

# DATA SHEET

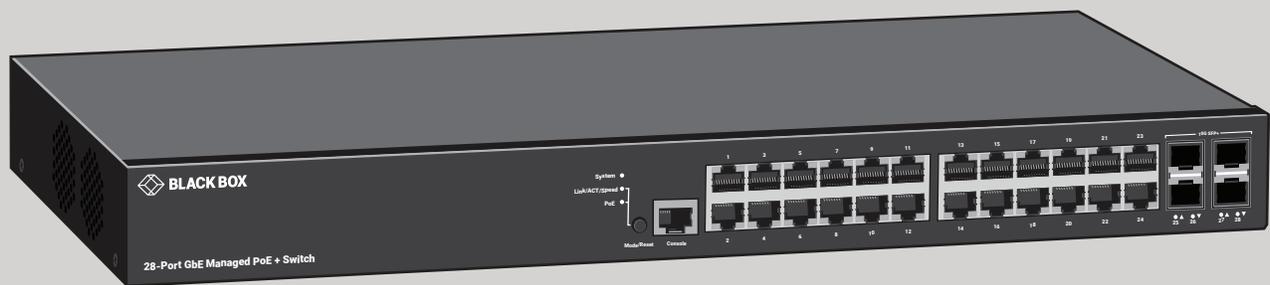
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LPB3010A, LPB3028A, LPB3052A

# GIGABIT MANAGED POE+ SWITCH

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# OVERVIEW

## GIGABIT MANAGED POE+ SWITCH (LPB3010A, LPB3028A, LPB3052A) DATA SHEET

### INTRODUCTION

The Gigabit Managed PoE+ Switches (LPB3000 Series) are the next-generation Ethernet switches offering a full suite of L2 features, additional 10 GbE uplink connections, better PoE functionality and usability, including advanced L3 features such as Static Route. In addition to the extensive management features, the LPB3000 Series Switches also provide carrier Ethernet features such as ERPS/EPs/PTPv2, which make them suitable for carrier Ethernet applications.

The LPB3010A delivers 8 (10M/100M/1G) RJ-45 with 8 PoE+ (support 802.3at/af, and total up to 130 W) ports, two 10GbE SFP+ ports, and an RJ-45 Console port.

The LPB3028A has 24 (10M/100M/1G) RJ-45 with 24 PoE+ (support 802.3at/af, and total up to 370 W) ports, 4 10GbE SFP+ ports, and an RJ-45 Console port.

The LPB3052A offers 48 (10M/100M/1G) RJ-45 with 48 PoE+ (support 802.3at/af, and total up to 740 W) ports, 4 10GbE SFP+ ports, and an RJ-45 console port.

All three models provide high HW performance and environment flexibility for SMBs and Enterprises.

The embedded Device Managed System (DMS) feature provides users with the benefits of easy-to-use/configure/install/troubleshoot in video surveillance, wireless access, and other SMBs and Enterprises applications. The switches deliver management simplicity, a better user experience, and a low total cost of ownership.

### FEATURES

- L2+ MANAGED FEATURES PROVIDE EASIER MANAGEABILITY, ROBUST SECURITY, AND QOS
- HAS BUILT-IN DEVICE MANAGEMENT SYSTEM (DMS)
- OFFERS ITU-T G.8031 ETHERNET LINEAR PROTECTION SWITCHING (EPS)
- USES ITU-T G.8032 ETHERNET RING PROTECTION SWITCHING (ERPS)
- COMPLIES WITH IEEE 1588V2 PTP
- PROVIDES DHCP SERVER
- OFFERS IPV4/IPV6 MANAGEMENT
- USES POE PORT CONFIGURATION AND SCHEDULING
- CONFORMS TO 802.3AT HIGH POWER POE PLUS STANDARD
- COMPLIES WITH IEEE 802.3AZ EEE ENERGY EFFICIENT ETHERNET STANDARD FOR GREEN ETHERNET

## COMPARISON CHART

SPECIFICATION COMPARISON CHART			
	LPB3010A	LPB3028A	LPB3052A
NUMBER OF POE+ PORTS	8	24	48
NUMBER OF SFP/SFP+ PORTS	2	4	4
POE POWER CAPACITY	130 W	370 W	740 W
UPLINKS	10 Gigabit Ethernet	10 Gigabit Ethernet	10 Gigabit Ethernet
FORWARDING CAPACITY (MPPS)	41.666	95.238	130.944
SWITCHING CAPACITY (GBPS)	56	128	176
MAC TABLE (K)	16	32	32
JUMBO FRAMES (BYTES)	10240	10240	10240
MOUNTING TYPE	Desktop, Wall	Desktop, Rack	Desktop, Rack
DIMENSIONS	1.7" H x 8.7" W x 9.53" D (4.4 x 22 x 24.2 cm)	1.7" H x 17.4" W x 8.3" D (4.4 x 44.2 x 21.1 cm)	1.7" H x 17.4" W x 14.8" D (4.4 x 44.2 x 37.5 cm)
WEIGHT	<5.1 lb. (<2.3 kg)	<8.36 lb. (<3.8 kg)	<12.39 lb. (<5.62 kg)



# SPECIFICATIONS

## 10-PORT GIGABIT MANAGED POE+ SWITCH (LPB3010A) DATA SHEET

FRONT VIEW



LPB3010A

BACK VIEW



LPB3010A

### WHAT'S INCLUDED WITH THE LPB3010A

- (1) 10-PORT GIGABIT MANAGED POE+ SWITCH
- (1) POWER SUPPLY

### SPECIFICATIONS FOR 10-PORT GIGABIT MANAGED POE+ SWITCH (LPB3010A)

PORT CONFIGURATION	
<b>CONNECTORS</b>	(8) RJ-45 (10M, 100M, 1G) PoE/PoE+, (2) SFP+ (1G/10G) uplinks, (1) RJ-45 console
HARDWARE PERFORMANCE	
<b>FORWARDING CAPACITY (MPPS)</b>	41.666 Mpps
<b>SWITCHING CAPACITY (GBPS)</b>	56 Gbps
<b>MAC TABLE (K)</b>	16 K
<b>JUMBO FRAMES (BYTES)</b>	10240 Bytes
ENVIRONMENTAL RANGE	
<b>OPERATING TEMPERATURE</b>	32 to 122° F (0 to 50° C)
<b>STORAGE TEMPERATURE</b>	-4 to +158° F (-20 to +70° C)
<b>OPERATING HUMIDITY</b>	Up to 95%, noncondensing
<b>ALTITUDE</b>	< 10,000 ft. (< 3000 m)
MECHANICAL	
<b>MOUNTING TYPE</b>	Desktop or wallmount
<b>DIMENSIONS</b>	1.7" H x 8.7" W x 9.53" D (4.4 x 22 x 24.2 cm)
<b>WEIGHT</b>	<5.1 lb. (<2.3 kg)
POWER	
<b>AC INPUT VOLTAGE</b>	100 to 240 VAC
<b>FREQUENCY</b>	50 to 60 Hz
<b>AVAILABLE POE POWER</b>	130 W

# SPECIFICATIONS

## 28-PORT GIGABIT MANAGED POE+ SWITCH (LPB3028A) DATA SHEET

FRONT VIEW



LPB3028A

BACK VIEW



LPB3028A

### WHAT'S INCLUDED WITH THE LPB3028A

- (1) 28-PORT GIGABIT MANAGED POE+ SWITCH
- (1) POWER SUPPLY

### SPECIFICATIONS FOR 28-PORT GIGABIT MANAGED POE+ SWITCH (LPB3028A)

#### PORT CONFIGURATION

**CONNECTORS** (24) RJ-45 (10M, 100M, 1G) PoE/PoE+, (4) SFP+ (1G/10G) uplinks, (1) RJ-45 console

#### HARDWARE PERFORMANCE

**FORWARDING CAPACITY (MPPS)** 95.238 Mpps

**SWITCHING CAPACITY (GBPS)** 128 Gbps

**MAC TABLE (K)** 32 K

**JUMBO FRAMES (BYTES)** 10240 Bytes

#### ENVIRONMENTAL RANGE

**OPERATING TEMPERATURE** 32 to 122° F (0 to 50° C)

**STORAGE TEMPERATURE** -4 to +158° F (-20 to +70° C)

**OPERATING HUMIDITY** Up to 95%, noncondensing

**ALTITUDE** < 10,000 ft. (< 3000 m)

#### MECHANICAL

**MOUNTING TYPE** Desktop or rack

**DIMENSIONS** 1.7" H x 17.4" W x 8.3" D (4.4 x 44.2 x 21.1 cm)

**WEIGHT** <8.36 lb. (<3.8 kg)

#### POWER

**AC INPUT VOLTAGE** 100 to 240 VAC

**FREQUENCY** 50 to 60 Hz

**AVAILABLE POE POWER** 370 W



# SPECIFICATIONS

## 52-PORT GIGABIT MANAGED POE+ SWITCH (LPB3052A) DATA SHEET

FRONT VIEW



LPB3052A

BACK VIEW



LPB3052A

### WHAT'S INCLUDED WITH THE LPB3052A

- (1) 52-PORT GIGABIT MANAGED POE+ SWITCH
- (1) POWER SUPPLY

### SPECIFICATIONS FOR 52-PORT GIGABIT MANAGED POE+ SWITCH (LPB3052A)

PORT CONFIGURATION	
CONNECTORS	(48) RJ-45 (10M, 100M, 1G) PoE/PoE+, (4) SFP+ (1G/10G) uplinks, (1) RJ-45 console
HARDWARE PERFORMANCE	
FORWARDING CAPACITY (MPPS)	130.944 Mpps
SWITCHING CAPACITY (GBPS)	176 Gbps
MAC TABLE (K)	32 K
JUMBO FRAMES (BYTES)	10240 Bytes
ENVIRONMENTAL RANGE	
OPERATING TEMPERATURE	32 to 122° F (0 to 50° C)
STORAGE TEMPERATURE	-4 to +158° F (-20 to +70° C)
OPERATING HUMIDITY	Up to 95%, noncondensing
ALTITUDE	< 10,000 ft. (< 3000 m)
MECHANICAL	
MOUNTING TYPE	Desktop or rack
DIMENSIONS	1.7" H x 17.4" W x 14.8" D (4.4 x 44.2 x 37.5 cm)
WEIGHT	<12.39 lb. (<5.62 kg)
POWER	
AC INPUT VOLTAGE	100 to 240 VAC
FREQUENCY	50 to 60 Hz
AVAILABLE POE POWER	740 W

# SPECIFICATIONS

## GIGABIT MANAGED POE+ SWITCHES (LPB3010A, LPB3028A, LPB3052A) DATA SHEET

SPECIFICATIONS COMMON TO LPB3010A, LPB3028A, AND LPB3052A	
<b>CERTIFICATIONS</b>	
<b>ELECTROMAGNETIC EMISSIONS (EMC)</b>	CE, FCC Part 15 Class A
<b>SOFTWARE FEATURES</b>	
<b>RING MANAGEMENT</b>	ITU-T G.8031: Supports ITU-T G.8031 Ethernet Linear Protection Switching; ITU-T G.8032: Supports ITU-T G.8032 Ethernet Ring Protection Switching
<b>LAYER 2 SWITCHING</b>	
<b>SPANNING TREE PROTOCOL (STP)</b>	<ul style="list-style-type: none"> <li>Standard Spanning Tree 802.1d: Spanning Tree Protocol is an OSI layer-2 protocol that ensures a loop-free topology for any bridged LAN</li> <li>Rapid Spanning Tree (RSTP) 802.1w: Rapid Spanning Tree Protocol provides for faster spanning tree convergence after a topology change</li> <li>Multiple Spanning Tree (MSTP) 802.1s: Multiple Spanning Tree Protocol. The MSTP protocol supports multiple spanning tree instances</li> </ul>
<b>VLAN</b>	<ul style="list-style-type: none"> <li>802.1Q tag-based VLAN: Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs)</li> <li>Port-based VLAN: A port member of a VLAN can be isolated to other isolated ports on the same VLAN and Private VLAN.</li> <li>Private VLAN Edge (PVE): Private VLANs are based on the source port mask, and there are no connections to VLANs. This means that VLAN IDs and Private VLAN IDs can be identical.</li> <li>Voice VLAN: The Voice VLAN feature enables voice traffic forwarding on the Voice VLAN.</li> <li>Guest VLAN: The IEEE 802.1X Guest VLAN feature allows a guest VLAN to be configured for each 802.1X port on the device to provide limited services to non-802.1X-compliant clients.</li> <li>Q-in-Q (double tag) VLAN: Business customers of service providers often have specific requirements for VLAN IDs and the number of VLANs to be supported.</li> <li>802.1v Protocol VLAN: Classifying multiple protocols into a single VLAN often imposes VLAN boundaries that are inappropriate for some of the protocols, requiring the presence of a non-standard entity to relay between VLANs the frames bearing the protocols for which the VLAN boundaries are inappropriate.</li> <li>MAC-based VLAN: The MAC-based VLAN feature allows incoming untagged packets to be assigned to a VLAN and thus classify traffic based on the source MAC address of the packet.</li> <li>IP Subnet-Based VLAN: In an IP subnet-based VLAN, all the end workstations in an IP subnet are assigned to the same VLAN. In this VLAN, users can move their workstations without reconfiguring their network addresses.</li> <li>Management VLAN: Management VLAN is used for managing the switch from a remote location by using protocols such as telnet, SSH, SNMP, syslog, etc.</li> </ul>
<b>LACP TRUNKING</b>	<p>Link Aggregation Control Protocol (LACP) IEEE 802.3ad: Controls whether LACP is enabled on this switch port. LACP will form an aggregation when two or more ports are connected to the same partner.</p> <p>LPB3010A: Up to 5 groups, up to 16 ports per group            LPB3028A: Up to 14 groups, up to 16 ports per group;            LPB3052A: Up to 26 groups, up to 16 ports per group</p>
<b>GARP VLAN REGISTRATION PROTOCOL (GVRP)</b>	GVRP stands for GARP (Generic Attribute Registration Protocol) VLAN Registration Protocol. It's a Layer 2 network protocol, for automatic configuration of switches in a VLAN network
<b>DHCP RELAY</b>	<ul style="list-style-type: none"> <li>Relay of DHCP traffic to DHCP server in different VLAN</li> <li>Works with DHCP Option 82</li> </ul>
<b>IGMP V1/V2/V3 SNOOPING</b>	IGMP limits bandwidth-intensive multicast traffic to only the requesters. Supports 1024 multicast groups
<b>IGMP QUERIER</b>	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
<b>IGMP PROXY</b>	IGMP snooping with proxy reporting or report suppression actively filters IGMP packets in order to reduce load on the multicast router
<b>MLD V1/V2 SNOOPING</b>	Delivers IPv6 multicast packets only to the required receivers
<b>MULTICAST VLAN REGISTRATION (MVR)</b>	This uses a dedicated manually configured VLAN, called the multicast VLAN, to forward multicast traffic over Layer 2 network in conjunction with IGMP snooping



# SPECIFICATIONS

## GIGABIT MANAGED POE+ SWITCHES (LPB3010A, LPB3028A,LPB3052A) DATA SHEET

SPECIFICATIONS COMMON TO LPB3010A, LPB3028A, AND LPB3052A (CONTINUED)	
<b>LAYER 3 SWITCHING</b>	
<b>IPV4 STATIC ROUTING</b>	IPv4 Unicast: Static Routing
<b>IPV6 STATIC ROUTING</b>	IPv6 Unicast: Static Routing
<b>QUALITY OF SERVICE</b>	
<b>HARDWARE QUEUE</b>	Supports 8 hardware queues
<b>CLASSIFICATION</b>	<ul style="list-style-type: none"><li>• Port based: Traffic QoS by Port</li><li>• 802.1p: VLAN priority based Layer 2 CoS QoS, Class of service is a parameter used in data and voice protocols to differentiate the types of payloads contained in the packet being transmitted.</li><li>• DSCP based Differentiated Services (DiffServ) Layer 3 DSCP QoS: IP packets can carry either an IP precedence (IPP) value or a Differentiated Services Code Point (DSCP) value. QoS supports the use of either value because DSCP values are backward-compatible with IP precedence values.</li><li>• Classification and re-marking TCP/IP ACLs: QoS by ACL</li></ul>
<b>RATE LIMITING</b>	<ul style="list-style-type: none"><li>• Ingress policer</li><li>• Egress shaping and rate control</li><li>• Per port</li></ul>
<b>SCHEDULING</b>	Strict priority and weighted round-robin (WRR): Weighted Round Robin is a scheduling algorithm that uses weights assigned to queues to determine how much data will be emptied from a queue before moving to the next queue.
<b>SECURITY</b>	
<b>ACLs</b>	Supports up to 512 entries. Drop or rate limitation based on: <ul style="list-style-type: none"><li>• Source and destination MAC, VLAN ID or IP address, protocol, port</li><li>• Differentiated services code point (DSCP)/IP precedence</li><li>• TCP/UDP source and destination ports</li><li>• 802.1p priority</li><li>• Ethernet type</li><li>• Internet Control Message Protocol (ICMP) packets</li><li>• TCP flag</li></ul>
<b>PORT SECURITY</b>	Locks MAC addresses to ports, and limits the number of learned MAC address
<b>IP SOURCE GUARD</b>	Prevents illegal IP address from accessing a specific port in the switch
<b>STORM CONTROL</b>	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
<b>IEEE 802.1X</b>	<ul style="list-style-type: none"><li>• IEEE 802.1X: RADIUS authentication, authorization, and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions</li><li>• Supports IGMP-RADIUS based 802.1X</li><li>• Dynamic VLAN assignment</li></ul>
<b>TACACS+</b>	Supports TACACS+ authentication. Switch as a client
<b>SECURE SHELL (SSH)</b>	SSH secures Telnet traffic in or out of the switch, SSH v1 and v2 are supported
<b>SECURE SOCKETS LAYER (SSL)</b>	SSL encrypts the http traffic, allowing advanced secure access to the browser-based management GUI in the switch
<b>HTTPS AND SSL (SECURED WEB)</b>	Hyper Text Transfer Protocol Secure (HTTPS) is the secure version of HTTP
<b>BPDU GUARD</b>	The BPDU guard, an enhancement to STP, removes a node that reflects BPDUs back in the network. It enforces the STP domain borders and keeps the active topology predictable by not allowing any network devices behind a BPDU guard-enabled port to participate in STP.
<b>DHCP SNOOPING</b>	This feature acts as a firewall between untrusted hosts and trusted DHCP servers.
<b>LOOP PROTECTION</b>	Prevents unknown unicast, broadcast, and multicast loops in Layer 2 switching configurations.
<b>MANAGEMENT</b>	
<b>IEEE 1588V2 PTP</b>	Supports IEEE 1588 v2 PTP (Precision Time Protocol)
<b>DHCP</b>	<ul style="list-style-type: none"><li>• DHCP Server: Supports DHCP server to assign IP to DHCP clients</li><li>• DHCP client: The Dynamic Host Configuration Protocol (DHCP) is a standardized network protocol used on Internet Protocol (IP) networks for dynamically distributing network configuration parameters, such as IP addresses for interfaces and services</li></ul>
<b>EVENT/ERROR LOG</b>	Supports SNMP Trap/Syslog/SMTP



# SPECIFICATIONS

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SPECIFICATIONS COMMON TO LPB3010A, LPB3028A, AND LPB3052A (CONTINUED)	
<b>MANAGEMENT (CONTINUED)</b>	
<b>SNMP</b>	SNMP version 1, 2c, and 3 with support for traps, and SNMP version 3 user-based security model (USM)
<b>REMOTE MONITORING (RMON)</b>	Embedded RMON agent supports RMON groups 1, 2, 3, 9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
<b>FIRMWARE UPGRADE</b>	<ul style="list-style-type: none"> <li>• Web browser upgrade (HTTP/ HTTPS) and TFTP</li> <li>• Upgrade through console port as well</li> </ul>
<b>CONFIGURATION EXPORT/IMPORT</b>	Update of the firmware controlling the switch
<b>PORT MIRRORING</b>	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported
<b>IEEE 802.1AB (LLDP)</b>	<ul style="list-style-type: none"> <li>• Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802.1ab local area network</li> <li>• Support LLDP-MED (ANSI/TIA-1057) extensions</li> </ul>
<b>UPNP</b>	The Universal Plug and Play Forum, an industry group of companies working to enable device-to-device interoperability by promoting Universal Plug and Play
<b>CDP AWARE</b>	The CDP operation is restricted to decoding incoming CDP frames (The switch doesn't transmit CDP frames). CDP frames are only decoded if LLDP on the port is enabled.
<b>S-FLOW</b>	The industry standard for monitoring high speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting/billing for usage, and defense against security threats.
<b>WEB GUI INTERFACE</b>	Built-in switch configuration utility for browser-based device configuration
<b>CLI</b>	Enables users to configure/manage switches in command line modes
<b>DUAL IMAGE</b>	Independent primary and secondary images for backup while upgrading
<b>NTP</b>	Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched networks
<b>SWITCH MANAGEMENT</b>	<ul style="list-style-type: none"> <li>• HTTP/HTTPS</li> <li>• SSH</li> <li>• DHCP Client/ DHCPv6 Client</li> <li>• Telnet Client</li> <li>• IPv6 Management</li> </ul>
<b>DIAGNOSTICS</b>	<ul style="list-style-type: none"> <li>• Cable diagnostics</li> <li>• Ping</li> <li>• Syslog</li> </ul>
<b>DEVICE MANAGEMENT SYSTEM (DMS)</b>	
<b>GRAPHICAL MONITORING</b>	<ul style="list-style-type: none"> <li>• Topology view: Supports an intuitive way to configure and manage switches and devices with visual relations</li> <li>• Floor view: It's easy to drag and drop PoE devices and help you to build smart workforces</li> <li>• Map view: Enhance efficiency to drag and drop devices and monitor surroundings on google map</li> <li>• Display visual chart of network traffic of all devices and monitor every port at any time from switches</li> </ul>
<b>SWITCH2GO</b>	You'll be notified of switch status.
<b>FIND MY SWITCH</b>	Search your physical switches quickly and manage them directly
<b>TRAFFIC MONITORING</b>	Display visual chart of network traffic of all devices and monitor every port at any time from switches
<b>TROUBLESHOOTING</b>	<ul style="list-style-type: none"> <li>• Network diagnostic between master switch and devices</li> <li>• Support protection mechanism, such as rate-limiting to protect your devices from brute-force downloading</li> </ul>
<b>POWER OVER ETHERNET (POE)</b>	
<b>PORT CONFIGURATION</b>	Supports per-port PoE configuration function
<b>POE SCHEDULING</b>	Supports per-port PoE scheduling to turn on/off the PoE devices (PDs).
<b>AUTO-CHECKING</b>	Check the link status of PDs. Reboot PDs if there is no response.
<b>POWER DELAY</b>	The switch provides power to the PDs based on delay time when the PoE switch boots up, in order to protect the switch from misuse of the PDs.
<b>SOFT-REBOOT POE NON-STOP</b>	The switch will keep providing power to the PDs during a soft-reboot.



# COMPATIBLE SFPS

## GIGABIT MANAGED POE+ SWITCHES (LPB3010A, LPB3028A,LPB3052A) DATA SHEET

COMPATIBLE SFPS		
PART NUMBER	DESCRIPTION	DISTANCE
<b>1-GBPS CONNECTIONS</b>		
LFP441	SFP, Gigabit Ethernet, 850-nm Multimode Fiber, LC	550 m
LFP442	SFP, Gigabit Ethernet, 1310-nm Singlemode Fiber, LC	20 km
LFP443	SFP, 10/100/1000BASE-T RJ-45 SGMII	100 m
LFP411	SFP/1250, Ext. Diag., Ext. Temp., Multimode Fiber, 850, LC	550 m
LFP412	SFP/1250, Ext. Diag., Ext. Temp., Multimode Fiber, 1310, LC	2 km
LFP413	SFP/1250, Ext. Diag., Ext. Temp., Singlemode Fiber, 1310, LC	10 km
LFP414	SFP/1250, Ext. Diag., Ext. Temp., Singlemode Fiber, 1310, LC	40 km
LFP416	SFP/1250, Ext. Diag., Ext. Temp., RJ-45, SGMII, 10/100/1000 Mbps	100 m
LFP418	SFP/1250, Ext. Diag., Ext. Temp., Singlemode Fiber, 1550, LC	80 km
LFP420	SFP/1250, Ext. Diag., Ext. Temp., Singlemode Fiber, 1550 TX/1310 RX, Simplex	10 km
LFP421	SFP/1250, Ext. Diag., Ext. Temp., Singlemode Fiber, 1310 TX/1550 RX, Simplex	10 km
<b>10-GBPS CONNECTIONS</b>		
LSP441	SFP+ - 10-Gb, Extended Diagnostics, 850-nm Multimode Fiber, LC	300 m
LSP442	SFP+ - 10-Gb, Extended Diagnostics, 1310-nm Singlemode Fiber, LC	10 km
LSP443	SFP+, 10GBASE-T, RJ-45	30 m

# COMPATIBLE ACTIVE OPTICAL CABLES (AOCs) FOR NETWORKING

COMPATIBLE 10G ACTIVE OPTICAL CABLES FOR NETWORKING	
LENGTH	PRODUCT CODE
1-m	<b>SFP-10G-AOC1M-BB</b>
2-m	<b>SFP-10G-AOC2M-BB</b>
3-m	<b>SFP-10G-AOC3M-BB</b>
5-m	<b>SFP-10G-AOC5M-BB</b>
7-m	<b>SFP-10G-AOC7M-BB</b>
10-m	<b>SFP-10G-AOC10M-BB</b>

# COMPATIBLE 10G DIRECT ATTACH CABLES (DACs) FOR NETWORKING

COMPATIBLE 10G DIRECT ATTACH CABLES FOR NETWORKING	
LENGTH	PRODUCT CODE
50-cm	<b>SFP-H10GB-CU50CM-BB</b>
1-m	<b>SFP-H10GB-CU1M-BB</b>
1.5-m	<b>SFP-H10GB-CU1M5-BB</b>
2-m	<b>SFP-H10GB-CU2M-BB</b>
3-m	<b>SFP-H10GB-CU3M-BB</b>
5-m	<b>SFP-H10GB-CU5M-BB</b>



