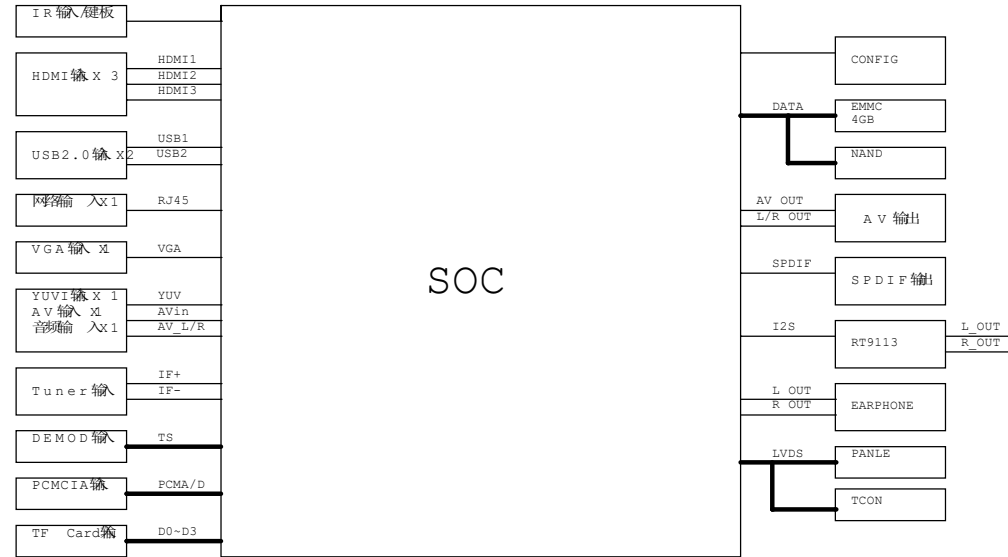



Ver	Date	Change-List
V1.0.0	2017/10/27	Initial
V1.0.1	2017/11/1	1. 更新 EMM 封装 2. 精简电源滤波电容。
V1.0.2	2017/11/7	1.L101/102/103 footprint 改为 SMD05×5 2. 删掉 C201/C204/C25; 3. 更新 I 型号。
V1.0.3	2017/11/9	新的 ballou 更新, 其他: 1. Tuner 删掉更新封装和 PCB; 2. +5V_Normal 的 CD 改用 SY813 B。
V1.0.4	2017/11/14	1. CA 控制信号定义从 TS1 出; 2. 修改 I C pd: E9 定义。
V1.0.5	2017/11/24	1. 修改 I C pd: R1_0, L1_3, 删除; 2. +3.3V EMMC 电容(08 0 u F)。 3. 更新封装: 0 SQ: IC-400P-P08-17_5+20_2; (2) 散热片: 62x8 MM。
V1.0.6	2017/12/08	1. 重说明 MSD6A358AT 和 MSD6A358 的物理图差异。 2. WOW 信号从 GPIO 输出 对外 4.7 K 电阻 3. TF-Card SD_CDZ 信号 R411 电压更改为 +3.3V 3 n Ω
V1.0.7	2018/1/19	1. 修改阻值参数: R108-100K, R25-100K, R231 Ω 2. 电容件: C112/C13 3 n C。 3. 修改参数: C306/C120/C3B-22uF, C352 2F。 4. 晶振参数修改: 改为从 XTAL0 出, C220-10pF, R73R。
V1.0.8	2018/07/01	1, VDDC power SY8113B(3A) 改为 SY8120B1 A 2, 增加 EMMC/na nd 引脚描述, 如下 注: 焊盘使用 C, 其中的 OR 电阻及 0 电阻可以去除, 直连即可 如果 nand 和 EMMC 必须焊 0R, 防止断

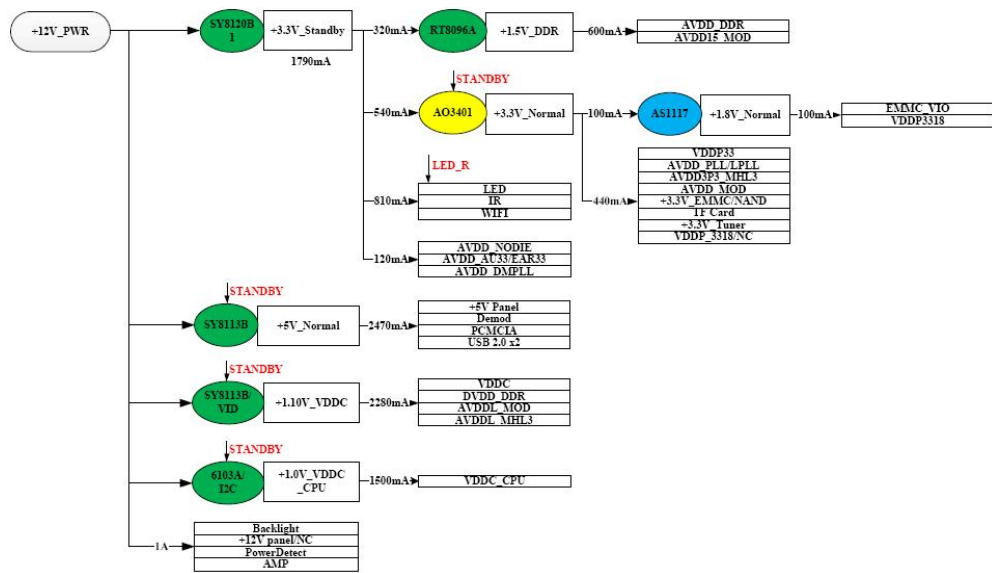
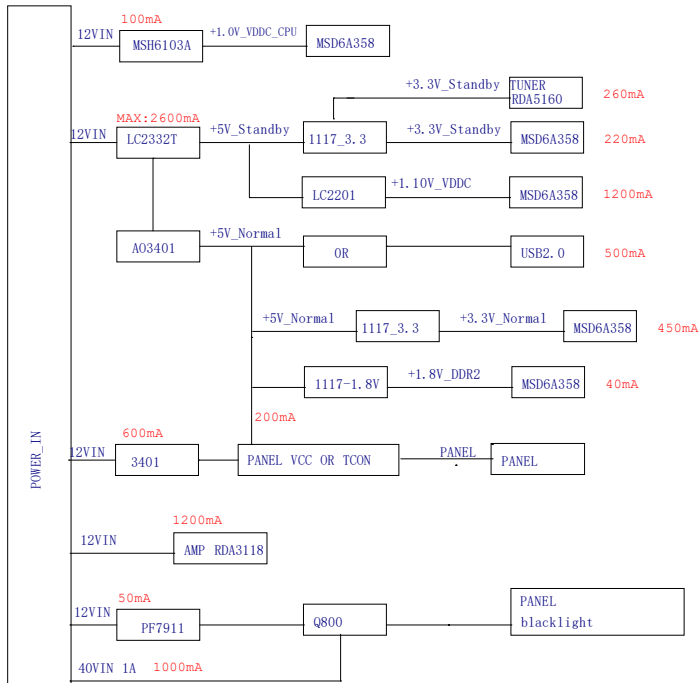




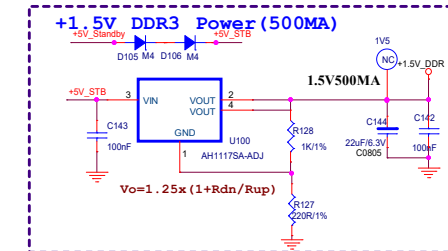
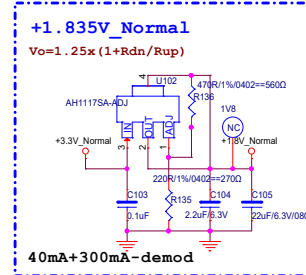
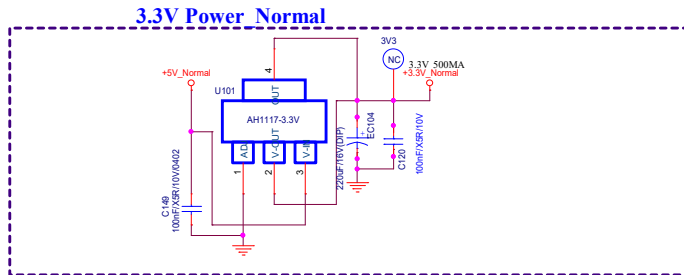
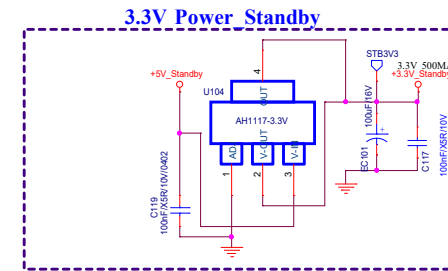
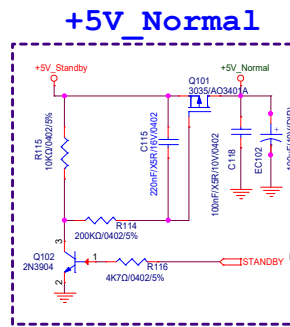
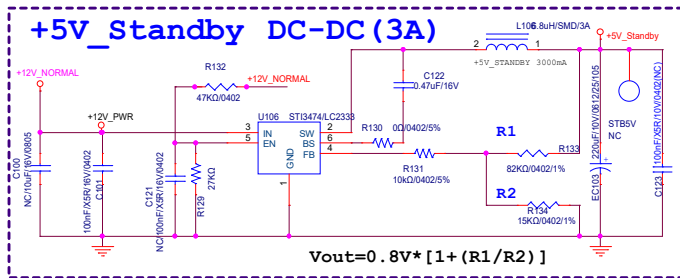
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Title REV		
Size Custom	Schematic Name TH358C1	Rev T1
Date Wednesday, August 10, 2022		Sheet 0 of 15

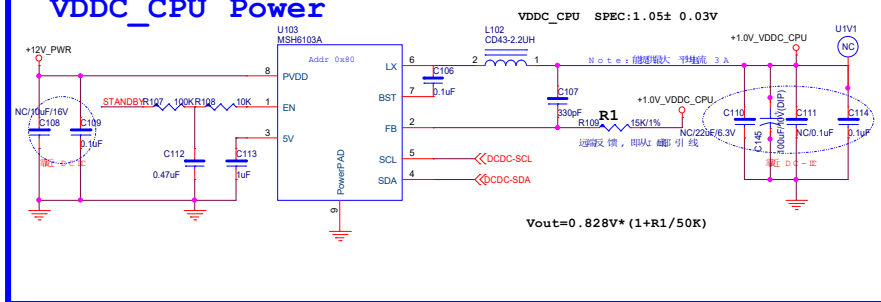
POWER BLOCK



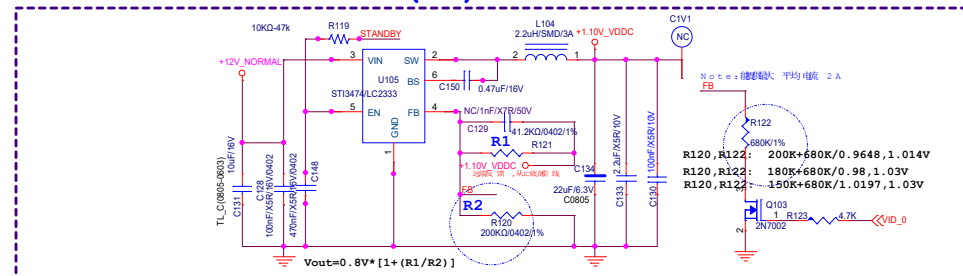
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Title		POWER NET	
Size	Schematic Name	Rev	
C	TH358C1	T1	
Date Wednesday, August 10, 2022		Sheet 1	of 15



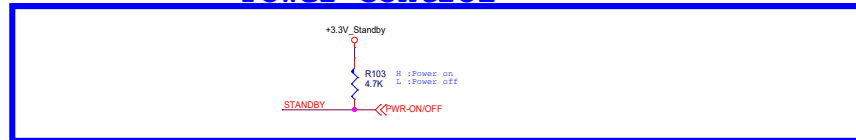
## VDDC\_CPU Power



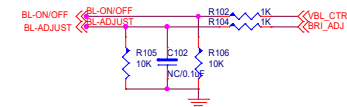
## VDDC Power (2A)



## Power-Control



## BL-Control



[illegible][illegible]

Circuit diagram showing two capacitors, C1 and C2, connected between XTAL1 and XTAL2 pins. The capacitors are labeled C1=22pF and C2=22pF. A note indicates that the frequency must be less than 20MHz and  $CL = C1 + C2 < 5$ .

S201  
HEATSINK-28

**Pin 1 to 40 connection diagram for M00A338 module:**

- Pin 1:** BR1\_ADI<sub>1</sub> (TP30) to BR1\_ADI<sub>1</sub> (TP30)
- Pin 2:** Key0<sub>0</sub> (TP35) to Key0<sub>0</sub> (TP35)
- Pin 3:** CS1\_ADI<sub>1</sub> (TP35) to CS1\_ADI<sub>1</sub> (TP35)
- Pin 4:** SAR1\_ADI<sub>1</sub> (TP35) to SAR1\_ADI<sub>1</sub> (TP35)
- Pin 5:** Power\_DETECT<sub>1</sub> (TP35) to Power\_DETECT<sub>1</sub> (TP35)
- Pin 6:** UART\_RX<sub>1</sub> (TP35) to UART\_RX<sub>1</sub> (TP35)
- Pin 7:** UART\_TX<sub>1</sub> (TP35) to UART\_TX<sub>1</sub> (TP35)
- Pin 8:** DDCR\_CK<sub>1</sub> (TP35) to DDCR\_CK<sub>1</sub> (TP35)
- Pin 9:** DDCR\_DA<sub>1</sub> (TP35) to DDCR\_DA<sub>1</sub> (TP35)
- Pin 10:** VIO<sub>1</sub> (TP35) to VIO<sub>1</sub> (TP35)
- Pin 11:** VIO<sub>1</sub> (TP35) to VIO<sub>1</sub> (TP35)
- Pin 12:** TS\_MDO0<sub>1</sub> (TP35) to TS\_MDO0<sub>1</sub> (TP35)
- Pin 13:** TS\_MDO1<sub>1</sub> (TP35) to TS\_MDO1<sub>1</sub> (TP35)
- Pin 14:** TS\_MDO2<sub>1</sub> (TP35) to TS\_MDO2<sub>1</sub> (TP35)
- Pin 15:** TS\_MDO3<sub>1</sub> (TP35) to TS\_MDO3<sub>1</sub> (TP35)
- Pin 16:** TS\_MDO4<sub>1</sub> (TP35) to TS\_MDO4<sub>1</sub> (TP35)
- Pin 17:** TS\_MDO5<sub>1</sub> (TP35) to TS\_MDO5<sub>1</sub> (TP35)
- Pin 18:** TS\_MDO6<sub>1</sub> (TP35) to TS\_MDO6<sub>1</sub> (TP35)
- Pin 19:** TS\_MDO7<sub>1</sub> (TP35) to TS\_MDO7<sub>1</sub> (TP35)
- Pin 20:** TS\_MDO8<sub>1</sub> (TP35) to TS\_MDO8<sub>1</sub> (TP35)
- Pin 21:** TS\_MDO9<sub>1</sub> (TP35) to TS\_MDO9<sub>1</sub> (TP35)
- Pin 22:** TS\_MDO10<sub>1</sub> (TP35) to TS\_MDO10<sub>1</sub> (TP35)
- Pin 23:** TS\_MDO11<sub>1</sub> (TP35) to TS\_MDO11<sub>1</sub> (TP35)
- Pin 24:** TS\_MDO12<sub>1</sub> (TP35) to TS\_MDO12<sub>1</sub> (TP35)
- Pin 25:** TS\_MDO13<sub>1</sub> (TP35) to TS\_MDO13<sub>1</sub> (TP35)
- Pin 26:** TS\_MDO14<sub>1</sub> (TP35) to TS\_MDO14<sub>1</sub> (TP35)
- Pin 27:** TS\_MDO15<sub>1</sub> (TP35) to TS\_MDO15<sub>1</sub> (TP35)
- Pin 28:** TS\_MDO16<sub>1</sub> (TP35) to TS\_MDO16<sub>1</sub> (TP35)
- Pin 29:** TS\_MDO17<sub>1</sub> (TP35) to TS\_MDO17<sub>1</sub> (TP35)
- Pin 30:** TS\_MDO18<sub>1</sub> (TP35) to TS\_MDO18<sub>1</sub> (TP35)
- Pin 31:** TS\_MDO19<sub>1</sub> (TP35) to TS\_MDO19<sub>1</sub> (TP35)
- Pin 32:** TS\_MDO20<sub>1</sub> (TP35) to TS\_MDO20<sub>1</sub> (TP35)
- Pin 33:** TS\_MDO21<sub>1</sub> (TP35) to TS\_MDO21<sub>1</sub> (TP35)
- Pin 34:** TS\_MDO22<sub>1</sub> (TP35) to TS\_MDO22<sub>1</sub> (TP35)
- Pin 35:** TS\_MDO23<sub>1</sub> (TP35) to TS\_MDO23<sub>1</sub> (TP35)
- Pin 36:** TS\_MDO24<sub>1</sub> (TP35) to TS\_MDO24<sub>1</sub> (TP35)
- Pin 37:** TS\_MDO25<sub>1</sub> (TP35) to TS\_MDO25<sub>1</sub> (TP35)
- Pin 38:** TS\_MDO26<sub>1</sub> (TP35) to TS\_MDO26<sub>1</sub> (TP35)
- Pin 39:** TS\_MDO27<sub>1</sub> (TP35) to TS\_MDO27<sub>1</sub> (TP35)
- Pin 40:** TS\_MDO28<sub>1</sub> (TP35) to TS\_MDO28<sub>1</sub> (TP35)

**Notes:**

- UART pin 20 is connected to TS\_MDO10.
- Pin 10 is connected to VIO<sub>1</sub>.

图 1 是 STM32F103C8T6 的管脚图，图 2 是 STM32F103C8T6 的管脚连接图。

STM32F103C8T6	STM32F103C8T6	STM32F103C8T6	STM32F103C8T6
GPIO_PMC2	GPIO_PMC6	GPIO_PMC10	GPIO_PMC14
GPIO_PMC2	GPIO_PMC6	GPIO_PMC10	GPIO_PMC14
GPIO_PMC2	GPIO_PMC6	GPIO_PMC10	GPIO_PMC14
GPIO_PMC2	GPIO_PMC6	GPIO_PMC10	GPIO_PMC14

The schematic diagram shows the following connections:

- VID Pins:**
  - VID\_0 is connected to R224 (4.7K) to +3.3V Standby.
  - VID\_8 is connected to R225 (4.7K) to +3.3V Normal.
- I2C/SPI Pins:**
  - I2C-SCL is connected to R227 (4.7K) to +3.3V Normal.
  - I2C-SDA is connected to R228 (4.7K) to +3.3V Normal.
  - DCDC-SCL is connected to R229 (4.7K) to +3.3V Normal.
  - DCDC-SDA is connected to R230 (4.7K) to +3.3V Normal.

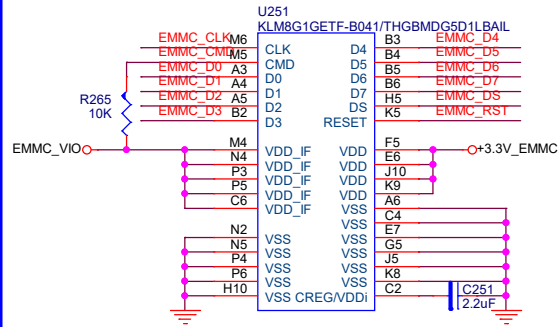


关于 2020 年注册税务师考试的提醒		
模块	2020-2520AX	2020-2520AT
①	2:C 支持, 保留连	2:C 不支持, 不能去
②	2:C 支持, 保留连	2:C 支持, 可保留
③	2:C 支持, 保留连	2:C 支持, 可保留
④	2:C 支持, 保留连	2:C 支持, 可保留

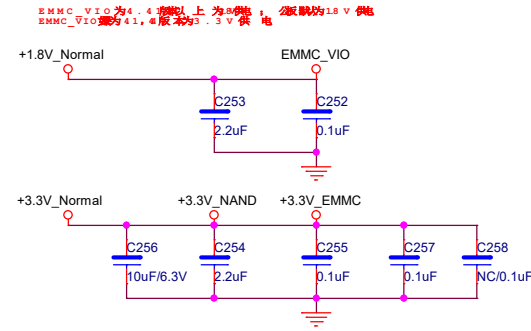




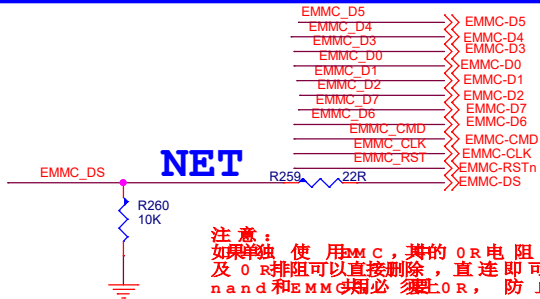
## eMMC



## eMMC/NAND POWER



## NET



注意：  
如果单独使用 eMMC，其的 0R 电阻以及 0R 排阻可以直接删除，直连即可；如果 nand 和 eMMC 共用，则必须 0R，防止残断

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Title			EMMC & NAND & SD	
Size	Schematic Name		Rev	
B	TH358C1		T1	
Date		Wednesday, August 10, 2022	Sheet 5	of 15

The schematic diagram illustrates the USB2\_VBUS\_CON circuit. A +5V\_USB input is connected to a network of three resistors (R1, R2, R3) and two diodes (D1, D2). The resistors are 0.0505 ohms and 0.15 ohms. The diodes are 1N4148. The circuit is connected to the VBUS pin of a USB HOST Socket X1. The output of the circuit is connected to the USB2\_D- and USB2\_D+ pins of the USB2\_VBUS\_CON block.

The schematic diagram illustrates the internal connections of the WIFI Module. It features three main components: a connector (CN451), a microcontroller (U450), and an antenna (ANT450).

**U450 (W41R1000) Connections:**

- Pin 1 (GND2):** Connected to GND.
- Pin 2 (RF):** Connected to RF0.
- Pin 3 (GND1):** Connected to GND.
- Pin 4 (VDD3.3V):** Connected to VDD3.3V.
- Pin 5 (HOST\_WAVE):** Connected to HOST\_WAVE.
- Pin 6 (DEV\_WAVE):** Connected to DEV\_WAVE.
- Pin 7 (PDN):** Connected to PDN.
- Pin 8 (WIF3.3):** Connected to WIF3.3.
- Pin 9 (GND):** Connected to GND.

**ANT450 (IPEX) Connections:**

- Pin 1 (ANT):** Connected to RF0.
- Pin 2 (GND):** Connected to GND.

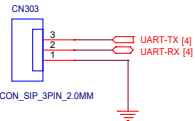
**Other Connections:**

- U450 Pin 10 (GND2):** Connected to GND.
- U450 Pin 11 (RF):** Connected to RF0.
- U450 Pin 12 (GND1):** Connected to GND.
- U450 Pin 13 (VDD3.3V):** Connected to VDD3.3V.
- U450 Pin 14 (HOST\_WAVE):** Connected to HOST\_WAVE.
- U450 Pin 15 (DEV\_WAVE):** Connected to DEV\_WAVE.
- U450 Pin 16 (PDN):** Connected to PDN.
- U450 Pin 17 (WIF3.3):** Connected to WIF3.3.
- U450 Pin 18 (GND):** Connected to GND.

**External Components:**

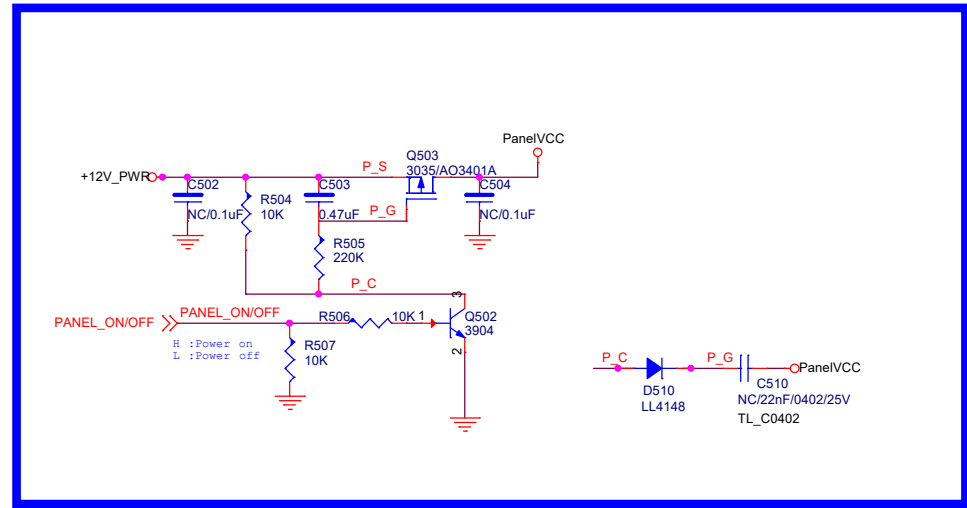
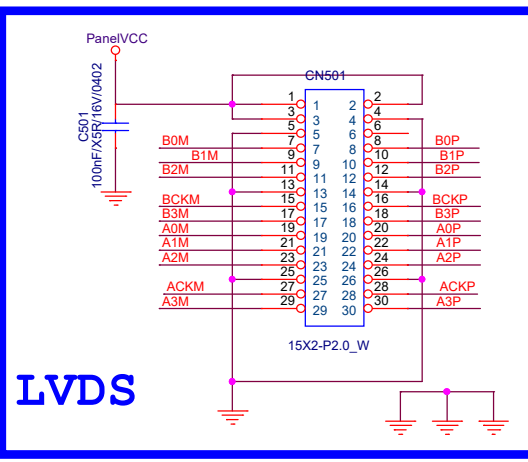
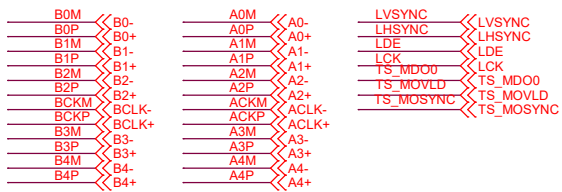
- Capacitors:** C452, C453, C454, C455, C456, C457, C458, C459, C460, C461, C462, C463, C464, C465, C466, C467, C468, C469, C470, C471, C472, C473, C474, C475, C476, C477, C478, C479, C480, C481, C482, C483, C484, C485, C486, C487, C488, C489, C490, C491, C492, C493, C494, C495, C496, C497, C498, C499, C500, C501, C502, C503, C504, C505, C506, C507, C508, C509, C510, C511, C512, C513, C514, C515, C516, C517, C518, C519, C520, C521, C522, C523, C524, C525, C526, C527, C528, C529, C530, C531, C532, C533, C534, C535, C536, C537, C538, C539, C540, C541, C542, C543, C544, C545, C546, C547, C548, C549, C550, C551, C552, C553, C554, C555, C556, C557, C558, C559, C560, C561, C562, C563, C564, C565, C566, C567, C568, C569, C570, C571, C572, C573, C574, C575, C576, C577, C578, C579, C580, C581, C582, C583, C584, C585, C586, C587, C588, C589, C590, C591, C592, C593, C594, C595, C596, C597, C598, C599, C600, C601, C602, C603, C604, C605, C606, C607, C608, C609, C610, C611, C612, C613, C614, C615, C616, C617, C618, C619, C620, C621, C622, C623, C624, C625, C626, C627, C628, C629, C630, C631, C632, C633, C634, C635, C636, C637, C638, C639, C640, C641, C642, C643, C644, C645, C646, C647, C648, C649, C650, C651, C652, C653, C654, C655, C656, C657, C658, C659, C660, C661, C662, C663, C664, C665, C666, C667, C668, C669, C670, C671, C672, C673, C674, C675, C676, C677, C678, C679, C680, C681, C682, C683, C684, C685, C686, C687, C688, C689, C690, C691, C692, C693, C694, C695, C696, C697, C698, C699, C700, C701, C702, C703, C704, C705, C706, C707, C708, C709, C710, C711, C712, C713, C714, C715, C716, C717, C718, C719, C720, C721, C722, C723, C724, C725, C726, C727, C728, C729, C730, C731, C732, C733, C734, C735, C736, C737, C738, C739, C740, C741, C742, C743, C744, C745, C746, C747, C748, C749, C750, C751, C752, C753, C754, C755, C756, C757, C758, C759, C760, C761, C762, C763, C764, C765, C766, C767, C768, C769, C770, C771, C772, C773, C774, C775, C776, C777, C778, C779, C780, C781, C782, C783, C784, C785, C786, C787, C788, C789, C790, C791, C792, C793, C794, C795, C796, C797, C798, C799, C800, C801, C802, C803, C804, C805, C806, C807, C808, C809, C810, C811, C812, C813, C814, C815, C816, C817, C818, C819, C820, C821, C822, C823, C824, C825, C826, C827, C828, C829, C830, C831, C832, C833, C834, C835, C836, C837, C838, C839, C840, C841, C842, C843, C844, C845, C846, C847, C848, C849, C850, C851, C852, C853, C854, C855, C856, C857, C858, C859, C860, C861, C862, C863, C864, C865, C866, C867, C868, C869, C870, C871, C872, C873, C874, C875, C876, C877, C878, C879, C880, C881, C882, C883, C884, C885, C886, C887, C888, C889, C890, C891, C892, C893, C894, C895, C896, C897, C898, C899, C900, C901, C902, C903, C904, C905, C906, C907, C908, C909, C910, C911, C912, C913, C914, C915, C916, C917, C918, C919, C920, C921, C922, C923, C924, C925, C926, C927, C928, C929, C930, C931, C932, C933, C934, C935, C936, C937, C938, C939, C940, C941, C942, C943, C944, C945, C946, C947, C948, C949, C950, C951, C952, C953, C954, C955, C956, C957, C958, C959, C960, C961, C962, C963, C964, C965, C966, C967, C968, C969, C970, C971, C972, C973, C974, C975, C976, C977, C978, C979, C980, C981, C982, C983, C984, C985, C986, C987, C988, C989, C990, C991, C992, C993, C994, C995, C996, C997, C998, C999, C1000.
- Resistors:** R456, R457, R458, R459, R460, R461, R462, R463, R464, R465, R466, R467, R468, R469, R470, R471, R472, R473, R474, R475, R476, R477, R478, R479, R480, R481, R482, R483, R484, R485, R486, R487, R488, R489, R490, R491, R492, R493, R494, R495, R496, R497, R498, R499, R500, R501, R502, R503, R504, R505, R506, R507, R508, R509, R510, R511, R512, R513, R514, R515, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R527, R528, R529, R530, R531, R532, R533, R534, R535, R536, R537, R538, R539, R540, R541, R542, R543, R544, R545, R546, R547, R548, R549, R550, R551, R552, R553, R554, R555, R556, R557, R558, R559, R560, R561, R562, R563, R564, R565, R566, R567, R568, R569, R570, R571, R572, R573, R574, R575, R576, R577, R578, R579, R580, R581, R58

UART





# VB1 and LVDS Nets

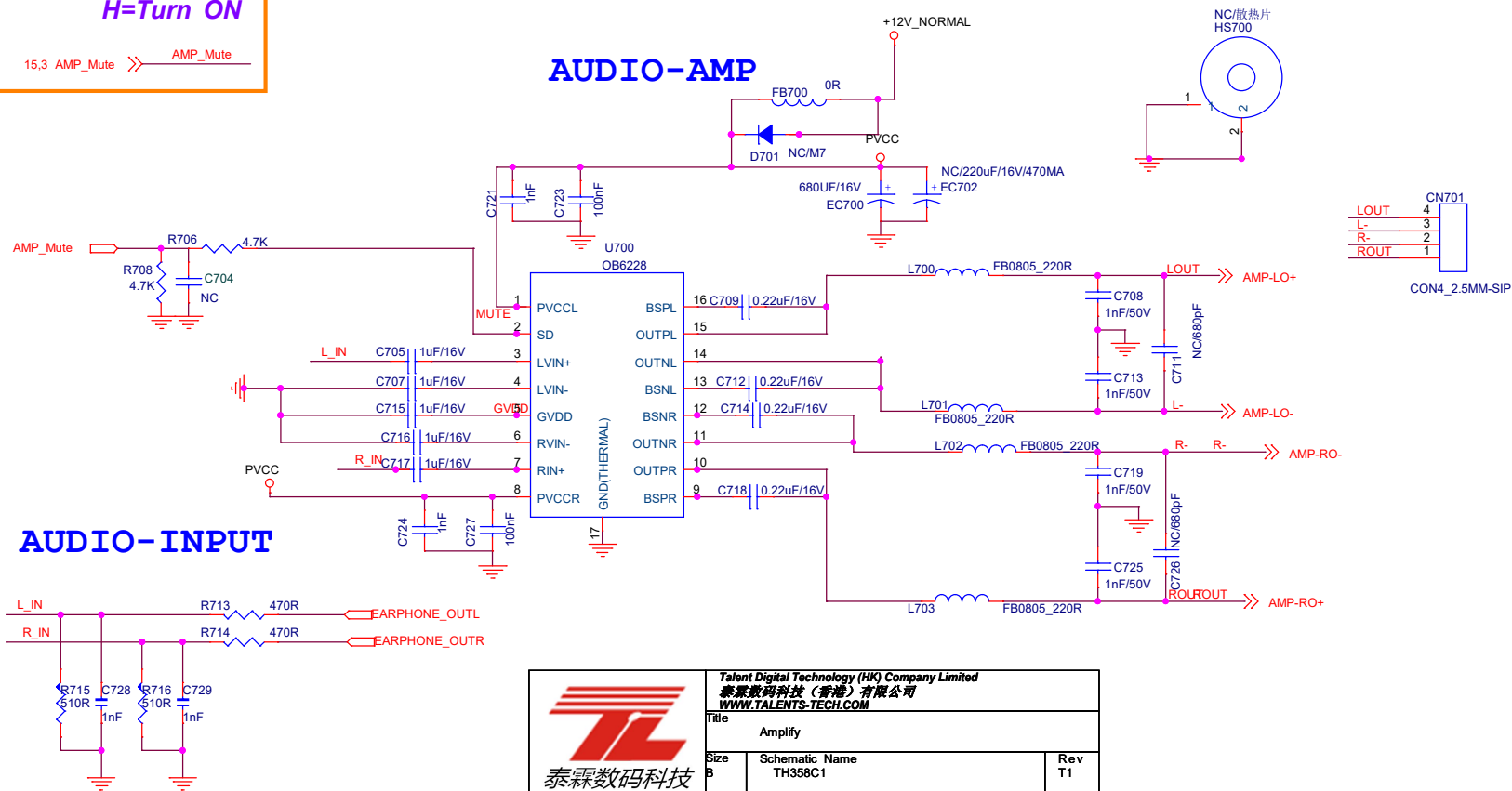


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Title			LVDS & TCON		
Size	Schematic Name		Rev		
B	TH358C1		T1		
Date		Wednesday, August 10, 2022	Sheet	8	of 15

*L=Mute*  
*H=Turn ON*

15,3 AMP\_Mute >> AMP\_Mute

## AUDIO-AMP



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	<b>Title</b>  Amplify		
	<b>Size</b> A	<b>Schematic Name</b> TH358C1	<b>Rev</b> T1
<b>Date</b> Wednesday, August 10, 2022 <b>Sheet</b> 13 <b>of</b> 15			

