DATA SHEET

Headend Optics Platform (CH3000)

OS32M2B

Dual-packaged 2x1 Optical Switches for DWDM Forward and Return Paths

FEATURES

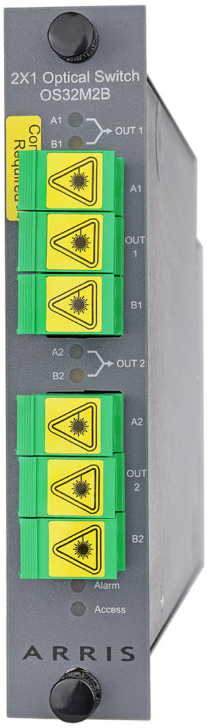
- Dual-packaged non-latching 2x1 optical switches with 1263.5–1357.5 nm and 1423.5–1617.5 nm operating windows
- Switching function designed to detect the loss of the return path DWDM wavelengths on ITU Ch 40 to Ch 61 while supporting forward path DWDM wavelengths on ITU Ch 14 to Ch 39
- Simultaneous counter-propagating signals allowed
- Wide range of user-settable switching thresholds for analog and digital transport applications: -22 to +22 dBm
- Low insertion loss, 1.0 dB typical
- Fast switching speed, 5 ms typical
- Low power consumption
- Hot plug-in/out
- Local and remote status monitoring and control
- High packaging density: up to 56 switches per chassis
- Occupies one half-depth slot

The CommScope OS32M2B Dual-packaged 2x1 optical switch module for the CH3000 platform offers fast switching times, low insertion loss, and high packaging density.

These units are available as dual packaged 2x1 switches in a single-width, half-depth module. The switches have been designed with a wide dynamic threshold adjustment range to support a wide combination of both analog and digital transmission applications. The modules are self-sensing of fiber restoration for maximum network reliability and efficiency and are fully controllable both locally and remotely.

In the OS32M2B, the light from A and B inputs are detected and used to control the switch (i.e., having high isolation from any input signals that may be present at the “Out” ports).

The features of the OS32M2B optical switches make them ideally suited to applications where high reliability is required and space and power consumption are important considerations.



SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	6.5” D x 5.25” H x 1.0” W (3RU) (17 cm x 13.3 cm x 2.5 cm)
Weight	1.0 lb (0.45 kg)
Environmental	
Operating Temperature Range	-20° to +65°C (-4° to 149°F)
Storage Temperature Range	-40° to +85°C (-40° to 185°F)
Humidity	5% to 95% non-condensing
General	
Optical Connector	SC/APC
Module and Switch Configuration	Dual 2x1 non-latching switches
Switch Type	Non-latching
Switching Speed	5 ms Typical, 10 ms Max.
Switching Hysteresis	0.5 dB
Optical Connector	SC/APC
	Hot plug-in/out
Optical	
Wavelength	Dual wavelength windows: 1263.5 to 1357.5 nm and 1423.5 to 1617.5 nm
	NOTE: The switch will pass ***all*** wavelengths within the two optical passbands of 1263.5–1357.5 nm and 1423.5–1617.5 nm in both directions. However, the unit’s sensor and switching function will only respond to wavelengths inside this range: ITU Ch 38 to ITU Ch 61. This minimizes the level of reflected Forward path DWDM wavelengths on ITU Ch 14 to Ch 39 but allows the loss of the Return path DWDM wavelengths on ITU Ch 40 to Ch 61 to be properly detected in the case of fiber cut when switching thresholds are set appropriately.
Input Power	25 dBm Max.
Insertion Loss	1.0 dB Typical, 1.5 dB Max.
Isolation	55 dB Min.
Return Loss	55 dB Min.
Polarization Dependent Loss	0.05 dB Typical, 0.1 dB Max.
Power Requirements	
Input Voltage	12 V_{DC} nominal from chassis resident power supply
Power Consumption	1.6 W Max.
Local Controls and Monitoring	
Switching Threshold (User-settable, Independent for Each Input)	Range: -22 to +22 dBm in 1 dB steps with ± 0.75 dB accuracy
Operating Mode	Auto: switch operates based on threshold setting Force to A or B: switch permanently latches in position A or B
Locally Monitored Parameters	Chassis slot number, powering voltage, internal temperature, input optical power, switch position (“A” or “B”), operating mode (Auto or Forced to A or B), wavelength
Front Panel Indicators	
Module Status LEDs	Red “Alarm”: both inputs below threshold settings Blue “Access”: illuminated during communication access
Switch Status LEDs	Green “A –> OUT” (switch in A position, or blinking if Forced to A) Yellow “B –> OUT” (switch in B position, or blinking if Forced to B)
Alarms	
	Service-affecting (DC failure, switch output below threshold, switch forced to A or B position) and non-service-affecting (high internal temperature, A or B input power below threshold)

ORDERING INFORMATION

Model Name	Description
OS32M2B-00-AS	Dual 2x1 Optical Switches

NOTE:
The switches are configured with SC/APC connectors.

RELATED PRODUCTS

CH3000 Chassis	DR3450N Digital Return Receivers
Optical Transmitters	Optical Passives
Optical Patch Cords	Installation Services

Contact Customer Care for product information and sales:

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

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Note: Specifications are subject to change without notice.

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