IMX-MIPI-HDMI



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William Carrior Drive West Set William Carrior Drive West Austin, TX 78735-6588 This document contains information proprietary to NDP and shall not be used for engineering design, procurement or manufacture in whole or in part without the express written permission of NDP Semiconductor Designer: | Display | Drive |

5 4 3 2 1
Schematics Drafted in : Allegro Design entry CIS 16.6

REV Revision Notes

| REV | Revision Notes | Date |
|-----|---|------------|
| A1 | Initial release | 27-01-2017 |
| В1 | Mini SAS connector is updated with shell part | 26-05-2017 |
| C1 | All parts updated from FCL library | 23-01-2018 |

MIPI TO HDMI DAUGHTER CARD

Part Number : IMX-MIPI-HDMI

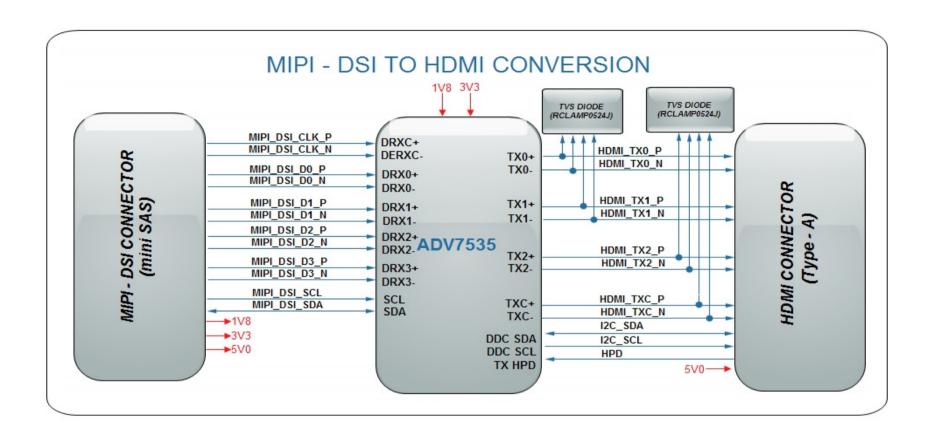
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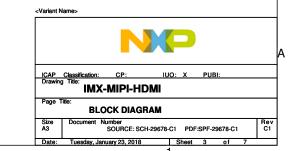
DNP appearing near a component signifies "do not populate." These parts are not installed.

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5 4 3 2

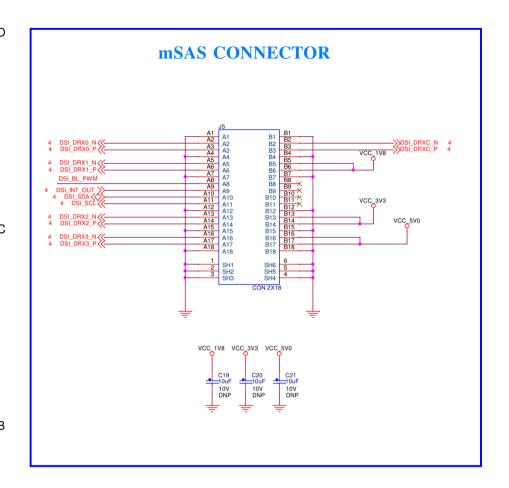
BLOCK_DIAGRAM

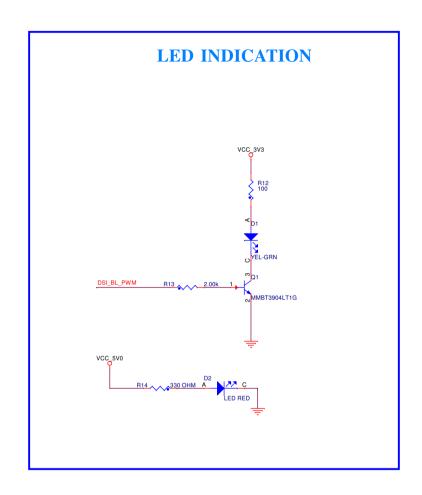


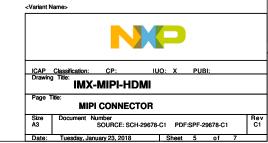


5 MIPI TO HDMI CONVERTER U1 28 23 22 25 <u>Α</u>Ω V1P8_1 V1P8_2 G2 DRXC+
G3 DRXCF3 DRXODRX0DRX0DRX1+
F4 DRX1+
F5 DRX2F5 DRX2DRX3DRX3-DSI_DRXC_P
DSI_DRXC_N
DSI_DRXO_P
DSI_DRXO_N
DSI_DRX1_P
DSI_DRX1_P
DSI_DRX2_P
DSI_DRX2_N
DSI_DRX2_N
DSI_DRX3_P ->HDMI_TXC_P 6 ->HDMI_TXC_N 6 ->HDMI_TX0_P 6 ->HDMI_TX0_N 6 TX0+ TX0-->HDMI_TX1_P 6 ->HDMI_TX1_N 6 TX1+ TX1-TX2+ TX2-E5 SDA SCL 5 DSI_SDA R7 1.00k R_EXT C5 R EXT VCC_1V8 C3 PD ADV_PD 2.00k R5 MIPI to HDMI D5 INT 5 DSI_INT_OUT <<-CEC C2 SCLK/MCLK **TRANSMITTER** × C1 SPDIF/I2S D1 DDCSCL R3 >>DDC_SCL 6 DDC_SCL D2 DDCSDA R4 33 ODDC_SDA 6 D3 LRCLK DDC SDA C4 HPD 6 HDMI_HPD >> CEC_CLK GND2 GND2 GND3 GND4 GND5 GND6 GND7 ADV7535 I2C Address : 0x 72 VCC_1V8 DNP DSI_SCL R9 4.7K R10 DNP 4.7K DSI_SDA R20 DNP 4.7K ADV_PD R19 DNP 2.00k HDMI HPD R11 47K AVDD 1V8 VCC_1V8 DVDD_1V8 PVDD_1V8 VCC_1V8 VCC_1V8 $\overline{\qquad}$ 60 OHM 60 OHM 60 OHM C3 C4 10uF 0.1uF C1 C2 10uF - 0.1uF C7 **__**10uF **__** C8 __0.1uF 10V 10V VCC_3V3 VCC_1V8 A2VDD_1V8 VCC_ADV_3V3 VCC_1V8 VCC_ADV_1V8 FB4 <Variant Name> 60 OHM 60 OHM C11 C12 10uF 0.1uF 60 OHM C13 10uF C9 C10 C14 10V ICAP Classification:
Drawing Title: IUO: X PUBI **IMX-MIPI-HDMI** Page Title: MIPI TO HDMI CONVERTER Size A3 Document Number Rev C1 SOURCE: SCH-29678-C1 PDF:SPF-29678-C1

MIPI CONNECTOR







5 **HDMI CONNECTOR** P3 NC5 5 HDMI_D1_N RCLAMP0524J J2 FL1 HDMI D2 P 4 HDMI_TX2_P >> D2_SHIELD D2+ D2-HDMI D2 N 4 HDMI_TX2_N 4 HDMI_TX1_P 4 HDMI_TX1_N D1_SHIELD 2 HDMI_D1_N FL3 4 HDMI_TX0_P >> D0_SHIELD HDMI_D0_N 4 HDMI_TX0_N X4 HDMI_TXC_P X4 HDMI_TXC_N X 10 12 CK+ CK-CK_SHIELD × 13 CEC GND HEC SHELL1 4 DDC_SCL >> DDC_SCL SHELL2 G2 X I2C_CLK VCC_HDMI_5V0 VCC_HDMI_5V0 4 DDC_SDA 🌕 DDC_SDA SHELL3 G3 × I2C DATA +5V SHELL4 4 HDMI_HPD

HDMI_HPD C17 HOT_PLUG_DET =1000pF 2kV HDMI Type-A 2.00k 2.00k 10029449-001RLF HDMI_HPD VCC_5V0 VCC_HDMI_5V0 RCLAMP0524J R18 C18 C16 10uF 0.1uF 10V <Variant Name> ICAP Classification: Drawing Title: IMX-MIPI-HDMI Page Title: **HDMI CONNECTOR** Size A3 Document Number SOURCE: SCH-29678-C1 PDF:SPF-29678-C1 Rev C1 MISCELLANEOUS

NOTE: THIS PAGE CONTAINS

1) FIDUCIALS

2) TEST POINTS
2) TEST POINTS
3) MOUNTING HOLES

FD 40mil FD 40mil FD 40mil FD 40mil

TEST POINTS

VCC 1V8

VCC 9V3

VCC 5V0

TP1

TP2

TP3

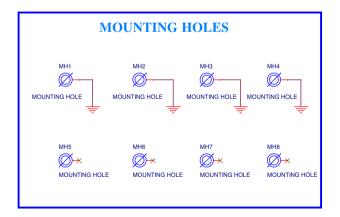
TP4

TP5

O

TP4

TP5



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