
Premier 4124XG

Premier 4124XG

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1.1.

가 Premier 4124XG

가

가

- (Local Area Networks, LAN) (Metro Area Network, MAN)
- , 가
-
-
- Simple Network Management Protocol (SNMP)



Notice Premier 4124XG

Premier Series 가



1.2.

< 1> < 2> 가 .

1.

Screen displays	■		
	■	CLI	
Screen displays bold	■	가	
[Key]	■		[Enter] [Ctrl]
	■		[Ctrl] + [z]
		“+”	
	■		
	■		가

2.

	Notice	■	, , Tip
	Warning	■	, , 가

1.3.

Premier 4124XG

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Hardware Installation Guide

-
-

User Guide

-
-
-

(Trouble shooting)



Notice

Premier 4124XG

<http://www.ubiquoss.com>

2

Premier 4124XG

L2/L3

가

/ (Aggregation/Distribution)

speed

가 3

wire-

가 , IP
4124XG 가

, Diffserv ,

QoS
Premier

- Premier 4124XG
- Premier 4124XG
- Premier 4124XG

2.1. Premier 4124XG

Premier 4124XG



- 가
-
- (Throughput)
- (24)
- Tree Ring
- 16 Gbps Non-Blocking Switch Fabric
- 6Mpps throughput



Wire - speed

-
- 2/3 wire - speed
- (load sharing)



- 4
- 6 100Base - FX 10/100base - TX
- 100Base - FX Full - Duplex
- 100Base - FX 10/100base - TX
- 가
-



3

- LAN 3
- Wire - speed Internet Protocol (IP)
 - 1) RIP I/II(Routing Information Protocol)
 - 2) OSPF v1/v2 (Open Shortest Path First)
 - 3) BGP v4 (Border Gateway Protocol Version 4)
 - 4) Static route, Default gateway, Loop - back interface
-

■ Wire-speed IP

- IGMP(Internet Group Multicast Protocol) snooping Broadcasting

-

■ (Bandwidth Management) → Option

- 가 SLA(Service Level Agreement) 가
1Mbps

-

-

-

■ VLAN(Virtual Local Area Network, IEEE 802.1Q)

- VLAN
- 4,000 VLAN
- VLAN VLAN Trunking
- Tagged VLAN

■ STP(Spanning Tree Protocol, IEEE 802.1D)

- 2 STP
- VLAN STP PVST(Per VLAN STP)
- STP 5

■ Quality of Service(QoS)

- QoS/CoS
- Traffic Classification (IEEE 802.1p)
- (Priority Control) QoS
 - : RED(Random Early Detection), RIO(RED In Out)
 - : SPQ(Strict Priority Queuing), WFQ(Weighted Fair Queuing), WRR(Weighted Round-Robin), Hybrid

■ ACL

- IP
- 가
- - 1)
 - 2) TCP/UDP

3)

■ 가

- - 8
- 100Mbps
- - (Load Balancing)
- Link Aggregation (IEEE 802.3ad)
- Jumbo Frame(1518 bytes)
- DHCP(Dynamic Host Configuration Protocol) Server/Relay
 - DHCP
 - IP
 - DHCP IP
- Broadcast Storm Filtering
- NTP(Network Time Protocol)

■

- Cold 1
- TFTP Flash
- (configuration) 가

■

- Cisco CLI
- GUI (EMS)
- Telnet Local
- Sys log
-
-
- SNMP I, II agent, RMON
- Port Mirroring

2.2.

Premier 4124XG 가

- 1000Base-SX/LX : 2 ()
- 100Base-FX : 24 (4)
- 10/100Base-TX : 24 (4)

< 3> Premier 4124XG 가

3.

1000BASE - SX	50/125 μ m Multi - mode Fiber	SC Type	550m
	62.5/125 μ m Multi - mode Fiber	SC Type	275m
1000BASE - LX	50/125 μ m Multi - mode Fiber	SC Type	550m
	62.5/125 μ m Multi - mode Fiber	SC Type	550m
	9/125 μ m Single - mode Fiber	SC Type	10Km
	9/125 μ m Single - mode Fiber	SC Type	40Km
1000Base - LH	9/125 μ m Single - mode Fiber	SC Type	70Km
100BASE - FX	50/125 μ m Multi - mode Fiber	SC Type	2Km
	62.5/125 μ m Multi - mode Fiber	SC Type	2Km
	9/125 μ m Single - mode Fiber	SC Type	15Km
	9/125 μ m Single - mode Fiber	SC Type	40Km
10/100BASE - TX	Category 5 and higher UTP	RJ - 45 Type	100m

Premier 4124XG

(full duplex)

가

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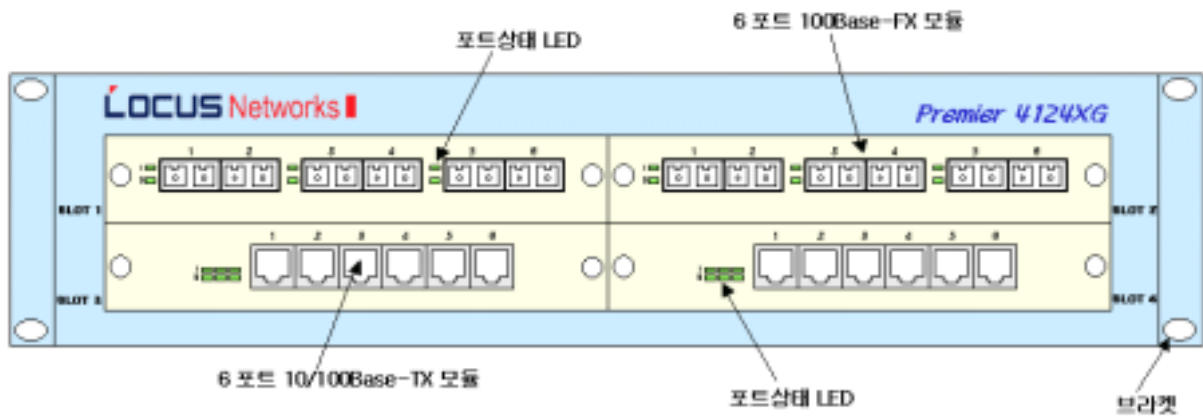
10/100Base-TX

(half-duplex)

2.3. Premier 4124XG

Premier 4124XG < 1> 가 .
 Premier 4124XG 4 가 , 6
 100Base-FX 10/100Base-TX . Premier 4124XG

- 4
- LED



1. Premier 4124XG

< 4.> LED .

4. LED

LED		
LINK	Off	Link On, /
	Off	Link Off

2.5.

Premier 4124XG AC DC . AC
 220V DC -48VDC
 가 , 가
 , . AC DC
 (hot-swappable) 가 .

Premier 4124XG SNMP 가 가 ,
 가 trap .

- AC (failure)
- DC
-



3.

2.6. 100Base-FX

< 4> Premier 4124XG 6 100Base-FX
Premier 4124XG
. 100Base-FX .

- 100Base-FX 1~6
- 100Base-FX 1~6 LED



4. 100Base-FX

< 5> 100Base-FX LED

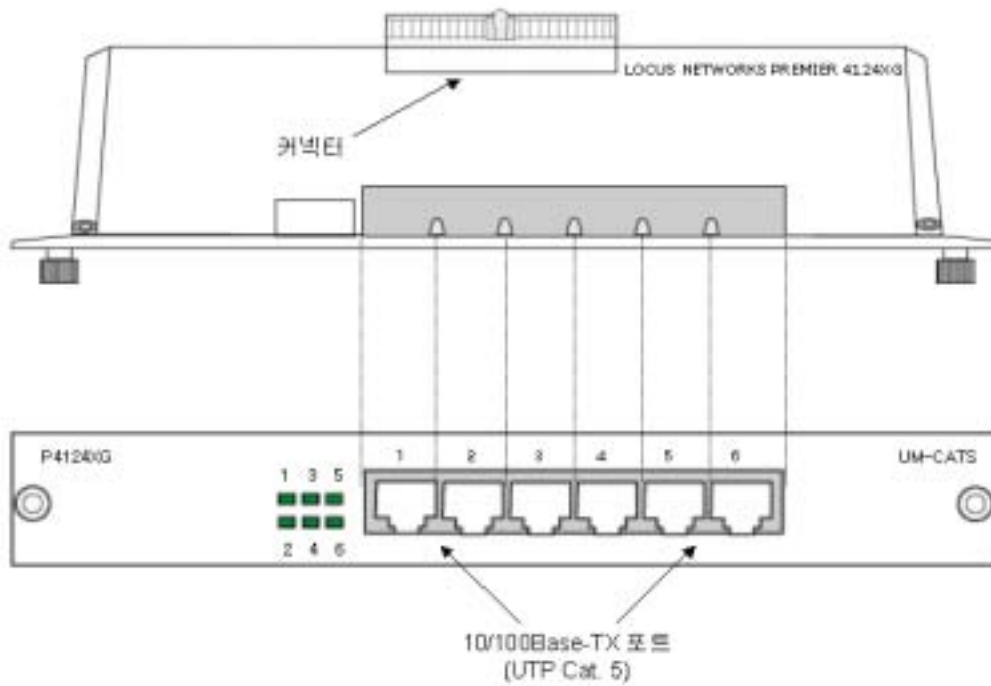
5. 100Base-FX LED

LED		
LINK	Green Blink (Green) Off	Link On, / Link Off

2.7. 10/100Base-TX

< 5> Premier 4124XG 2 10/100Base-TX
 . 10/100Base-TX .

- 10/100Base-TX 1~6
- 10/100Base-TX 1~6 LED



5. 10/100Base-TX

< 6> 10/100Base-TX LED

6. 10/100Base-TX LED

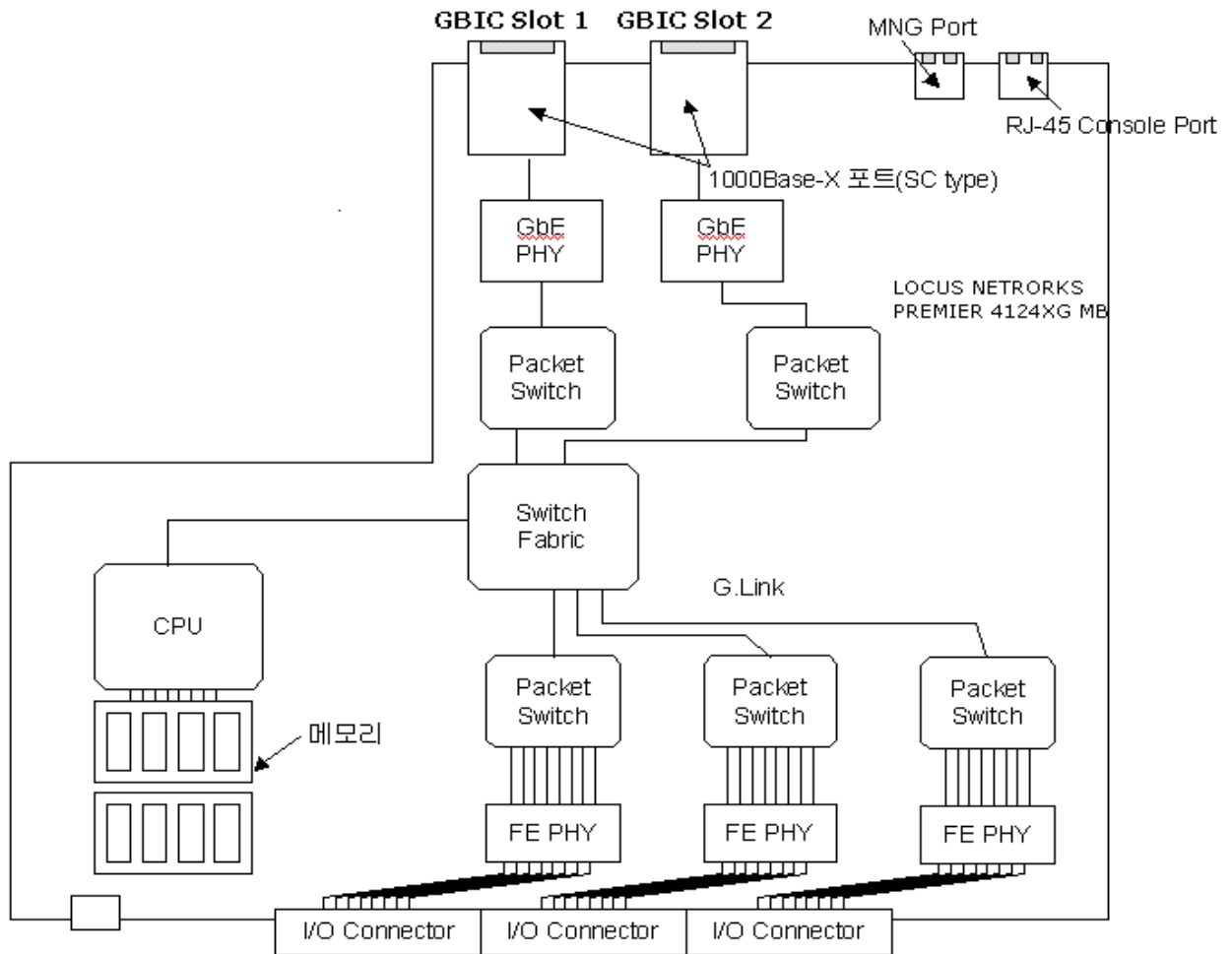
LED		
LINK 1~6	Link On,	
	/	
Off	Link Off	

2.8.

Premier 4124XG

가

Switch Fabric, Packet Switch, Physical Module, CPU, Packet Switch lookup table 가 Packet Switch CPU Packet Switch lookup table Packet Switch 가



6. Premier 4124XG

7. Premier 4124XG

Switch Fabric	▪ Packet Switch
Packet Switch	<ul style="list-style-type: none"> ▪ 2 3 ▪ (Packet classification) ▪ (Packet buffering) ▪ (Network management)
Physical module	▪ Packet Switch I/O
CPU	<ul style="list-style-type: none"> ▪ ▪ ▪ (Operation, Administration and Maintenance)

3

- Premier 4124XG
- 19
-
-
-

3.1.

Premier 4124XG , , SGIM ,



Warning Premier 4124XG ,

, 가 <4. >

3.2.

Premier 4124XG

19

Premier 4124XG

Premier 4124XG

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3.3. Premier 4124XG

Premier 4124XG

. Premier 4124XG

-
- Premier 4124XG
-
- 2 100Base-FX 10/100Base-TX
-

3.3.1.

Premier 4124XG

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-
- I/O (,)
- Premier 4124XG ()
- Premier 4124XG
-
- *Ubiquoss Premier 4124XG* 가 (CD)
- *Ubiquoss Premier 4124XG* 가 (CD)

3.3.2. Premier 4124XG

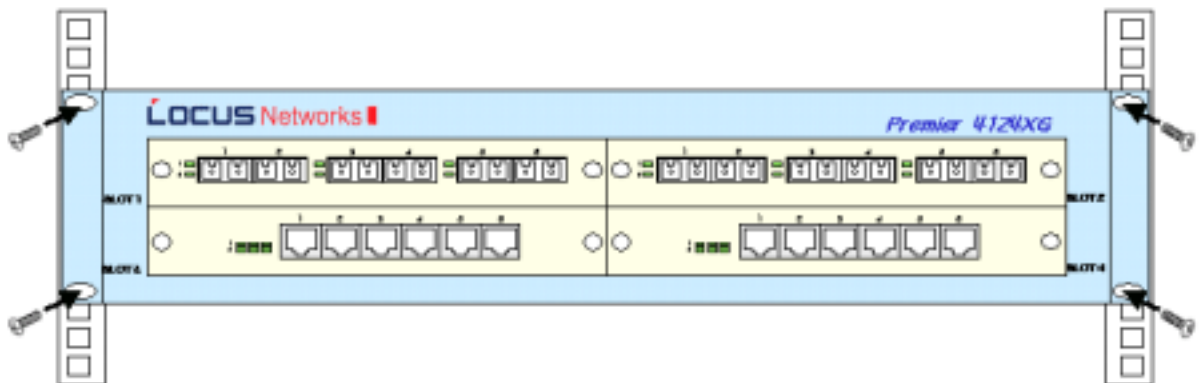
Premier 4124XG 19

- 1) < 7> .(4)



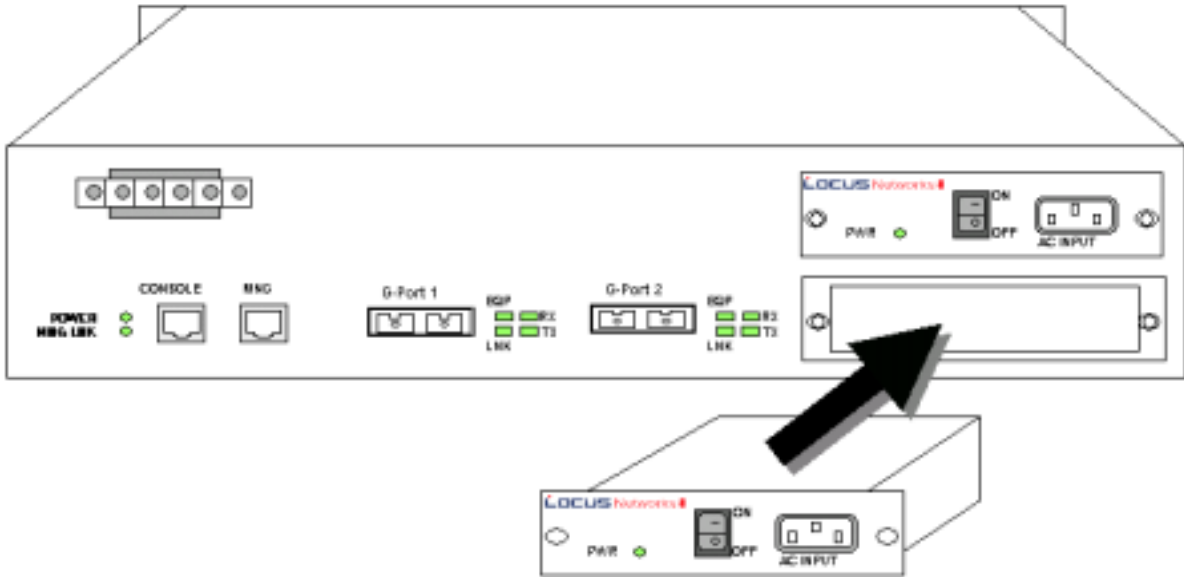
7.

- 2) 1)



8. Premier 4124XG 19

- 3) < 9> 1
- 2



9.

- 4) 6 100Base-FX 2 10/100Base-TX

- a. 가
- b.
- c.
- d.



Notice 100Base-TX/FX

1

4

3.4.

, AC



Warning

Premier 4124XG AC220V
inlet

AC

3.5. Premier 4124XG

Premier 4124XG 가 RJ-45

(terminal mode)

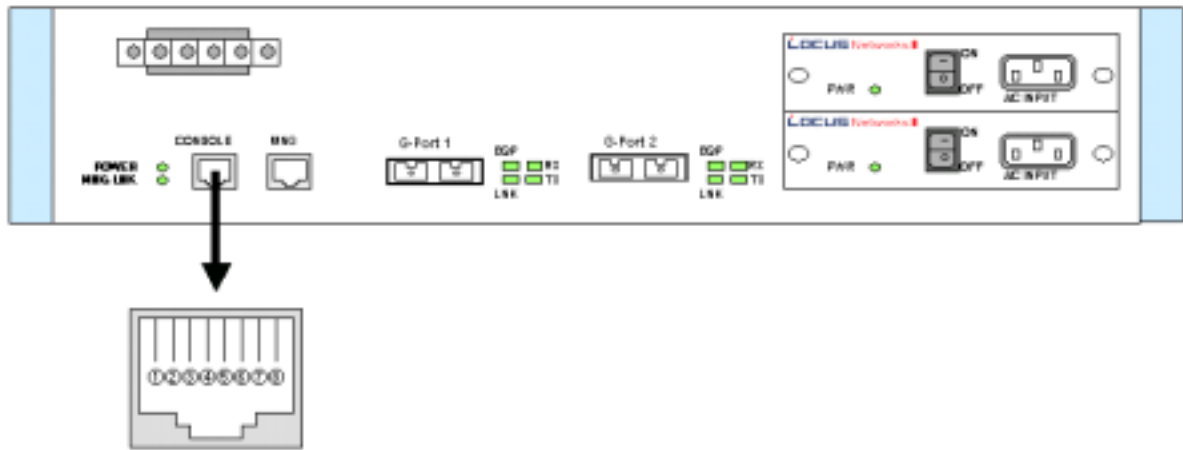
< 8>

8. Terminal Mode

Data Bits	9600 bps
Parity	None Parity
Data Bits	8 bits
Stop Bit	1 stop bit
Flow Control	No Flow Control

Premier 4124XG

< 10> < 9>



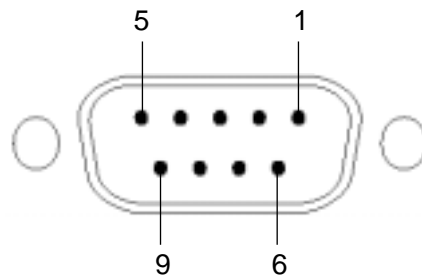
10. Premier 4124XG

9. Pin Outs

1	-	-
2	TX ()	Out
3	RX ()	In
4	-	-
5	GND ()	-
6	-	-
6	-	-
8	-	-

9 , RS-232 DB-9

11> < 10>



11. RS-232-DB9

10. RS-232-DB9 Pin Outs

1	-	-
2	RX ()	In
3	TX ()	Out
4	-	-
5	GND ()	-
6	-	-
7	-	-
8	-	-

3.6.

가 Premier 4124XG
Default VLAN(=VLAN 1) IP .



Notice

Premier 4124XG

Premier 4124XG 가 .

Premier 4124XG

IP .

1) PC terminal emulation .

2) 가 [Enter] user 가 .

P4124XG>

3) 가 enable 가
가 [Enter] .
privileged "P4124XG#" .

P4124XG>**enable**

Password:

P4124XG#



Notice

Premier

hostname
Premier 4124XG 가 .

4) IP 가
config interface .

P4124XG#**config terminal**

P4124XG(config)#**interface vlan 1**

P4124XG(config-if-vlan1)

- 5) IP . IP
192.168.1.10 , 255.255.255.0 .

```
P4124XG(config-if-vlan1)ip address 192.168.1.10 255.255.255.0
P4124XG(config-if-vlan1)
```

- 6) IP interface user
. [Ctrl] + [z] end
exit .

```
P4124XG(config-if-vlan1)exit
P4124XG(config)exit
P4124XG#
```

- 7) P4124XG# show running-config IP

```
P4124XG#show running-config
Current configuration...
...
Building system configuration...
...
interface vlan 1
ip address 192.168.1.10 255.255.255.0
...
P4124XG#
```

- 8) IP 가 . running config
. startup config copy .

```
P4124XG#copy running-config startup-config
P4124XG#
```

**Notice**

Premier 4124XG Configuration startup-
config running-config 가 . Flash
Configuration startup-config , DRAM
running-config .

4.2.

Premier 4124XG

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A/C

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5

Premier 4124XG wire-speed
 (Operation, Administration and maintenance, OAM) QoS(Quality of Service)

Premier 4124XG Hardware Specification	
	L3 4 + 2 GBIC Slot 1000Base-X GBIC (,) 6 100Base-FX 6 10/100Base-TX
	MPC 8245 266Mhz Processor
	256MB , 4MB , 1MB
	19" (2U ,) 88mm(H) x 482.6mm(W) x 503.7mm(D) 7 Kg
Environment Conditions	
	(,) , TX/FX
	220 VAC / 50~60 Hz, -44 ~ -52 VDC
	150 W
	0 ~ 50
	10 ~ 60
	0~90% relative humidity
Media Interfaces	
	1000Base SX/LX/LH (GBIC): 2

	6 100Base -FX Module: 24	
	6 10/100Base -TX Module: 24	(Auto -negotiation)
	RS -232C Serial Port (RJ -45 type)	
Performance		
	13 Gbps non -blocking (Store and Forward)	
Throughput	6 Mpps wire -speed L2/L3 Switching/Routing	
Capacity		
MAC Address	8K MAC Management	
VLAN	4K VLANs	
Filtering	1,024 Access/Security control filters	
Services and Features		
	RIPv1/v2, OSPFv2, BGPv4, Static, Default Gateway, Loopback Interface	
	VLAN, Multi VLAN, Link Aggregation, STP, RSTP(802.1W), PVST Jumbo Frame Packet, Port Trunking, DHCP Server and Relay, NTP	
	IGMP v2.0, IGMP snooping, PIM - SM	
()	Hardware Based Symmetric and Asymmetric Bandwidth Management	
	System access control by Packet Filtering - MAC Filtering, NetBios Filtering, DHCP Filtering Subscriber Traffic control by ACL(Access Control List)	
	CLI, Telnet, TFTP, RMON, SNMP I/II, Sys log, EMS, Port Mirroring	
Standards		
IEEE Standards	802.1D Spanning Tree Protocol 802.1p Priority Control 802.1Q VLAN 802.3u 100Base -X Fast Ethernet	802.3x Flow Control 802.3z 1000Base -X GE 802.3ad Link Aggregation
IETF Standards	RFC 1058 RIP v1 RFC 1112 IGMP RFC 1723 RIP v2 RFC 1771 BGP4	RFC 2131 DHCP RFC 2328 OSPF v2 RFC 2236 IGMP v2 RFC 2362 PIM - SM
& MIB	RFC 783 TFTP RFC 854 Telnet RFC 1157 SNMP v1 RFC 1213 MIB -II RFC 1253 OSPF -MIB RFC 1493 Bridge -MIB	RFC 1724 RIPv2 -MIB RFC 1757 RMON -MIB RFC 1850 OSPF2 -MIB RFC 1902 SNMP v2 RFC 1907 SNMP -MIB