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Revisions

Rev	Description	Date	Approved
A	Prototype Release	16Jun09	J.H.
B	Pilot Update	12Oct10	J.H.

freescale semiconductor

Microcontroller Solutions Group

6501 William Cannon Drive West
Austin, TX 78735-8598

ICAP Classification: FCP: ____ FIUO: X PUBI: ____

Designer: Jay Hartvigsen	Drawing Title: **TWR-MC56F8257**	
Drawn by: Jay Hartvigsen	Page Title: **Table of Contents/Revisions**	
Approved: Jay Hartvigsen	Size: C	Document Number: SCH-26034 PDF: SPF-26034 — Rev: B
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wise Specified:
are in ohms
All capacitors are in uF
All voltages are DC
All polarized capacitors are aluminum electrolytic

2. Interrupted lines coded with the same letter or letter combinations are electrically connected.

3. Device type number is for reference only. The number varies with the manufacturer.

4. Special signal usage:
_B Denotes - Active-Low Signal
<> or [] Denotes - Vectored Signals

5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

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OSBDM Circuit

USB Mini B Connector

MC9S08JM60

Voltage Translation

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Transceiver

Header

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Block Diagram

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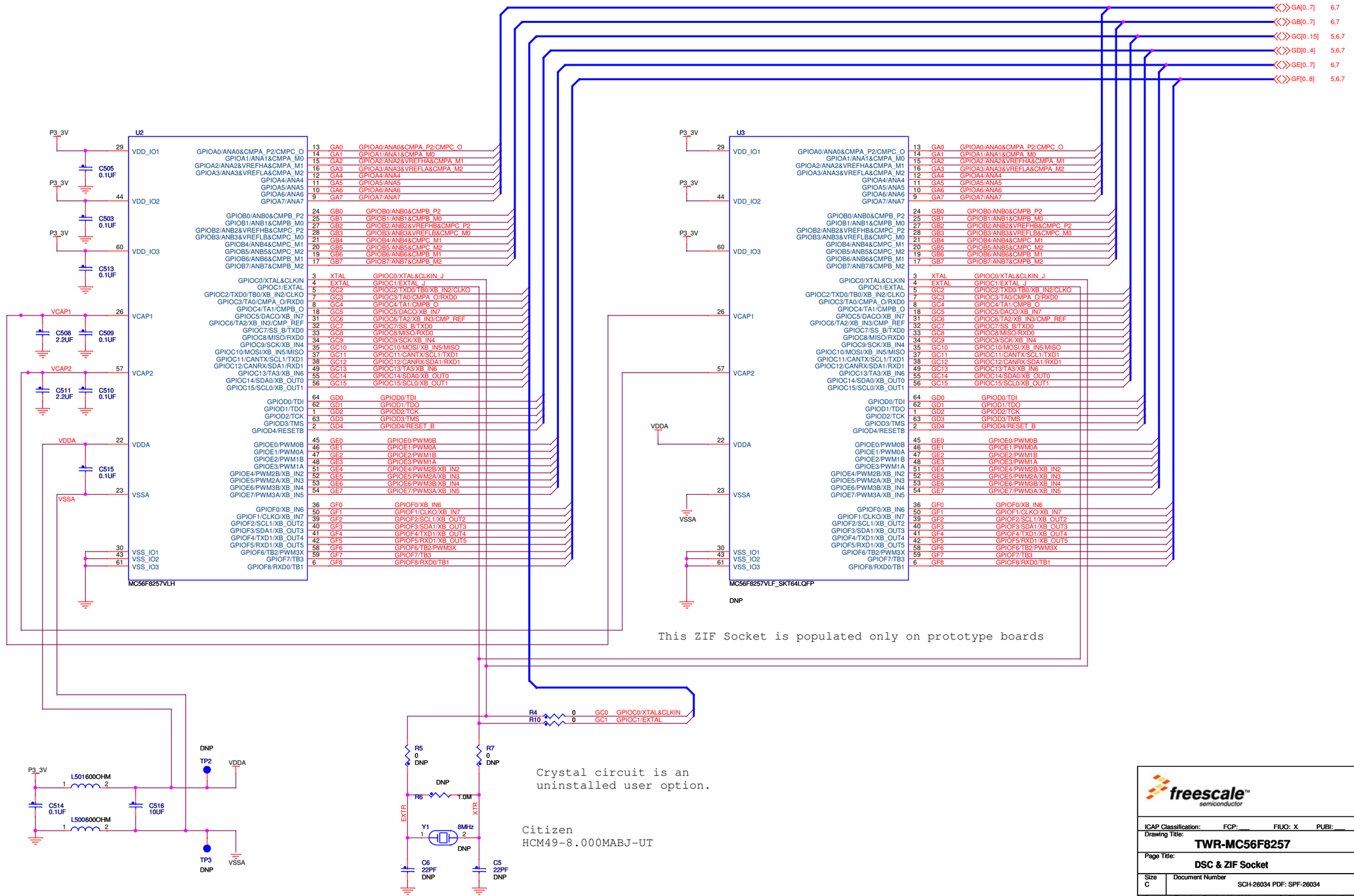
The DSC footprint and the ZIF socket are concentric on the board. Boards are built with a surface mounted DCS or with the DSC in the socket - not both.



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Drawing Title: **TWR-MC56F8257**

Page Title: **DSC & ZIF Socket**

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JTAG

P3_3V
4.99K R562 DE_B
2.2K R565 GD3 GPIOD3/TMS
P3_3V
J14
GPIOD0/TDI GD0
GPIOD1/TDO GD1
GPIOD2/TCK GD2
GPIOD4/RESET_B GD4
KEY = PIN 8
GD3 GPIOD3/TMS
HDR_2X7

4,6,7 GF[0..8]
4,6,7 GC[0..15]

JM[1..44]

On Board OSBDM/Serial Bridge

P3_3V
R575 10.0K
VTRG_IN JM28
R574 10.0K
C542 0.1UF

U502B
SN74LVC04APWE4
OUT_EN_B JM15
R12 10.0K
OUT_EN
U502C
SN74LVC04APWE4
TXD_RXD_EN_B JM34
R555 10.0K
RTS

P5V_USB
R13 10.0K
PU4
C8 0.1UF
C539 0.1UF
C540 10UF

U6
MC9S08JM60CLD
T_TXD1 JM8 PTE0/TxD1
T_RXD1 JM9 PTE1/RxD1
TCLK_EN JM11 PTE2/TPM1CH0
DIN JM12 PTE3/TPM1CH1
DOUT JM13 PTE4/MISO1
SCLK_OUT JM14 PTE5/MOSI1
PTE6/SPSCK1
PTE7/SS1
Function Select:
OSBDM (shorted)
Serial (open)
J20
HDR 1X2 TH
PTF0/TPM1CH2
PTF1/TPM1CH3
PTF4/TPM2CH0
PTF5/TPM2CH1
5V_FAULT JM21 PTG0/KBIP0
VTRG_FAULT JM22 PTG1/KBIP1
PTG2/KBIP6
PTG3/KBIP7
PTG4/XTAL
PTG5/EXTAL
JM60_XTAL
JM60_EXTAL
VUSB3V3
R573 33 JM60_DN
R572 33 JM60_DP
VUSB33
USBDN
USBDP
PTB0/MISO2/ADP0 JM23 5V_EN
PTB1/MOSI2/ADP1 JM24 VTRG_EN
PTB2/SPSCK2/ADP2 JM26 BRK_TMS
PTB3/SS2/ADP3
PTB4/KBIP4/ADP4 JM28 VTRG_IN
PTB5/KBIP5/ADP5
PTC0/SCL
PTC1/SDA
PTC2
PTC3/TxD2
PTC4 JM1 TRESET_OUT
PTC5/RxD2
PTD0/ADP8/ACMP+ JM29 PTD0
PTD1/ADP9/ACMP- JM30 PTD1
PTD2/KBIP2/ACMPO JM33 TRESET_IN
IRQ/TPMCLK JM60_IRQ_B
RESET
BKGD/MS
JM60_RESET_B
VSSOSC
VSS1
VSSAD/VREFL
VDD1
VDDAD/VREFH

P5V_USB
R14 10.0K
R15 10.0K
C534 1000PF
JM_BKGD
J22
HDR_2X3
J17
HDR 1X2 TH
JM60 Bootload Enable

JM60 BDM

DNP
TP6
P5V_USB
L2
330 OHM
S3
USB_VBUS
USB_DN
USB_DP
USB_MINI_B 5
J18
USB-SHLD
L1
330 OHM
U5
SP0503B
C544 0.1UF

P3_3V
U505
74LVC125
JM14 SCLK_OUT R569 4.99K
JM11 TCLK_EN
JM13 DOUT
JM15 OUT_EN_B
JM26 BRK_TMS
JM34 TXD_RXD_EN_B
JM8 T_TXD1
TCK
TDI
TMS
J21
HDR 2X4
GD2 GPIOD2/TCK
GD0 GPIOD0/TDI
GD3 GPIOD3/TMS
GD1 GPIOD1/TDO
RXD_SEL

P3_3V/5V
U504A
74HCT125
JM15 OUT_EN_B
JM12 DIN
TDO

P3_3V
R11 10.0K
GPIOD4/RESET_B GD4
JM1 TRESET_OUT
R9 10.0K
RST_BD
Q1
MMBT3904LT1G
R8 10.0K
SW3 PB switch

MANUAL RESET

JM15 OUT_EN_B
TRESET_IN
JM33
U504B
74HCT125

P3_3V
R570 10.0K
JM34 TXD_RXD_EN_B
JM9 T_RXD1
U504C
74HCT125
TXD_SEL

STATUS

JM30 PTD1 R563 1.0K PU_ST C D12 YEL/GRN A
JM29 PTD0 R564 1.0K PU_TP C D13 YEL A
P5V_USB

TPWR

JM21 5V_FAULT
JM22 VTRG_FAULT
P5V_ELEV
DNP
TP5
D501 BAT54C
P5V_ELEV
P5V
D500 MBR130LSFT1G
R561 10.0K
PU2
U504D
74HCT125

DNP
R528 1.0K 5V_EN JM23
DNP
R527 1.0K VTRG_EN JM24
U501
MIC2026-1YM
ENA FLGA
ENB FLGB
IN OUTA
GND OUTB
JM23 5V_EN
JM24 VTRG_EN
P5V

P5V_TRG_USB

5V POWER SOURCE SELECTION

5V INPUT
Center Positive
J3
CON_1_PWR
PWR_JACK
F1
1A
PWR_IN
J10
HDR_1X1
J11
HDR TH 1X3
P5V_ELEV
P5V_REG_IN
TP4
D11
SMF12AT1G
C1 10UF
U1
TAB
VIN
OUTPUT
GND
3.3V
P3_3V_REG_OUT
C2 10UF

P3_3V_MOTOR
P3_3V_ELEV
J6
HDR_1X1
J7
HDR TH 1X3

3.3V POWER SOURCE SELECTION

P3_3V
TP1 DNP
C520 10UF
R1 270
PU_PO_LED
D10 YEL/GRN
Power On

R554 10.0K
PU3
U502A
SN74LVC04APWE4

SPARES

RXD Source Select

ELEV_RXD0 7
GF8 GPIOF8/RXD0/TB1
GF5 GPIOF5/RXD1/XB_OUT5
J8
HDR_1X5
ELEV_RXD1 7

TXD Source Select

ELEV_TXD0 7
GC2 GPIOC2/TXD0/TB0/XB_IN2/CLKO
GF4 GPIOF4/TXD1/XB_OUT4
J9
HDR_1X5
ELEV_TXD1 7

Decoupling on Buffers and Inverters

P3_3V/5V C506 10UF
P3_3V/5V C535 0.1UF
P3_3V C536 0.1UF
P3_3V C532 0.1UF

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.7]
.7]
4,5,7 GC[0..15]
4,5,7 GD[0..4]
4,7 GE[0..7]
4,5,7 GF[0..8]

LEDs

P3_3V
U500A SN74LVC04APWE4 (VCC pin 14, GND pin 7)
GE0 GPIOE0/PWM0B → R507 330 → LEDR0 → LED0 → D1 YEL/GRN
U500B
GE1 GPIOE1/PWM0A → R504 330 → LEDR1 → LED1 → D2 YEL
U500C
GE2 GPIOE2/PWM1B → R503 330 → LEDR2 → LED2 → D3 YEL/GRN
U500D
GE3 GPIOE3/PWM1A → R502 330 → LEDR3 → LED3 → D4 YEL
U500E
GE4 GPIOE4/PWM2B/XB_IN2 → R501 330 → LEDR4 → LED4 → D5 YEL/GRN
U500F
GE5 GPIOE5/PWM2A/XB_IN3 → R500 330 → LEDR5 → LED5 → D6 YEL
U502D
GE6 GPIOE6/PWM3B/XB_IN4 → R559 330 → LEDR6 → LED6 → D7 YEL/GRN
U502E
GE7 GPIOE7/PWM3A/XB_IN5 → R558 330 → LEDR7 → LED7 → D8 YEL
U502F
GF6 GPIOF6/TB2/PWM3X → R556 330 → LEDR8 → LED8 → D9 AMB

Motor Connector

P3_3V_MOTOR
J501 HDR_2X20

GF4	GPIOF4/TXD1/XB_OUT4	1	2	RB7	R525 100 GPIOB7/ANB7&CMPB_M2	GB7
GF3	GPIOF3/SDA1/XB_OUT3	3	4	RD4	R568 0 GPIOD4/RESET_B	GD4
GE1	GPIOE1/PWM0A	5	6	RA3	R538 100 GPIOA3/ANA3&VREFLA&CMPA_M2	GA3
GE0	GPIOE0/PWM0B	7	8			
		9	10			ANA0
GC3	GPIOC3/TA0/CMPA_O/RXD0	11	12			ANA1
GC13	GPIOC13/TA3/XB_IN6	13	14			ANA2
GC4	GPIOC4/TA1/CMPB_O	15	16			
GC6	GPIOC6/TA2/XB_IN3/CMP_REF	17	18			ANB0
GC15	GPIOC15/SCL0/XB_OUT1	19	20			ANB1
GC14	GPIOC14/SDA0/XB_OUT0	21	22			ANB2
GD0	GPIOD0/TDI	23	24			
GD1	GPIOD1/TDO	25	26		GPIOE7/PWM3A/XB_IN5	GE7
GD2	GPIOD2/TCK	27	28		GPIOE6/PWM3B/XB_IN4	GE6
GD3	GPIOD3/TMS	29	30		GPIOE3/PWM1A	GE3
	GPIOB3/ANB3&VREFLB&CMPC_M0 R513 100	31	32		GPIOE2/PWM1B	GE2
GB3	GPIOB4/ANB4&CMPC_M1 R520 100	33	34		GPIOE5/PWM2A/XB_IN3	GE5
GB4	GPIOB5/ANB5&CMPC_M2 R523 100	35	36		GPIOE4/PWM2B/XB_IN2	GE4
GB5	GPIOB6/ANB6&CMPB_M1 R531 100	37	38	RA4	R543 100 GPIOA4/ANA4	GA4
GB6		39	40	RA5	R547 100 GPIOA5/ANA5	GA5

AUX Connector

J502 CON2X13

GF0	GPIOF0/XB_IN6	1	2	RA6	R552 100 GPIOA6/ANA6	GA6
GF1	GPIOF1/CLKO/XB_IN7	3	4	RA7	R549 100 GPIOA7/ANA7	GA7
GF2	GPIOF2/SCL1/XB_OUT2	5	6			
GF5	GPIOF5/RXD1/XB_OUT5	7	8		GPIOC0/XTAL&CLKIN	GC0
GF6	GPIOF6/TB2/PWM3X	9	10		GPIOC1/EXTAL	GC1
GF7	GPIOF7/TB3	11	12		GPIOC2/TXD0/TB0/XB_IN2/CLKO	GC2
GF8	GPIOF8/RXD0/TB1	13	14		GPIOC5/DACO/XB_IN7	GC5
		15	16		GPIOC7/SS_B/TXD0	GC7
GC11	GPIOC11/CANTX/SCL1/TXD1	17	18		GPIOC8/MISO/RXD0	GC8
GC12	GPIOC12/CANRX/SDA1/RXD1	19	20		GPIOC9/SCK/XB_IN4	GC9
		21	22		GPIOC10/MOSI/XB_IN5/MISO	GC10
		23	24			
		25	26		GPIOF7/TB3	GF7

90C to -20C Thermistors

Vdiff ~ 0.305V
to 3.001V
(Ta=25C 1.650V)
Use Gain = 1

Vdiff ~ 0.031V
to 1.539V
(Ta=25C 0.282V)
Use Gain <= 2

Vdiff ~ 10.4mV
to 793.3mV
(Ta=25C 101.2mV)
Use Gain <= 4

Vdiff ~ 0.305V
to 3.001V
(Ta=25C 1.650V)
Use Gain = 1

P3_3V
THM0JP: R571 4.99K, RT4 10K, C543 0.1UF, THM0JN: R576 4.99K → J23 HDR 2X2 → THM0P: R544 100, C525 2200PF, GA4 GPIOA4/ANA4; THM0N: R545 100, C526 2200PF, GA5 GPIOA5/ANA5
THM1JP: R567 53.6K, RT3 10K, C537 0.1UF, THM1JN: R566 53.6K → J19 HDR 2X2 → THM1P: R553 100, C528 2200PF, GA6 GPIOA6/ANA6; THM1N: R548 100, C527 2200PF, GA7 GPIOA7/ANA7
THM2JP: R505 158K, RT1 10K, C500 0.1UF, THM2JN: R506 158K → J1 HDR 2X2 → THM2P: R519 100, C512 2200PF, GB4 GPIOB4/ANB4&CMPC_M1; THM2N: R522 100, C517 2200PF, GB5 GPIOB5/ANB5&CMPC_M2
THM3JP: R508 4.99K, RT2 10K, C501 0.1UF, THM3JN: R509 4.99K → J2 HDR 2X2 → THM3P: R530 100, C519 2200PF, GB6 GPIOB6/ANB6&CMPB_M1; THM3N: R524 100, C518 2200PF, GB7 GPIOB7/ANB7&CMPB_M2

CAN

P3_3V/5V
R557 1.0K
C533 0.1UF
U503 PCA82C250TD (TXD, RS, RXD, VREF, GND, VCC, CANH, CANL)
J16 HDR 2X2
GC11 GPIOC11/CANTX/SCL1/TXD1 → CNT
GC12 GPIOC12/CANRX/SDA1/RXD1 → CNR
CANP → R560120 → CANT → J15 HDR 1X2 TH → CANN
J13 HDR 2X5
GND

MIC

P3_3V
U4 SPM0408HE5H-SB DNP (PWR, OUT, GND, GAIN)
C530 0.1UF
MICR → R539 100 DNP → C529 0.47UF DNP
MICC → C531 0.47UF DNP
MICJ → J12 HDR 1X2 TH DNP → MICA
MICA → R536 100 DNP, C523 2200PF, GA3 GPIOA3/ANA3&VREFLA&CMPA_M2
R541 100, C524 2200PF, GA0 GPIOA0/ANA0&CMPA_P2/CMPC_O
R533 100, C521 2200PF, GA1 GPIOA1/ANA1&CMPA_M0
R534 100, C522 2200PF, GA2 GPIOA2/ANA2&VREFHA&CMPA_M1
R517 100, C507 2200PF, GB0 GPIOB0/ANB0&CMPB_P2
R515 100, C504 2200PF, GB1 GPIOB1/ANB1&CMPB_M0
R511 100, C502 2200PF, GB2 GPIOB2/ANB2&VREFHB&CMPC_P2

IRQ0

P3_3V
R2 10.0K
IRQ0 → SW2 PB switch
C3 0.1UF

IRQ1

P3_3V
R3 10.0K
IRQ1 → SW1 PB switch
C4 0.1UF

J4 HDR TH 1X3
J5 HDR TH 1X3

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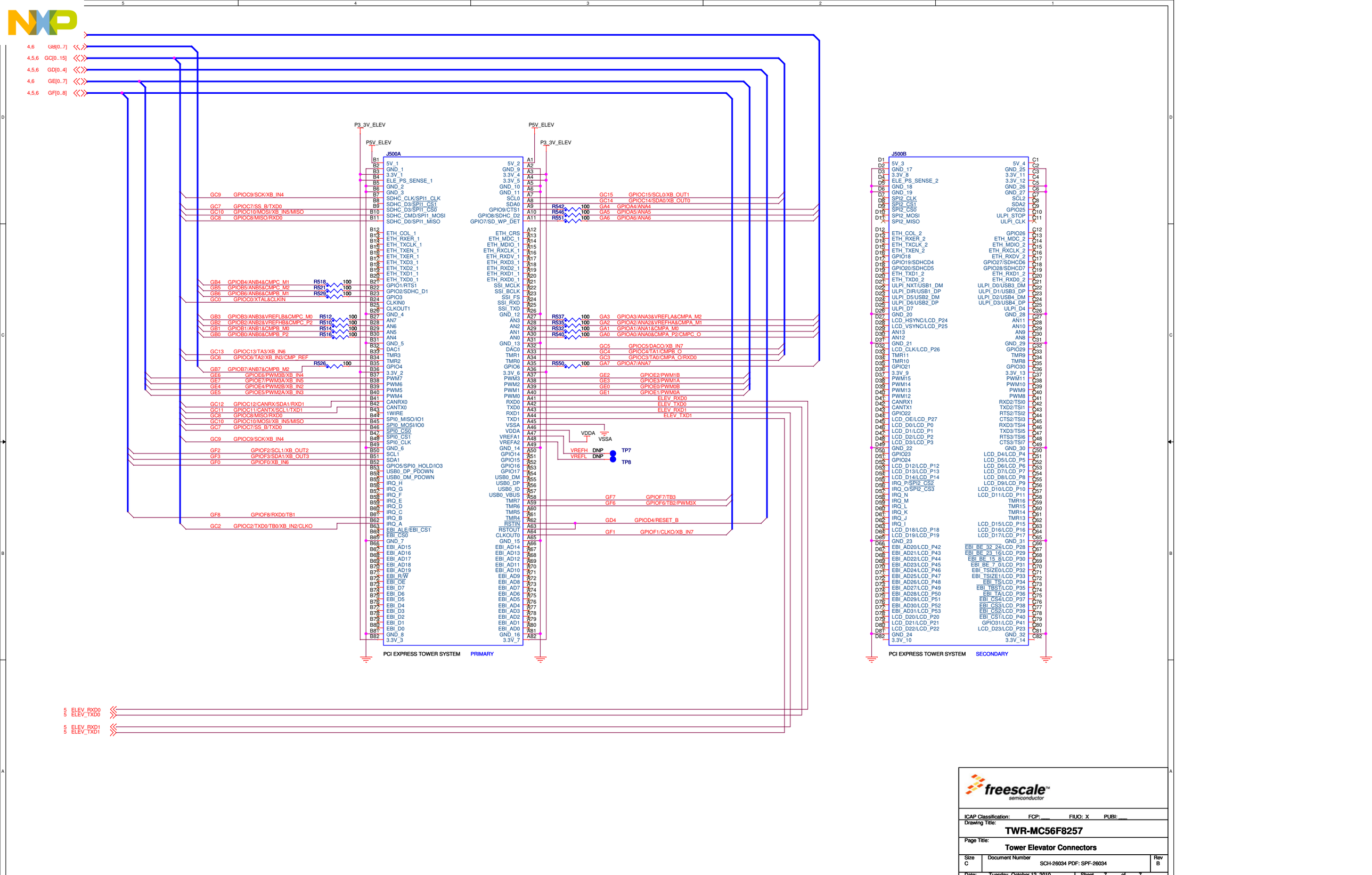
4,6 GB[0..7]
4,5,6 GC[0..15]
4,5,6 GD[0..4]
4,6 GE[0..7]
4,5,6 GF[0..8]
P3_3V_ELEV
P5V_ELEV
J500A
B1 5V_1
B2 GND_1
B3 3.3V_1
B4 ELE_PS_SENSE_1
B5 GND_2
B6 GND_3
B7 SDHC_CLK/SPI1_CLK
B8 SDHC_D3/SPI1_CS1
B9 SDHC_D3/SPI1_CS0
B10 SDHC_CMD/SPI1_MOSI
B11 SDHC_D0/SPI1_MISO
B12 ETH_COL_1
B13 ETH_RXER_1
B14 ETH_TXCLK_1
B15 ETH_TXEN_1
B16 ETH_TXER_1
B17 ETH_TXD3_1
B18 ETH_TXD2_1
B19 ETH_TXD1_1
B20 ETH_TXD0_1
B21 GPIO1/RTS1
B22 GPIO2/SDHC_D1
B23 GPIO3
B24 CLKIN0
B25 CLKOUT1
B26 GND_4
B27 AN7
B28 AN6
B29 AN5
B30 AN4
B31 GND_5
B32 DAC1
B33 TMR3
B34 TMR2
B35 GPIO4
B36 3.3V_2
B37 PWM7
B38 PWM6
B39 PWM5
B40 PWM4
B41 CANRX0
B42 CANTX0
B43 1WIRE
B44 SPI0_MISO/IO1
B45 SPI0_MOSI/IO0
B46 SPI0_CS0
B47 SPI0_CS1
B48 SPI0_CLK
B49 GND_6
B50 SCL1
B51 SDA1
B52 GPIO5/SPI0_HOLD/IO3
B53 USB0_DP_PDOWN
B54 USB0_DM_PDOWN
B55 IRQ_H
B56 IRQ_G
B57 IRQ_F
B58 IRQ_E
B59 IRQ_D
B60 IRQ_C
B61 IRQ_B
B62 IRQ_A
B63 EBI_ALE/EBI_CS1
B64 EBI_CS0
B65 GND_7
B66 EBI_AD15
B67 EBI_AD16
B68 EBI_AD17
B69 EBI_AD18
B70 EBI_AD19
B71 EBI_R/W
B72 EBI_OE
B73 EBI_D7
B74 EBI_D6
B75 EBI_D5
B76 EBI_D4
B77 EBI_D3
B78 EBI_D2
B79 EBI_D1
B80 EBI_D0
B81 GND_8
B82 3.3V_3
A1 5V_2
A2 GND_9
A3 3.3V_4
A4 3.3V_5
A5 GND_10
A6 GND_11
A7 SCL0
A8 SDA0
A9 GPIO9/CTS1
A10 GPIO8/SDHC_D2
A11 GPIO7/SD_WP_DET
A12 ETH_CRS
A13 ETH_MDC_1
A14 ETH_MDIO_1
A15 ETH_RXCLK_1
A16 ETH_RXDV_1
A17 ETH_RXD3_1
A18 ETH_RXD2_1
A19 ETH_RXD1_1
A20 ETH_RXD0_1
A21 SSI_MCLK
A22 SSI_BCLK
A23 SSI_FS
A24 SSI_RXD
A25 SSI_TXD
A26 GND_12
A27 AN3
A28 AN2
A29 AN1
A30 AN0
A31 GND_13
A32 DAC0
A33 TMR1
A34 TMR0
A35 GPIO6
A36 3.3V_6
A37 PWM3
A38 PWM2
A39 PWM1
A40 PWM0
A41 RXD0
A42 TXD0
A43 RXD1
A44 TXD1
A45 VSSA
A46 VDDA
A47 VREFA1
A48 VREFA2
A49 GND_14
A50 GPIO14
A51 GPIO15
A52 GPIO16
A53 GPIO17
A54 USB0_DM
A55 USB0_DP
A56 USB0_ID
A57 USB0_VBUS
A58 TMR7
A59 TMR6
A60 TMR5
A61 TMR4
A62 RSTIN
A63 RSTOUT
A64 CLKOUT0
A65 GND_15
A66 EBI_AD14
A67 EBI_AD13
A68 EBI_AD12
A69 EBI_AD11
A70 EBI_AD10
A71 EBI_AD9
A72 EBI_AD8
A73 EBI_AD7
A74 EBI_AD6
A75 EBI_AD5
A76 EBI_AD4
A77 EBI_AD3
A78 EBI_AD2
A79 EBI_AD1
A80 EBI_AD0
A81 GND_16
A82 3.3V_7
PCI EXPRESS TOWER SYSTEM PRIMARY
GC9 GPIOC9/SCK/XB_IN4
GC7 GPIOC7/SS_B/TXD0
GC10 GPIOC10/MOSI/XB_IN5/MISO
GC8 GPIOC8/MISO/RXD0
GB4 GPIOB4/ANB4&CMPC_M1 R518 100
GB5 GPIOB5/ANB5&CMPC_M2 R521 100
GB6 GPIOB6/ANB6&CMPB_M1 R529 100
GC0 GPIOC0/XTAL&CLKIN
GB3 GPIOB3/ANB3&VREFLB&CMPC_M0 R512 100
GB2 GPIOB2/ANB2&VREFHB&CMPC_P2 R510 100
GB1 GPIOB1/ANB1&CMPB_M0 R514 100
GB0 GPIOB0/ANB0&CMPB_P2 R516 100
GC13 GPIOC13/TA3/XB_IN6
GC6 GPIOC6/TA2/XB_IN3/CMP_REF
R526 100
GB7 GPIOB7/ANB7&CMPB_M2
GE6 GPIOE6/PWM3B/XB_IN4
GE7 GPIOE7/PWM3A/XB_IN5
GE4 GPIOE4/PWM2B/XB_IN2
GE5 GPIOE5/PWM2A/XB_IN3
GC12 GPIOC12/CANRX/SDA1/RXD1
GC11 GPIOC11/CANTX/SCL1/TXD1
GC8 GPIOC8/MISO/RXD0
GC10 GPIOC10/MOSI/XB_IN5/MISO
GC7 GPIOC7/SS_B/TXD0
GC9 GPIOC9/SCK/XB_IN4
GF2 GPIOF2/SCL1/XB_OUT2
GF3 GPIOF3/SDA1/XB_OUT3
GF0 GPIOF0/XB_IN6
GF8 GPIOF8/RXD0/TB1
GC2 GPIOC2/TXD0/TB0/XB_IN2/CLKO
GC15 GPIOC15/SCL0/XB_OUT1
GC14 GPIOC14/SDA0/XB_OUT0
R542 100 GA4 GPIOA4/ANA4
R546 100 GA5 GPIOA5/ANA5
R551 100 GA6 GPIOA6/ANA6
R537 100 GA3 GPIOA3/ANA3&VREFLA&CMPA_M2
R535 100 GA2 GPIOA2/ANA2&VREFHA&CMPA_M1
R532 100 GA1 GPIOA1/ANA1&CMPA_M0
R540 100 GA0 GPIOA0/ANA0&CMPA_P2/CMPC_O
GC5 GPIOC5/DACO/XB_IN7
GC4 GPIOC4/TA1/CMPB_O
GC3 GPIOC3/TA0/CMPA_O/RXD0
R550 100 GA7 GPIOA7/ANA7
GE2 GPIOE2/PWM1B
GE3 GPIOE3/PWM1A
GE0 GPIOE0/PWM0B
GE1 GPIOE1/PWM0A
ELEV_RXD0
ELEV_TXD0
ELEV_RXD1
ELEV_TXD1
VDDA
VSSA
VREFH DNP
VREFL DNP
TP7
TP8
GF7 GPIOF7/TB3
GF6 GPIOF6/TB2/PWM3X
GD4 GPIOD4/RESET_B
GF1 GPIOF1/CLKO/XB_IN7
J500B
D1 5V_3
D2 GND_17
D3 3.3V_8
D4 ELE_PS_SENSE_2
D5 GND_18
D6 GND_19
D7 SPI2_CLK
D8 SPI2_CS1
D9 SPI2_CS0
D10 SPI2_MOSI
D11 SPI2_MISO
D12 ETH_COL_2
D13 ETH_RXER_2
D14 ETH_TXCLK_2
D15 ETH_TXEN_2
D16 GPIO18
D17 GPIO19/SDHCD4
D18 GPIO20/SDHCD5
D19 ETH_TXD1_2
D20 ETH_TXD0_2
D21 ULPI_NXT/USB1_DM
D22 ULPI_DIR/USB1_DP
D23 ULPI_D5/USB2_DM
D24 ULPI_D6/USB2_DP
D25 ULPI_D7
D26 GND_20
D27 LCD_HSYNC/LCD_P24
D28 LCD_VSYNC/LCD_P25
D29 AN13
D30 AN12
D31 GND_21
D32 LCD_CLK/LCD_P26
D33 TMR11
D34 TMR10
D35 GPIO21
D36 3.3V_9
D37 PWM15
D38 PWM14
D39 PWM13
D40 PWM12
D41 CANRX1
D42 CANTX1
D43 GPIO22
D44 LCD_OE/LCD_P27
D45 LCD_D0/LCD_P0
D46 LCD_D1/LCD_P1
D47 LCD_D2/LCD_P2
D48 LCD_D3/LCD_P3
D49 GND_22
D50 GPIO23
D51 GPIO24
D52 LCD_D12/LCD_P12
D53 LCD_D13/LCD_P13
D54 LCD_D14/LCD_P14
D55 IRQ_P/SPI2_CS2
D56 IRQ_O/SPI2_CS3
D57 IRQ_N
D58 IRQ_M
D59 IRQ_L
D60 IRQ_K
D61 IRQ_J
D62 IRQ_I
D63 LCD_D18/LCD_P18
D64 LCD_D19/LCD_P19
D65 GND_23
D66 EBI_AD20/LCD_P42
D67 EBI_AD21/LCD_P43
D68 EBI_AD22/LCD_P44
D69 EBI_AD23/LCD_P45
D70 EBI_AD24/LCD_P46
D71 EBI_AD25/LCD_P47
D72 EBI_AD26/LCD_P48
D73 EBI_AD27/LCD_P49
D74 EBI_AD28/LCD_P50
D75 EBI_AD29/LCD_P51
D76 EBI_AD30/LCD_P52
D77 EBI_AD31/LCD_P53
D78 LCD_D20/LCD_P20
D79 LCD_D21/LCD_P21
D80 LCD_D22/LCD_P22
D81 GND_24
D82 3.3V_10
C1 5V_4
C2 GND_25
C3 3.3V_11
C4 3.3V_12
C5 GND_26
C6 GND_27
C7 SCL2
C8 SDA2
C9 GPIO25
C10 ULPI_STOP
C11 ULPI_CLK
C12 GPIO26
C13 ETH_MDC_2
C14 ETH_MDIO_2
C15 ETH_RXCLK_2
C16 ETH_RXDV_2
C17 GPIO27/SDHCD6
C18 GPIO28/SDHCD7
C19 ETH_RXD1_2
C20 ETH_RXD0_2
C21 ULPI_D0/USB3_DM
C22 ULPI_D1/USB3_DP
C23 ULPI_D2/USB4_DM
C24 ULPI_D3/USB4_DP
C25 ULPI_D4
C26 GND_28
C27 AN11
C28 AN10
C29 AN9
C30 AN8
C31 GND_29
C32 GPIO29
C33 TMR9
C34 TMR8
C35 GPIO30
C36 3.3V_13
C37 PWM11
C38 PWM10
C39 PWM9
C40 PWM8
C41 RXD2/TSI0
C42 TXD2/TSI1
C43 RTS2/TSI2
C44 CTS2/TSI3
C45 RXD3/TSI4
C46 TXD3/TSI5
C47 RTS3/TSI6
C48 CTS3/TSI7
C49 GND_30
C50 LCD_D4/LCD_P4
C51 LCD_D5/LCD_P5
C52 LCD_D6/LCD_P6
C53 LCD_D7/LCD_P7
C54 LCD_D8/LCD_P8
C55 LCD_D9/LCD_P9
C56 LCD_D10/LCD_P10
C57 LCD_D11/LCD_P11
C58 TMR16
C59 TMR15
C60 TMR14
C61 TMR13
C62 LCD_D15/LCD_P15
C63 LCD_D16/LCD_P16
C64 LCD_D17/LCD_P17
C65 GND_31
C66 EBI_BE_32_24/LCD_P28
C67 EBI_BE_23_16/LCD_P29
C68 EBI_BE_15_8/LCD_P30
C69 EBI_BE_7_0/LCD_P31
C70 EBI_TSIZE0/LCD_P32
C71 EBI_TSIZE1/LCD_P33
C72 EBI_TS/LCD_P34
C73 EBI_TBST/LCD_P35
C74 EBI_TA/LCD_P36
C75 EBI_CS4/LCD_P37
C76 EBI_CS3/LCD_P38
C77 EBI_CS2/LCD_P39
C78 EBI_CS1/LCD_P40
C79 GPIO31/LCD_P41
C80 LCD_D23/LCD_P23
C81 GND_32
C82 3.3V_14
PCI EXPRESS TOWER SYSTEM SECONDARY
5 ELEV_RXD0
5 ELEV_TXD0
5 ELEV_RXD1
5 ELEV_TXD1
freescale semiconductor
ICAP Classification: FCP: ___ FIUO: X PUBI: ___
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