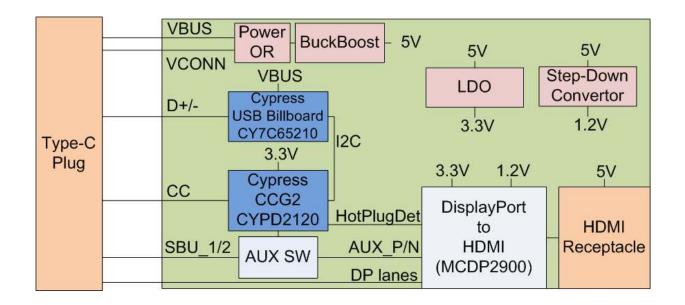
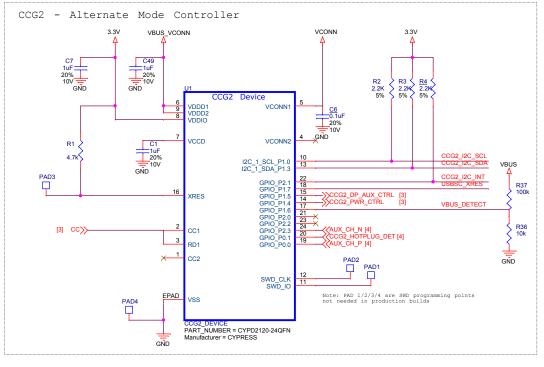
CCG2 Type-C To HDMI Reference Schematic

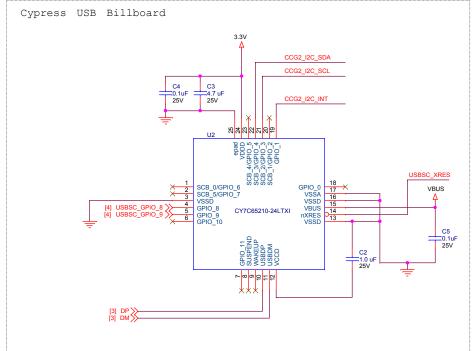
Table Of Contents		
Sheet	Description	
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2	CCG2/USB Billboard	
3	Type-C/Power	
4	HDMI - Megachip MCDP2850 DP to HDMI	

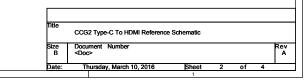
Revision History			
Revision	Date	Revision Summary	
*	12-05-2015	Initial Release	
Α	03-10-2016	PAGE04 : Added U10 to limit 100mA to HDMI	

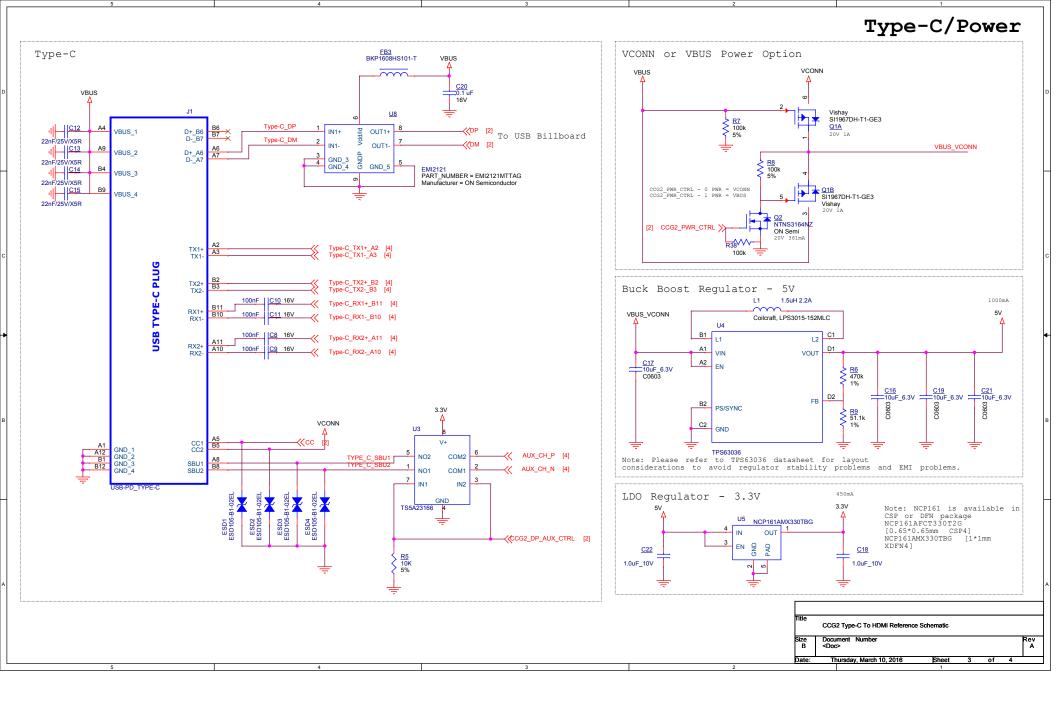


CCG2/USB Billboard









DP to HDMI Convertor - MCDP2900 +5V DVDD +3V3_DVDD R15 249 1% TPS2553 R19 C34 C_EXT 2.2K \$ 2.2K C42 R12 1M 5% HDMITX_DDC_SDA 2.2uF +5V_DVDD HDMITX_DDC_SCL [3] AUX_CH_P >> DP_AUX_N HDMITX_HPD_IN C8 [3] AUX_CH_N >> DPRX_AUXN HDMITX_DDC_SDA DP_ML0_P R11 1M 5% [3] Type-C_RX2+_A11 DPRX L0P HDMI CEC DP_ML0_N HDMI_CEC [3] Type-C_RX2-_A10 DPRX LON DP_ML1_P HDMI_TX0+ 5.1 ohms R27 [3] Type-C_TX2+_B2 DPRX_L1P HDMITX_CH0P DP_ML1_N HDMI_TX0- 5.1 phms R28 HDMITX_CH0N H Type-C to DisplayPort/MiniDisplayPort mapping follows Table 4-1 and Table 4-2 of "VESA DisplayPort Alt Mode on USB Type-C Standard" version 1.0 [3] Type-C_TX2-_B3 DPRX_L1N DP_ML2_P 5.1 ohms R29 [3] Type-C_TX1+_A2 DPRX_L2P HDMITX_CH1P DP_ML2_N 5.1 ohms R30 [3] Type-C_TX1-_A3 DPRX_L2N HDMITX CH1N DP_ML3_P 5.1 ohms R31 [3] Type-C_RX1+_B11 DPRX_L3P HDMITX_CH2P DP ML3 N HDMITX_CH2N H7 5.1 ohms R32 [3] Type-C_RX1-_B10 DPRX_L3N HDMI TXC+ B1 DPRX_HPD_OUT HDMITX_CLKP H2 5.1 ohms R33 [2] CCG2_HOTPLUG_DET >>-HDMI_TXC- 5.1 ohms R34 HDMITX_CLKN H1 X F3 CONFIG1 100K +1V2 AVDD 27.000MHz Crystal D3 C36 XTLL I2C_SCL F6 X 22uF I2C_SDA E6 X +3V3_DVDD C45 R35 100K UART_TX USBSC_GPIO_8 [2] 0.1uF UART_RX E7 《USBSC_GPIO_9 [2] MX25L8006E R23 10K VDD12_ON →>> VDD12_ON [4] +3V3 DVDD R26 100K GPIO1 R16 2.2K C47 0.1uF MCDP2900 DP to HDMI +1V2 DVDD +3V3_DVDD C38 C46 B5 VDD12_RX VDD12_RX G5 VDD12_TX VDD12_TX F4 VDD12_OSC B7 AVDD12_PLL +3V3_DVDD Step-Down Convertor - 1.2V +3V3 DVDD +3V3 AVDD D3 VDD33_IO VDD33_IO +1V2_DVDD C5 VDD33_AUX 1 2 C24 C23 C37 B2 VDD33_RX VDD33_RX Power Inductor 2.2uH G2 VDD33_TX VDD33_TX R13 100K C31 +1V2 DVDD 10uF C33 MCDP2900 DP to HDMI C32 0.1uF C26 R14 0.1uF 0.1uF 0.010E R17 100K ST1S12GR 100K Recommended Power Supply filtering as shown here. VDD12 On Can be used for Connected Standby Power Mode CCG2 Type-C To HDMI Reference Schematic