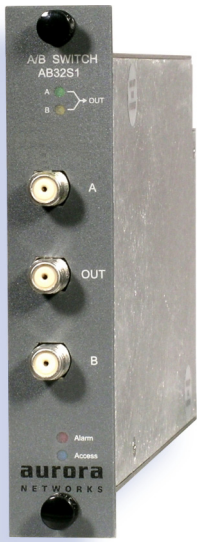
aurora NETWORKS

AB32S1S

Features

- Non-latching electronic switching between two RF inputs for reliable output
- Fast switching speed (<10 ms typical)
- User-adjustable switching thresholds for each input
- 46–870 MHz pass band
- Low insertion loss
- Hot plug-in/out
- Local and remote status monitoring and control
- Occupies one half-depth slot

A/B Alternate Routing Switch (46-870 MHz)



The AB32S1S-0-00 Alternate Routing Switch is an external A/B switch designed to select an RF signal from one of its two inputs and deliver that signal to its output. With a 46–870 MHz pass band, the switch provides economic and reliable support for implementing optical path redundancy between various portions of the network where indoor receivers are deployed.

Route selection is based on the composite RF levels present at the input ports. The switch may be set by the user for operation in one of three modes. In Auto mode, the selected active switch position (A or B) is determined by input switching thresholds (which can be set independently for each input and are user-settable within a wide range in 1 dB steps). In the remaining two modes, the user may elect to force the switch to operate with its output from only the A or B input.

AB32S1S Product Specifications

Physical:

- Dimensions (without connectors):
  6.5" L x 4.3" W x 1.0" H (17 cm x 11 cm x 2.5 cm)
- Weight:
  1.0 lbs (0.5 kg)

Environmental:

- Operating temperature range: –20º to +65ºC (–4º to 149ºF)
- Storage temperature range: –40º to +85ºC (–40º to 185ºF)
- Humidity: 5% to 95% non-condensing

General:

- RF connectors (2 inputs and 1 output on front panel): F-type
- Switch configuration and type: 2 x 1, non-latching
- Switching time: <20 ms
- Hot plug-in/out

Power Requirements:

- Input voltage: 12 V_{DC}
- Power consumption: 2.5 W

Electrical:

- Pass band: 46–870 MHz
- Frequency response: ±0.5 dB (excluding slope)
- Nominal slope, 870 / 46 MHz: 1 dB
- Insertion loss at 870 MHz: 2.0 dB max (1.6 dB typ)
- Return loss: 18 dB (inputs and outputs, within pass band)
- Composite input power, max: 63 dBmV

Front Panel LED Indicators:

- Switch status indicators:
  A→OUT: Illuminated green when switch in position A
  B→OUT: Illuminated yellow when switch in position B
- Module status indicators:
  Alarm: Illuminated red when switch output below threshold settings
  Access: Illuminated blue during SM communication with module

Switch Position Table and LED Indicator Status:

Mode (*See Notes*)	RF Input A	RF Input B	Active Switch Position	LED Indicators A→OUT (green)	B→OUT (yellow)	ALARM (red)
Auto	OK	OK	A	on	off	off
"	OK	Fail	A	on	off	off
"	Fail	OK	B	off	on	off
"	Fail	Fail	A	on	off	on
"Force A"	OK	*N/A*	A	blinking	off	off
"Force A"	Fail	*N/A*	A	blinking	off	on
"Force B"	*N/A*	OK	B	off	blinking	off
"Force B"	*N/A*	Fail	B	off	blinking	on

The criteria for establishing the RF input status (OK / Fail) for each RF Input *N* (A or B) is established by:

Composite RF power ≥ TH_N, result OK
Composite RF power < TH_N, result Fail

where the input switching threshold, TH_N, is independent for each input and user-settable within the range from 20 to 60 dBmV (in 1 dB steps). In addition, the mode for the switch as a whole may be set either as "Auto" (with functions as defined in the above table), or "Force A" or "Force B" (in which cases the output is fed only from either the A or B input, respectively).

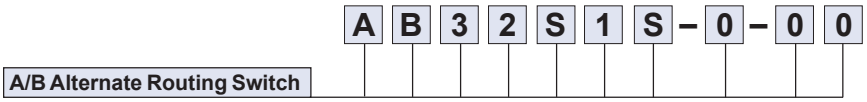
Alarms:

Service-affecting and non-service-affecting

Locally Monitored Parameters:

Chassis slot number, switch position, mode (Force A or Force B) and input composite RF power

Ordering Information



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