1 C| O”

RG-S5760-L 3+GÎ@S5Ø=8QW7-ÕÃJ9rÎ¾X¾ Õ r È Ë

4FOJrÔ È ¼ QOS 1+• È iž<ÄX)=<Jê4× 4*6ÆÈGÞEÃ Ä <ÈÉ´

CXÐCa5*A‡<CX,FÕ0Ä

RG-S5760-L 3+GÞÔ -Þ[9hkjÖ

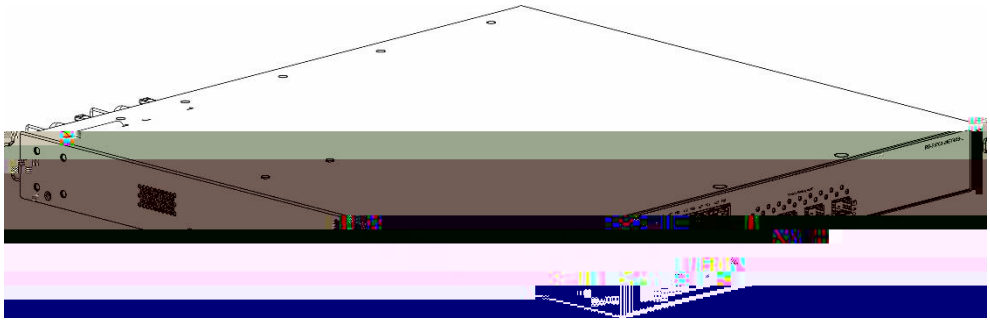
ã	10/100/1000Base-T 8F2Ä5	s v SFP Õ	7v SFP PLUS Õ	MGMT	USB	Console	¢eÀ
G-S5760-24GT4XS-L	24		4	1	1	1	üeÀ
RG-S5760-48GT4XS-L	48		4	1	1	1	ü +eÀ
RG-S5760-24SFP4XS-L		24	4	1	1	1	

1.1 RG-S5760-24GT4XS-L

P á ? d

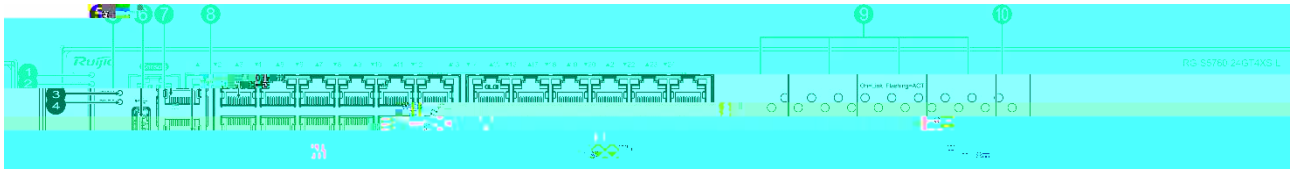
× ñ » '	RG-S5760-24GT4XS-L
CPU	**ü h 4*6 ˜ È … h kNÁ** 1.2GHz
BOOTROM	16MB
Flash Memory	2GB
SDRAM	1GB
_ 1,´ y Q ‡2« »	SFP+**1** **Ö** **_ 1** SFP **y Q ‡ Ã** SFP BIDI **y Q ‡ È ò63Lt …**B **_ 1** SFP+ **y Q ‡ Ã** SFP+**4ï56 Ã**SFP+ BIDI **y Q ‡ È ò63Lt …** C **e 7,º W • Á - ? %73LÅ , * æ ¸ - ‰B- ÞB KF -5‡5 >**
+e$À Q ‡ - }	**Gÿ Ö**2 **„ _ 1+e$À2« » Ö**RG-PA70IB **Ô#q Ä**
+e$À Q ‡2« »	

. 1-1 RG-S5760-24GT4XS-L × ñ0



Â

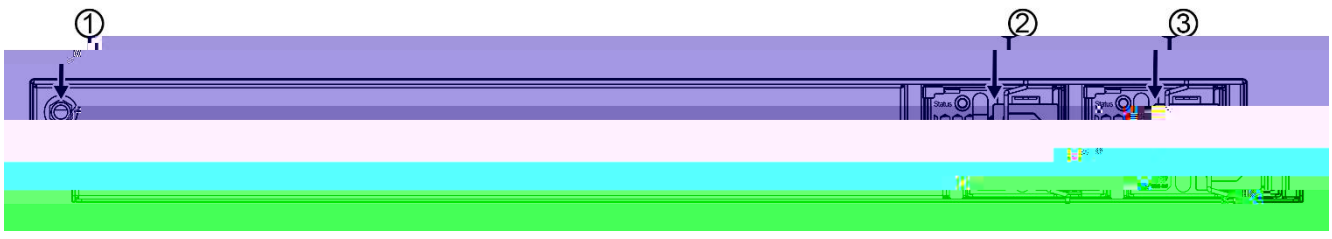
. 1-2 RG-S5760-24GT4XS-L ÌMÏj?



€Ö	1Ê (1æ7/jœ		7Ê 1Ñ6+XZ5Ô	MGMTÅ
	2Ê MGMT (1æ7/jœ		8Ê 10/100/1000Base-T Z51	
	3Ê +eÀ1æ7/jœ	(PWR1)	9Ê 7v SFP Plus 1	
	4Ê +eÀ1æ7/jœ	(PWR2)	10Ê 1(1æ7/jœ	
	5Ê USB Õ			
	6Ê Console			

dÂ

. 1-3 RG-S5760-24GT4XS-L >MÏj?



€Ö	1Ê Õ			
	2Ê +eÀQ‡	1 -Ä	+eÀ0»õ	+eÀ QÃ
	3Ê +eÀQ‡	2 -Ä	+eÀ0»õ	+eÀ QÃ

	ÐDEÃ NÊeq Ö 5A
SFP Plus 1	1 10GBase-R 1 1000Base-X
RTC	1
PoE Ï7-	=1
kjõG	<55W
Œ)ß $Ö	

K(þØ

CØ

RG-S5760-48GT4XS-L Z5þ

6Ô	1Ê (2Ê MGMT (3Ê +e 4Ê +e 5Ê USB Õ 6Ê Console	(PWR1) (PWR2)	7Ê 1 8Ê 10/100/1000Base	MGMTÅ	ÅM4.72

se

Ce

7/j&Ÿ	M’ ¯ 7Aö	(æ 1	[y
(æ 1 7/j&Ÿ	Status	7/j&Ÿ&•	Ô ’ j"Ñ 9 :+e
		5 / 8 ¢ L &ı Ä3HZ Å	Ô ’ j!“ X M û F È3HZ L &ñNÁ)·È9 0-$L &ñ I >˜/j 2 h Ä
		5 / 8 ¢ L &ı Ä10HZ Å	+X ¾Aî 7)à j Ê } È _ 1F 5$ ê ˆF 0; 0 _ ¼ £L
		5/8¢ h Þ	Ô ’ j !“ h Ô ’
		Tô8¢ h Þ	F *Nþ $Y ÖCµ *3+5 ,´!“ h Œ$Y Ö
		4Ò8¢ h Þ	1 ÃF *Nþ $Y Ö UGýCµ *!“ h Œ$Y Ö 2 Ã Ô ’ j uLÌ
+e$À(æ 17/j&Ÿ	PWR1/PWR2	7/j&Ÿ&•	+e$À Q ‡"ÑF Õ
		5/8¢ h Þ	+e$À Q ‡"F Õ ¦ !“ h Ë+e
		Tô&Ÿ h Þ	+e$À Q ‡ » ' # B+ F B+ v » ' = _ 1
		4Ò&Ÿ h Þ	Ç ‰+e$À Q ‡ uLÌ F65 ZF ÕAC 4ï56
MGMT Õ (æ 1 7/j&Ÿ	MGMT	7/j&Ÿ&•	1 Z Link Up
		5/8¢ h Þ	1 1000M Link Up
		5/8¢L &ñ	1 1000M ž f
		Tô&Ÿ h Þ	1 100/10M Link Up
		Tô&ŸL &ñ	1 100/10M ž f
7 v SFP Plus Õ 7/j&Ÿ	49F-52F	7/j&Ÿ&•	1 Z Link Up
		5/8¢ h Þ	1 10G/1G Link Up
		5/8¢L &ñ	1 10G/1G ž f
10/100/1000Base-T Z5•1 7/j&Ÿ	1-48	7/j&Ÿ&•	1 Z Link Up
		5/8¢ h Þ	1 1000M/100/10M Link Up
		5/8¢L &ñ	1 1000M/100/10M ž f

1.3 RG-S5760-24SFP4XS-L

P á ? d

	1 SFP y QÃ SFP BIDI y Q‡ È 63Lt… B 1 SFP+y QÃ SFP+4 56 Ã SFP+ BIDI y Q 63Lt… C e7,º W 73L, KF5 >
+eQ‡}	GÖ 2
+eQ2	„ 1+e RG-PA70IB AC Ã N e93 100-240V~ 0W+e93 90-264V~ N 50/60Hz DE Ã N e Ö 2A „ 1+e RG-PA150IB-F AC Ã N e93 100-240V~ 0W+e93 90-264V~ N 50/60Hz DE Ã N e Ö 3A „ 1+e RG-PD150IB-F DC Ã N e93 -48Vdc~ -60Vdc 0W +e93 -36Vdc~ -75Vdc DE Ã N e Ö 5A
SFP 1	1 1000Base-X 1 100Base-X
SFP Plus 1	1 10GBase-R 1 1000Base-X
RTC	1
PoE Ï7-	=1
kj6G	<85W
Œ)ß $Ö	0èC ~ 45èCÄ 0-1800m Å B$:$ 1800~5000m Q 220m È Q$ 1Ä
Ø)ß $Ö	-40ºC ~ 70ºC
Œ)ß 5	10% ~ 90% RH Ä Å
)Ø	5% ~ 95% RH Ä Å
9E	

GÇÿÐ. kgÅ	4Ö4.2kgÄ(ÞAÃ7ÅÈÅ

K(þØ

CØ

RG-S5760-24SFP4XS-L Z5þÐÈ 24 Z sv SFP Õ Ã 4 Z7v SFP Plus ÐÕ 1 Z1Ñ6+XZ5Õ Ä MGÃÃ7Å 1

(©&	B$
¯+X9Lb%6	§Lb%Èb-M.ÈbM9Ê5HÈb%?e1yï7-
§ÏÔ-	§EÃÐÃ€ÐÃ€ÐÃDÔyï7-
§ I2C FJAÏ-	kjFJE÷ I2C >B+eÀQ‡>ÞJAß
1Ï‰	1ü€eÀQÞÐÊ≤)àeA7+eÀ+5 1+1 7-Þ7-+eÀ§§ COEwÏ-
1'	XA7=¥e,ÐÈÝ 1+1 7-+eÀ+5Ï+eÀQ‡F+Ëe3+5,ÊÕ f>-ÞÕ+eÀQ‡>ÝE
1+eÀhzAÏ-	X+eÀ)àL&JEE£Ã(à7/j&>þ+eÀhzA–

RG-PA150IB -F Ô | ± Ce

=0	(æ 1	[y
EÃ *(æ 1 7/j&Ÿ	&•	RG-PA150IB-F +e$À Q ‡ EÃ * FEÃ * *)à uLÌ
	5/8¢ h Þ	RG-PA150IB-F +e$À Q ‡EÃ *!“ h

1.4.3 RG-PD150IB-F Ô | ±

RG-S5760-24GT4XS-LÃ RG-S5760-48GT4XS-LÃ RG-S5760-24SFP4XS-L 1 RG-PD150IB-F +eÀQÄ RG-PD150IB-F 0h-ÐÃÐÃ+eÀQÊ 12V ,ÊÃ+eÀWEÃ)Eî 150WÄ

Þ%µ^ 1 ›kÐÊ%B,µ^ 2 ›kÐÊ‰ 2 ›kÐÊ3:Ñ(7,¸ 2 ›kÐÑk (Ï7>
3156GM6Ø5¤ 1 ` +kÐE W7 3 ñ™×Ø5«kÐE 3Ñ6Ø0Wµ Aÿ1ç° ñFPOÑÐ N >

RG-PD150IB -F Ô | ± P á

N©-	?ô l
+e$À » '	RG-PD150IB-F

8E	0~5000m

RG-PD150IB -F Ô | ± ¤C¯

(©&é	B$ >
¯+X 9Lb%6	§ 9Lb%ž ÈLb- M. ÈLbM9 È5 5H ÈLb%?+e1y Ï7-
§ 9 Ô Ï7-	§ 9EÃ •!P » Ô ÃEÃ *E÷#q Ô ÃEÃ *E÷ » Ô ÃEÃ *. D Ô1y Ï7-
§ 9 I2C FJAß Ï7-	k j FJE÷ I2C >B +e$À Q ‡F >|FJAß
_ 1 Ç ‰ 7 -	_ 1 ü+e$À Q ‡ ¦6„ Œ È þ6< Î)à +eAî 7+e$À3+5 1+1 7 - È ¦ D 7 -+e$ÀL$ § 9 COE- w#q Ï7-

"Dƒ	₩l (mg/m³)	0Wl (mg/m³)
‰WF.› SO_2	0.3	1.0
.F"R H_2S	0.1	0.5
‰WF"^ NO_2	0.5	1.0
""_D Cl_2	0.1	0.3

a ©}e6» ©}>6}e6» Ł‹"C̲Ez ý 30 <JÕ

2.2.4 ñ s ä L -

Ô ' j X ¯+X] 7- ` •8 3+5 FG ,´ ¢ È F Ë ¢ FJE÷+e é6V 8 Ã+e O6V 8 Ã+e.ñ# EÀ 4 Ãœ ¡Lk ÇÄ 5 Õ `3+5 Å 6V 8 ¼ ,4ï Ä+e$À4ï Ã '4ï ¼EÃ *4ï1y Å,´ P , é ?)Aî 7 ×+O ¡ ý Ä j!" Ä# ? Ö

„ ê e3+5j TN 3+5ê e À Ä +X9 Ä PE Å(94ï+e À È 7:%#eD7-9x,´ %L¹+e5 Ä

„ j ê Ä 4ï+e4 ÑME¹ Ñ NÁV+e Ä 7 Ä

„ ê +e.ñm,ê e56G+X;m+e56Ä

„ Ê e56 ³ XÔ4 ê gFC4 È bM¹+e× +O,E+e Ã+e ê Ä 7 Ä

2.2.5 x ž / © L -

8Ÿ -,´ Õ `3+5 _Aî 70c Ê M•F >|,´ _Lb!'M' + Ã å Ç ¢ ,´OÆ?± Añ ' & ÄB' 9Aî 7 Õ `?ô93,´?±"r ÈAÔ-O ð ¹>õ)à j,´ Õ ` ' & È ¦ i ž ÎLu õ å º Õ ` Œ Š - Ä

þ f4º ñF ê þ LhM-=Lh¦º H₂Ò	+ñ Ñ ê Ø	>

¸©

¯+X Ô#q+e,´Aî 7 õN«FJE÷Tô5/8¢ ¹ ˜ `4ï Õ ` È V I ƒ Aî 7 µ,´+e$À > j # {L$,´5 5H+eLk ? & È J ,8$+e + T ã Ä

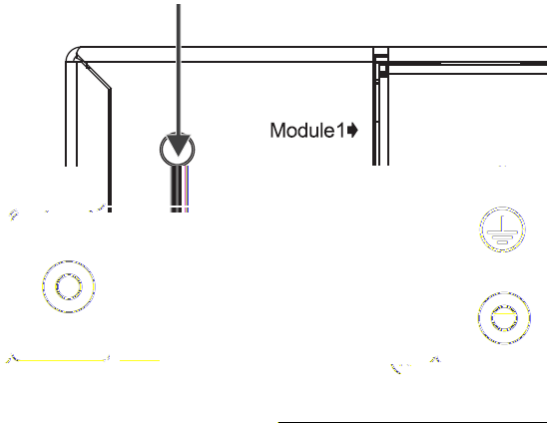
y©

Aî í,´M'+e Ô3+5 _ 0 Z) 0û,´3+5 È+aF¯M'J¸ Ã ; , ƒ ¼ > Õ `3+5 -(F ,´ Õ d4ô @ ÄB Õ `3+5 FJ h >+X Œ+e$À ò63 ` úTô5/8¢ ¹ ˜ `4ï,´ Õ ` _ ¡+X,´ ÄM'+e n+e Õ ` õ)Aî í6<@0 ÈAî 7"Ñ 9F Z?±"r Ä

Æ©

*** ¾+e.ñ ¬ éAîAÑ6<?±"r,´ Õ ` È5 Ö•;m Õ ` Ã‰ # ˜ Õ ` Ãš ¼ ¢ Á f Ã+e £ ò63 Ä:F ' @ ¶ Õ `,´5, 8?±"r Ä Õ `+eLk?±"r ? ¾ ÄAî 7 >M' ¯+‰ 9 1 ZÕ È ;. Ä**

. 2-1 Õ?



2.2.6 T y L -

ƒ Ô#q+e$À4ï þ g F E • È-$ Õ Õ ` Ô ’ j+e$À & È Ô#q+e$À ÄG÷+X F ÕLbM' Õ4ï Â,´ é ? •Lb!’ Ô ’ jF• M' + ÄLb M' Õ4ï Â +X4ï “ ¼=êJ¹ * Ê X j Ã Œ F j o,´ É ñ : Ä ¯+X & È Ô#q+e xF •LbM' Õ4ï Â È4ÿLbM' Õ4ï Â > ½F • Ô ’ j Ä

LhM-ÛÈLåÑm%oø ,º ÔM68 >FC c>
LhM-ÛÈ µþ-ÞhM-ÛÈ -.©B*Dæe

2.2.7 EMI L -

4/ý ¢ $À È Aê _ •8 Aî 7 F Ä+X3+5 FG ÈF _ •8 µG ÈG- _ +e é6V 8 È+e O6V 8 È+e.ñ# EÀ 41y P , é ?)Aî 7 ×+O ¡ ý Ä

+e.ßjT2ÈÀÞ¼È+aPÝ,2ÆÄ

ÞZ&7-GÈÿh4NÁ-GÈÿE0ºLÈ0ÈEÀÆ5]0G6È
¼e"DLÆÈÄ,ÞÞ +OjÈÒ[9+e.ÄF+e56FÆÞ+e56ÞZs.
P0ZsÆÄ,4ÞÿJÀ7,+eÆFJE%* ÞÆÀ7-ÿÀ7]+DÈ
•m9E¥WLÆÐ

„ ÆËe3+5G9x,Lb+e5Æ

„ ÞÔE-2+eË7,Õ5¼bMÕ52+XÞ7--(DF0Ë

„ F/ë Ï· 4Ä ÈÆ4 ÈNÁV+eÆ7Ä

„ ßIG+XM%e•mÁ

2.3 ¯ • ä Ž I ¿ 6 •

y4ÔF Õ } ÈÄ# ?AÔ$5 yF Õ ˜2« » ¼ y4Ô,´/ý2« _ V > p ,+X,´ y Õ 2« »-(1V È< & ÄB # ? y4Ô4ï,´ F1 ¼ Õ f é A È \Aî 7,´ F1 ÄB >) éAî 7,´ Õ f-(Õ È \Aî 7,´ Õ f ÄB >) éAî 7,´ F1-(Õ Ä

3 C | é G

B-.Aí54ü;B11bÂ,º » ¸ .AÚbÂvF& ?x(5%Cé >

3.1 G W 8

3.2 G ø \

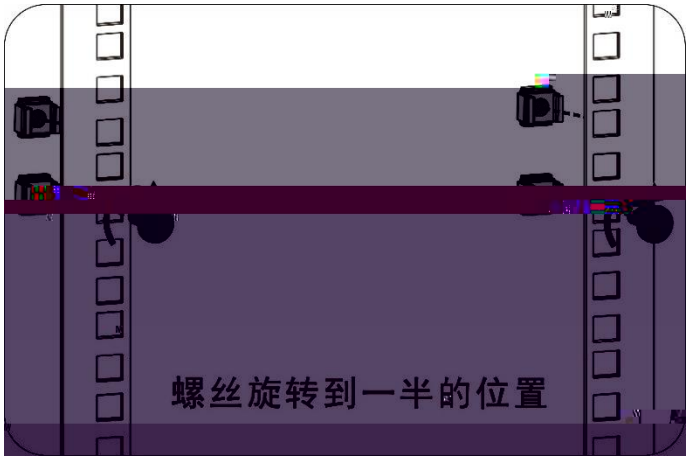
X ¹>õ }B'.žAÔ ; &é Ö

„ ³ð7-VËÐ,NÐJE* Ä

„ ³ðV%CÃ7)$ Ä

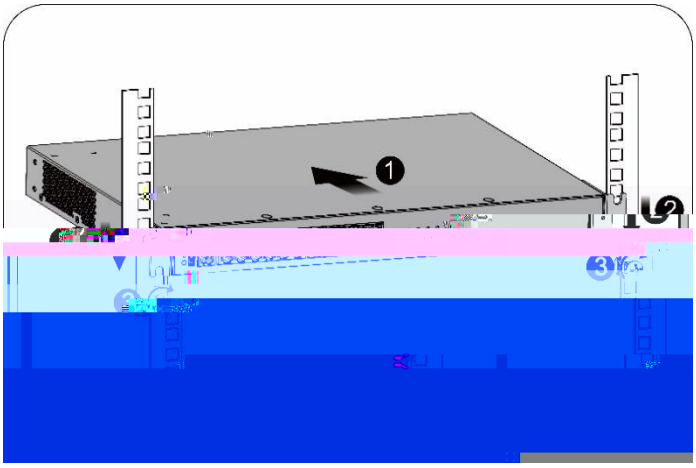
„ ³ðV"35ž e‰Cð+e Ä

„ ³ðV"35ž(55G¼Ä



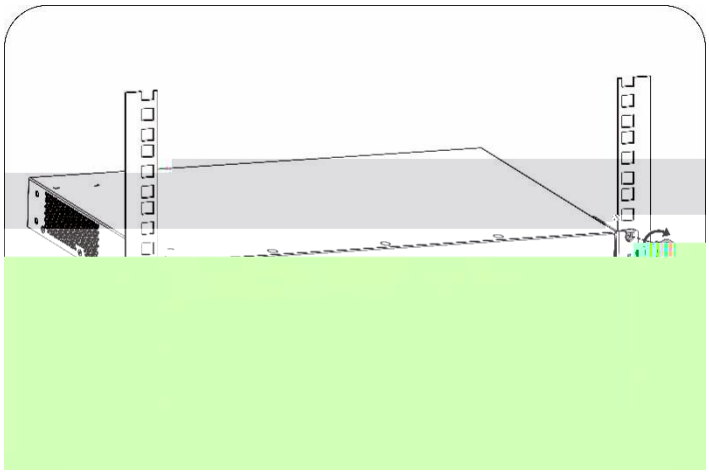
1\96>026c,j2` M6 =M:W=M

. 3-3 j26c>j?9



1\ 6é M6 =M>õ :¦ 3W

. 3-4 j26c>j?



a +k

a 90+k

GŴ

1) þe

2) ðe

- 73©0if⋆k▶›¸Þ-£+k▶ GÇ KO>
- £0AcÈ6;6TAf6;

a +k¥Aê LzFJ!,º ¤

a ¼+k¥ ¥ 5 Á aA¥MÐ >

a Aê¿Î ¥ Á wé Ã

3.6 ä / * Ø / L Ž §

l ¿ 6 •

„ ¥ QFJ Qy4ÎÃ

„ Ä Ã")"Ä

Æ±

1) 6G Ž5•e54ï˝ RJ45 × 01FÀ7¯1Ñ6+XZ5Ê1F5±1Ñ× f4¿A7:Ä

2) i¿M7Aè.QFJ Qy4ÎÃÕ ¸ÿ4Î f1Ä

3) i¿M7Aè V RJ45 ¸54•(Æ9Î4Ä

3.7 × Ô §

l ¿ 6 •

„ v~+e¿¥e5¿¿

„ v~y4Î4¸ý4Î8"FW")"(¿Ä

„ v~y4Î4è7-~¸Z3W Ž45 ¥5+X/Ð7-Ä

× É±

1) 6y4Î4ï˝G C ¥ È8¼jT× Ä

2) XkjT× è y4Î4ï˝Ž64 Ï4ï-Ä

3))¥e è ~ WCdj1 ¿ mG C-¿Ä

3.8 G d ó Ó

ö ¿>û e \!™.¤ • ƒ ¸B- 6 Ð.¤ Ð ©L#+k$Æ ¸ ƒF ÛKOB%FV F ð ‰ Z é Âl• … Ý ÷G , >

„ ¾ FÕ Ä

„ 6 Ž e5Ã e Ã e5F Õ+V!ž Ä

„ ð56VG-Xp04ègFC4jB× 99gFC4ê8VF>ê eèbMÃ•

4 x ž • p

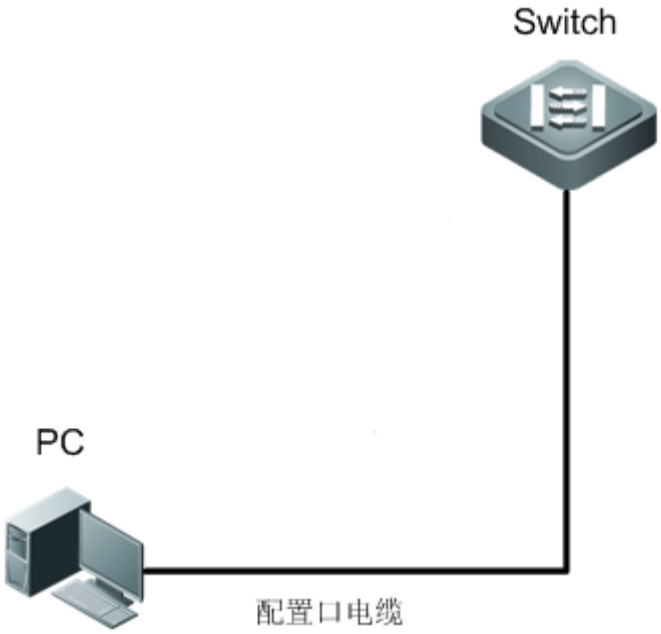
4.1 @ Ž ´ º Ê

´ º Ê @ Ž

PC FJE€G5žže56>Ç(F È ²

. 1 p/j Ö

. 4-1 G5žž?



ê

1) Console FÐÔ

„ 6G5žže56,´ DB-9 žžÐ>G5ž PC ,b:Ä

„ 6G5žže56,´ RJ-45 01FÇG5žÄ ConsoleÄ

fÒ

„ f PC PC :F>¼/-O0;Ä Windows3.1 ,´ TerminalÈ Windows 95/98/NT/2000/XP ,C×4Å

„ A5žžÐ)j 9600 8 PÈ 1 f

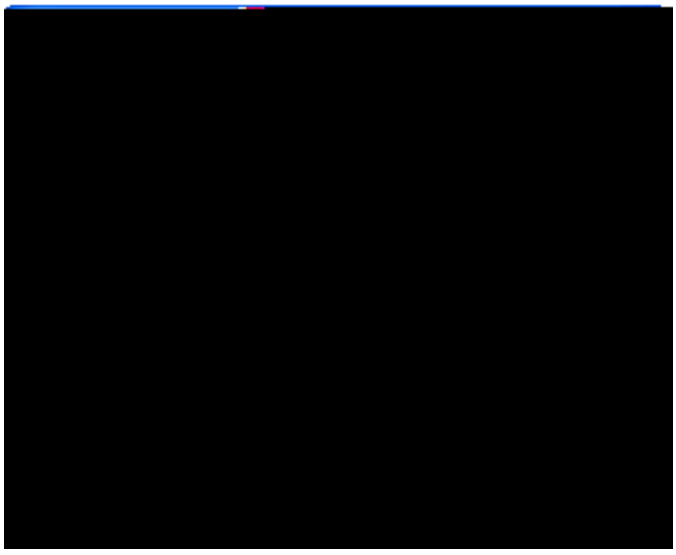
1) & + ³0û ´-³0;¿ ´-³Lt& ´-³FJAß-³C×4 ´È€C×4 0Ç+5i*²

2) . 4-2 p/j,¼MÄ

. 4-2

3) 4-3 p/j,+M’

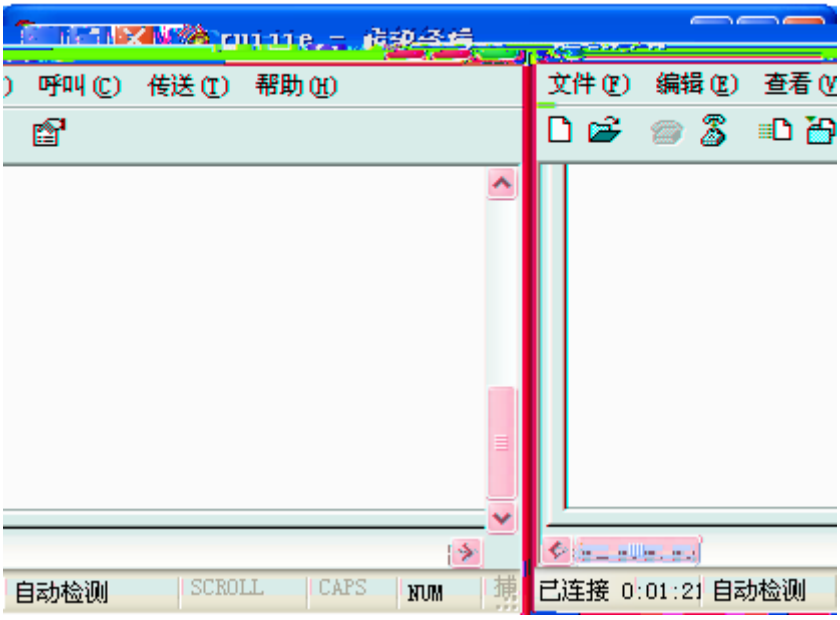
. 4-3



5) <.E >9J+5i*²

6) . 4-4 p/j,+M’

. 4-4



4.2 Ô n

Ô ø é ó Ó

„ Ø u6Õ Ä

„ +e F Õ Ä

„ +e +e +e Ä

„ Ee+e >Ø r,08 Ä

„ G5 e56F Õ È5 X,4 Ä PC "4 È5 "@A5 Ä

Ô 1d

:+e > È 0 -F >| ² ; ð È Añ >M'G}5 Œ,´!“ hF >| Ö

„ G5 X,4 +M 9 Ä

„ A 7,7/j h Ä

5 ñ 0 ¢ õ

5.1 ñ 0 ×

Ce

Aî 7 4 ¾F >|(æ 1 & È+X g FJE÷?ò 4/ý 7/j&Ÿ- × k j ¼ 4 Q ‡,´(æ 1 Ä

„ kj Status *)à8$3+59uLÌ)ßkÑ6EÆ>|;ÈÂÛLÊÄ

„ kj Status *)à8$3+5$ÖÊ±zA$ÛyÊ+5F>|W7-È3+5F55F>ßkÑ6 EÆ>|;ÈÂÛLÊÄ

„ kj Status Æ-$Æj4Ò¢>*)àLÊhÆeÄ

„ kj,´ PWR1/PWR2 Æ8à$= 1 ÿeÆ0$z ,´ +eÆQÄ

„ kj,´ PWR1/PWR2 Æ8àÒ 8ÆeÆ56VÊË×e×9ÆeLNÊ$-(Ä ,´+eÆàLÊÆÄ

¤	Status Æê1×*<Ø8A%Gý¹FUL Æ3+Êê>9¤¹FUL Æ8,)¤e Status Æ-*L Æ{ÛÈ>–

CLI w W

Aî 7 _ 1FJE÷F >| - >|,´-(£ - - ×3+5 ,´ 4/ý(æ 1 Ä 5 Ö

„ kj,ØÆÄ

„ 1,Ğ5ÆÄ

„ Nþv¼e$ØÆÄ

„ 3+5,$ØÆÄ

a	-Æ-Æ	RG-S5760-L 31MÞÙ G5¤¹F>

5.2] ¢ õ

bCã x ž é ¢ õ

„ \A7 COCS“Nþv Q9uLÌ×È+OuLÈ9-(ÄGÂ

„ º uLÌNþv$Bl,×Ä

„ K13WNþv Q¡Ê7a=ÆÄ

3#"shGK@55Ò=GTÀÉe2šXPÃÕNÊÕC2ÕLNÃE

				400(OM1)	66m
XS-SFP-LR	LC	.Q	9/125	N/A	10km

a /Ä XG-SFP-ER-SM1550 Â XG-SFP-ZR-SM1550 B-5µ:Ð/ÁÉÛ ¸ ƒFVF WÛÐEÉ>ÙW
Û1%,º ÐÛ1Ä -1dBmÊ'W•º Û1%ËÐ8‰>Û1%,º ÐÛZÄ -1dBm>

a •WÛ%ÐÊ-Æ+^rÉÉµ'ÛÆ

a pÚW•º ¾ÛÊ-× ÂF¨ÚÚõ@LhN->

= C-3 »¥é - SFP+ Ž § ±¹Y=u

½	Q¿Ø	FÕØ	4Ï56KÖ (M)	¸ƒ4ï´ (AWG)	ÆO)· (Gb/s)	1 DDM (Yes/No)
XG-SFP-AOC1M	9Ù56	SFP+	1	\	10.3125	Yes
XG-SFP-AOC3M	9Ù56	SFP+	3	\	10.3125	Yes
XG-SFP-AOC5M	9Ù56	SFP+	5	\	10.3125	Yes

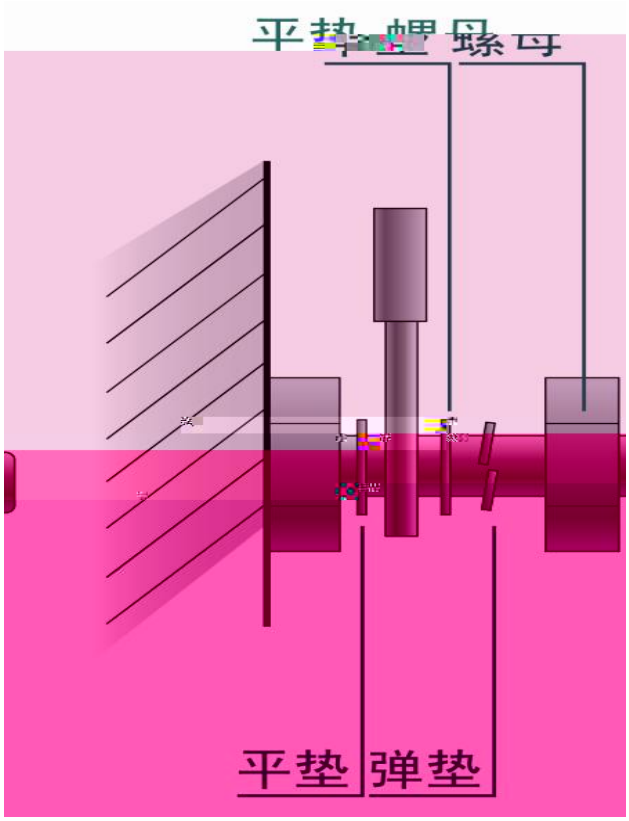
a µ^ SFP+4Ï5<,CM6ÑÚº FÛÏ5<¸M6Ù5<Z1%ƒ/ÐÚÁ Aê1%©%ÛÆ1%,º ÐŠ

= C-4 - BIDI ¯ ± *yƒ

FO)·/D /ë	G}) »'
7 v /300m	XG-SFP-SR-SM1270-BIDI XG-SFP-SR-SM1330-BIDI
7 v /10km	XG-SFP-LR-SM1270-BIDI XG-SFP-LR-SM1330-BIDI

a BIDI •WÑÏ6/µ^ ¸ Ê1%µ¼ XG-SFP-SR-SM1270-BIDI¸ L61%gÑµ^ XG-SFP-SR-SM1330-BIDI>

. E-4 +e56*fÊ93.



„)Ez³ée¤ÀÑ1ÕLtF)+e56F>¦ÊbX1ÕÚe56:× +OÄ

„ B/+X8k=ä8W*Õ1Ä

„ <02Ã0ÁC4¡ï+eÀÀ~@+e56Ée56µ+e56Ñ1ÃÄ

„ 4¦5~Ø>˜ E-1 F>Ä

>˜ E-1 4¥~)>˜

+e56•Ã mmÅ	5~LÐÄ mmÅ
10	80~150
10~30	150~200
30	200~300

„ ++e56C4F65v~=ßÄ

„)ÕÊ2¿Õ1Ã ÄªD01ÈÀÃ¤HŽ6=ÐbX1Ã FMÄ

\¢ F é5 |Ç