M2

Schematics (Rev 1.0)

JULY. 2007

Schematics Description

SHEET Number	SHEET Description
SHEET 01	01_INDEX

S3C2440A Part

SHEET 02	02_S3C2440A Local Bus	SHEET 12	12_Video Decoder / CMOS Anlaog Camera
SHEET 03	03_S3C2440A I/O	SHEET 13	13_SD, USB Host, USB Device
SHEET 04	04_S3C2440A Power , JTAG	SHEET 14	14_Button, Test LED, Buzzer
SHEET 05	05_Memory (SDRAM)	SHEET 15	15_Extension IO Connector
SHEET 06	06_NOR, NAND Flash Memory	SHEET 16	16_Power
SHEET 07	07_Local BUS Buffer	SHEET 17	17_Debuging History
SHEET 08	08_10/100M Ethernet Controller		
SHEET 09	09_4.3" TFT LCD, Touch, LED Driver		
SHEET 10	10_AC'97 Audio Codec		
SHEET 11	11_UART		

M3 S3C2440 Reference Board

OS	WinCE 5.0
CPU	SAMSUNG S3C2440A
Memory	128MBytes SDRAM 128MBytes NAND Flash, 4MByte NOR Flash
POWER	Main DC12V 2A IN CPU CORE: 1.3V , IO : 3.3V

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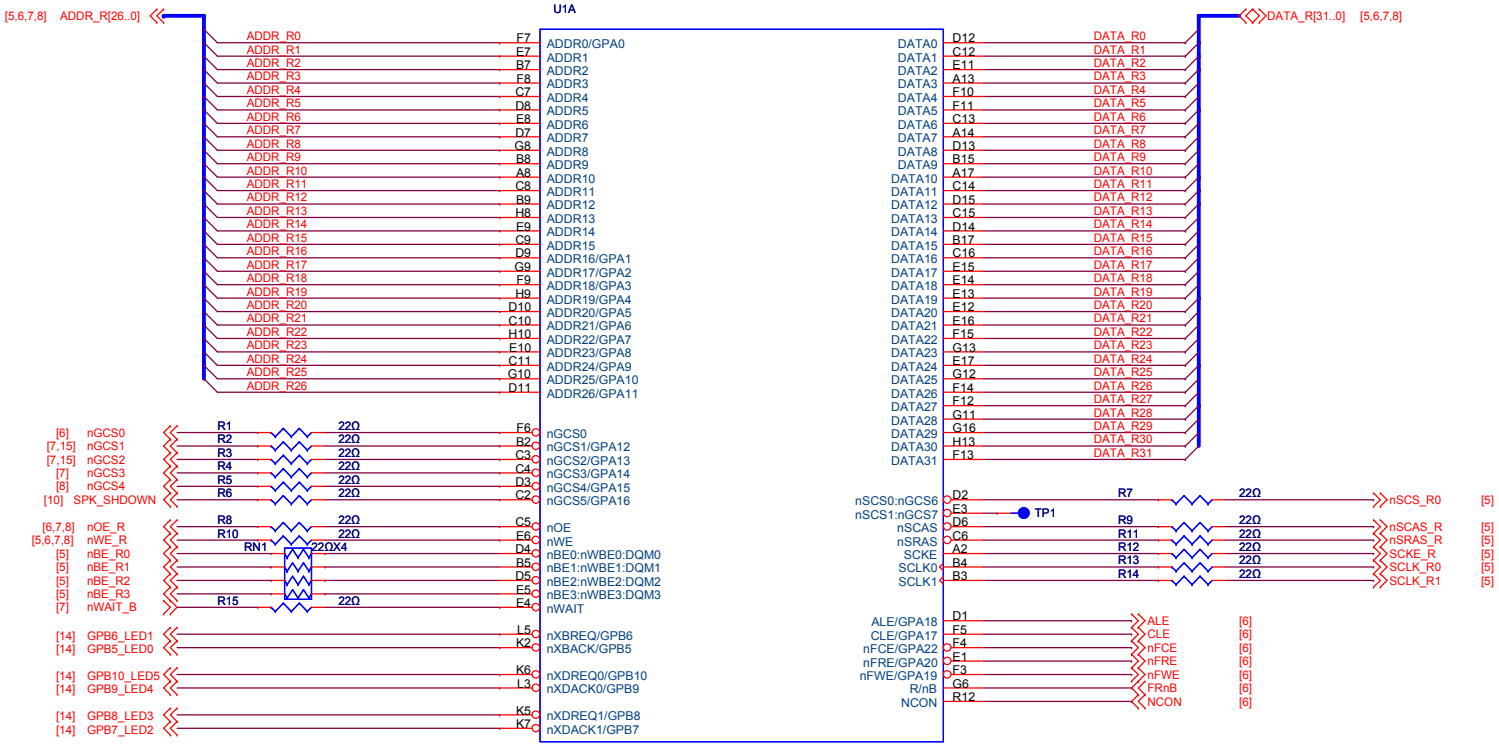
{Part Name}\t{Value}\t{PCB Footprint}\t{Quantity}\t{Reference}



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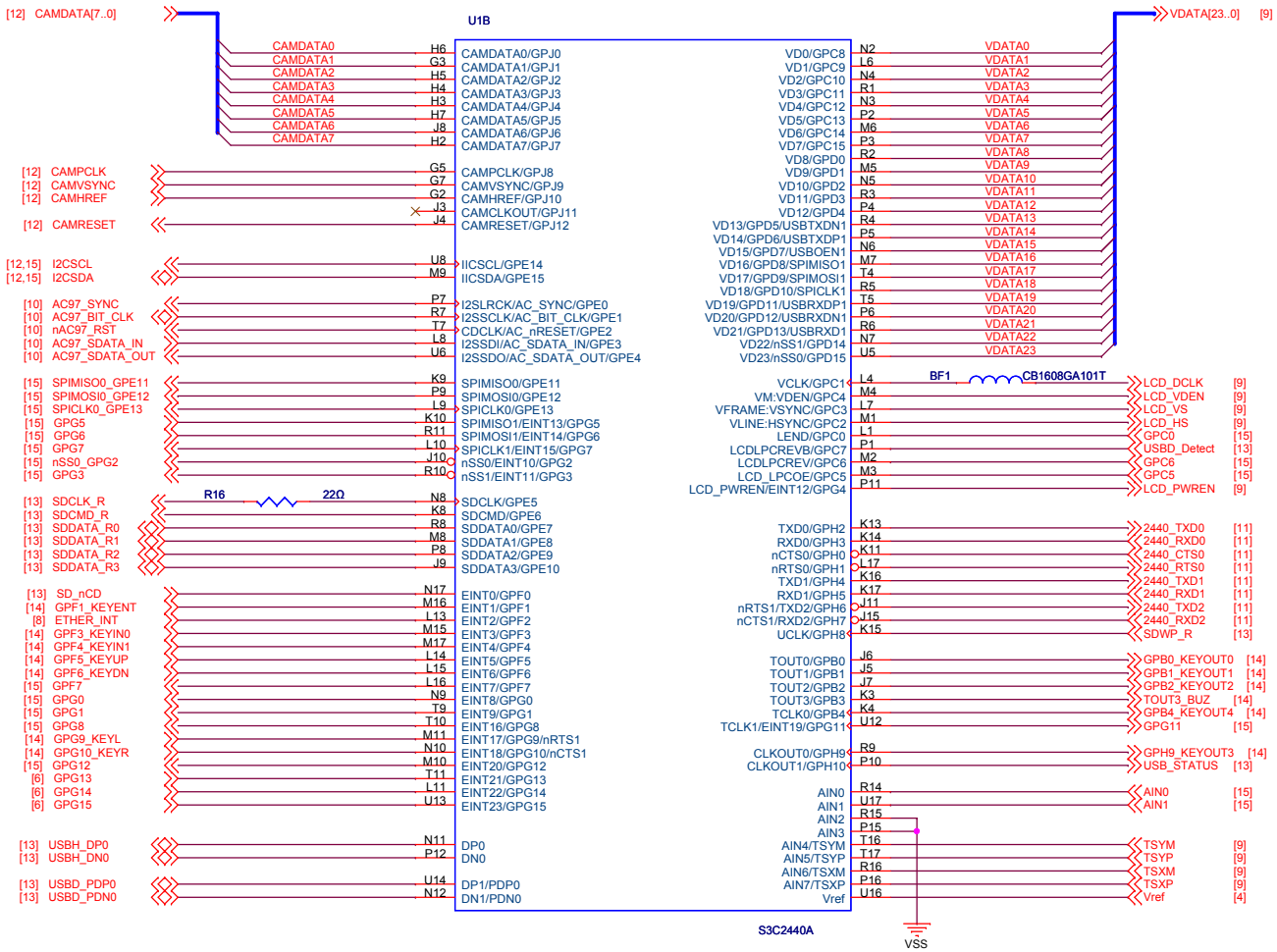

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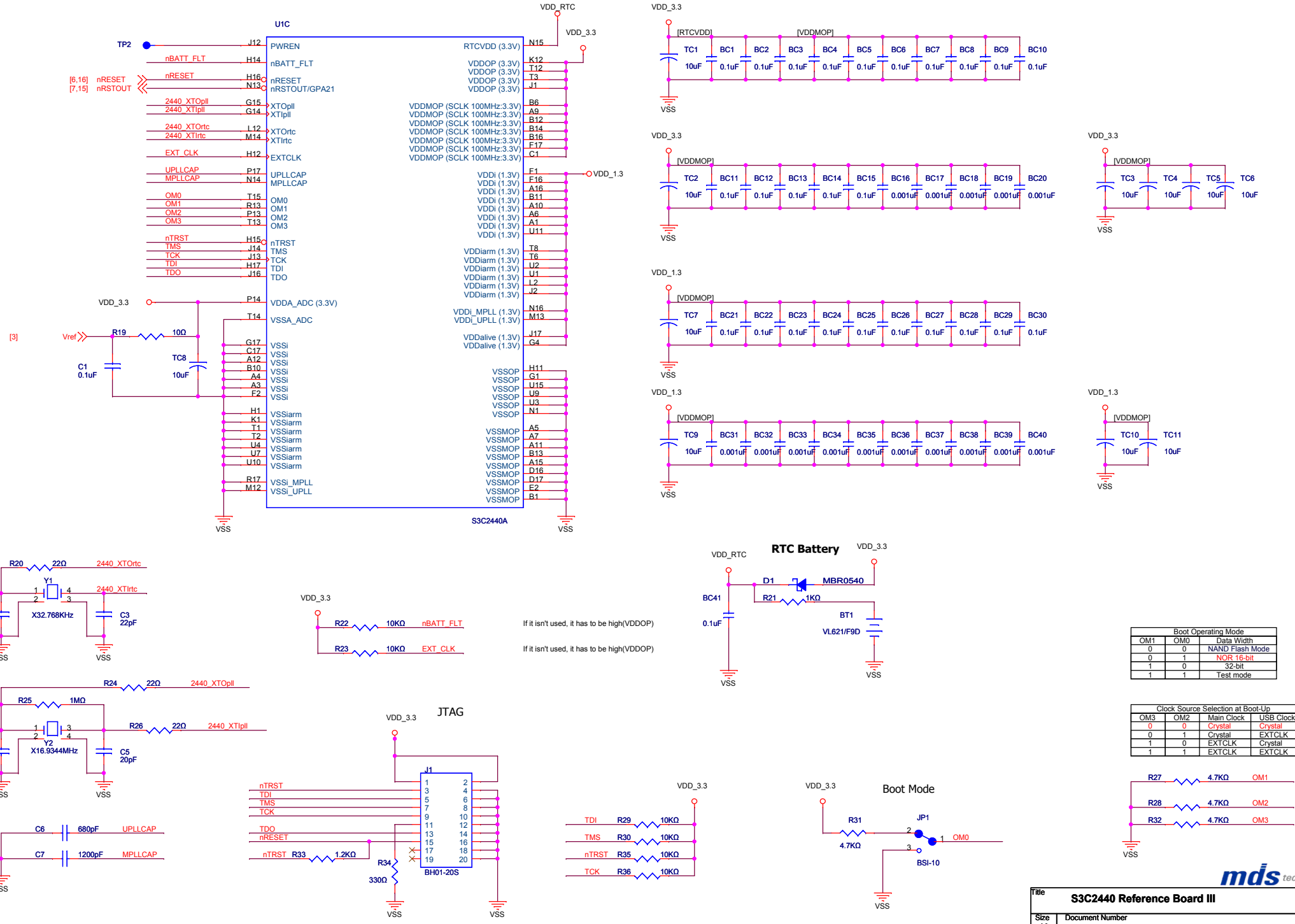

Boot Operating Mode		
OM1	OM0	Data Width
0	0	NAND Flash Mode
0	1	NOR 16-bit
1	0	32-bit
1	1	Test mode

Clock Source Selection at Boot-Up			
OM3	OM2	Main Clock	USB Clock
0	0	Crystal	Crystal
0	1	Crystal	EXTCLK
1	0	EXTCLK	Crystal
1	1	EXTCLK	EXTCLK

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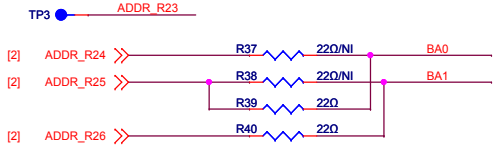
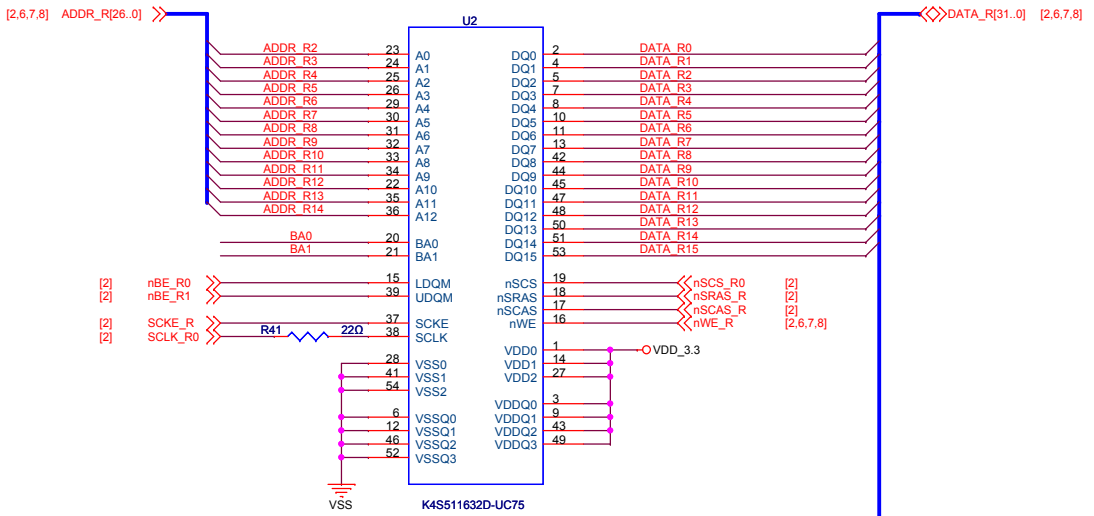
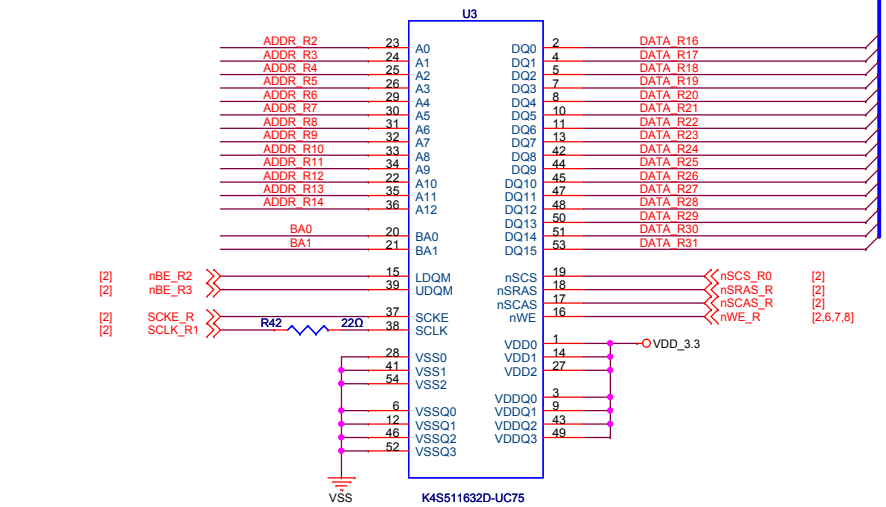
SDRAM 128MByte

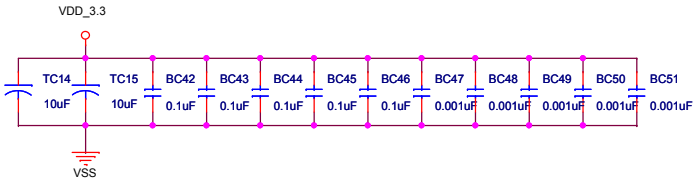


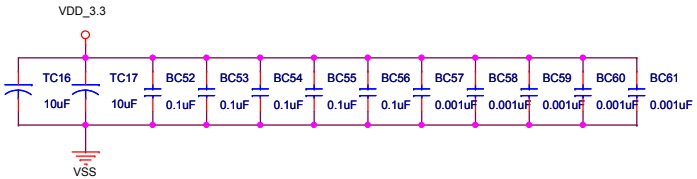
Memory Size Bank Select

	64MByte	128MByte
BA0	ADDR_R24	ADDR_R25
BA1	ADDR_R25	ADDR_R26









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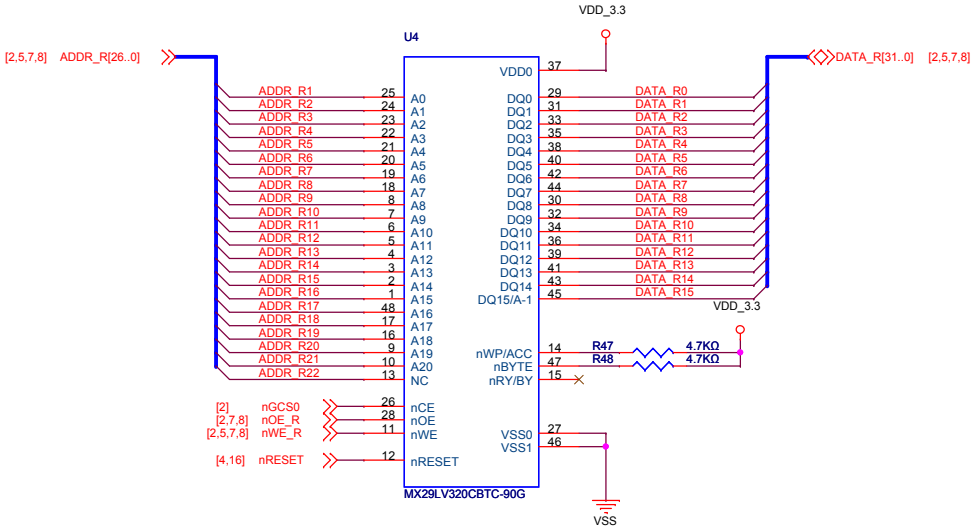
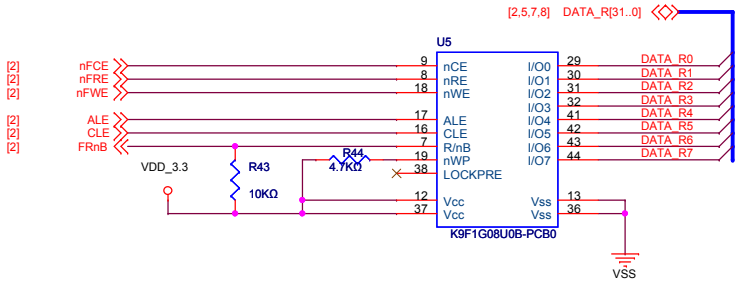
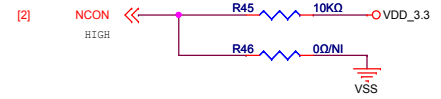
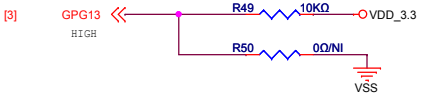
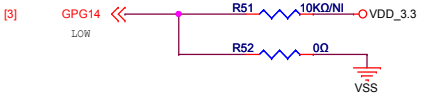
NAND 128MByte
[Advance Type]

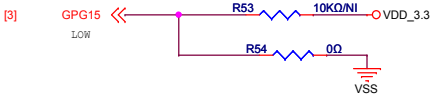


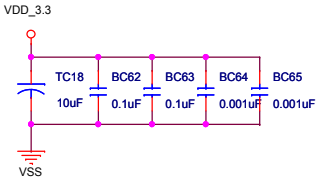


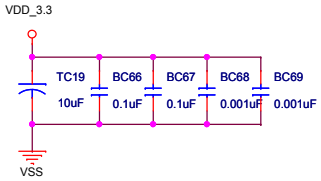












NAND Flash Memory Configuratoin Table			
NCON	GPG13 [EINT21]	GPG14 [EINT22]	GPG15 [EINT23]
0: Normal NAND	0: 256Words	0: 3-Addr	0: 8-bit bus width
	1: 512Bytes	1: 4-Addr	
1: Advance NAND	0: 1Kwords	0: 4-Addr	1: 16-bit bus width
	1: 2Kbytes	1: 5-Addr	

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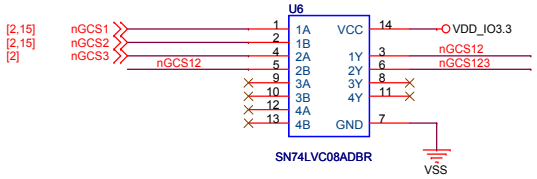

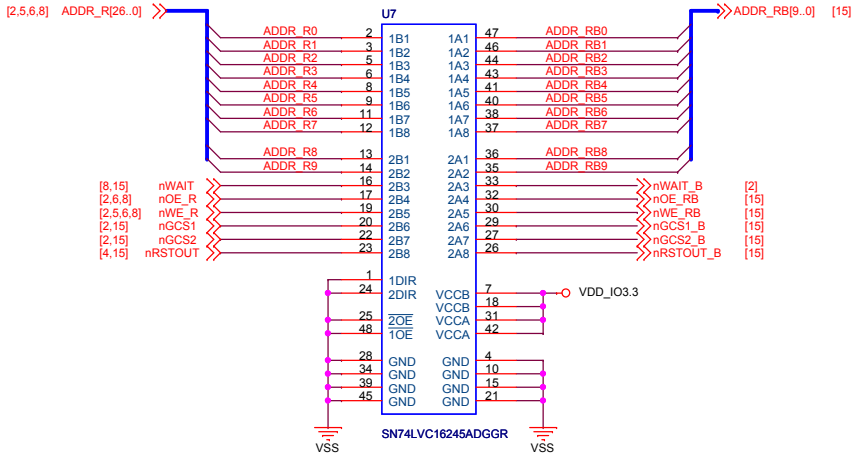

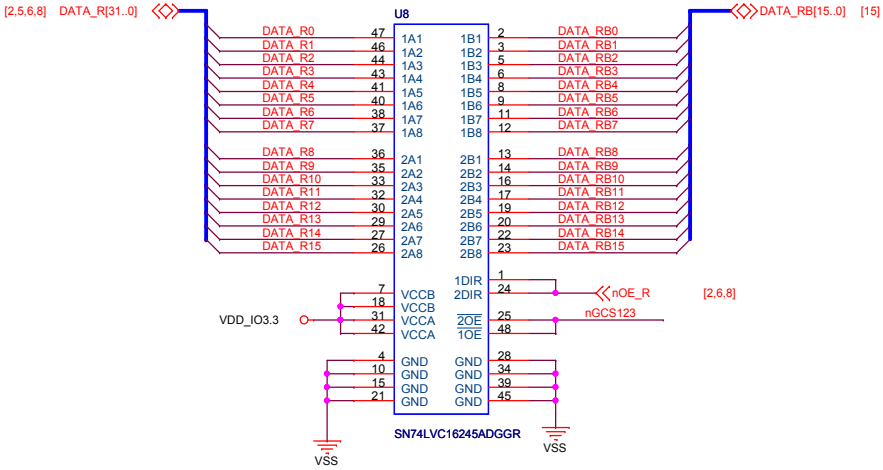

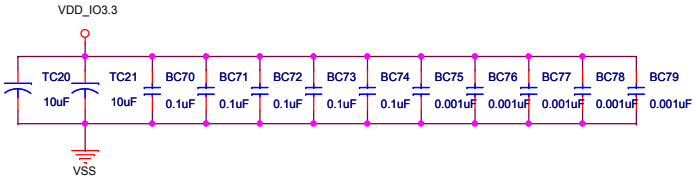

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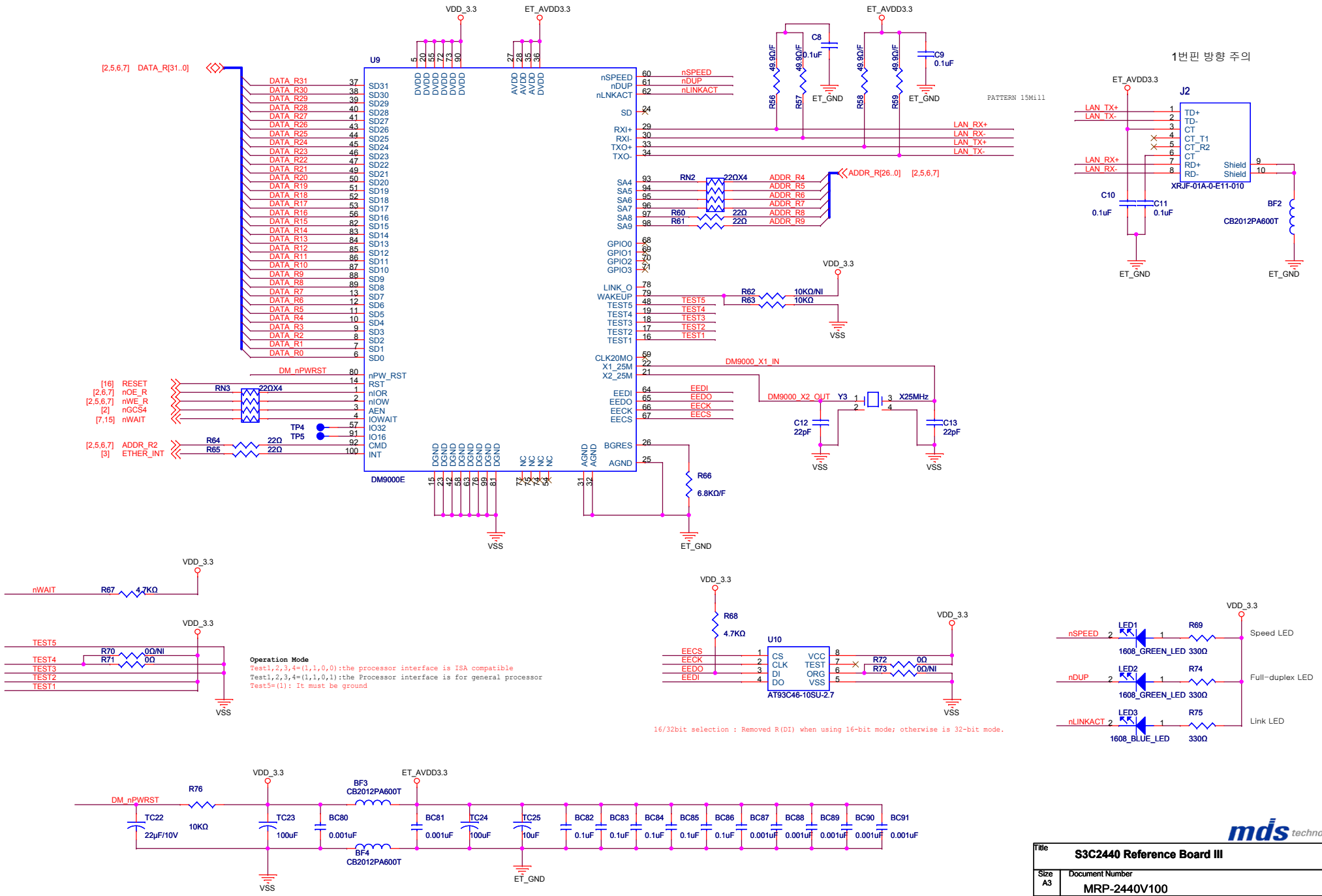

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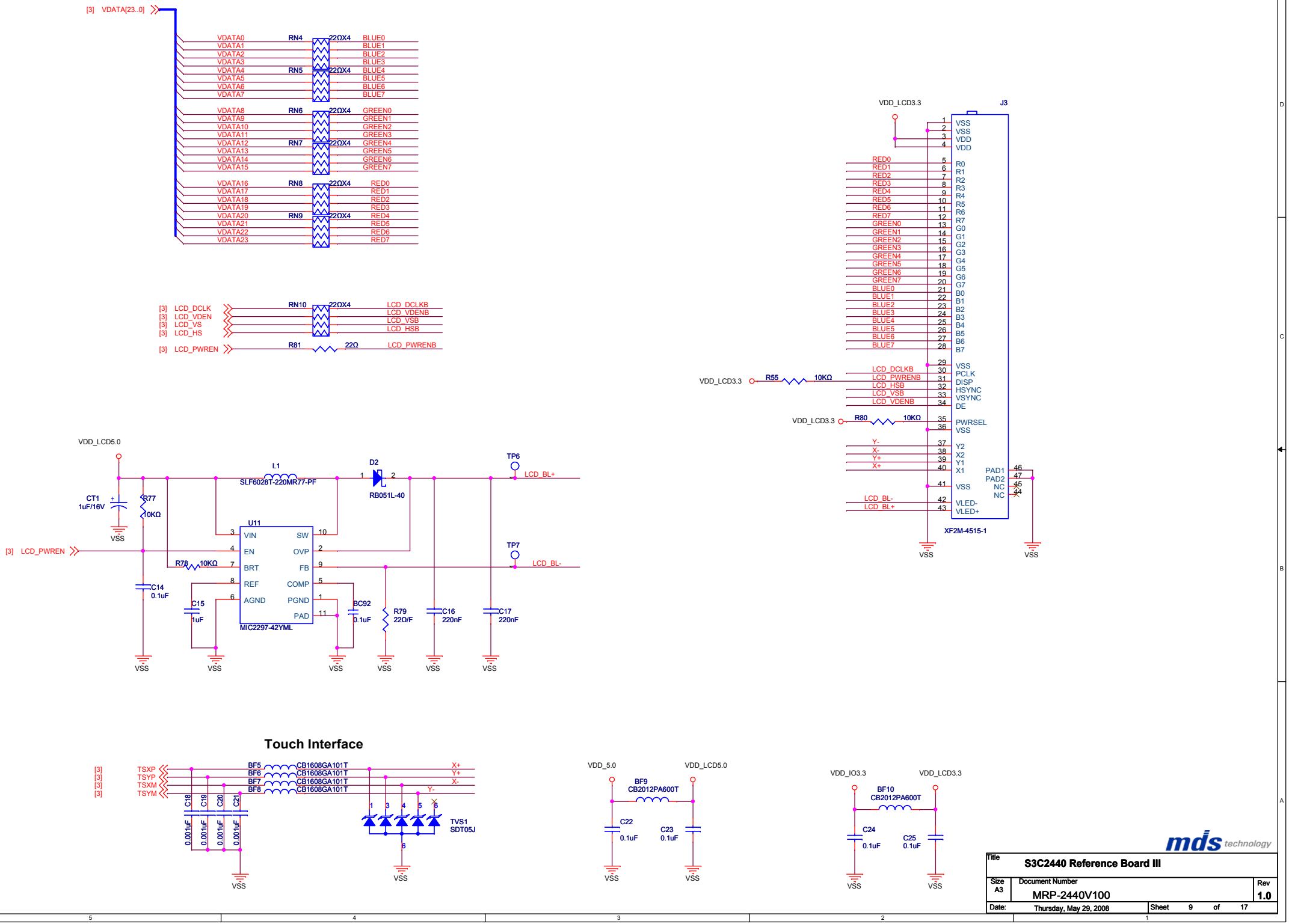

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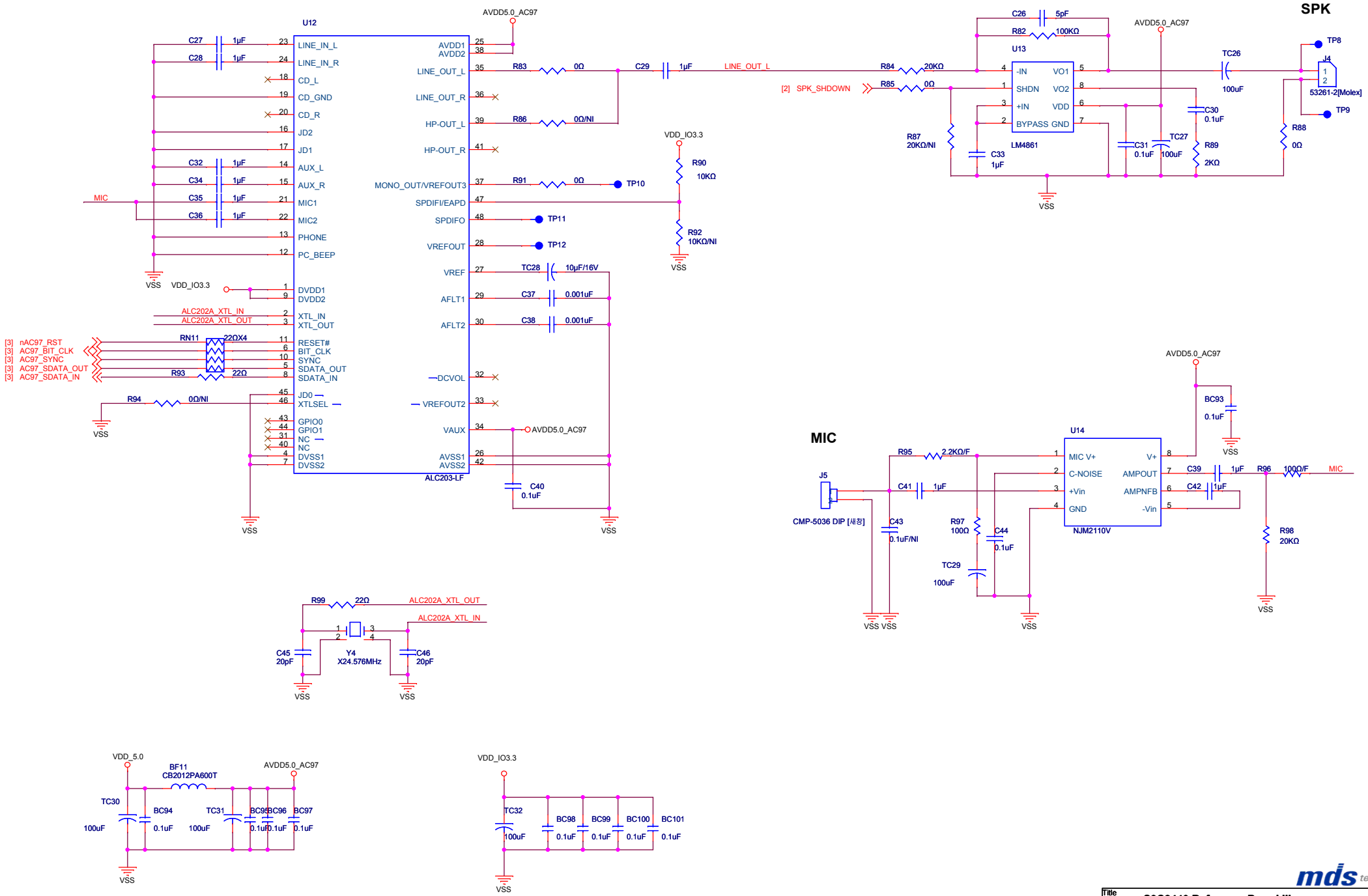

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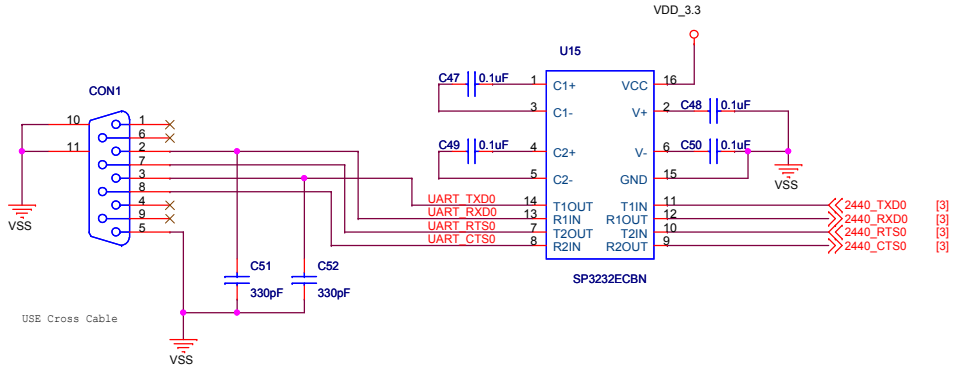

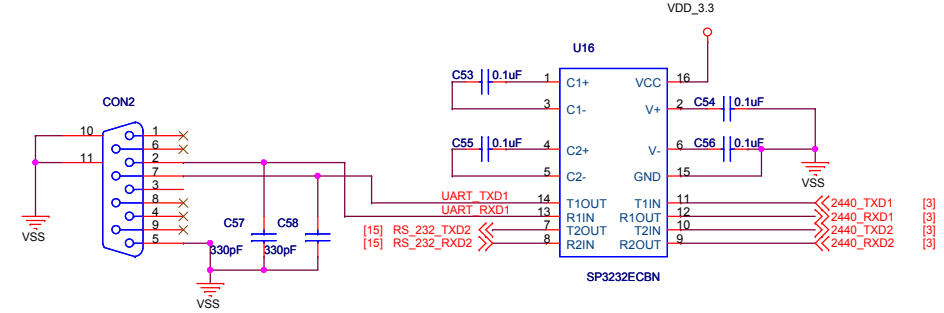

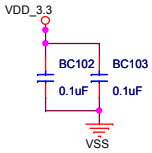

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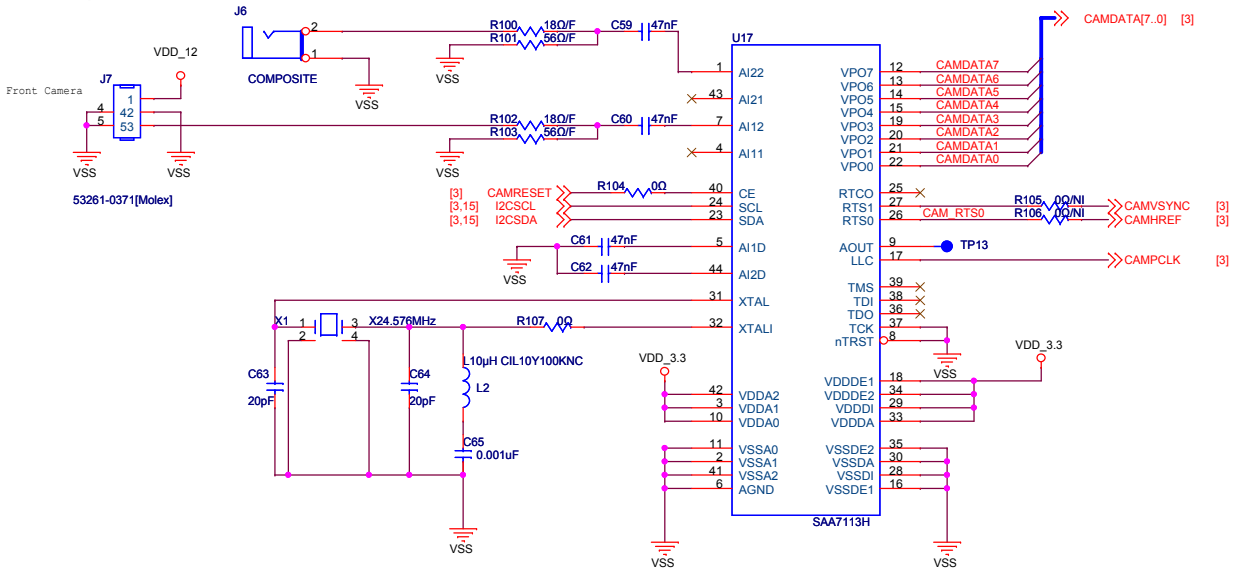
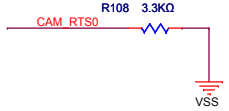
Analog Camera

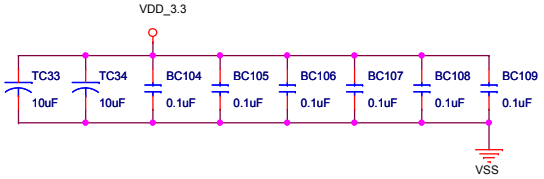


ITU-R BT 601 YCbCr Mode : PCLK, VSYNC, HREF + Data 8Bit

ITU-R BT 656 YCbCr Mode : PCLK + Data 8Bit

INSTALL : I2C W-0x48 R-0x49
OPEN : I2C W-0x4a R-0x4b





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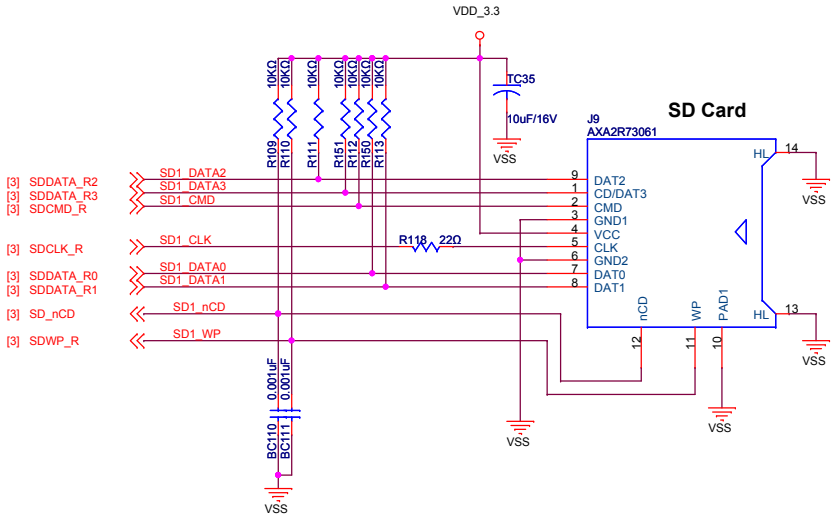

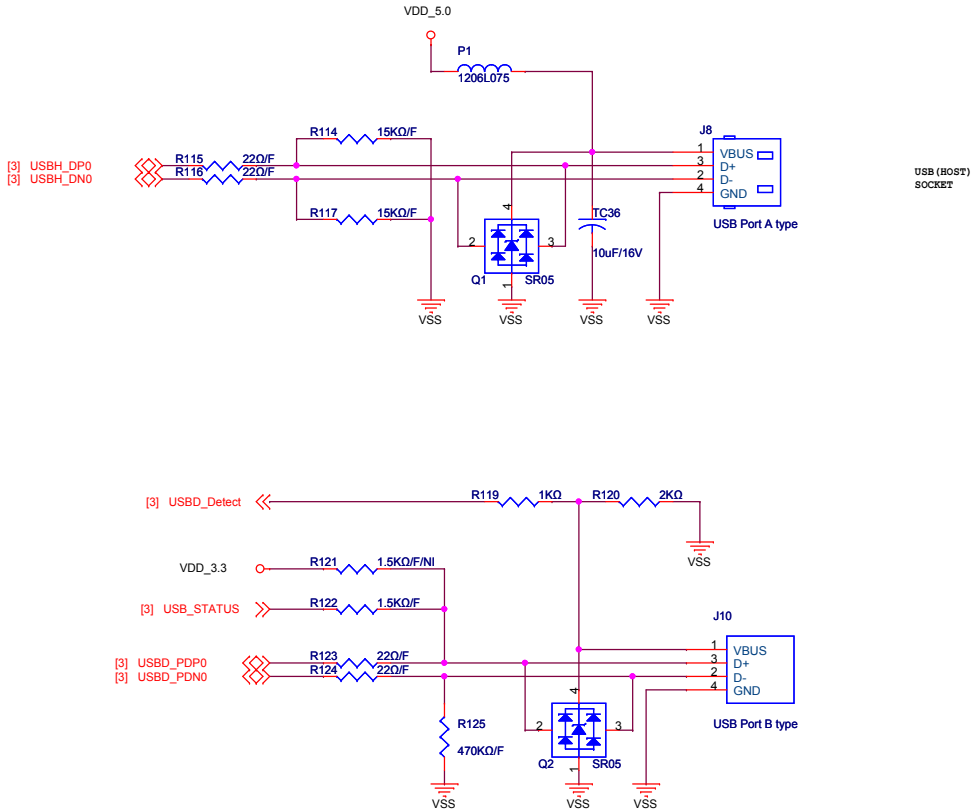

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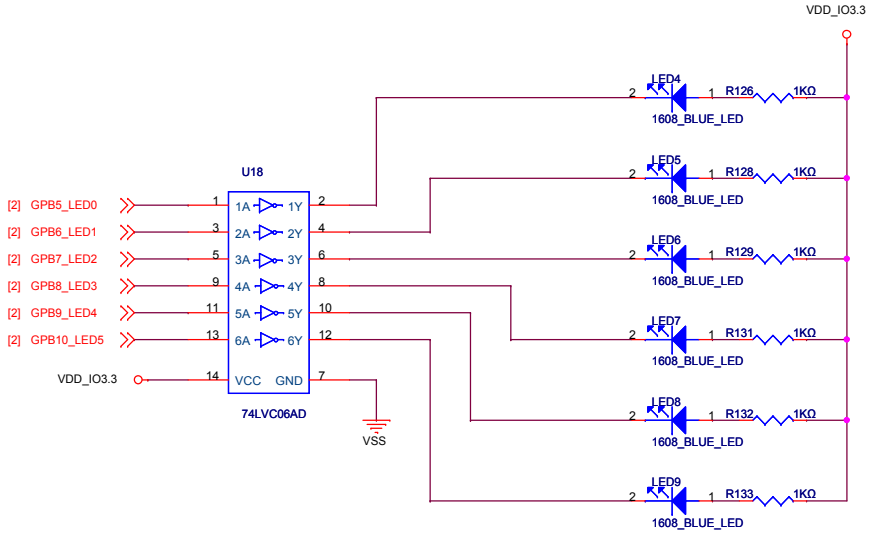
TEST LED



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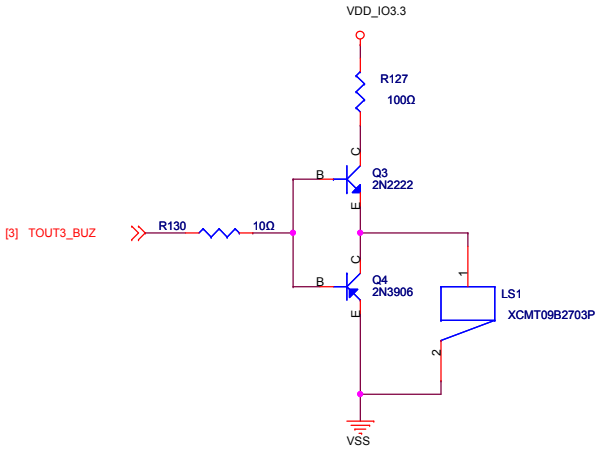
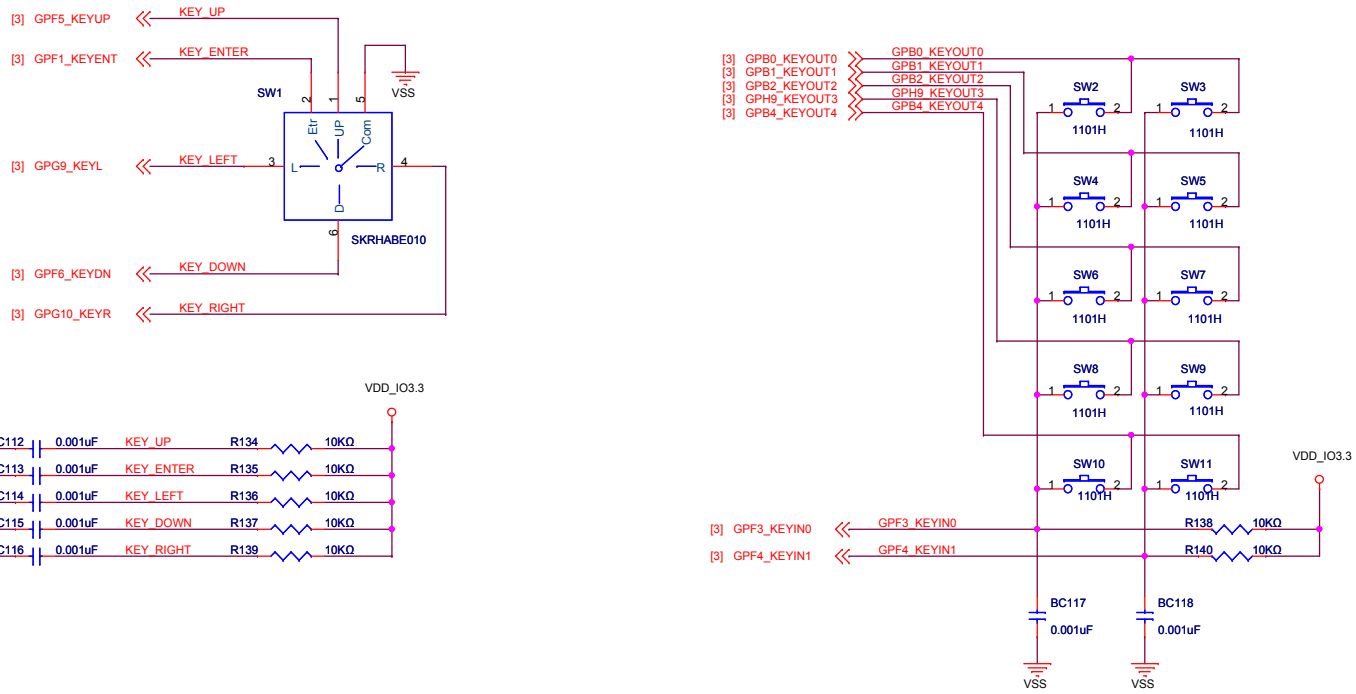


BUTTON



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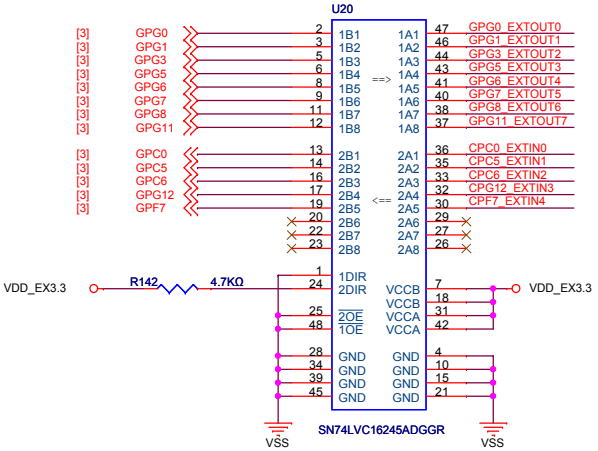
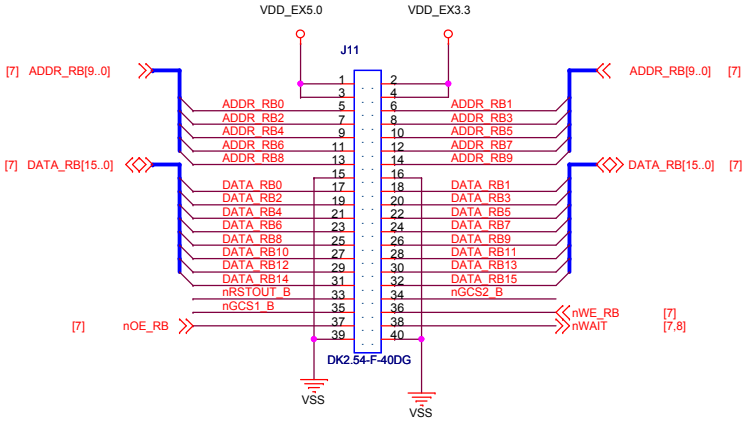
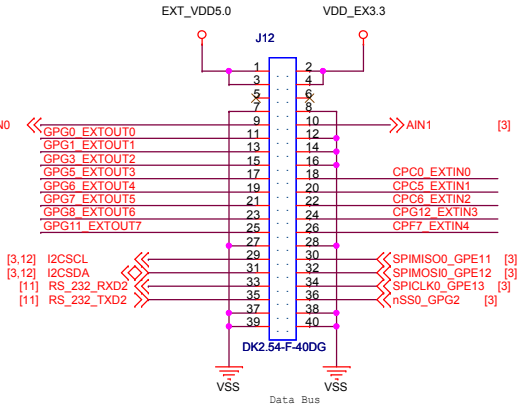
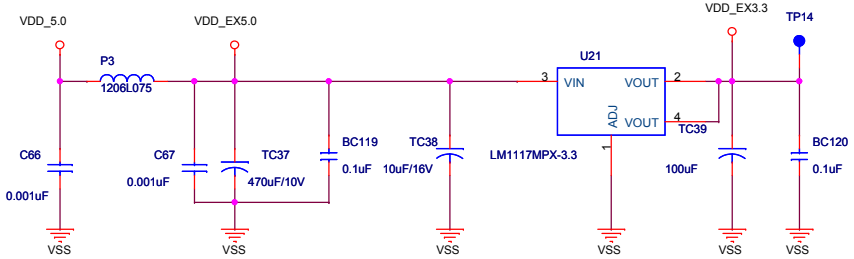
Extension I/O Connector









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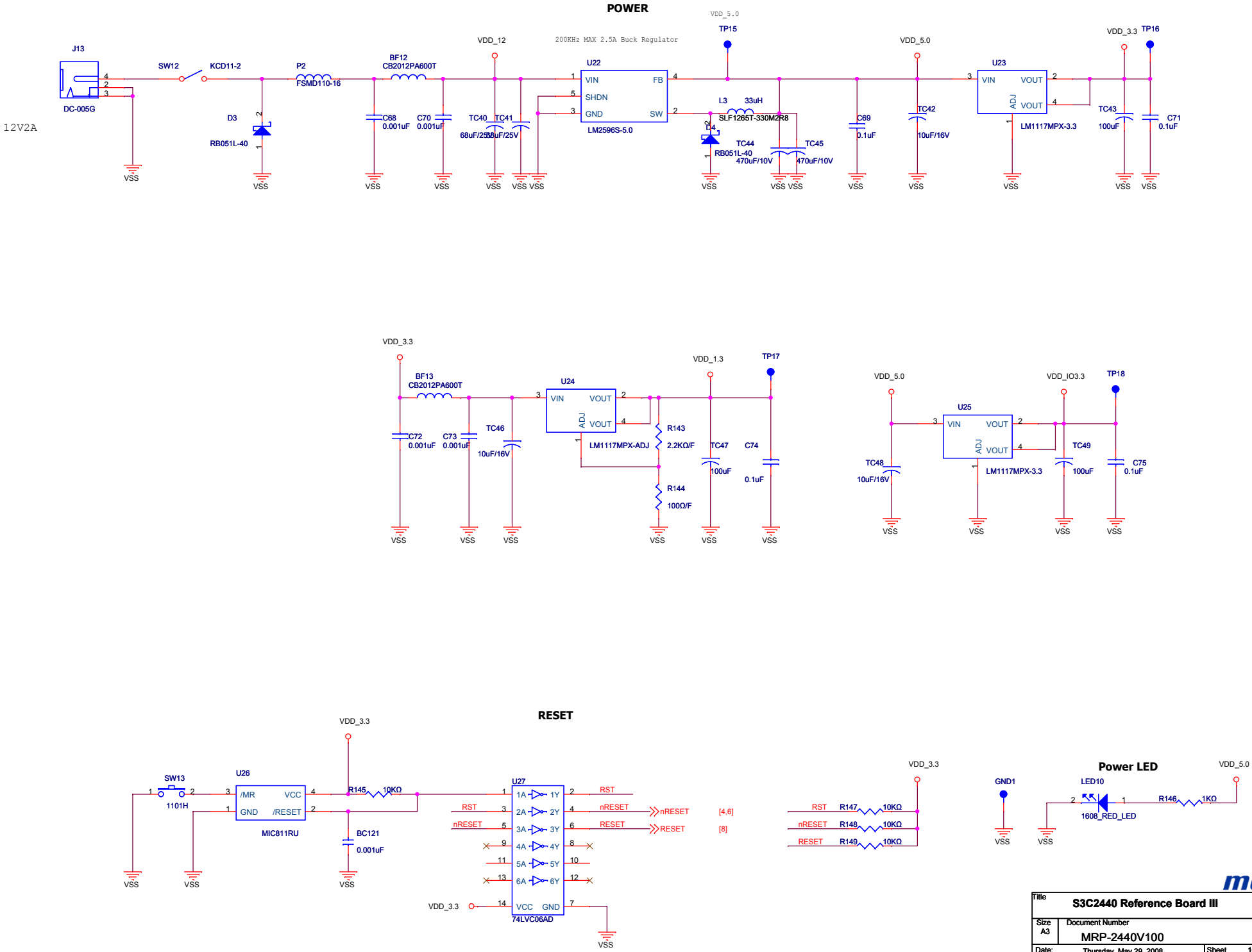
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J13
DC-005G
SW12
KCD11-2
P2
FSMD110-16
BF12
CB2012PA600T
D3
RB051L-40
C68
0.001uF
C70
0.001uF
VDD_12
TC40
68uF/25V
TC41
68uF/25V
200KHz MAX 2.5A Buck Regulator
U22
VIN
FB
SHDN
GND
SW
LM2596S-5.0
VDD_5.0
TP15
L3
33uH
SLF12565T-330M2R8
D4
RB051L-40
TC44
470uF/10V
TC45
470uF/10V
C69
0.1uF
VDD_5.0
TC42
10uF/16V
U23
VIN
VOUT
ADJ
VOUT
LM1117MPX-3.3
VDD_3.3
TP16
TC43
100uF
C71
0.1uF
12V2A
VSS
VDD_3.3
BF13
CB2012PA600T
C72
0.001uF
C73
0.001uF
TC46
10uF/16V
U24
VIN
VOUT
ADJ
VOUT
LM1117MPX-ADJ
VDD_1.3
TP17
R143
2.2KΩ/F
R144
100Ω/F
TC47
100uF
C74
0.1uF
VDD_5.0
U25
VIN
VOUT
ADJ
VOUT
LM1117MPX-3.3
VDD_IO3.3
TP18
TC48
10uF/16V
TC49
100uF
C75
0.1uF
RESET
VDD_3.3
SW13
1101H
U26
/MR
VCC
GND
/RESET
MIC811RU
R145
10KΩ
BC121
0.001uF
U27
1A
1Y
2A
2Y
3A
3Y
4A
4Y
5A
5Y
6A
6Y
VCC
GND
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RST
nRESET
RESET
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R147
10KΩ
R148
10KΩ
R149
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GND1
Power LED
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LED10
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R146
1KΩ
VSS
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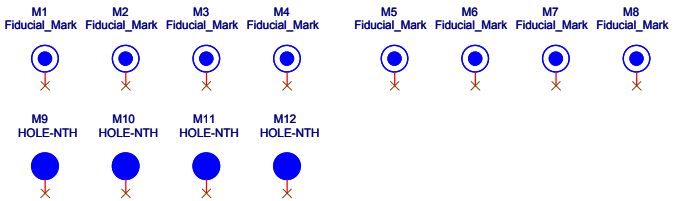

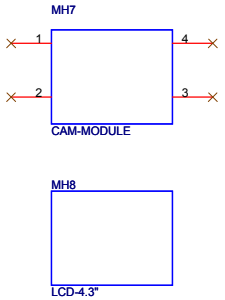

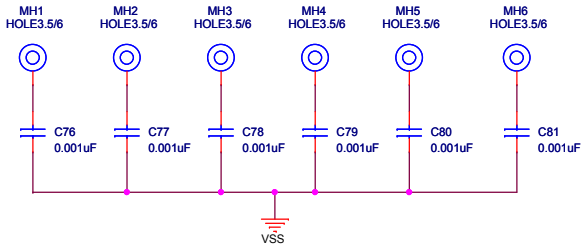

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