

Optical Node Series (NC)

OS42S1S Optical Switch

FEATURES

- Non-latching 2x1 optical switch
- Fast switching speed (< 5 ms typical)
- User-settable switching thresholds for analog and digital transport applications
- Low insertion loss
- 1290–1620 nm operating wavelength window
- Remote status monitoring and control
- Hot plug in/out
- Single Compact plug-in module for NC4000, NC2000 and Vhub platforms



PRODUCT OVERVIEW

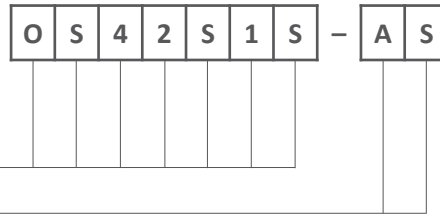
The ARRIS OS42S1S is a robust, non-latching 2x1 optical switch that allows rapid and economic deployment of optical switching anywhere in the network without the expense of a facility or OTN cabinet. It allows signals to be fed over diverse routes, providing a highly reliable network infrastructure, and offers fast switching times and low insertion loss.

The OS42S1S switch has a guaranteed switching time of less than 10 milliseconds (and typically less than 5 milliseconds) and will only switch to the secondary fiber route when the primary route optical input power is below the threshold level and optical power on the alternate route is above the threshold level. The switch can operate either with factory-set default threshold levels or with user-settable thresholds for each input (or can be forced to operate with the input from either its A or B input). The wide dynamic threshold adjustment range supports any combination of both analog and digital transmission applications including telephony traffic.

The OS42S1S is capable of operating over a temperature range from -40 to +85°C and can be fully monitored and remotely controlled.

| SPECIFICATIONS | |
|---|--|
| Characteristics | Specification |
| Physical | |
| Dimensions | 4.0" L x 2.2" H x 2.3" W (10.2 cm x 5.6 cm x 5.8 cm) |
| Weight | 0.6 lbs (0.3 kg) |
| Environmental | |
| Operating Temperature Range | -40° to +85°C (-40° to 185°F) |
| Storage Temperature Range | -40° to +85°C (-40° to 185°F) |
| Humidity | 5% to 95% non-condensing |
| General | |
| Hot plug-in/out | |
| Switch configuration | 2x1 |
| Switch type | non-latching |
| Switching speed | < 5 ms typical, 10 ms max |
| Modes of operation | Fixed Threshold, Settable Threshold |
| Optical Interface | |
| Optical connectors | SC/APC |
| Power Requirements | |
| Input voltage | 24 V _{DC} |
| Power consumption | 1.6 W |
| Optical | |
| Wavelength range | 1290–1620 nm |
| Input power | 25 dBm max |
| Insertion loss | 1.2 dB typical, 1.6 dB max |
| Isolation | 70 dB typical, 60 dB min |
| Return loss | 55 dB typical, 45 dB min |
| Directivity of tap-photodiode | 25 dB min |
| Status Indicator LEDs | |
| | INP STAT (input status indicators, two separate indicators for Inputs A and B); lighted green when OK, red for alarm condition, off when operating in OVERRIDE (forced) mode |
| | OUT POS (two switch position LED indicators), "A" LED lighted green when operating from Input A, "B" LED lighted yellow when operating from Input B |
| | OVERRIDE = Lighted yellow when switch forced to operate from Input A or B (user-settable) |
| Remote Monitoring/Control Parameters | |
| | Optical input power levels A and B (operational range -24 to +24 dBm), switch status, operational mode, threshold levels (when operating in Settable Threshold mode, -20 to +20 dBm in 1 dB steps) |

ORDERING INFORMATION



Optical Switch
 AS = SC/APC Connector

RELATED PRODUCTS

| | |
|--------|-----------------------|
| NC4000 | Optical Patch Cords |
| NC2000 | Optical Passives |
| VHub | Installation Services |

Customer Care

Contact Customer Care for product information and sales:

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

Note: Specifications are subject to change without notice.

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