RG-RSR20-X-52 Ò

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copyright © 2024

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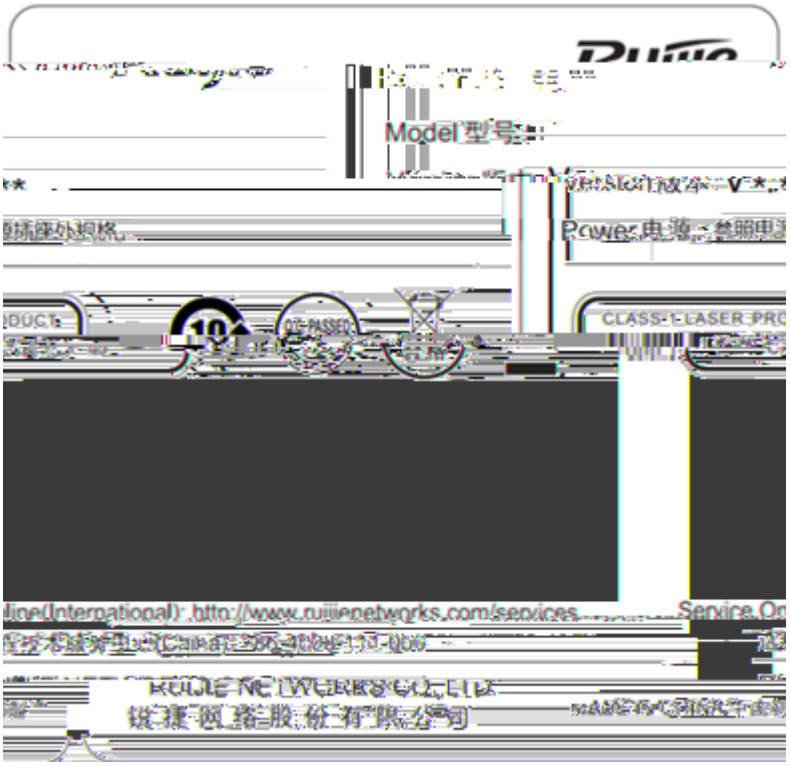


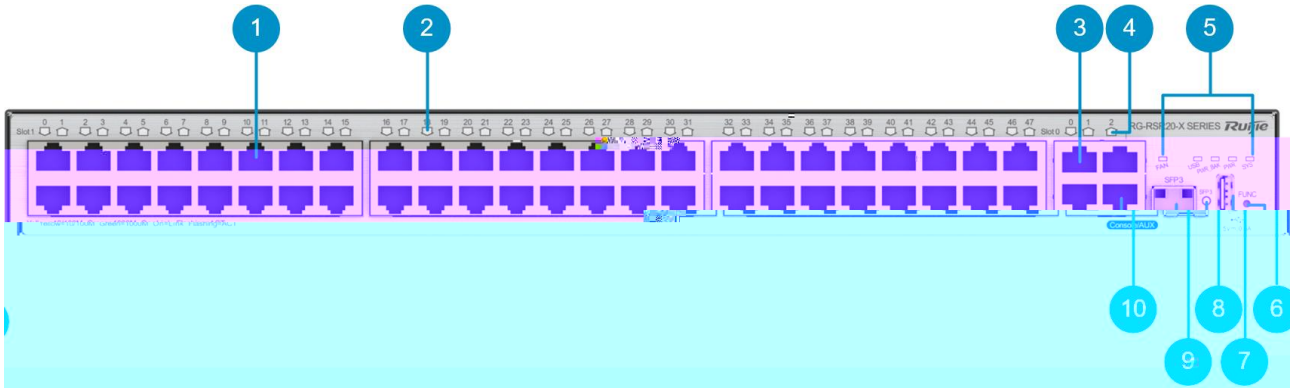
K(þØ

CÞ¯

„ Ø67-Ë

þ_1 4 Z HSIC QFOJÑÑ ¼ 1 Z DHSIC +eà È 48 ZšvÐ 4 Z 9rZ5• Ä 3 Z 1000M/100M/10M +e ,1 Z 1000M/100M SFP yÅ × Ë 1 Z FUNC

Â



€Ü	1Ö 48 Z 10M/100M/1000M ZÔ Ä GE1/0~GE1/47 1Å 2Ö 48 ZZ(â7/j& 3Ö 3 Z 10/100/1000M 9rZ5•e (GE0/0~GE0/2 1) 4Ö 3 Z9rZ+e7/j& 5Œ jÖ FAN (â7/j& USB Aï7(â7/j& PWR_BAK 7+X+e 7/j& PWR e 7/j& SYS .8e+5F [â7/j&	6Ö FUNC Jï-9K^ 7Ö USB Aï7 - 8Ö 1 Z SFP y7/j& 9Ö 1 Z SFP y 10Ö Console/AUX =+X

Âe

7/j&	F
SYS	.85F[â7/j 5FeE 5/85F[• 5/8 5X 4 5[à×
PWR	e 7/j 5/ 5E 5Ñ×
PWR_BAK	7×e 7/j 5/ TZ TZ
USB &	USB 1(â7/j U -F USB Aï7× 5/8 U -F USB Aï7M 5/8 USB 4 U -F USB Aï7

FAN ¾	Nþ/(ãe7/j¾Ø 5/8hÑ9þ/hF|× 4ÈhÐ NþvEE¢h ×
SFP LINK/ACT 7/j¾	SFP LINK/ACT 7/j¾ : Link up× 100M Link up× 100M Link up ,D9¢PEÃ 1000 Link up× 1000M Link up

RSR20-X-52 ëZ Console/AUX =+XÖ

„ Console/AUX Ö

77	77ò
Õö	EIA/TIA-RS232
õ	RJ45

Á71_1 MDI/MDI-X 8F2X-5J54F1 MDI/MID-XÄ

LtÖ

- 7 -

1000BASE-T 1+X 4)4FÞPEÑ08p9,´ 4)4FÕA 1000BASE-T 1p+X¸5 4ïFÕ p/jÖ

1000BASE-T)5 4ïj?

-5 4ï		Õ4ï	
A7 A	A7 B	A7 A	A7 B
1 MDIA +	1 MDIB +	1 MDIA +	1 MDIA +
2 MDIA -	2 MDIB -	2 MDIA -	2 MDIA -
3 MDIB +	3 MDIA+	3 MDIB +	3 MDIB +
6 MDIB -	6 MDIA -	6 MDIB -	6 MDIB -
4 MDIC +	4 MDID+	4 MDIC +	4 MDIC +
5 MDIC -	5 MDID-	5 MDIC -	5 MDIC -
[redacted]	)IC+	7 MDID +	7 MDID +
8 MDID -	8 MDIC-	8 MDID -	8 MDID -

100BASE-TX/10BASE-T E7Jÿ

Pin	MDI Q?	MDI-X Q?
1	Output Transmit Data+	

	62.5/125um J Qy4Q0WPEÐ/ë 550m×
	50/125um J Qy4Q0WPEÐ/ë 550m×
	9/125um .Qy4Q0WPEÐ/ë 10Km×
	1000BASE-LHÆ 1310nmÈ
	9/125um .Qy4Q0WPEÐ/ë 40Km×
	1000BASE-ZXÆ 1550nmÈ
	9/125um .Qy4Q0WPEÐ/ë 50Km ¼ 80Km T/ý
	FE-SFP-LX-MM1310: Æ 1310nmÈ
	50/125um J Qy4Q0WPEÐ/ë 2km×
	FE-SFP-LH15-SM1310: Æ 1310nmÈ
	9/125um .Qy4Q0WPEÐ/ë j 15km;

1.2.4 Ê USB L

±Ce

USB (à7/jØ

FUNC

ÐWvÀk°.a “ïOŒ0ãB/PÐÄ “ïOƒlóŠ$Áñv•Ää³M Ä`B$ •¹>õ ºÀB$ “ïOŒ0ãB/PÐÄ´` “ïOƒlóŠ!F€lv•Äë4Ðð.F5 ê¼4èD h

HSIC-2HS ŽV

HS _ŀ,95YŽV²Ö

AÞ	_1 V.35 ÀŽ568Ø[þ
FO)·	¼,1 9600-8192000 bps
7/jŽ	3 Z 2 Z1 Link/ACT (1e LED 7/jŽ (*ØK.D*0ÐÕ:r,ÁÞ UP Ø L 1 Z4ï RDY (1e LED 7/jØ
Õ	DB26
)Ø7	)ŽÖ 0 45×)Ø 5Á 95Á)ŽÖ ±40 70Ä
EMC	EMIÖ GB/T 9254.1-2021 ClassA
	EMSÖ GB/T 17618-2015

Ž

F9G5¼56Ö

„ V.35DTE 456

„ V.35DCE 456

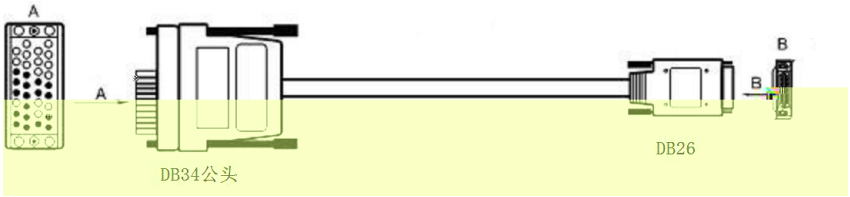
„ V.35DTE-V.35DCE 456

F/¼56,ĵj?Mþ/jÖ

V.35DTE

B456601_ DB34 ,dÊ1_ DB26 de Ä

V.35DTE 456



V.35DCE

B456601_ DB34 ,ĵÊ1_ DB26 de Ä

V.35DTE 456

OFL	*9JÞ	*9JÈ9 8Q EÈ	3s :È RDY Xg-	RDY 9JÞQ ÑQÄ

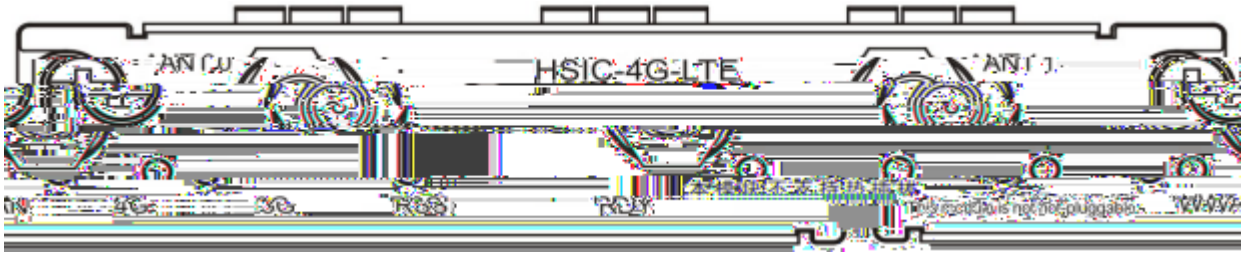
2	4	RX Tip
4	1	TX Tip

1.3.3 HSIC-4G-LTE /L)

HSIC Ö HSIC-4G-LTE

Ø Ce

HSIC-4G-LTE F0



M7/j

7/j	hF
RDY	5/4ï+eM 5/4ï+eM aCU
WWAN	55(5/8K @ 5/8 aCU
4G	4G J 4G = 5/8 4G =
3G	3G J 3G = 5/8 3G =
RSSI	5/8K 5/8 F65'

HSIC-4G-LTE =_1 OFL 9J 04 0 7-4FA7k
jÄ

HSIC-4G-LTE J

p

1	1 Z 4G
Õ	TZ SMA-J
456	4G Y4ï
_1FO)·	3 Q WF:Uv, 4G/3G/2G w
F	0 45 ×
	±40 - 70 Ä
5	5Á 95Á
EMC	EMIÖ GB/T 9254.1-2021 ClassA
	EMSÖ GB/T 17618-2015

SIM J

SIM ‘-jØ&#x0;&#x0;&#x0;&#x0;wA OPEN 1 &#x0;&#x0;&#x0;&

RDY	5/	,4ï+eMF	aCU	
RSSI	5/8	F65'		
5G	5G J	5G =Ñ/8	5G @Ê/8	5G K.D:9ž
4G	4G J	4G =Ñ/8	4G @Ê/8	5G K.D:9ž
3G	3G J	3G =Ñ/8	3G @Ê/8	5G K.D:9ž

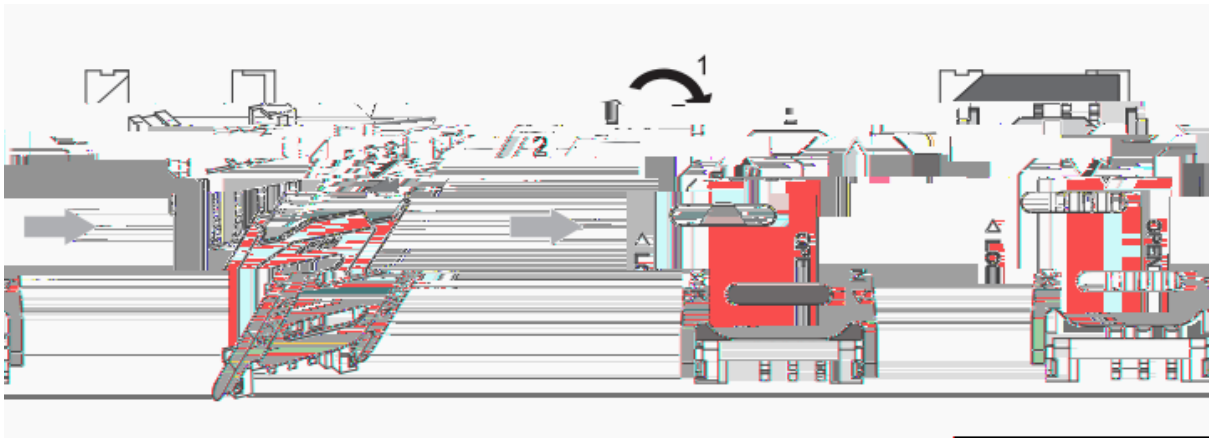
4 Z OFL *9J

7#	B$	
		K ¯9 3S >È1 y µ READY 65 Aî7 ƒ
		%TPL4300U]TJETQ EMC /P MCID 4677 BDC 090.09 516
OFL	*9JÞ	

SIM ‘-j OPEN 1

(wAF 60 (LOCK

SIM K1(# SIM



1 Z HSIC-5G-NR 4 i Y4 6.2 8² AO

Y4 4 iY4 16CM

+XgM0 ANT0È ANT1È ANT2È ANT3

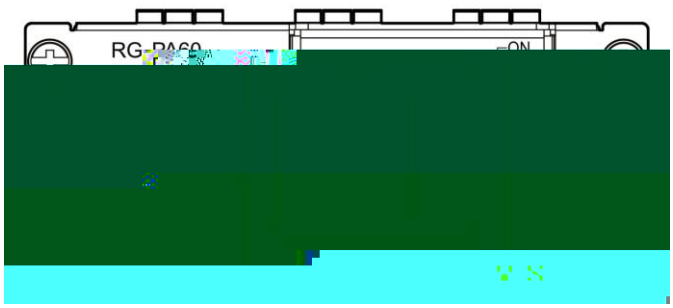
a

1.4 Þ”

1.3.1 RG-PA60 Þ

O

RG-PA60 +e



Ce

7/	(Œe
M7/ RDY	5/8Ö ñ eÀÃ × Ö eÀÃ65eÀÃ

Pê }115.6 reWBT/F9 9 T15.6 reWBT408801 0 0 1 109.7 496.[Tm0 [TETQEMC 1P #MCID 108>BDC q70.42 4

eÀ	RG-PA60
êÑÊ93$	100-240V~È 50-60Hz
êÕ93$	90~264V~È 50-60Hz
EÕW }	60W
eÀ	1
e‰	1K Q
EÔ	1
Eê	1
eÀï	10A eÀï
eÀ (W*H*D)	98.2mm(í)*41mm(Q)*176

„ _1 TELNETÿÃ TELNET

„ _1 DHCP ServerÃ DHCP ClientÃ DHCP RelayÃ TFTP 1y

„ _17-È VRRP ÆÊMW

„ _1 PPPOE

„ _1

„ _1 AAA AÌLAÔñ È1 RADIUS

„ PPP AÎ PAP ¼

2

)ß× +OM%eÐ+a:,Ç+eDÄÈQJÐO55HÉ61FE0;Ð+a,MWWWL}-Ð
GÿX/Ä

jo,$0Ø2× ì93Ä

)Ä=Ð%+gžÞ× ÐfÇ@	1.5mÂ% +gÿ	0.4m :Hvíº>
CB,ÿÄÛ/Ø%73C68*;Ø5pë		

2.2.2 MÓ-

8Ð ÞmXDÆPÇ@ÈÊÃ7/È<
DÇFPÇÐÃÞ®F/ÿ¼ÈÄ

K@Ä+GD+aÿjoÆÈ[Ç

0W-$ P	0.5	1	3	5
0WÆÐ (ÿ2Þ[NÇ 2Â)	1.4×10^7	7×10^5	2.4×10^5	1.3×10^5

LÄÆFÐ+aÿjo0ÐÞ[´G¨F(9Ul,ÆÈÐ,ÐOHŽ7Ä+aÇÄ1
FE0;è Æ SO₂Ã H₂SÃ NO₂Ã NH₃Ã Cl₂ 1y9Ð,ßÈÐ

Ð*f	¼ÄÄ mg/m³Å	0WÄ mg/m³Å
SO_2	0.2	1.5
H_2S	0	0.03
NO_2	0.04	0.15
NH_3	0.05	0.15
Cl_2	0.01	0.3

2.2.3 TÔ-

DÄÄÀÑÐÆÄ¼46ÈÆÞ¼Ä¼ÞÀÐ.dÄÆÊÃ3Þ¼Ä¼Æ
8;Ä’ Ö

„ ÊQÆÃe4Ñ¼+e1yF+ÞejÄ

„ ÞÆ µ)ß ³ ` Ua Ì×AV> V

⚠ ÆÆ

9 Ž ,L*CÆý 18Ò>M6/AêFÆ@+kJCL*Ã> 24E,ÊAê%ë

2.2.8 ÓG´

AêDÆÊÃ-ÕXGÈ-M0ÆÃÕ

„ ÆÃÔ+a˜Ñ5JNÃ+‰ºL$ÝÐ+aj1ÆÄ

„ ÆÃÔÆÐ8;¥JNÃ+5Ä

„ ÆÃÔÆ5(*È-O_Æ+aÃt¢GÝÝÄ

„ ÆÃÔ3ÆÕ

2.3 GVÊÔ

Ã Æ7Ö

„ Õ

„ FÕ56

„ -(Æ7

ÕÖ

„ ë6M0

„ LbM%e7…

FÕ565Ö

„ +eÆï

„ GÃ5Æï

„ Z54ï

„ QÕ56

KF- RSR20-X-52 D%+gÈÅLz+kÆÕ5Ã5ÃÃVÊ5M62GÇc>

-(Æ75Ö

„ HUB FÔ

„ CSU/DSU F³ DCE A7

„ GÃ5Æ_4ÆÈ0 ÆCÃ× 4Æ´ PC j

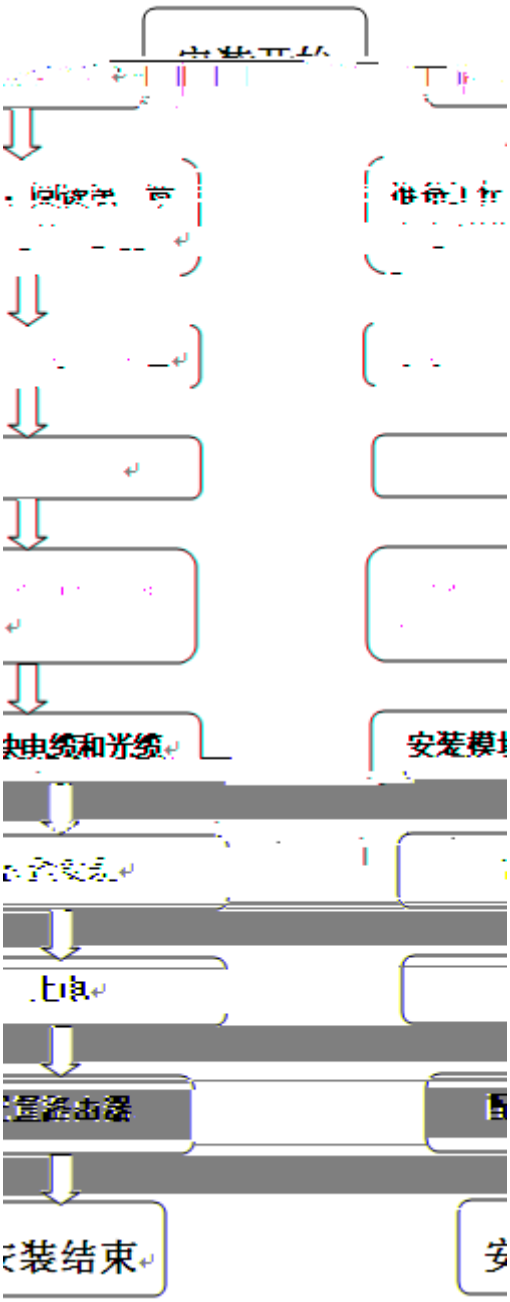
„ D+a˜Q‡

„ +eÆ

3 è-

3.1 è8V

FX6[F65B[B98F[



3.2 ÈÒ-

õ

„ õ

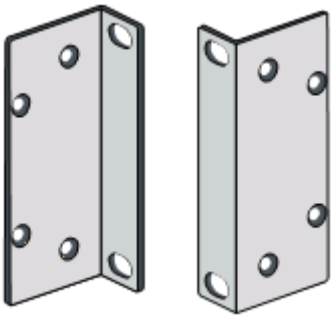
„ õŒ

3.2.1 GÒ

õ RSR 3+GD+a˜_9'— 19 9(7þj(FÞÂÑÞõXD+aĽjtV,*Êt&
Fõ

RSR20-X-52 ¯XLjtV,õ=à¼Êtõ%þ/j6kjõj:ÈQËõ‰ÇDõõAÞ 1U ,´
õÅ

26c



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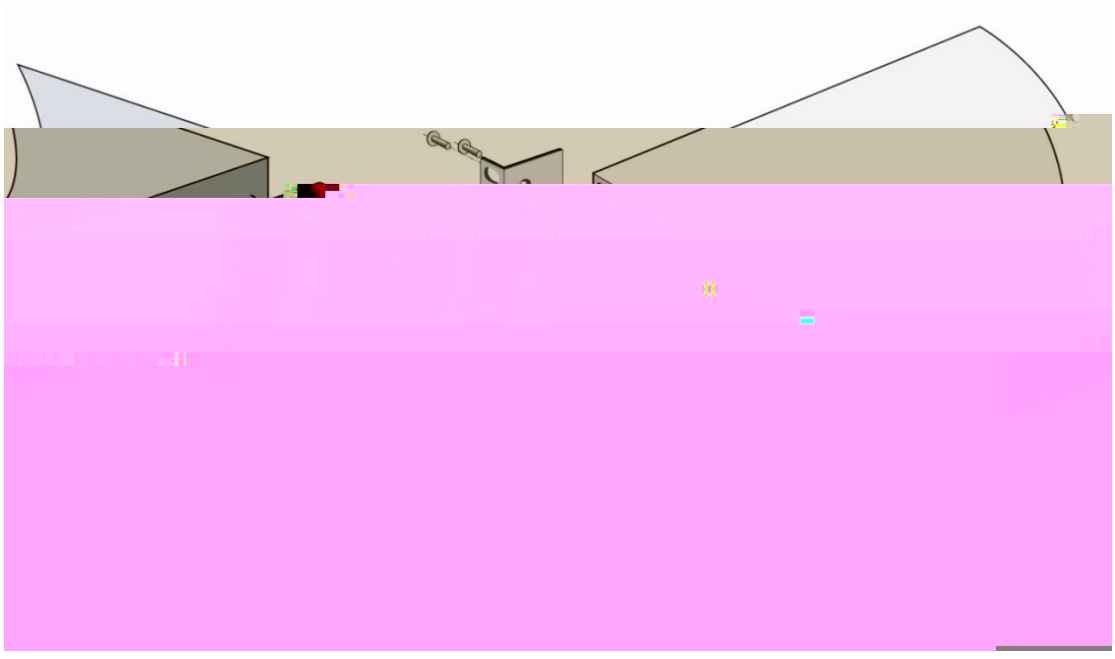
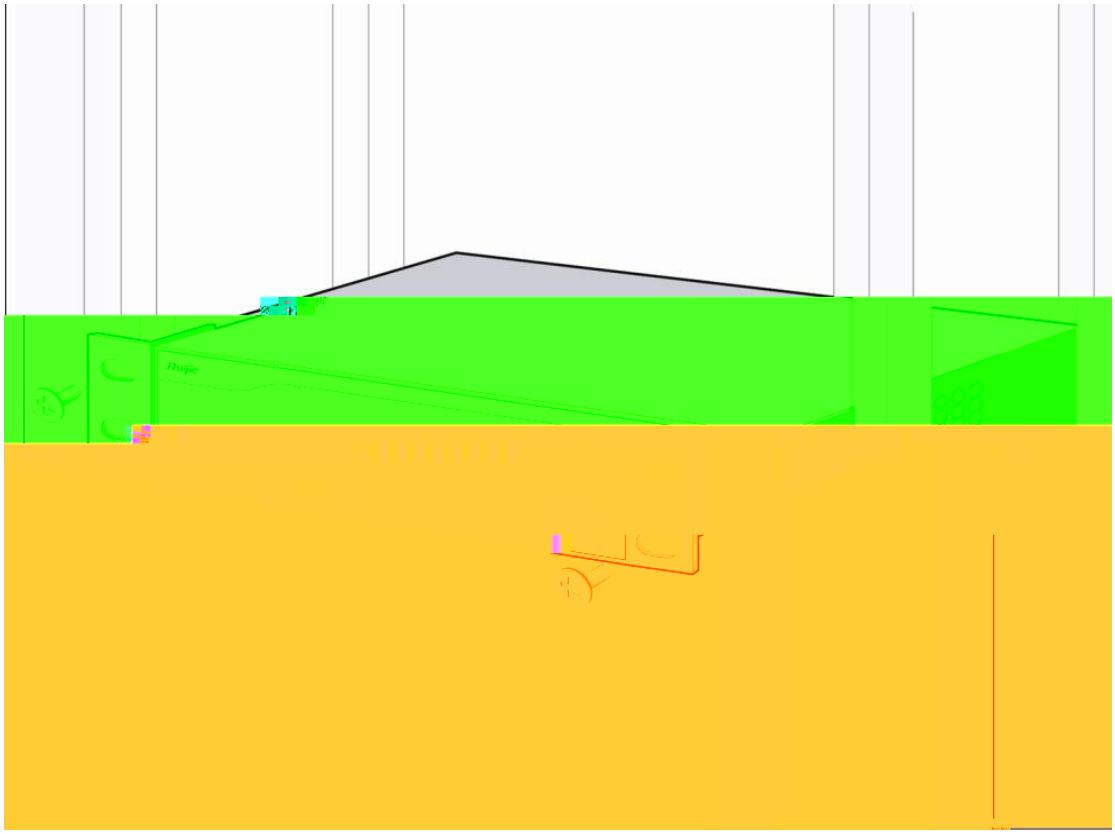




7ëë53ĝ

3.2.2 GS7U

XL

19 9(7j_6D+añ5X

1

„ AG

„ +XLj

19ö QÆAD+aţ ĐÈQÐ+akjM3WÕjÄ

1ØW Q‡*ÊäÄ

1ÐýPÛPÐ9,JÑQÆÄ

a /Ä7#P× WÊQAcNÆD%+gÆA+k>

a /Ëe7#P× WţM6/D%+gžA+kÐ× WÐÃD%+gŽ@+k>

a 1bÂ1bţB-EŭÑ%+gP× W•ÑŽ=N¹ÐWÐB-CÐ
ßÐ0D%+gP× WţÐD%+gP× WÛD%+gÑM˜ ,P× 3/6EÑN
/UţDÃ5ÐD%73P28* W•..

a HSIC-5G-NR JÆ+kL6; FPEÝCLI ³ **remove Ak 0 DM61• » CÉý** 5s DÃ^ 5s ÑÕõ–
ÆäŢ 5s DH@%C>

3.5.2 ÿÈ–

10ÖDMMÐ5Ä

1Ø0ÐQ‡Ëe56Ä

19ËXqÐM0öJÑQŦ×,3W*=ÆÄ

1ÐD+aJÑQŦ1=ÑÃ QÆFÈQ¥a/Ð+akjÄ

1ÐýPÛPÐ9M0ö ;JÑQjÄ

a D%+gP× WÊÆAÑÆ

a /Ä7#P× WţÐ?ÆNÆD%+gÆA+k>

a /Ëe7#P× WţÐ/D%+gÆA+kÃÐ>

a D%+gP× WÊDŅÐWÐB-,ÐWµhÑFÆD%+gÆFPO>

a D%+gP× W•ÞB-DL*,Ð¿%ÐñhEÐWŁÐAc+gÆÐ
8*Á

3.5.3 È– mÐ

ÈÐÐQKB9'— Ð

„ ÐQËe56ÈÝe56_VF9GÞÄ

„ Ð QÐjÆÝQŦVhÄ

XD+aÞ(©s enable Q?;ÐJÑQ‡VÕÞÐÆ

3.6 G

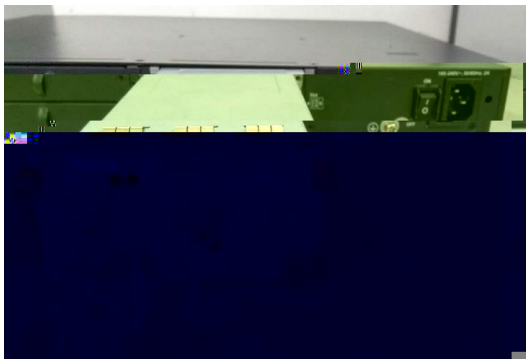
3.6.1 G

B 6B 2 RG-PA60 +e

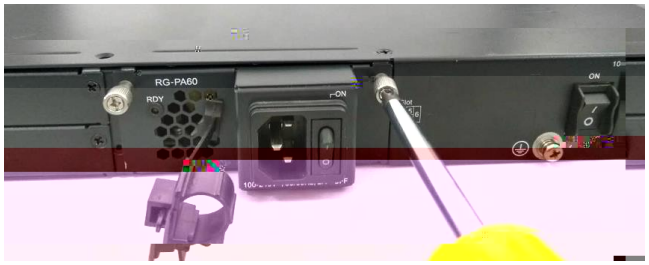
1 D+a M ,

1 M0 e -9 0 È

1 D+a e D+a j , e -, 0E H)U

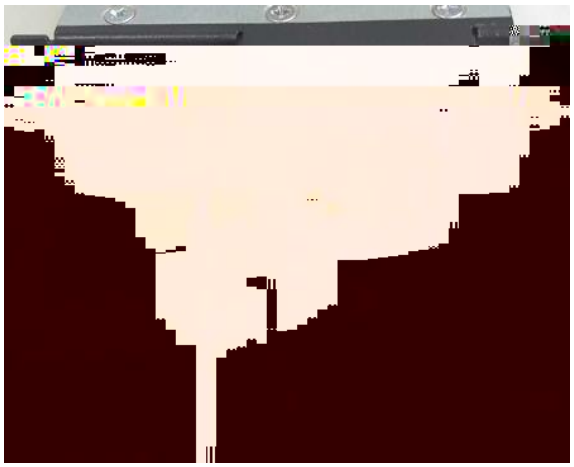


1 D+a e A D+a j D+a e D+a j 3W E X M0û
3WD+a e *

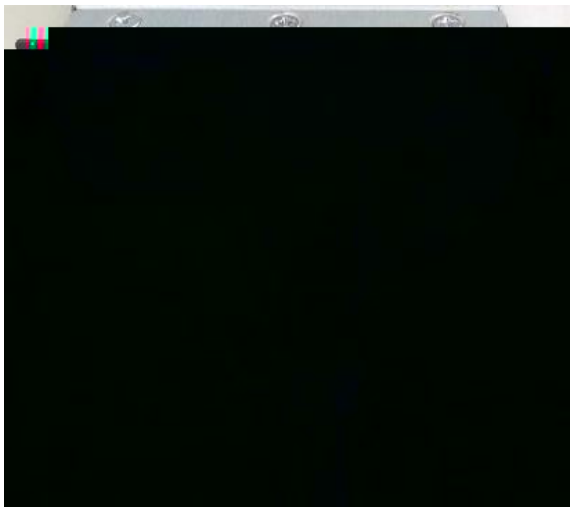


1 P P 9, e

a



•+eâÈ+eâ¼ÈÖ



FJE:] 687Aó(wZ¥ØÄ

¶ÐDƒP¤kÆV¸º	RDY ¥ê1©@+k%-A	PWR =/p¤
+k¥ÊLzF¸õ		
+k¥ØG¸ƒ		

3.6.4 ¿ÐÕ

B9¸P¤ÀÖ

10È +eÀQ‡ 0£ 2))´ ¸ž Ä

1ÈÀÔ +eÀQ‡ 05¾ 2))´

4 nØ–

4.1 nÒ–

4.1.1 Ø@

XDÀ0ÐÐG×FÆ÷ Console ØÐ+aFÞ5ÞØÐ

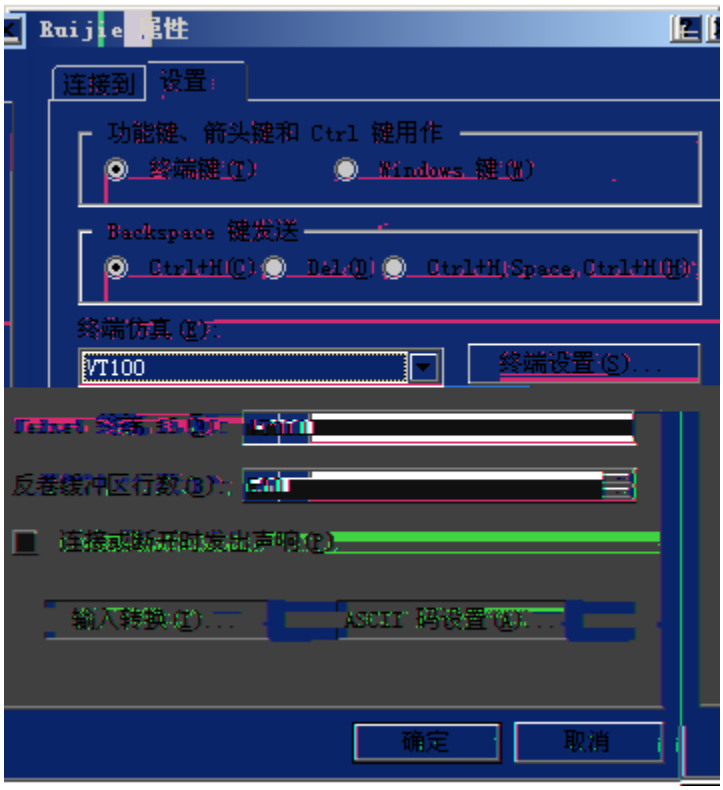
10Ëp/jÈ01V4ØF65Þ‚bFJE÷ RS232 45ÐÐ+a˜ Console ÆÞ5F× fM’
ÆÃÕ

FJE÷Console ÞÏG5ÞØ

1ÐÞ4Ø‚FJAÆ5Ð+XÞÐM0ÆÞØ/-O0;È Windows ØÆ5Ë Hyperterm(Cµ
4× 4Ø)1yÈCµ4× 4ØjÐØÆ;ÆÈCµ4× 4ØEÕÐÈ9Ð+a˜ Console FÕ
‚bÐ5FJAÕ 9600 (©)Ã 8 ÞÃ 1 ØÞPÃÞF94Ø/-O2Þ× VT100È
;.,´ Windows ‚Cµ4× 4Ø‚Ð5Þ¦MÄ

*0ÐÕ

F9Ð+a˜ Console FØÞ



]ÆG5Þ+aFÞ+eÄ

4.1.2 Ô

4.1.2.1 Ø

XeÈÞÞ

+eÀ¼FÕV!ž

„ Ëe+eÐ+a¸Þ_V08$

„ G5¼56FÕV!ÈG5žXÞF4ø_V4ØÀ5¾

a B-Ð%+gÈ@+kƒÀÐ%+gËk6©,5ÞUÉ73U,=ñk+kÆE

4.1.2.2 Ô

„ ØD+aËe+eÀ£

„ ƒ 0D+a¯eÀÈD+a¯eÀ5¾ ONÞž

4.1.2.3 ÔÓ

DæèFø

„ FJNß+5_Vh

ø+a˜+eËNþvEíéNèXD+a˜FJNþtFËOÐD,ø

„

5 G

5.1 -c

RSR20-X-52 PWR 7/+a+eV*)aL/j(1B01]

D+a+eV

D+a+eV

D+a+eV

% T

B-C+k+kV6=× Status =/p /POWER =/peC-D6L¶

6 Ў

XDЇЈ¤ЕЖ4/ЅЪ56ЕGЙ6FЂ$А

6.1 Ў

6.1.1 bЙ

6.1.1.1 V.35 “

ЇDЅa2ЇЈЕ V.35DTE Q?ЖJE÷ V.35DTE 4Ъ6ЕÕ GV EЙe V.35 Modem 1y)1A7×

ЇD+a2ЇЈЕ V.35DCE Q?ЖJE÷ V.35DCE 4Ъ6ЕЖЕ V.35 DTE Q?)1A7Ѓ2

+X¾HSIC-2HS 1y4Ї´ V.35 DTE/V.35 DCE Q?Ѓ

2ЙЂ90/(©¦ЅXЕ K@§5 ЕFJE÷ V.35DTE-V.35DCE 4Ъ66МЅЙЂА

F2+XA7	GЕQ?	FGЪ56 1	)1A7
HSIC-2HS	V.35 DTE Q?	V.35DTE 4Ъ56	GV EЙe V.35 Modem 1y
	V.35 DCE Q?	V.35DCE 4Ъ56	ЖE V.35 DTE Q?Ѓ7
	6МЅ6üQ?	V.35DTE-V.35DCE 4Ъ56	K@§5 HSIC-2HS NMX-4HSH

6.1.2 E1 /LЙ

E1 4ЕFJE÷ E1 4Ъ56»V Modem FЙ

6.1.2.1 DB9F /L E1/CE1 ЎЙ Modem Й

1) FJEЅМЎЪ56

2) FJEЎЪ56ЂЏdÕ Å

3) FJEЎЪ56ЂЏЙ

F2+XA7	FGЪ56 1	FGЪ56 2	)1A7	
HSIC-2E1/CE1	МЎЪ56	/	BNC Õ	*

Modem

6.1.3 CONSOLE Lå

Dã /Ô CONSOLE ø j× f è8 RJ45 ,ˊ× HÊX DB9F F RJ45 4Ъ6È65ŦXEœ
d RJ45-DB9 ¸Ã¾¡ÊÕ PC ,´ DB9M bÄ

F2+XA7	FÕЪ6 1	FÕЪ6 2	)1A7
D+a˜ /Ô j,´ CONSOLE	DB9F F RJ45 4Ъ6	/	PC ,´ DB9M b

6.2 Þ4

F 4Ъ6 /EÕÈ Modem 4Ъ6+a Modem ÞÊЪ6 /EÕ¤wX K@§Ъ5 AÒÈ¢=0 Þ¤
p/jÖ

4Ъ6AÒ¸Ÿ

V-16130075-000	2ÊÕÊЪ6È DB9 ¸ÍEœ RJ45 dÈ L=2m	console 4ï
V-03260025-000	CAB-V.35DTE/POS26-34PM/3M	V.35DTE 4Ъ6
V-03260028-000	CAB-	

₡ A² Ò– ₫y

\¢ B ² G

p 19 9(7j 56FJE 4 54 o,Lu C4F
;C4 9E 56 B 6nXj, A7-nXjFG e E
o Lu +e 1 ay, F:C4F;C4

S

„ +e 2 J+e562 e5623n* z´ +e56F´ 5 =:×) 4 _ 2«
+e56 +e56F´ 7 =:

„ FJE 3n* z +e56F´ 7 =:×) 4 _ 2« +e56 +e56F´ 10
=:

„ QFO+e56 SFP++e561y z +e56F´ 5 =: 4 _ 2« +e56 +e56F´ 10
=:

Z

„ y4 y4 $ 25 =y4

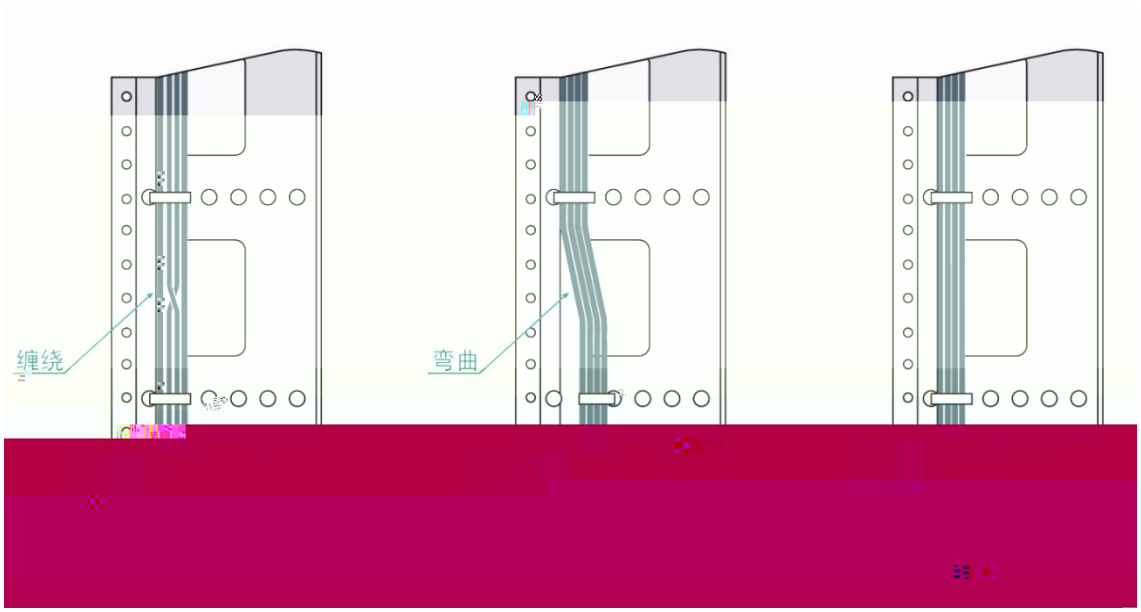
„ y4 20 =y4

„ y4 10 =y4

S

„ Xv~4 56 M0 1 2 dX4 56,F2 z

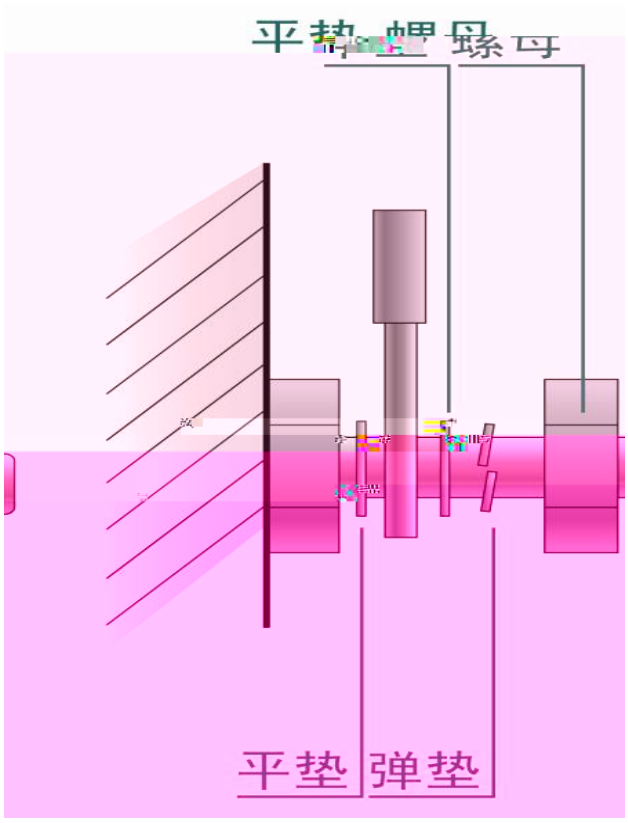
„ +e56Xj ~ 5P5 1y) .p/j



„)F[illegible]

5[illegible]

„ +X=[illegible]



„)[illegible]

„ B/+X8k=[illegible]

„ [illegible]

„ 4[illegible]

+e56•[illegible] mmÅ	5~L[illegible] mmÅ
10	80~150
10~30	150~200
30	200~300

„ ++[illegible]

„)[illegible]

¼¢ C ² ¾Ã

„ ¥F/ÀÈÃÃe11yGÀÞ/ë 5km :ÀÝFÃ7ÀÃeKp1y]1yÀÞ
/ë 3.7km :ÀÝÕÃMÀÝyEÀÞ/ë 2km :ÀÝ0FÀÞo0Ê9X"
ÀÞ=NÀÞÈXQ1y4× joFF9Q1y4× LbÔÀÄ

„ FÝXD/ÀÞÊ-¥Êé 3.7km ¢ÀÂjoÈÀÞÀ*AÞjoÈÀB3L¼Ý Þ=-¼O
j*1ÀÞÀÞ0Ê9%CÀÞbÔÀ7Ä

„ joÀÞF9X/í-ÀÞ¢tFÈ0ÀÞ9*⁄₄ÀÞ¢hÞNÀÞÀ0Ê7-F9EéÍ
+ÀÞXoÈ7-F9+XEéF6ÞF6ÔÄ

„ joÀÞ(*ÈÀÞ⁄₄MLÀÞo=È9XHOOÇÞEÉÍÞÈL0ÇÀÞÈ
ÔÄ

„ joF9pF/ëÄÀjÀÞ/ëÄÀjÉÍFjo¼%CÀÞ*AÞ3ÈÞÄ

„ joFÞÞDÔÇ÷NÀÞÉ/Þ"1Ñ"DÃWÍ÷2Ú4*6Þ1jo4¼ (æ
1ÈÝ7ÚVDÍjoÉ¼%eDÄ

„ joÉ0JK5ÚÚ4E5Ä

„ jo0¼ÚÚ%CÈo,¼MÀÞÀÞÀ0QÉÜÜÞQ 600mm
:Ä

„ ÚÝ7Þ5MF0É0ÇÞ9*4¡È09014*6Ú9È@/ÈCÞ,ÍF
ÞLkÈÑÀÈÉ÷HÈe.ñm,Ý-Ä

„ oL0ÇÞ_É(1ÈjoÜWÄ

„ ØÚXJÈÉÄ÷ÀÄ

„ joÞ÷FX[,ÚÄ

„ joµ0B3=¼pA7iNÞ0B3,¼É}¯ 60ÇFJNÞ%$Ü%ÞÀ7Ä