

△ Clock signals, i.e. CLK, MCLK, WCLK and RAMCLK0 must not float next to ground layer

△ Control clock logic
Use components
Close together

△ Clock signals, i.e. CLK, MCLK, WCLK and RAMCLK0 must not float next to ground layer

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TITLE: P220

DRN: DWG (DWG NO)

CKD: REV: A0

APPD: SHEET 1 OF 7

Amendment History

Date	Release	Description
01/19/1999	A0	Sample Run Release

Section CPU & buses

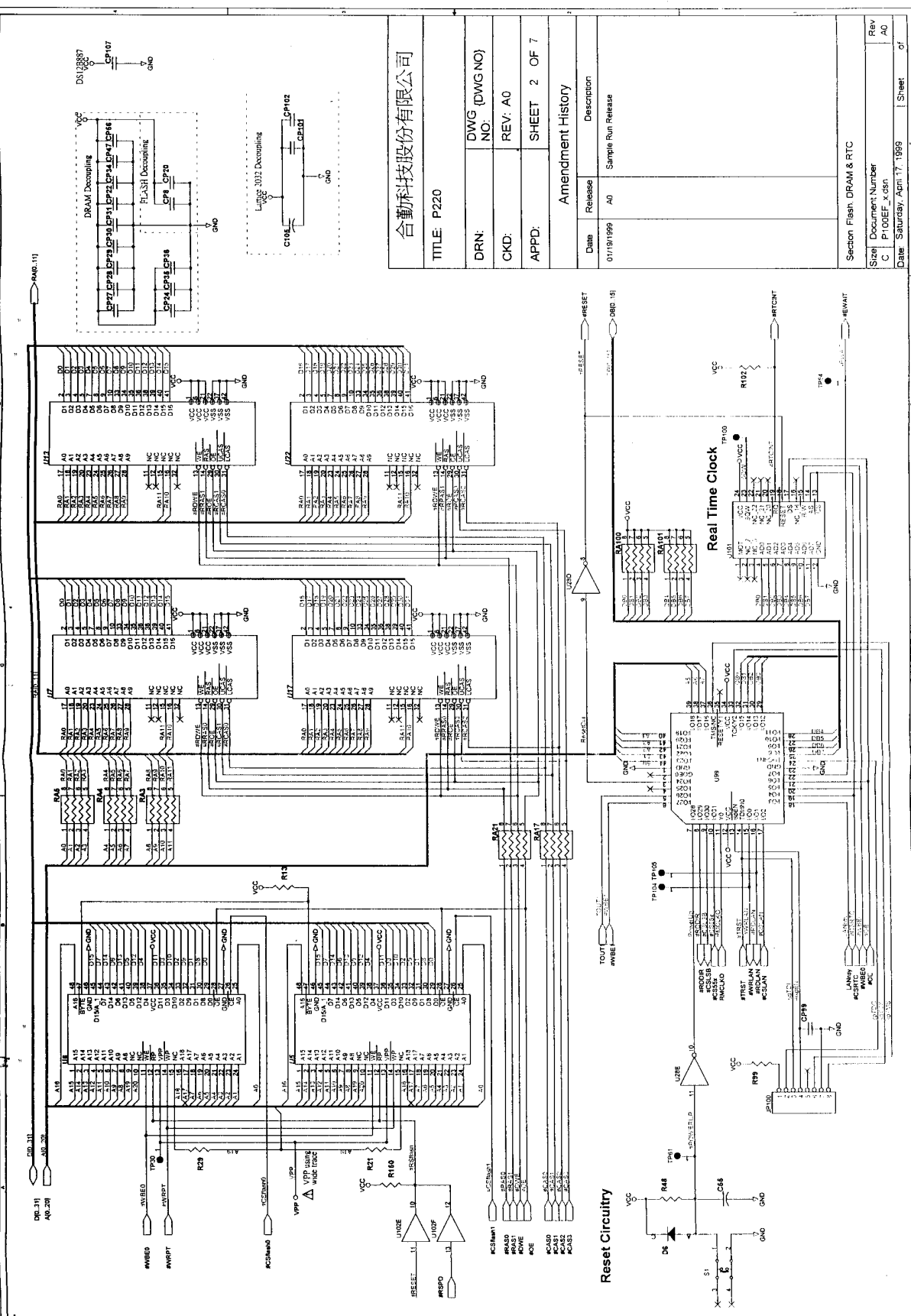
Size Document Number

C P100EF_x.dsn

Date Saturday, April 17, 1999

Rev A0

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TITLE: P220

DRN: DWG (DWG NO)

CKD: REV: A0

APPD: SHEET 2 OF 7

Amendment History

Date	Release	Description
01/19/1999	A0	Sample Run Release

Section: Flash, DRAM & RTC

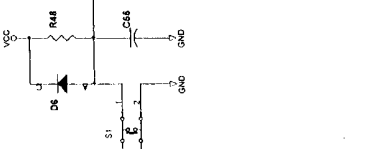
Size: Document: Number

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Reset Circuitry



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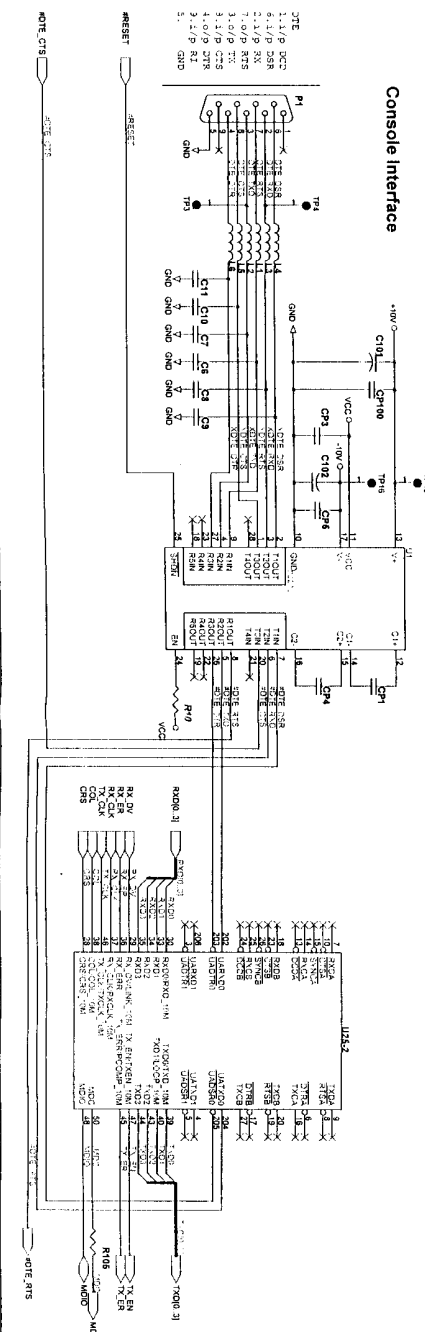
DRN: DWG NO: (DWG NO)

CKD: REV: A0

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Amendment History

Date	Release	Description
01/19/1999	A0	Single Run Release



Section U4RT1's & Printer port

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TITLE: P220

DRN: DWG (DWG NO)

CKD: REV: A0

APPD: SHEET 4 OF 7

Amendment History

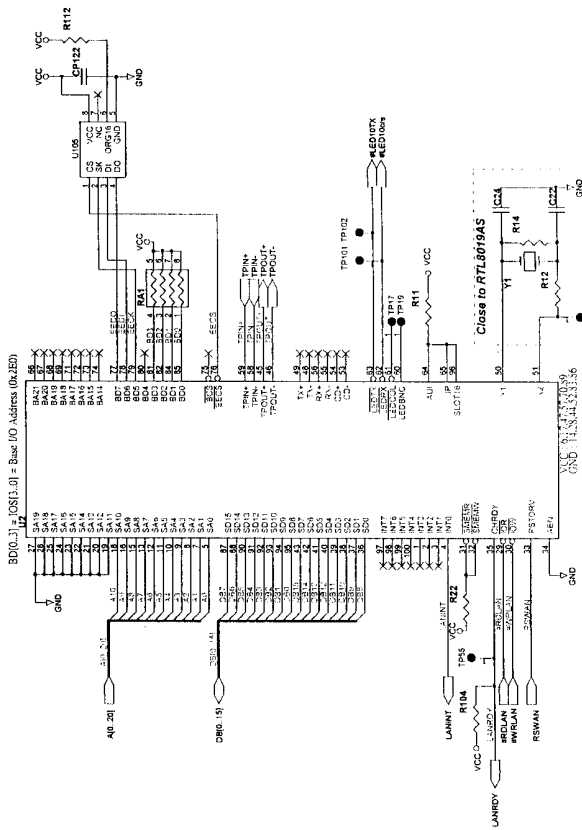
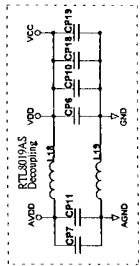
Date	Release	Description
07/19/99	A0	Sample Run Release

Section 4 port hub circuits

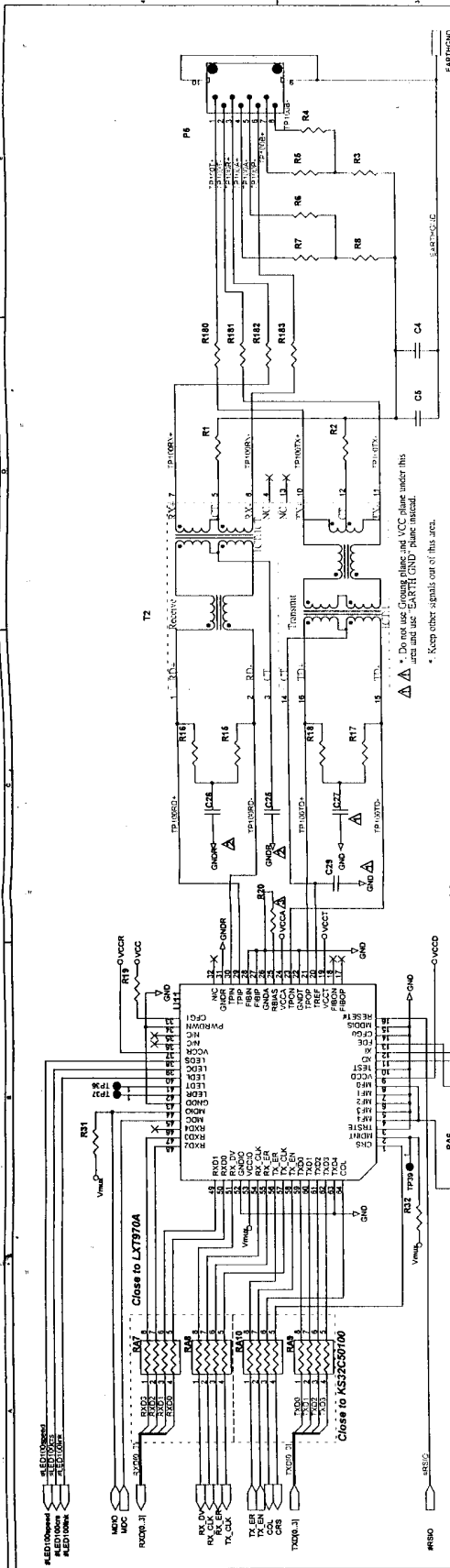
Size: Document Number
C P100EF_x.dsn

Date: Saturday, April 17, 1999

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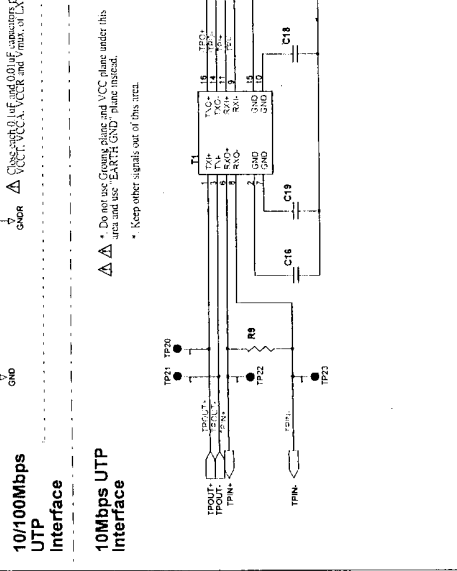
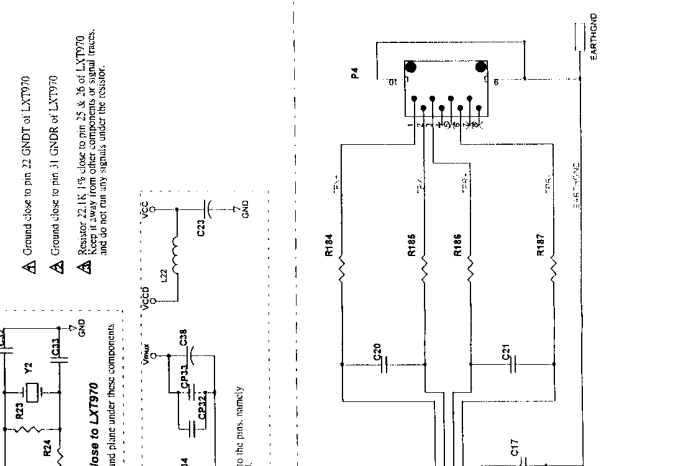


Ground plane under these components



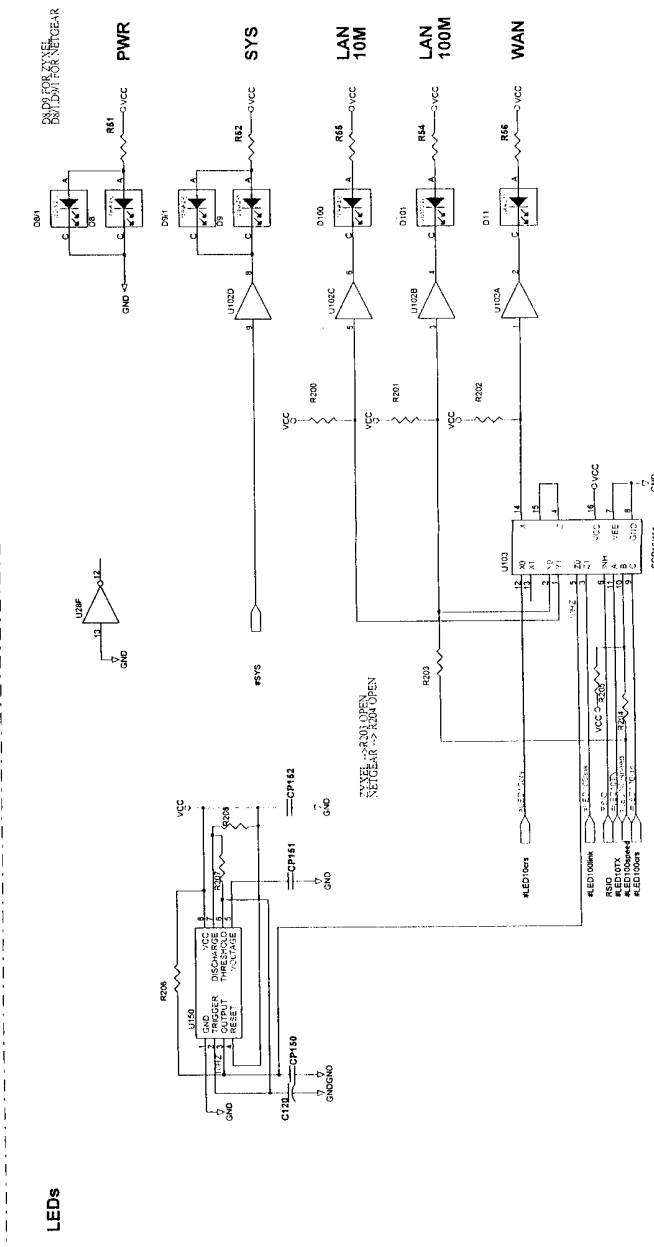
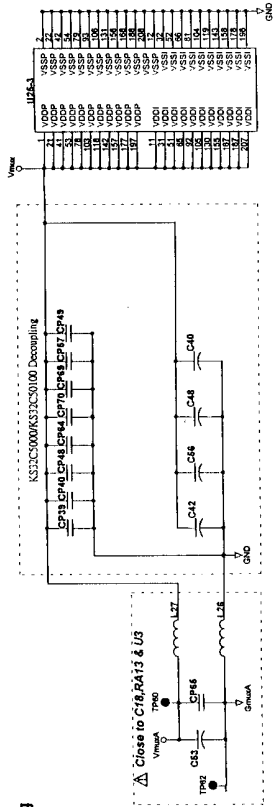
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TITLE: P220		
DRN:	DWG (DWG NO)	
CKD:	REV: A0	
APPD:	SHEET 5 OF 7	
Amendment History		
Date	Release	Description
9/19/99	A0	Sample Run Release
Section 10/100 LAN interface		
Size	Document Number	Rev
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- Keep the LX7970, magnetics, and RJ45 connector as close together as possible.
- Route the transmit and receive pairs differentially and keep them as short as possible, e.g.
 - (1) TP1007X & TP1007Y
 - (2) TP1008X & TP1008Y
 - (3) TP1009X & TP1009Y
 - (4) TP1010X & TP1010Y
 - (5) TP1011X & TP1011Y
 - (6) TP1012X & TP1012Y
 - (7) TP1013X & TP1013Y
 - (8) TP1014X & TP1014Y
- Route traces over an unbroken ground plane. Do not route over breaks in the ground plane.
- Provide shielding by placing a ground plane under the traces and a second ground plane above the traces. Place the shielding ground plane two to three layers away to minimize short capacitance between the traces and the ground plane.
- Keep the RT3010AS, magnetics, and RJ45 connector as close together as possible.
- Route the transmit and receive pairs differentially and keep them as short as possible, e.g.
 - (1) TP1015X & TP1015Y
 - (2) TP1016X & TP1016Y
 - (3) TP1017X & TP1017Y
 - (4) TP1018X & TP1018Y
 - (5) TP1019X & TP1019Y
 - (6) TP1020X & TP1020Y
 - (7) TP1021X & TP1021Y
 - (8) TP1022X & TP1022Y
- Route traces over an unbroken ground plane. Do not route over breaks in the ground plane.
- Provide shielding by placing a ground plane under the traces and a second ground plane above the traces. Place the shielding ground plane two to three layers away to minimize short capacitance between the traces and the ground plane.



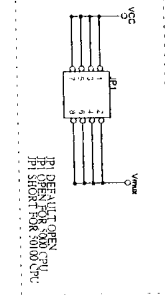
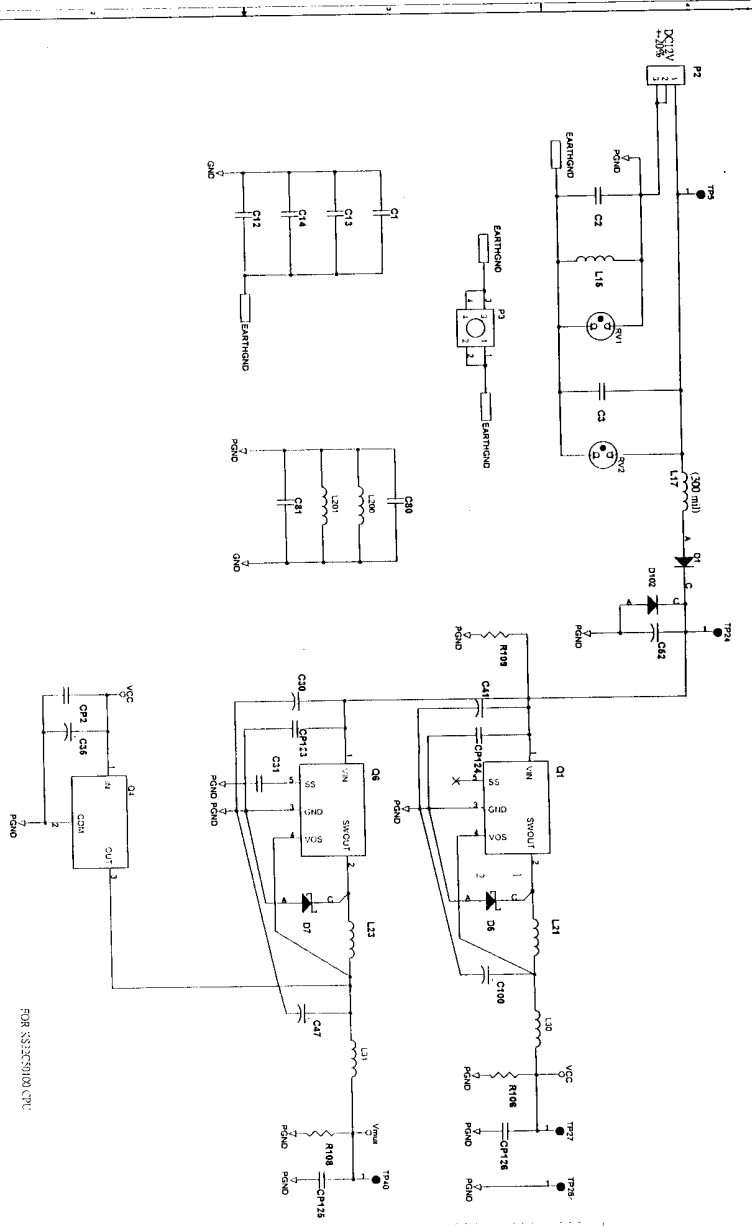
10/100Mbps UTP Interface
10Mbps UTP Interface

Decoupling Capacitors of CPU



TITLE: P220		
DRN:	DWGS (DWG NO)	
CKD:	REV: A0	
APPD:	SHEET 6 OF 7	
Amendment History		
Date	Release	Description
01/19/1999	A0	Sample Run Release
Section: RESET, CPU POWER & LED Circuits		
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▲ Keep feedback winding
 far away from inductor
 ** Place inductor
 far from feedback
 regulator

FOR S312750100.CVC

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TITLE: P220		
DRN1	DWG NO. (DWG NO)	
CKD:	REV: A0	
APPD:	SHEET 7 OF 7	
Amendment History		
Date	Release	Description
01/19/1999	A0	Sample Run Release
Sector/Power Circuits		Rev A0
Size Document Number		of
C P-00DEF_x.dsn		
Date	Saturday, April 17, 1999	Sheet