

Product System (PS)

Subject: Circuit Operating Theory

Part No.:

Rev.: 0

Doc. No. 318-C01

Project Code: 99.L0872.001

Effective date

Page 1 of 11

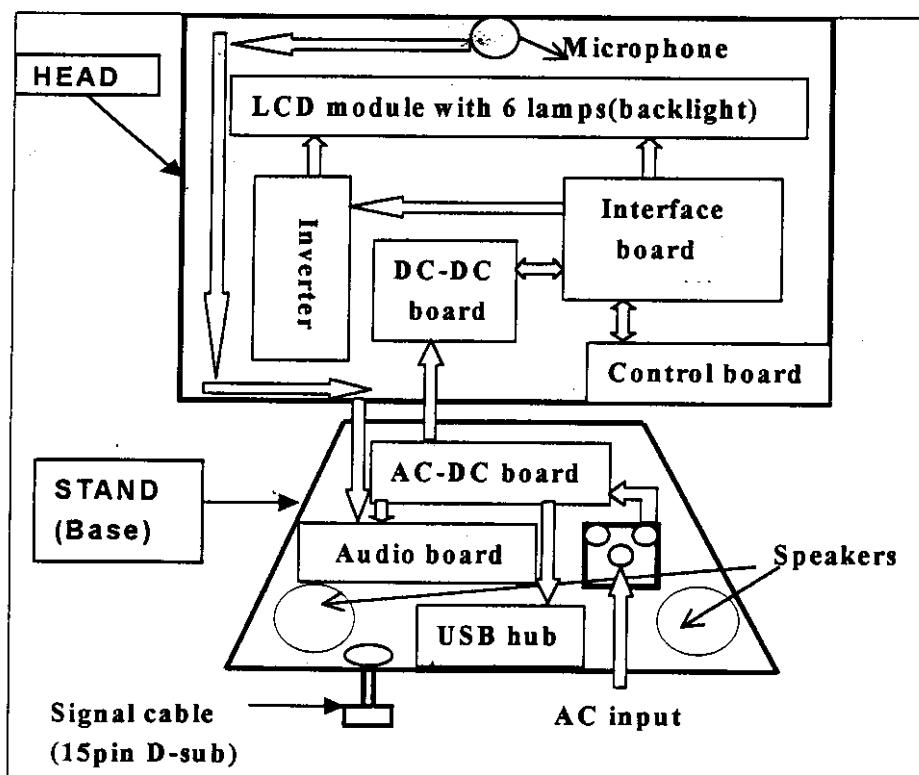
Model Name: FP855

III. Introduction:

The FP855 is an 18.1" SXGA(1280x1024) 24 bits color TFT LCD monitor with multi-media function and an optional USB hub. It's an analog interface LCD monitor with an undetachable 15 pins D-sub signal cable and it's compliant with VESA specification to offer a smart power management and power saving function. It also offers OSD menu for users to control the adjustable items and get some information about this monitor, and the best function is to offer users an easy method to set all adjustable items well just by pressing one key, we called it "i-key"(intelligent key) which can auto adjusting all controlled items.

II. Block diagram

The FP855 consists of a head and a stand(base). The head consists of a LCD module with 6 lamps, an Inverter, an Interface bard, a DC-DC board, a Control board and a microphone. The stand consists of an AC-DC board, an Audio board, two speakers and an optional USB hub. The block diagram is shown as below,



Product System (PS)

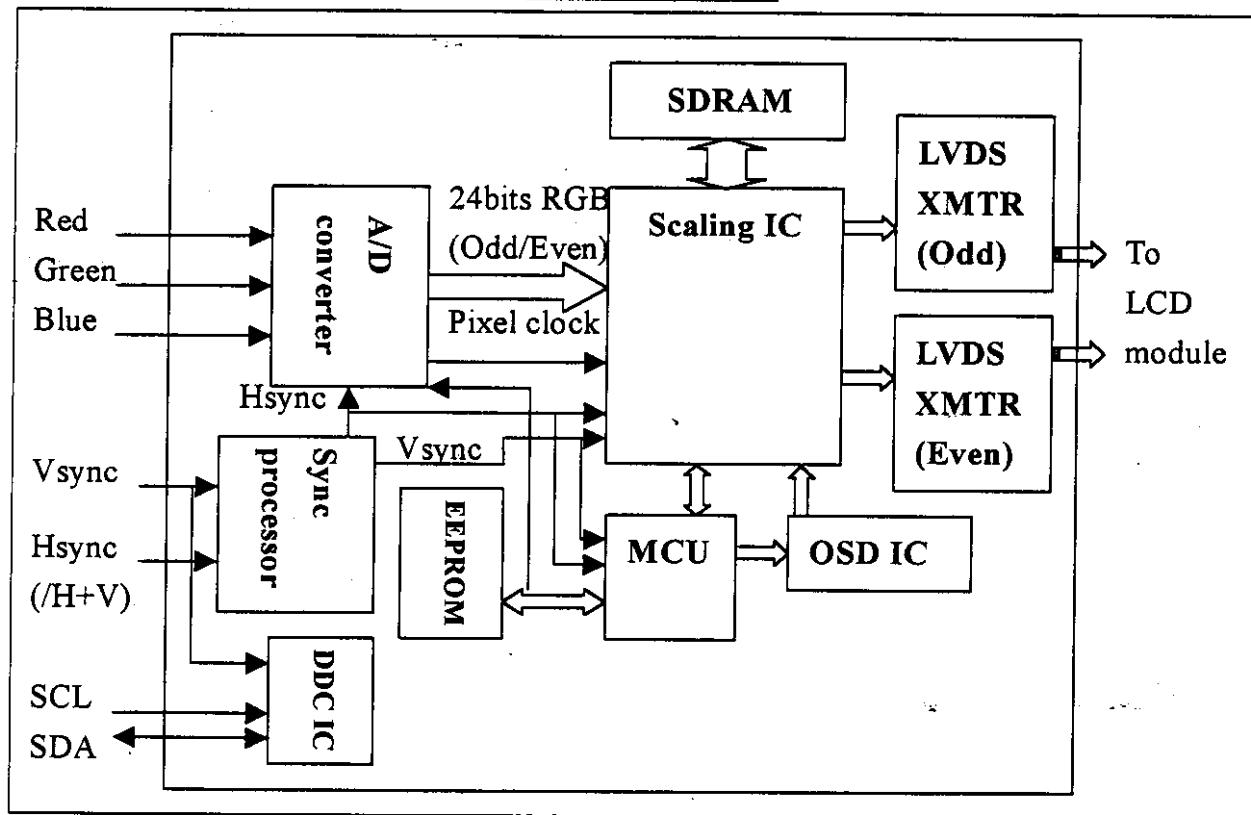
Subject:	Circuit Operating Theory	Part No.:	Rev.:
		Doc. No. 318-C01	0
Project Code:	99.L0872.001	Effective date	Page 2 of 11
<u>Model Name: FP855</u>			

III. Circuit operation theory:

A.) HEAD:

A-1.) Interface board diagram:

Interface Board

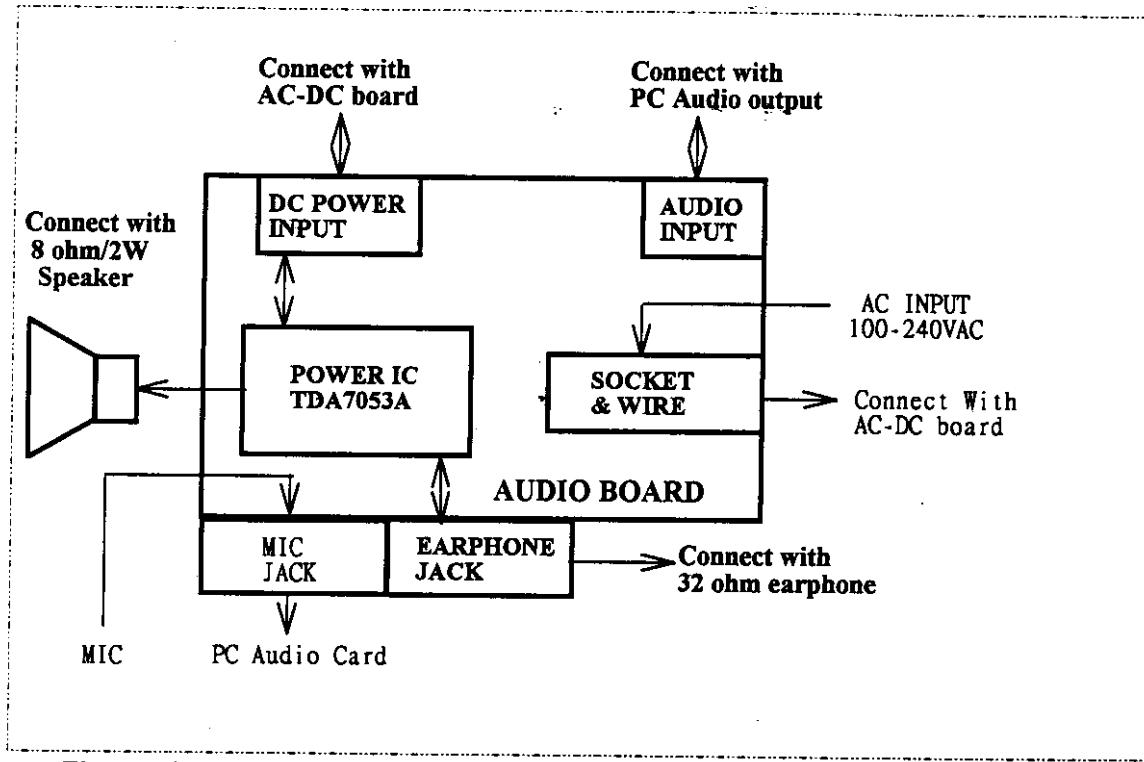


(a) Circuit operation theory:

A basic operation theory for this interface board is to convert analog signals of Red, Green and Blue to digital signals of Red, Green and Blue, and by the internal PLL circuit of A/D converter to generate the pixel clock to output to the scaling IC, then the scaling IC use the SDRAM to be the frame buffer to process the different input signals which are operating in the specification of the A/D converter and the scaling IC, finally the scaling IC output the digital RGB data, the fixed frequency of Hsync, Vsync and pixel clock to LCD panel driver IC by LVDS transmission.

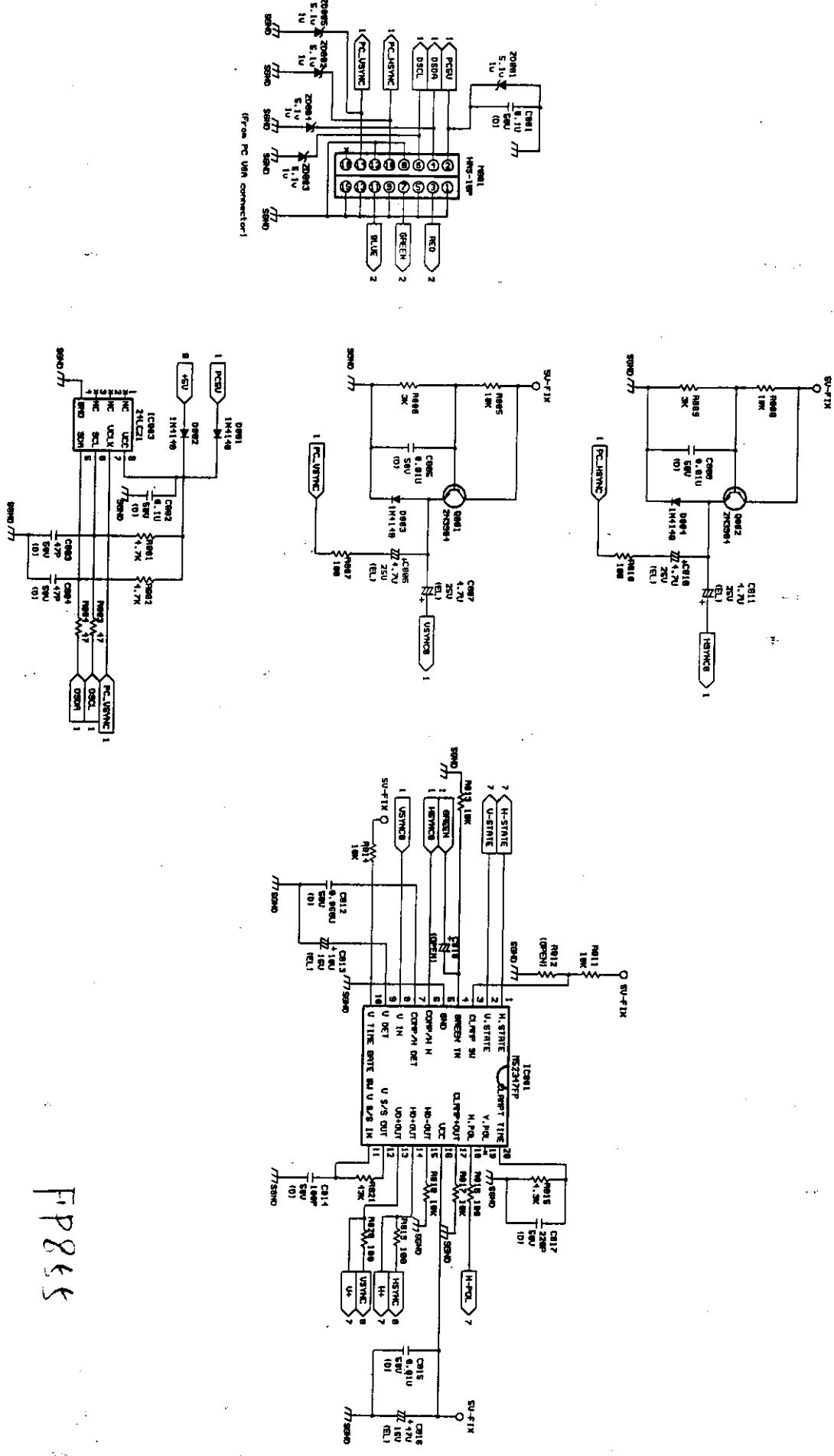
Product System (PS)

Subject:	Circuit Operating Theory	Part No.:		Rev.:	0
		Doc. No.	318-C01		
Project Code:	99.L0872.001	Effective date			Page 8 of 11
<u>Model Name: FP855</u>					



The Audio Speaker is consist of a Audio board. The Audio Speaker have DC Volumn control, Earphone jack , use 28mmX40mm Speaker (2W/per chennal), power supply from AC-DC board and Audio input from PC Audio output (Line Out).

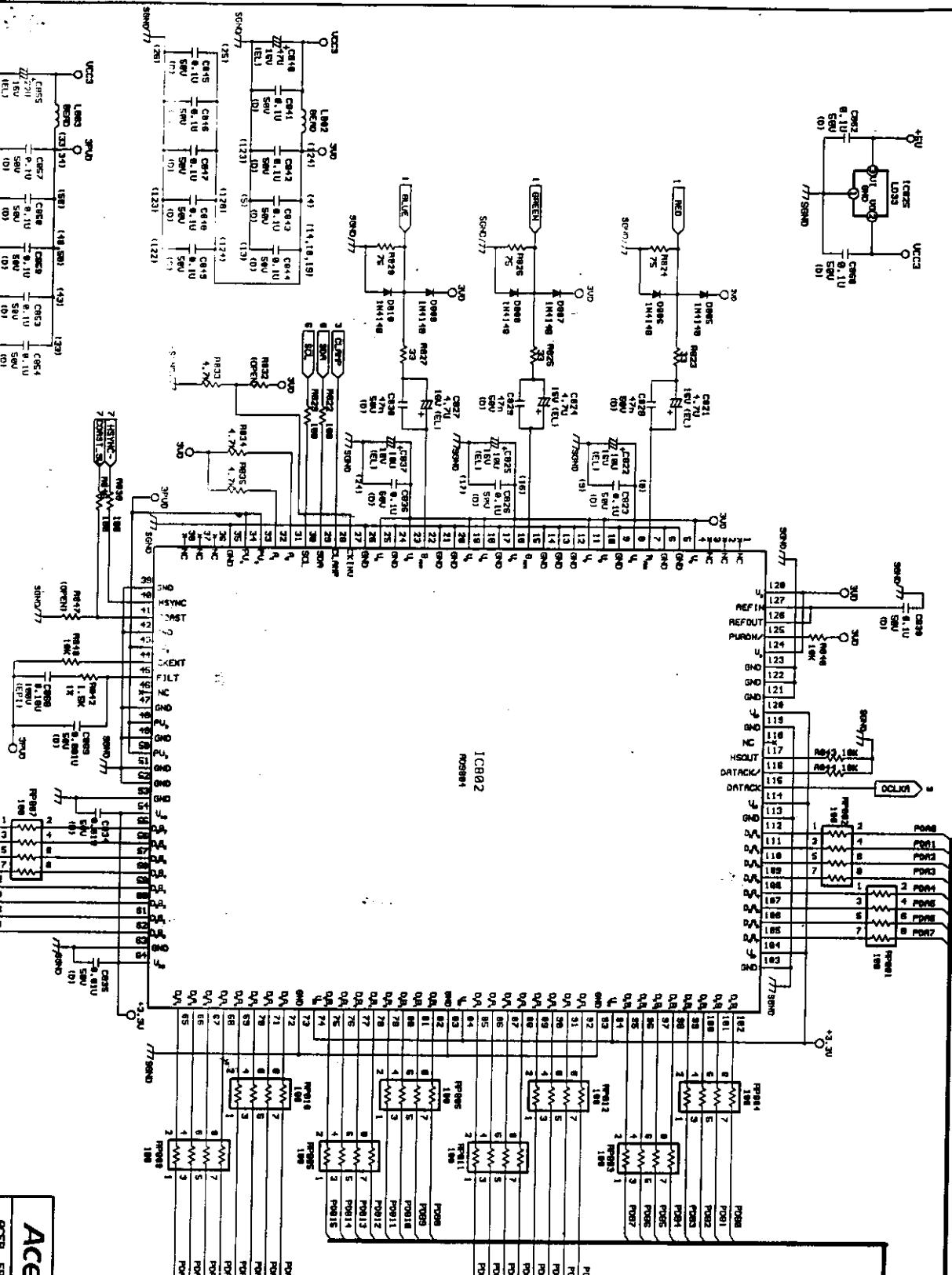
- (a) **Power IC:** Use Philips POWER IC TDA7053A. The IC are stereo BTL output amplifiers with DC Volume control. The devices are designed for use in TV and monitor, but are also suitable for battery-Fed portable recorders and radios. Use +12V from AC-DC Board and connect speaker to offer 1W per chennal.
- (b) **DC Power Input:** To supply +12V to be VCC source Voltage for TDA7053A and connected with AC-DC board.
- (c) **Audio Input:** connect with PC Audio output in 3.5mm to 3.5mm signal line.
- (d) **Speaker:** Use 8 ohm and 28mmX40mm speaker (1W/per chennal)
- (e) **DC Volumn Control:** The two DC volume control stages are integrated into the input stages so that no Coupling capacitors are required and a low offset voltage is still maintained. The minimum supply voltage also remains low. If the DC volume control voltage falls below 0.4V, the device will switch to the mute mode.
- (H) **Earphone jack:** To connect 32 ohm earphone.



ACER  Acer Peripherals, Inc.

ACER FP869 INPUT-CKT 1 SCHEMATIC

SIZE	8581F-SS, SCK	FBB	Doc-No.	Rev.
R4		SS	204-CAL	B
DATE :	8/15/1999	Sheet	1	OF 9
Project Code,	91-78812-861			
Prepared By	Chris Peng	Reviewed By	Riley Hung	Approved By
	8/15/99		8/15/99	ALEX LIU
				8/15/99



NOTE: Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm

2. All resistors are 1/8 watt, 5% except where otherwise indicated

3. \rightarrow Represents PCB common ground.

ACER  Acer Peripherals, Inc.

RCCR FPP59 (RD9897, CLK) SCHEMATICS

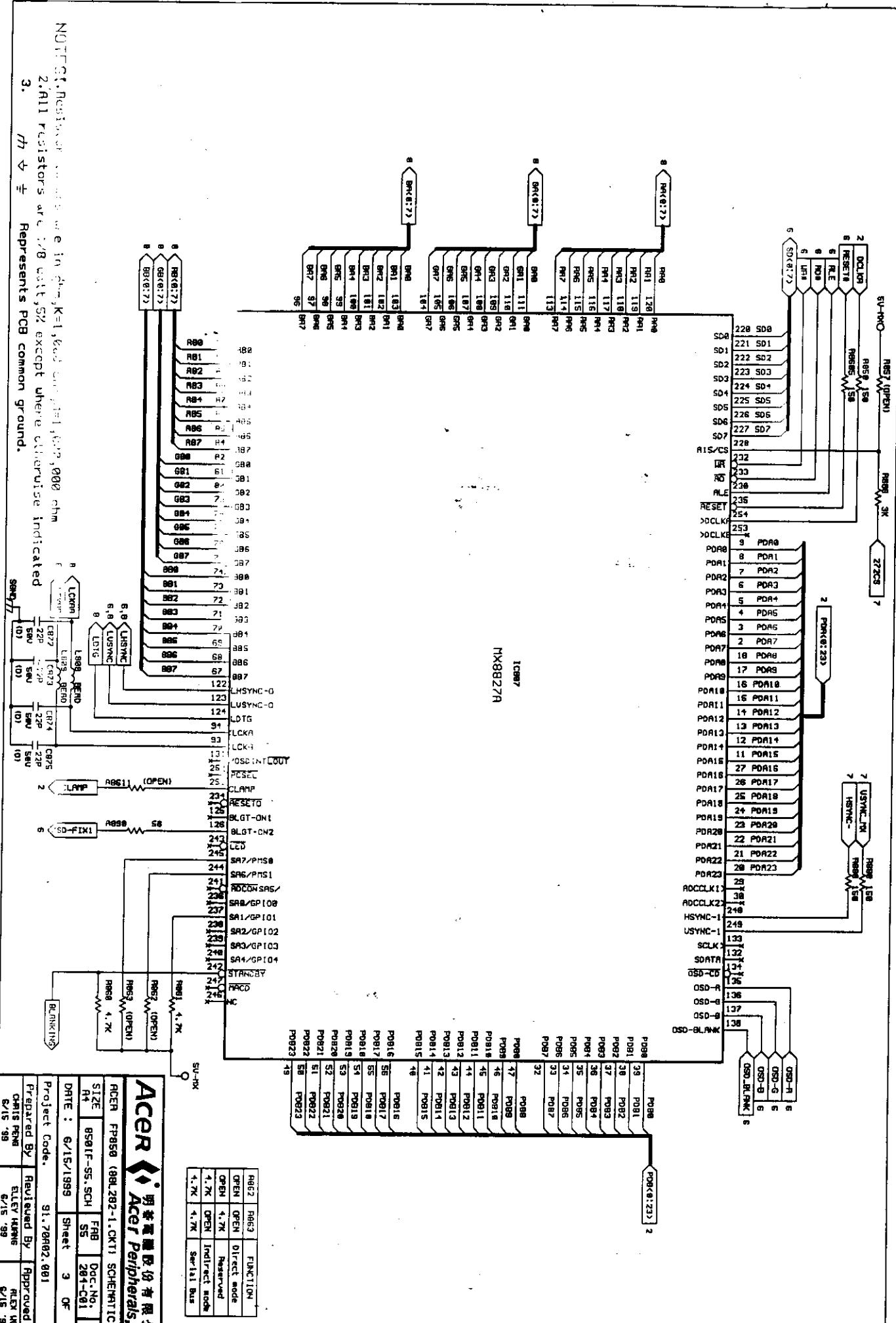
SIZE: 850F-S5, SCH FPC Doc-No: REU.

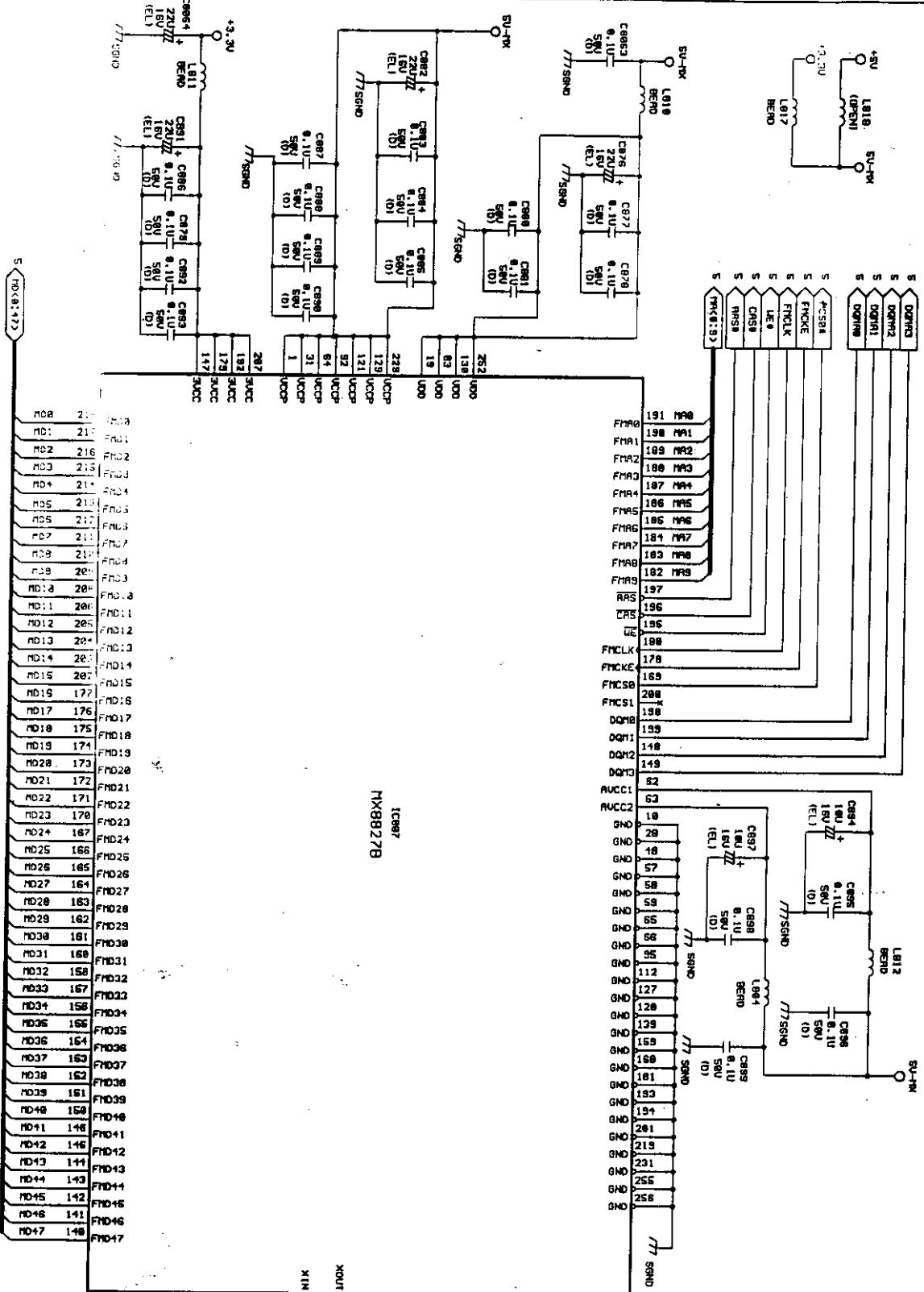
A1: 850F-S5, SCH DATE : 6/15/99 Sheet 2 OF 9

Project Code: 91-79882, 8611

Prepared By: CHIA PENG Revised By: ELLY HUANG Approved By: REY HSU

6/16/99 6/16/99 6/16/99





NOTE: Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm

2. All resistors are 1/8 watt, 5% except where otherwise indicated

3. --- Represents PCB common ground.

ACER Acer Peripherals,
Acer Incorporated

ACER F985B (80L282-2.CKT) SCHEMATIC			
SIZE	FAB	Doc. No.	Rev.
R4	8501F-SS.SCH	SS	281-C&I
DATE : 6/15/1999	Sheet	4	OF

Project Code:

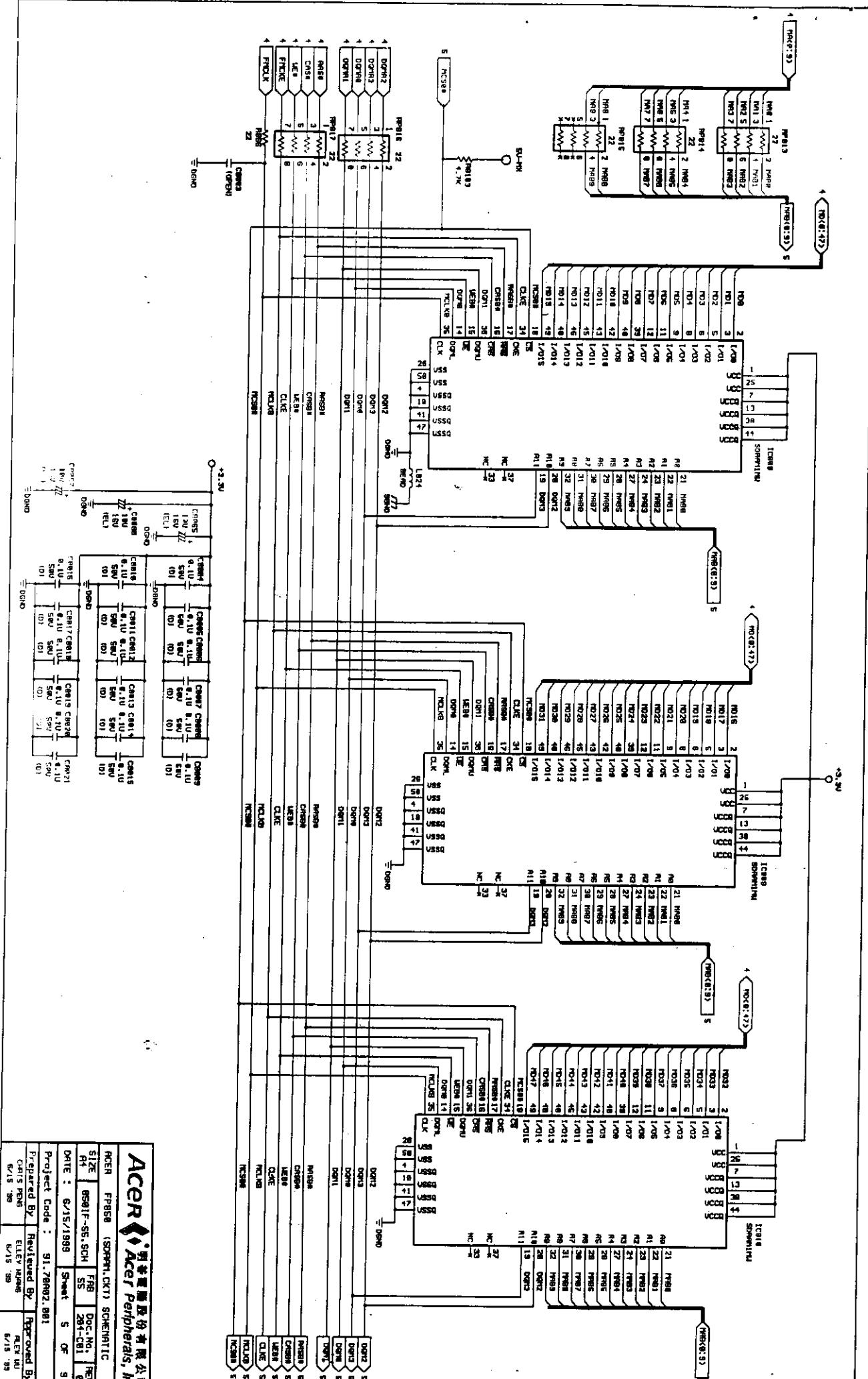
91.79802.001

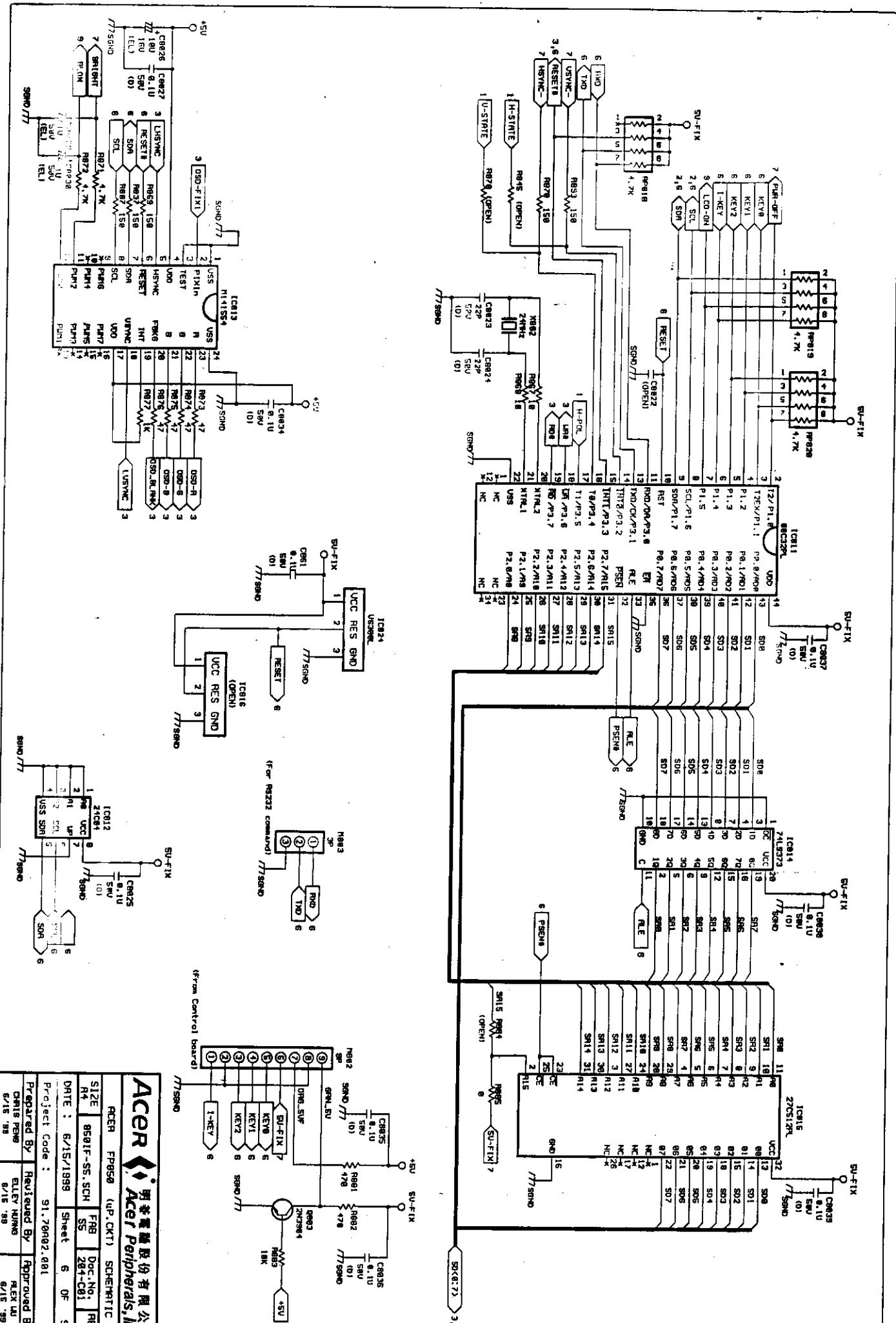
Prepared By: ELLERY HUNG

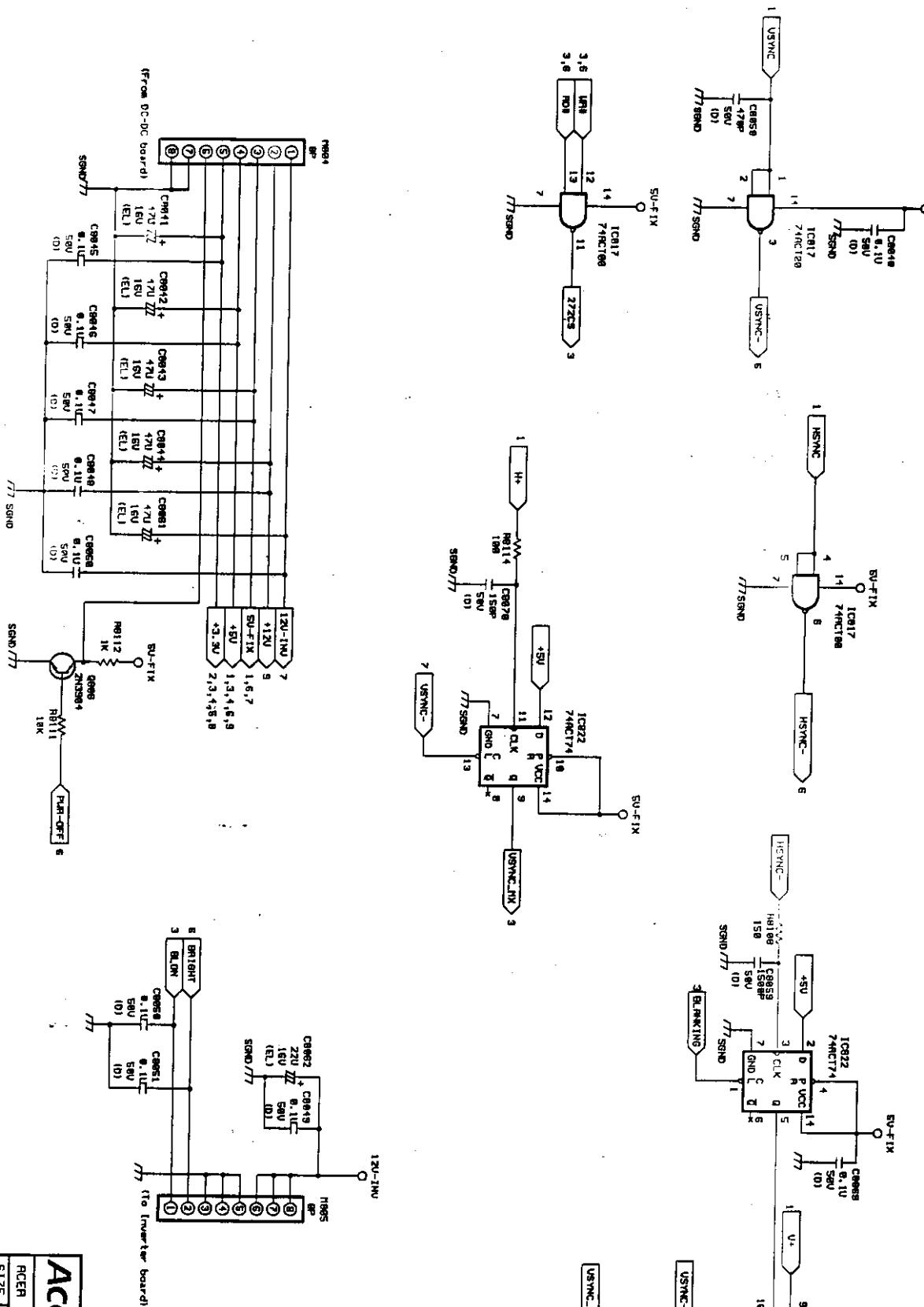
Reviewed By: REN LI

Approved By: REN LI

Date: 6/15/99







ACER Acer Peripherals

1. All resistors are 1/4 watt, 5% except where otherwise indicated

2. All resistors are 1/4 watt, 5% except where otherwise indicated

3. $\nabla \neq$ Represents PCB common ground.

ACER FP859 (CONN, CKT) SCHEMATIC					
SIZE	FP859 (CONN, CKT)	FPC	Doc. No.	204-C01	
H4 8501F-55.SCH	SS				

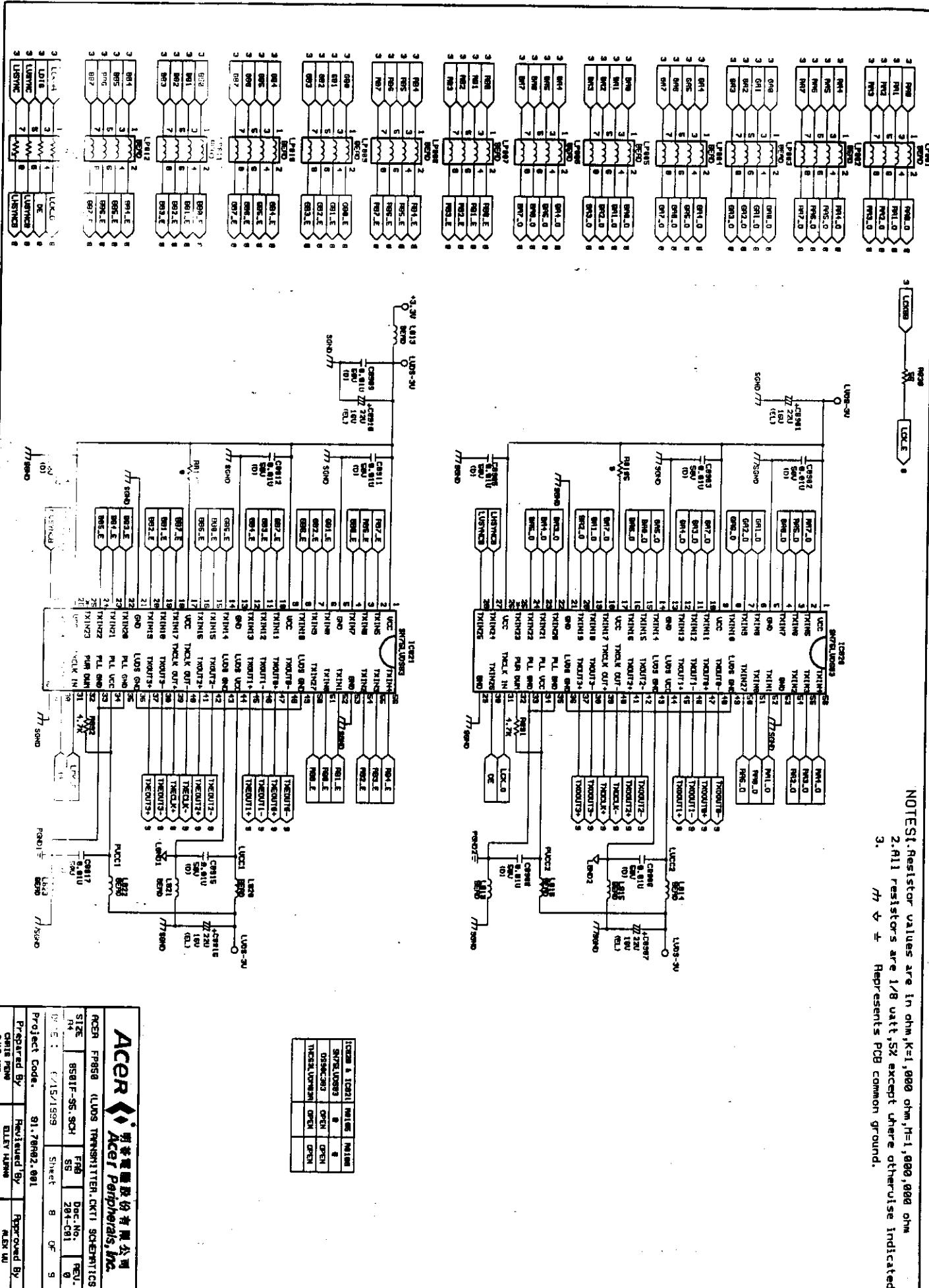
Project Name: 91-70102-021
DATE : 6/15/1999 Sheet 7 OF

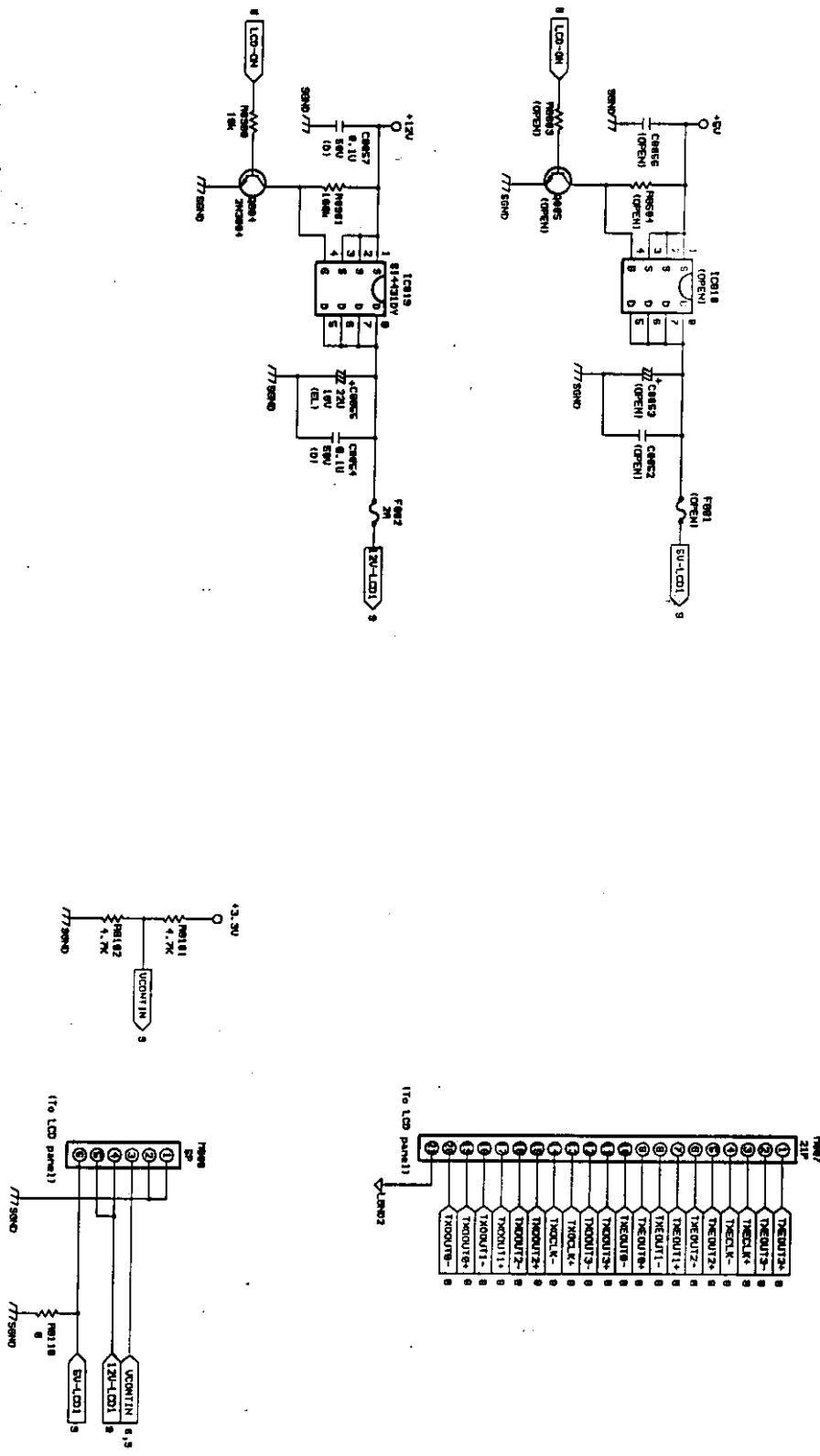
Prepared By CHITS-PENG
Reviewed By ELEY WANG
Approved By PLEXUS
6/15/99 6/15/99 6/15/99

NOTE Si-Resistor values are in ohm, K=1,000 ohm, R=1,000,000 ohm

2. All resistors are 1/8 watt, 5% except where otherwise indicated

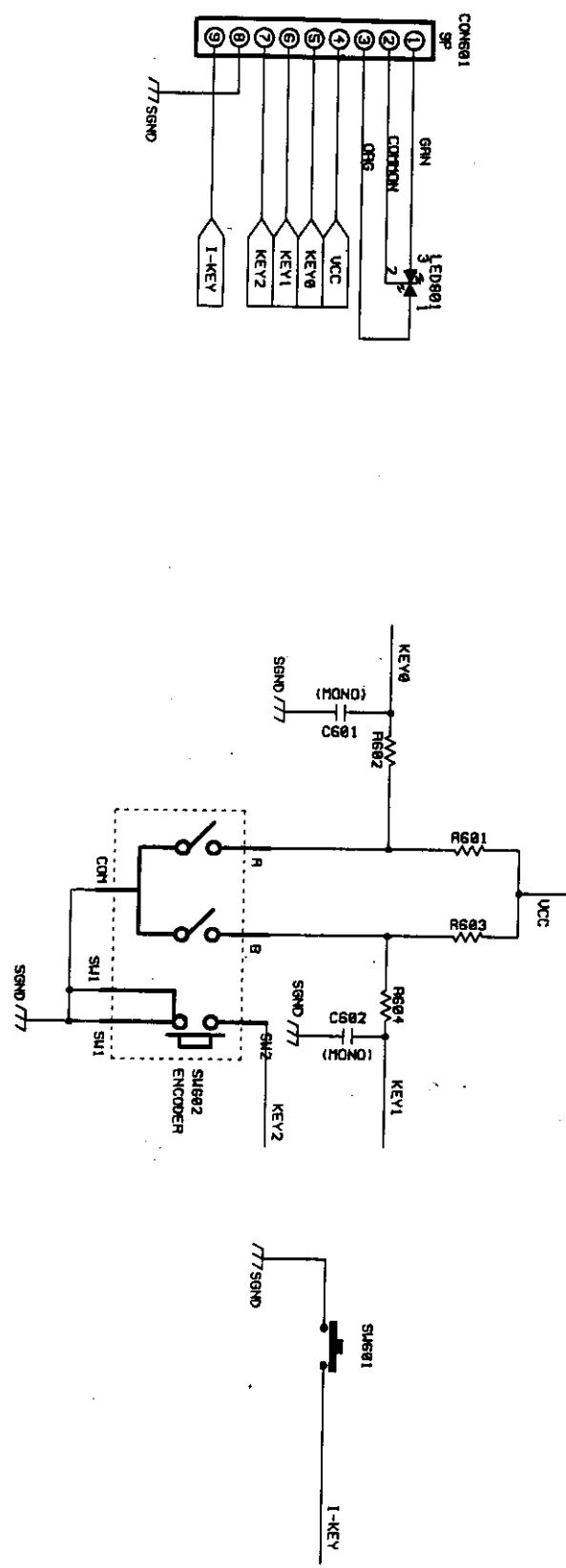
3. \wedge \vee \pm Represents PCB common ground.





Type	IC#18	Q105	R102	R103	C1058	C1059	C1062	F101	F102	F103
I.C. 115.51(18,1)	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	4.7K	0	
S1-10 (115.51(18,1))	\$144310Y	20K	10K	10K	0.1UF	22.2K	0.1UF	OPEN	OPEN	
S1-10 (115.51(18,1))	C104	0.1K	0.1K	0.1K	OPEN	OPEN	OPEN	4.7K	OPEN	

NOTES:
1. All resistors are 1/4W carbon film, except where otherwise indicated.
2. V_B = 5VDC
3. $\text{m} \Rightarrow \frac{1}{2}$
Represents PCB common ground.



NOTESt. Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm

2. All resistors are 1/8 watt, 5% except where otherwise indicated

3. $\not\rightarrow$ Represents PCB common ground.

ACER 儀 告電 股 份 有 限 Acer Peripheral

ACERVIEW 7651X SCHEMATICS

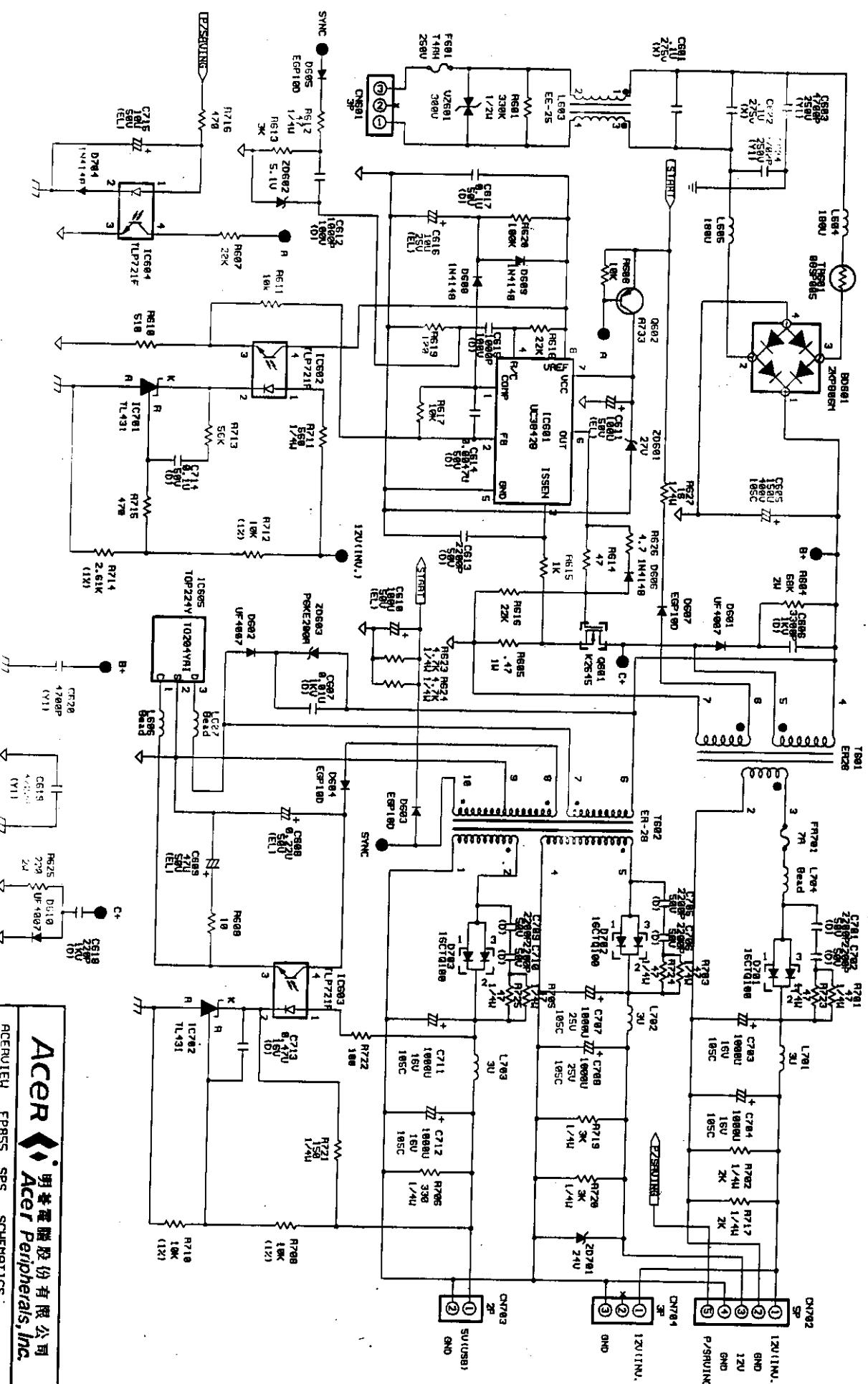
SLC CONTROL, SCH

FAB S1 Doc. No.

R4 DATE : 9/10/1998 Sheet 1 OF

Project Code. 91.7102.001

Prepared By Reviewed By Approved



ACER 明基電器股份有限公司
Acer Peripherals, Inc.

ACERUTEN FP855 SPS SCHEMATICS

Component values are in mA, mV, or μF where applicable.

3. \downarrow Represents PCB common ground.

Project Code:

Prepared By:

Reviewed By:

Approved By:

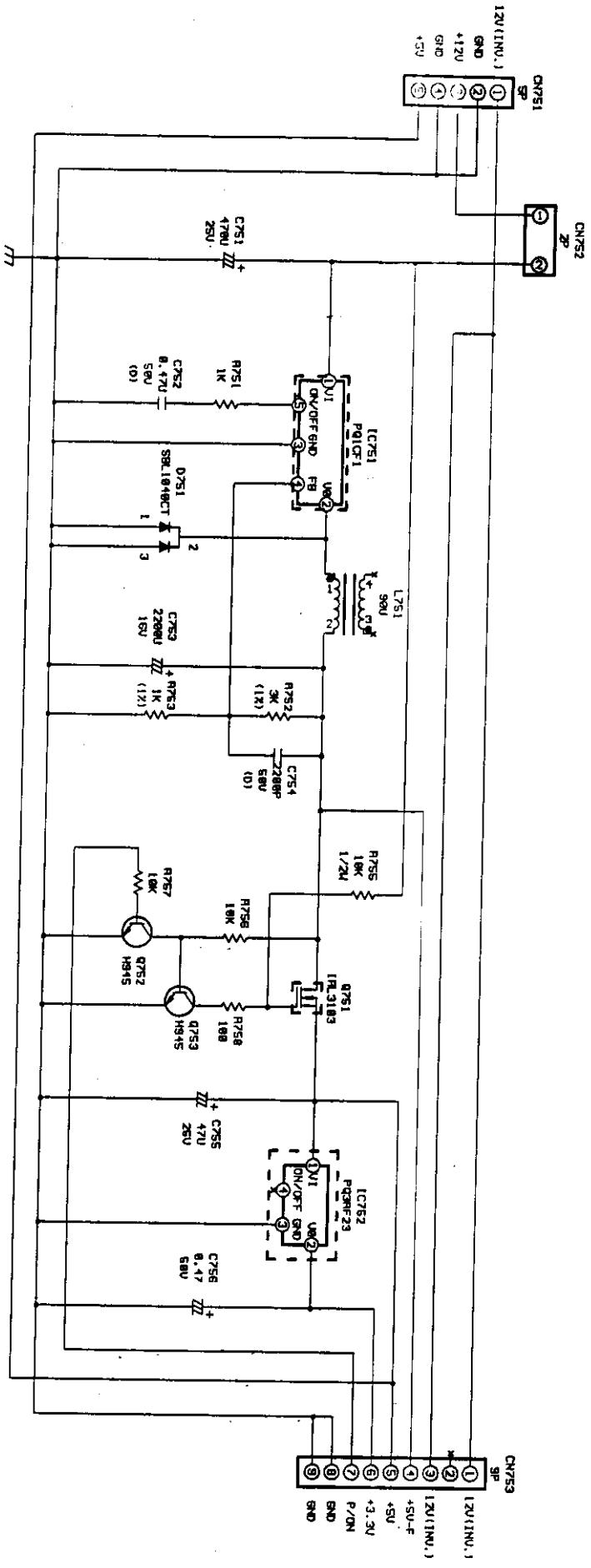
Doc. No.:

REV.:

DATE :

Sheet

1 OF 1

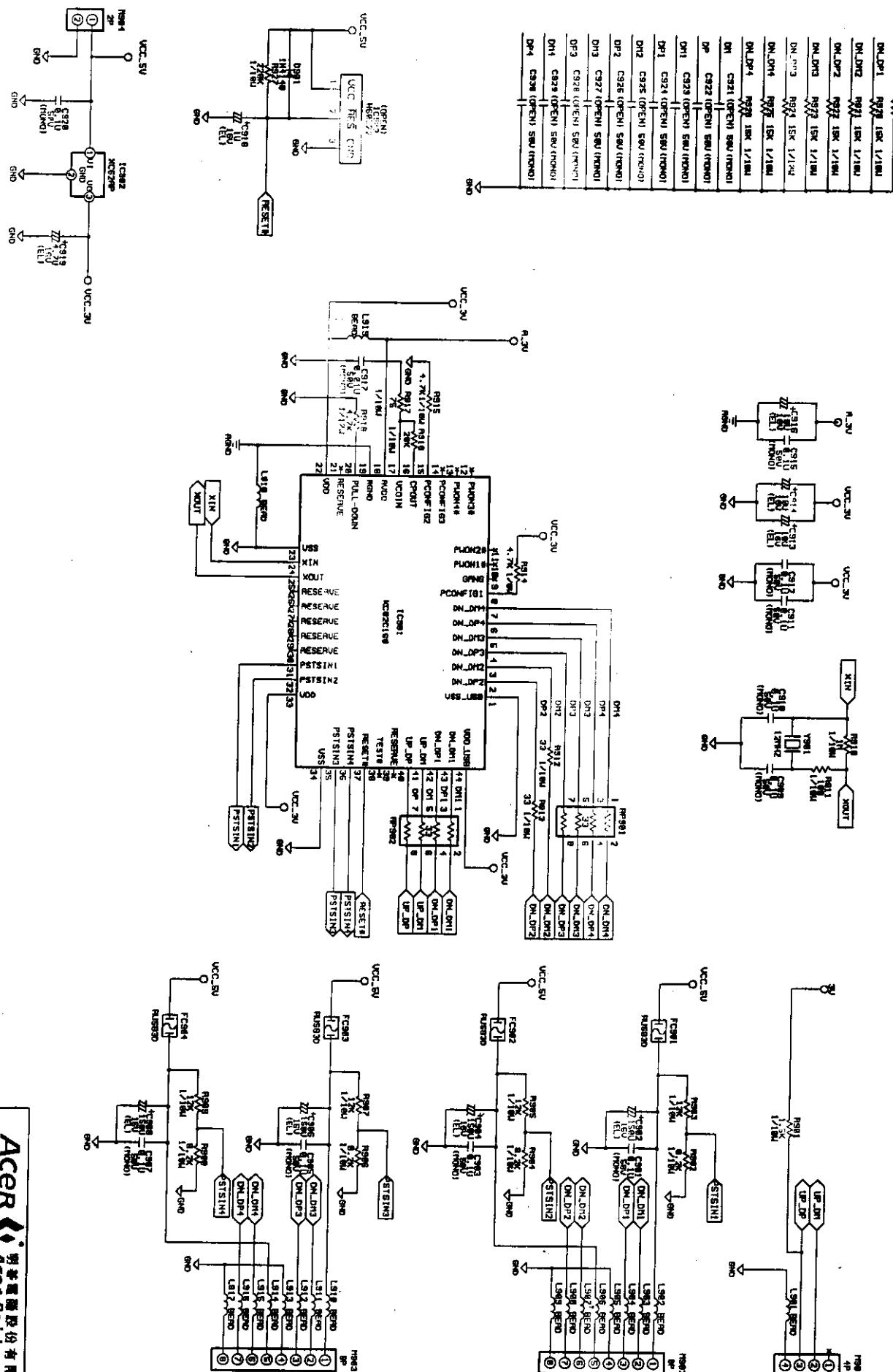


NOTES:
1. Resistor values are in ohm, $k=1,000$ ohm, $\text{m}=1,230,023$ ohm
2. All resistors are 1/3 watt except where otherwise indicated
3. All components PCB common ground.

ACER  Acer Peripherals, Inc.

ACERONE FP855 SPS SCHEMATICS

SIZE	FB	Doc. No.	REV.
DATE : 16/7/1999	S1	204-C01	1
Project Code:	Sheet	1	OF 1
Prepared By	Reviewed By	Approved By	



NOTES: 1. Resistor values are in ohm, K=1, 000 ohm, M=1, 000, 000 ohm
 2. All resistors are 1/8 watt, 5% except where otherwise indicated
 3. - Represents PCB common ground.