channel Redundancy Switching

RSS-2R   CATV 1GHz Broadband & QAM channel Automatic Redundancy Switch

RSS-2D   CATV 1GHz Split-Band Automatic Redundancy Switch

RSS-3T   CATV 1GHz Broadband Triple-switch Automatic Switching (1-RU) Station

RSS2-T   CATV 1GHz Broadband dual-switch Automatic Switching (1-RU) Station

RSS6-T   CATV 1GHz Broadband six-switch Automatic Switching (2-RU) Station

RMS-2RC Frequency-Agile Dual AGC RF-Pilot Channel Automatic Redundancy Switch

RMS-2V   Frequency agile TV channel Signal Monitor/alarm and Control station

Satellite LNB/L-Band Automatic Redundancy Switch

RSS-2L   L-Band/LNB Dual-switch Automatic Redundancy Switching (1-RU) Station

RSS-6L   L-Band/LNB Six-switch Automatic Redundancy Switching (2-RU) Station

Digital & Analog Video/Audio Channel Automatic Switch

RSS-2B   Video/Stereo-audio +SAP (3X1) Digital/analog Channel Automatic Switch

RSS-2VAS Video/Stereo-audio (3X1) Digital Channel Automatic Redundancy Switch

RSS-2VD   Video/Stereo-audio (3X1) Digital Channel Automatic Redundancy Switch

RSS-4Eng Video/Stereo-audio (5X1) Digital/analog Channel Automatic Switch

RSS-2AS   Stereo-audio (3X1) Automatic Redundancy Switch

Digital & Analog Video/Audio Channel Automatic Switching Stations

RSS-2AV   Video/Stereo-audio +SAP Dual-switch Automatic Switching (1-RU) Station

RSS-6AV   Video/Stereo-audio +SAP Six-switch Automatic Switching (2-RU) Station

RSS-2B4.5 Video/4.5MHz-audio Dual-switch Automatic Switching (1-RU) Station

RSS-3RV   Hybrid Video-Monitor & RF-Channel three-switch Automatic Switch Station