

Headend Optics Platform

AB02S1S A/B Alternate Routing Switch (5-250 MHz)

FEATURES

- Electronic switching between two RF inputs for reliable output
- 5-250 MHz pass band
- Fast switching speed (< 10 ms typical)
- Powered by DC voltage levels on RF inputs
- Supports multiple configurations of redundant RF receivers
- Small form factor requiring no rack space
- Low insertion loss
- LED indicators for DC power presence and selected switch position
- Optional 2RU mounting frame (for up to 16 AB02S1S return path switches)



PRODUCT OVERVIEW

The AB02S1S-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 5-250 MHz pass band, the switch provides economic and reliable support for implementing optical return path redundancy between various portions of the network where indoor receivers are deployed.

Route selection is based on DC voltages from the analog receivers, and the switch position is determined by the presence or absence of voltages at the inputs of the switch.

The AB02S1S is designed to operate with all ARRIS products that have external A/B switch drive logic such as the AR3001 Analog Dual Return Receiver, DR3002 Dual Digital Receiver or DR3021 Dual Return Channel Digital Receiver.

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Node Segmentation

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An optional 2RU high mounting frame (model PF2016F) is available for attachment to a standard 19" EIA rack that can hold up to 16 AB02S1S switches.

Characteristics	Specifica	ation							
Physical	Specifica								
Dimensions (without connectors)	2.0"	v 2 1″ M/v 1	0" 11 (7 4 area x 5	2 cm v 2 5 cm)					
Dimensions (without connectors)	 2.9" L x 2.1" W x 1.0" H (7.4 cm x 5.3 cm x 2.5 cm) L = 4.1" (10.4 cm) with connectors 								
Weight	0.3 lbs (0.1		with connectors						
Environmental	0.5 105 (0.1	- K6/							
Operating Temperature Range	-20° to +6	5°C (–4° to 1	49°F)						
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)								
Humidity	5% to 95% non-condensing								
RF Interface	570 (0 5570	non conder	131116						
2 RF inputs	E-type (fer	nale connec	tors at A and B in	nuts)					
RF output	F-type (female connectors at A and B inputs) F-type (female connector at front panel)								
Power Requirements	1 type (ici		to: at none panel	1					
Input voltage (from chassis mid-plane)	10 V _{ac} via	A and B RF ii	nouts						
Current consumption	10 V _{DC} via A and B RF inputs • A position: < 20 mA								
	 B position: <20 mA B position: 80 ± 20 mA 								
Electrical									
Pass band	5–250 MH	Z							
Frequency response	± 0.5 dB (excluding slope)								
Nominal slope, 250 / 5 MHz	0.2 dB								
Insertion loss	0.1 ± 0.05 dB (at 65 MHz)								
Insertion loss at 250 MHz	0.3 dB maximum								
Return loss	20 dB minimum								
Port isolation	> 75 dB								
Shielding effectiveness	120 dB								
Switching time	< 20 ms								
Front Panel LED Indicators									
STATUS A	Illuminated	Illuminated green when primary receiver OK							
STATUS B	Illuminated	Illuminated green when backup receiver OK							
A ON	Illuminated	Illuminated green when switch in A position							
BON	Illuminated	Illuminated yellow when switch in B position							
Switch Position Table and LED Indicator Status									
(for specified DC voltage levels on center pins of A and B inputs)	A Input	B Input		Active Switch	LED Indicator				
				Position	Status A	Status B	A On	B OI	
	10V	10V	(A OK, B OK)	Α	on	on	on	off	
	10V	0V	(A OK, B fail)	A	on	off	on	off	
	0V	10V	(A fail, B OK)	В	off	on	off	on	
	0V	0V	(A fail, B fail)	А	off	off	off	off	

Optional Mounting Frame

The PF2016F is a 2RU mechanical frame designed for standard 19" EIA rack

mounting that can hold up to 16 AB02S1S return path switches.



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ORDERING INFORMATION												
	А	В	0	2	S	1	S	_	0	-	0	0
	A/B Alter	nate Routir	ng Switch									
	Р	F	2	0	1	6	F	_	*	*]	
											-	
	Optional	Mounting F	rame									
			urn path sv return path			d)						

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