Raven

Raven 1.1.1

Designer : SM
Date : 12/11/2014
Board revision : 1.1.1
Board description : S1D13524 Evaluation system

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Revision History

Revision number		Date	Engineer	Description
Major	Minor			
	1.0.1	10/10/13	SM	BPCOM=TPCOM. Fit R39, No Fit R40.
1.1		11/03/2014	GJH	• J1 Pin 28 – SPICLK (Pin G1 of Epson) • J1 Pin 29 – SPIDI (Pin G2 of Epson) • J1 Pin 30 – SPIDO (Pin H3 of Epson) • J1 Pin 31 – SPIDCD# (Pin H4 of Epson) • Add 100k resistor to GND for the MAX17135
	1.1.1	11/11/2014	GJH	• NF U5, C31 and C29 Link Pin 1 and Pin 8 of U5

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Title: Raven 1 Front Page | Revision: 1.1.1
Author: SM
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Raven 1.1.1

U_Controller
Raven_Rev1.1.1_Controller.SchDoc

U_Raven_Rev1
Raven_Rev1.1.1_Connectors.SchDoc

SDSHR
SOURCE_0
SOURCE_1
SOURCE_2
SOURCE_3
SOURCE_4
SOURCE_5
SOURCE_6
SOURCE_7
SOURCE_CKD
SDCE_0
SDCE_1
SDCE_2
SDCE_3
SOURCE_LE
SOURCE_OE
GDOE
GDCLK
DIR
GDSP
HDB[0..15]
TFT_CLK
TFT_HSYNC
TFT_VSYNC
TFT_DE

HDB[0..15]

DRADR[0..13]
DRDAT[0..31]
DRDQS[0..3]
DRDQM[0..3]
DRCS#
DRCAS#
DRRAS#
DRCLK_N
DRCLK_P
DRCKE
DRBA1
DRBA0
DRWE#

U_DDR SDRAM
Raven_Rev1.1.1_DDR SDRAM.SchDoc

SPIHCK_HWE_L
SPIHDI_HRD_L
SPIHCS_HCS_L
SPIHDO
HRDY
HIRQ
RESET#
HD/C

VCOM_SW_CLOSE
HVEN
FLT#
HV_POK
I2C_SDA_3V3
I2C_SCL_3V3
VCOM_FP
VCOM_BP

U_HV PSU
Raven_Rev1.1.1_HV PSU.SchDoc

SPICLK
SPIDI
SPIDO
SPIDCS#

U_LVPSU
Raven_Rev1.1.1_LVPSU.SchDoc

SN101

Logo1

GND Screwhole1
GND Screwhole2
GND Screwhole3
GND Screwhole4

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Author: SM/GH		
Date: 11th November 2014		
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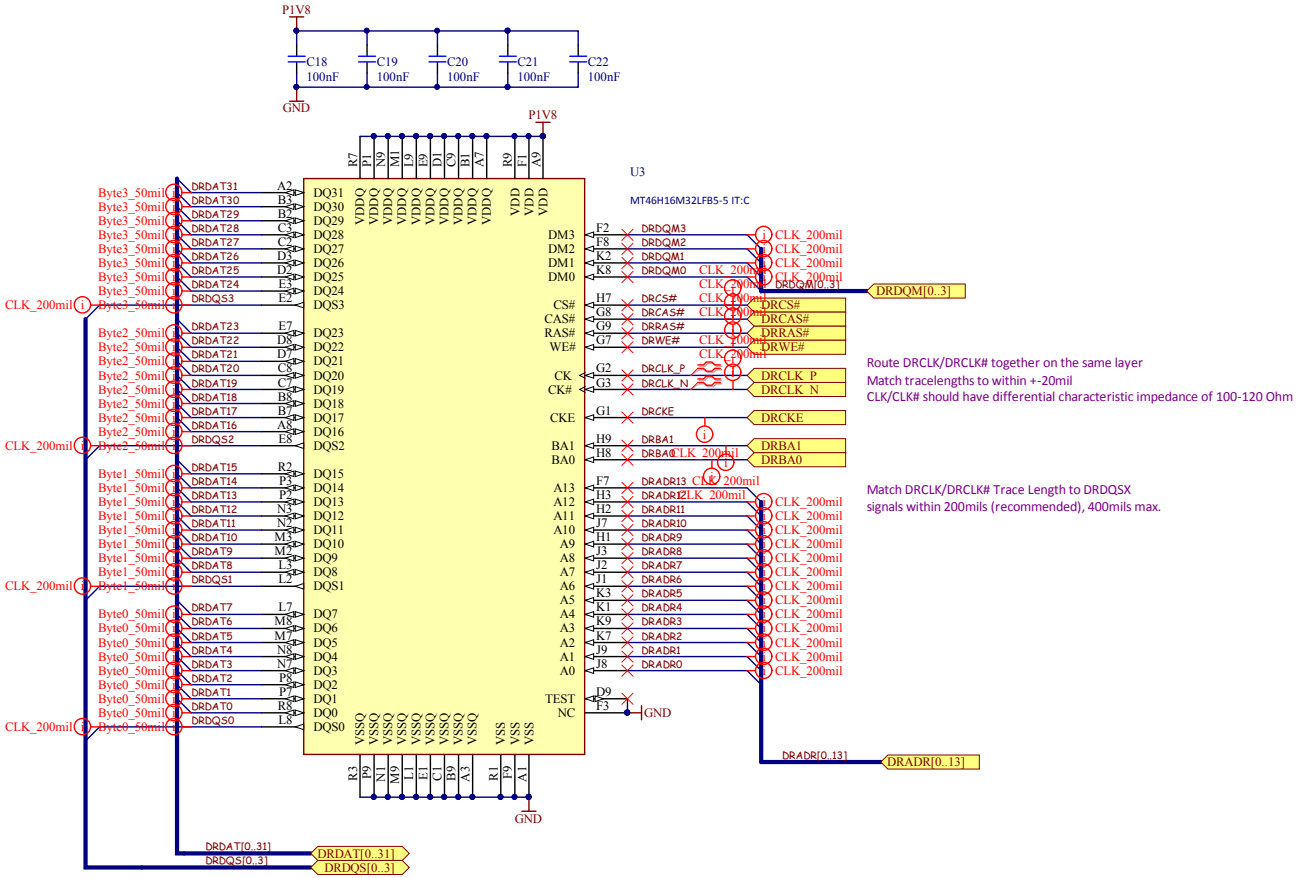
Raven 1.1.1



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		Author: SM	
		Date: 11th November 2014	
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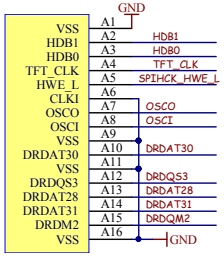
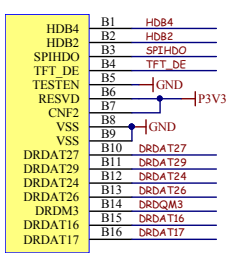
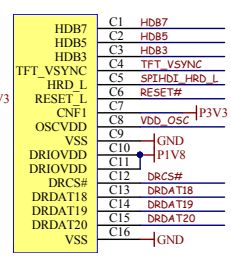
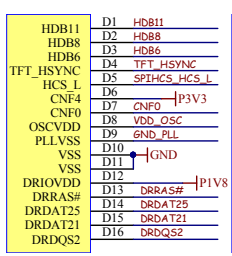
Raven 1.1.1

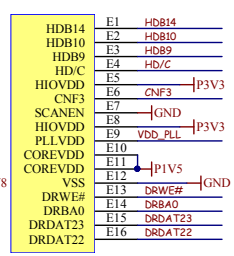
U1 S1D13524

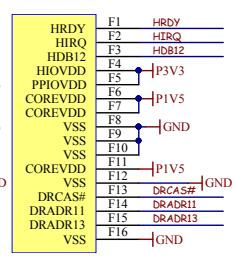


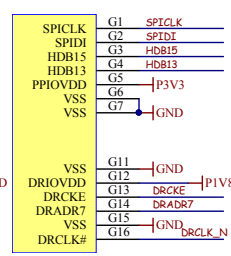


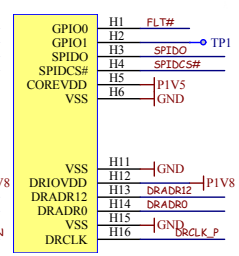


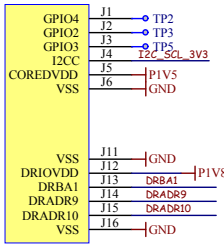


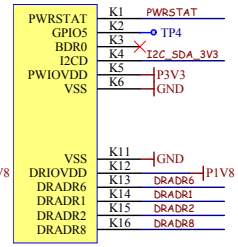


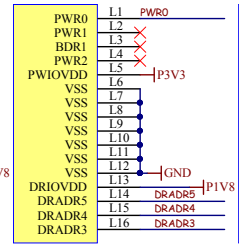


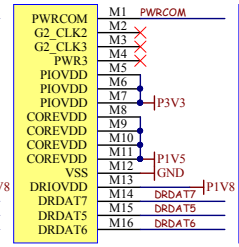


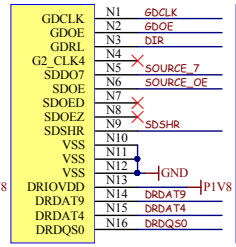


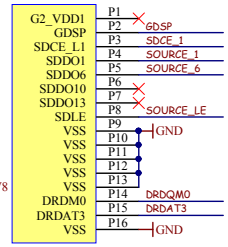


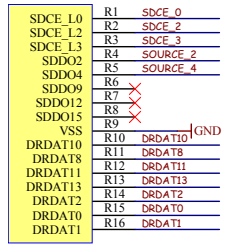


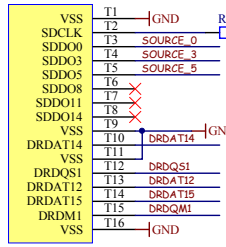












R9 22R

SPICLK SPICLK
SPIDI SPIDI
SPIDO SPIDO
SPIDCS# SPIDCS#

SOURCE_0 SOURCE_0
SOURCE_1 SOURCE_1
SOURCE_2 SOURCE_2
SOURCE_3 SOURCE_3
SOURCE_4 SOURCE_4
SOURCE_5 SOURCE_5
SOURCE_6 SOURCE_6
SOURCE_7 SOURCE_7
SOURCE_CKD SOURCE_CKD
SDCE_0 SDCE_0
SDCE_1 SDCE_1
SDCE_2 SDCE_2
SDCE_3 SDCE_3
SOURCE_LE SOURCE_LE
SOURCE_OE SOURCE_OE
SDSHR SDSHR
GDOE GDOE
GDCLK GDCLK
DIR DIR
GDSP GDSP

DRCS# DRCS#
DRCAS# DRCAS#
DRRAS# DRRAS#
DRWE# DRWE#
DRCLK_N DRCLK_N
DRCLK_P DRCLK_P
DRCKE DRCKE
DRBA1 DRBA1
DRBA0 DRBA0

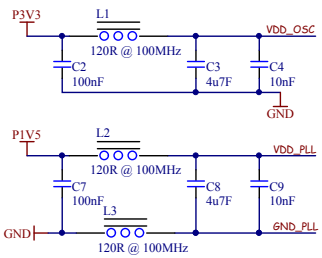
DRADR[0..13] DRADR[0..13]
DRDAT[0..31] DRDAT[0..31]
DRDQS[0..3] DRDQS[0..3]
DRDQM[0..3] DRDQM[0..3]

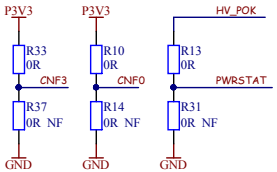
I2C_SCL_3V3 I2C_SCL_3V3
I2C_SDA_3V3 I2C_SDA_3V3
SPIHCK_HWE_L SPIHCK_HWE_L
SPIHDI_HRD_L SPIHDI_HRD_L
SPIHCS_HCS_L SPIHCS_HCS_L
SPIHDO SPIHDO
HRDY HRDY
HD/C HD/C

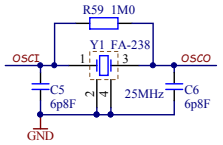
HV_POK HV_POK
FLT# FLT#

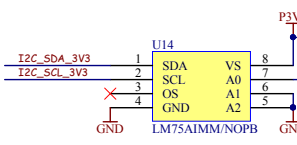
PWRCOM R190R VCOM_SW_CLOSE VCOM_SW_CLOSE
PWR0 HVEN HVEN
R20 0R

RESET# RESET#
HIRQ HIRQ





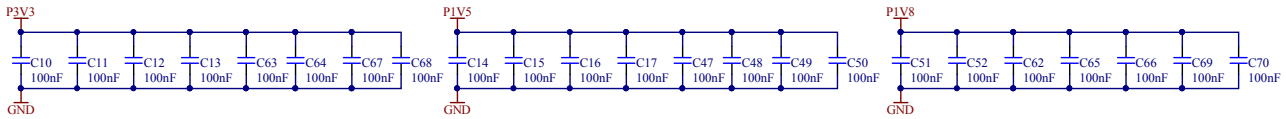




Temperature sensor

TFT_DE TFT_DE
TFT_VSYNC TFT_VSYNC
TFT_HSYNC TFT_HSYNC
TFT_CLK TFT_CLK

HDB[0..15] HDB[0..15]



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Title: ***Raven 1 Controller***	Revision:1.1.1
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Raven 1.1.1

D1 MMBD4448HSDW

U4 MAX17135ETJ

D2 MBRM140

D3 MMBD4448HSDW

D4 MMBD4448HSDW

D8 MBRM140

U5 ADG1419BCPZ

U6 24LC014H-I/MS

U7 LM8261M5

D7 BAV99

D9 BAT54

COM calibration storage
I2C address 1010000 (b)

ECN637 mod wire
PCB 1.1 does not have this as a PCB track

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		Author: SM	
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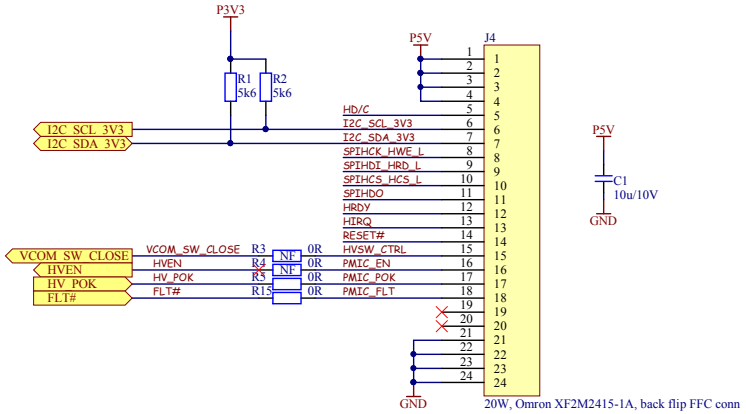

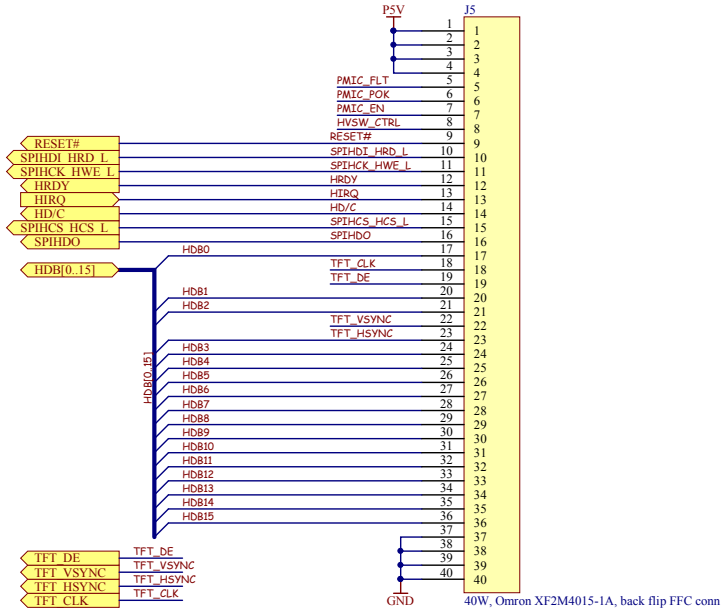

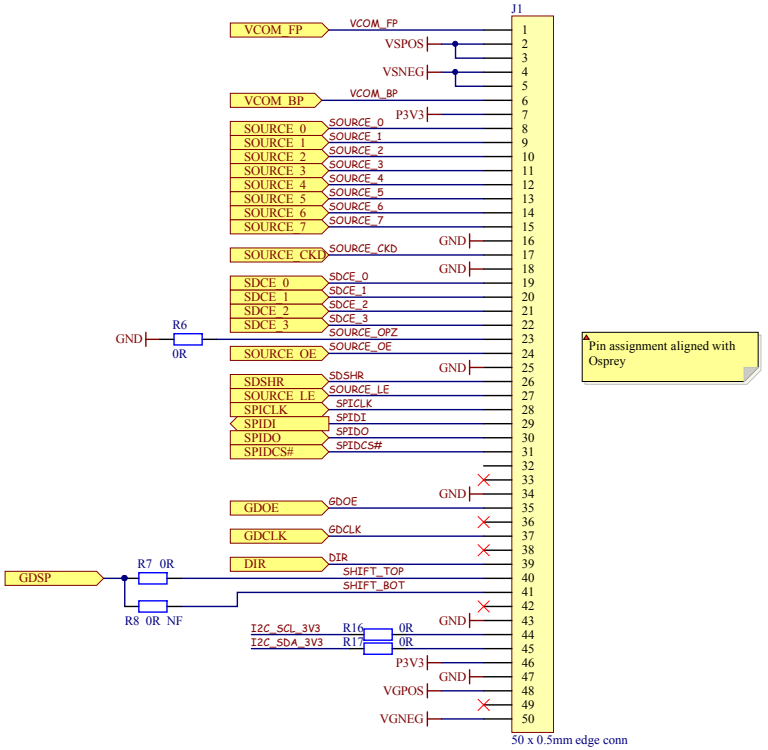

Pin assignment aligned with Osprey

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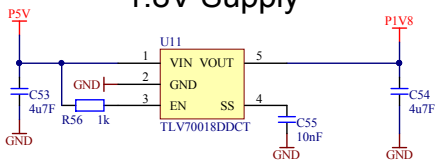
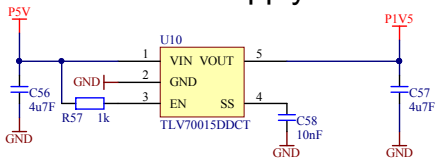
Raven 1.1.1

1.8V Supply



1.5V Supply



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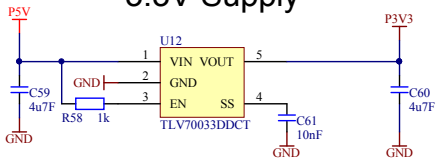

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