Revision history

Version	Date	Updated by	Modifications
1.0.0	04/06/2011	Lee Song	a.Based on the PM-SOLU-V2.1.0 b.Use CS5464 as meter IC in this Version c.Use FRAM instead of the EEPROM
1.0.1	04/06/2011	Lee Song	Correct value of some devices

Fujitsu Semiconductor Design (Chengdu) Co., Ltd.

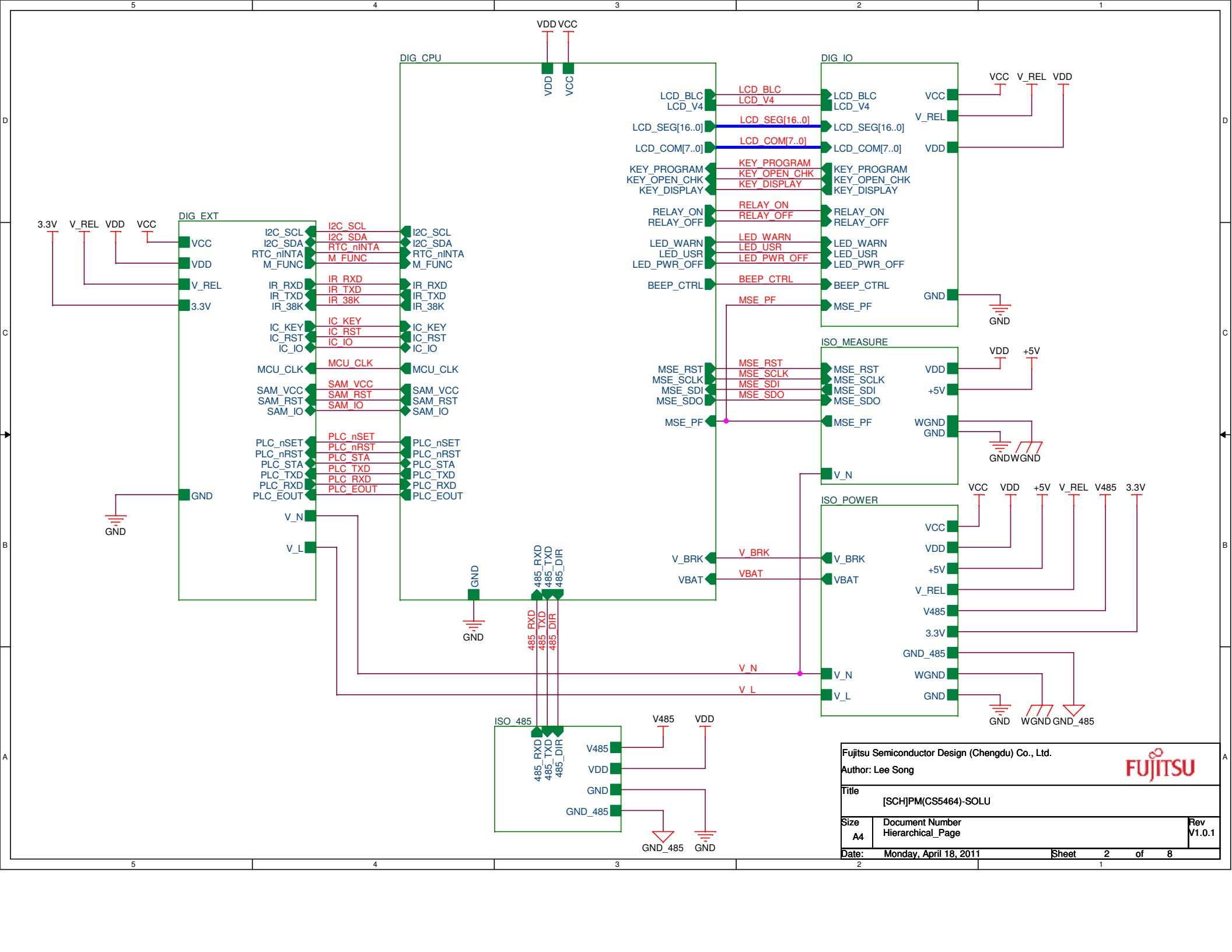
Author: Lee.Song

FUJITSU

Title: [SCH]PM(CS5464)-SOLU

Size: A4 | Document Number: Cover | Rev: V1.0.1

Date: Monday, April 18, 2011 | Sheet 1 of 8



Fujitsu Semiconductor Design (Chengdu) Co., Ltd.

Author: Lee Song

Title: [SCH]PM(CS5464)-SOLU

Size	Document Number	Rev
A4	Hierarchical_Page	V1.0.1

Date: Monday, April 18, 2011 Sheet 2 of 8

VCC
VDD
GND

I2C_SCL
I2C_SDA
RTC_nINTA

M_FUNC

LED_USR
LED_WARN
LED_PWR_OFF

IR_38K
IR_TXD
IR_RXD

SAM_VCC
SAM_RST
SAM_IO
MCU_CLK
IC_KEY
IC_RST
IC_IO

LCD_BLC

LCD_V4

LCD_COM[7..0]

LCD_SEG[16..0]

485_DIR
485_TXD
485_RXD

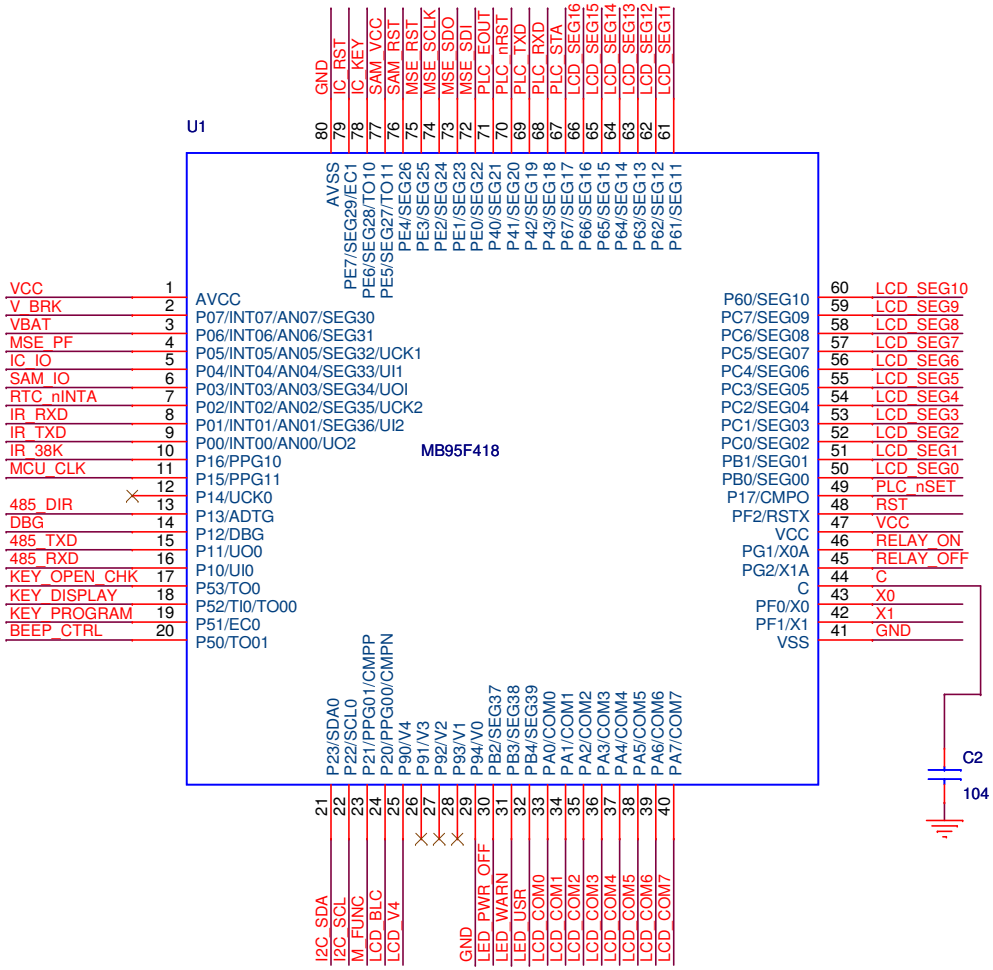
KEY_OPEN_CHK
KEY_DISPLAY
KEY_PROGRAM
BEEP_CTRL

PLC_EOUT
PLC_STA
PLC_nRST
PLC_TXD
PLC_RXD
PLC_nSET

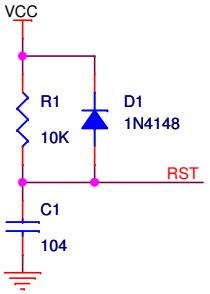
RELAY_ON
RELAY_OFF

MSE_RST
MSE_SCLK
MSE_SDO
MSE_SDI
MSE_PF

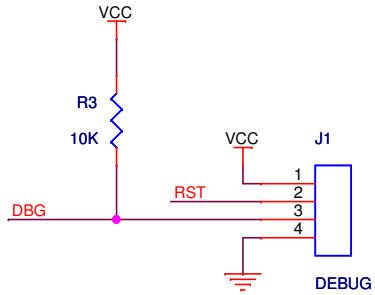
VBAT
V_BRK



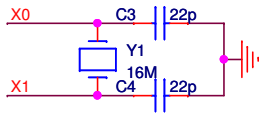
RESET



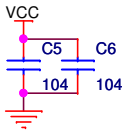
DEBUG



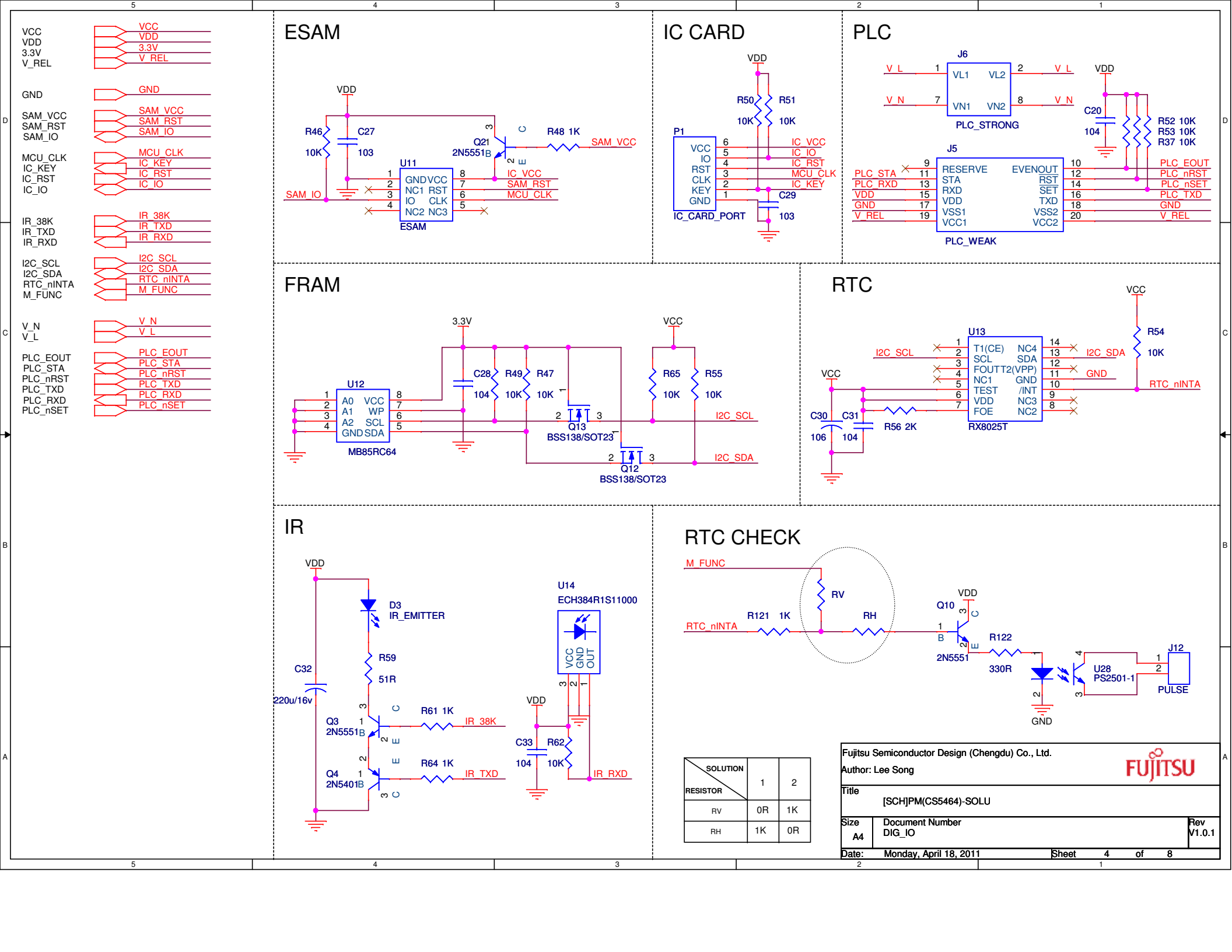
CLOCK CIRCUIT



DECOUPLE CAPACITOR



Fujitsu Semiconductor Design (Chengdu) Co., Ltd. Author: Lee Song		FUJITSU
Title: [SCH]PM(CS5464)-SOLU		
Size: A4	Document Number: DIG_CPU	Rev: V1.0.1
Date: Monday, April 18, 2011	Sheet 3 of 8	



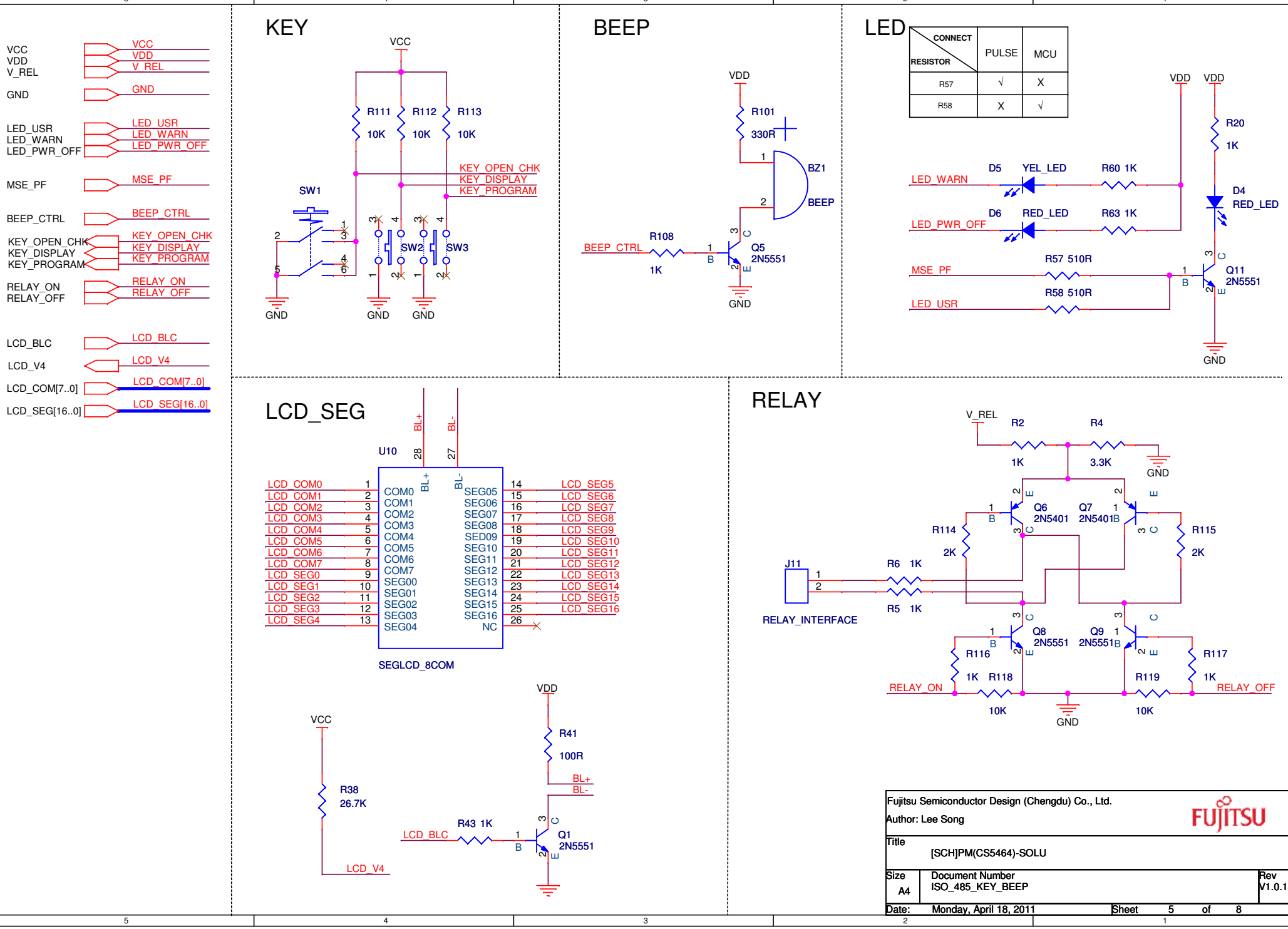
RESISTOR \ SOLUTION	1	2
RV	0R	1K
RH	1K	0R

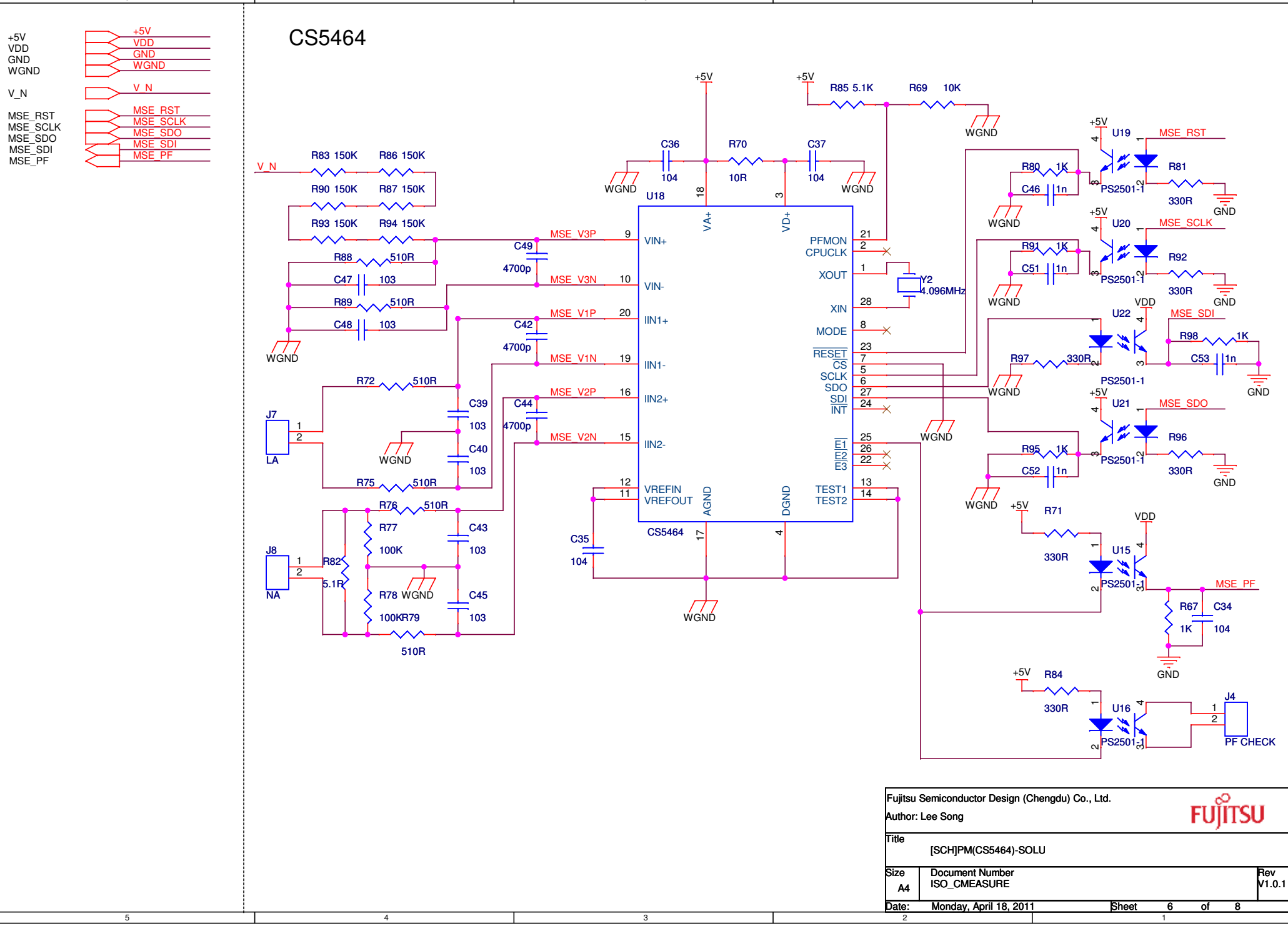
Fujitsu Semiconductor Design (Chengdu) Co., Ltd.
Author: Lee Song

Title: [SCH]PM(CS5464)-SOLU

Size	Document Number	Rev
A4	DIG_IO	V1.0.1

Date: Monday, April 18, 2011 Sheet 4 of 8


VCC
VDD
V_REL
GND
LED_USR
LED_WARN
LED_PWR_OFF
MSE_PF
BEEP_CTRL
KEY_OPEN_CHK
KEY_DISPLAY
KEY_PROGRAM
RELAY_ON
RELAY_OFF
LCD_BLC
LCD_V4
LCD_COM[7..0]
LCD_SEG[16..0]
KEY
R111 10K
R112 10K
R113 10K
SW1
SW2
SW3
BEEP
R101 330R
BZ1
BEEP
R108 1K
Q5 2N5551
LED
CONNECT / RESISTOR
PULSE
MCU
R57 √ X
R58 X √
D5 YEL_LED
D6 RED_LED
D4 RED_LED
R60 1K
R63 1K
R20 1K
R57 510R
R58 510R
Q11 2N5551
LCD_SEG
U10
SEGLCD_8COM
R38 26.7K
R41 100R
R43 1K
Q1 2N5551
RELAY
J11
RELAY_INTERFACE
R2 1K
R4 3.3K
R6 1K
R5 1K
R114 2K
R115 2K
R116 1K
R117 1K
R118 10K
R119 10K
Q6 2N5401
Q7 2N5401
Q8 2N5551
Q9 2N5551
Fujitsu Semiconductor Design (Chengdu) Co., Ltd.
Author: Lee Song
Title
[SCH]PM(CS5464)-SOLU
Size A4
Document Number ISO_485_KEY_BEEP
Rev V1.0.1
Date: Monday, April 18, 2011
Sheet 5 of 8

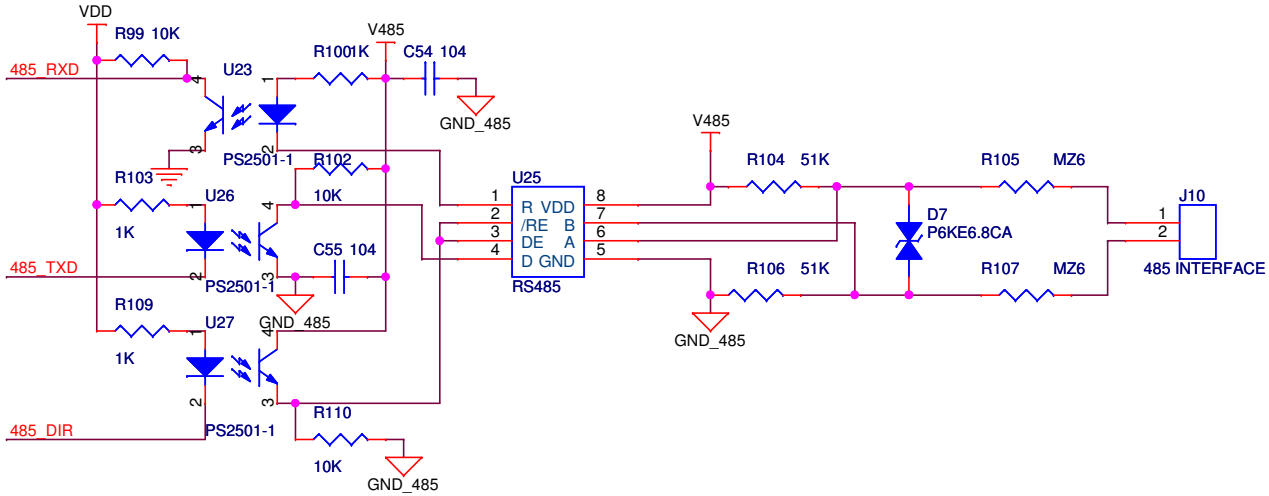

CS5464
+5V
VDD
GND
WGND
V_N
MSE_RST
MSE_SCLK
MSE_SDO
MSE_SDI
MSE_PF
U18
CS5464
VIN+
VIN-
IIN1+
IIN1-
IIN2+
IIN2-
VREFIN
VREFOUT
VA+
VD+
AGND
DGND
PFMON
CPUCLK
XOUT
XIN
MODE
RESET
CS
SCLK
SDO
SDI
INT
E1
E2
E3
TEST1
TEST2
R85 5.1K
R69 10K
C36 104
R70 10R
C37 104
Y2 4.096MHz
R83 150K
R86 150K
R90 150K
R87 150K
R93 150K
R94 150K
R88 510R
C47 103
R89 510R
C48 103
C49 4700p
C42 4700p
C44 4700p
MSE_V3P
MSE_V3N
MSE_V1P
MSE_V1N
MSE_V2P
MSE_V2N
R72 510R
C39 103
C40 103
R75 510R
R76 510R
R77 100K
C43 103
R78 100K
R79 510R
C45 103
R82 5.1R
J7 LA
J8 NA
C35 104
U19 MSE_RST
U20 MSE_SCLK
U21 MSE_SDO
U22 MSE_SDI
U15 MSE_PF
U16
PS2501-1
R80 1K
C46 1n
R91 1K
C51 1n
R95 1K
C52 1n
R97 330R
R98 1K
C53 1n
R81 330R
R92 330R
R96 330R
R71 330R
R67 1K
C34 104
R84 330R
J4 PF CHECK
Fujitsu Semiconductor Design (Chengdu) Co., Ltd.
Author: Lee Song
Title
[SCH]PM(CS5464)-SOLU
Size A4
Document Number ISO_CMEASURE
Rev V1.0.1
Date: Monday, April 18, 2011
Sheet 6 of 8

VDD
V485

GND_485
GND

485_DIR
485_TXD
485_RXD

485



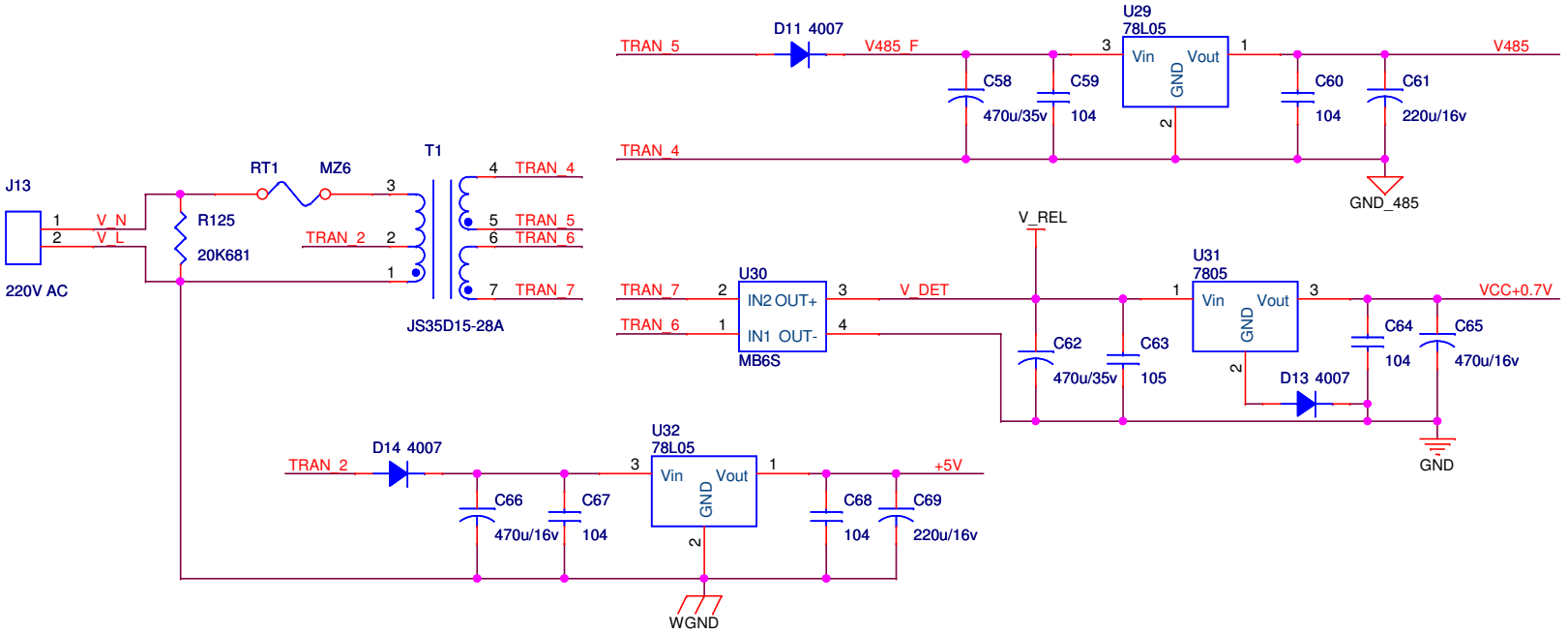
Fujitsu Semiconductor Design (Chengdu) Co., Ltd. Author: Lee Song		FUJITSU
Title: [SCH]PM(CS5464)-SOLU		
Size: A4	Document Number: ISO_485	Rev: V1.0.1
Date: Monday, April 18, 2011	Sheet 7 of 8	

VCC
VDD
+5V
3.3V
V_REL
V485
V_N
V_L

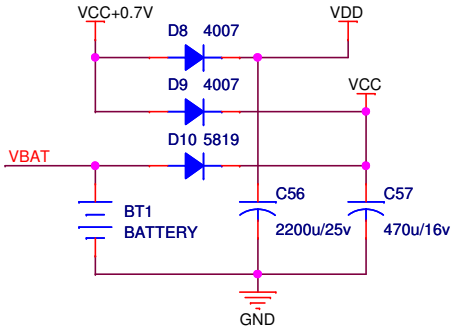
GND
WGND
GND_485

VBAT
V_BRK

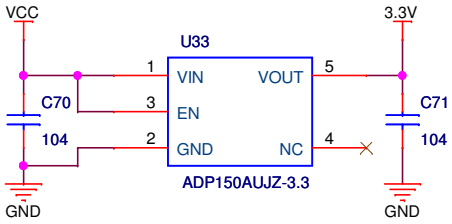
POWER MODULE



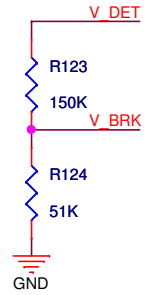
BATTERY SUPPLY



FRAM POWER



AC CHECK



Fujitsu Semiconductor Design (Chengdu) Co., Ltd. Author: Lee Song		FUJITSU
Title: [SCH]PM(CS5464)-SOLU		
Size: A4	Document Number: ISO_POWER	Rev: V1.0.1
Date: Monday, April 18, 2011	Sheet 8 of 8	