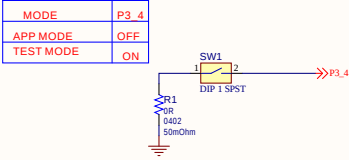
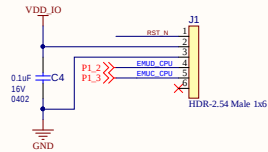


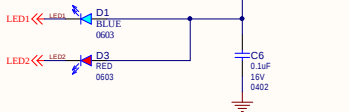
SYSTEM CFG SWITCH (OPTIONAL)



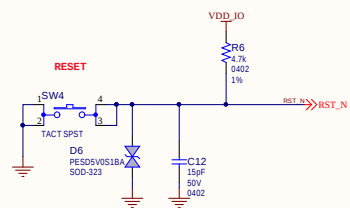
8051 MCU JTAG (OPTIONAL)



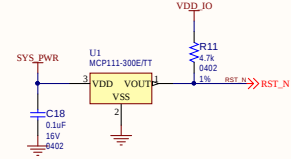
SYSTEM LED



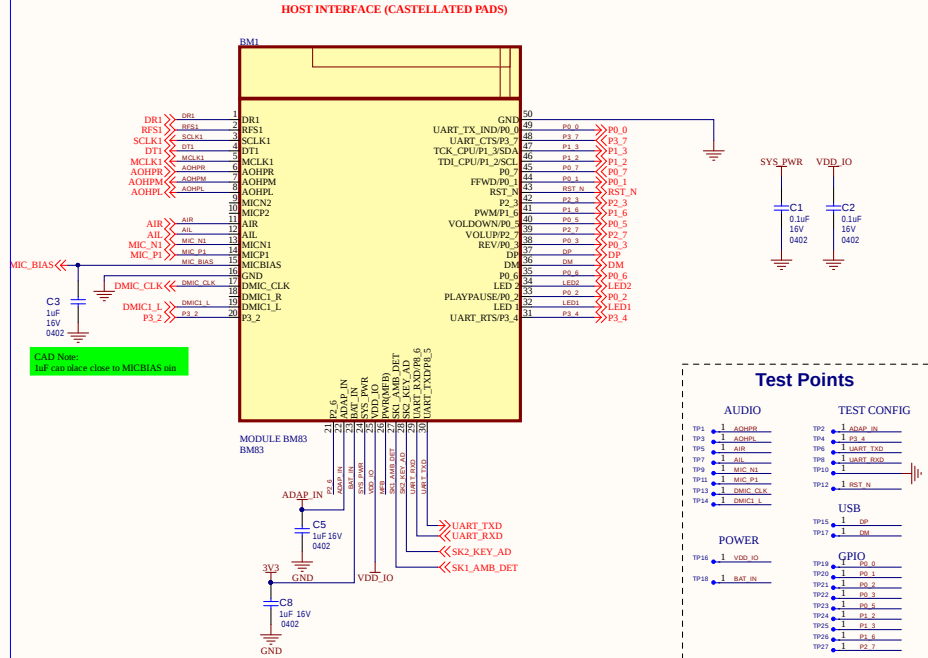
RESET Button (OPTIONAL)



RESET IC (OPTIONAL)



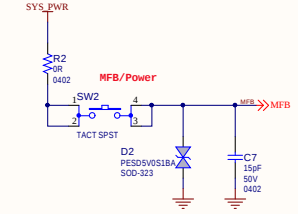
BM83 MODULE INTERFACE



GPIO ASSIGNMENT TABLE

S.No.	PIN NAME	FUNCTION1	REMARKS
1	P0_0	DSP_RST	External DSP Codec Reset
2	P0_1	FWD	
3	P0_2	PLAY/PAUSE	
4	P0_3	REV	
5	P0_5	VOL-	
6	P0_6	PWM LED Drive	Muxed with PWM (SDK OPTION)
7	P0_7		
8	P1_2	8051 MCU-2 Wire Debug Data	Muxed with HW I2C (SCL)
9	P1_3	8051 MCU-2 Wire Debug Clock	Muxed with HW I2C (SDA)
10	P1_6	Fault Interrupt for ext. DSP Codec	
11	P2_3		
12	P2_6		
13	P2_7	VOL+	
14	P3_2	AUX_IN DETECT	
15	P3_4	SYS CFG (Test Mode)	
16	P3_7		

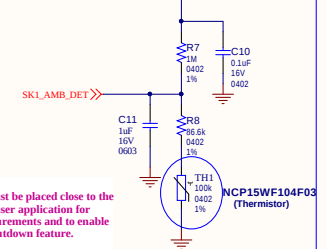
MFB POWER BUTTON



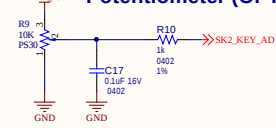
PWM LED Drive (OPTIONAL)



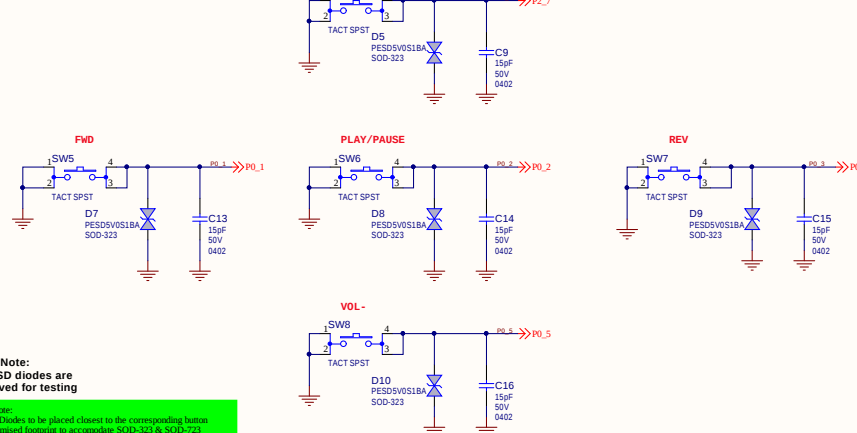
AMB DET (OPTIONAL)



Potentiometer (OPTIONAL)



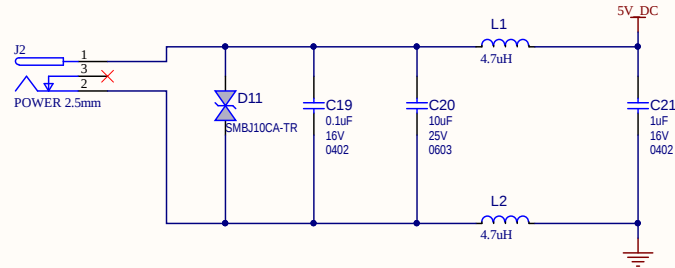
AUDIO CONTROL BUTTONS



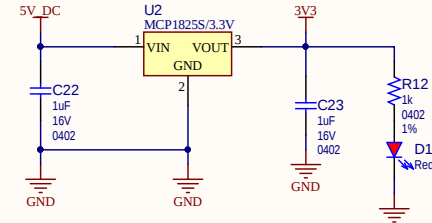
BOM Note:
All ESD diodes are reserved for testing

CAD Note:
1. ESD Diodes to be placed closest to the corresponding button
2. Component footprint to accommodate SOD-323 & SOD-723

5V DC POWER JACK

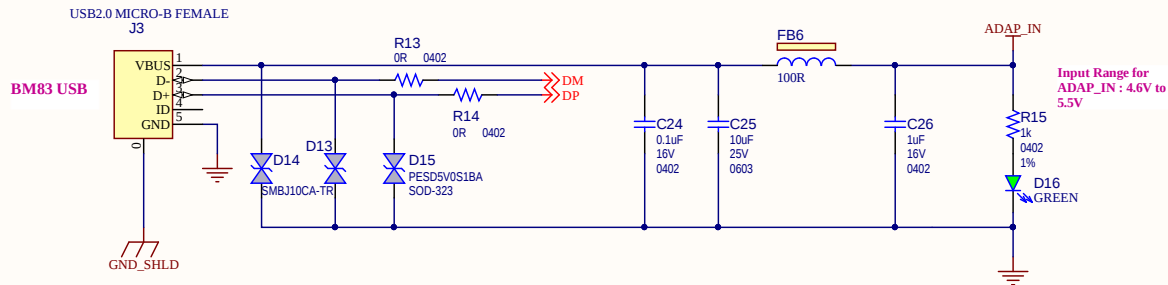


5V TO 3V3 GENERATION

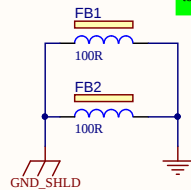


NOTE:
1). Using 3V3 LDO supply for BM83's BAT_IN, ensure there is no voltage drop when transient current is drawn from BM83 module.
2). Alternatively, make use of a LDO configured for 3V6 for BAT_IN, to provide additional margin to encounter the v_g drop due to transients.
3). Ensure the charger function is disabled in configuration tool.

USB CONNECTOR



CAD Note:
ESD Diodes to be placed closest to the USB connector

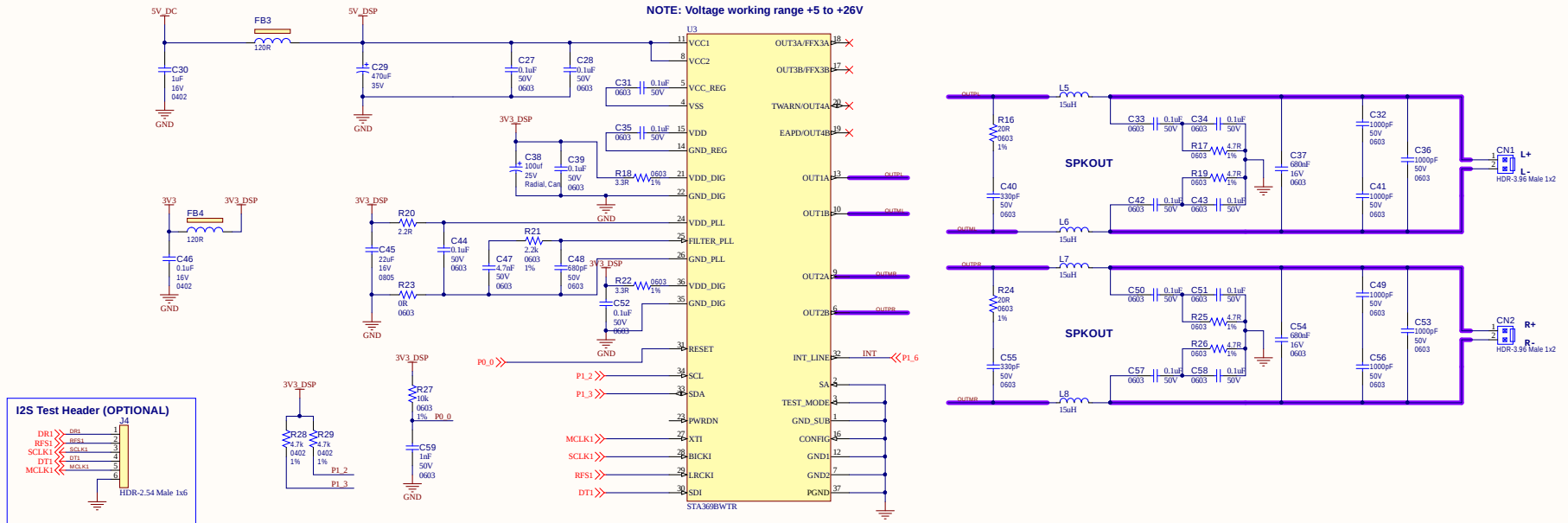


NOTE:
USB connector is used in following case:
1). DFU (Device Firmware Upgrade) in application mode.
2). Firmware update in Test mode

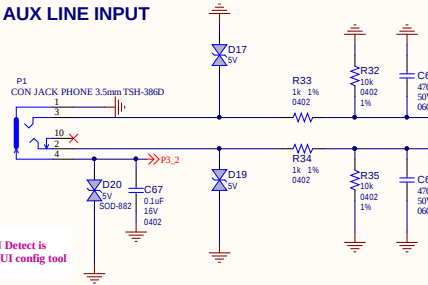
Drawn By: Chetan Bohra		
Engineer: Chetan Bohra		
PartNumber:	Project Title BM83 Reference Circuit for Embedded Mode	
Sheet Title Power Supply	Designed with 	
Size B	Sch #03- Revision:0.9	Date: 2019/12/23 下午 05:12:26 Sheet 3 of 4
File: 03_POWER SUPPLY.SchDoc		

EXTERNAL CODEC (STA369BW)

NOTE: Voltage working range +5 to +26V



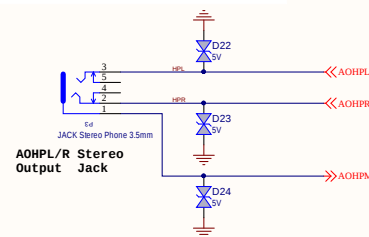
STEREO AUX LINE INPUT



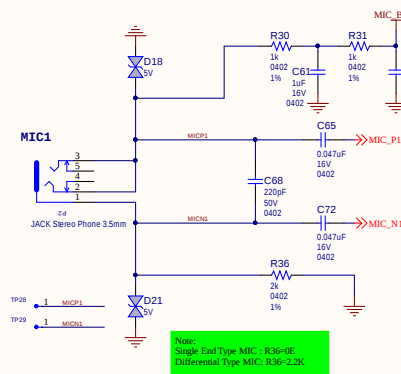
NOTE:
GPIO for AUX-IN Detect is
configurable by GUI config tool

AUDIO HEADSET CAPLESS OUTPUT (OPTIONAL)

NOTE:
This is optional. Required for Headset application with internal codec.

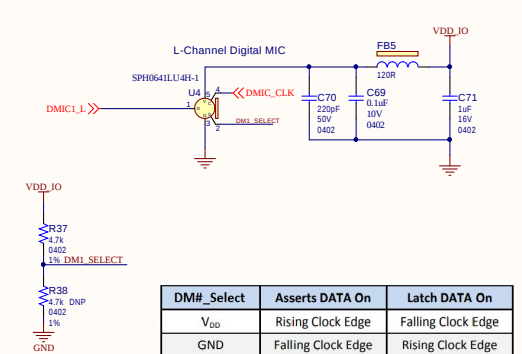


ANALOGY MICROPHONE (OPTIONAL)



Note:
Single End Type MIC : R36=10k
Differential Type MIC : R36=2.2k

DIG MICROPHONE with PDM OUTPUT



DM#_Select	Asserts DATA On	Latch DATA On
V _{DD}	Rising Clock Edge	Falling Clock Edge
GND	Falling Clock Edge	Rising Clock Edge

NOTE:
1). Either DIG MIC or ANA MIC is functional, not both
2). DIG MIC is the default configuration in the FW
3). BM83 supports 2 DIG MIC (L&R) but only 1 DIG MIC is supported in the current FW