

Headend Optics Platform (HLP)

HOS7010

HL2 Series Optical Switch Module

FEATURES

- Back-up capabilities reduce system costs by eliminating the need for back-up transmitters
- Automatic switching capabilities increase system reliability and reduce system down time
- Local or remote control of switches provides flexibility in configuration and operation
- Simple “plug and play” operation reduces time and cost of installation, allowing for easy system upgrades
- Operates in both 1310 nm and 1550 nm windows
- 3 input ranges to satisfy a variety of applications
- Applications include redundant rings and route diversity



PRODUCT OVERVIEW

The ARRIS HL2 Series HOS7010 optical switch is a plug-in module for the HLP4800 broadband platform that facilitates automatic and cost-effective network backup and redundancy capabilities, increasing optical distribution plant reliability and providing for a self-healing network.

The HOS7010 module is available in two model configurations: the HOS7010-22, containing a single 2x2 optical switch, and the HOS7010-22/22, containing two 2x2 optical switches. The switch also offers three input ranges to meet a variety of application needs: Low input (-10 to 0 dBm), Standard input (0 to +10 dBm) and High input (+10 to +20 dBm).

Each optical switch has two optical inputs and outputs, and can be operated as a 2x2, 1x2, or a 2x1 optical switch. The optical switch is an optomechanical device activated by means of an electromechanical actuator, and can be latched in either of two positions, bar or cross.

An internal optical detector measures the input optical level and switches when the optical level drops below the user set threshold.

There are three sources to control the optical switch position: the manual switch selector on the front panel, the Network Management System, and the optical input control for protection switching. The switch is fully connectorized with SC/APC connectors with a 2.0 dB insertion.

SPECIFICATIONS

| Characteristics | Specification |
|---|---|
| Physical | |
| Dimensions | 2.616" W x 4.37" H x 10.7" D |
| Weight | 3.1 lbs |
| Mounting | HLP4800 broadband platform |
| Environmental | |
| Operating Temperature Range | 0° to +50°C (32° to 122°F) |
| Storage Temperature Range | -40° to 70°C (-40° to 158°F) |
| Humidity | Maximum 85% non-condensing |
| Power Requirements | |
| Nominal | +24 V _{DC} supplied by HLP4800 bus |
| Maximum | 28 V _{DC} |
| Consumption | 20 Watts maximum |
| Optical and Electrical Performance | |
| Insertion Loss | 2.0 dB maximum including connector loss |
| Wavelength | 1290 – 1570 nm |
| Crosstalk | < -50 dBc optical |
| Back reflection | < -55 dB |
| Repeatability | within 0.05 dB |
| Switching Speed | 20 ms |
| Number of Switches per Module | |
| HOS7010-22 | 1 (2x2) |
| HOS7010-22/22 | 2 (2x2) |
| Optical Input | |
| Low Input Range | -10 to 0 dBm |
| Standard Input Range | 0 to +10 dBm |
| High Input Range | +10 to +20 dBm |
| Number of Inputs per Switch | 2 |
| Connector Type | SC/APC |
| Optical Output | |
| Number of Inputs per Switch | 2 |
| Connector Type | SC/APC |
| User Interface | |
| Front Panel | |
| Bi-state Status LED | Normal = Green, Alarm = Red (See manual for list of alarms) |
| Module Selection Indicator | Yellow LED |
| Optical switch position set-up slide switches | |
| Optical Switch Position Indicators | Yellow LEDs |
| Rear Panel | External 6 pin control input |
| Features | |
| User selectable switching threshold | |
| Input optical power monitoring on both inputs | |

ORDERING INFORMATION

| Part Number | Description |
|--|------------------|
| HOS7010-22-xx | One 2x2 switch |
| HOS7010-22/22-xx | Two 2x2 switches |
| xx = Connector Type: AS (SC/APC), AE (E2000) | |

End of Life

RELATED PRODUCTS

HLP4800 Broadband Platform

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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