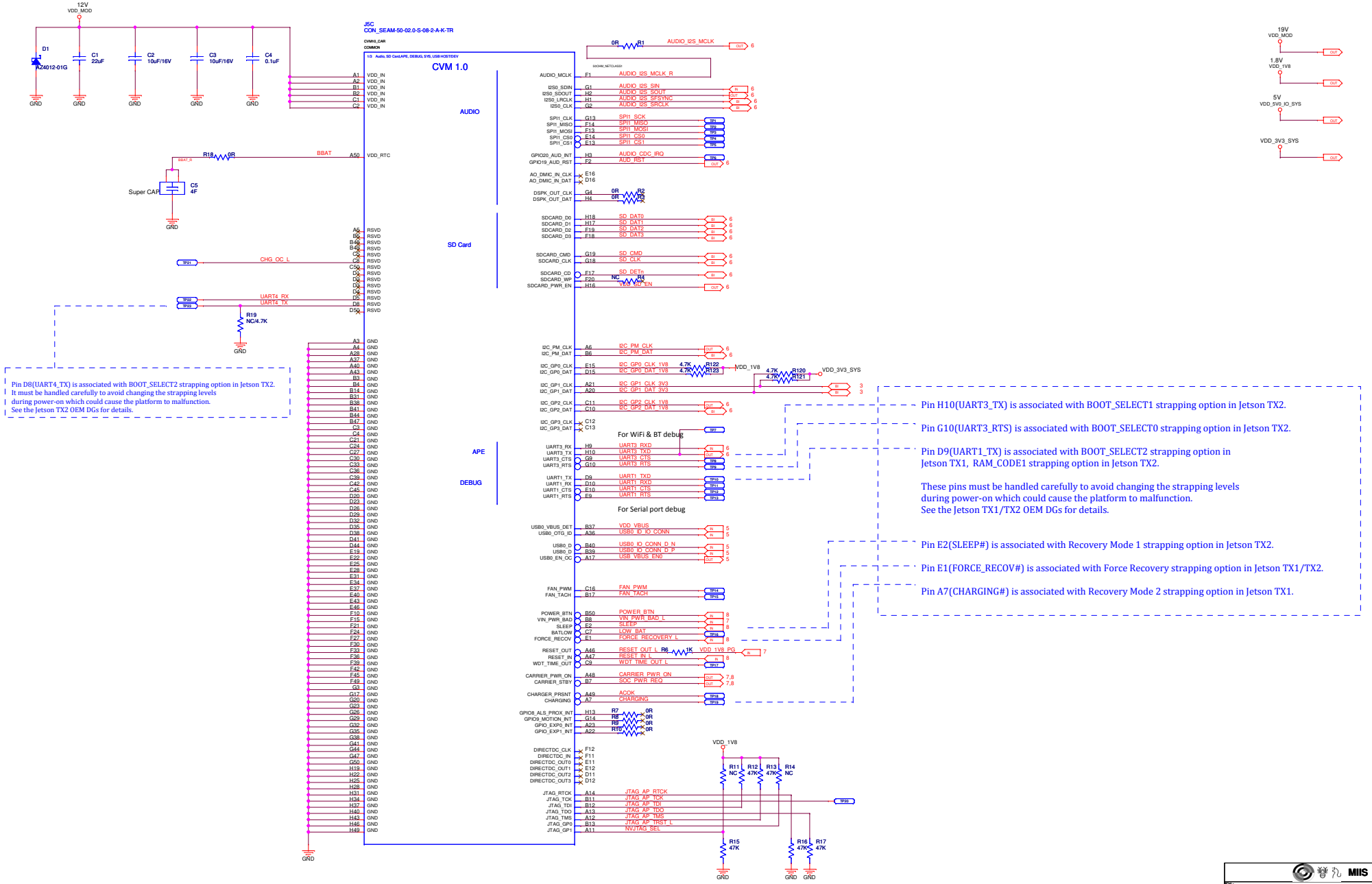
REV	DESCRIPTION	DATE	APPROVED
A0	First version	2019-1-16	Charles

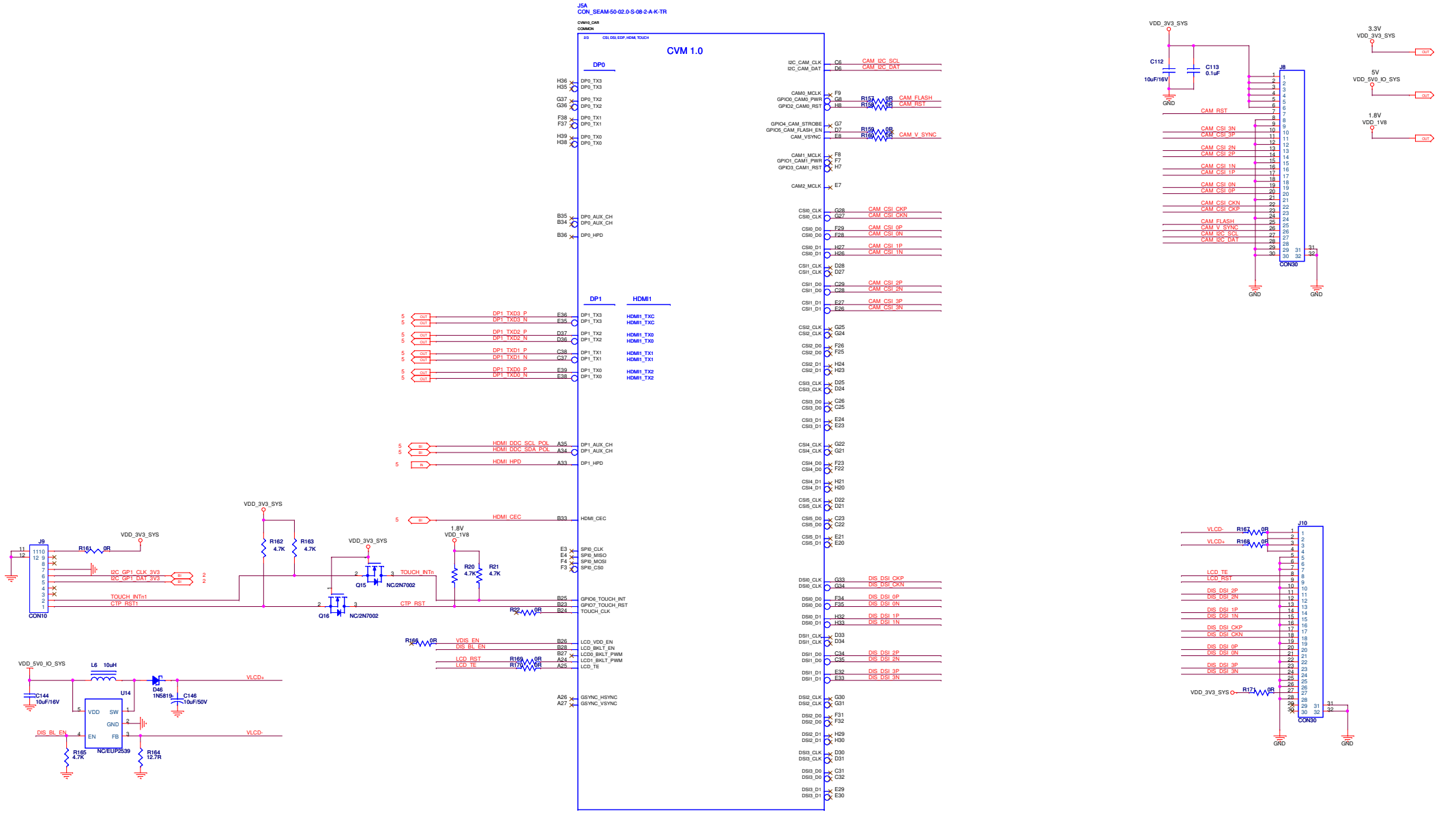
MIIS

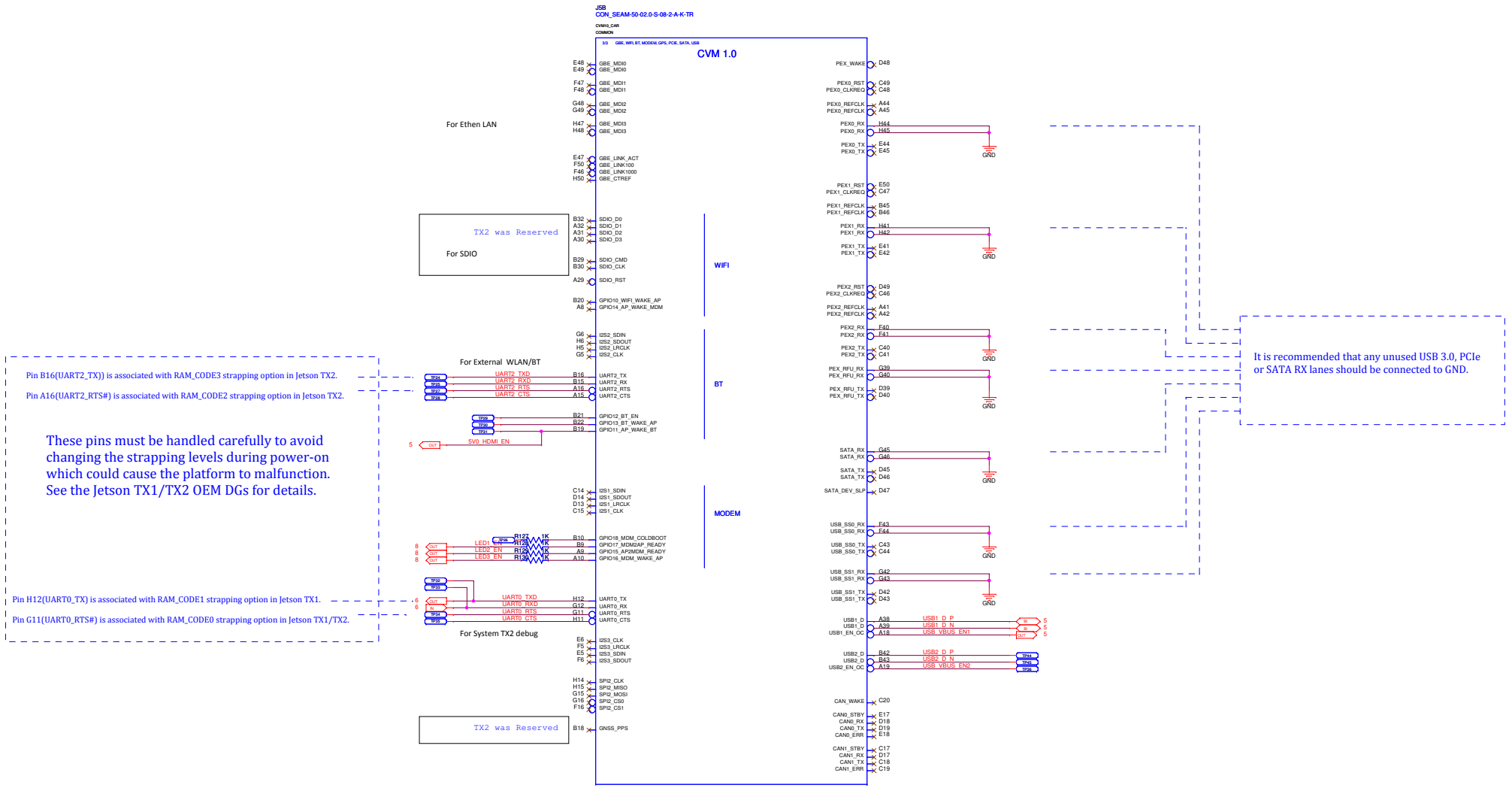
Title: DAB100 Main Board / Version Information

Size: A3 | Document Number: DAB100_Main_Board_A0.DSN | Rev: A0

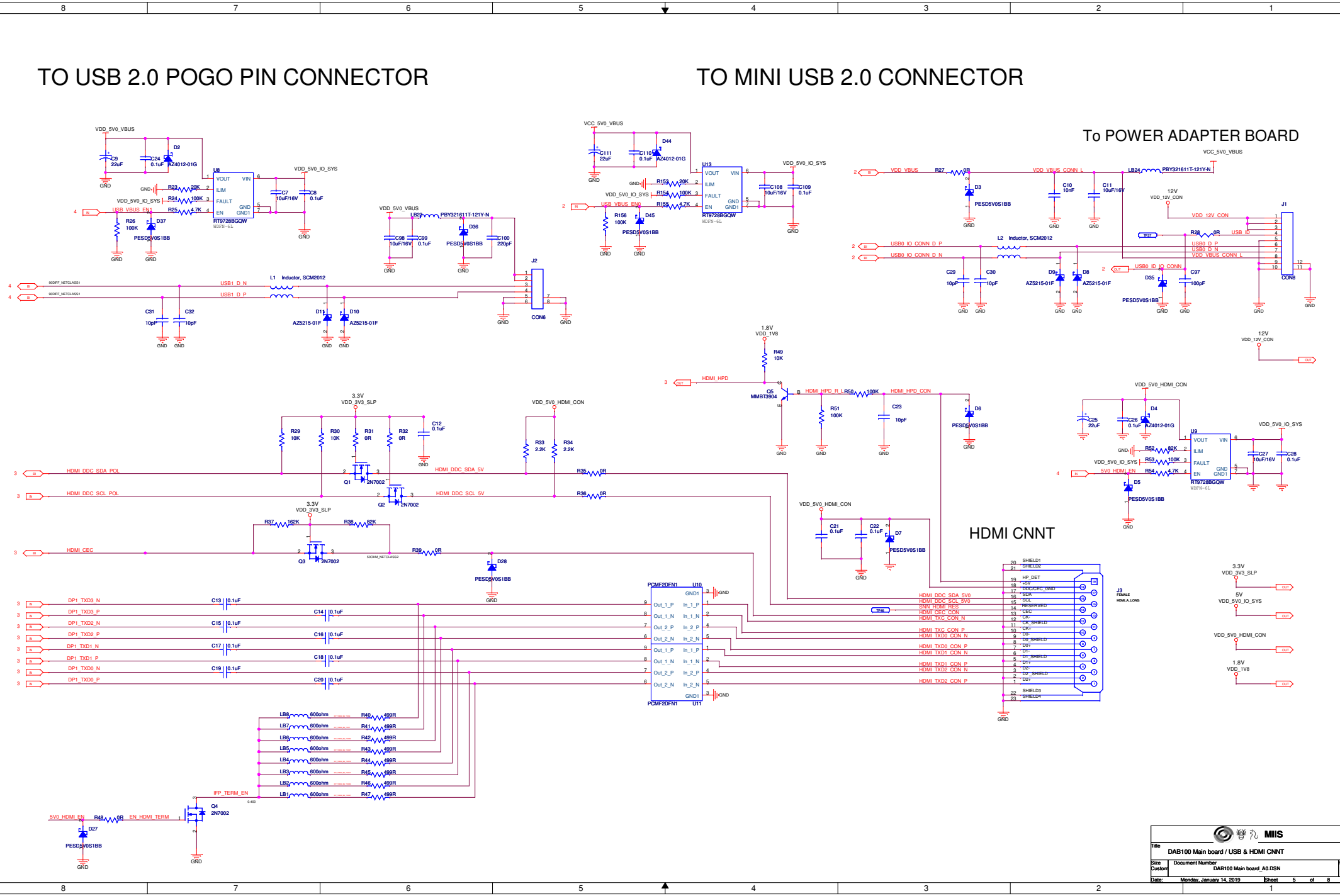
Date: Wednesday, January 16, 2019 | Sheet 1 of 8


12V
VDD_MOD
D1
AZ4012-01G
C1 22uF
C2 10uF/16V
C3 10uF/16V
C4 0.1uF
GND
J5C
CON_SEAM-50-02.0-S-08-2-A-K-TR
CVM1.0_CAR
COMMON
1:3 Audio, SD Card,APE, DEBUG, SYS, USB HOST/DEV
CVM 1.0
AUDIO
SD Card
APE
DEBUG
VDD_IN
VDD_RTC
RSVD
BBAT
R18 0R
Super CAP
C5 4F
CHG_OC_L
UART4_RX
UART4_TX
R19 NC/4.7K
Pin D8(UART4_TX) is associated with BOOT_SELECT2 strapping option in Jetson TX2.
It must be handled carefully to avoid changing the strapping levels
during power-on which could cause the platform to malfunction.
See the Jetson TX2 OEM DGs for details.
AUDIO_MCLK
AUDIO_I2S_MCLK
AUDIO_I2S_MCLK_R
I2S0_SDIN
I2S0_SDOUT
I2S0_LRCLK
I2S0_CLK
AUDIO_I2S_SIN
AUDIO_I2S_SOUT
AUDIO_I2S_SFSYNC
AUDIO_I2S_SRCLK
SPI1_CLK
SPI1_MISO
SPI1_MOSI
SPI1_CS0
SPI1_CS1
SPI1_SCK
SPI1_MISO
SPI1_MOSI
SPI1_CS0
SPI1_CS1
GPIO20_AUD_INT
GPIO19_AUD_RST
AUDIO_CDC_IRQ
AUD_RST
AO_DMIC_IN_CLK
AO_DMIC_IN_DAT
DSPK_OUT_CLK
DSPK_OUT_DAT
SDCARD_D0
SDCARD_D1
SDCARD_D2
SDCARD_D3
SDCARD_CMD
SDCARD_CLK
SDCARD_CD
SDCARD_WP
SDCARD_PWR_EN
SD_DAT0
SD_DAT1
SD_DAT2
SD_DAT3
SD_CMD
SD_CLK
SD_DETn
VDD_SD_EN
I2C_PM_CLK
I2C_PM_DAT
I2C_GP0_CLK
I2C_GP0_DAT
I2C_GP1_CLK
I2C_GP1_DAT
I2C_GP2_CLK
I2C_GP2_DAT
I2C_GP3_CLK
I2C_GP3_DAT
I2C_PM_CLK_1V8
I2C_PM_DAT_1V8
I2C_GP0_CLK_1V8
I2C_GP0_DAT_1V8
I2C_GP1_CLK_3V3
I2C_GP1_DAT_3V3
I2C_GP2_CLK_1V8
I2C_GP2_DAT_1V8
VDD_1V8
VDD_3V3_SYS
For WiFi & BT debug
UART3_RXD
UART3_TXD
UART3_CTS
UART3_RTS
UART1_TXD
UART1_RXD
UART1_CTS
UART1_RTS
For Serial port debug
USB0_VBUS_DET
USB0_OTG_ID
USB0_D
USB0_D
USB0_EN_OC
VDD_VBUS
USB0_ID_IO_CONN
USB0_IO_CONN_D_N
USB0_IO_CONN_D_P
USB_VBUS_EN0
FAN_PWM
FAN_TACH
POWER_BTN
VIN_PWR_BAD
SLEEP
BATLOW
FORCE_RECOV
POWER_BTN
VIN_PWR_BAD_L
SLEEP
LOW_BAT
FORCE_RECOVERY_L
RESET_OUT
RESET_IN
WDT_TIME_OUT
RESET_OUT_L
RESET_IN_L
WDT_TIME_OUT_L
VDD_1V8_PG
CARRIER_PWR_ON
CARRIER_STBY
CARRIER_PWR_ON
SOC_PWR_REQ
CHARGER_PRSNT
CHARGING
ACOK
CHARGING
GPIO8_ALS_PROX_INT
GPIO9_MOTION_INT
GPIO_EXP0_INT
GPIO_EXP1_INT
DIRECTDC_CLK
DIRECTDC_IN
DIRECTDC_OUT0
DIRECTDC_OUT1
DIRECTDC_OUT2
DIRECTDC_OUT3
JTAG_RTCK
JTAG_TCK
JTAG_TDI
JTAG_TDO
JTAG_TMS
JTAG_GP0
JTAG_GP1
JTAG_AP_RTCK
JTAG_AP_TCK
JTAG_AP_TDI
JTAG_AP_TDO
JTAG_AP_TMS
JTAG_AP_TRST_L
NVJTAG_SEL
R11 NC
R12 47K
R13 47K
R14 NC
R15 47K
R16 47K
R17 47K
19V
VDD_MOD
1.8V
VDD_1V8
5V
VDD_5V0_IO_SYS
VDD_3V3_SYS
Pin H10(UART3_TX) is associated with BOOT_SELECT1 strapping option in Jetson TX2.
Pin G10(UART3_RTS) is associated with BOOT_SELECT0 strapping option in Jetson TX2.
Pin D9(UART1_TX) is associated with BOOT_SELECT2 strapping option in
Jetson TX1, RAM_CODE1 strapping option in Jetson TX2.
These pins must be handled carefully to avoid changing the strapping levels
during power-on which could cause the platform to malfunction.
See the Jetson TX1/TX2 OEM DGs for details.
Pin E2(SLEEP#) is associated with Recovery Mode 1 strapping option in Jetson TX2.
Pin E1(FORCE_RECOV#) is associated with Force Recovery strapping option in Jetson TX1/TX2.
Pin A7(CHARGING#) is associated with Recovery Mode 2 strapping option in Jetson TX1.
MIIS
Title
DAB100 Main board / IO Connector_1
Size
Custom
Document Number
DAB100 Main board_A0.DSN
Rev
A0
Date:
Monday, January 14, 2019
Sheet
2
of
8

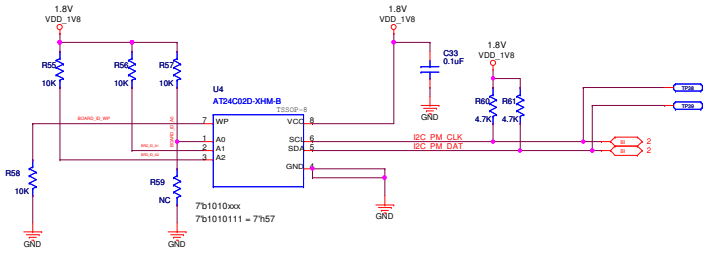

J5A
CON_SEAM-50-02.0-S-08-2-A-K-TR
CVM1G_CAR
COMMON
2/3
CSI, DSI, EDP, HDMI, TOUCH
CVM 1.0
DP0
DP1
HDMI1
DP0_TX3
DP0_TX2
DP0_TX1
DP0_TX0
DP0_AUX_CH
DP0_HPD
DP1_TXD3_P
DP1_TXD3_N
DP1_TXD2_P
DP1_TXD2_N
DP1_TXD1_P
DP1_TXD1_N
DP1_TXD0_P
DP1_TXD0_N
HDMI_DDC_SCL_POL
HDMI_DDC_SDA_POL
HDMI_HPD
HDMI_CEC
SPI0_CLK
SPI0_MISO
SPI0_MOSI
SPI0_CS0
GPIO6_TOUCH_INT
GPIO7_TOUCH_RST
TOUCH_CLK
VDIS_EN
DIS_BL_EN
LCD_RST
LCD_TE
LCD_VDD_EN
LCD_BKLT_EN
LCD0_BKLT_PWM
LCD1_BKLT_PWM
GSYNC_HSYNC
GSYNC_VSYNC
I2C_CAM_CLK
I2C_CAM_DAT
CAM_I2C_SCL
CAM_I2C_DAT
CAM0_MCLK
GPIO0_CAM0_PWR
GPIO2_CAM0_RST
CAM_FLASH
CAM_RST
GPIO4_CAM_STROBE
GPIO5_CAM_FLASH_EN
CAM_VSYNC
CAM_V_SYNC
CAM1_MCLK
GPIO1_CAM1_PWR
GPIO3_CAM1_RST
CAM2_MCLK
CSI0_CLK
CSI0_D0
CSI0_D1
CSI1_CLK
CSI1_D0
CSI1_D1
CAM_CSI_CKP
CAM_CSI_CKN
CAM_CSI_0P
CAM_CSI_0N
CAM_CSI_1P
CAM_CSI_1N
CAM_CSI_2P
CAM_CSI_2N
CAM_CSI_3P
CAM_CSI_3N
CSI2_CLK
CSI2_D0
CSI2_D1
CSI3_CLK
CSI3_D0
CSI3_D1
CSI4_CLK
CSI4_D0
CSI4_D1
CSI5_CLK
CSI5_D0
CSI5_D1
DSI0_CLK
DSI0_D0
DSI0_D1
DSI1_CLK
DSI1_D0
DSI1_D1
DSI2_CLK
DSI2_D0
DSI2_D1
DSI3_CLK
DSI3_D0
DSI3_D1
DIS_DSI_CKP
DIS_DSI_CKN
DIS_DSI_0P
DIS_DSI_0N
DIS_DSI_1P
DIS_DSI_1N
DIS_DSI_2P
DIS_DSI_2N
DIS_DSI_3P
DIS_DSI_3N
VDD_3V3_SYS
3.3V
VDD_3V3_SYS
5V
VDD_5V0_IO_SYS
1.8V
VDD_1V8
C112
10uF/16V
C113
0.1uF
GND
J8
CON30
J9
CON10
R161 0R
I2C_GP1_CLK_3V3
I2C_GP1_DAT_3V3
TOUCH_INTn1
CTP_RST1
R162 4.7K
R163 4.7K
Q15 NC/2N7002
Q16 NC/2N7002
TOUCH_INTn
CTP_RST
R20 4.7K
R21 4.7K
R22 0R
R166 0R
R167 0R
R168 0R
R171 0R
VDD_5V0_IO_SYS
L6 10uH
D46 1N5819
C144 10uF/16V
C146 10uF/50V
U14
NC/EUP2539
VDD
SW
GND
EN
FB
R165 4.7K
R164 12.7R
VLCD+
VLCD-
J10
MIIS
DAB100 Main board / IO Connector_2
Size Custom
Document Number
DAB100 Main board_A0.DSN
Rev A0
Date: Monday, February 25, 2019
Sheet 3 of 8



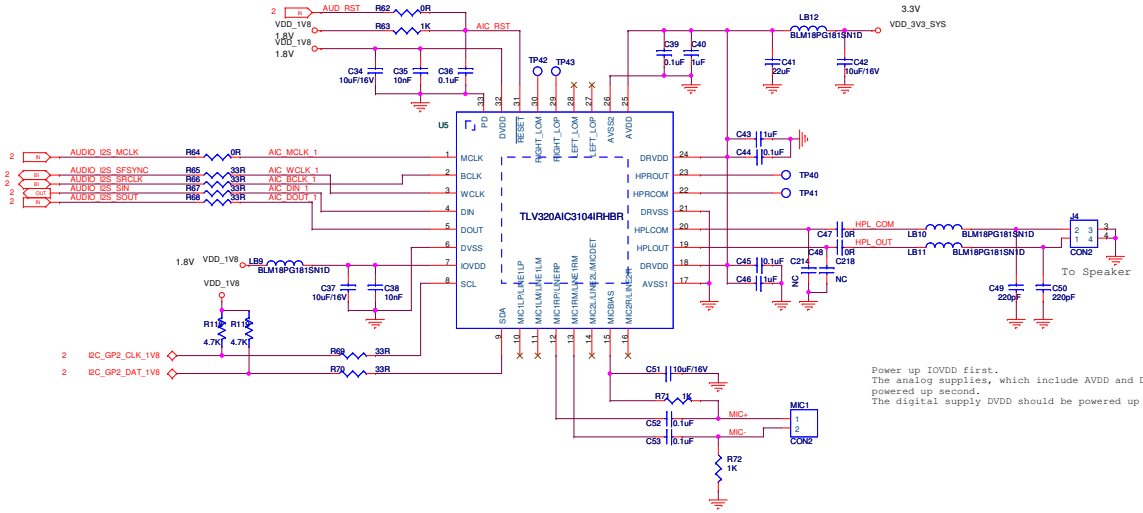
Title	DAB100 Main board / IO Connector_3		
Size: Custom	Document Number: DAB100 Main board_A0.DSN		Rev: A0
Date: Monday, January 14, 2019	Sheet 4 of 8		


TO USB 2.0 POGO PIN CONNECTOR
TO MINI USB 2.0 CONNECTOR
To POWER ADAPTER BOARD
HDMI CNNT
VDD_5V0_VBUS
VDD_5V0_IO_SYS
VCC_5V0_VBUS
VDD_12V_CON
VDD_5V0_HDMI_CON
VDD_3V3_SLP
VDD_1V8
USB_VBUS_EN
USB1_D_N
USB1_D_P
USB0_IO_CONN_D_N
USB0_IO_CONN_D_P
HDMI_HPD
HDMI_DDC_SDA_POL
HDMI_DDC_SCL_POL
HDMI_CEC
HDMI_DDC_SDA_5V
HDMI_DDC_SCL_5V
DP1_TXD3_N
DP1_TXD3_P
DP1_TXD2_N
DP1_TXD2_P
DP1_TXD1_N
DP1_TXD1_P
DP1_TXD0_N
DP1_TXD0_P
IFP_TERM_EN
5V0_HDMI_EN
EN_HDMI_TERM
HDMI_DDC_SDA_5V0
HDMI_DDC_SCL_5V0
SNN_HDMI_RES
HDMI_CEC_CON
HDMI_TXC_CON_N
HDMI_TXC_CON_P
HDMI_TXD0_CON_N
HDMI_TXD0_CON_P
HDMI_TXD1_CON_N
HDMI_TXD1_CON_P
HDMI_TXD2_CON_N
HDMI_TXD2_CON_P
U8
U13
U9
U10
U11
J1
J2
J3
CON6
CON8
RT9728BGQW
PCMF2DFN1
PESD5V0S1BB
AZ4012-01G
AZ5215-01F
2N7002
MMBT3904
L1 Inductor, SCM2012
L2 Inductor, SCM2012
MIIS
DAB100 Main board / USB & HDMI CNNT
Document Number
DAB100 Main board_A0.DSN
Rev A0
Monday, January 14, 2019
Sheet 5 of 8

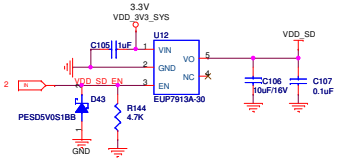
Carrier board config

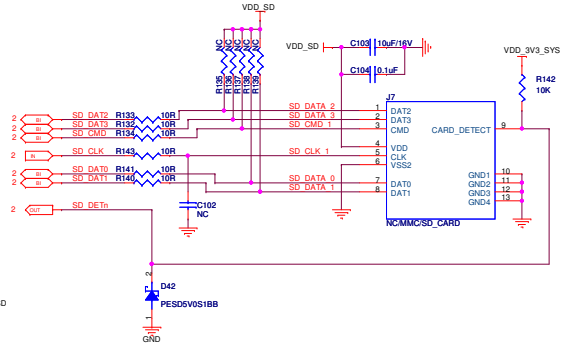


Audio codec

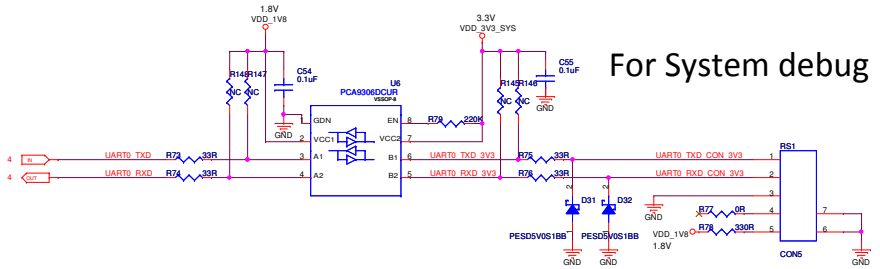


Power up IOVDD first.
The analog supplies, which include AVDD and DRVDD, should be powered up second.
The digital supply DVDD should be powered up last.

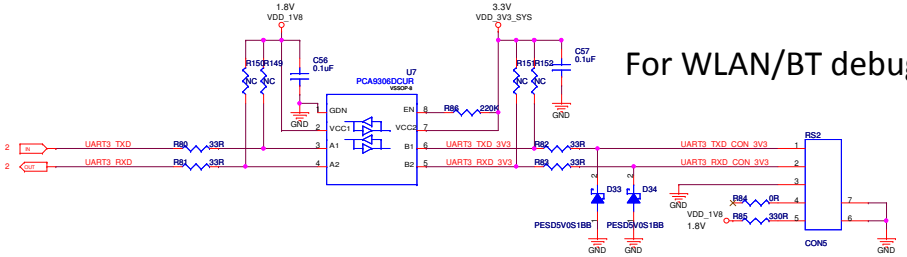




For System debug

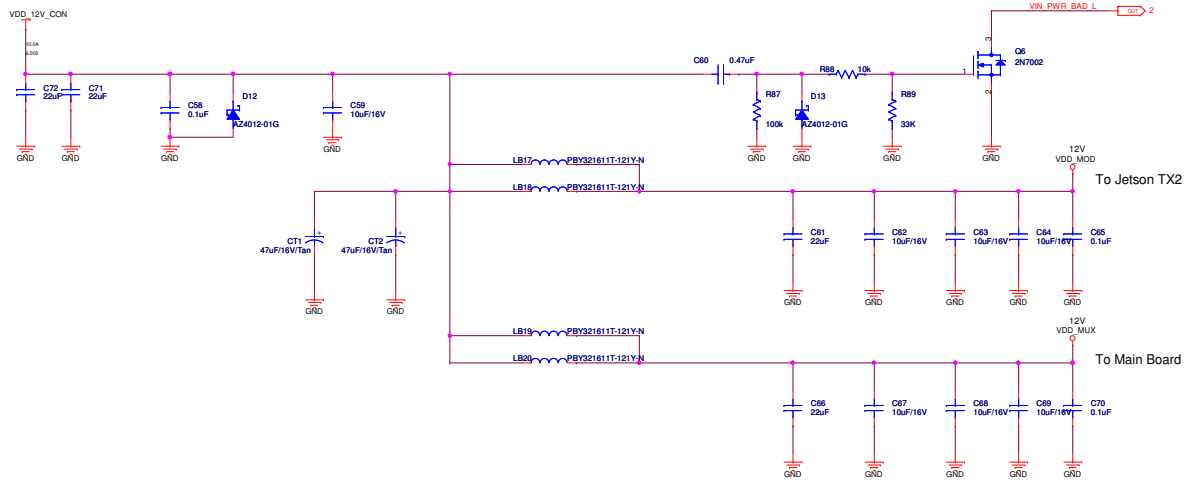


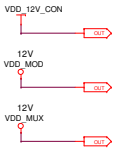
For WLAN/BT debug



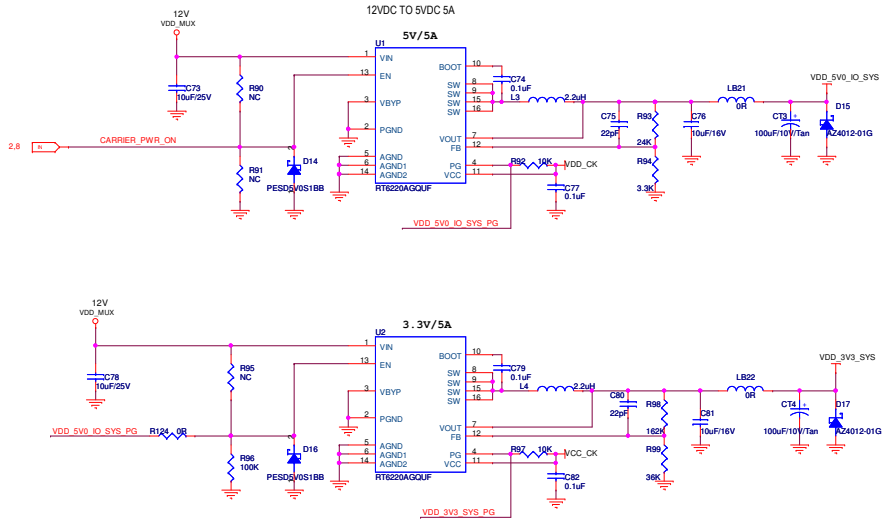
MIIS			
Title	DAB100 Main board / EEPROM, Audio code & UART		
Size: Custom	Document Number: DAB100 Main board_A0.DSN		Rev: A0
Date: Wednesday, January 16, 2019	Sheet 6 of 8		

12V Power in

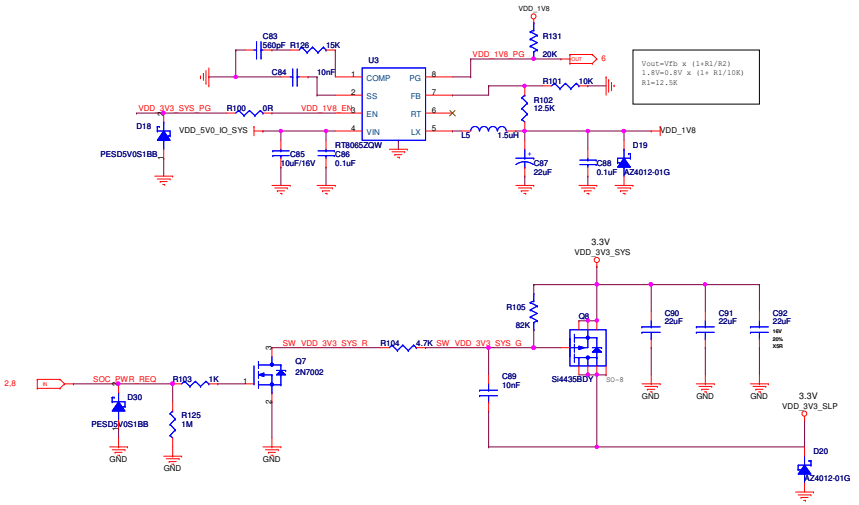


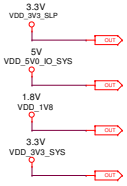


5V AND 3V3 POWER SUPPLY



3V3 AND 1V8 POWER SUPPLY





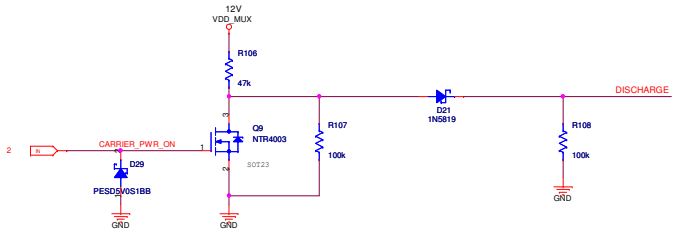
MIIS

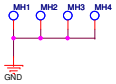
Title: DAB100 Main board / DC CNNT & Power supplies

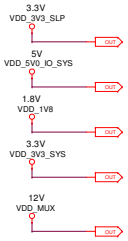
Size	Document Number	Rev
Custom	DAB100 Main board_A0.DSN	A0

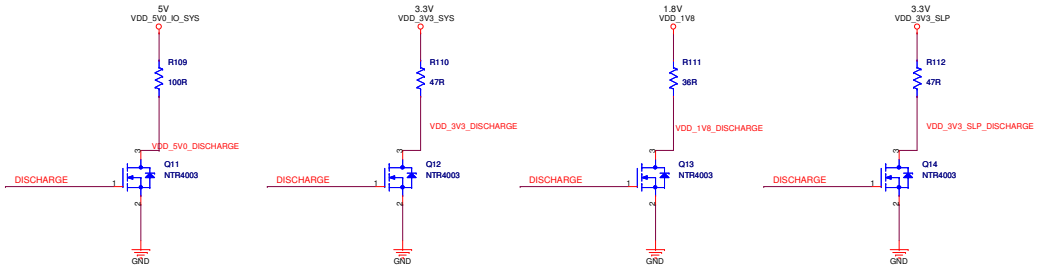
Date: Wednesday, January 16, 2019 Sheet 7 of 8

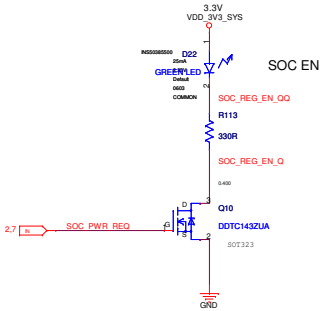
RAIL DISCHARGE



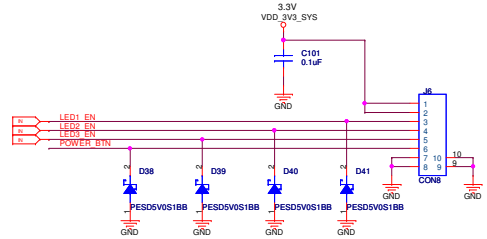






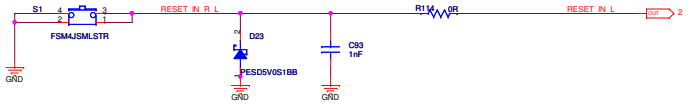


SOC EN

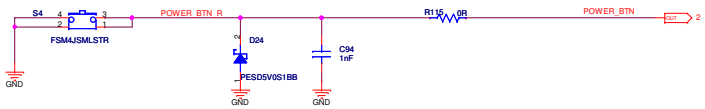


Buttons

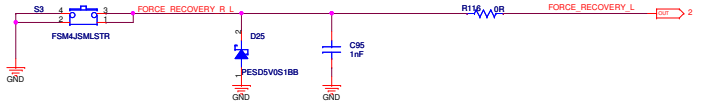
RESET



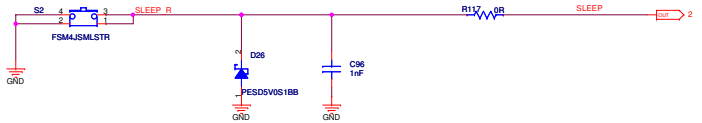
POWER



RECOVERY



VOL DOWN



MIIS		
Title: DAB100 Main board / Rail Discharge & Buttons		
Size: Custom	Document Number: DAB100 Main board_A0.DSN	Rev: A0
Date: Monday, January 14, 2019	Sheet 8 of 8	