

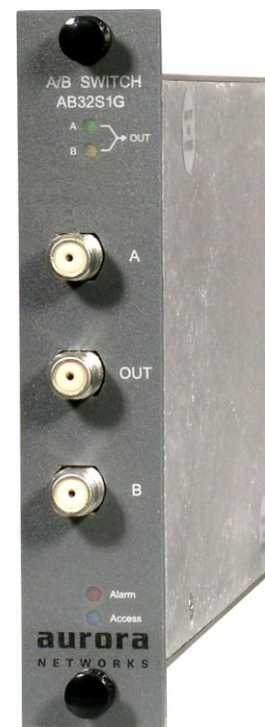
# Headend Optics Platform (CH3000)

## AB32S1G

### A/B Alternate Routing Switch (46-1002 MHz)

## 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
- 46–1002 MHz pass band
- Low insertion loss
- Hot plug-in/out
- Local and remote status monitoring and control
- Occupies one half-depth slot



## PRODUCT OVERVIEW

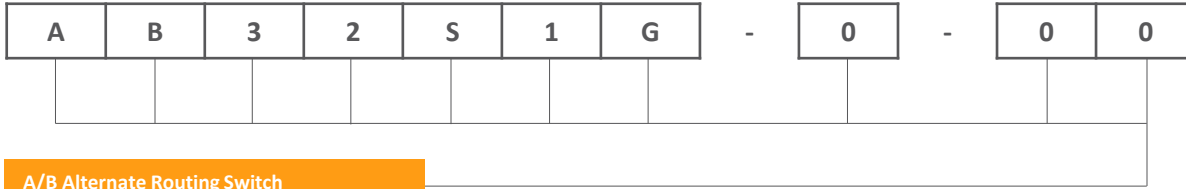
The AB32S1G-0-00 Alternate Routing Switch is an external A/B switch designed to select an RF signal from one of its two inputs and deliver that signal to its output. With a 46–1002 MHz pass band, the switch provides economic and reliable support for implementing optical path redundancy between various 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.

## SPECIFICATIONS

Characteristics	Specification					
<b>Physical</b>						
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)					
<b>Environmental</b>						
Operating Temperature Range	-20° to +65°C (-4° to 149°F)					
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)					
Humidity	5% to 95% non-condensing					
<b>General</b>						
RF connectors (2 inputs and 1 output on front panel)	F-type					
Switch configuration and type	2 x 1, non-latching					
Switching time	10 ms typical					
Hot plug-in/out						
<b>Power Requirements</b>						
Input voltage	12 V <sub>DC</sub>					
Current consumption	2.5 W					
<b>Electrical</b>						
Pass band	46–1002 MHz					
Frequency response	± 0.5 dB (excluding slope)					
Nominal slope, 1002 / 46 MHz	1 dB					
Insertion loss at 1002 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						
Isolation (switch in B or A position, respectively, for each of the two following conditions)	<ul style="list-style-type: none"> <li>RF Input A to OUT, or RF Input B to OUT <ul style="list-style-type: none"> <li>46–550 MHz: 70 dB</li> <li>550–1002 MHz: 60 dB</li> </ul> </li> <li>RF Input A to RF Input B, or RF Input B to RF Input A <ul style="list-style-type: none"> <li>6–550 MHz: 75 dB</li> <li>550–1002 MHz: 60 dB</li> </ul> </li> </ul>					
<b>Front Panel LED Indicators</b>						
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					
<b>Switch Position Table and LED Indicator Status</b>						
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:						
<ul style="list-style-type: none"> <li>Composite RF power ≥ THN, result OK</li> <li>Composite RF power &lt; THN, result Fail</li> </ul>						
where the input switching threshold, THN, 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).						
<b>Alarms</b>		Service-affecting and non-service-affecting				
<b>Locally Monitored Parameters</b>		Chassis slot number, switch position, mode (Force A or Force B) and input composite RF power				

**ORDERING INFORMATION**



**RELATED PRODUCTS**

CH3000 Chassis	Optical Passives
Digital Return	Optical Patch Cords
BP Back plates	Installation Services

## Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

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