



# DUALPATH™ KIT

## OVERVIEW

The DualPath Kit bundles two specially-designed Layer 2 switches with two high-performance unlicensed radios to provide a high-availability upgrade option for all Optical Wireless linkheads. When used as part of a system, the DualPath Kit provides seamless, sub-second failover between primary (Optical Wireless) and backup (RF) links ensuring up to 99.999% network availability even in fog. Customized switch firmware minimizes flapping issues and associated port closures while providing network management functionality. Radios can be channel-selected to operate from 5.4GHz to 5.8GHz frequencies thereby meeting the spectrum regulatory requirements of most countries.

## FEATURES AND BENEFITS

### Switch

- Multiple Port Options – Auto-sensing 10/100Mbps Fast Ethernet ports and combo 10/100/1000Mbps SFP/mini-GBIC ports allow connection to all linkheads – copper and fiber (with media converter or GBIC), Fast Ethernet and Gigabit.
- Rapid Spanning Tree Protocol – provides fast and efficient failover from primary Optical Wireless link to secondary RF backup in the event of link failure or interruption.
- Flapping Reduction – RSTP and enhanced switch software minimize port flapping and enables switch to maintain link connection even during multiple failovers.
- Voice and Data Traffic Support – built-in QoS (Quality of Service) capabilities makes switch suitable for both data and VoIP (voice over IP) environments.
- Network Management - supports all standards-based network management protocols (SNMP, RMON, BOOTP, Telnet, Web) to ease integration into a variety of third party network management packages.

### Radio

- High Performance – raw data rates up to 72 Mbps at distances up to 5 miles (8 kilometers) provide high-speed failover compared to typical T1/E1 backup lines.
- Optimal Transmission – Orthogonal Frequency Division Multiplexing provides higher bandwidth, excellent interference and multi-path robustness and near-line-of-sight operations.
- Worldwide Usage – multiple radio frequencies (from 5.4GHz to 5.8GHz) allow widespread usage on an international scale. Check country-specific rules for regulatory restrictions on radio usage.
- Power-over-Ethernet – simplifies installations by eliminating the need to install power at rooftop radio locations.
- Network Management – built-in management features on the radio (HTTP, FTP and SNMP) provides critical information on network performance and uptime.
- Highly Secure – 152-bit AES and 128-bit WEP encryption options coupled with MAC Access Control ensure safe and secure data transmission.



## PRODUCT INFORMATION

Description	Managed Layer 2 switch for LightPointe systems	Outdoor RF Bridge Backup for LightPointe systems
Ports	24 Auto-sensing 10/100 FE 2 Combo 10/100/1000 SFP/Mini-GBIC	
Dimensions (W x H x L)	441 x 66 x 388 mm (17.36 x 2.6 x 15.28 in)	304.8 x 304.8 x 76.2 mm (12 x 12 x 3 in)
Unit Weight	6.0 kg (13.23 lbs)	9.09 kg (20 lbs)
Operating Voltage	100 to 240V (50/60 Hz)	Power over Ethernet, Indoor DC Injector (24V, 1.5A)
Operating Temperature	0°C to 40°C (32°F to 104°F)	-20°C to 60°C (-4°F to 140°F)
Humidity Range	5% to 95%	100% (IEC 529/IP67)
Mount	Non Condensing 19-inch Rack Mount Width	Condensing Two-Axis Mast Mounting Kit

## NETWORKING

Frequency		5.4GHz-5.8Gz
Output Power		100mW (20dBm)
Antenna		High Gain Panel (22dBi)
Operational Ranges		To 5 km (Near-Line-of-Sight)
Connectivity	Ethernet 10BaseT, 100BaseT, 1000BaseT, 1000BaseX	Ethernet 10BaseT, 100BaseT
Interfaces	RJ-45 copper Interface + SFP/Mini-GBIC Interface (plug-in not included)	RJ-45 Copper Interface
Switching Fabric/Data Rate	8.8 Gbps Capacity	72 Mbps (Half Duplex)
Configuration & Management	HTTP, CLI/Console, RMON, SNMP v1/v3, Port Mirroring, Telnet, QoS	HTTP, SNMPv1.2, FTP, VLAN
Transmission	Store and Forward	OFDM
Security		40,128,152-bit AES 40,128-bit WEP MAC Address Access Control
Packet Buffer Memory	3.3 Mbits	
Network Protocol	Rapid Spanning Tree 802.1w	

## REGULATORY

Regulatory Compliance	FCC, CE, BSMI, VCCI, C-TIC	FCC, ETSI, CE, Industry Canada, China
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## ADVANCED FEATURES\*

Quality/Class of Service	802.1p
Port Based Authentication	802.1x
Multicast Support	IGMP Snooping
Link Aggregation	802.3ad
VLANs	Supports up to 255 VLAN groups
MAC Address Table	Supports up to 4000 MAC Addresses

### \*IMPORTANT NOTE:

The switch and radio components of the DualPath Kit have been customized and pre-configured to ensure optimal performance in LightPointe-specific Optical Wireless installations. Any changes to default settings, use of advanced switch features or use of non-LightPointe radios/linkheads may impact system operation and may not be supported by LightPointe.

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