

## DES-815 Rev.B1 Circuit Diagram

DES-815 Rev.B1

生效日期: 87. 6. 26

### Circuit Diagram

It contains two PCB:

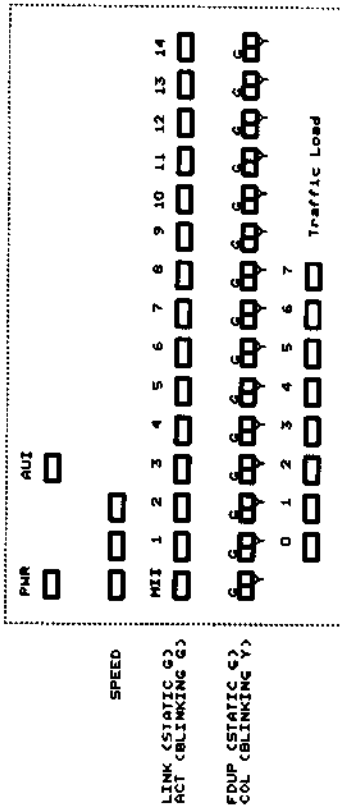
- I. LED Display Board: "ES815L Rev.B1"
- II. Bottom Board: "ES815B Rev.B1"

REVISION	STATUS
PAGE	REV
0 ~ 0-1	A
1 ~ 24	A

APPROVED	CHECKED		DEPARTMENT	PREPARED
 王福恩 5/23/98	X	X	EDS	葛 87 其 5 永 2

305DES815----B1-  
A  
0-1 / 24

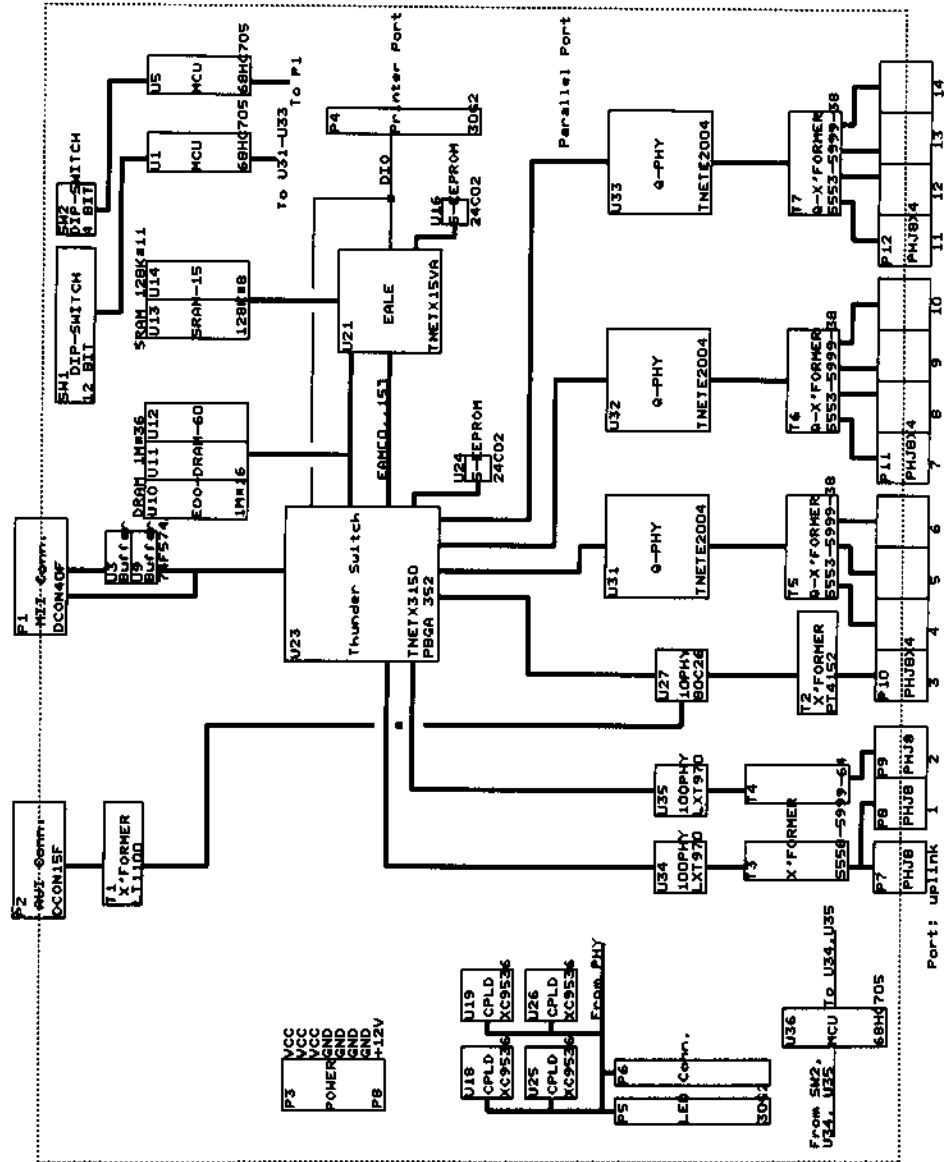
[illegible]



TO HOLE

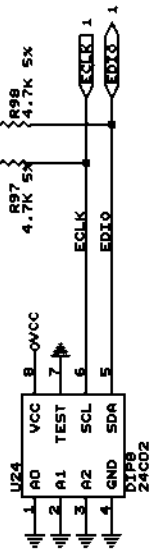


PAGE 01 Thunder Switch (TNETX3150)  
PAGE 02 ELITE (TNETX15VA)  
PAGE 03 S-EEPROM (ATMEL 24C02)  
PAGE 04 EDO-DRAM 4M (MT541816DZ) (60ns)  
PAGE 05 SRAM 128Kx16 (M241024AJ-15)  
PAGE 06 Q-PHY-A (TNETE2004)  
PAGE 07 Q-X'former-A (S553-5999-38)  
PAGE 08 Q-PHY-B (TNETE2004)  
PAGE 09 Q-X'former-B (S553-5999-38)  
PAGE 10 Q-PHY-C (TNETE2004)  
PAGE 11 Q-X'former-C (S553-5999-38)  
PAGE 12 M-WAY-A + X'former (LX1970-S558-5999-46)  
PAGE 13 M-WAY-B + X'former (LX1970-S558-5999-46)  
PAGE 14 Phone-Jack (RJ-45 Ports)  
PAGE 15 AUT PROT (SEE BOC26 + P14153 + LT1001)  
PAGE 16 POWER  
PAGE 17 RESET & CLOCK  
PAGE 18 Display-1 TRAFFIC CPLD XILINX XC9536  
PAGE 19 Display-2 LINK/ACTIVE (CPLD XILINX XC9536 # 3)  
PAGE 20 AGE FIX (GAL AND 16V84)  
PAGE 21 Duplex/M-WAY Dip-Switch Settings (MC68HC705U1A)  
PAGE 22 Parallel Port Interface  
PAGE 23 MII Interface

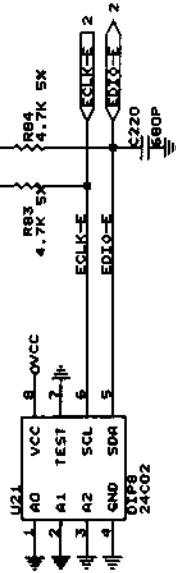


<h1>D-Link</h1>		Approved: <i>[Signature]</i>	Prepared: <i>[Signature]</i>	Cheer Ko
		Checked: <i>[Signature]</i>	Issued Date: 10/13/96	
DOC. NO.: 305DES815-11-B1-		Title: II-Based Ether-Switch Size: Document Number Version: A Date: September 17, 1997 Sheet 1 of 1		

Block Diagram of DES-815 Rev. Ax



Connect to TI-SWITCH



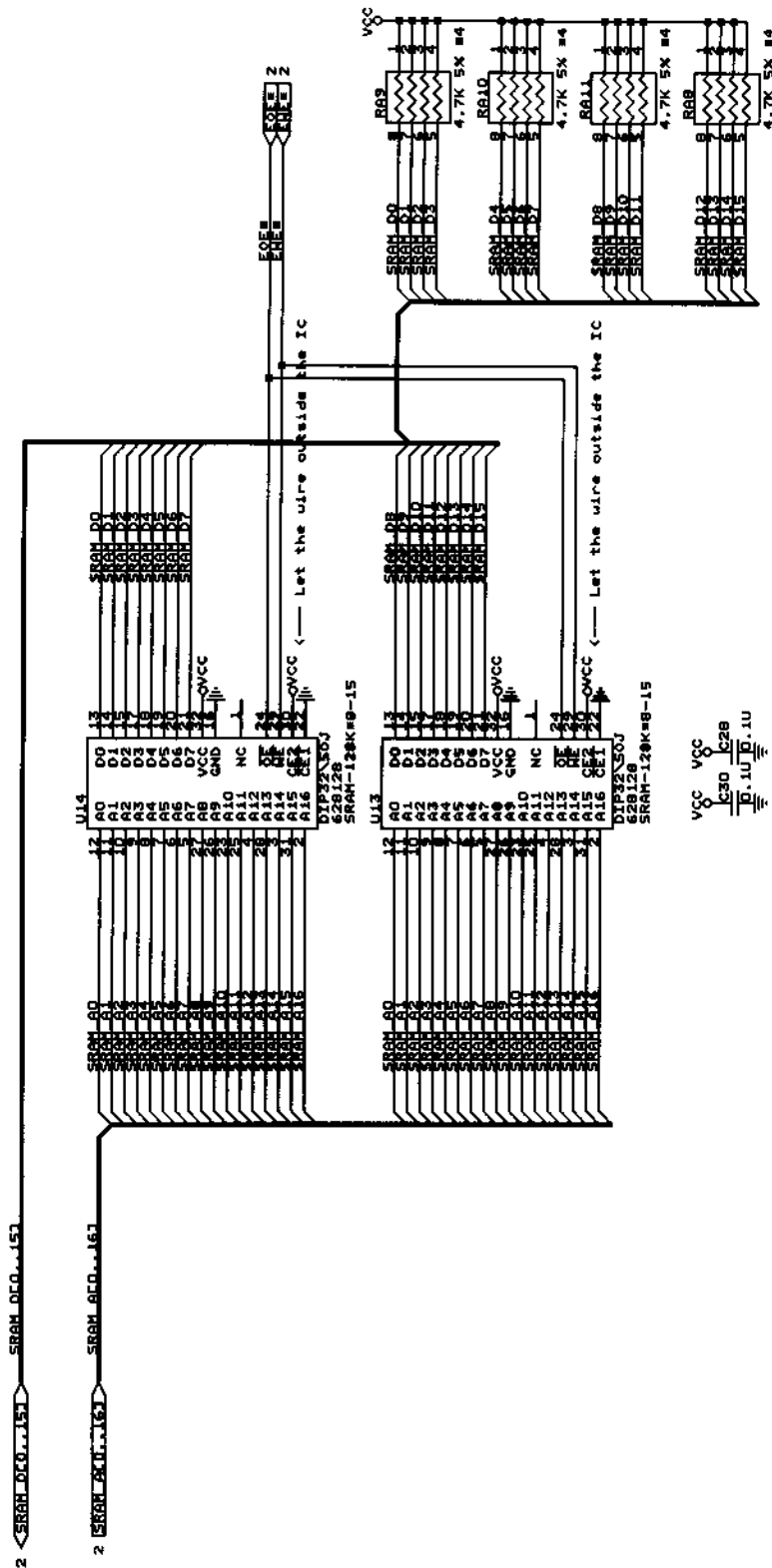
Connect to TI-ELITE

Place additional cap to cover the timing error between Elite and 24C02 10/3/1997

(3) 2 Wire S-EEPROM

<b>D-Link</b> Corp.		Approved: <b>[Signature]</b>	Prepared: <b>[Signature]</b>	Cheer Ko
DOC. NO.: 305DES815- - - - B1 -		Checked: <b>[Signature]</b>	Issued Date: 07/20/97	
		File: <b>32.6.12</b>	TI-Based Ether-Switch	ES-0150
		Version: <b>A</b>	Size Document Number	2101
			5-EEPROM 24C02 2201	B1
		Date: October 7, 1997	Sheet	3 of 23





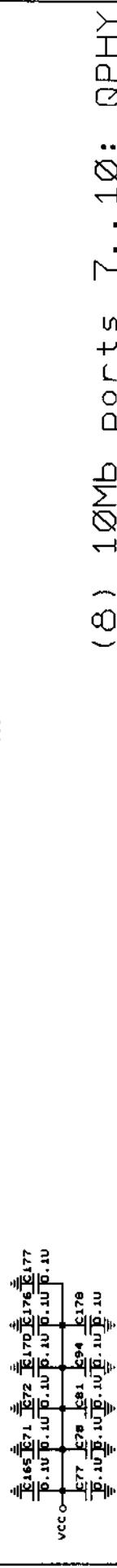
# (5) SRAM for Elite

<b>D-Link</b> Corp.	Approved: <i>[Signature]</i>	Prepared: <i>[Signature]</i>	Checked: <i>[Signature]</i>	Issued Date: 07/20/97	Title: TI-Based Ether-Switch	Size Document Number: 2101	REV: B1
	Doc. No.: 305DES815-...-B1	Version: A	Date: September 11, 1997	Sheet: 5 of 23	Date: September 11, 1997	Sheet: 5 of 23	Date: September 11, 1997
	Doc. No.: 305DES815-...-B1	Version: A	Date: September 11, 1997	Sheet: 5 of 23	Date: September 11, 1997	Sheet: 5 of 23	Date: September 11, 1997
	Doc. No.: 305DES815-...-B1	Version: A	Date: September 11, 1997	Sheet: 5 of 23	Date: September 11, 1997	Sheet: 5 of 23	Date: September 11, 1997

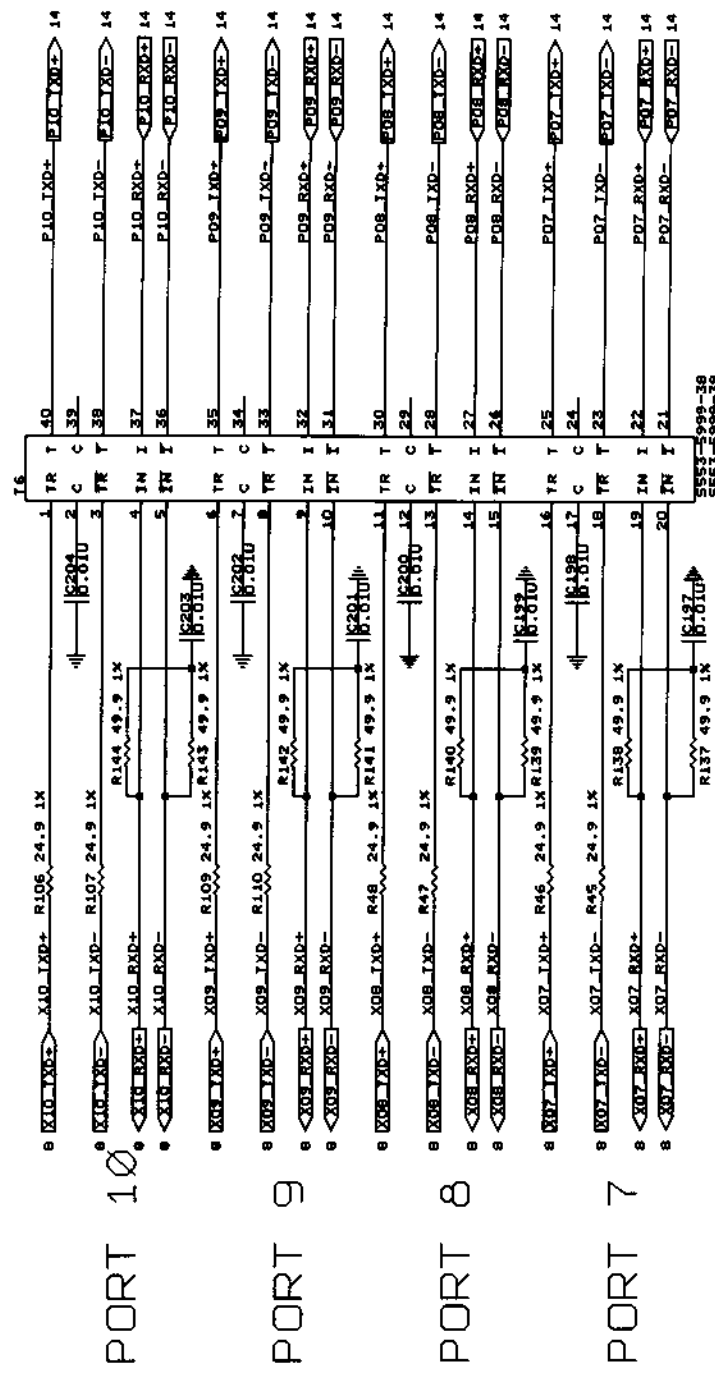






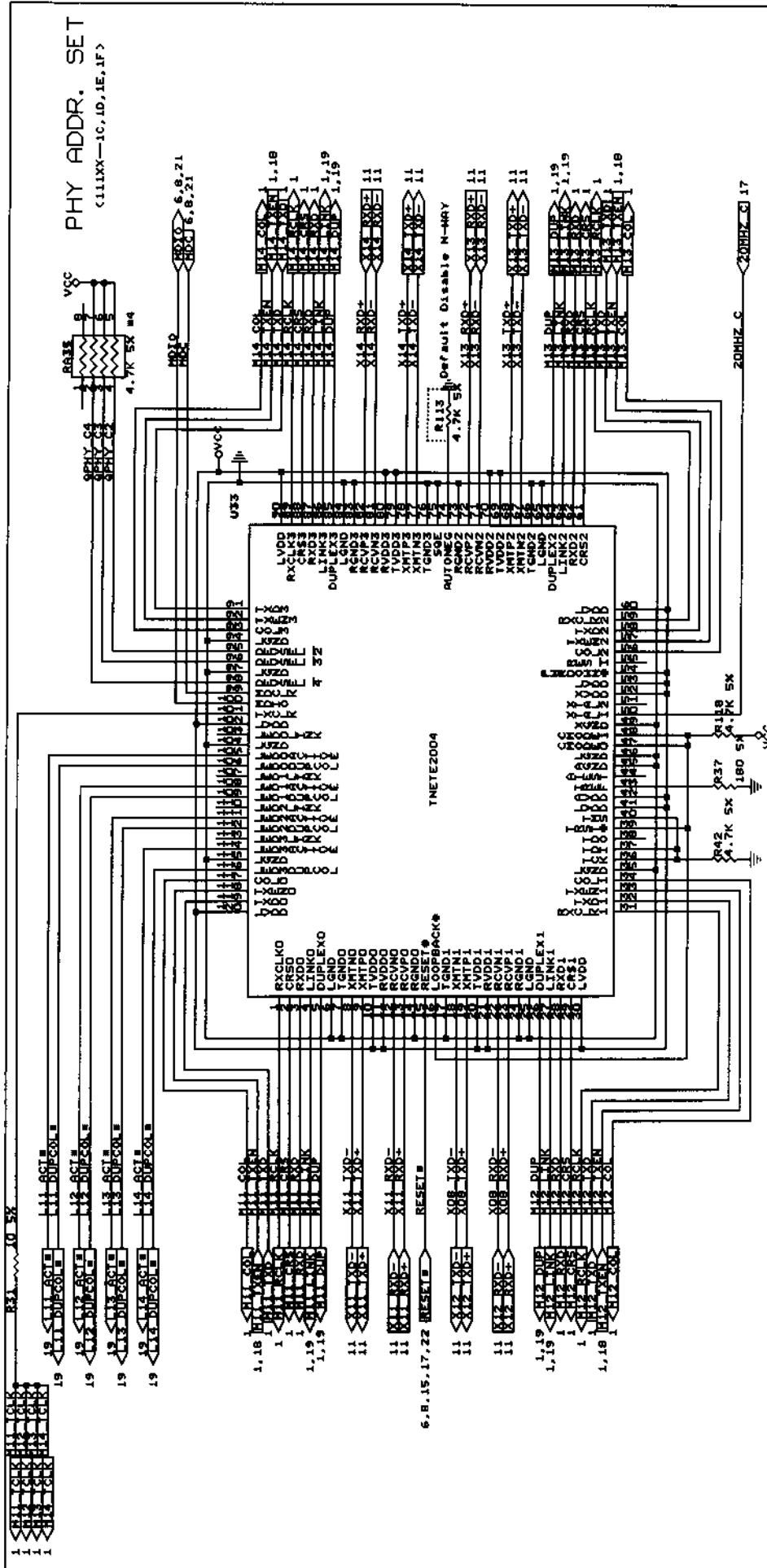


TI-SWITCH NO.: 7, 8, 9, 10 PHY - ADDRESS: 18, 19, 1A, 1B	<div> <div>  </div> <div> <div> DOC. NO.: 305DES815 - - - B1 - </div> <div> Corr. </div> </div> </div>	<div> <div> Approved: 張福明 8/23/98 </div> <div> Prepared: </div> <div> Checked: 謝 8/27/98 </div> <div> Issued Date: 07/20/97 </div> <div> Title </div> </div> <div> TI-Based Ether-Switch ES-815B </div> <div> Size Document Number 2101 </div> <div> B Q-PHY (7.8.9.10) 201 </div> <div> REV 81 </div> <div> Date: September 3, 1997 Sheet 8 of 23 </div>
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(9) 10Mb ports 7..10: Xformer

<b>D-Link</b> Corp.		Approved: <u>张福国</u> Prepared: <u>Cher Ko</u> Checked: <u>张福国</u> Issued Date: <u>07/20/97</u>	
DOC. NO.: 305DES815- - - B1 -		Title: <u>TI-Based Ether-Switch</u> ES-015B Size: <u>2101</u> Version: <u>8</u> e-X'former (7.8,9,10) 2201 B1 Date: <u>September 3, 1997</u> Sheet <u>9</u> of <u>23</u>	



73 74 75 160 179 180  
 0.1uF 0.1uF 0.1uF 0.1uF 0.1uF 0.1uF  
 0.1uF 0.1uF 0.1uF 0.1uF 0.1uF 0.1uF  
 0.1uF 0.1uF 0.1uF 0.1uF 0.1uF 0.1uF

(10) 10Mb ports 11..14: QPHY

<b>D-Link</b> Corp.		Approved: <b>5/19/97</b>	Prepared: <b>5/19/97</b>	Checked: <b>5/19/97</b>	Issued Date: <b>07/20/97</b>	Title: <b>II-Based Ether-Switch</b>	Part Number: <b>ES-9158</b>
DOC. NO.: <b>305DES815</b>		Version: <b>A</b>		Size: <b>2101</b>		REV: <b>2101</b>	
PHY - ADDRESS: <b>1C, 1D, 1E, 1F</b>		Date: <b>September 3, 1997</b>		Sheet: <b>10 of 23</b>		REV: <b>2101</b>	

II-SWITCH NO.: 11, 12, 13, 14  
 PHY - ADDRESS: 1C, 1D, 1E, 1F

11/24

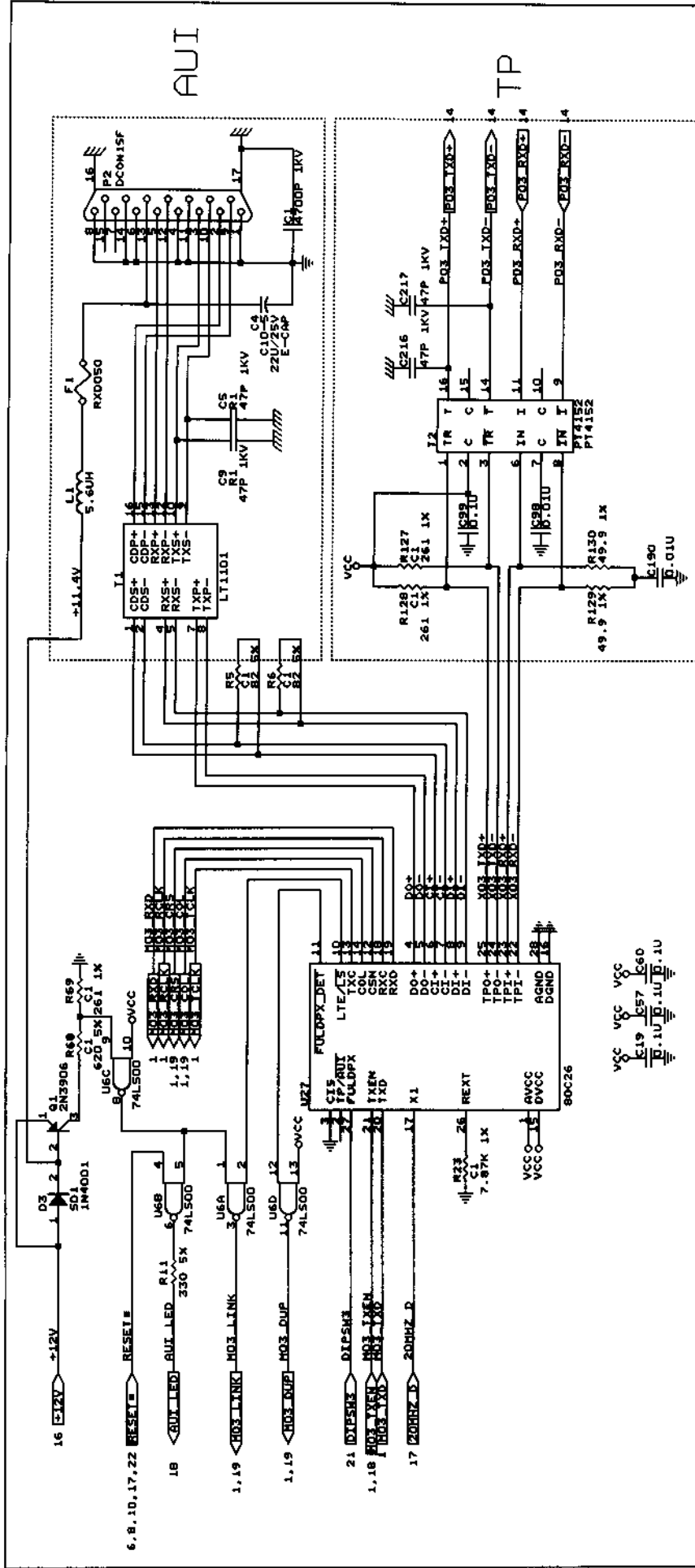




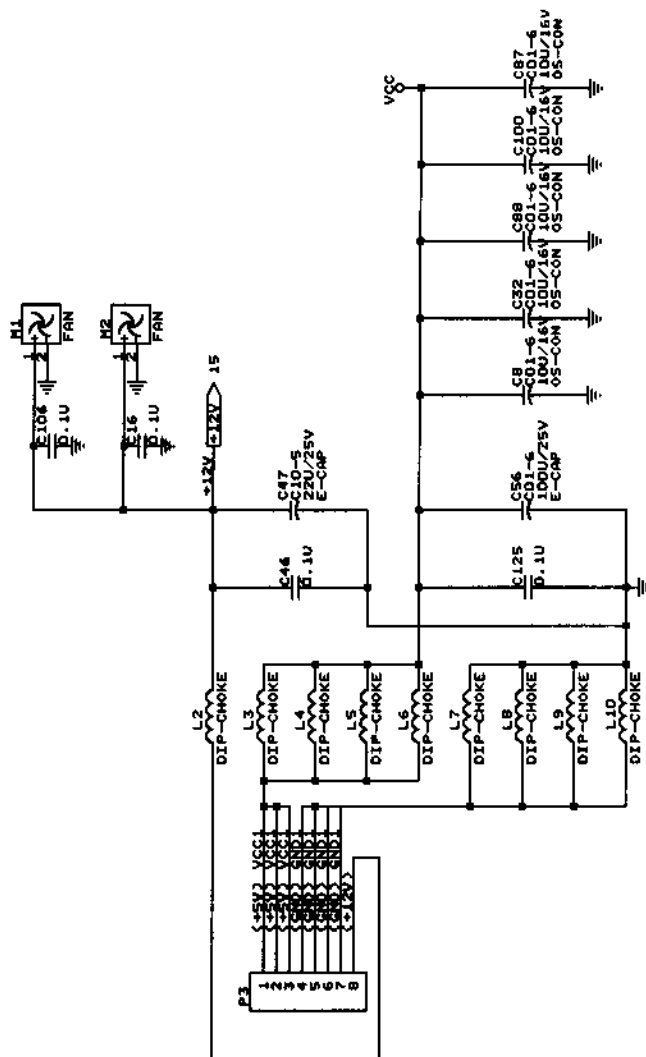
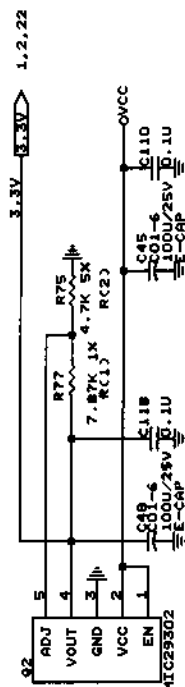








$$R(1) = R(2) = \left( \frac{V_{OUT}}{1.240} - 1 \right)$$



Could not remove these DIP-Chips  
since they can filter AC power noise

## (16) POWER

# D-Link

DOC. NO.: 305DES815-----B1-

Approved: 張福財	Prepared : 5/23/98	Cheer Ko
	Issued Date:	07/20/97

Prepared :	Cheer Ko
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Issued On: 07/20/97

File	TI-Based Ether-Switch	-----	ES-015B

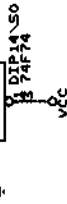
Size	Document Number
210I	
220I	

Date: September 11, 1997 Sheet 16 of 20

TI-Based Ether-Switch ----- ES-015B  
Size Document Number 3101

2201	B
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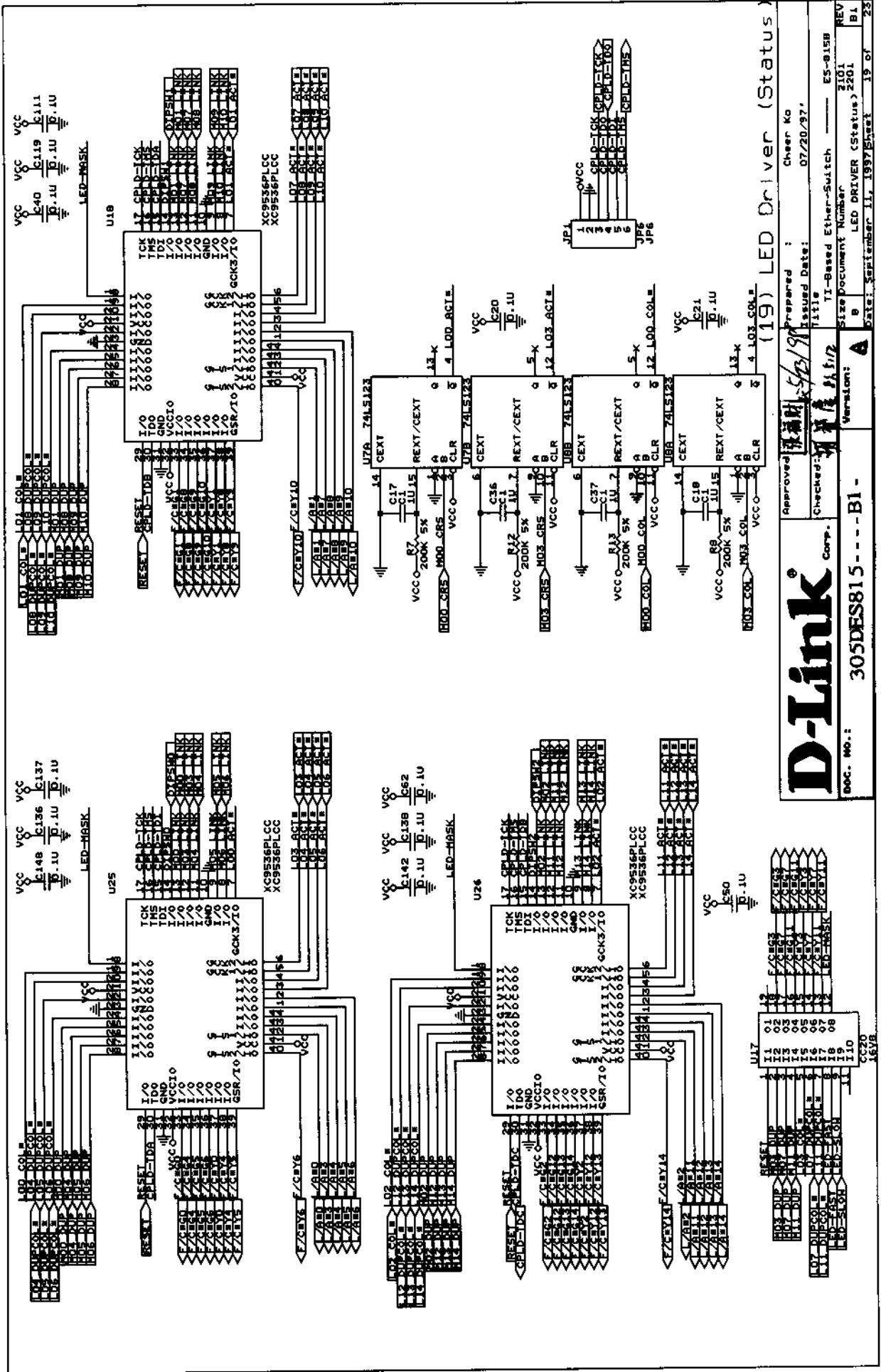
**Reset Time = 0.45 \* 200(+3) = 10(-6) = 0.9(5)**



# D-Link

DOC. NO.:	305DES815----	B1 -	10/25/72	12-00000-0100-0100-0100	REV	2101
					Size Document Number	2201
					RESET & CLOCK	2201
					Date: September 11, 1997	Sheet 17 of 23
					Version: A	





**(19) LED Driver (Status)**

Approved: *[Signature]* Prepared: *[Signature]* Cheer Ka  
 Checked: *[Signature]* Issued Date: 07/20/97  
 Title: TI-Based Ether-Switch  
 Size Document Number: 2101  
 Version: B  
 LED DRIVER (Status) 2201  
 Date: September 11, 1997 Sheet 19 of 23

**D-Link** Corp.

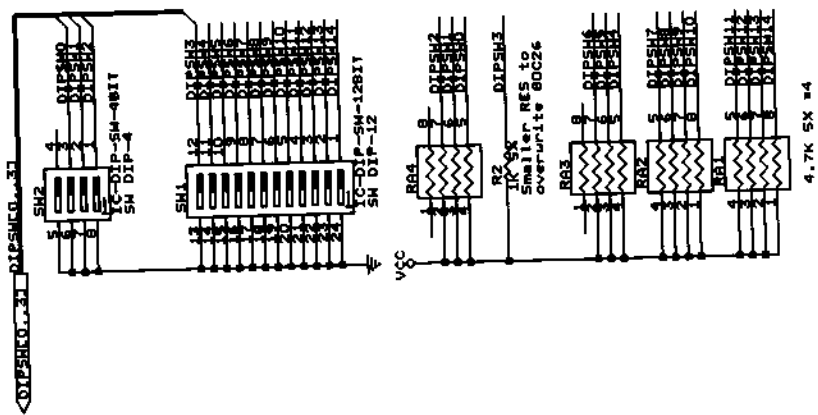
Doc. No.: 305DES815 --- B1 -

(20) Debug Eale 2.1

# ID-Link®

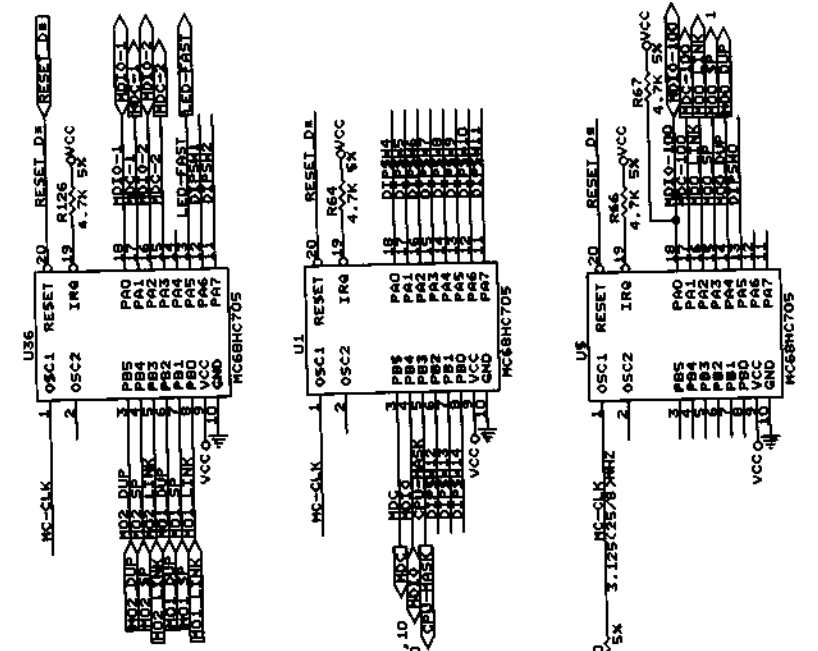
Approved	張滿財	Prepared :	Cheer Ko
	-5/23/98	Issued Date:	07/20/97

Doc. No.: 305DES815- - - B1 -  
 Checked: **3/1/82** Title: TI-Based Ether-Switch ES-8158  
 Version: **A** Size: Document Number 2101  
 B 8 DEBUG  
 No. of Sheets 137 of 23



NOTE:

PORT0	DIPSW0	Addr. 00-1F
PORT1	DIPSW1	Addr. 10
PORT2	DIPSW2	Addr. 11
		Addr. 12
PORT3	DIPSW3	No Addr.
PORT4	DIPSW4	Addr. 13
PORT5	DIPSW5	Addr. 14
PORT6	DIPSW6	Addr. 15
PORT7	DIPSW7	Addr. 16
PORT8	DIPSW8	Addr. 17
PORT9	DIPSW9	Addr. 18
PORT10	DIPSW10	Addr. 19
PORT11	DIPSW11	Addr. 1A
PORT12	DIPSW12	Addr. 1B
PORT13	DIPSW13	Addr. 1C
PORT14	DIPSW14	Addr. 1D
		Addr. 1E
		Addr. 1F



NOTE:

PORT0	DIPSW0	Addr. 00-1F
PORT1	DIPSW1	Addr. 10
PORT2	DIPSW2	Addr. 11
		Addr. 12
PORT3	DIPSW3	No Addr.
PORT4	DIPSW4	Addr. 13
PORT5	DIPSW5	Addr. 14
PORT6	DIPSW6	Addr. 15
PORT7	DIPSW7	Addr. 16
PORT8	DIPSW8	Addr. 17
PORT9	DIPSW9	Addr. 18
PORT10	DIPSW10	Addr. 19
PORT11	DIPSW11	Addr. 1A
PORT12	DIPSW12	Addr. 1B
PORT13	DIPSW13	Addr. 1C
PORT14	DIPSW14	Addr. 1D
		Addr. 1E
		Addr. 1F

# (21) DIP-Switch Setting

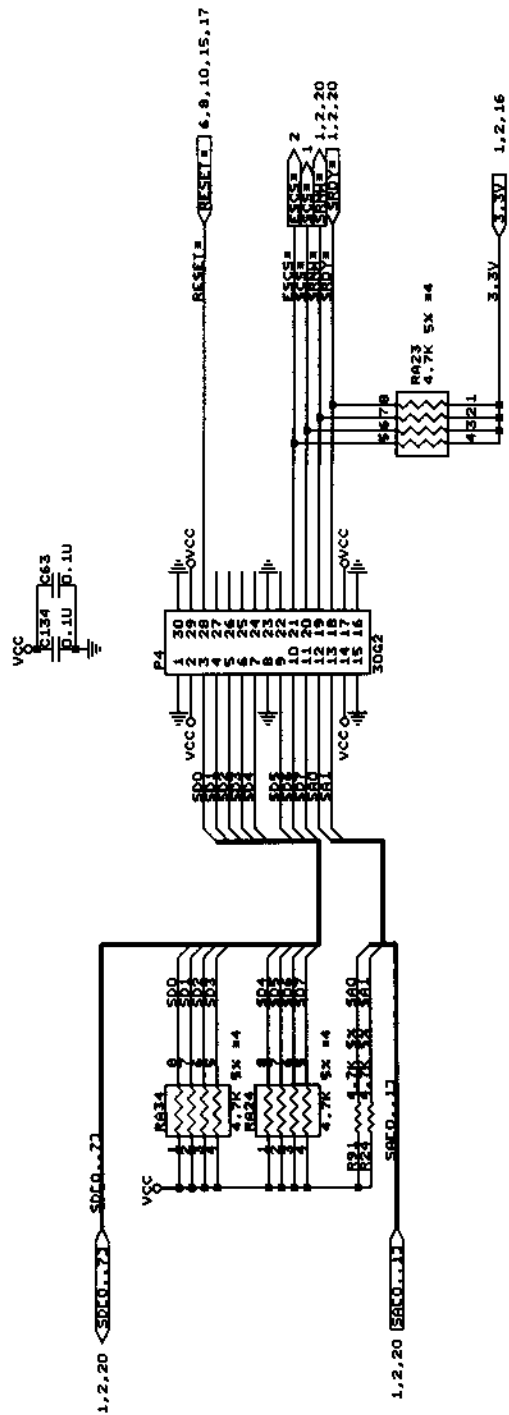
<p>DOC. NO.: 305DES815</p>	<p>Ver.: A</p>	<p>Approved: [Signature]</p>	<p>Prepared: [Signature]</p>
		<p>Checked: [Signature]</p>	<p>Issued Date: 07/20/97</p>
<p>TI-based Ether-Switch</p>		<p>Size Document Number: 2101</p>	<p>REV: B1</p>
<p>Date: September 11, 1997</p>		<p>Sheet: 21 of 23</p>	<p>REV: B1</p>



ON (up): Force F-Dup  
OFF (down): N-MAY

ON (up): Force F-Dup  
OFF (down): Force H-Dup





(22) Parallel Port

<b>D-Link</b> Corp.		Approved: <b>[Signature]</b>	Prepared: <b>[Signature]</b>	Cheer Ko
DOC. NO.: 305DES815 - - - B1 -		Checked: <b>[Signature]</b>	Issued Date: 07/20/97	
		Title: 11-Based Ether-Switch		
		Size: Document Number		
		Version: <b>A</b>		
		Date: September 11, 1997		
		Sheet 22 of 23		

