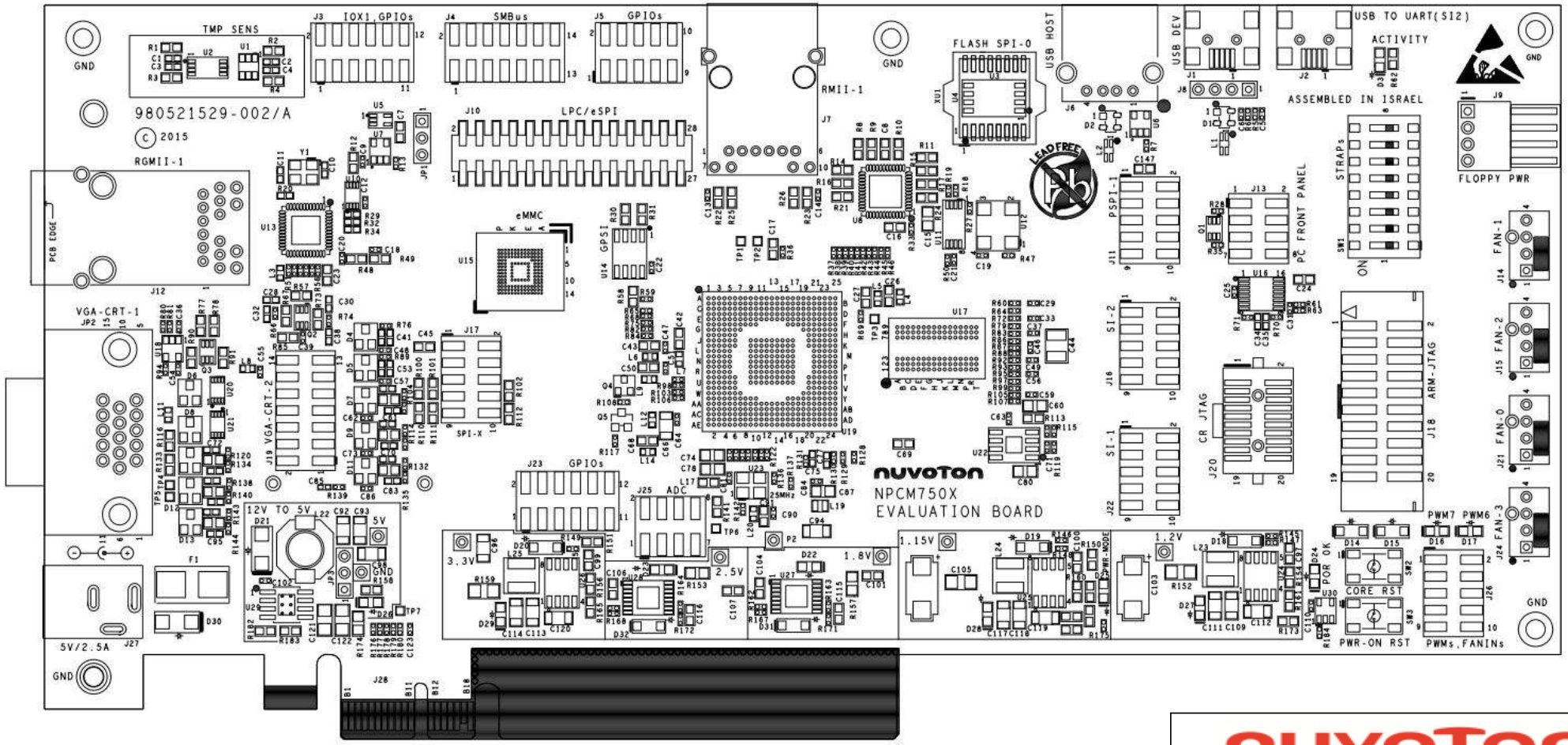
NPCM750x Evaluation Board

Schematics, Layout, Assembly and BOM



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TITLE: **Cover Page**

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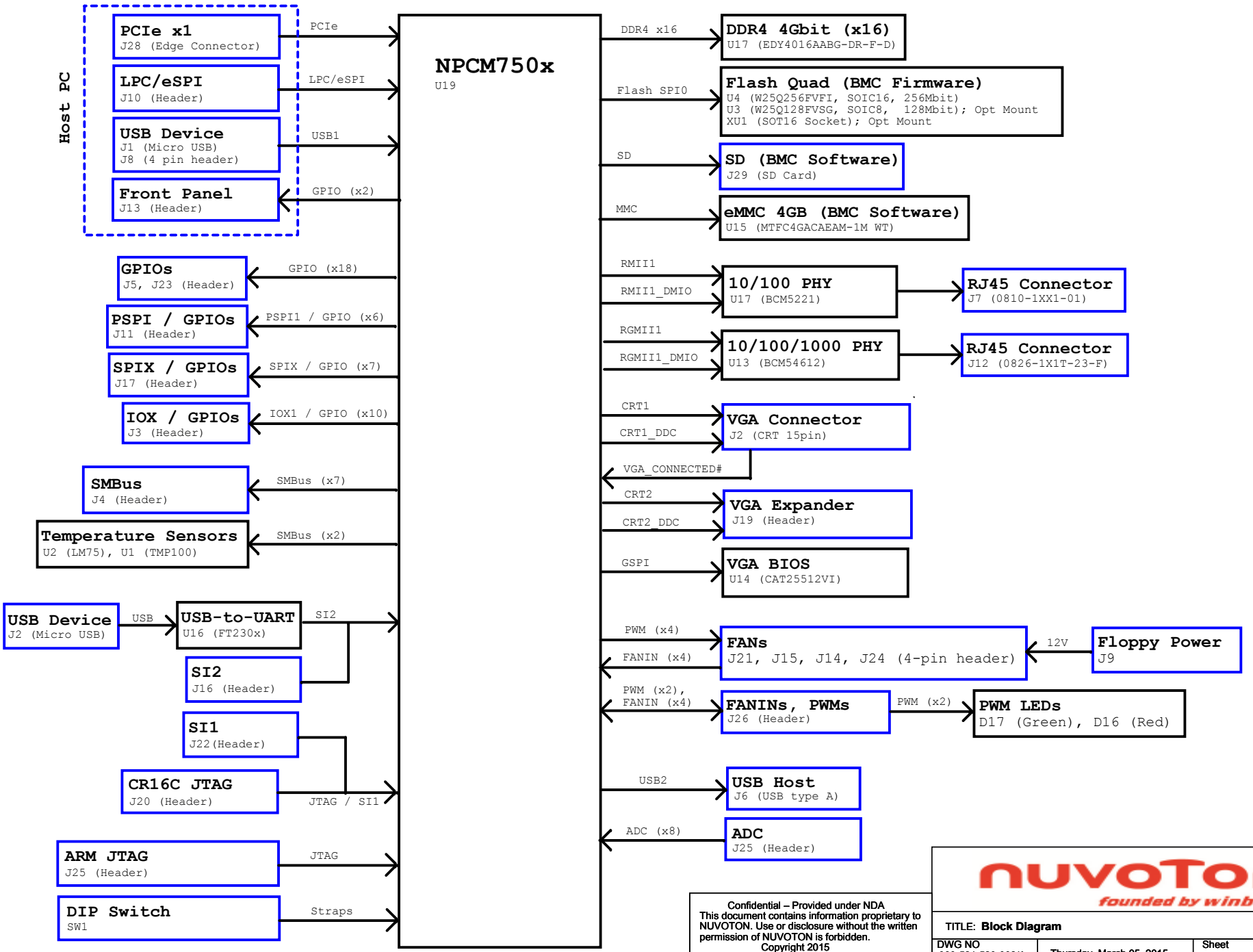
Block Diagram



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TITLE: **Block Diagram**

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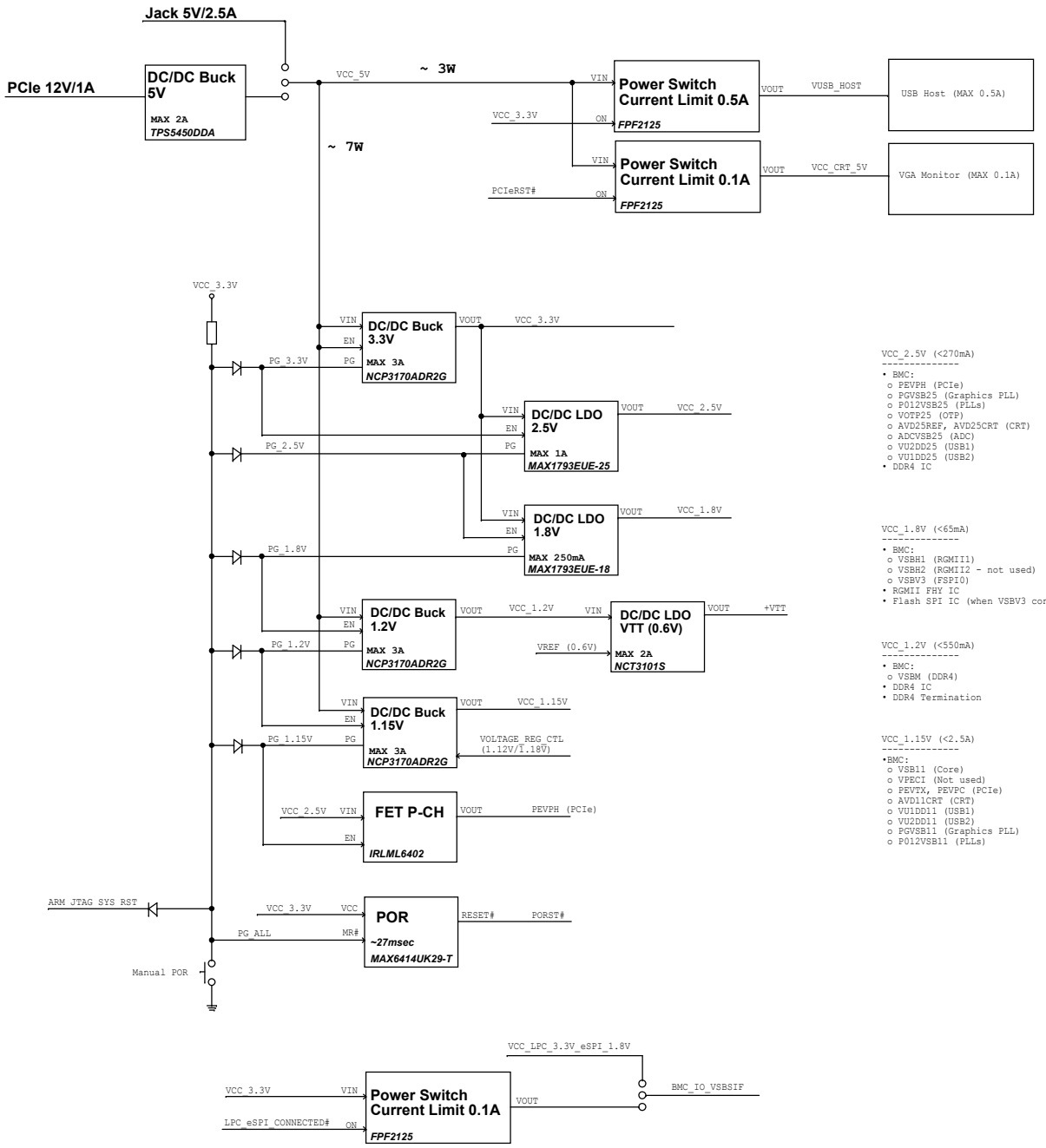
Power Tree



VCC_2.5V (<270mA)

- BMC:
  - PEVPH (PCIe)
  - PGVSB25 (Graphics PLL)
  - P012VSB25 (PLLs)
  - VOTP25 (OTP)
  - AVD25REF, AVD25CRT (CRT)
  - ADCVSB25 (ADC)
  - VU2DD25 (USB1)
  - VU1DD25 (USB2)
- DDR4 IC

VCC_1.8V (<65mA)

- BMC:
  - VSBH1 (RGMII1)
  - VSBH2 (RGMII2 - not used)
  - VSBV3 (FSPI0)
- RGMII FHY IC
- Flash SPI IC (when VSBV3 connected to 1.8V)

VCC_1.2V (<550mA)

- BMC:
  - VSBM (DDR4)
- DDR4 IC
- DDR4 Termination

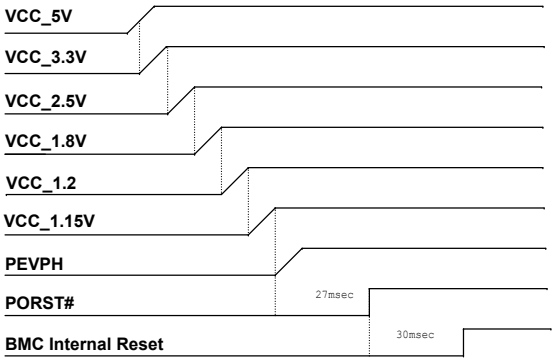
VCC_1.15V (<2.5A)

- BMC:
  - VSB11 (Core)
  - VPECI (Not used)
  - PEVTX, PEVPC (PCIe)
  - AVD11CRT (CRT)
  - VU1DD11 (USB1)
  - VU2DD11 (USB2)
  - PGVSB11 (Graphics PLL)
  - P012VSB11 (PLLs)

VCC_3.3 (<800mA)

- BMC:
  - VSB33 (SP, PWM, FANIN, JTAG, GPIOs)
  - VSBV1 (SMBus, GPIOs)
  - VSBV2 (SMBus, GPIOs)
  - VSBV3 (FSPI0)
  - VSBV4 (PSPI1)
  - VSBV5 (FSPI3 - not used)
  - VSBV6 (RMII1)
  - VSBV7 (RMII2)
  - VSBV8 (MMC)
  - VSBV9 (SD)
  - VSBV10 (PSPI2, SMBus)
  - VSBV11 (GPSI, GPIOs)
  - VSBV12 (DVO, GPIOs)
  - VSBV13 (SPIX)
  - VSBV14 (DVO, GPIOs)
  - VSBSIF (LPC/eSPI)
  - VU1DD33 (USB1)
  - VU2DD33 (USB2)
- eMMC IC
- SD Card
- USB-to-UART IC
- RGMII FHY IC.
- RMII FHY IC.
- OSC 25MHz IC
- DDR4 VTT Regulator IC
- GSPI IC
- SMBus Temparature Sensors IC
- Flash SPI IC (when VSBV3 connected to 3.3V)

Power Up Sequence



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TITLE: **Power Tree**

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2.5mm @ (+) Center

Recommended Power Supply: 5V/2.5A

Problem:
VSB JACK (+5V) is connected to the J27 cylinder pin; however, it should be connected to the center pin.

ECN:
Replaced J27 pin 1 with pin 2.

J27
JACK_PWR

VSB_JACK F1 2.5A VSB_JACK_FUSE

D30
B360A-13-F
60V/3A
100A Peak

5V Power Source	
1-2	Jack Power Supply
* 2-3	On-Board (PCIe)
2	External

JP3
P8
XJP3
Jumper

P1
VCC_5V
5V/2.5A

C98
22uF
1206/16V

R158
330R
0603

D26
LED Green

5V OK

Layout Note:
Place GND under the PAD on all layers for rework.

VDD_PCIe_12V

0R R174 0805

C122
10uF
1206/25V

C121
10uF
1206/25V

Vo = 1.221 * (1+R1/R2)

TPS5450DDA U29
PH VIN GND ENA PAD BOOT NC1 NC2 VSENSE

2.6A(Isat), 75mR, 8.3mmx8.3mm
L22 22uH

C102
10nF

D21
B360A-13-F

C92
22uF
1206/16V

C93
22uF
1206/16V

VCC_5V_BJ

R1
R183
31.6K
0603/1%

R2
R182
10K
0603/1%

SO-8 EP (43 °C/W)
Vin: 5.5V ~ 36V
Fsw: 500KHz
Vref: 1.22V
I (cont): 5A

VCC_5V

R149
10K

Vo = 0.8 * (1+R1/R2)

U26
NCP3170ADR2G
VIN EN PG COMP AGND VSW FB PGND

3.3A(Isat), 30mR, 5mmx5mm
4.7uH
L25

VCC_3.3V_R

0.1R R159

C114
22uF
1206/16V

C113
22uF
1206/16V

R1
R165
31.6K
0603/1%

C355
100pF
0603

R2
R156
10K
0603/1%

P4
VCC_3.3V
3.3V/0.8A

C96
22uF
1206/16V

R372
221R
0603

D29
LED Green

3.3V OK

C120
22uF
1206/16V

C99
6.8nF

R151
5.11K

PG_3.3V
PG_ALL
MBR130T1
D20

SO-8 (87 °C/W)
Vin: 4.5V ~ 18V
Fsw: 500KHz
Vref: 0.8V
I (cont): 3A

VCC_3.3V

R166
10K

U28
MAX1793EUE-25+
NC1 IN1 IN2 IN3 IN4 RST SHDT NC2 NC4 OUT4 OUT3 OUT2 OUT1 SET GND NC3 EP

VCC_2.5V_R

0R R153 0805

P7
VCC_2.5V
2.5V/0.3A

C107
4.7uF
0603

R363
100R
0402

D23
LED Green

2.5V OK

PG_3.3V R168 0R

C106
4.7uF
0603

R1
R164
0R

C116
4.7uF
0603

R2
R172
0R

PG_2.5V
PG_ALL
MBR130T1
D32

TSSOP-16 (52 °C/W)
Vin: 2.5V ~ 5.5V
Vref: 1.25V (Adj mode)
Vdrop: 0.45V@1A
I (cont): 1A

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TITLE: **Board Power Supplies**

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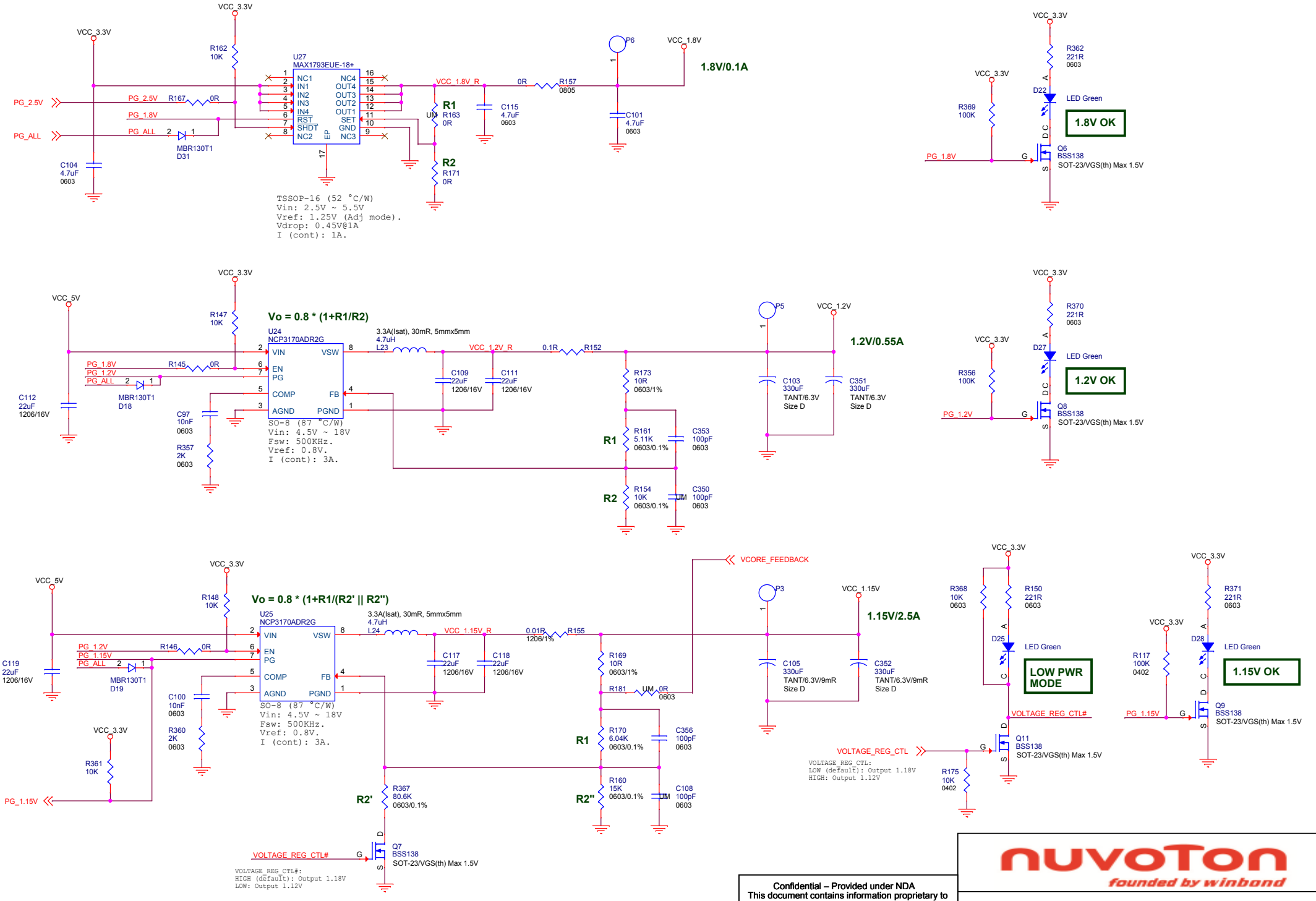

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TITLE: **Board Power Supplies**

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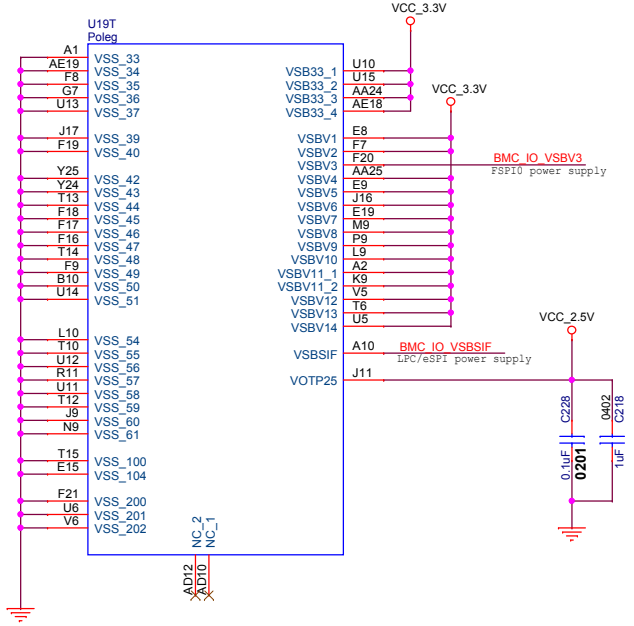
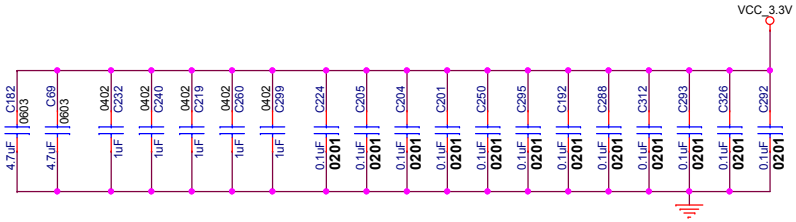
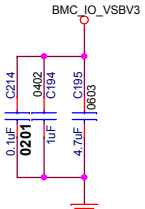
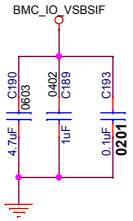
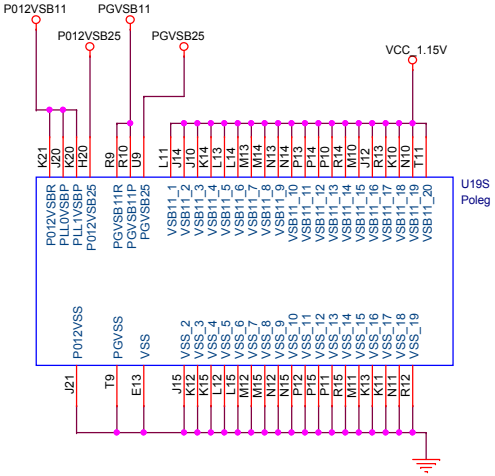
Layout Notes:
* Place all 0201 filter capacitors very close to BMC power pins.
* Place 0402 and bulk capacitors close to BMC.

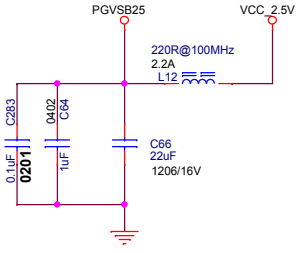


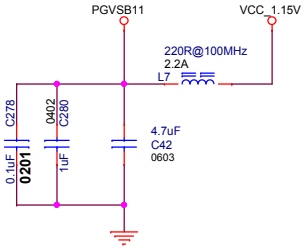


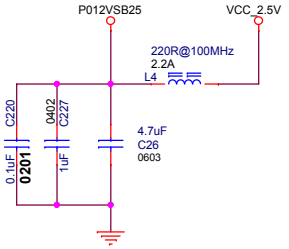


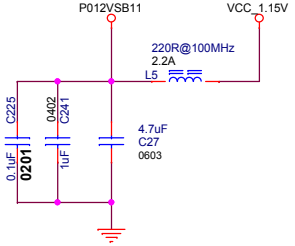




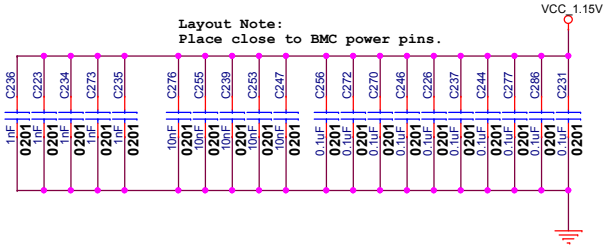


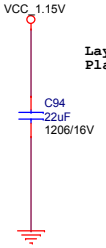






Layout Note:
Place close to BMC power pins.





Layout Note:
Place close to BMC.

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TITLE: **BMC Power Supplies**

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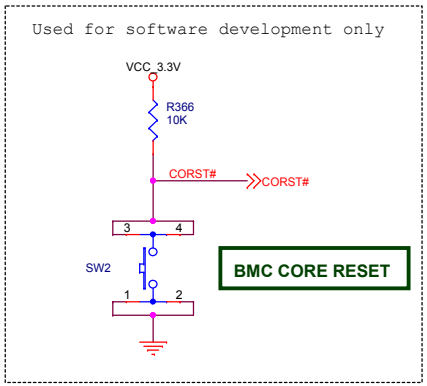
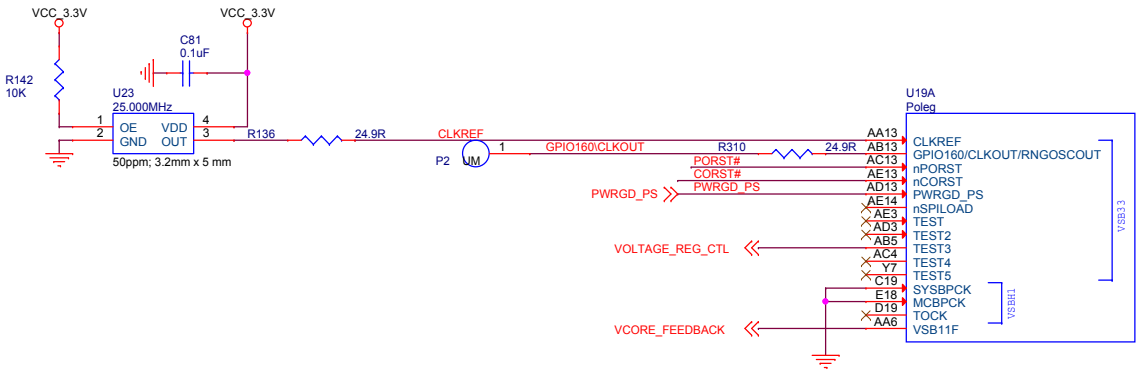
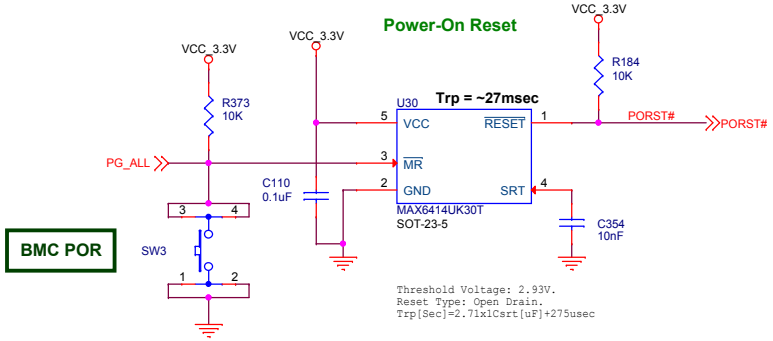
Clock and Resets

Used for software development only

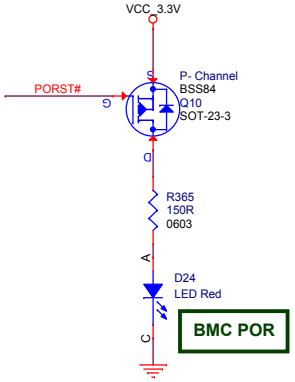




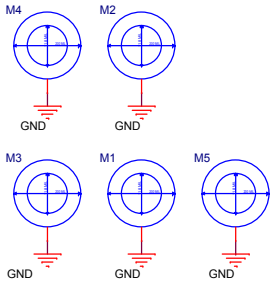
Power-On Reset



Design Notes:
* BMC has internal 30msec reset delay.
* All BMC's VSB power supplies should be valid before PORST# goes high.



Mechanical Holes



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TITLE: **Clock and Resets**

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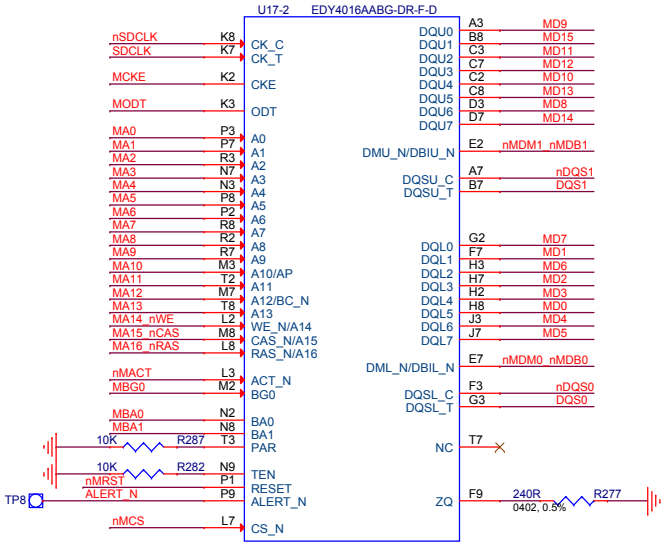
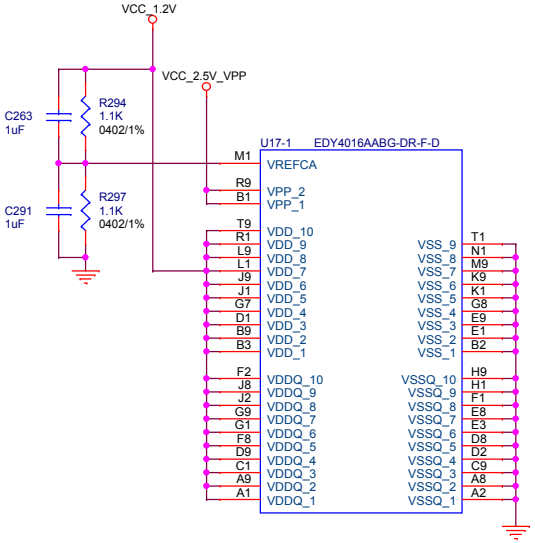
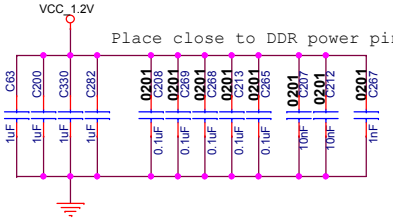
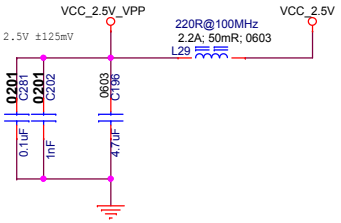
DDR4

SDRAM (DDR4-3200) 4Gbit (256Mbit x 16) Device

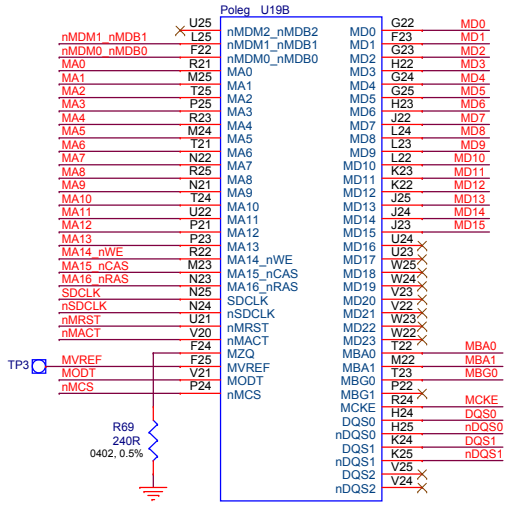


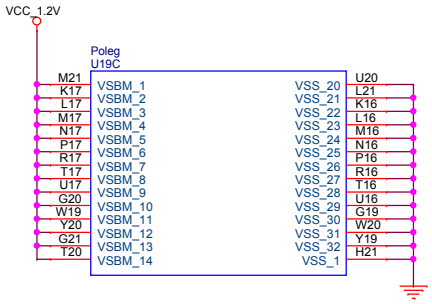


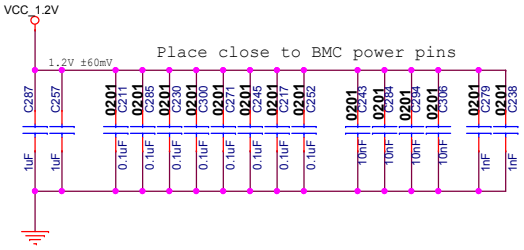


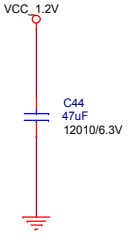


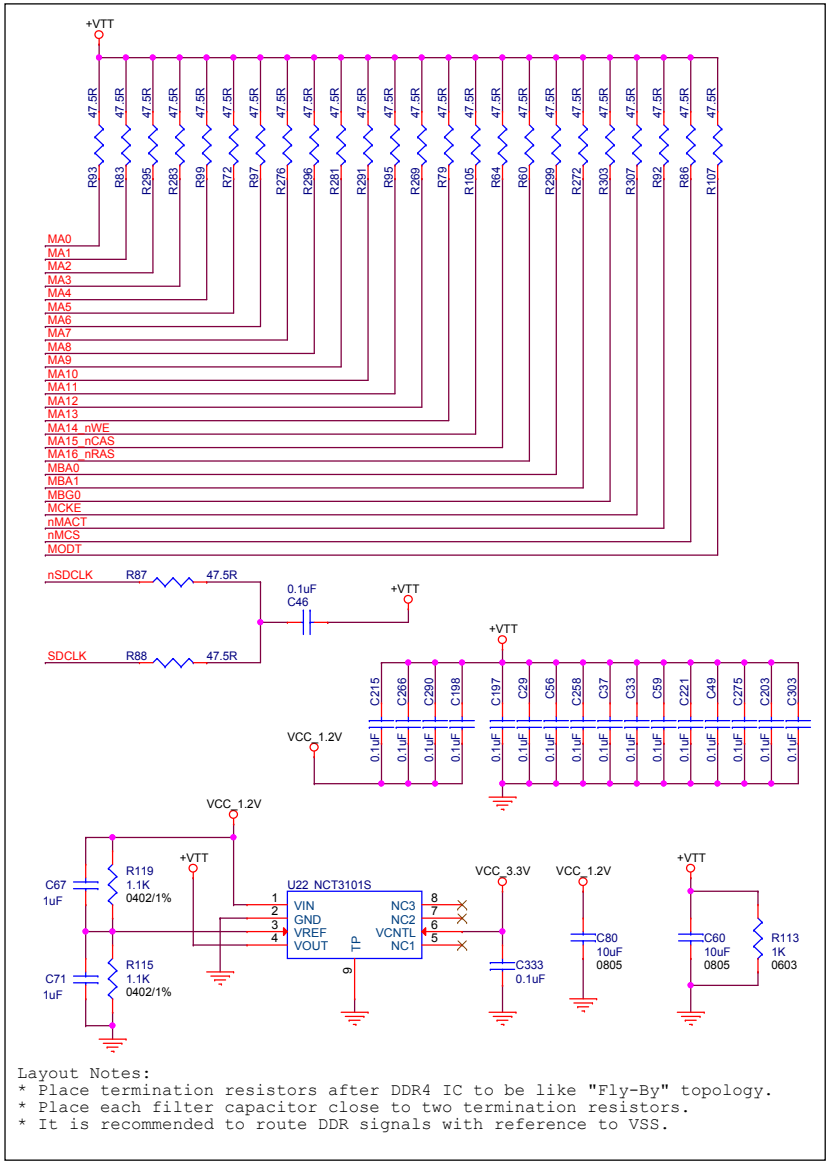
BMC DDR Interface (DDR4-1600)











Layout Notes:
* Place termination resistors after DDR4 IC to be like "Fly-By" topology.
* Place each filter capacitor close to two termination resistors.
* It is recommended to route DDR signals with reference to VSS.

BMC Firmware Notes:
* DDR traces are 50R impedance.
* Output strength should be set to 48R.
* ODT should be set to 48R.

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TITLE: DDR4			
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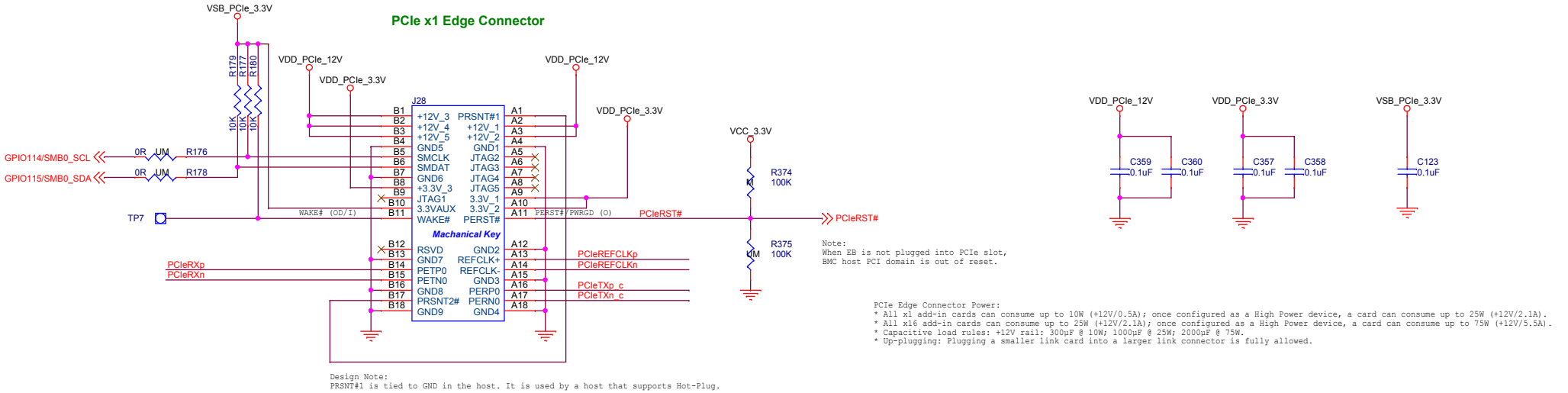
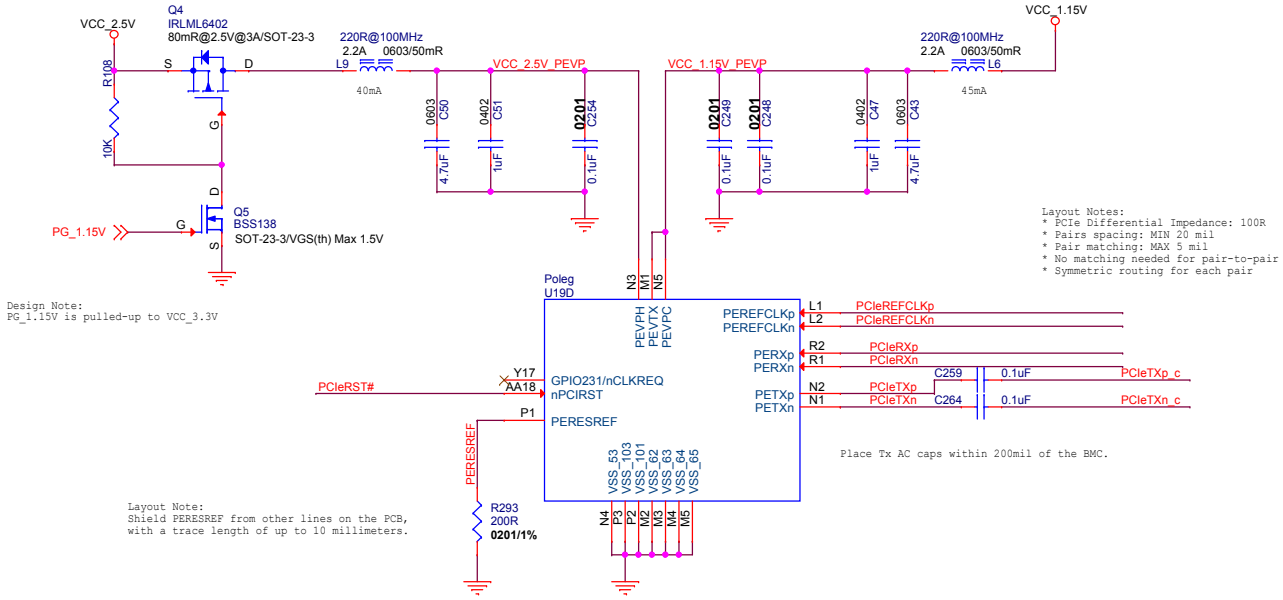


Note:
PEVPH supply should rise after VSB11.

Place 0201 filter capacitors close to
PEVPC/VSS, PEVTX/VSS and PEVPH/VSS pin pairs.



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TITLE: **PCIe x1**

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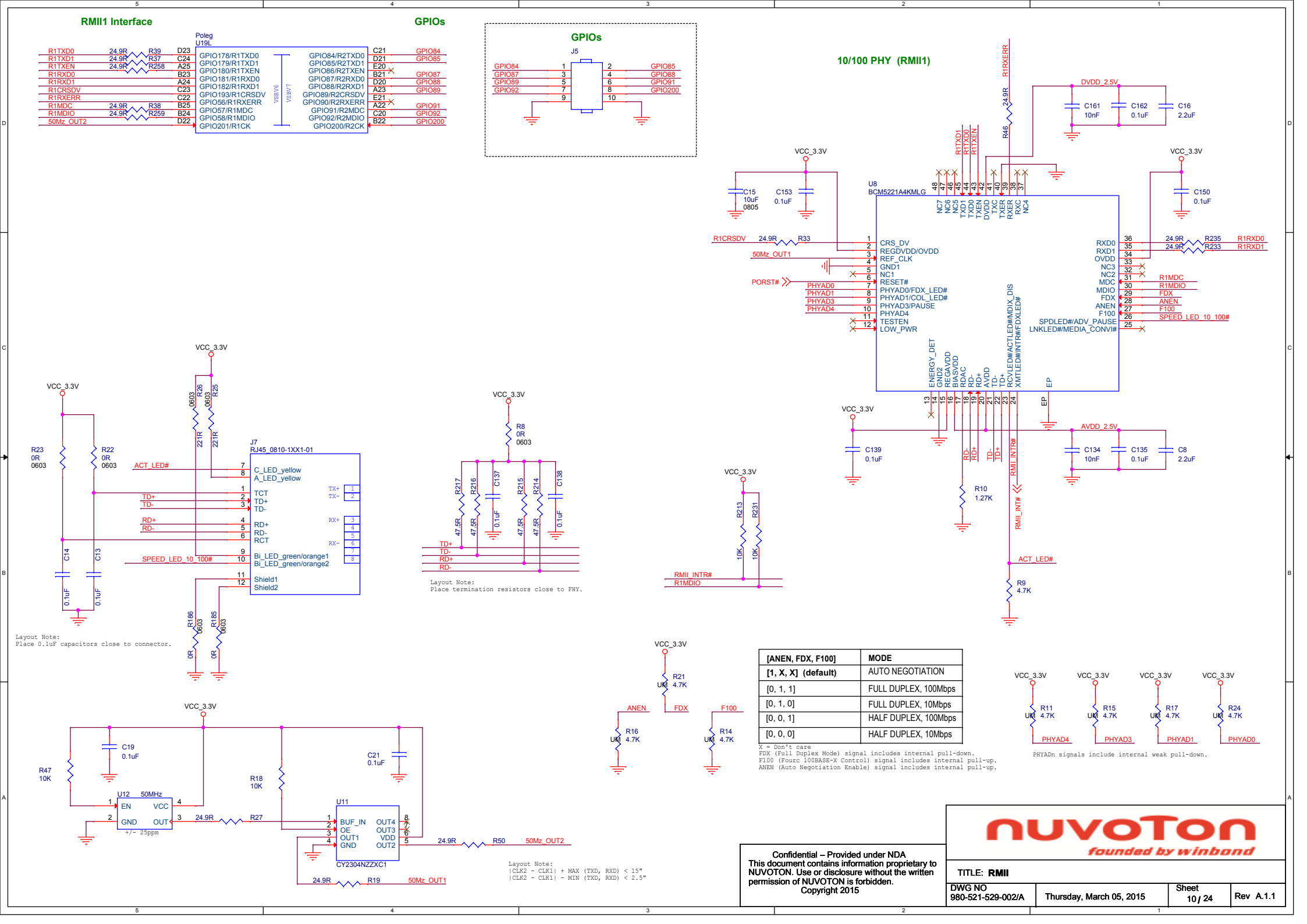
RMII1 Interface
GPIOs
Poleg
U19L
R1TXD0
R1TXD1
R1TXEN
R1RXD0
R1RXD1
R1CRSDV
R1RXERR
R1MDC
R1MDIO
50Mz_OUT2
GPIO178/R1TXD0
GPIO179/R1TXD1
GPIO180/R1TXEN
GPIO181/R1RXD0
GPIO182/R1RXD1
GPIO193/R1CRSDV
GPIO56/R1RXERR
GPIO57/R1MDC
GPIO58/R1MDIO
GPIO201/R1CK
GPIO84/R2TXD0
GPIO85/R2TXD1
GPIO86/R2TXEN
GPIO87/R2RXD0
GPIO88/R2RXD1
GPIO89/R2CRSDV
GPIO90/R2RXERR
GPIO91/R2MDC
GPIO92/R2MDIO
GPIO200/R2CK
GPIOs
J5
10/100 PHY (RMII1)
U8
BCM5221A4KMLG
CRS_DV
REGDVDD/OVDD
REF_CLK
GND1
NC1
RESET#
PHYAD0/FDX_LED#
PHYAD1/COL_LED#
PHYAD3/PAUSE
PHYAD4
TESTEN
LOW_PWR
RXD0
RXD1
OVDD
NC3
NC2
MDC
MDIO
FDX
ANEN
F100
SPDLED#/ADV_PAUSE
LNKLED#/MEDIA_CONVI#
ENERGY_DET
GND2
REGAVDD
BIASVDD
RDAC
RD-
RD+
AVDD
TD-
TD+
ROVLED#/ACTLED#/MDIX_DIS
XMTLED#/INTR#/FDXLED#
EP
DVDD_2.5V
AVDD_2.5V
VCC_3.3V
J7
RJ45_0810-1XX1-01
C_LED_yellow
A_LED_yellow
TCT
TD+
TD-
RD+
RD-
RCT
Bi_LED_green/orange1
Bi_LED_green/orange2
Shield1
Shield2
ACT_LED#
SPEED_LED_10_100#
RMII_INTR#
R1MDIO
PORST#
50Mz_OUT1
Layout Note:
Place 0.1uF capacitors close to connector.
Layout Note:
Place termination resistors close to FHY.
U12 50MHz
U11
CY2304NZZXC1
+/- 25ppm
Layout Note:
|CLK2 - CLK1| + MAX (TXD, RXD) < 15"
|CLK2 - CLK1| - MIN (TXD, RXD) < 2.5"
[ANEN, FDX, F100]
MODE
[1, X, X] (default)
AUTO NEGOTIATION
[0, 1, 1]
FULL DUPLEX, 100Mbps
[0, 1, 0]
FULL DUPLEX, 10Mbps
[0, 0, 1]
HALF DUPLEX, 100Mbps
[0, 0, 0]
HALF DUPLEX, 10Mbps
X = Don't care
FDX (Full Duplex Mode) signal includes internal pull-down.
F100 (Fourc 100BASE-X Control) signal includes internal pull-up.
ANEN (Auto Negotiation Enable) signal includes internal pull-up.
PHYADn signals include internal weak pull-down.
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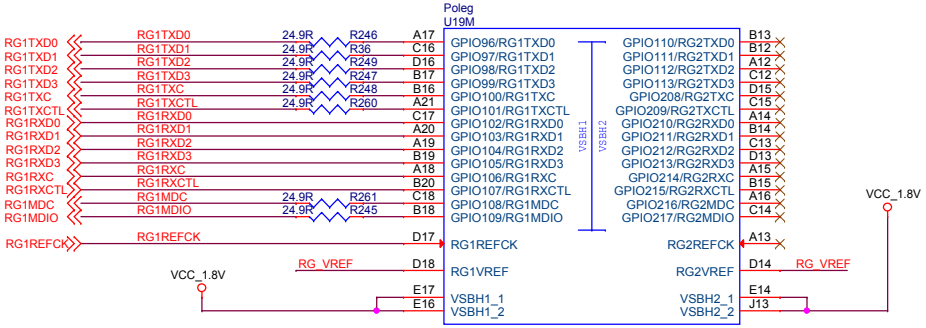
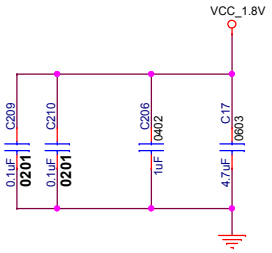
TITLE: RMII
DWG NO 980-521-529-002/A
Thursday, March 05, 2015
Sheet 10 / 24
Rev A.1.1

RGMII1 Interface

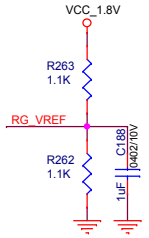


Design Notes:
* Reference clock: 125MHz, 25MHz or 2.5MHz +/- 50ppm.
* Data is double rate.

RGMII2 Interface (not used)



Place 0201 filter capacitors close to VSBH1/VSS pin pairs.



Place dividers close to RG1VREF pin.

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TITLE: **RGMII (1/2)**

DWG NO		Sheet	
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RG1TXD0
RG1TXD1
RG1TXD2
RG1TXD3
RG1TXC
RG1TXCTL

RG1RXD0
RG1RXD1
RG1RXD2
RG1RXD3
RG1RXC
RG1RXCTL

RG1MDC
RG1MDIO

RG1REFCK

Design Notes:
* LED pins include internal 22K (+/- 50%) PU.
* LED pins configure the device on POR.
  The active polarity of each LED pin is set according to its PU/PD configuration on POR.

LED MUX configuration:
* LED1: Dual LED status LINKSPD[1] (active low)
* LED2: Dual LED status LINKSPD[2] (active high due to the pull-down)
* LED3: Activity (default settings, active low)
* LED4: CLK125

Straps:
* Set to RGMII HSTL 1.8V.
* Disable Isolation mode (RGMII signals TRIS).
* Disable LOM mode.

Modes can also be set by firmware after reset.

LED2 Meaning:
Green: No Link, Power-On.
Yellow: Linked @ 1000BASE-T
Off: Linked @ 100BASE-T or Linked @ 10BASE-T

Design Notes:
* PHY includes internal 50R termination on each pin.
* Magnetic center-tap (BIAS) is not required.

VCC_3.3V
RJ45_LED1 R251 121R 0603 → 13 LED1_Yellow_n, 14 LED1_Yellow_p
RJ45_LED2_1 / RJ45_LED2_2 R232 121R 0603 → 16 LED2_Green_p_Orange_n, 15 LED2_Green_n_Orange_p

J12 0826-1X1T-23-F

TRD0p	11	TRD0p
CT0	12	TRD0-
TRD0n	10	TRD0n
TRD1p	4	TRD1p
CT1	6	TRD1-
TRD1n	5	TRD1n
TRD2p	3	TRD2p
CT2	1	TRD2-
TRD2n	2	TRD2n
TRD3p	8	TRD3p
CT3	7	TRD3-
TRD3n	9	TRD3n
SHIELD1	17	
SHIELD2	18	

TRD0+ TRD0- 1 2 TX D1+ TX D1-
TRD1+ TRD1- 3 6 RX D2+ RX D2-
TRD2+ TRD2- 4 5 BI D3+ BI D3-
TRD3+ TRD3- 7 8 BI D4+ BI D4-

Bel Fuse Inc; 1Gbit

C145 0.1uF, C149 0.1uF, C179 0.1uF, C186 0.1uF
R208 0R 0603, R208 0R 0603

Design Notes:
* RGMII output impedance is 50R. Serial resistor may not be needed.
* RESET and MDIO include internal 22K (+/- 50%) PU.
* MDC includes internal 22K (+/- 50%) PD.

VCC_3.3V
VCC_1.8V
Design Notes:
* 3.3V for non RGMII I/O
* 1.8V for RGMII I/O
* 1.2V for cores (internal regulator)

U13 BCM54612EB1KMLG

RG1TXC	40	GTXCLK
RG1TXCTL	35	TX_EN
RG1TXD0	39	TXD[0]
RG1TXD1	38	TXD[1]
RG1TXD2	37	TXD[2]
RG1TXD3	36	TXD[3]
RG1RXC R56 0R	33	RXC
RG1RXCTL R51 0R	26	RX_DV
RG1RXD0 R55 0R	32	RXD[0]
RG1RXD1 R54 0R	31	RXD[1]
RG1RXD2 R53 0R	28	RXD[2]
RG1RXD3 R52 0R	27	RXD[3]
MDC	48	MDC
MDIO	47	MDIO
	8	XTALI
	7	XTALO
PHYA[0]	41	PHYA[0]
PORST#	46	RESET
	29, 34, 1	OVDD_RGMII_1, OVDD_RGMII_2, OVDD
TRD0+ TRD0-	14, 15	TRD0p, TRD0n
TRD1+ TRD1-	18, 17	TRD1p, TRD1n
TRD2+ TRD2-	20, 21	TRD2p, TRD2n
TRD3+ TRD3-	24, 23	TRD3p, TRD3n
LED1	45	RJ45_LED2_1 Super Isolation Mode R29 UM 4.87K → VCC_3.3V
LED2	44	RJ45_LED2_2 MODE_SEL[0] R32 4.87K → VCC_3.3V
LED3	43	RJ45_LED1 MODE_SEL[1] R34 4.87K
LED4	42	CLK125_3.3V LOM Mode
REGSUPPLY	4	VCC_3.3V
REGOUT	3	REG OUT 1.2V/200mA
DVDD_1, DVDD_2	2, 30	
AVDDL_1, AVDDL_2, AVDDL_3	13, 19, 25	AVDDL_1.2V
PLLVDD	11	PLLVDD_1.2V
AVDD_2, AVDD_1	22, 16	VCC_3.3V
BIASVDD	12	VCC_3.3V
XTALVDD	9	
RDAC	10	R20 1.24K 1%
TEST2, TEST3	6, 5	TEST2_TEST3
PADDLE_GND		PDL

Software Note:
PHY must be configured to output 125 MHz CLK at Top-Level Expansion register 0x34.

C11 18pF, C10 18pF, Y1 25MHz, R234 10K UM

DVDD_1.2V
C156 0.1uF, C175 1uF, C146 10uF 0805
220R@100MHz 2.2A L3
AVDDL_1.2V
C177 0.1uF, C160 0.1uF, C166 1uF
PLLVDD_1.2V
220R@100MHz 2.2A L28
220R@100MHz 2.2A L27
C154 0.1uF
C159 0.1uF, C144 10uF 0805
220R@100MHz 2.2A L26
C158 0.1uF

Layout Notes:
* Place decouple capacitors C156 and C157 close to pins 2 and 30.
* Place bulk capacitor C146 close to pin 3.

VCC_3.3V
C165 4.7uF 0603, C163 1uF, C155 1uF, C157 0.1uF, C171 0.1uF
Decouple each pin with 0.1uf capacitor (pins 1, 4, 16, 22).

VCC_1.8V
C23 4.7uF 0603, C174 1uF, C176 0.1uF
4.7uF capacitor is common to all OVDD_RGMII pins.
Decouple each pin with 0.1uf capacitor (pins 29, 34).

Level Shifters

VCC_1.8V
VCC_3.3V
U31 74AUP1T34GW
CLK125_3.3V → A
Y → R250 UM 24.9R 0402 → RG1REFCK
C18 0.1uF
C20 0.1uF
R48 100R 0603 M
R49 121R 0603 M

REFCLK_3.3V from PHY - 3.3V swing.
RG1REFCK into BMC - 1.8V swing.

VCC_1.8V
VCC_3.3V
C12 0.1uF
C151 0.1uF
U10 TXS0102DCUR
MDIO ↔ MDC
RG1MDIO ↔ RG1MDC

RG1MDIO from BMC: 1.8V swing.
MDIO to PHY: 3.3V swing.
Bidirectional Push-Pull.

RG1MDC from BMC: 1.8V swing.
MDC to PHY: 3.3V swing.

PHY Address Selection

VCC_3.3V
R237 4.7K M → PHYA[0]
R238 4.7K UM
R218 4.7K UM → TEST2_TEST3
R230 4.7K UM

TEST2_TEST3 HIGH: PHY address is 11000 + PHYA[0].
TEST2_TEST3 LOW: PHY address is 00000 + PHYA[0].

Design Note:
TEST2/3 and PHYA[0] pins include internal 22K PD.

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TITLE: **RGMII (part 2)**

DWG NO		Sheet	Rev
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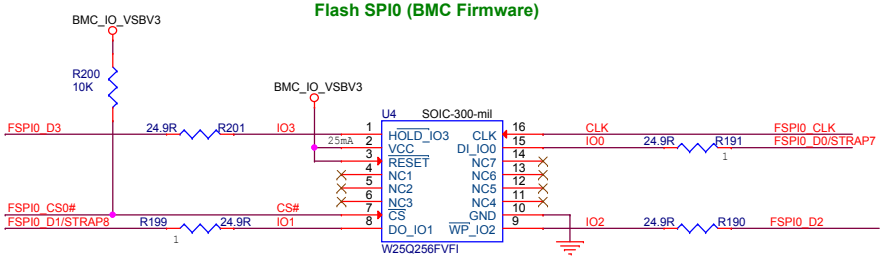
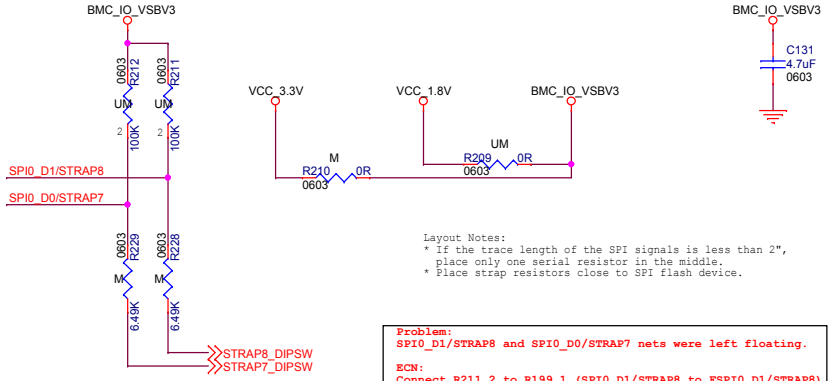
Flash SPI0 (BMC Firmware)





Layout Notes:
* If the trace length of the SPI signals is less than 2", place only one serial resistor in the middle.
* Place strap resistors close to SPI flash device.

Problem:
SPI0_D1/STRAP8 and SPI0_D0/STRAP7 nets were left floating.

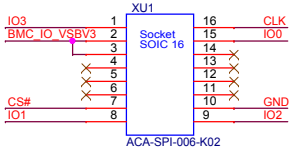
ECN:
Connect R211.2 to R199.1 (SPI0_D1/STRAP8 to FSPI0_D1/STRAP8)
Connect R212.2 to R191.1 (SPI0_D0/STRAP7 to FSPI0_D0/STRAP7)

STRAP7 (hardware):
LOW: BMC pins are in HI-Z.
HIGH: Normal mode. (Internal weak PU).

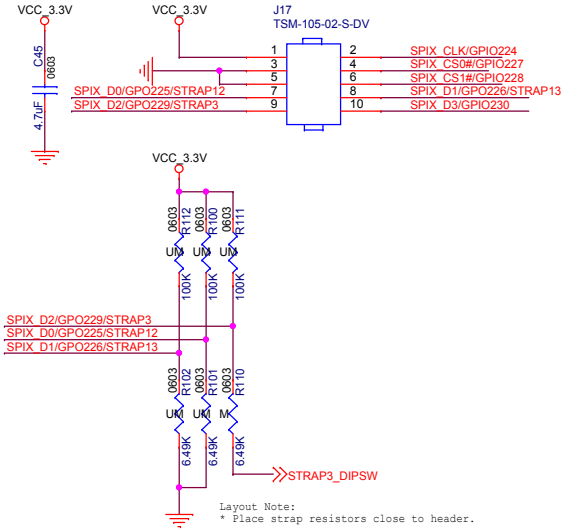
STRAP8 (hardware):
LOW: The ROM code behaves as if SECBOOT fustrap is on (for debugging mode).
HIGH: Normal mode. (Internal weak PU)

Optional,
Dual footprint 16/8 pin.

Optional Socket,
Dual footprint on U4.



Expansion Bus SPIX (CLPD/FPGA I/F)

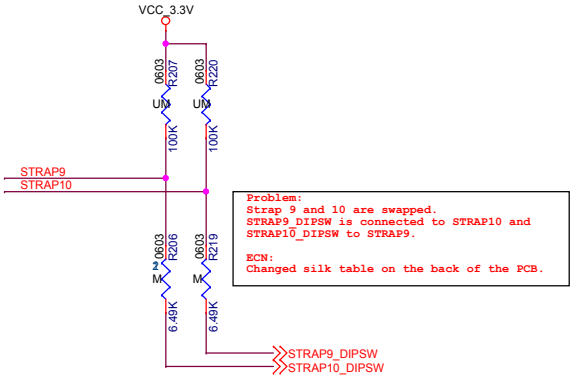


Layout Note:
* Place strap resistors close to header.

STRAP13 (ROM) Flash SPI0 Bus Power Supply Level:
LOW: VSBV3 is at 1.8V.
HIGH: VSBV3 is at 2.5V or 3.3V. (Internal weak PU).

STRAP3-1 (ROM):
CPU system and DDR4 memory frequency selection.

Flash SPI3 (Not used)

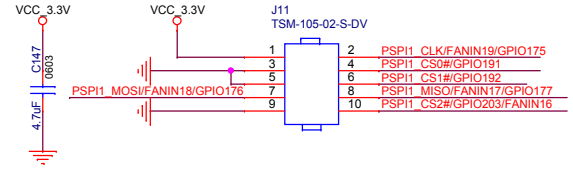


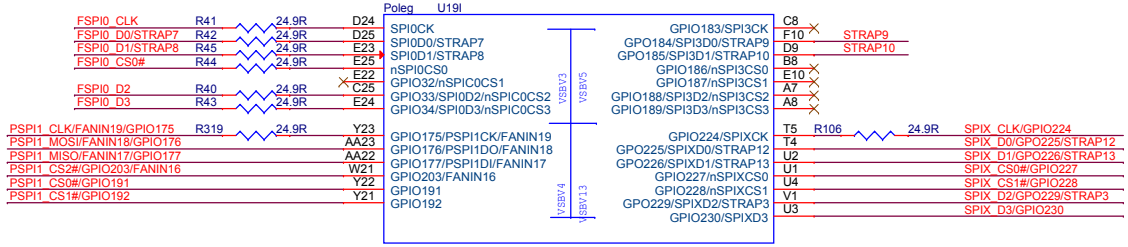
Problem:
Strap 9 and 10 are swapped.
STRAP9_DIPSW is connected to STRAP10 and STRAP10_DIPSW to STRAP9.

ECN:
Changed silk table on the back of the PCB.

STRAP[10-9] (ROM) Flash Programming Mode:
00 - Reserved.
01 - UART2 via SP2 (Internal host connection).
10 - UART3 via SI2 (External connection).
11 - Normal boot.

Peripheral SPI1





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TITLE: **SPI**

DWG NO		Sheet	
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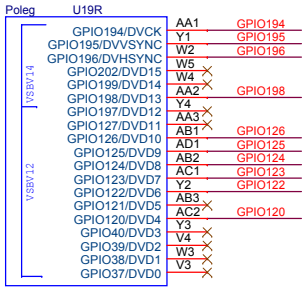

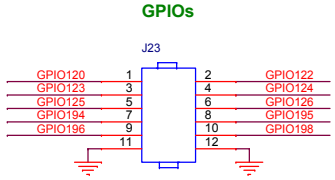

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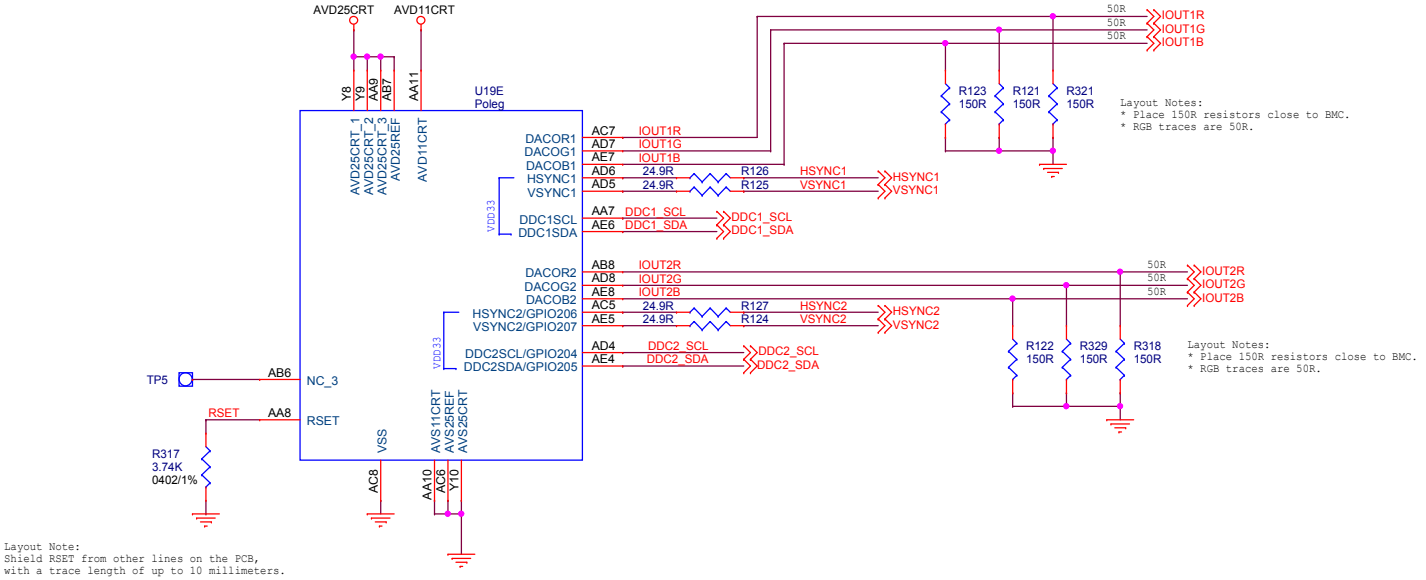
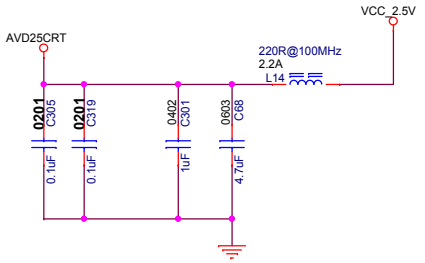
TITLE: **Digital Video Interface (DVI)**

DWG NO		Sheet	Rev
980-521-529-002/A	Thursday, March 05, 2015	14 / 24	A.1.1

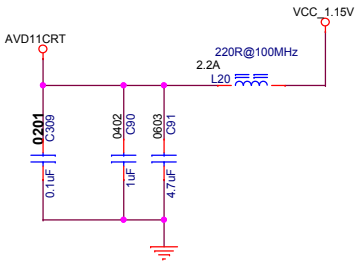
CRT Interface



Layout Note:
Shield RSET from other lines on the PCB,
with a trace length of up to 10 millimeters.



Place 0201 filter capacitors close to
AVD25CRT/AVS25CRT and AVD25REF/AVS25REF pin pairs.



Place 0201 filter capacitors close to
AVD11CRT/AVS11CRT pin pairs.

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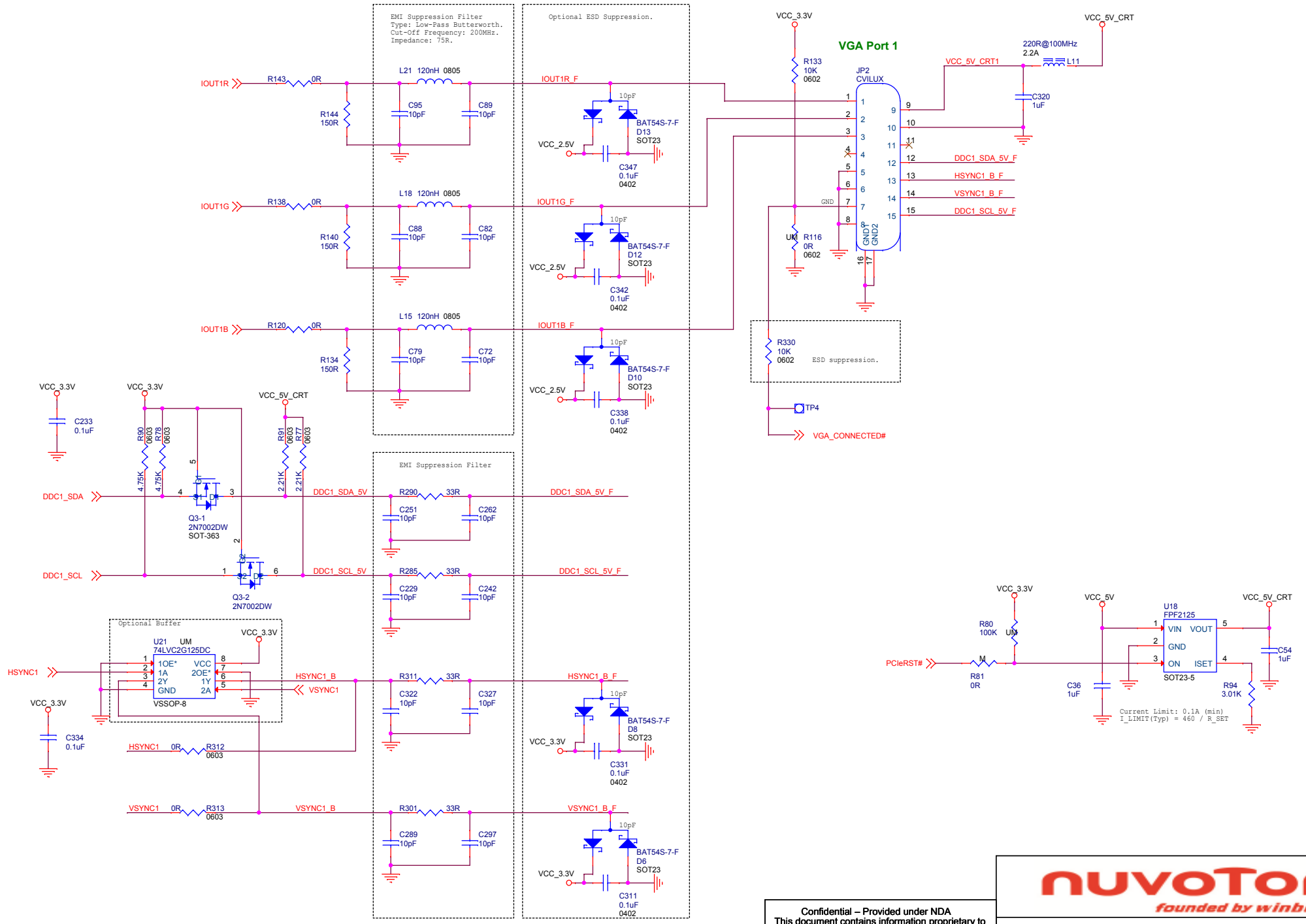
TITLE: **CRT**

DWG NO		Sheet	Rev
980-521-529-002/A	Thursday, March 05, 2015	15 / 24	A.1.1



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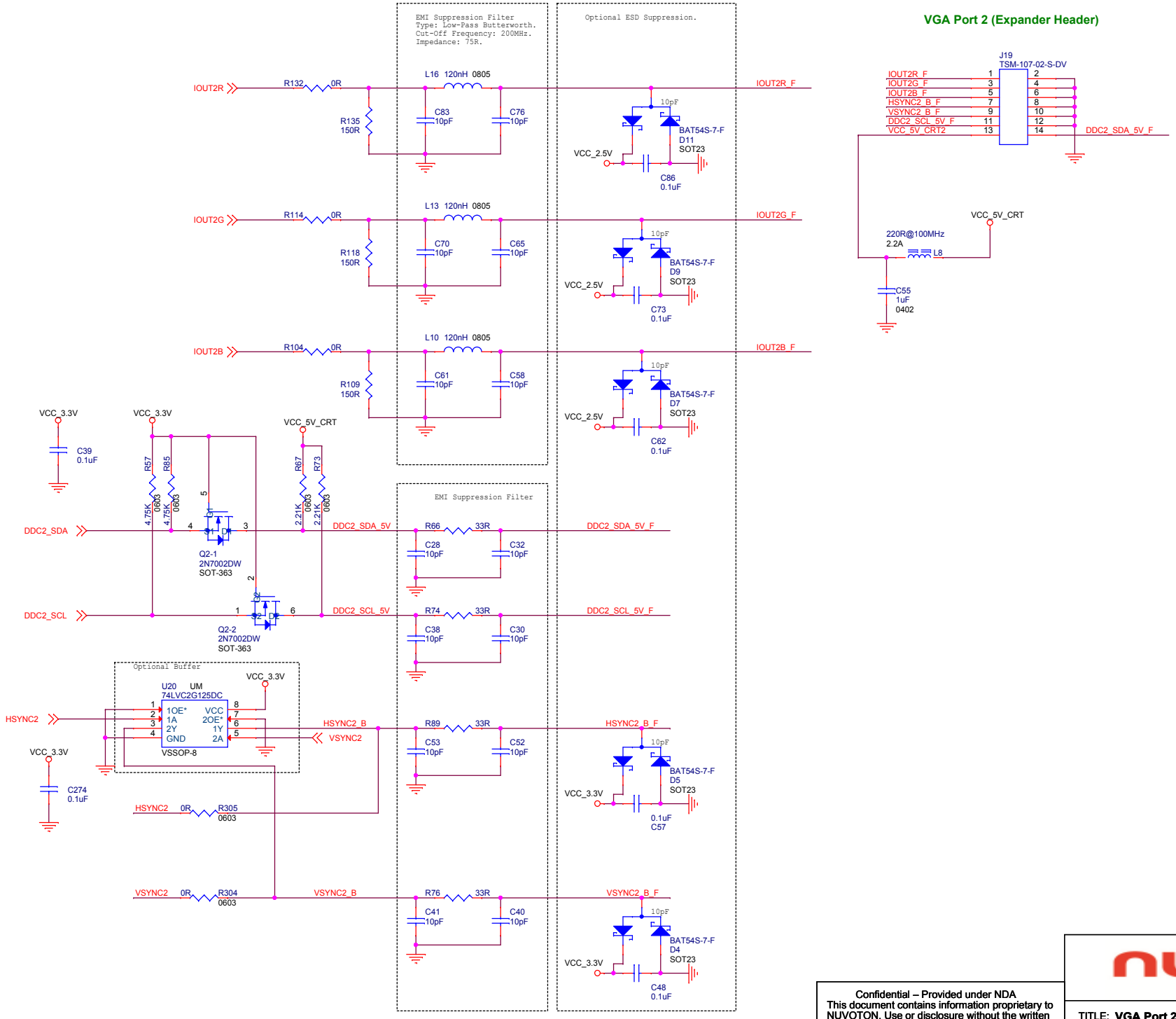
TITLE: **VGA Port 1**

DWG NO		Sheet	Rev
980-521-529-002/A	Thursday, March 05, 2015	16 / 24	A.1.1



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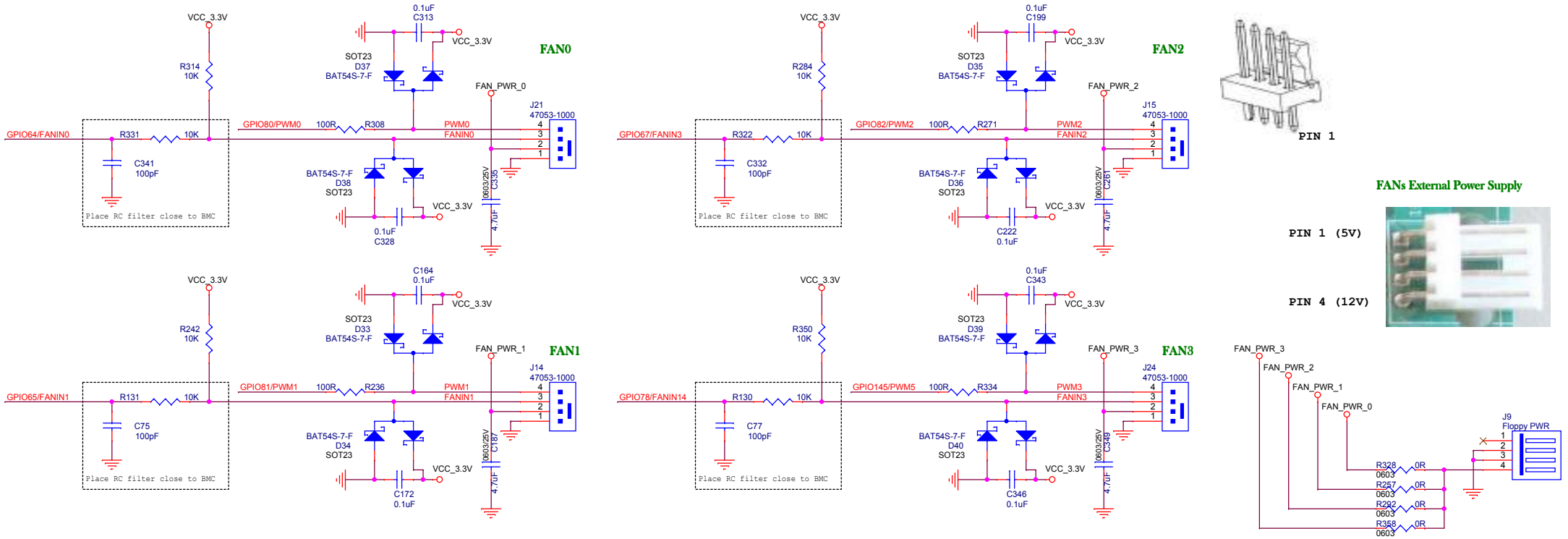
TITLE: **VGA Port 2**

DWG NO		Sheet	
980-521-529-002/A	Thursday, March 05, 2015	17 / 24	Rev A.1.1



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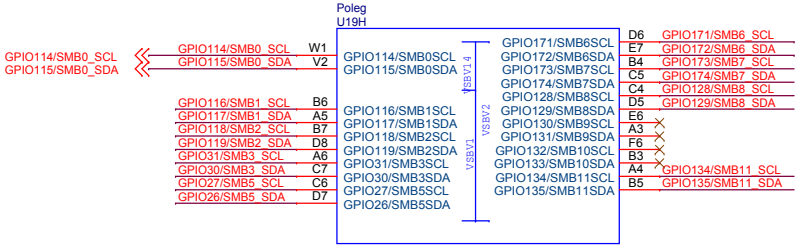
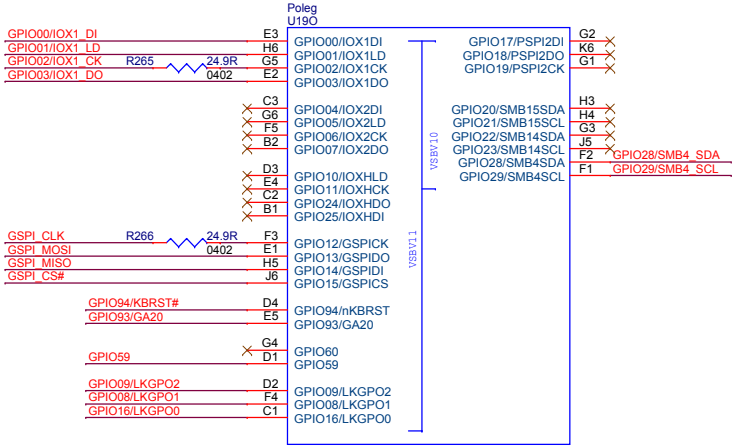
TITLE: **FANs, PECI**

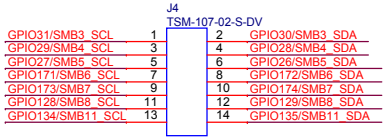
DWG NO		Sheet	Rev
980-521-529-002/A	Thursday, March 05, 2015	18 / 24	A.1.1

BMC Firmware Notes:
* SMB0 is connected to PCIe edge connector.
* SMB1 is connected to LM75 device.
* SMB2 is connected to TMP100 device.

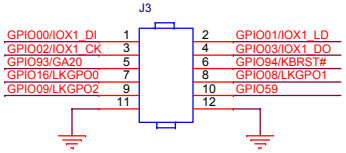




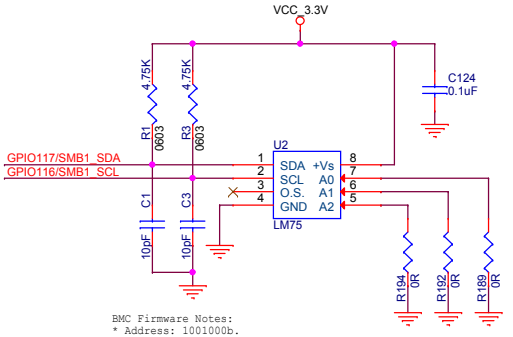
SMBus



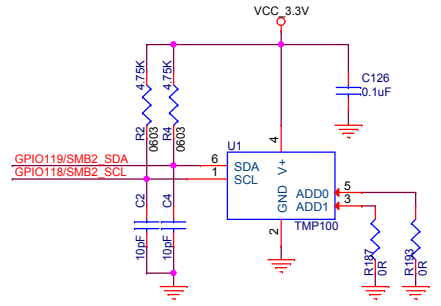
IOX1, GPIOs



SMBus Temperature Sensors

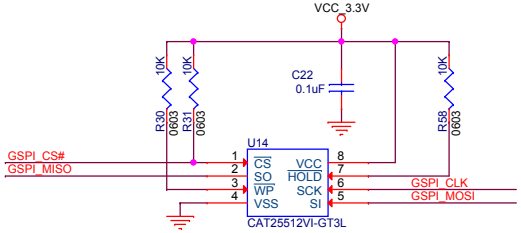


BMC Firmware Notes:
* Address: 1001000b.
* Support fast (up to 400KHz) mode.



BMC Firmware Notes:
* Address: 1001000b.
* Support fast (up to 400KHz) and high-speed (up to 3.4MHz) modes.

GSPI (Graphic SPI for VGA BIOS)



Layout Note:
* Clock Frequency: 20MHz.

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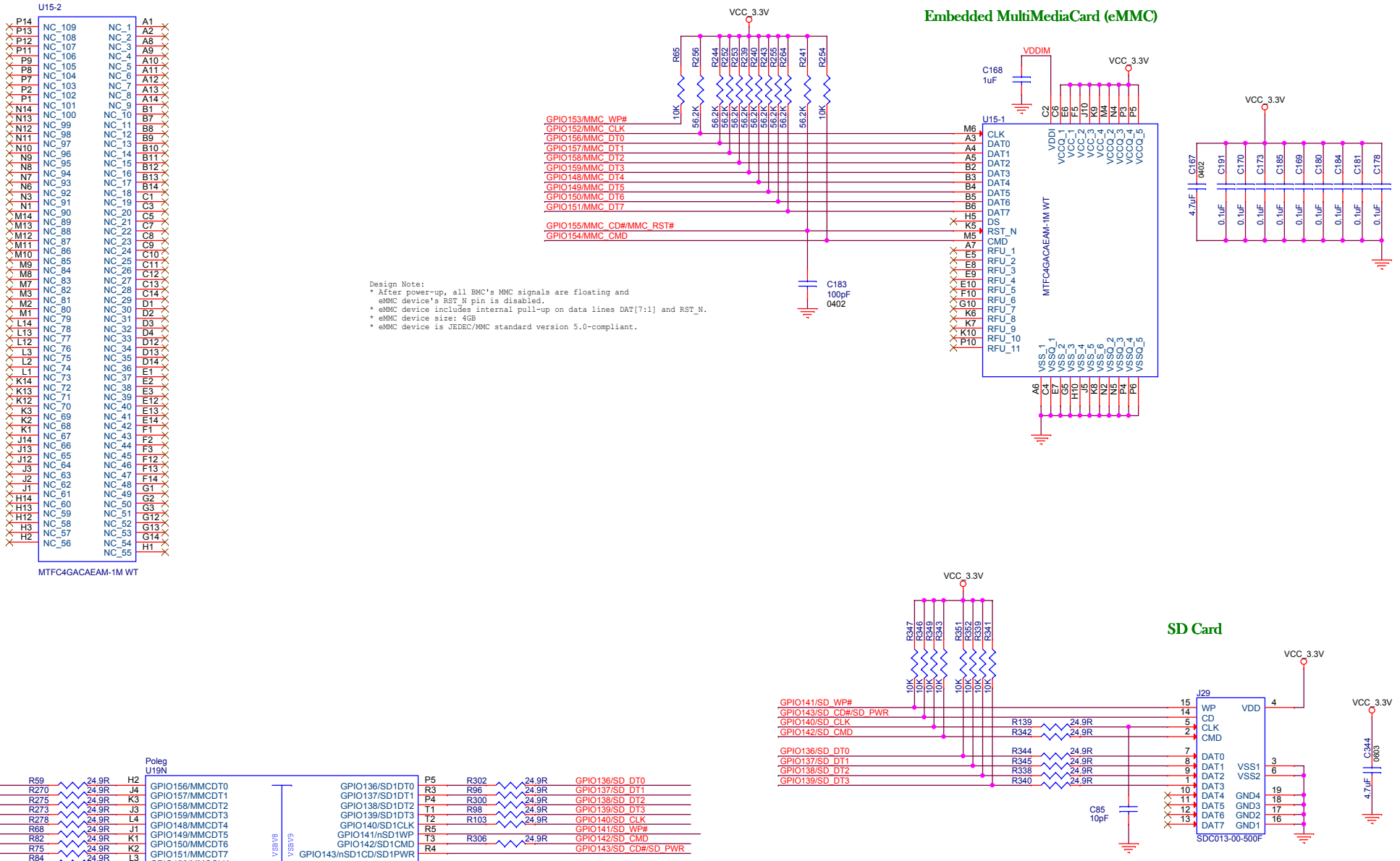
TITLE: **SMBus, PSPI2, GSPI**

DWG NO		Sheet	
980-521-529-002/A	Thursday, March 05, 2015	19 /24	Rev A.1.1



Note:

* **SD Controller: Ver 3.0, 4 Bits, 50MHz, 25MByte/sec.**
* **eMMC Controller: Ver 4.51, 8 Bits, 52MHz, 52MByte/sec (SDR mode).**

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TITLE: **SD and eMMC**

DWG NO		Sheet	Rev
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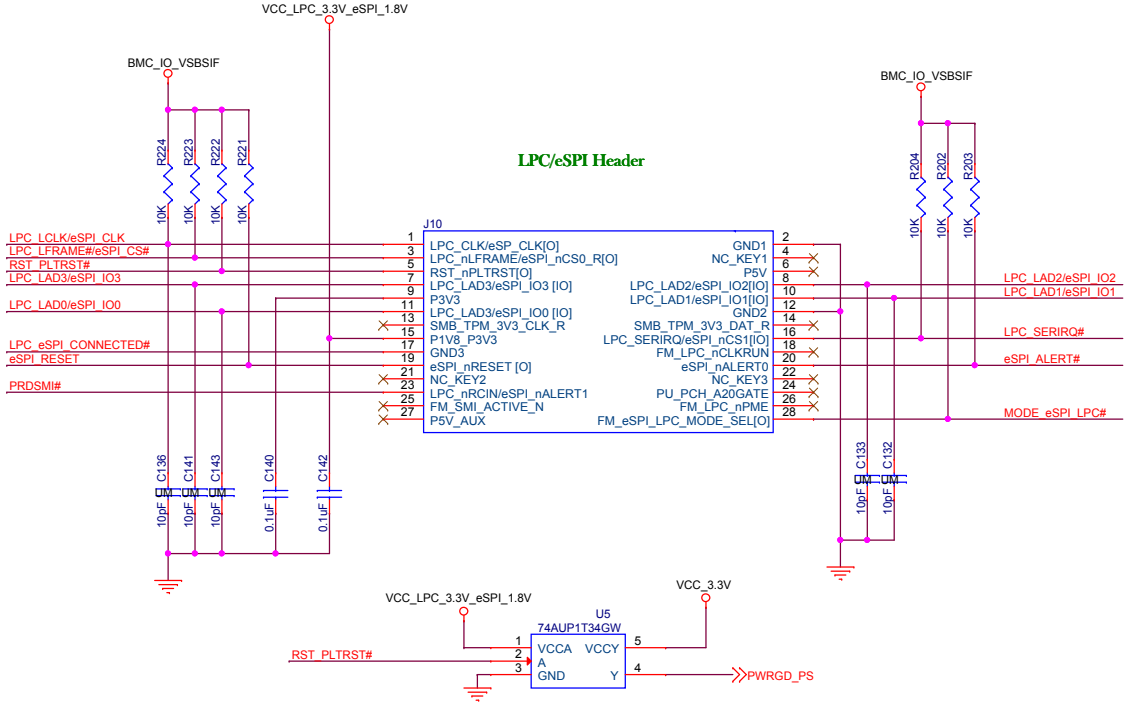
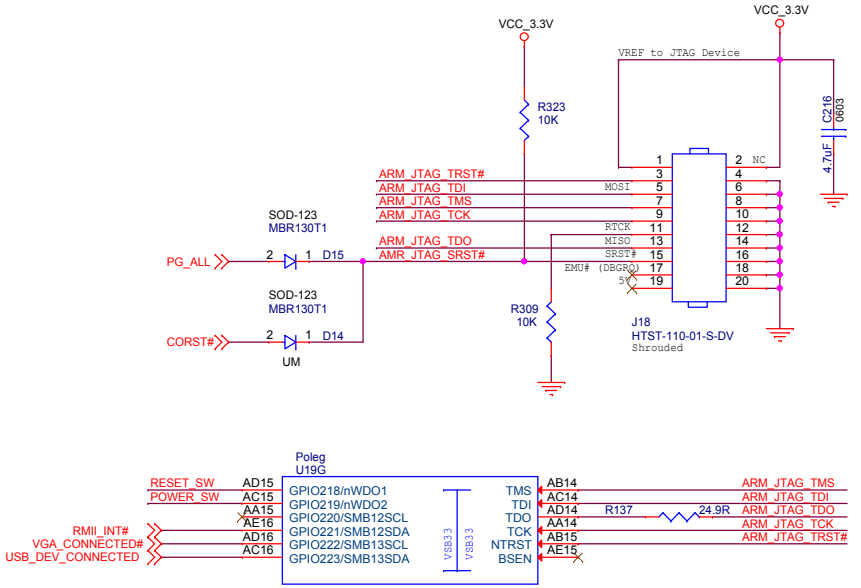
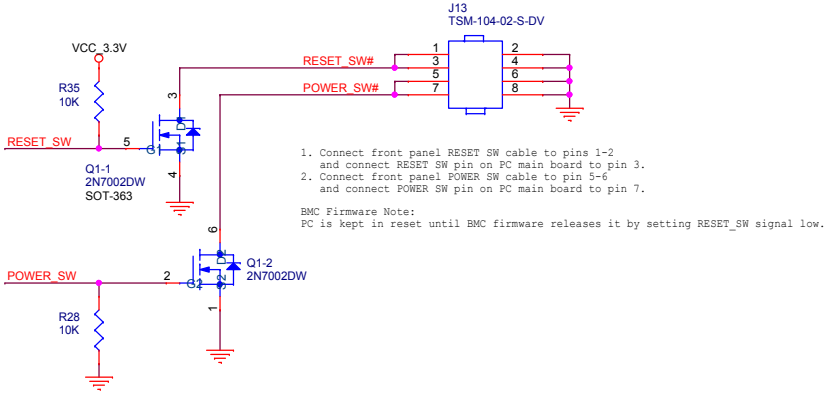
LPC/eSPI Header

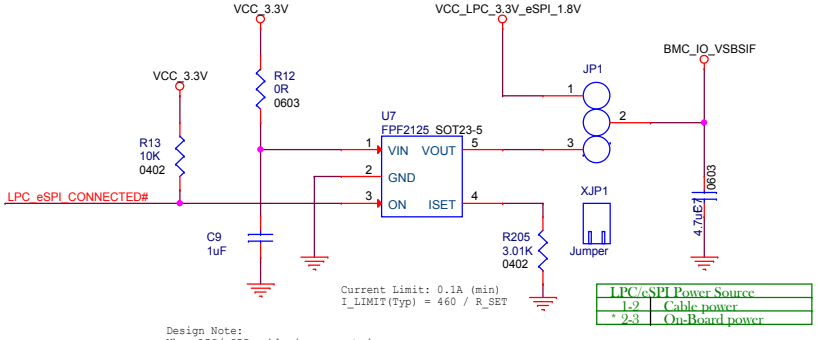


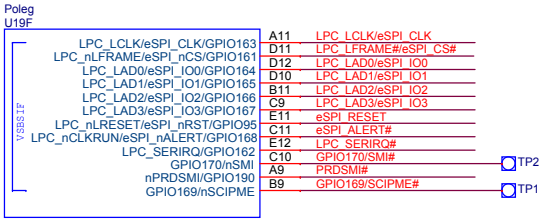
ARM JTAG

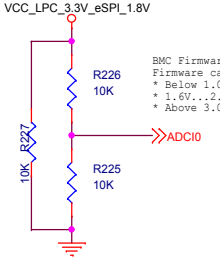


PC Front Panel Header and Cable Switches









BMC Firmware Note:
Firmware can measure interface voltage level after exit from Host reset to determine interface mode:
* Below 1.0V - LPC/eSPI cable is disconnected.
* 1.6V...2.0V - eSPI Mode.
* Above 3.0V - LPC mode.

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TITLE: **LPC/eSPI, ARM JTAG**

DWG NO		Sheet	
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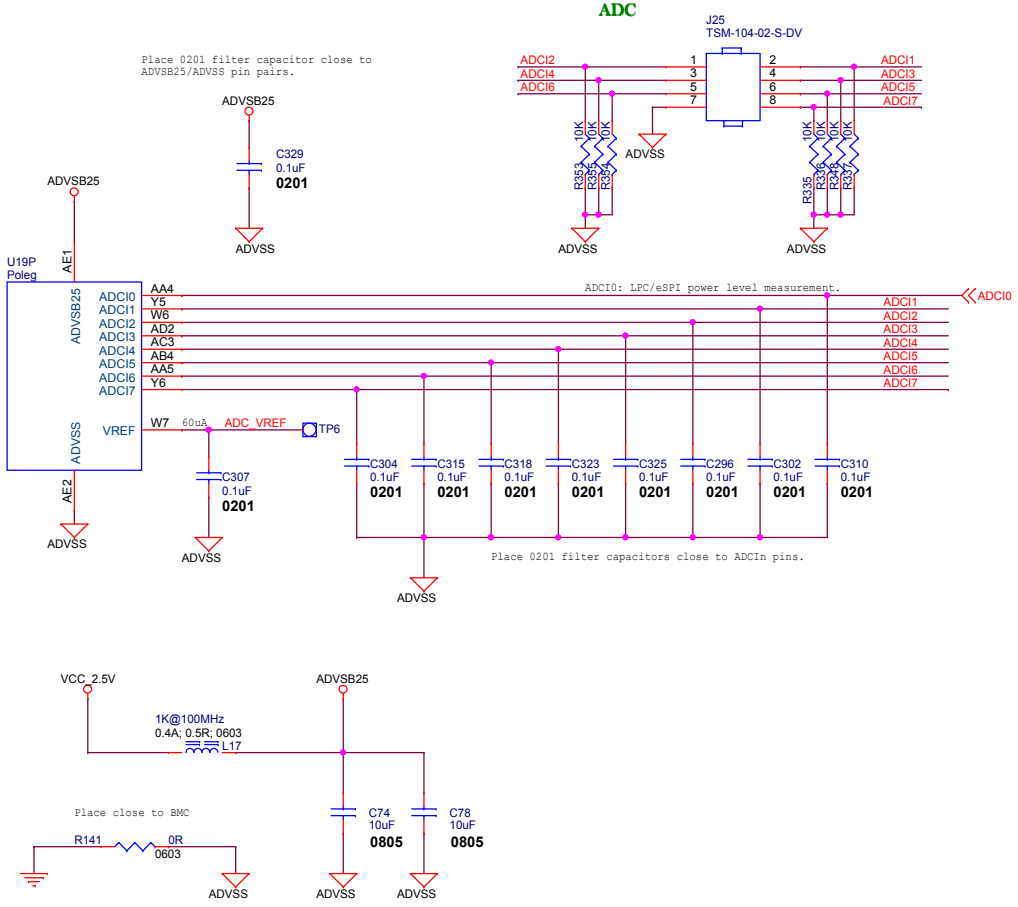
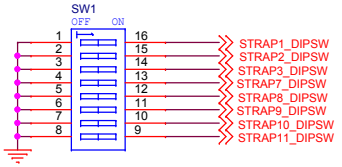
ADC



STRAPs



Position	STRAP Control
OFF	**'High' by Internal (weak) pull-up (*)**
ON	'Low' by External pull-down.

(*) Design Note:
For strap pins that are connected to other devices it is recommanded to add an external pull-up and not rely on the internal weak pull-up for 'High' level.

DIP-SW	Strap	Type	Position	Function
3-1	3-1	ROM		DDR4 & CPU Frequency : Memory , CPU
			ON,ON,OFF	25 MHz, 25 MHz (Skip Init)
			ON,OFF,OFF	667 MHz, 500 MHz
			OFF,OFF,OFF	**800 MHz, 800 MHz (Normal oparation)**
4	7	HW	ON	BMC pins are at High-Z.
			OFF	**Normal operation.**
5	8	HW	ON	Security Enable.
			OFF	**Normal operation.**
7-6	10-9	ROM		Flash UART Command Routine Enable :
			ON,OFF	Programming using UART2 <-> Host SP2 (Internal).
			OFF,ON	Programming using UART3 <-> SI2 (External).
			OFF,OFF	**Normal boot operation.**
8	11	ROM		BSP (UART0) Alternate pins :
			ON	SI2 connected to BSP (UART0).
			OFF	**SI2 and BSP normal settings.**

Design Notes:
Those straps are set by fixed resistors:
* STRAP4 (Coprocessor JTAG Enable): Set to low to enable JTAG on SI1 signals.
* STRAP5 (Coprocessor SKIP initialization): Set to high for normal operation.
* STRAP6 (ECC Enable): Set to high for no ECC.
* STRAP12: Set to high.
* STRAP13 (Flash SPI0 bus power): Set to high for 3.3V.

Problem:
Strap 9 and 10 are swapped.
STRAP9_DIPSW is connected to STRAP10 and STRAP10_DIPSW to STRAP9.

ECN:
Changed silk table on the back of the PCB from "7-6" to "6-7".

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TITLE: **ADC & Straps DIP SW**

DWG NO		Sheet	Rev
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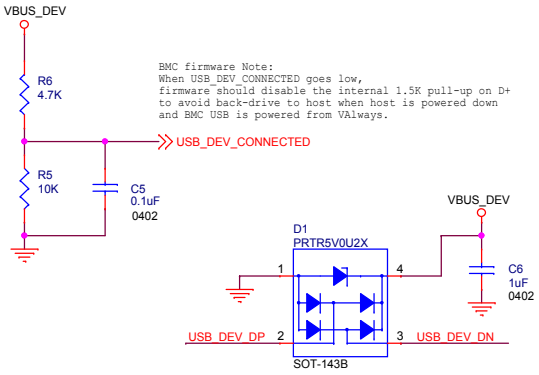
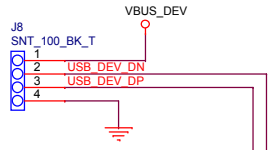
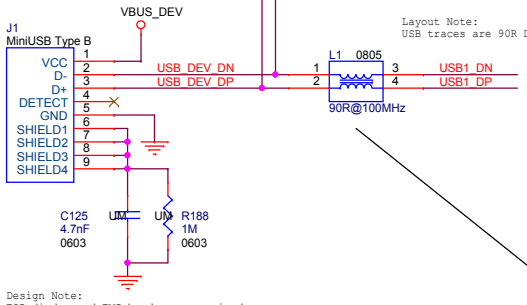
USB Device (Slave, BMC Internal HUB)



PC Front-Panel USB Header

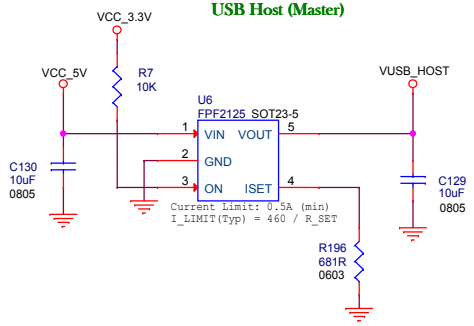


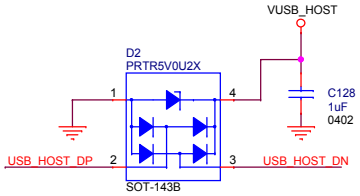
MiniUSB Type B



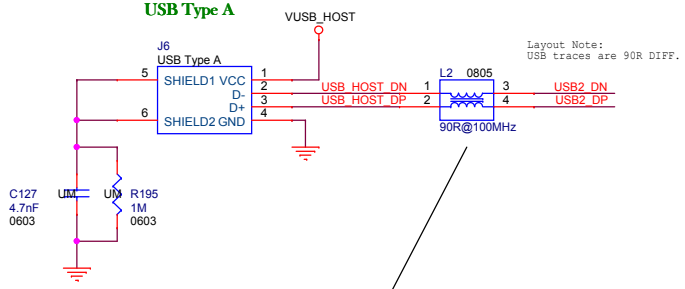
Design Note:
ESD diodes and EMI beads are required
in case USB signals are routed to external header.

USB Host (Master)

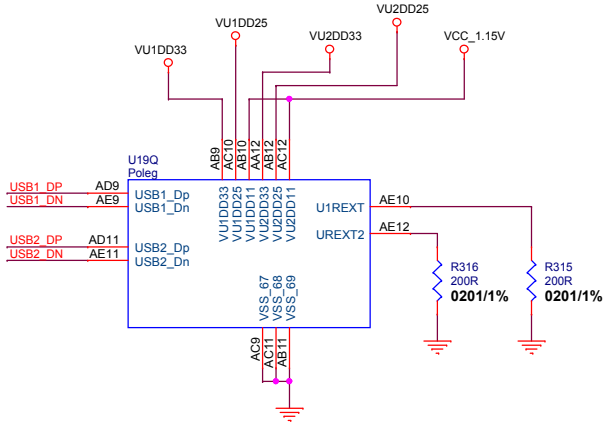




USB Type A

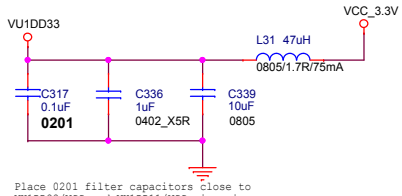


Design Note:
ESD diodes and EMI beads are required
in case USB signals are routed to external header.

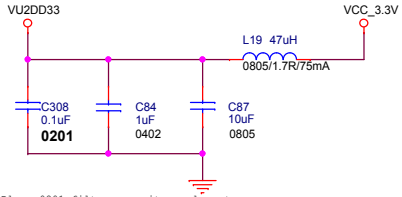


Problem:
For bead L1 and L2 symbols,
pin 3 is swapped with pin 4. Therefore, DN is connected to DP.

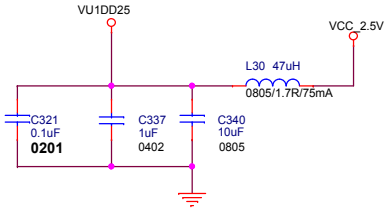
ECN:
Mount the bead on pads 3 and 4;
connect wire between pin 1 and pad 2;
connect wire between pin 2 and pad 1.



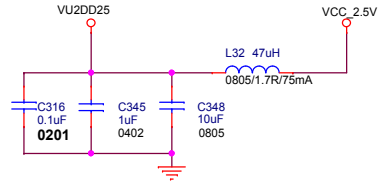
Place 0201 filter capacitors close to
VU1DD33/VSS and VU1DD11/VSS pin pairs.



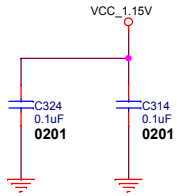
Place 0201 filter capacitors close to
VU2DD33/VSS and VU1DD11/VSS pin pairs.



Place 0201 filter capacitors close to
VU1DD25/VSS and VU1DD11/VSS pin pairs.



Place 0201 filter capacitors close to
VU2DD25/VSS and VU1DD11/VSS pin pairs.



Place 0201 filter capacitors close to
VU2DD11/VSS and VU1DD11/VSS pin pairs.

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TITLE: **USB Device and Host**

DWG NO		Sheet	Rev
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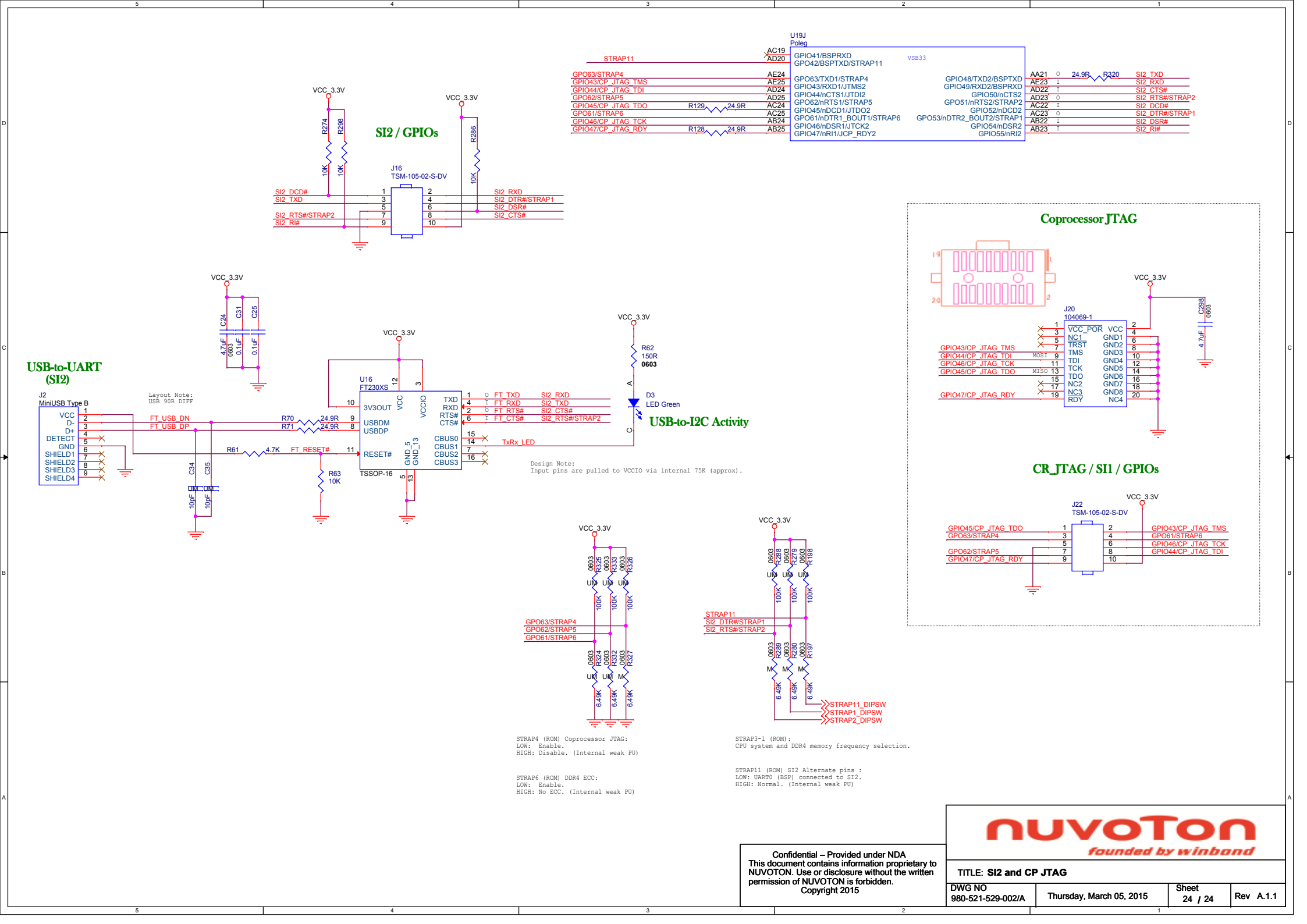

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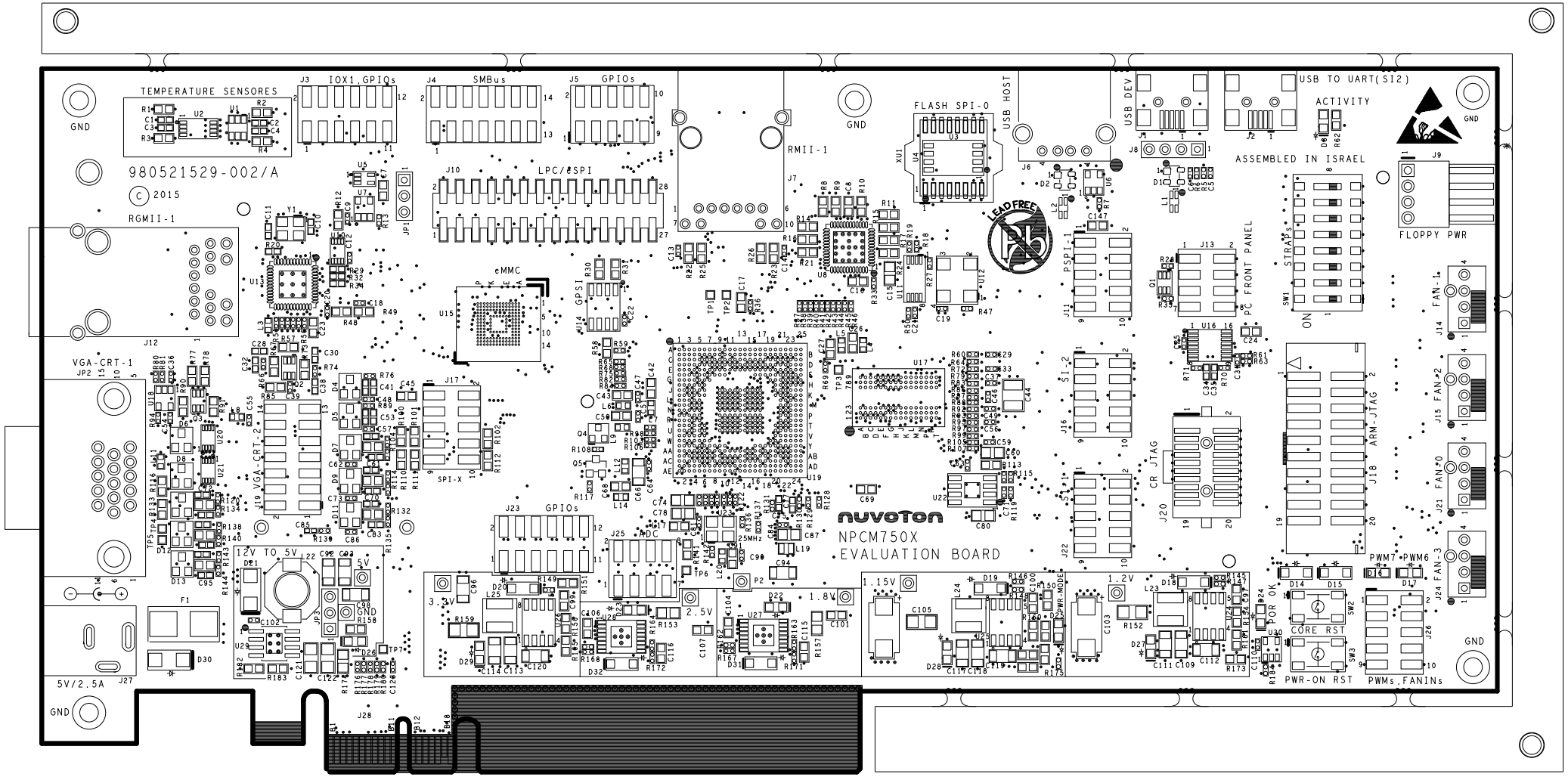
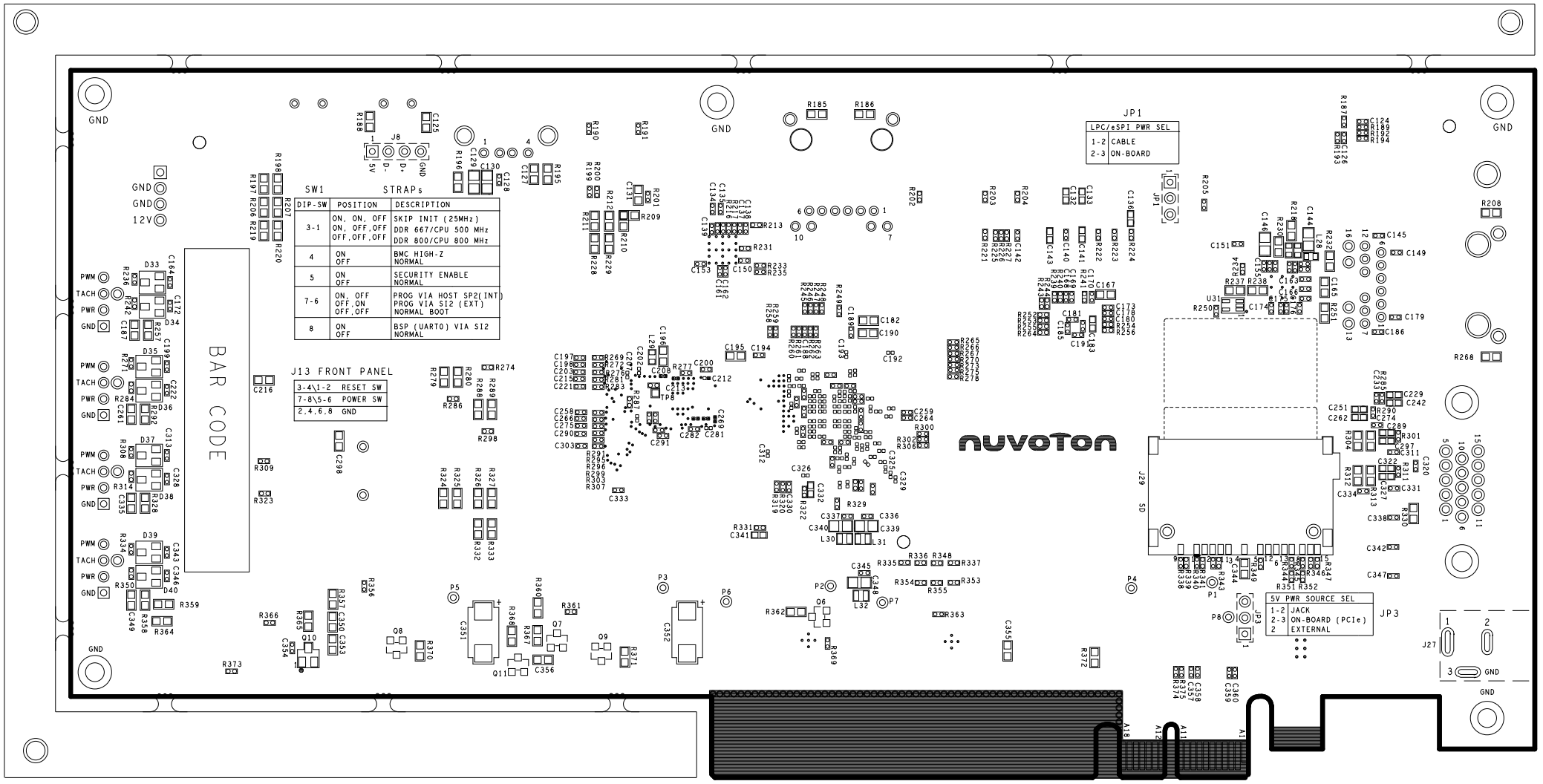
TITLE: **SI2 and CP JTAG**

DWG NO		Sheet	Rev
980-521-529-002/A	Thursday, March 05, 2015	24 / 24	A.1.1

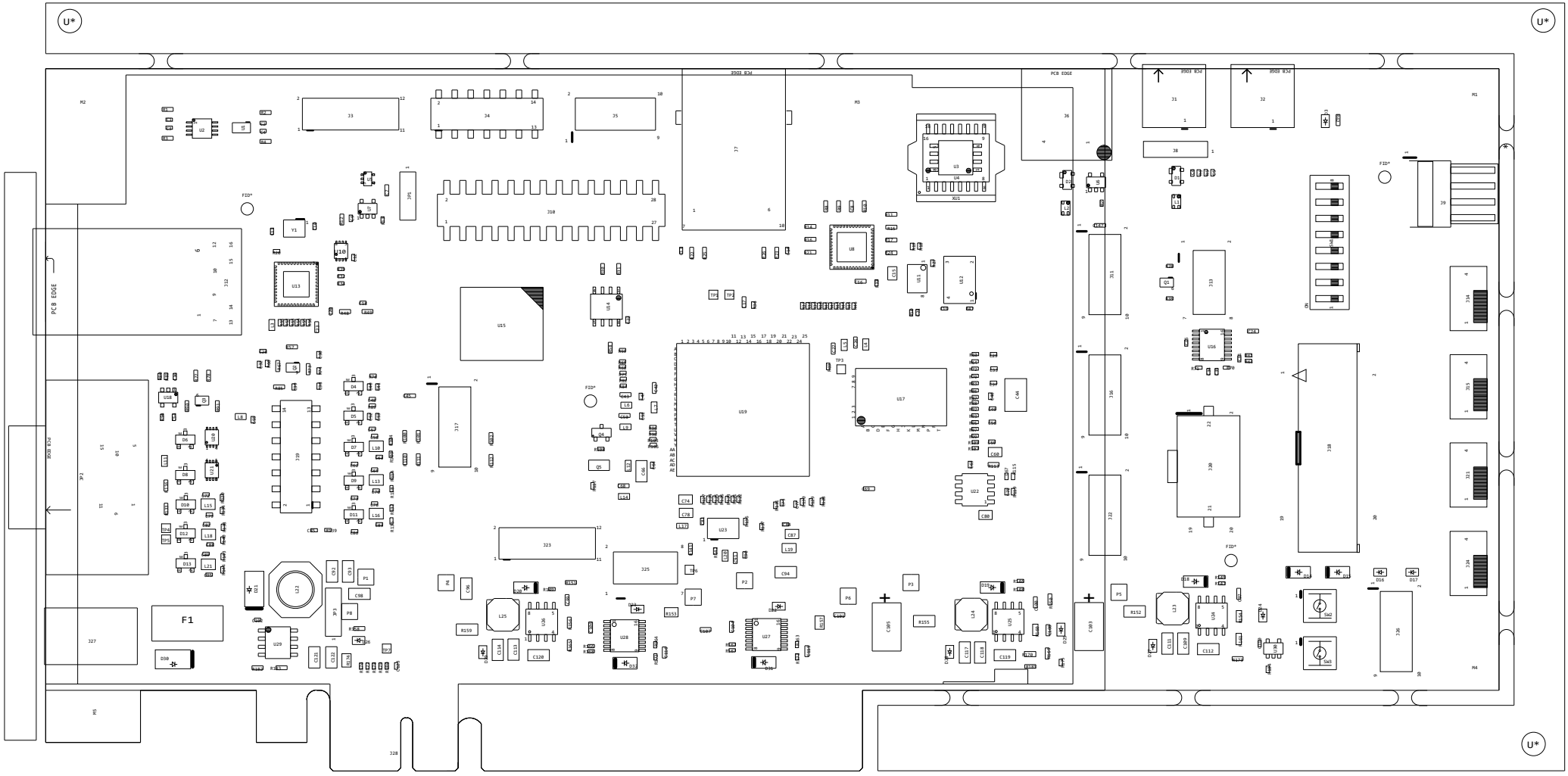
SILK TOP


TEMPERATURE SENSORES
J3 IOX1 GPIOs
J4 SMBus
J5 GPIOs
980521529-002/A
© 2015
RGMII-1
J10 LPC/eSPI
RMII-1
FLASH SPI-0
USB HOST
USB DEV
USB TO UART(SI2)
ACTIVITY
ASSEMBLED IN ISRAEL
FLOPPY PWR
PSPI-1
PC FRONT PANEL
STRAPS
ON
eMMC
GPSI
SPI-X
VGA-CRT-1
VGA-CRT-2
J23 GPIOs
J25 ADC
CR JTAG
ARM-JTAG
FAN-1
FAN-2
FAN-0
FAN-3
PWM7
PWM6
nuvoTon
NPCM750X
EVALUATION BOARD
12V TO 5V
3.3V
2.5V
1.8V
1.15V
1.2V
PWR-MODE
POR OK
CORE RST
PWR-ON RST
PWMs,FANINs
5V/2.5A
GND

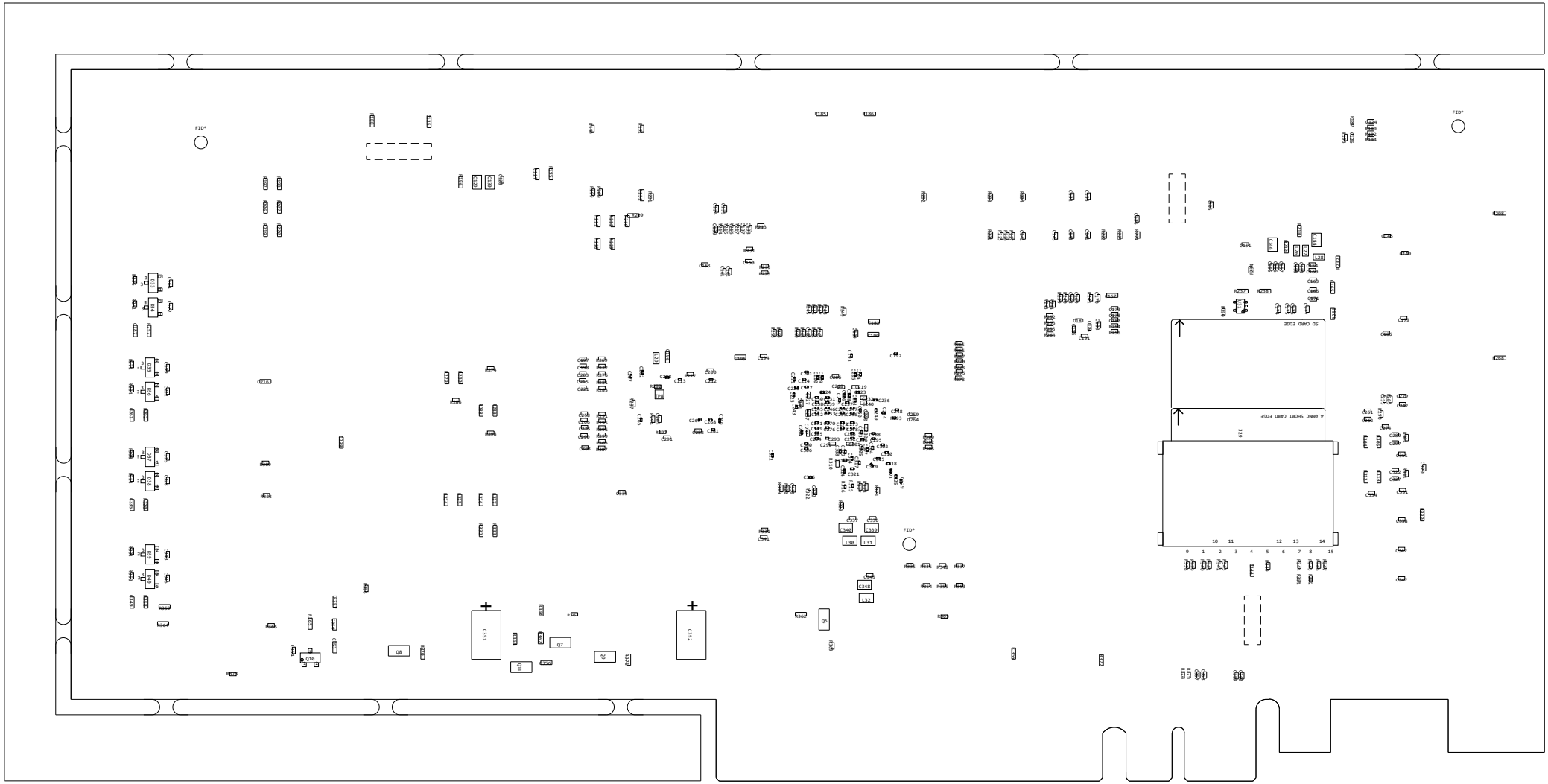
SILK BOTTOM


SW1
STRAPs
DIP-SW | POSITION | DESCRIPTION
3-1 | ON, ON, OFF / ON, OFF,OFF / OFF,OFF,OFF | SKIP INIT (25MHz) / DDR 667/CPU 500 MHz / DDR 800/CPU 800 MHz
4 | ON / OFF | BMC HIGH-Z / NORMAL
5 | ON / OFF | SECURITY ENABLE / NORMAL
7-6 | ON, OFF / OFF,ON / OFF,OFF | PROG VIA HOST SP2(INT) / PROG VIA SI2 (EXT) / NORMAL BOOT
8 | ON / OFF | BSP (UART0) VIA SI2 / NORMAL
J13 FRONT PANEL
3-4\1-2 RESET SW
7-8\5-6 POWER SW
2,4,6,8 GND
JP1
LPC/eSPI PWR SEL
1-2 CABLE
2-3 ON-BOARD
JP3
5V PWR SOURCE SEL
1-2 JACK
2-3 ON-BOARD (PCIe)
2 EXTERNAL
BAR CODE
GND
12V
PWM
TACH
PWR
nuvoTon

ASSEMBLY TOP



ASSEMBLY BOTTOM



BOM

Part Number	Value	Mount	Part Reference	Description
880100015		UM	J28	PCB PCIe Edge Connector X1
880400377		M	SW1	SWITCH DIP SMD SPST 8 Switches FP=2.54mmX7.62mm
880500732	0.01R	M	R155	RES SMD 0.01R 2W 1206
880500716	0.1R	M	R152	RES SMD 0.1R 2W 1206
880500716	0.1R	M	R159	RES SMD 0.1R 2W 1206
880600313	0.1uF	M	C5	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C12	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C13	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C14	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C18	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C19	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C20	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C21	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C22	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C25	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C29	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C31	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C33	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C37	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C39	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C46	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C48	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C49	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C56	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C57	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C59	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C62	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C73	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C81	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C86	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C110	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C123	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C124	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C126	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C135	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C137	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C138	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C139	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C140	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C142	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C145	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C149	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C150	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C151	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C153	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C154	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C156	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C157	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C158	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C159	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C160	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C162	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C164	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C169	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C170	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C171	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C172	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C173	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C176	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C177	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C178	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C179	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C180	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C181	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C184	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C185	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C186	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C191	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C192	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C193	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C197	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C198	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C199	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C201	CAP CER X5R SMD 0.1uF 10% 10V 0201

880600313	0.1uF	M	C203	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C204	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C205	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C208	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C209	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C210	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C211	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C213	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C214	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C215	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C217	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C220	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C221	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C222	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C224	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C225	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C226	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C228	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C230	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C231	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C233	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C237	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C244	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C245	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C246	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C248	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C249	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C250	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C252	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C254	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C256	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C258	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C259	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C264	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C265	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C266	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C268	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C269	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C270	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C271	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C272	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C274	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C275	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C277	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C278	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C281	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C283	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C285	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C286	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C288	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C290	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C292	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C293	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C295	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C296	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C300	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C302	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C303	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C304	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C305	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C307	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C308	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C309	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C310	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C311	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C312	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C313	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C314	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C315	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C316	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C317	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C318	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C319	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C321	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C323	CAP CER X5R SMD 0.1uF 10% 10V 0201

880600372	0.1uF	M	C324	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C325	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600372	0.1uF	M	C326	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C328	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600372	0.1uF	M	C329	CAP CER X5R SMD 0.1uF 10% 10V 0201
880600313	0.1uF	M	C331	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C333	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C334	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C338	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C342	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C343	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C346	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C347	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C357	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C358	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C359	CAP CER X7R SMD 0.1uF 10% 16V 0402
880600313	0.1uF	M	C360	CAP CER X7R SMD 0.1uF 10% 16V 0402
880400973	0826-1X1T-23-F	M	J12	CON RJ45 TH, 1Gbit, Intergrated Magnetics + Leds
880500379	0R	M	R8	RES SMD 0R 0603
880500379	0R	M	R12	RES SMD 0R 0603
880500379	0R	M	R22	RES SMD 0R 0603
880500379	0R	M	R23	RES SMD 0R 0603
880500632	0R	M	R51	RES SMD 0R 0402
880500632	0R	M	R52	RES SMD 0R 0402
880500632	0R	M	R53	RES SMD 0R 0402
880500632	0R	M	R54	RES SMD 0R 0402
880500632	0R	M	R55	RES SMD 0R 0402
880500632	0R	M	R56	RES SMD 0R 0402
880500632	0R	M	R81	RES SMD 0R 0402
880500632	0R	M	R104	RES SMD 0R 0402
880500632	0R	M	R114	RES SMD 0R 0402
880500379	0R	UM	R116	RES SMD 0R 0603
880500632	0R	M	R120	RES SMD 0R 0402
880500632	0R	M	R132	RES SMD 0R 0402
880500632	0R	M	R138	RES SMD 0R 0402
880500379	0R	M	R141	RES SMD 0R 0603
880500632	0R	M	R143	RES SMD 0R 0402
880500632	0R	M	R145	RES SMD 0R 0402
880500632	0R	M	R146	RES SMD 0R 0402
880500257	0R	M	R153	RES SMD 0R 0805
880500257	0R	M	R157	RES SMD 0R 0805
880500632	0R	UM	R163	RES SMD 0R 0402
880500632	0R	UM	R164	RES SMD 0R 0402
880500632	0R	M	R167	RES SMD 0R 0402
880500632	0R	M	R168	RES SMD 0R 0402
880500632	0R	M	R171	RES SMD 0R 0402
880500632	0R	M	R172	RES SMD 0R 0402
880500257	0R	M	R174	RES SMD 0R 0805
880500632	0R	UM	R176	RES SMD 0R 0402
880500632	0R	UM	R178	RES SMD 0R 0402
880500379	0R	UM	R181	RES SMD 0R 0603
880500379	0R	M	R185	RES SMD 0R 0603
880500379	0R	M	R186	RES SMD 0R 0603
880500632	0R	M	R187	RES SMD 0R 0402
880500632	0R	M	R189	RES SMD 0R 0402
880500632	0R	M	R192	RES SMD 0R 0402
880500632	0R	M	R193	RES SMD 0R 0402
880500632	0R	M	R194	RES SMD 0R 0402
880500379	0R	M	R208	RES SMD 0R 0603
880500379	0R	UM	R209	RES SMD 0R 0603
880500379	0R	M	R210	RES SMD 0R 0603
880500379	0R	M	R257	RES SMD 0R 0603
880500379	0R	M	R268	RES SMD 0R 0603
880500379	0R	M	R292	RES SMD 0R 0603
880500379	0R	M	R304	RES SMD 0R 0603
880500379	0R	M	R305	RES SMD 0R 0603
880500379	0R	M	R312	RES SMD 0R 0603
880500379	0R	M	R313	RES SMD 0R 0603
880500379	0R	M	R328	RES SMD 0R 0603
880500379	0R	M	R358	RES SMD 0R 0603
880500731	1.1K	M	R115	RES SMD 1.1K 1% 0402
880500731	1.1K	M	R119	RES SMD 1.1K 1% 0402
880500731	1.1K	M	R262	RES SMD 1.1K 1% 0402
880500731	1.1K	M	R263	RES SMD 1.1K 1% 0402
880500731	1.1K	M	R294	RES SMD 1.1K 1% 0402

880500731	1.1K	M	R297	RES SMD 1.1K 1% 0402
880500728	1.24K	M	R20	RES SMD 1.24K 1% 0402
880500769	1.27K	M	R10	RES SMD 1.27K 1% 0603
880500694	100K	UM	R80	RES SMD 100K 1% 0402
880500628	100K	UM	R100	RES SMD 100K 1% 0603
880500628	100K	UM	R111	RES SMD 100K 1% 0603
880500628	100K	UM	R112	RES SMD 100K 1% 0603
880500694	100K	M	R117	RES SMD 100K 1% 0402
880500628	100K	UM	R198	RES SMD 100K 1% 0603
880500628	100K	UM	R207	RES SMD 100K 1% 0603
880500628	100K	UM	R211	RES SMD 100K 1% 0603
880500628	100K	UM	R212	RES SMD 100K 1% 0603
880500628	100K	UM	R220	RES SMD 100K 1% 0603
880500628	100K	UM	R279	RES SMD 100K 1% 0603
880500628	100K	UM	R288	RES SMD 100K 1% 0603
880500628	100K	UM	R325	RES SMD 100K 1% 0603
880500628	100K	UM	R326	RES SMD 100K 1% 0603
880500628	100K	UM	R333	RES SMD 100K 1% 0603
880500694	100K	M	R356	RES SMD 100K 1% 0402
880500694	100K	M	R369	RES SMD 100K 1% 0402
880500694	100K	M	R374	RES SMD 100K 1% 0402
880500694	100K	UM	R375	RES SMD 100K 1% 0402
880600348	100pF	M	C75	CAP CER NPO SMD 100pF 5% 50V 0402
880600348	100pF	M	C77	CAP CER NPO SMD 100pF 5% 50V 0402
880600245	100pF	UM	C108	CAP CER NPO SMD 100pF 5% 50V 0603
880600348	100pF	M	C183	CAP CER NPO SMD 100pF 5% 50V 0402
880600348	100pF	M	C332	CAP CER NPO SMD 100pF 5% 50V 0402
880600348	100pF	M	C341	CAP CER NPO SMD 100pF 5% 50V 0402
880600245	100pF	UM	C350	CAP CER NPO SMD 100pF 5% 50V 0603
880600245	100pF	M	C353	CAP CER NPO SMD 100pF 5% 50V 0603
880600245	100pF	M	C355	CAP CER NPO SMD 100pF 5% 50V 0603
880600245	100pF	M	C356	CAP CER NPO SMD 100pF 5% 50V 0603
880500380	100R	M	R48	RES SMD 100R 1% 0603
880500676	100R	M	R236	RES SMD 100R 1% 0402
880500676	100R	M	R271	RES SMD 100R 1% 0402
880500676	100R	M	R308	RES SMD 100R 1% 0402
880500676	100R	M	R334	RES SMD 100R 1% 0402
880500676	100R	M	R363	RES SMD 100R 1% 0402
880400569	104069-1	M	J20	Con SMD SHROUDED PCB D-ROW MALE STRAIGHT 20P
880500736	10K	M	R5	RES SMD 10K 1% 0402
880500736	10K	M	R7	RES SMD 10K 1% 0402
880500736	10K	M	R13	RES SMD 10K 1% 0402
880500736	10K	M	R18	RES SMD 10K 1% 0402
880500736	10K	M	R28	RES SMD 10K 1% 0402
880500381	10K	M	R30	RES SMD 10K 1% 0603
880500381	10K	M	R31	RES SMD 10K 1% 0603
880500736	10K	M	R35	RES SMD 10K 1% 0402
880500736	10K	M	R47	RES SMD 10K 1% 0402
880500381	10K	M	R58	RES SMD 10K 1% 0603
880500736	10K	M	R63	RES SMD 10K 1% 0402
880500736	10K	M	R65	RES SMD 10K 1% 0402
880500736	10K	M	R108	RES SMD 10K 1% 0402
880500736	10K	M	R130	RES SMD 10K 1% 0402
880500736	10K	M	R131	RES SMD 10K 1% 0402
880500381	10K	M	R133	RES SMD 10K 1% 0603
880500736	10K	M	R142	RES SMD 10K 1% 0402
880500736	10K	M	R147	RES SMD 10K 1% 0402
880500736	10K	M	R148	RES SMD 10K 1% 0402
880500736	10K	M	R149	RES SMD 10K 1% 0402
880500784	10K	M	R154	RES SMD 10K 0.1% 0603
880500381	10K	M	R156	RES SMD 10K 1% 0603
880500736	10K	M	R162	RES SMD 10K 1% 0402
880500736	10K	M	R166	RES SMD 10K 1% 0402
880500736	10K	M	R175	RES SMD 10K 1% 0402
880500736	10K	M	R177	RES SMD 10K 1% 0402
880500736	10K	M	R179	RES SMD 10K 1% 0402
880500736	10K	M	R180	RES SMD 10K 1% 0402
880500381	10K	M	R182	RES SMD 10K 1% 0603
880500736	10K	M	R184	RES SMD 10K 1% 0402
880500736	10K	M	R200	RES SMD 10K 1% 0402
880500736	10K	M	R202	RES SMD 10K 1% 0402
880500736	10K	M	R203	RES SMD 10K 1% 0402
880500736	10K	M	R204	RES SMD 10K 1% 0402
880500736	10K	M	R213	RES SMD 10K 1% 0402
880500736	10K	M	R221	RES SMD 10K 1% 0402

880500736	10K	M	R222	RES SMD 10K 1% 0402
880500736	10K	M	R223	RES SMD 10K 1% 0402
880500736	10K	M	R224	RES SMD 10K 1% 0402
880500736	10K	M	R225	RES SMD 10K 1% 0402
880500736	10K	M	R226	RES SMD 10K 1% 0402
880500736	10K	M	R227	RES SMD 10K 1% 0402
880500736	10K	M	R231	RES SMD 10K 1% 0402
880500736	10K	UM	R234	RES SMD 10K 1% 0402
880500736	10K	M	R242	RES SMD 10K 1% 0402
880500736	10K	M	R254	RES SMD 10K 1% 0402
880500736	10K	M	R274	RES SMD 10K 1% 0402
880500736	10K	M	R282	RES SMD 10K 1% 0402
880500736	10K	M	R284	RES SMD 10K 1% 0402
880500736	10K	M	R286	RES SMD 10K 1% 0402
880500736	10K	M	R287	RES SMD 10K 1% 0402
880500736	10K	M	R298	RES SMD 10K 1% 0402
880500736	10K	M	R309	RES SMD 10K 1% 0402
880500736	10K	M	R314	RES SMD 10K 1% 0402
880500736	10K	M	R322	RES SMD 10K 1% 0402
880500736	10K	M	R323	RES SMD 10K 1% 0402
880500381	10K	M	R330	RES SMD 10K 1% 0603
880500736	10K	M	R331	RES SMD 10K 1% 0402
880500736	10K	M	R335	RES SMD 10K 1% 0402
880500736	10K	M	R336	RES SMD 10K 1% 0402
880500736	10K	M	R337	RES SMD 10K 1% 0402
880500736	10K	M	R339	RES SMD 10K 1% 0402
880500736	10K	M	R341	RES SMD 10K 1% 0402
880500736	10K	M	R343	RES SMD 10K 1% 0402
880500736	10K	M	R346	RES SMD 10K 1% 0402
880500736	10K	M	R347	RES SMD 10K 1% 0402
880500736	10K	M	R348	RES SMD 10K 1% 0402
880500736	10K	M	R349	RES SMD 10K 1% 0402
880500736	10K	M	R350	RES SMD 10K 1% 0402
880500736	10K	M	R351	RES SMD 10K 1% 0402
880500736	10K	M	R352	RES SMD 10K 1% 0402
880500736	10K	M	R353	RES SMD 10K 1% 0402
880500736	10K	M	R354	RES SMD 10K 1% 0402
880500736	10K	M	R355	RES SMD 10K 1% 0402
880500736	10K	M	R361	RES SMD 10K 1% 0402
880500736	10K	M	R366	RES SMD 10K 1% 0402
880500381	10K	M	R368	RES SMD 10K 1% 0603
880500736	10K	M	R373	RES SMD 10K 1% 0402
880600243	10nF	M	C97	CAP CER X7R SMD 10nF 10% 50V 0603
880600243	10nF	M	C100	CAP CER X7R SMD 10nF 10% 50V 0603
880600320	10nF	M	C102	CAP CER X7R SMD 10nF 10% 16V 0402
880600320	10nF	M	C134	CAP CER X7R SMD 10nF 10% 16V 0402
880600320	10nF	M	C161	CAP CER X7R SMD 10nF 10% 16V 0402
880600375	10nF	M	C207	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C212	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C239	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C243	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C247	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C253	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C255	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C276	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C284	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C294	CAP CER X5R SMD 10nF 10% 10V 0201
880600375	10nF	M	C306	CAP CER X5R SMD 10nF 10% 10V 0201
880600320	10nF	M	C354	CAP CER X7R SMD 10nF 10% 16V 0402
880600339	10pF	M	C1	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C2	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C3	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C4	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C28	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C30	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C32	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	UM	C34	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	UM	C35	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C38	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C40	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C41	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C52	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C53	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C58	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C61	CAP CER NPO SMD 10pF 5% 50V 0402

880600339	10pF	M	C65	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C70	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C72	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C76	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C79	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C82	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C83	CAP CER NPO SMD 10pF 5% 50V 0402
880600363	10pF	M	C85	CAP CER NPO SMD 10pF 1% 50V 0402
880600339	10pF	M	C88	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C89	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C95	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	UM	C132	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	UM	C133	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	UM	C136	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	UM	C141	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	UM	C143	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C229	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C242	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C251	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C262	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C289	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C297	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C322	CAP CER NPO SMD 10pF 5% 50V 0402
880600339	10pF	M	C327	CAP CER NPO SMD 10pF 5% 50V 0402
880500451	10R	M	R169	RES SMD 10R 1% 0603
880500451	10R	M	R173	RES SMD 10R 1% 0603
880600340	10uF	M	C15	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C60	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C74	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C78	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C80	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C87	CAP CER X7R SMD 10uF 10% 16V 0805
880600329	10uF	M	C121	CAP CER X5R SMD 10uF 10% 25V 1206
880600329	10uF	M	C122	CAP CER X5R SMD 10uF 10% 25V 1206
880600340	10uF	M	C129	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C130	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C144	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C146	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C339	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C340	CAP CER X7R SMD 10uF 10% 16V 0805
880600340	10uF	M	C348	CAP CER X7R SMD 10uF 10% 16V 0805
880900818	120nH	M	L10	Inductor SMD 120nH 240mA 0.7ohm 0805
880900818	120nH	M	L13	Inductor SMD 120nH 240mA 0.7ohm 0805
880900818	120nH	M	L15	Inductor SMD 120nH 240mA 0.7ohm 0805
880900818	120nH	M	L16	Inductor SMD 120nH 240mA 0.7ohm 0805
880900818	120nH	M	L18	Inductor SMD 120nH 240mA 0.7ohm 0805
880900818	120nH	M	L21	Inductor SMD 120nH 240mA 0.7ohm 0805
880500402	121R	M	R49	RES SMD 121R 1% 0603
880500402	121R	M	R232	RES SMD 121R 1% 0603
880500402	121R	M	R251	RES SMD 121R 1% 0603
880500387	150R	M	R62	RES SMD 150R 1% 0603
880500674	150R	M	R109	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R118	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R121	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R122	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R123	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R134	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R135	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R140	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R144	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R318	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R321	RES SMD 150R 0.1% 50PPM 0402
880500674	150R	M	R329	RES SMD 150R 0.1% 50PPM 0402
880500387	150R	M	R365	RES SMD 150R 1% 0603
880500783	15K	M	R160	RES SMD 15K 0.1% 0603
880600351	18pF	M	C10	CAP CER NPO SMD 18pF 5% 16V 0402
880600351	18pF	M	C11	CAP CER NPO SMD 18pF 5% 16V 0402
880500382	1K	M	R113	RES SMD 1K 1% 0603
880900847	1K@100MHz	M	L17	Bead SMD 1K@100MHz 400mA 500mR 25% 0603
880500385	1M	UM	R188	RES SMD 1M 1% 0603
880500385	1M	UM	R195	RES SMD 1M 1% 0603
880600373	1nF	M	C202	CAP CER X5R SMD 1nF 10% 10V 0201
880600373	1nF	M	C223	CAP CER X5R SMD 1nF 10% 10V 0201
880600373	1nF	M	C234	CAP CER X5R SMD 1nF 10% 10V 0201
880600373	1nF	M	C235	CAP CER X5R SMD 1nF 10% 10V 0201

880600373	1nF	M	C236	CAP CER X5R SMD 1nF 10% 10V 0201
880600373	1nF	M	C238	CAP CER X5R SMD 1nF 10% 10V 0201
880600373	1nF	M	C267	CAP CER X5R SMD 1nF 10% 10V 0201
880600373	1nF	M	C273	CAP CER X5R SMD 1nF 10% 10V 0201
880600373	1nF	M	C279	CAP CER X5R SMD 1nF 10% 10V 0201
880600337	1uF	M	C6	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C9	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C36	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C47	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C51	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C54	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C55	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C63	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C64	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C67	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C71	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C84	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C90	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C128	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C155	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C163	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C166	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C168	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C174	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C175	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C188	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C189	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C194	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C200	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C206	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C218	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C219	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C227	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C232	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C240	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C241	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C257	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C260	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C263	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C280	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C282	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C287	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C291	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C299	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C301	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C320	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C330	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C336	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C337	CAP CER X7R SMD 1uF 10% 10V 0402
880600337	1uF	M	C345	CAP CER X7R SMD 1uF 10% 10V 0402
880500455	2.21K	M	R67	RES SMD 2.21K 1% 0603
880500455	2.21K	M	R73	RES SMD 2.21K 1% 0603
880500455	2.21K	M	R77	RES SMD 2.21K 1% 0603
880500455	2.21K	M	R91	RES SMD 2.21K 1% 0603
880600308	2.2uF	M	C8	CAP CER X7R SMD2.2uF 10% 16V 0603
880600308	2.2uF	M	C16	CAP CER X7R SMD2.2uF 10% 16V 0603
880900889	2.5A	M	F1	Fuse Block SMD Very-Fast-Acting 2.5A 125V
880500767	200R	M	R293	RES SMD 200R 1% 0201
880500767	200R	M	R315	RES SMD 200R 1% 0201
880500767	200R	M	R316	RES SMD 200R 1% 0201
880900834	220R@100MHz	M	L3	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L4	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L5	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L6	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L7	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L8	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L9	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L11	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L12	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L14	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L20	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L26	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L27	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L28	Bead SMD 220R@100MHz 2.2A 50mR 0603
880900834	220R@100MHz	M	L29	Bead SMD 220R@100MHz 2.2A 50mR 0603

880500621	221R	M	R25	RES SMD 221R 1% 0603
880500621	221R	M	R26	RES SMD 221R 1% 0603
880500621	221R	M	R150	RES SMD 221R 1% 0603
880500621	221R	M	R359	RES SMD 221R 1% 0603
880500621	221R	M	R362	RES SMD 221R 1% 0603
880500621	221R	M	R364	RES SMD 221R 1% 0603
880500621	221R	M	R370	RES SMD 221R 1% 0603
880500621	221R	M	R371	RES SMD 221R 1% 0603
880500621	221R	M	R372	RES SMD 221R 1% 0603
880600357	22uF	M	C66	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C92	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C93	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C94	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C96	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C98	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C109	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C111	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C112	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C113	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C114	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C117	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C118	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C119	CAP CER X5R SMD 22uF 10% 16V 1206
880600357	22uF	M	C120	CAP CER X5R SMD 22uF 10% 16V 1206
880900747	22uH	M	L22	INDUCTOR POWER SMD Shielded 22uH at 100KHz 75mR 2.6A
880500666	24.9R	M	R19	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R27	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R33	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R36	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R37	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R38	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R39	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R40	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R41	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R42	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R43	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R44	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R45	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R46	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R50	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R59	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R68	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R70	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R71	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R75	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R82	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R84	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R96	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R98	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R103	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R106	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R124	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R125	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R126	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R127	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R128	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R129	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R136	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R137	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R139	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R190	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R191	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R199	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R201	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R233	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R235	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R245	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R246	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R247	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R248	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R249	RES SMD 24.9R 1% 0402
880500666	24.9R	UM	R250	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R258	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R259	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R260	RES SMD 24.9R 1% 0402

880500666	24.9R	M	R261	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R265	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R266	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R267	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R270	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R273	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R275	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R278	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R300	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R302	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R306	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R310	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R319	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R320	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R338	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R340	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R342	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R344	RES SMD 24.9R 1% 0402
880500666	24.9R	M	R345	RES SMD 24.9R 1% 0402
880500772	240R	M	R69	RES SMD 240R 0.5% 0402
880500772	240R	M	R277	RES SMD 240R 0.5% 0402
880900812	25.000MHz	M	U23	Crystal Clock OSC SMD 25MHz 50ppm 3.3V 3.2X5mm
880400067	2516p01x	M	P1	Header S-row 1P male Straight 2.54 square
880400067	2516p01x	UM	P2	Header S-row 1P male Straight 2.54 square
880400067	2516p01x	M	P3	Header S-row 1P male Straight 2.54 square
880400067	2516p01x	M	P4	Header S-row 1P male Straight 2.54 square
880400067	2516p01x	M	P5	Header S-row 1P male Straight 2.54 square
880400067	2516p01x	M	P6	Header S-row 1P male Straight 2.54 square
880400067	2516p01x	M	P7	Header S-row 1P male Straight 2.54 square
880400067	2516p01x	M	P8	Header S-row 1P male Straight 2.54 square
880400004	2516P03	M	JP1	HEADER S-ROW 3P MALESTRAIGHT 2.54 SQUARE
880400004	2516P03	M	JP3	HEADER S-ROW 3P MALESTRAIGHT 2.54 SQUARE
880900815	25MHz	M	Y1	Crystal SMD 25MHz 30ppm 18pF 3.2 X 2.5mm BGA-4
880500742	2K	M	R357	RES SMD 2K 1% 0603
880500742	2K	M	R360	RES SMD 2K 1% 0603
880900800	2N7002DW	M	Q1	MOSFET SMD Dual N-Channel Enh. 20V 115mA 200mW SOT-363
880900800	2N7002DW	M	Q2	MOSFET SMD Dual N-Channel Enh. 20V 115mA 200mW SOT-363
880900800	2N7002DW	M	Q3	MOSFET SMD Dual N-Channel Enh. 20V 115mA 200mW SOT-363
880500670	3.01K	M	R94	RES SMD 3.01K 1% 0402
880500670	3.01K	M	R205	RES SMD 3.01K 1% 0402
880500775	3.74K	M	R317	RES SMD 3.74K 1% 0402
880500675	31.6K	M	R165	RES SMD 31.6K 1% 0603
880500675	31.6K	M	R183	RES SMD 31.6K 1% 0603
880500467	330R	M	R158	RES SMD 330R 5% 0603
880600371	330uF	M	C103	CAP TANT SMD Low-ESR 330uF 20% 6.3V Size D
880600371	330uF	M	C105	CAP TANT SMD Low-ESR 330uF 20% 6.3V Size D
880600371	330uF	M	C351	CAP TANT SMD Low-ESR 330uF 20% 6.3V Size D
880600371	330uF	M	C352	CAP TANT SMD Low-ESR 330uF 20% 6.3V Size D
880500726	33R	M	R66	RES SMD 33R 1% 0402
880500726	33R	M	R74	RES SMD 33R 1% 0402
880500726	33R	M	R76	RES SMD 33R 1% 0402
880500726	33R	M	R89	RES SMD 33R 1% 0402
880500726	33R	M	R285	RES SMD 33R 1% 0402
880500726	33R	M	R290	RES SMD 33R 1% 0402
880500726	33R	M	R301	RES SMD 33R 1% 0402
880500726	33R	M	R311	RES SMD 33R 1% 0402
880500458	4.75K	M	R1	RES SMD 4.75K 1% 0603
880500458	4.75K	M	R2	RES SMD 4.75K 1% 0603
880500458	4.75K	M	R3	RES SMD 4.75K 1% 0603
880500458	4.75K	M	R4	RES SMD 4.75K 1% 0603
880500458	4.75K	M	R57	RES SMD 4.75K 1% 0603
880500458	4.75K	M	R78	RES SMD 4.75K 1% 0603
880500458	4.75K	M	R85	RES SMD 4.75K 1% 0603
880500458	4.75K	M	R90	RES SMD 4.75K 1% 0603
880500774	4.7K	M	R6	RES SMD 4.7K 1% 0402
880500753	4.7K	M	R9	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R11	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R14	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R15	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R16	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R17	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R21	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R24	RES SMD 4.7K 1% 0603
880500774	4.7K	M	R61	RES SMD 4.7K 1% 0402
880500753	4.7K	UM	R218	RES SMD 4.7K 1% 0603

880500753	4.7K	UM	R230	RES SMD 4.7K 1% 0603
880500753	4.7K	M	R237	RES SMD 4.7K 1% 0603
880500753	4.7K	UM	R238	RES SMD 4.7K 1% 0603
880600360	4.7nF	UM	C125	CAP CER X7R SMD 4.7nF 10% 50V 0603
880600360	4.7nF	UM	C127	CAP CER X7R SMD 4.7nF 10% 50V 0603
880600333	4.7uF	M	C7	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C17	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C23	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C24	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C26	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C27	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C42	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C43	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C45	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C50	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C68	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C69	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C91	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C101	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C104	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C106	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C107	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C115	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C116	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C131	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C147	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C165	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C167	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C182	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C187	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C190	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C195	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C196	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C216	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C261	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C298	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C335	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C344	CAP CER X7R SMD 4.7uF 10% 25V 0603
880600333	4.7uF	M	C349	CAP CER X7R SMD 4.7uF 10% 25V 0603
880900888	4.7uH	M	L23	Inductor SMD 4.7uH at 100Kz 30% 30mR 3.3A 5040
880900888	4.7uH	M	L24	Inductor SMD 4.7uH at 100Kz 30% 30mR 3.3A 5040
880900888	4.7uH	M	L25	Inductor SMD 4.7uH at 100Kz 30% 30mR 3.3A 5040
880500733	4.87K	UM	R29	RES SMD 4.87K 1% 0402
880500733	4.87K	M	R32	RES SMD 4.87K 1% 0402
880500733	4.87K	M	R34	RES SMD 4.87K 1% 0402
880500770	47.5R	M	R60	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R64	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R72	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R79	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R83	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R86	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R87	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R88	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R92	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R93	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R95	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R97	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R99	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R105	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R107	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R214	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R215	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R216	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R217	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R269	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R272	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R276	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R281	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R283	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R291	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R295	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R296	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R299	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R303	RES SMD 47.5R 1% 0402
880500770	47.5R	M	R307	RES SMD 47.5R 1% 0402

880400971	47053-1000	M	J14	HEADER Fan Lock TH 1-ROW 4P FP=2.54mm
880400971	47053-1000	M	J15	HEADER Fan Lock TH 1-ROW 4P FP=2.54mm
880400971	47053-1000	M	J21	HEADER Fan Lock TH 1-ROW 4P FP=2.54mm
880400971	47053-1000	M	J24	HEADER Fan Lock TH 1-ROW 4P FP=2.54mm
880600350	47uF	M	C44	CAP CER X5R SMD 47uF 20% 6.3V 1210
880900820	47uH	M	L19	Inductor SMD 47uH 75mA SRF=11Mhz 10% 0805
880900820	47uH	M	L30	Inductor SMD 47uH 75mA SRF=11Mhz 10% 0805
880900820	47uH	M	L31	Inductor SMD 47uH 75mA SRF=11Mhz 10% 0805
880900820	47uH	M	L32	Inductor SMD 47uH 75mA SRF=11Mhz 10% 0805
880500687	5.11K	M	R151	RES SMD 5.11K 1% 0603
880500785	5.11K	M	R161	RES SMD 5.11K 0.1% 0603
880900715	50MHz	M	U12	Crystal Clock OSC SMD 50MHz 25ppm 3.3V 7.5X5
880500657	56.2K	M	R239	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R240	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R241	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R243	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R244	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R252	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R253	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R255	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R256	RES SMD 56.2K 1% 0402
880500657	56.2K	M	R264	RES SMD 56.2K 1% 0402
880500782	6.04K	M	R170	RES SMD 6.04K 0.1% 0603
880500704	6.49K	UM	R101	RES SMD 6.49K 1% 0603
880500704	6.49K	UM	R102	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R110	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R197	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R206	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R219	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R228	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R229	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R280	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R289	RES SMD 6.49K 1% 0603
880500704	6.49K	UM	R324	RES SMD 6.49K 1% 0603
880500704	6.49K	M	R327	RES SMD 6.49K 1% 0603
880500704	6.49K	UM	R332	RES SMD 6.49K 1% 0603
880600376	6.8nF	M	C99	CAP CER X7R SMD 6.8nF 10% 50V 0603
880500386	681R	M	R196	RES SMD 681R 1% 0603
880300860	74AUP1T34GW	M	U5	IC Level Shifter Low Power Dual Supply 1.1-3.6V TSSOP5
880300860	74AUP1T34GW	M	U31	IC Level Shifter Low Power Dual Supply 1.1-3.6V TSSOP5
880300675	74LVC2G125DC	UM	U20	IC Logic SMD Dual Bus Buffer / Line Driver 1.65V-5.5V
880300675	74LVC2G125DC	UM	U21	IC Logic SMD Dual Bus Buffer / Line Driver 1.65V-5.5V
880500781	80.6K	M	R367	RES SMD 80.6K 0.1% 0603
880900883	90R@100MHz	M	L1	Bead SMD 2012 Common Mode Filter 90R@100MHz, 0.19R@DC
880900883	90R@100MHz	M	L2	Bead SMD 2012 Common Mode Filter 90R@100MHz, 0.19R@DC
880400910	ACA-SPI-006-K02	UM (ord	XU1	Socket SMD For SPI Flash FP=1.27mm SOIC-16
880900822	B360A-13-F	M	D21	Diode SMD Schottky Rectifier 60V 3A
880900822	B360A-13-F	M	D30	Diode SMD Schottky Rectifier 60V 3A
880900502	BAT54S-7-F	M	D4	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D5	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D6	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D7	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D8	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D9	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D10	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D11	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D12	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D13	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D33	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D34	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D35	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D36	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D37	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D38	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D39	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880900502	BAT54S-7-F	M	D40	Diode SMD Schottky Barrier 30V 200mA 200mW SOT23
880300892	BCM5221A4KMLG	M	U8	IC 10/100 BASE TX/FX transceiver, MII and RMII configurable 3.3V KML-48
880300893	BCM54612EB1KMLG	M	U13	IC 10/100/1000 BASE-T Gigabit Ethernet transceiver with RGMII MAC 3.3V MLP-48
880900765	BSS138	M	Q5	TRAN MOSFET N-CHANNEL ENHANCEMENT
880900765	BSS138	M	Q6	TRAN MOSFET N-CHANNEL ENHANCEMENT
880900765	BSS138	M	Q7	TRAN MOSFET N-CHANNEL ENHANCEMENT
880900765	BSS138	M	Q8	TRAN MOSFET N-CHANNEL ENHANCEMENT
880900765	BSS138	M	Q9	TRAN MOSFET N-CHANNEL ENHANCEMENT
880900765	BSS138	M	Q11	TRAN MOSFET N-CHANNEL ENHANCEMENT
880300870	CAT25512VI-GT3L	M	U14	IC Memory SMD 64Kx8 512 Kb SPI CMOS EEPROM SO-8 1.8V

880400809	CVILUX	M	JP2	CON D-TYPE VGA 15S R.A. pitch=2.29mm PCB
880300638	CY2304NZZXC1	M	U11	IC Logic SMD 4-Output PCI-X & Buffer 3.3V
880300868	EDY4016AABG-DR-F-D	M	U17	IC Memory SMD SDRAM (DDR4-3200) 4Gb (256MX16) 1.2V FBGA-96
880400747	Floppy PWR	M	J9	Con floppy power
880300788	FPF2125	M	U6	IC Switch Adjust Current Limit Vin=1.8-5.5V SOT23-5
880300788	FPF2125	M	U7	IC Switch Adjust Current Limit Vin=1.8-5.5V SOT23-5
880300788	FPF2125	M	U18	IC Switch Adjust Current Limit Vin=1.8-5.5V SOT23-5
880300899	FT230XS	M	U16	IC USB to serial UART interface VCC=5Vmax SSOP16
MECH_200RD118P	Hole_Spacer	UM	M1	Plated Spacer Hole (Internal 3mm, External 5mm)
MECH_200RD118P	Hole_Spacer	UM	M2	Plated Spacer Hole (Internal 3mm, External 5mm)
MECH_200RD118P	Hole_Spacer	UM	M3	Plated Spacer Hole (Internal 3mm, External 5mm)
MECH_200RD118P	Hole_Spacer	UM	M4	Plated Spacer Hole (Internal 3mm, External 5mm)
MECH_200RD118P	Hole_Spacer	UM	M5	Plated Spacer Hole (Internal 3mm, External 5mm)
880400680	HTST-110-01-S-DV	M	J18	Con Recept SMD D-ROW 20P 2.54MM
880900726	IRLML6402	M	Q4	MOSFET SMD P-Channel SOT-23 3.7A
880400891	JACK_PWR	M	J27	Con DC POWER JACK RA TH 2.5mm
880400010	Jumper	M	XJP1	JUMPER Socket 1-ROW 2.54mm Sq Black H=13.75mm
880400010	Jumper	M	XJP3	JUMPER Socket 1-ROW 2.54mm Sq Black H=13.75mm
880900777	LED Green	M	D3	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D17	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D22	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D23	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D25	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D26	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D27	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D28	LED SMD Green 570nm 5mA 1.95V 0805
880900777	LED Green	M	D29	LED SMD Green 570nm 5mA 1.95V 0805
880900778	LED Red	M	D16	LED SMD Red 570nm 5mA 1.8V 0805
880900778	LED Red	M	D24	LED SMD Red 570nm 5mA 1.8V 0805
880300667	LM75	M	U2	IC Linear SMD Temp sensor & Watchdog 3.3V MSOP-8
880300553	MAX1793EUE-18+	M	U27	IC Linear SMD Regulator 1A 1.8V TSSOP-16
880300554	MAX1793EUE-25+	M	U28	IC Linear SMD Regulator 1A 3.3V TSSOP-16
880300776	MAX6414UK30T	M	U30	IC Reset Supervisor Low Power 6V 20mA
880900738	MBR130T1	UM	D14	Diode Schottky SMD 1A 30V SOD-123
880900738	MBR130T1	M	D15	Diode Schottky SMD 1A 30V SOD-123
880900738	MBR130T1	M	D18	Diode Schottky SMD 1A 30V SOD-123
880900738	MBR130T1	M	D19	Diode Schottky SMD 1A 30V SOD-123
880900738	MBR130T1	M	D20	Diode Schottky SMD 1A 30V SOD-123
880900738	MBR130T1	M	D31	Diode Schottky SMD 1A 30V SOD-123
880900738	MBR130T1	M	D32	Diode Schottky SMD 1A 30V SOD-123
880300876	MTFC4GACAEAM-1M WT	M	U15	IC Memory eMMC 4GB v5.0-compliant 3.3V WFBGA-153
880400740	MUSB-05-X-AB-SM-A	M	J1	CON MINI USB Type AB
880400740	MUSB-05-X-AB-SM-A	M	J2	CON MINI USB Type AB
880300837	NCP3170ADR2G	M	U24	IC Synchronous PWM Switching Buck Regulator 18Vmax SOIC8
880300837	NCP3170ADR2G	M	U25	IC Synchronous PWM Switching Buck Regulator 18Vmax SOIC8
880300837	NCP3170ADR2G	M	U26	IC Synchronous PWM Switching Buck Regulator 18Vmax SOIC8
880300877	NCT3101S	M	U22	IC Bus Termination Regulator for DDR4 2A 7Vmax ESOP8
880900650	P- Channel	M	Q10	MOSFET SMD P-Channel Ehancment 50V 130mA 200mW SOT-23
880400774	PH1M25-206GDBOOR8.3/7.5/3.81-U	M	J3	Header SMD 2-ROW 12P FP=2.54mm Sq
880400774	PH1M25-206GDBOOR8.3/7.5/3.81-U	M	J23	Header SMD 2-ROW 12P FP=2.54mm Sq
880200714	Poleg	M	U19	IC Microcontroller SMD BMC 2D Graphic Core KVM FCBGA-517 3.3V-2.5V
880900884	PRTR5V0U2X	M	D1	Diode SMD Ultra low cap double rail2rail ESD Vr=3V SOT-143
880900884	PRTR5V0U2X	M	D2	Diode SMD Ultra low cap double rail2rail ESD Vr=3V SOT-143
880400793	PTS525-S-M-10	M	SW2	Switch TACT SMD
880400793	PTS525-S-M-10	M	SW3	Switch TACT SMD
880400968	RJ45_0810-1XX1-01	M	J7	CON LAN TH include magnetics 10/100BASE-TX for BroadCom
880400888	SDC013-00-500F	M	J29	CONN SD MMC SMD SHORT 19P
880400038	SNT_100_BK_T	M	J8	Header S-row 4P male Straight 2.54 square
880300760	TMP100	M	U1	IC Temprature Sensor With I²C Interface 2.7-5.5V SOT-23
880100008	TP	M	TP1	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP2	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP3	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP4	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP5	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP6	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP7	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP8	Terminal Test Point SMD 1mmX1mm
880300882	TPS5450DDA	M	U29	IC SMD Step Down Converter 5A 36Vmax SOIC8
880400702	TSM-104-02-S-DV	M	J13	Header SMD D-ROW 8P MALE STRAIGHT
880400702	TSM-104-02-S-DV	M	J25	Header SMD D-ROW 8P MALE STRAIGHT
880400708	TSM-105-02-S-DV	M	J5	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J11	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J16	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J17	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J22	Header SMD 2-ROW 10P FP=2.54mm

880400708	TSM-105-02-S-DV	M	J26	Header SMD 2-ROW 10P FP=2.54mm
880400775	TSM-107-02-S-DV	M	J4	HEADER SMD 2-ROW 14P FP=2.54mm Sq
880400775	TSM-107-02-S-DV	M	J19	HEADER SMD 2-ROW 14P FP=2.54mm Sq
880400970	TSM-114-02-S-DV	M	J10	HEADER SMD 2-ROW 28P FP=2.54mm Sq
880300901	TXS0102DCUR	M	U10	IC 2-Bit Bidirectional Voltage-Level Translator for Open-Drain and Push-Pull SO-8
880400812	USB-A-S_S-W-Th	M	J6	CON USB TH TYPA A R.A
880300852	W25Q128FVSG	UM	U3	IC Memory SMD Quad / Dual SPI Flash 128Mbit 2.7-3.6V SOIC8
880300872	W25Q256FVFI	M	U4	IC Memory SMD Quad Flash 50MHz-SPI-QPI-Interface 256Mb 2.7V/3.6V SO-16
880100008	TP	M	TP6	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP7	Terminal Test Point SMD 1mmX1mm
880100008	TP	M	TP8	Terminal Test Point SMD 1mmX1mm
880300882	TPS5450DDA	M	U29	IC SMD Step Down Converter 5A 36Vmax SOIC8
880400702	TSM-104-02-S-DV	M	J13	Header SMD D-ROW 8P MALE STRAIGHT
880400702	TSM-104-02-S-DV	M	J25	Header SMD D-ROW 8P MALE STRAIGHT
880400708	TSM-105-02-S-DV	M	J11	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J16	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J17	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J22	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J26	Header SMD 2-ROW 10P FP=2.54mm
880400708	TSM-105-02-S-DV	M	J5	Header SMD 2-ROW 10P FP=2.54mm
880400775	TSM-107-02-S-DV	M	J19	HEADER SMD 2-ROW 14P FP=2.54mm Sq
880400775	TSM-107-02-S-DV	M	J4	HEADER SMD 2-ROW 14P FP=2.54mm Sq
880400970	TSM-114-02-S-DV	M	J10	HEADER SMD 2-ROW 28P FP=2.54mm Sq
880300901	TXS0102DCUR	M	U10	IC 2-Bit Bidirectional Voltage-Level Translator for Open-Drain and Push-Pull SO-8
880400812	USB-A-S_S-W-Th	M	J6	CON USB TH TYPA A R.A
880300852	W25Q128FVSG	UM	U3	IC Memory SMD Quad / Dual SPI Flash 128Mbit 2.7-3.6V SOIC8
880300872	W25Q256FVFI	M	U4	IC Memory SMD Quad Flash 50MHz-SPI-QPI-Interface 256Mb 2.7V/3.6V SO-16