CV358H-T42 Service Manual

CV358H-T42 is an integration board of power supply, LED driver and TV board. It can receive the PAL/SECAM/NTSC analogue television signals and DVB-T2/T/C digital television signals. It is suitable for the market in Europe (include UK) etc.CV358H-T42's power part is an energy-efficient ultrathin DC-line switching power supply unit, with backlight power under 45W, The main promotion backlight voltage is between 65V-100V, and single backlight output. It fits to 32〃 to 42〃 LED backlight panel.

1. Safety Instructions:

1.1 Replace, soldering any components and dial/plug cable, the power supple must be cut off.

a) BULK Capacitor need to discharge.

b) After power on, the BULK Capacitor cannot be touched.

1.2 Anti-static Precautions（Whole production process must be anti-static！）

a）Shall not be casually touched IC.

b）Shall be used the anti-static soldering iron.

c）Anti-static gloves must be wearer.

1.3 Replace the components with special safety requirements, should be refer to reference list, and shall not be arbitrarily changed the specifications and types.

1.4 Test and verify the board be sure to use supporting accessories (power panel, keypad, etc.), if use other accessories need to carefully identify the connection is correct.

1.5 The storage temperature and humidity are show as follow, please in strict accordance with the implementation:

The storage temperature/humidity: - 40 ~ + 85 ℃. < = 95%

The usage temperature/humidity: - 10 ~ + 60 ℃. < = 95%

Note: when maintenance of this mainboard, please in strict accordance with upon safety instructions.

2. Main function:

1. Supports SD and HD mode (480 p / 576 I / 720 p / 1080 I/p 1080);
2. Standby power consumption（≤0.5W）
3. Port:

(Input port)	ATV (AnalogNTSC/PAL/SECAM)，DTV(T2/T/C)	1 path
	DTV(S2)	1 path
	SCART	1 path
	MINI Ypbpr	1set
	MINI AV	1set
	PC In (RGB/H/V + L/R)	1 set
	USB2.0	2path
	HDMI In	3 path
	RJ45	1 path
(Output port)	Audio Out (L,R)	1 set
	EARPHONE（L，R）	1set
	COAX	1 path

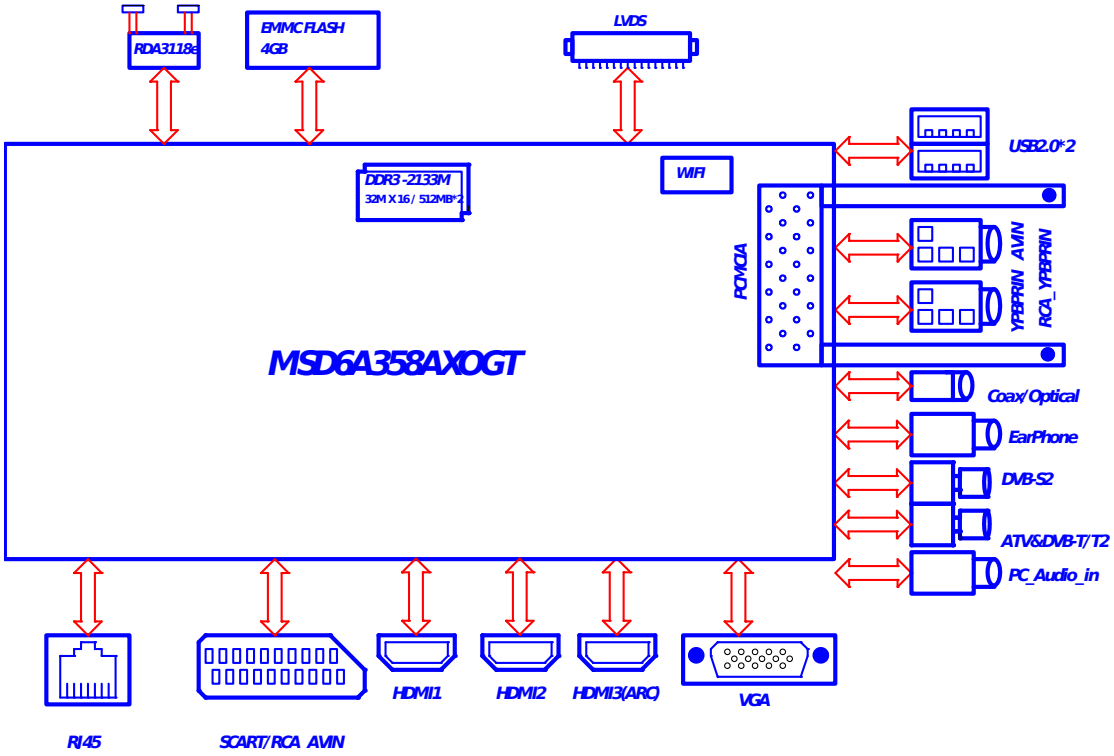
4. A53*4Core processor, Built-in 1GB DDR3;
5. Supports USB software update;

3. The basic principle

（1）Analog signal process:

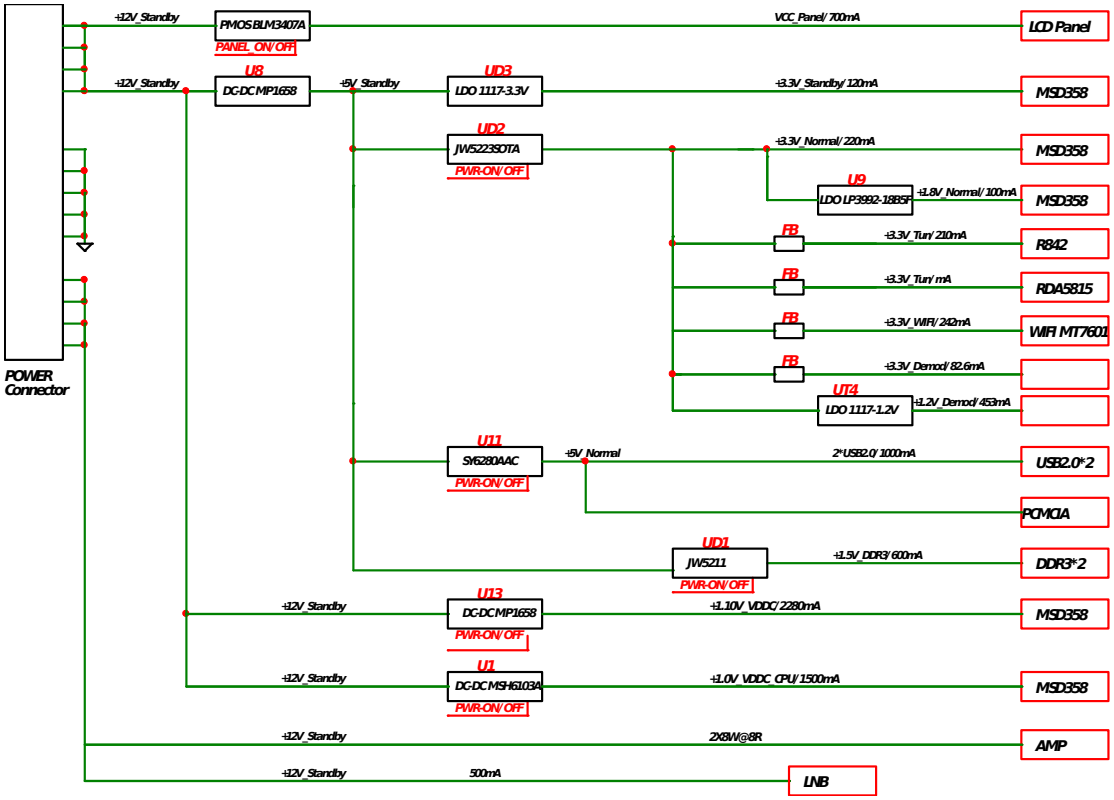
Antenna receive signal and send to TUNER(UT1,R842)，SOC(U2 MSD358)through I2C to control the TUNER, select frequency, set intermediate frequency bandwidth and set the intermediate frequency signal amplitude. Then TUNER output intermediate frequency into SOC to demodulate and decode. Finally, the signal was translated into video and audio signal.

（2）The basic block diagram:



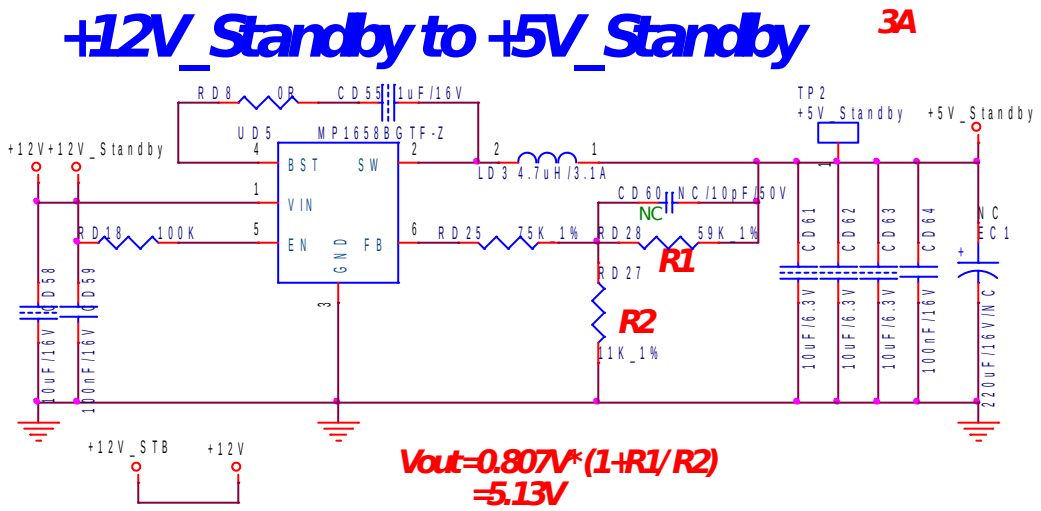
CV358H-T42 principle block diagram

(3) The power supply block diagram:



CV358H-T42 power supply block diagram

(4) 12V to 5V_Standby circuit:



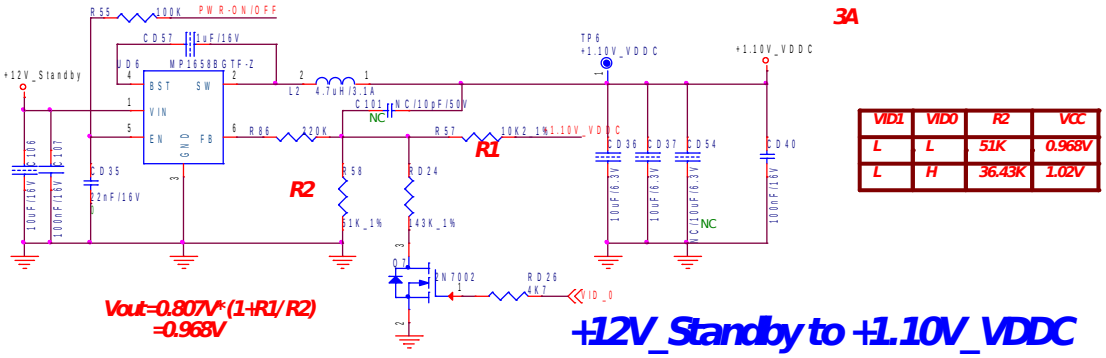
MP1658B is a low power DC-DC component of Joulwatt,SOT23-6 package, the main features of the IC are show as follow:

- Input voltage range: 4.5V—16V
- Output voltage range: 0.8V—10V
- Up to 3A output current.
- The typical soft start time is 2.5ms.
- Output short protection, thermal protection, current run-away protection, input under voltage lockout.

From the feature of MP1658B, We need to pay attention on follows:

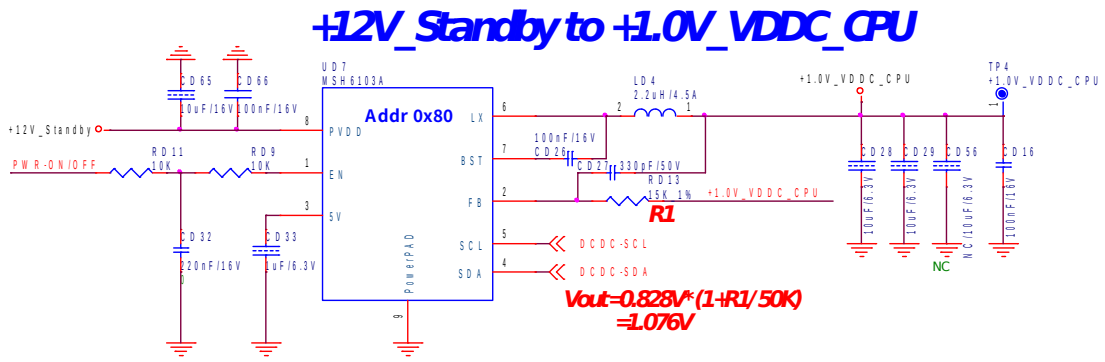
- Although there is PIN to PIN component of other brand, suggest according to the BOM material number to replace this component. If there is must to use a high specification to replace, it is recommended to replacement of adjacent specification, in order to avoid excessive ripple in light load mode.
- Under-voltage and overheat shutoff are unlatched, in other word, after get rid of these faults, the circuit can automatically return to normal state (not restart condition).

(5) 12V_Standby to +1.1V_VDDC core voltage circuit:



VID1	VID0	R2	VCC
L	L	51K	0.968V
L	H	36.43K	1.02V

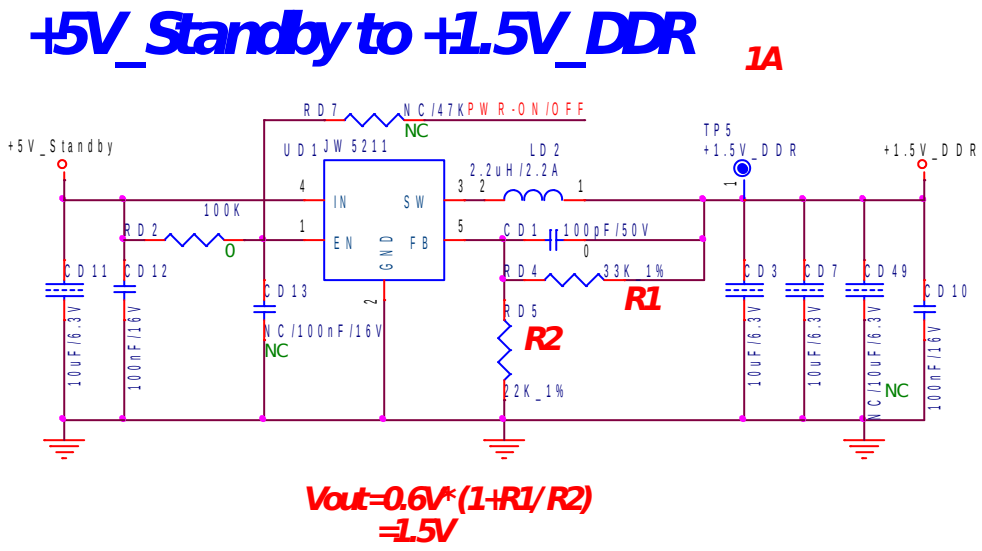
(6)12V to +1.1V_VDDC_CPU core voltage circuit:



MSH6103A is a low power DC-DC component of Mstar,ESOP8 package, the main features of the IC are show as follow:

- Input voltage range: 4.5V—16V
- Max. output current:3A
- The typical soft start time is 0.3ms.
- Cycle-by-cycle over current limit.
- Thermal protection, over and under input voltage protection.

(7) 5V to 1.5V DDR voltage circuit:



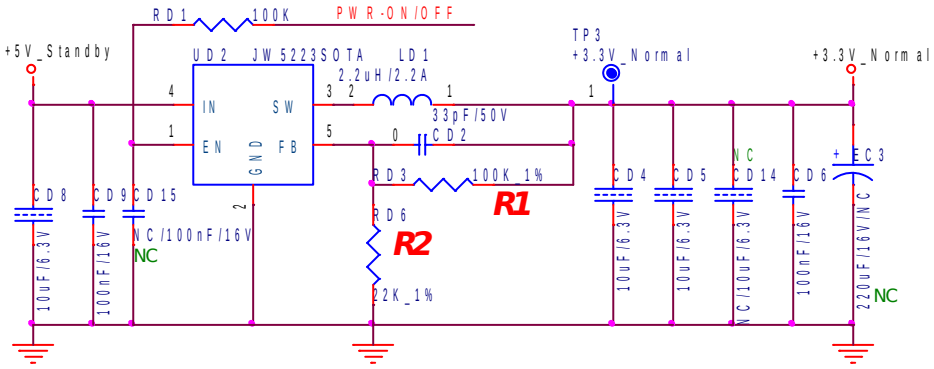
JW5211 is a low power DC-DC component of Joulwatt,SOT23-5 package, the main features of the IC are show as follow:

- Input voltage range: 2.5V—6.5V
- Output voltage range: 0.6V—6.5V
- Up to 1A output current.
- Output short protection, thermal protection, Hot-plug in protection, input under voltage lockout.

From the feature of JW5211, We need to pay attention on follows:

- Although there is PIN to PIN component of other brand, suggest according to the BOM material number to replace this component. If there is must to use a high specification to replace, it is recommended to replacement of adjacent specification, in order to avoid excessive ripple in light load mode.

(8) 5V to 3.3V_normal circuit



Vout=0.6V*(1+R1/R2)
=3.327V

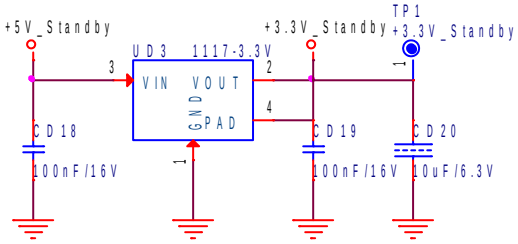
JW5233 is a low power DC-DC component of Joulwatt,SOT23-5 package, the main features of the IC are show as follow:

- Input voltage range: 2.5V—6V.
- Output voltage range: 0.6V—6V.
- Up to 2A output current.
- Output short protection, thermal protection, Hot-plug in protection, input under voltage lockout.

From the feature of JW5233, We need to pay attention on follows:

- Although there is PIN to PIN component of other brand, suggest according to the BOM material number to replace this component. If there is must to use a high specification to replace, it is recommended to replacement of adjacent specification, in order to avoid excessive ripple in light load mode.

(9) 5V to 3.3V_Standby circuit



1117 is a low power LDO component, SOT223 package, the main features of the

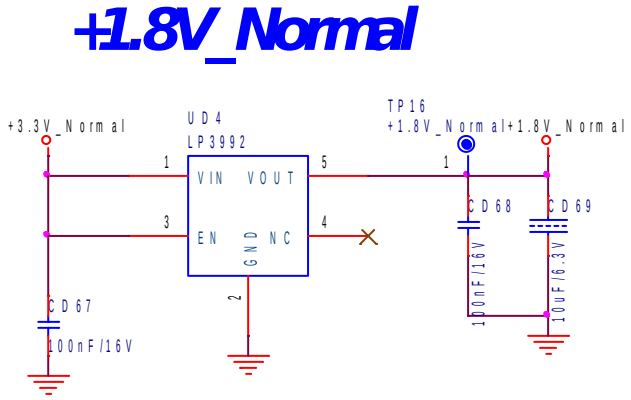
IC are show as follow:

- Input voltage range: 2.7V-5.5V
- Typical soft start time is 250us
- Over current protection
- Overheat cutoff protection

From the feature of 1117, we need to pay attention on follows:

- Although there is PIN to PIN component of other brand, suggest according to the BOM material number to replace this component. If there is must to use a high specification to replace, it is recommended to replacement of adjacent specification, in order to avoid excessive ripple in light load mode.

(10) 5V to 1.8V_normal circuit



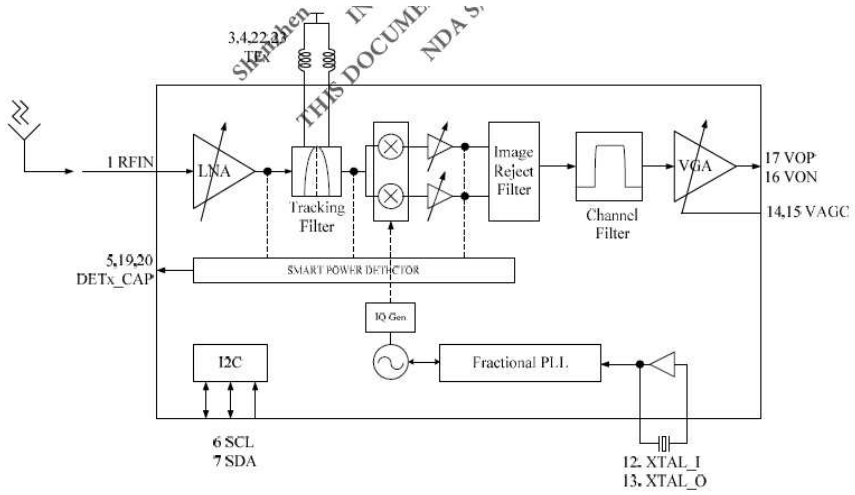
LP3992 is a low power CMOS LDO component, SOT23-5 package, the main features of the IC are show as follow:

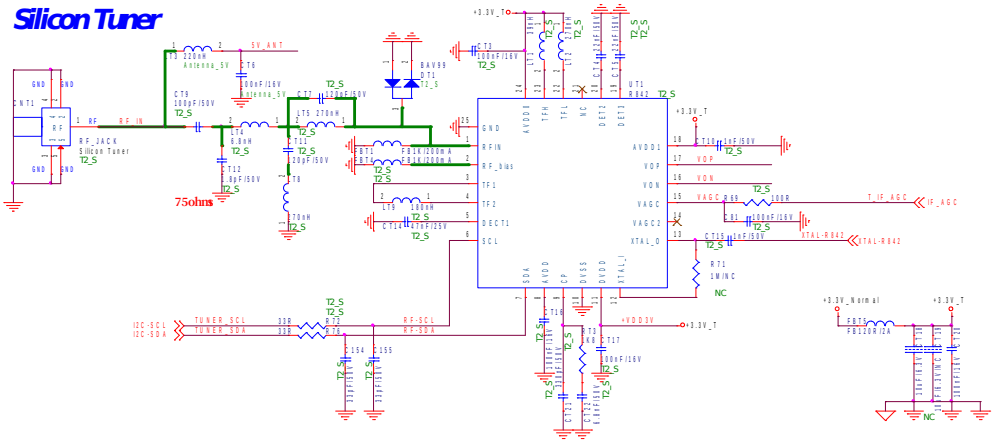
- Input voltage range: 2V-5.5V.
- 300mA Output Current, 550mA Peak Current.
- Current Limiting and Thermal Shutdown Protection.

(11) TUNER circuit

1、R842 Hybrid TV silicon tuner

R842 Internal block diagram as follows:



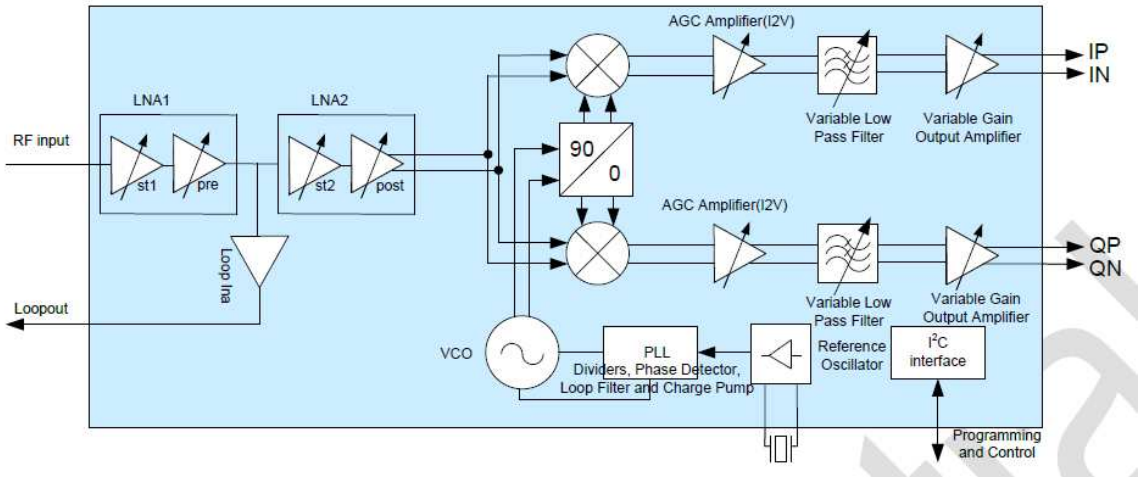


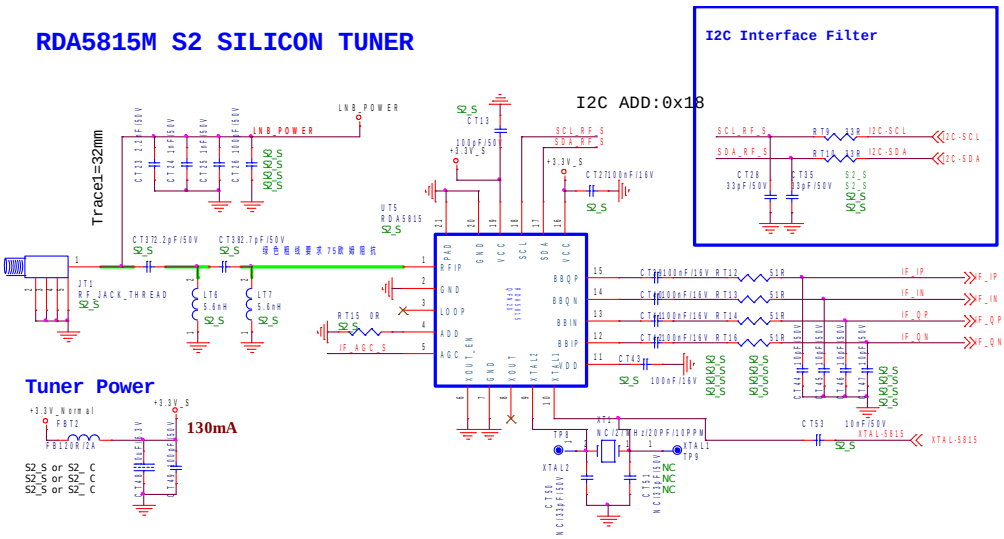
The main features of the IC are show as follow:

- RF frequency range: 44MHZ-898MHZ.
- Channel bandwidth: 6MHZ,7MHZ,8MHZ.

2、RDA5815 Hybrid TV silicon tuner

RDA5815 Internal block diagram as follows:



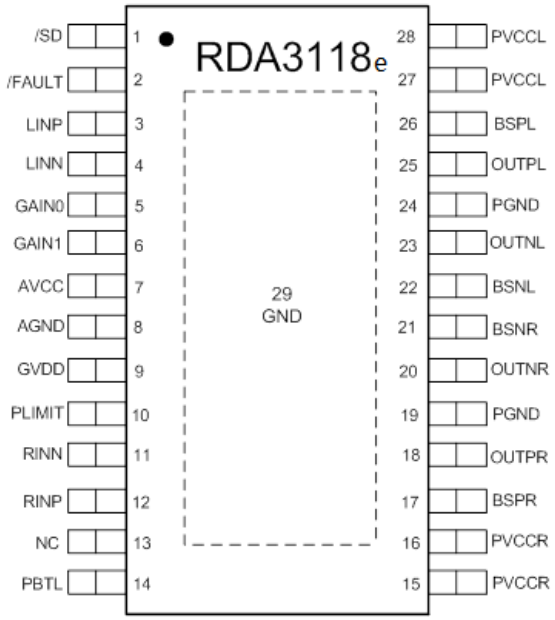


The main features of the IC are show as follow：

- RF frequency range: 250MHZ-2150MHZ.

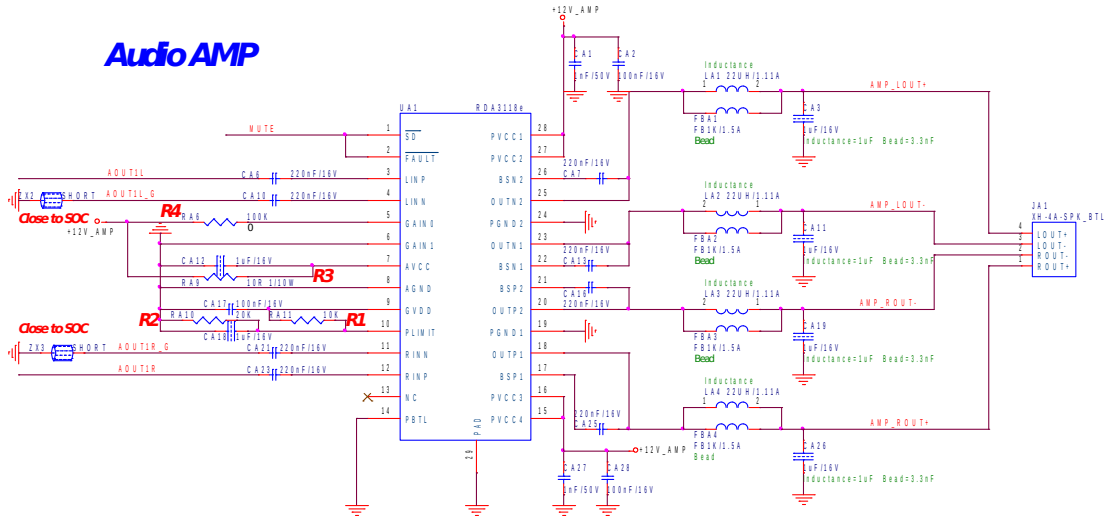
（12）AMP

RDA3118e is a digital amplifier IC, the definition of each PIN is show as follow：

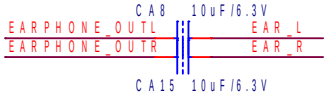


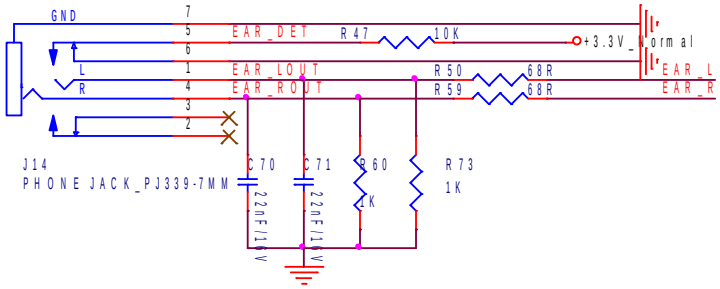
The function of each pin is show as follow：

Pin number	Name	I/O	DESCRIHION
1	/SD	I	Shutdown logic input for audio amp (LOW = outputs Hi-Z, HIGH = outputs enabled). TTL logic levels with compliance to AVCC.
2	/FAULT	O	Open drain output used to display short circuit or dc detect fault status. Voltage compliant to AVCC. Short circuit faults can be set to auto-recovery by connecting FAULT pin to SD pin. Otherwise, both short circuit faults and dc detect faults must be reset by cycling PVCC.
3	LINP	I	Positive audio input for left channel. Biased at 3V.
4	LINN	I	Negative audio input for left channel. Biased at 3V.
5	GAIN0	I	Gain select least significant bit. TTL logic levels with compliance to AVCC.
6	GAIN1	I	Gain select most significant bit. TTL logic levels with compliance to AVCC.
7	AVCC	P	Analog supply
8	AGND		Analog signal ground. Connect to the thermal pad.
9	GVDD	O	High-side FET gate drive supply. Nominal voltage is about 6V. Also should be used as supply for PLIMIT function
10	PLIMIT	I	Power limit level adjust. Connect a resistor divider from GVDD to GND to set power limit. Connect directly to GVDD for no power limit.
11	RINN	I	Negative audio input for right channel. Biased at 3V.
12	RINP	I	Positive audio input for right channel. Biased at 3V.
13	NC	/	Keep floating, no connection to other nets.
14	PBTL	I	Parallel BTL mode switch
15	PVCCR	P	Power supply for right channel H-bridge. Right channel and left channel power supply inputs are connect internally.
16	PVCCR	P	Power supply for right channel H-bridge. Right channel and left channel power supply inputs are connect internally.
17	BSPR	I	Bootstrap I/O for right channel, positive high-side FET.
18	OUTPR	O	Class-D H-bridge positive output for right channel.
19	PGND		Power ground for the H-bridges.
20	OUTNR	O	Class-D H-bridge negative output for right channel.
21	BSNR	I	Bootstrap I/O for right channel, negative high-side FET.
22	BSNL	I	Bootstrap I/O for left channel, negative high-side FET.
23	OUTNL	O	Class-D H-bridge negative output for left channel.
24	PGND	/	Power ground for the H-bridges.
25	OUTPL	O	Class-D H-bridge positive output for left channel.
26	BSPL	I	Bootstrap I/O for left channel, positive high-side FET.
27	PVCCL	P	Power supply for left channel H-bridge. Right channel and left channel power supply inputs are connect internally.
28	PVCCL	P	Power supply for left channel H-bridge. Right channel and left channel power supply inputs are connect internally.



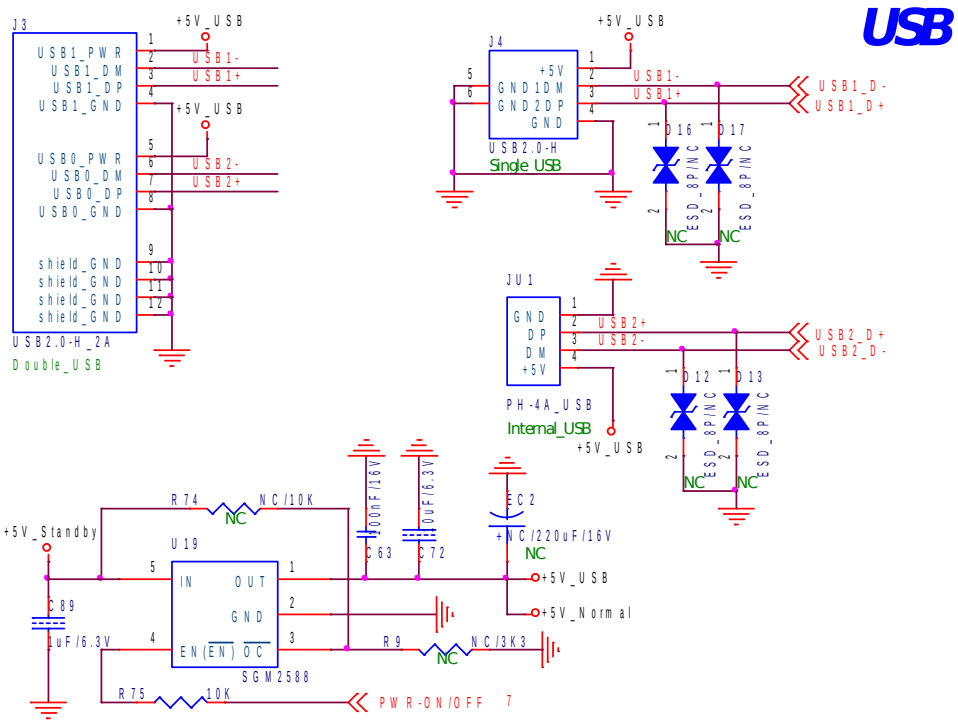
（13）EARPHONE



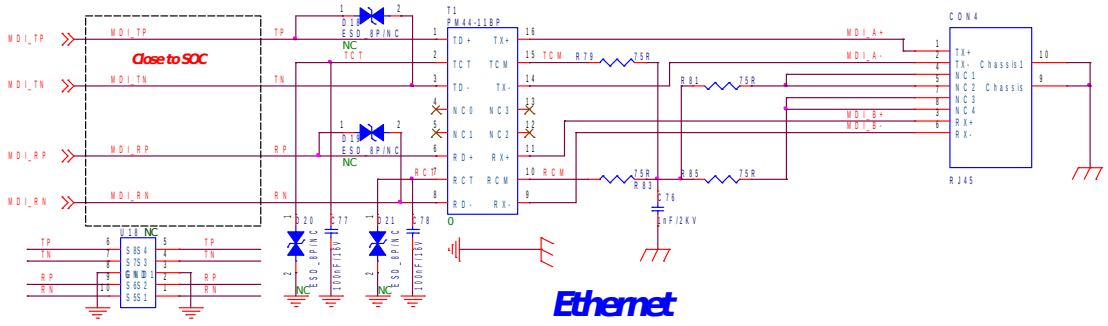


电容改善EMI及EMS的S2a指标

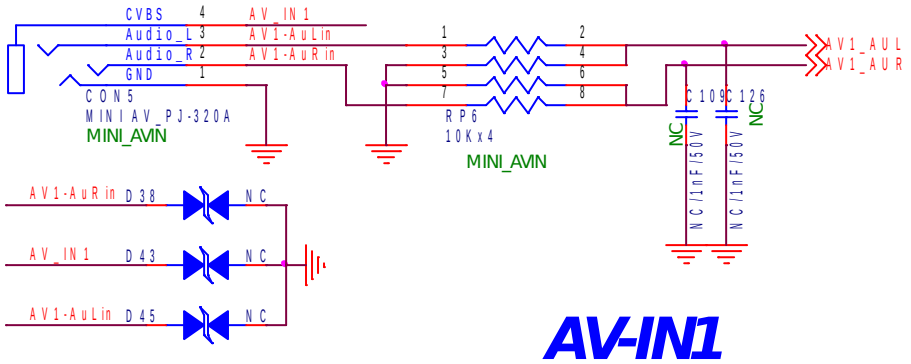
（14）USB



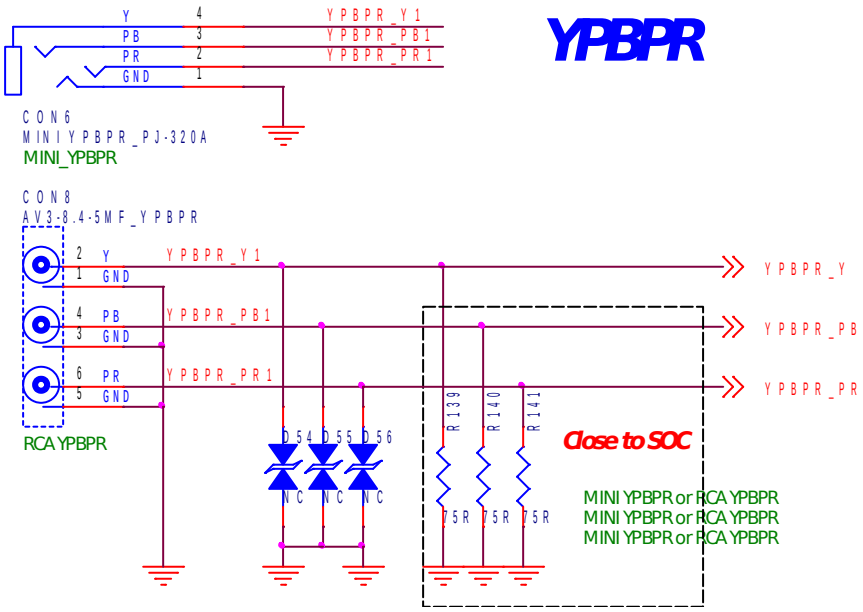
(15) Ethernet



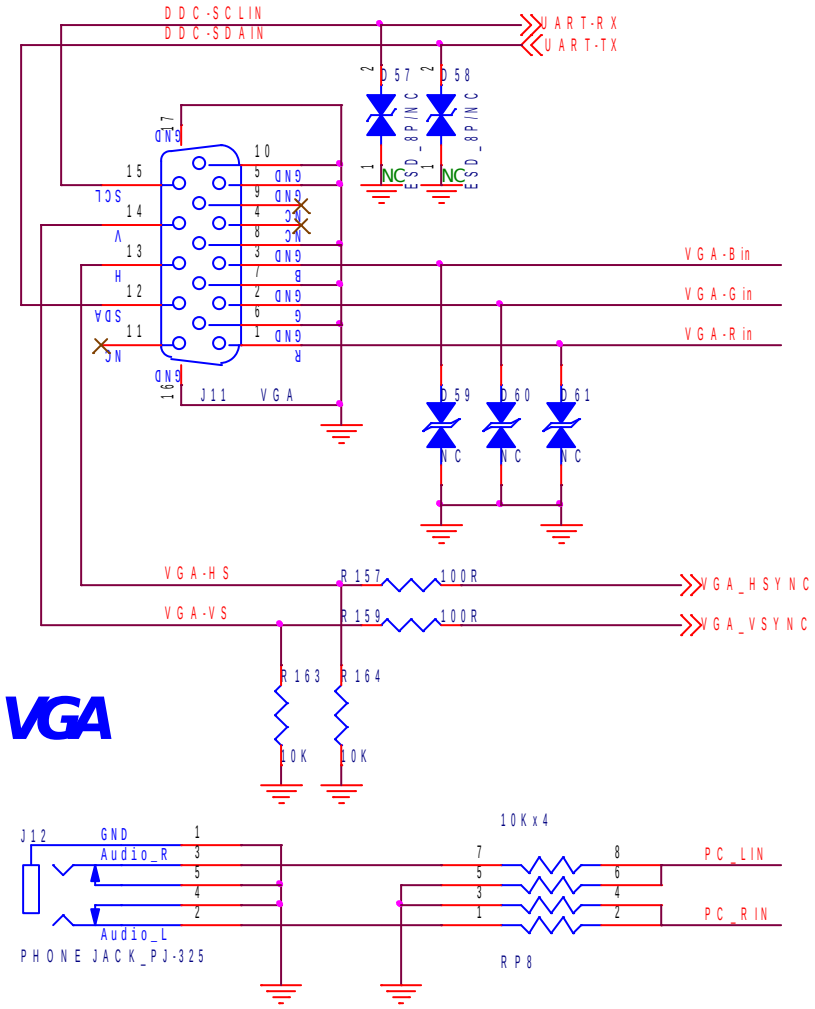
(16) MINI AV



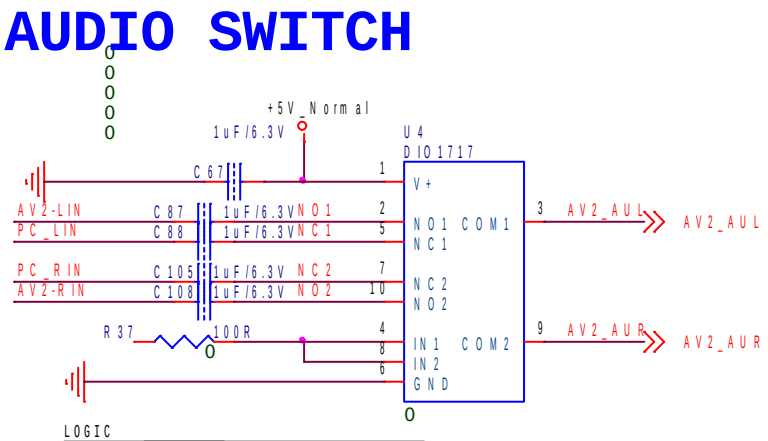
(17) MINI YPBPR(RCA YPBPR)



（18）VGA +Audio IN（For external Debug）

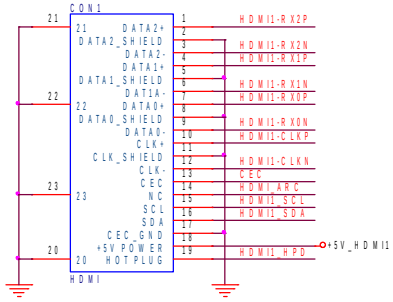


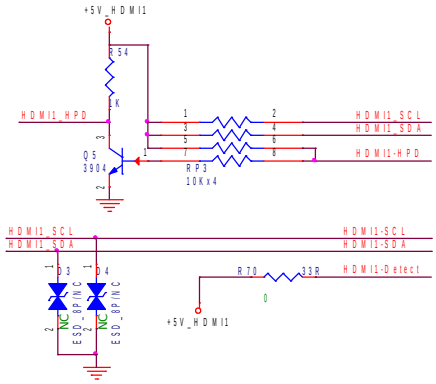
(19) AUDIO SWITCH



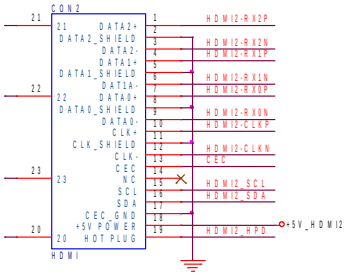
LOGIC		
0	NC	VGA
1	NO	SCART/AV2

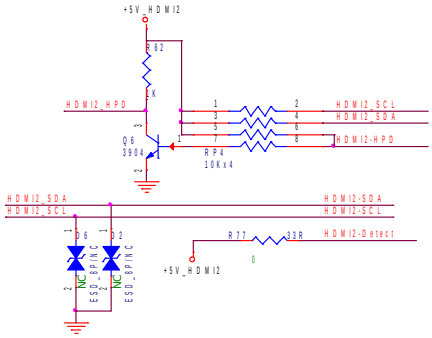
(20) HDMI SGINAL

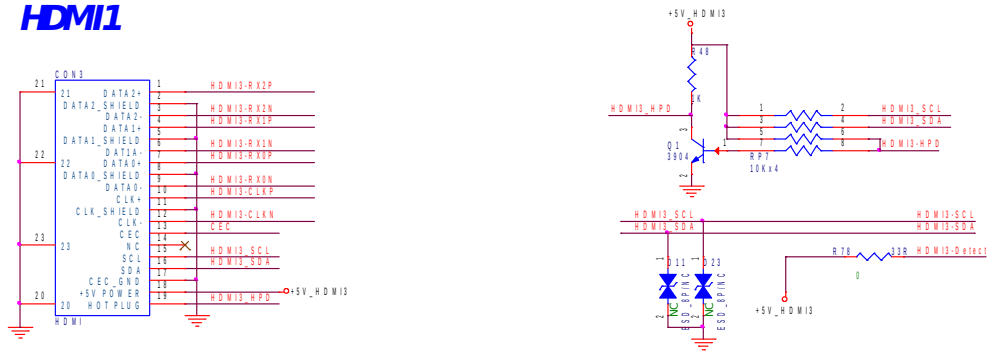




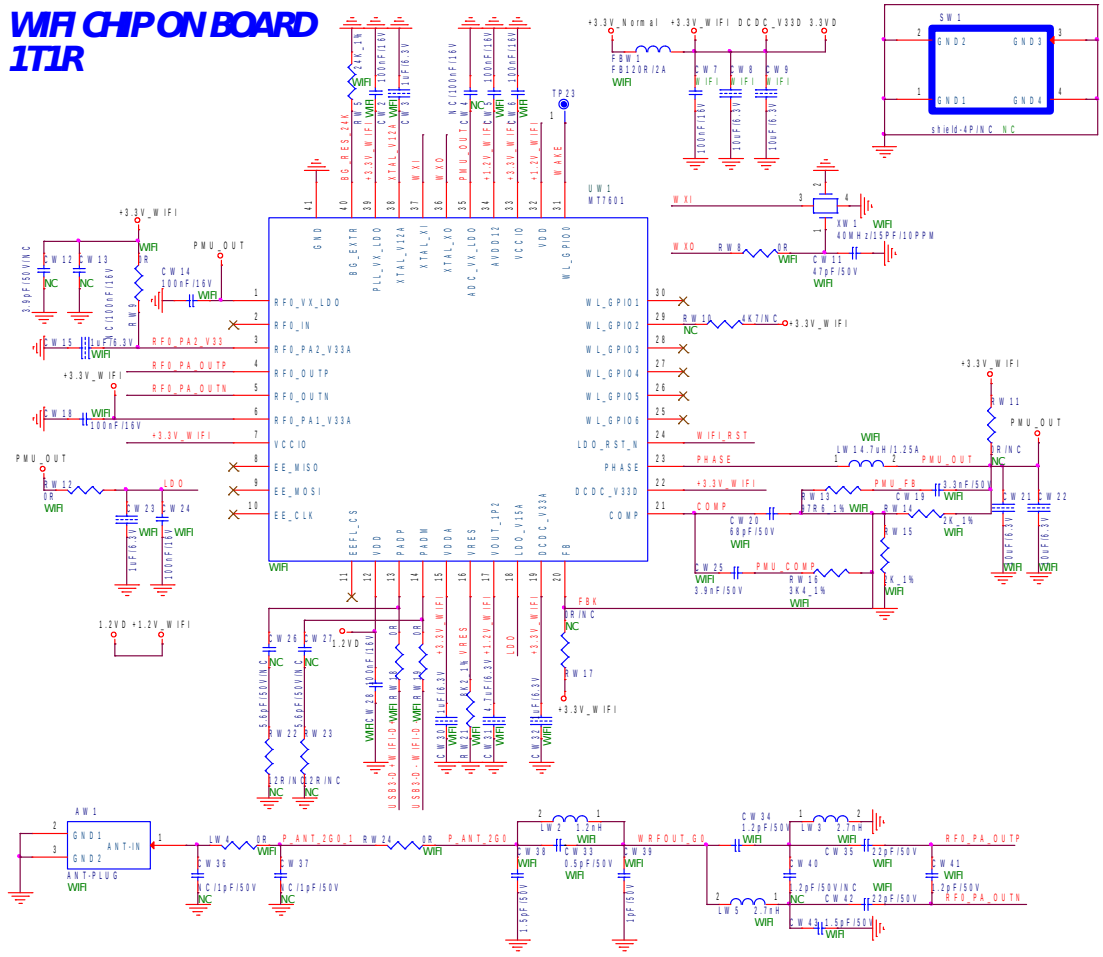
HDMI2



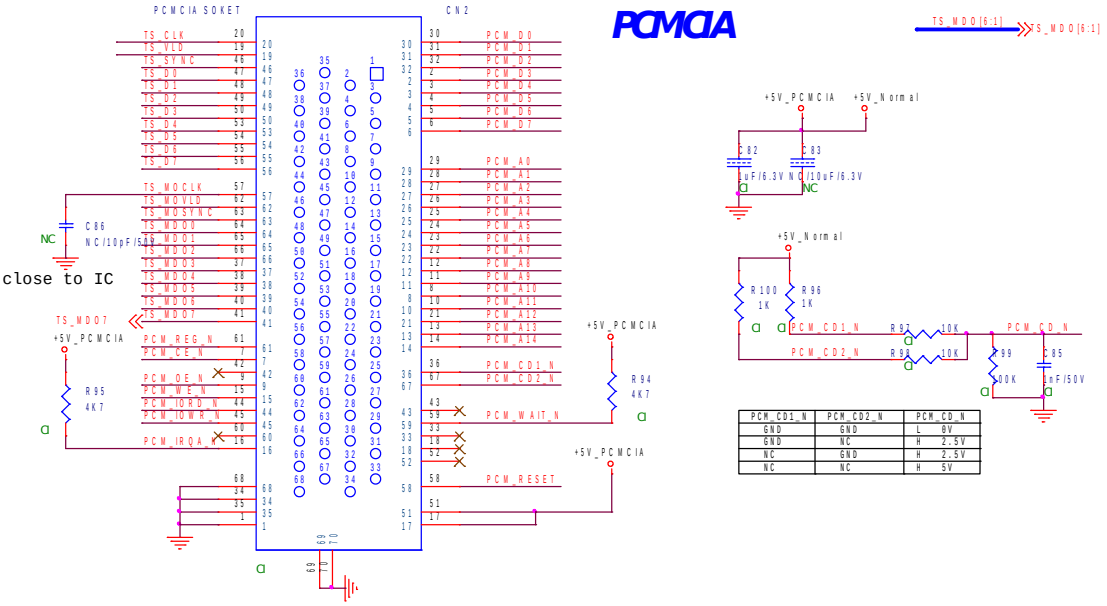



HDMI1
CON3
HDMI
HDMI3-RX2P
HDMI3-RX2N
HDMI3-RX1P
HDMI3-RX1N
HDMI3-RX0P
HDMI3-RX0N
HDMI3-CLKP
HDMI3-CLKN
CEC
HDMI3_SCL
HDMI3_SDA
+5V_HDMI3
HOT PLUG
+5V_HDMI3
HDMI3_HPD
Q1
3904
RP7
10Kx4
HDMI3_SCL
HDMI3_SDA
HDMI3-HPD
R78
33R
HDMI3-Detect
D11
D23
ESD_6P/NC
+5V_HDMI3

(21) WIFI


WIFI CHIP ON BOARD
1T1R
UW1
MT7601
+3.3V_WIFI
PMU_OUT
RF0_VX_LDO
RF0_IN
RF0_PA2_V33
RF0_OUTP
RF0_OUTN
RF0_PA1_V33A
VCCIO
EE_MISO
EE_MOSI
EE_CLK
WL_GPIO1
WL_GPIO2
WL_GPIO3
WL_GPIO4
WL_GPIO5
WL_GPIO6
LDO_RST_N
PHASE
DCDC_V33D
COMP
FBK
WIFI_RST
XI
XO
WAKE
TP33
SW1
shield-4P/NC
AW1
ANT-PLUG
ANT-IN
P_ANT_2G0_1
P_ANT_2G0
WRFOUT_G1
RF0_PA_OUTP
RF0_PA_OUTN

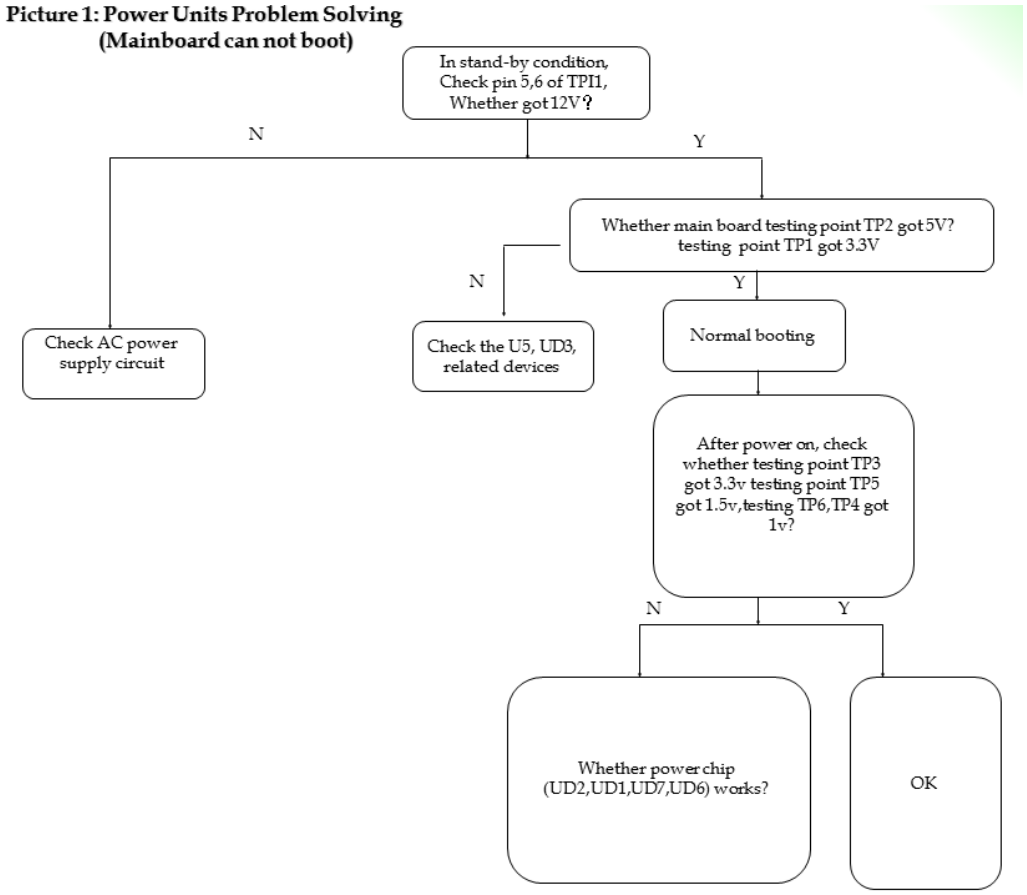
(22) CI



4. Common problem solving:

(1) **Power Units Problem Solving**:

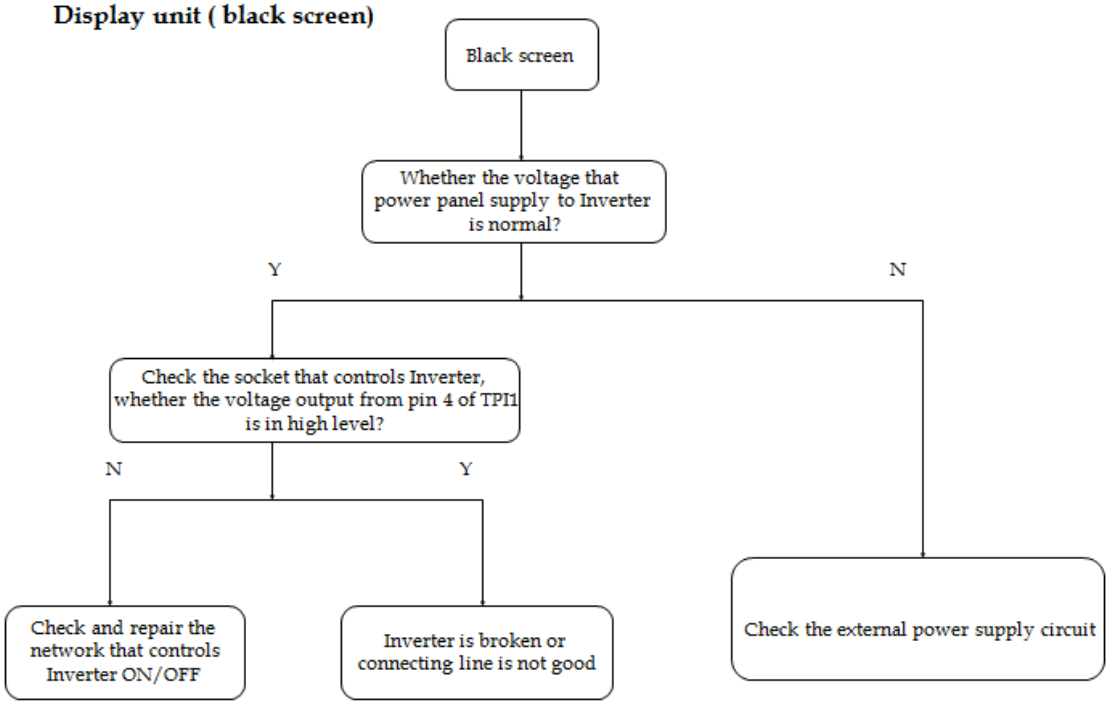
Picture 1: Power Units Problem Solving (Mainboard can not boot)



(2) **Display Unit (black screen)**:

Picture 2

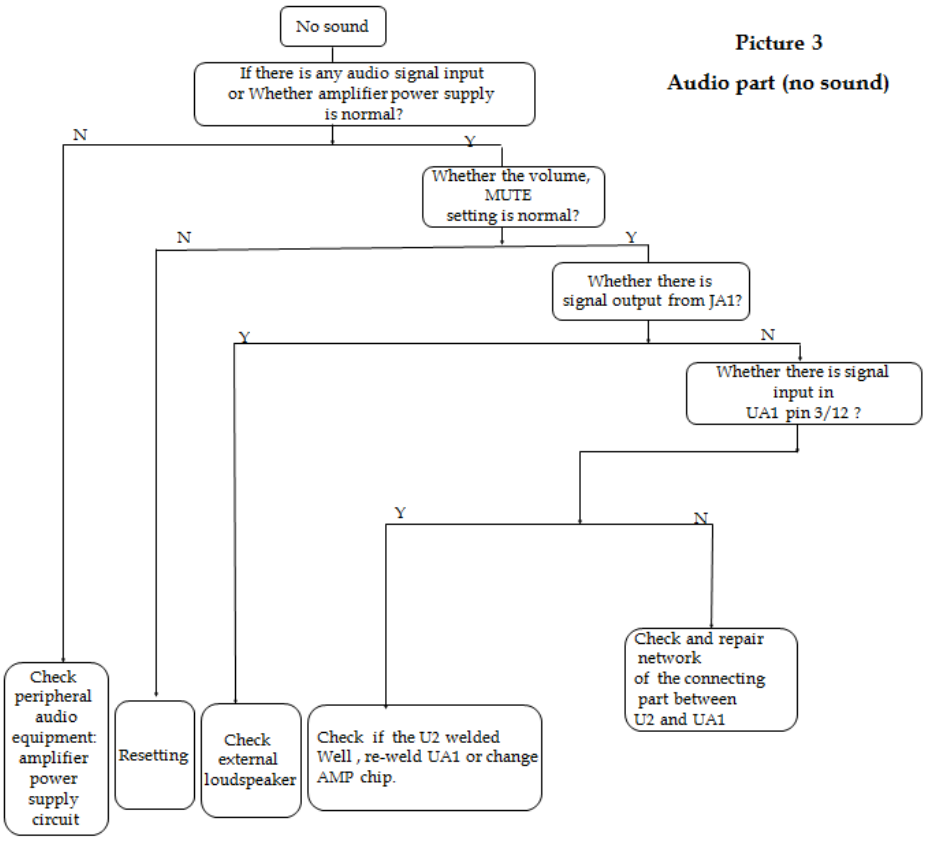
Display unit (black screen)



(3) **Audio Unit (no sound)**

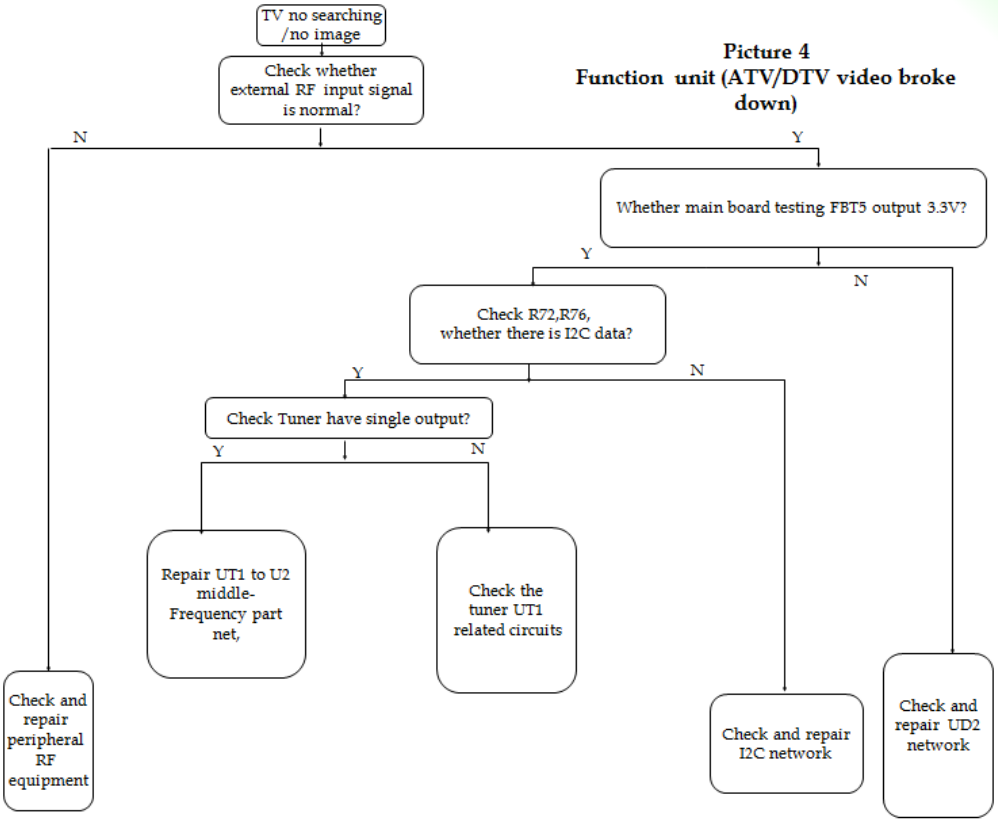
Picture 3

Audio part (no sound)



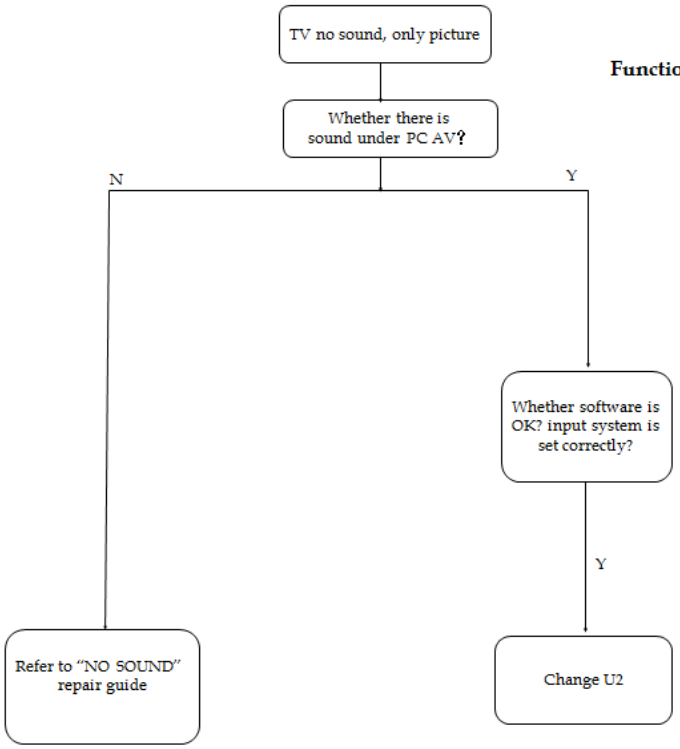
(4) Certain signal port cannot work normally

(4.1) **Function Unit(ATV/DTV broke down)**



Picture 4
Function unit (ATV/DTV video broke down)

(4.2) **Function Unit (ATV with the image but no sound)**

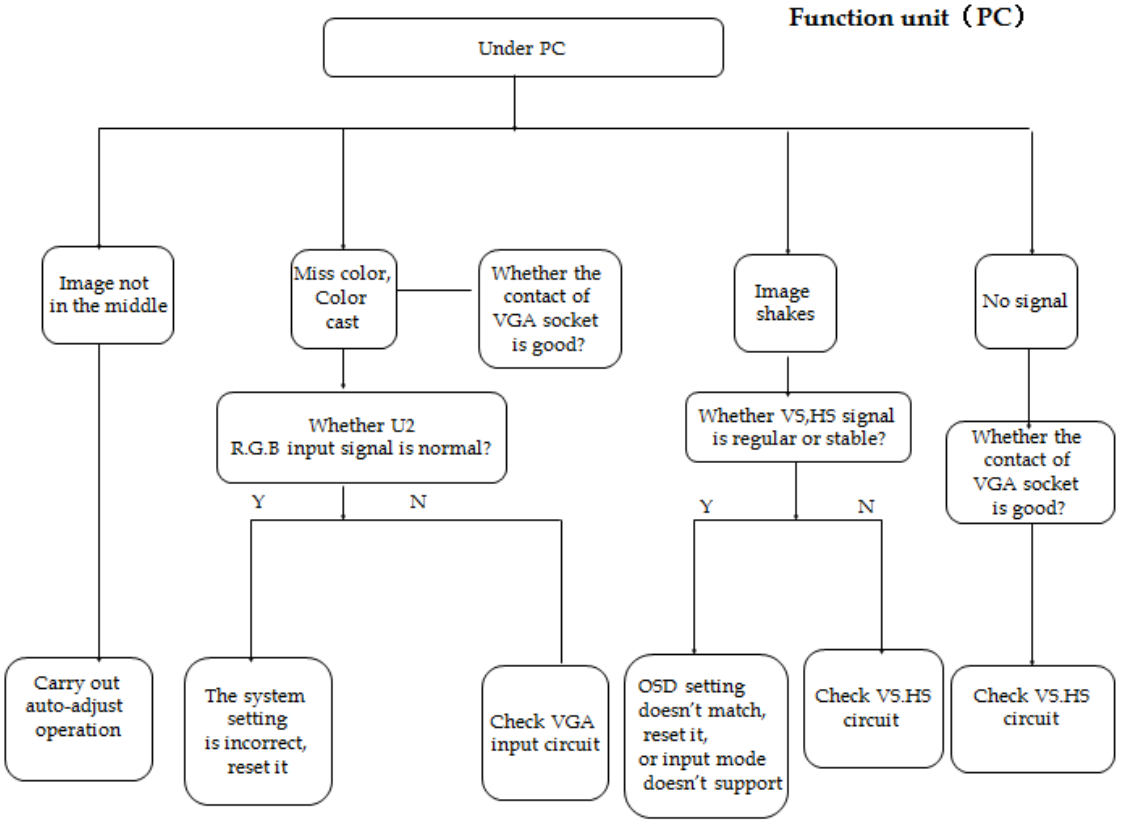


Picture 6
Function unit (ATV/DTV no sound)

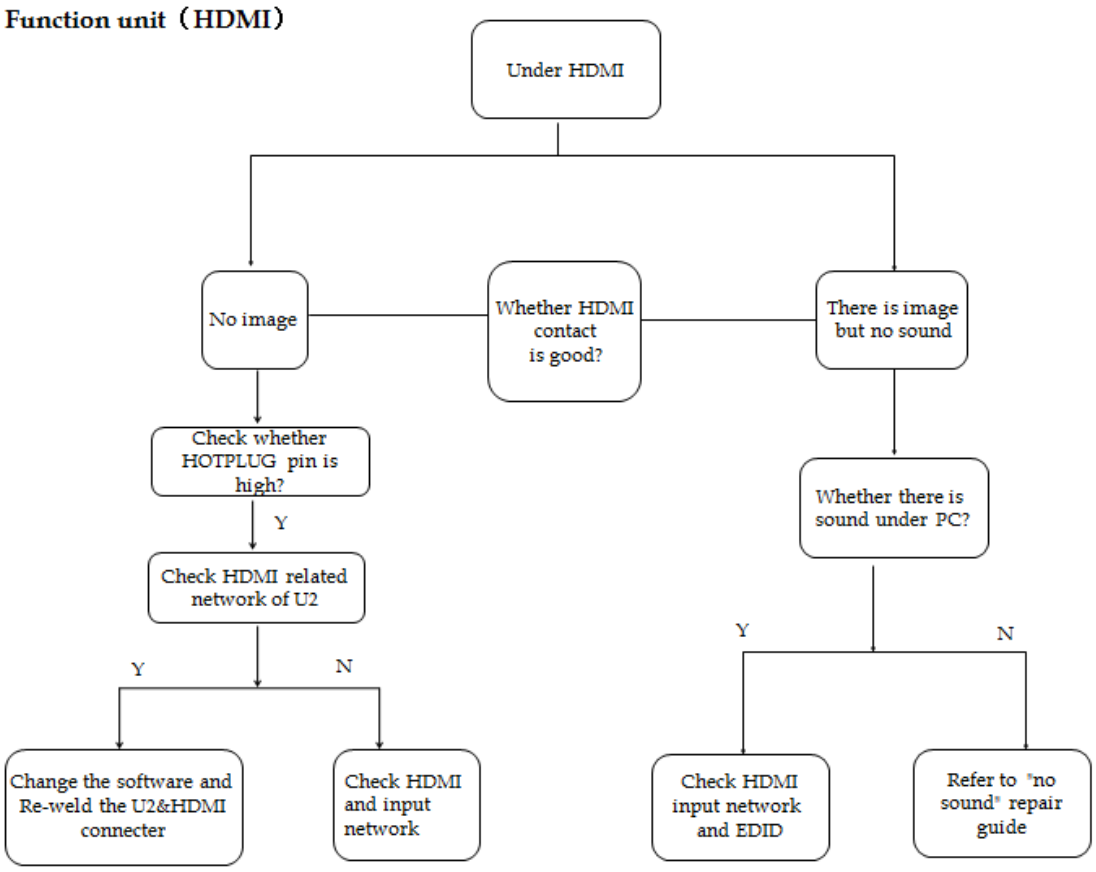
(5) **Function Unit （PC problems）**

Picture 7

Function unit（PC）



(6) **Function Unit （HDMI）**

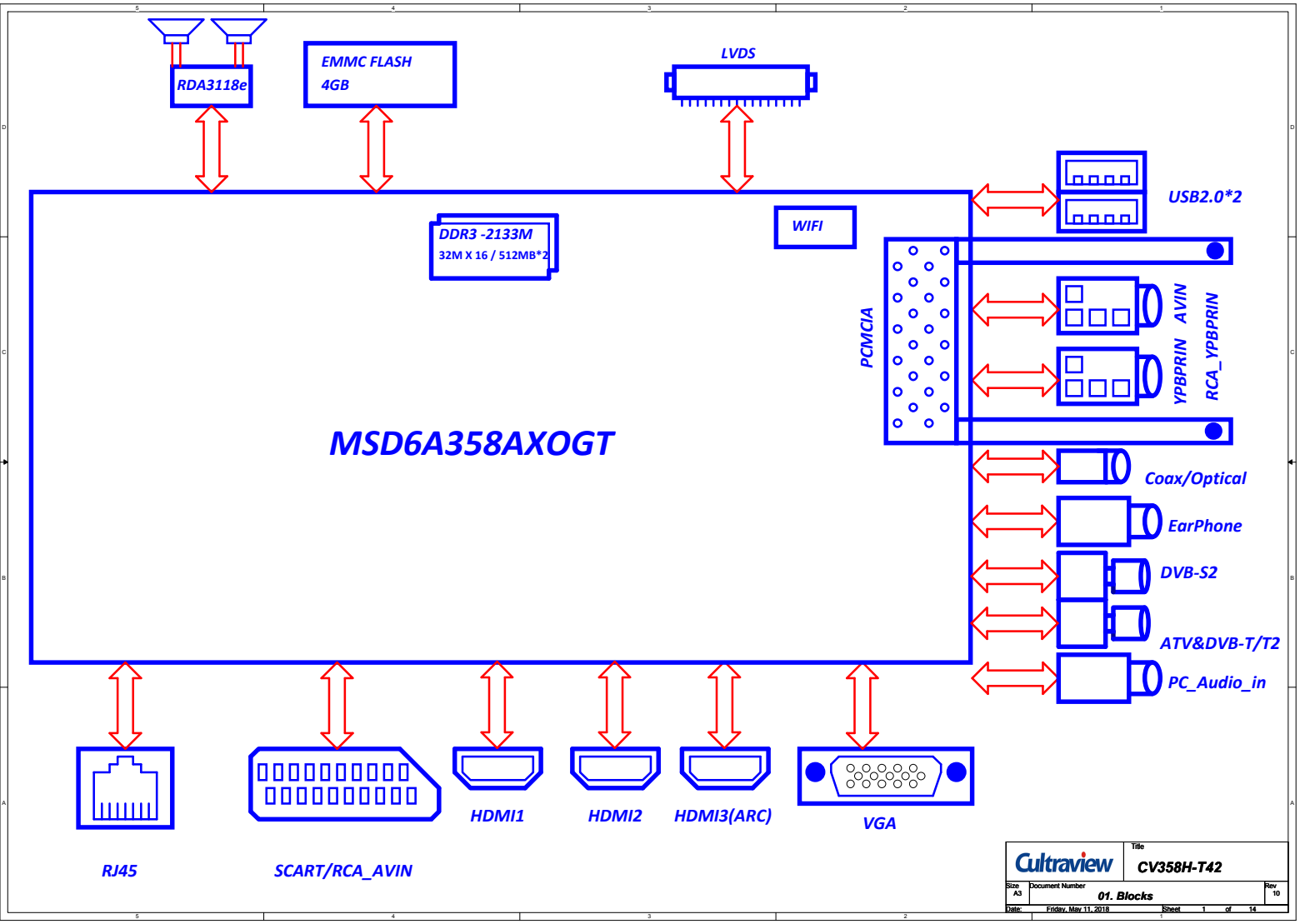


5. The Television updates process

USB update：

（1）Copy the BIN file to USB dish’s root directory.

（2）Connect the USB to the USB port on TV; it will be automatically upgrade by power on.


RDA3118e
EMMC FLASH
4GB
LVDS
DDR3 -2133M
32M X 16 / 512MB*2
WIFI
USB2.0*2
PCMCIA
AVIN
YPBPRIN
RCA_YPBPRIN
MSD6A358AXOGT
Coax/Optical
EarPhone
DVB-S2
ATV&DVB-T/T2
PC_Audio_in
RJ45
SCART/RCA_AVIN
HDMI1
HDMI2
HDMI3(ARC)
VGA
Cultraview
Title
CV358H-T42
Size
A3
Document Number
01. Blocks
Rev
10
Date:
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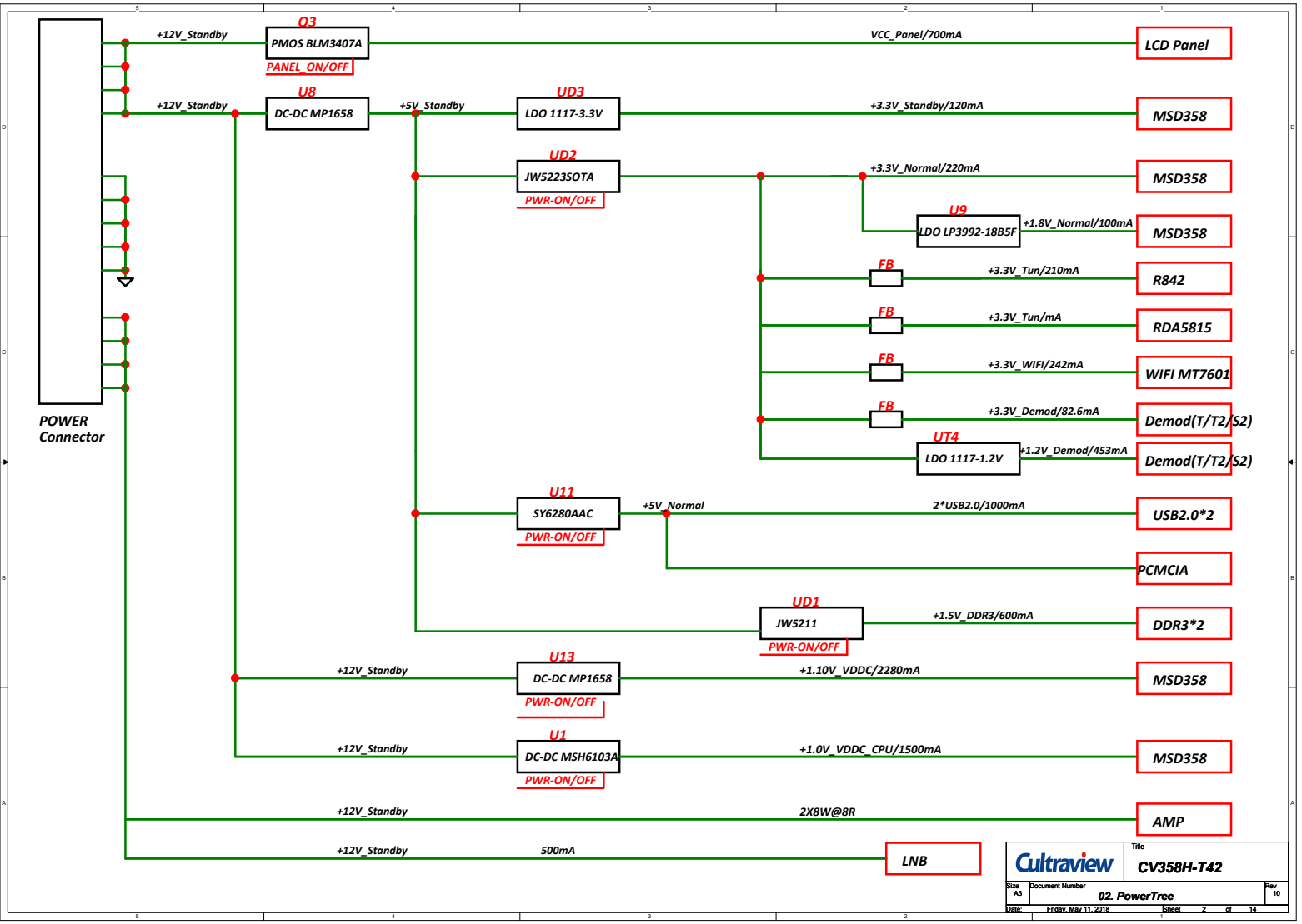
1
of
14


POWER Connector
+12V_Standby
Q3
PMOS BLM3407A
PANEL_ON/OFF
VCC_Panel/700mA
LCD Panel
+12V_Standby
U8
DC-DC MP1658
+5V_Standby
UD3
LDO 1117-3.3V
+3.3V_Standby/120mA
MSD358
UD2
JW5223SOTA
PWR-ON/OFF
+3.3V_Normal/220mA
MSD358
U9
LDO LP3992-18B5F
+1.8V_Normal/100mA
MSD358
FB
+3.3V_Tun/210mA
R842
FB
+3.3V_Tun/mA
RDA5815
FB
+3.3V_WIFI/242mA
WIFI MT7601
FB
+3.3V_Demod/82.6mA
Demod(T/T2/S2)
UT4
LDO 1117-1.2V
+1.2V_Demod/453mA
Demod(T/T2/S2)
U11
SY6280AAC
PWR-ON/OFF
+5V_Normal
2*USB2.0/1000mA
USB2.0*2
PCMCIA
UD1
JW5211
PWR-ON/OFF
+1.5V_DDR3/600mA
DDR3*2
+12V_Standby
U13
DC-DC MP1658
PWR-ON/OFF
+1.10V_VDDC/2280mA
MSD358
+12V_Standby
U1
DC-DC MSH6103A
PWR-ON/OFF
+1.0V_VDDC_CPU/1500mA
MSD358
+12V_Standby
2X8W@8R
AMP
+12V_Standby
500mA
LNB
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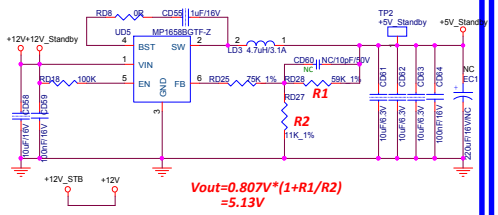
+12V_Standby to +5V_Standby

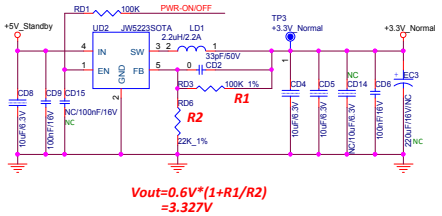
3A



Vout=0.807V*(1+R1/R2)
=5.13V

+5V_Standby to +3.3V_Normal

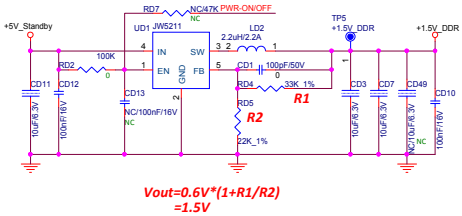
2A



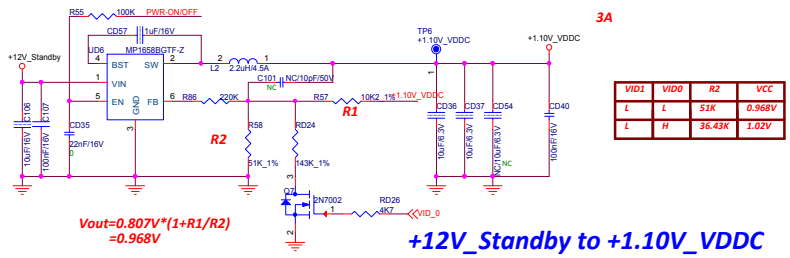
Vout=0.6V*(1+R1/R2)
=3.327V

+5V_Standby to +1.5V_DDR

1A



Vout=0.6V*(1+R1/R2)
=1.5V

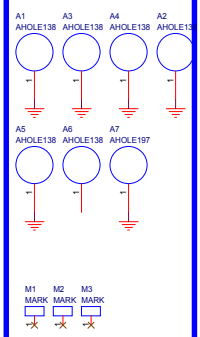


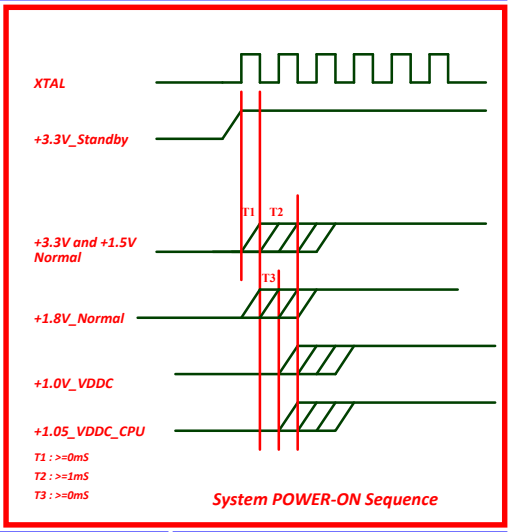
VID1	VID0	R2	VCC
L	L	51K	0.968V
L	H	36.43K	1.02V

Vout=0.807V*(1+R1/R2)
=0.968V

+12V_Standby to +1.10V_VDDC

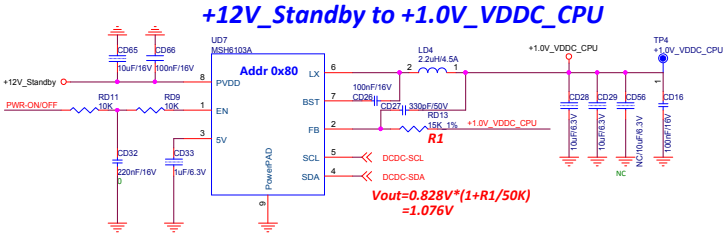
TP & MARK





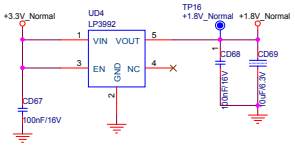
System POWER-ON Sequence

+12V_Standby to +1.0V_VDDC_CPU

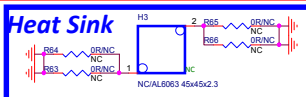


Vout=0.828V*(1+R1/50K)
=1.076V

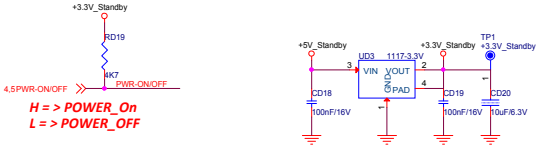
+1.8V_Normal



Heat Sink



+5V_Standby to +3.3V_Standby



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Size: A3	Document Number: 03. SystemPower		Rev: 10
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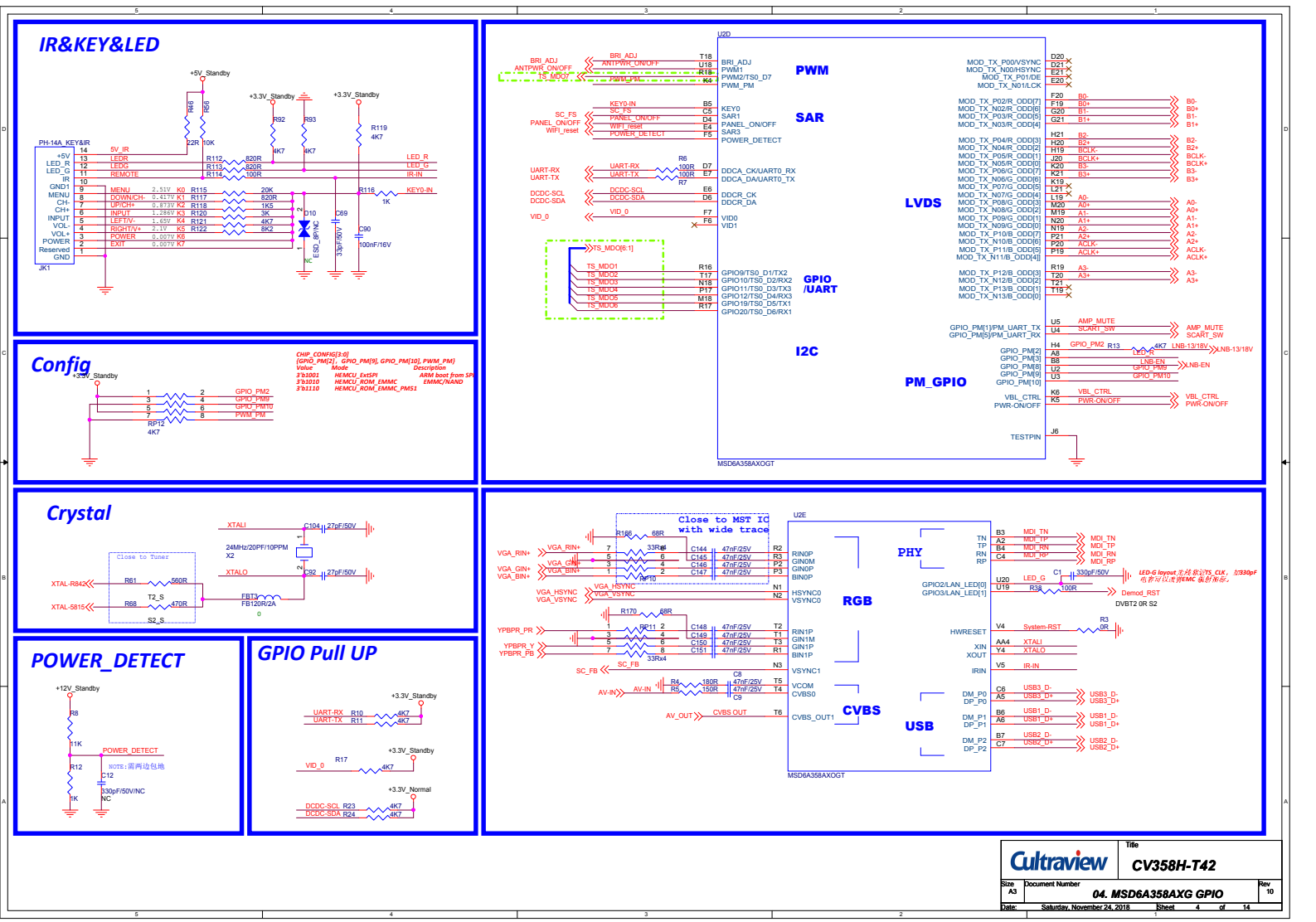

Cultraview	Title: CV358H-T42		
Size: A3	Document Number: 04. MSD6A358AXG GPIO		Rev: 10
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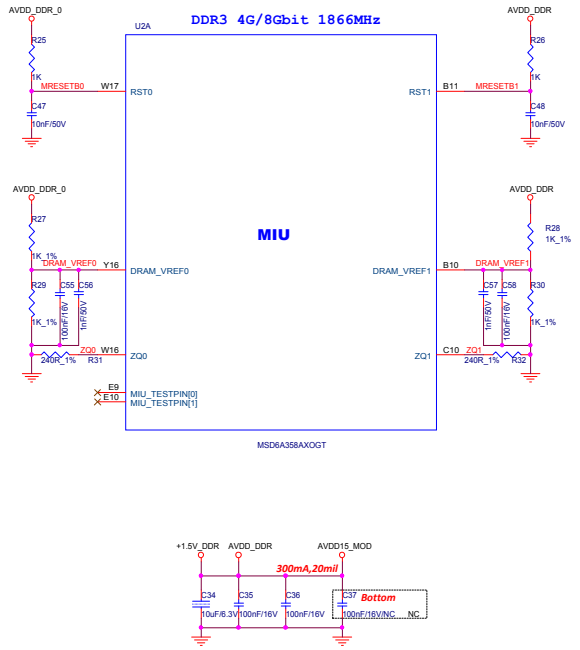
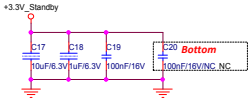
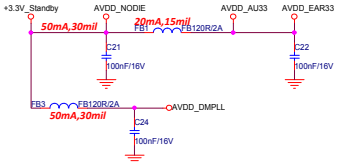
DDR POWER

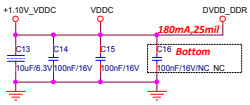


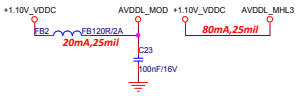
+3.3V_Standby



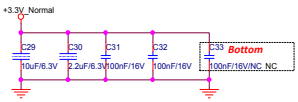


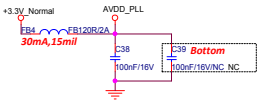
CORE Power



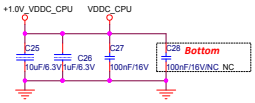


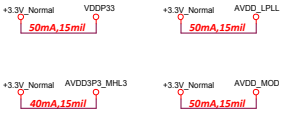
+3.3V_Normal



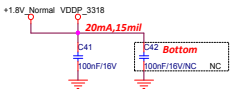


CPU Power





+1.8V_Normal



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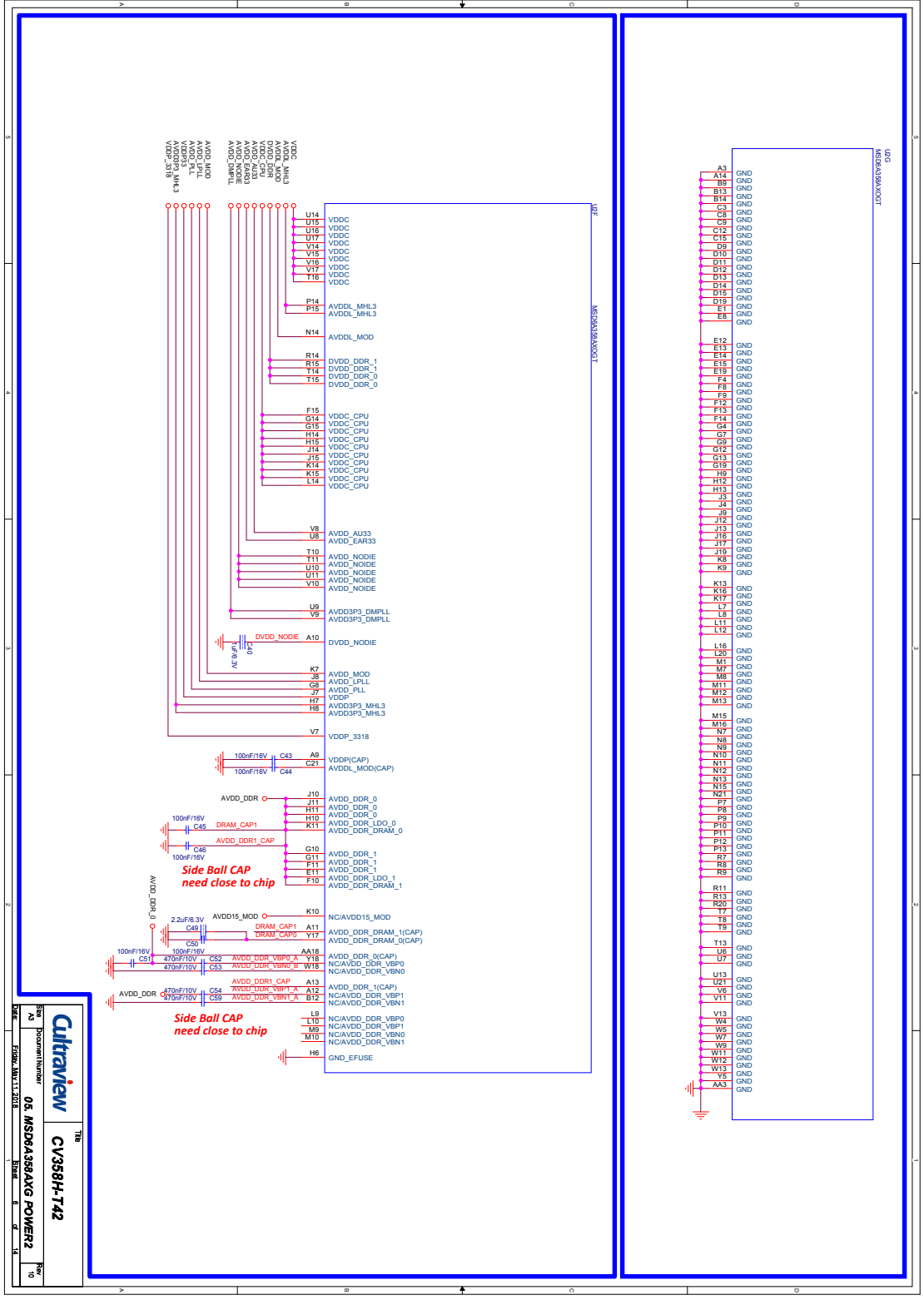
U2F
MSD6A358AXXQCT
VDDC
AVDDL_MHL3
AVDDL_MOD
DVDD_DDR
AVDD_AU33
AVDD_EAR33
AVDD3P3_DMPLL
VDDP_3318
AVDD_MOD
AVDD_LPLL
AVDD_PLL
VDDP
AVDD3P3_MHL3
U14 VDDC
U15 VDDC
U16 VDDC
U17 VDDC
V14 VDDC
V15 VDDC
V16 VDDC
V17 VDDC
T16 VDDC
P14 AVDDL_MHL3
P15 AVDDL_MHL3
N14 AVDDL_MOD
R14 DVDD_DDR_1
R15 DVDD_DDR_1
T14 DVDD_DDR_0
T15 DVDD_DDR_0
F15 VDDC_CPU
G14 VDDC_CPU
G15 VDDC_CPU
H14 VDDC_CPU
H15 VDDC_CPU
J14 VDDC_CPU
J15 VDDC_CPU
K14 VDDC_CPU
K15 VDDC_CPU
L14 VDDC_CPU
V8 AVDD_AU33
U8 AVDD_EAR33
T10 AVDD_NODIE
T11 AVDD_NOIDE
U10 AVDD_NOIDE
U11 AVDD_NOIDE
V10 AVDD_NOIDE
U9 AVDD3P3_DMPLL
V9 AVDD3P3_DMPLL
DVDD_NODIE
A10 DVDD_NODIE
C40 1uF/6.3V
K7 AVDD_MOD
J8 AVDD_LPLL
G8 AVDD_PLL
J7 VDDP
H7 AVDD3P3_MHL3
H8 AVDD3P3_MHL3
V7 VDDP_3318
100nF/16V C43
C21
100nF/16V C44
A9 VDDP(CAP)
AVDDL_MOD(CAP)
AVDD_DDR
J10 AVDD_DDR_0
J11 AVDD_DDR_0
H11 AVDD_DDR_0
H10 AVDD_DDR_LDO_0
K11 AVDD_DDR_DRAM_0
100nF/16V C45
DRAM_CAP1
AVDD_DDR1_CAP
C46 100nF/16V
G10 AVDD_DDR_1
G11 AVDD_DDR_1
F11 AVDD_DDR_1
E11 AVDD_DDR_LDO_1
F10 AVDD_DDR_DRAM_1
Side Ball CAP
need close to chip
AVDD_DDR_0
AVDD15_MOD
K10 NC/AVDD15_MOD
2.2uF/6.3V C49
C50
DRAM_CAP1 A11
DRAM_CAP0 Y17
AVDD_DDR_DRAM_1(CAP)
AVDD_DDR_DRAM_0(CAP)
100nF/16V C51
100nF/16V
AA18 AVDD_DDR_0(CAP)
470nF/10V C52
AVDD_DDR_VBP0_A Y18 NC/AVDD_DDR_VBP0
470nF/10V C53
AVDD_DDR_VBN0_B W18 NC/AVDD_DDR_VBN0
AVDD_DDR1_CAP A13 AVDD_DDR_1(CAP)
AVDD_DDR
470nF/10V C54
AVDD_DDR_VBP1_A A12 NC/AVDD_DDR_VBP1
470nF/10V C59
AVDD_DDR_VBN1_A B12 NC/AVDD_DDR_VBN1
Side Ball CAP
need close to chip
L9 NC/AVDD_DDR_VBP0
L10 NC/AVDD_DDR_VBP1
M9 NC/AVDD_DDR_VBN0
M10 NC/AVDD_DDR_VBN1
H6 GND_EFUSE
U2G
MSD6A358AXXQCT
A3 GND
A14 GND
B9 GND
B13 GND
B14 GND
C3 GND
C8 GND
C9 GND
C12 GND
C15 GND
D9 GND
D10 GND
D11 GND
D12 GND
D13 GND
D14 GND
D15 GND
D19 GND
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E14 GND
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E19 GND
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F8 GND
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F14 GND
G4 GND
G7 GND
G9 GND
G12 GND
G13 GND
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J16 GND
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P13 GND
R7 GND
R8 GND
R9 GND
R11 GND
R13 GND
R20 GND
T7 GND
T8 GND
T9 GND
T13 GND
U6 GND
U7 GND
U13 GND
U21 GND
V6 GND
V11 GND
V13 GND
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W5 GND
W7 GND
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W11 GND
W12 GND
W13 GND
Y5 GND
AA3 GND
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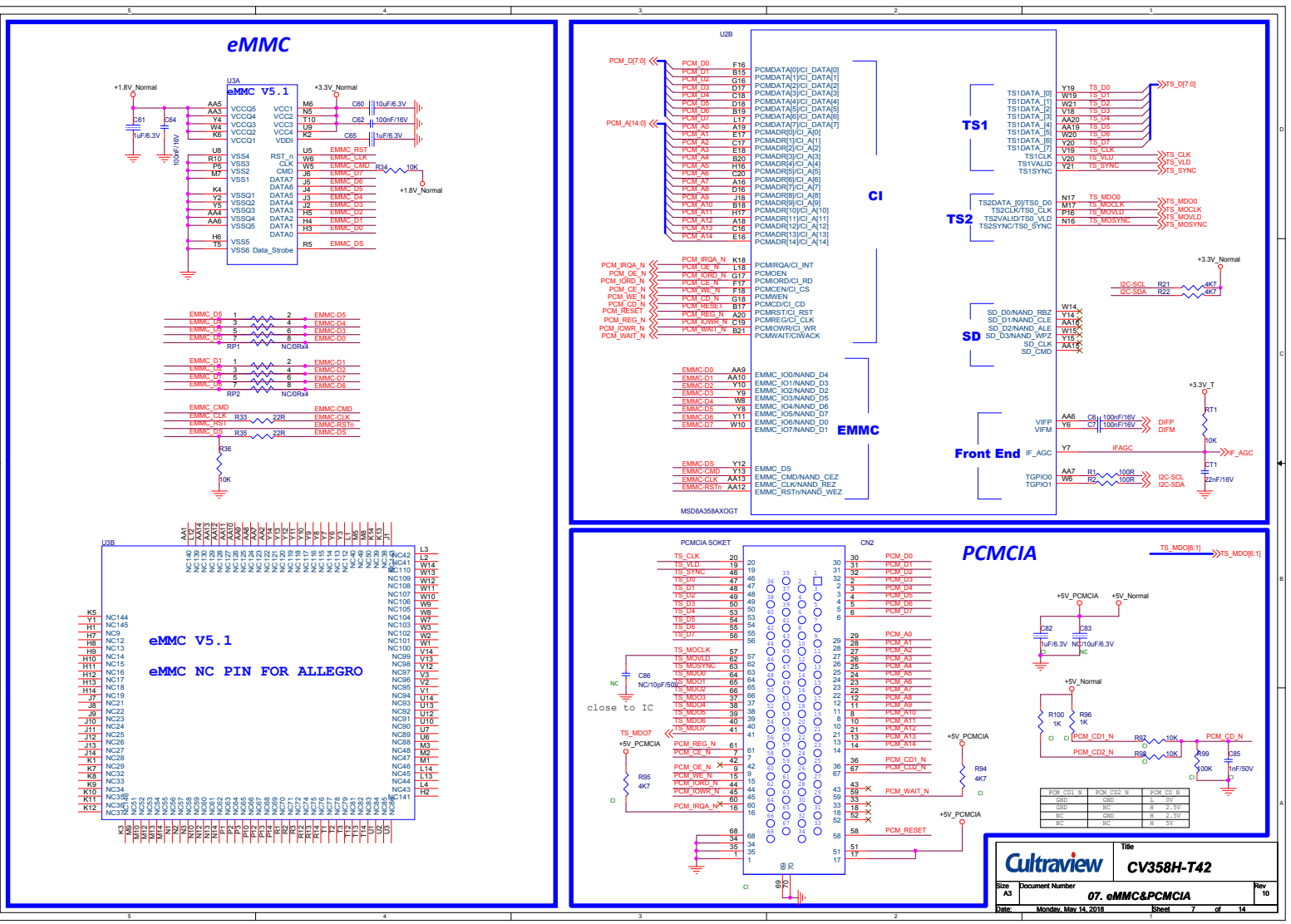
eMMC
U3A
eMMC V5.1
+1.8V_Normal
+3.3V_Normal
C61
1uF/6.3V
C64
100nF/16V
C60
10uF/6.3V
C62
100nF/16V
C65
1uF/6.3V
U8
R34
10K
+1.8V_Normal
EMMC_RST
EMMC_CLK
EMMC_CMD
EMMC_D7
EMMC_D6
EMMC_D5
EMMC_D4
EMMC_D3
EMMC_D2
EMMC_D1
EMMC_D0
EMMC_DS
VCCQ5
VCCQ4
VCCQ3
VCCQ2
VCCQ1
VCC1
VCC2
VCC3
VCC4
VDDI
VSS4
VSS3
VSS2
VSS1
RST_n
CLK
CMD
DATA7
DATA6
DATA5
DATA4
DATA3
DATA2
DATA1
DATA0
VSS5
VSS6 Data_Strobe
RP1
NC/0Rx4
RP2
NC/0Rx4
R33
22R
R35
22R
R36
10K
eMMC V5.1
eMMC NC PIN FOR ALLEGRO
U3B
NC144
NC145
NC9
NC12
NC13
NC14
NC15
NC16
NC17
NC18
NC19
NC21
NC22
NC23
NC24
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NC127
NC128
NC129
NC130
NC131
NC132
NC133
NC134
NC135
NC136
NC137
NC138
NC139
NC140
NC141
U2B
PCM_D[7:0]
PCM_A[14:0]
PCMDATA[0]/CI_DATA[0]
PCMDATA[1]/CI_DATA[1]
PCMDATA[2]/CI_DATA[2]
PCMDATA[3]/CI_DATA[3]
PCMDATA[4]/CI_DATA[4]
PCMDATA[5]/CI_DATA[5]
PCMDATA[6]/CI_DATA[6]
PCMDATA[7]/CI_DATA[7]
PCMADR[0]/CI_A[0]
PCMADR[1]/CI_A[1]
PCMADR[2]/CI_A[2]
PCMADR[3]/CI_A[3]
PCMADR[4]/CI_A[4]
PCMADR[5]/CI_A[5]
PCMADR[6]/CI_A[6]
PCMADR[7]/CI_A[7]
PCMADR[8]/CI_A[8]
PCMADR[9]/CI_A[9]
PCMADR[10]/CI_A[10]
PCMADR[11]/CI_A[11]
PCMADR[12]/CI_A[12]
PCMADR[13]/CI_A[13]
PCMADR[14]/CI_A[14]
CI
PCM_IRQA_N
PCM_OE_N
PCM_IORD_N
PCM_CE_N
PCM_WE_N
PCM_CD_N
PCM_RESET
PCM_REG_N
PCM_IOWR_N
PCM_WAIT_N
PCMIRQA/CI_INT
PCMOEN
PCMIORD/CI_RD
PCMCEN/CI_CS
PCMWEN
PCMCD/CI_CD
PCMRST/CI_RST
PCMREG/CI_CLK
PCMIOWR/CI_WR
PCMWAIT/CIWACK
EMMC_D0
EMMC_D1
EMMC_D2
EMMC_D3
EMMC_D4
EMMC_D5
EMMC_D6
EMMC_D7
EMMC_DS
EMMC_CMD
EMMC_CLK
EMMC_RSTn
EMMC_IO0/NAND_D4
EMMC_IO1/NAND_D3
EMMC_IO2/NAND_D2
EMMC_IO3/NAND_D5
EMMC_IO4/NAND_D6
EMMC_IO5/NAND_D7
EMMC_IO6/NAND_D0
EMMC_IO7/NAND_D1
EMMC_DS
EMMC_CMD/NAND_CEZ
EMMC_CLK/NAND_REZ
EMMC_RSTn/NAND_WEZ
EMMC
MSD8A358AXOGT
TS1
TS1DATA_0
TS1DATA_1
TS1DATA_2
TS1DATA_3
TS1DATA_4
TS1DATA_5
TS1DATA_6
TS1DATA_7
TS1CLK
TS1VALID
TS1SYNC
TS_D0
TS_D1
TS_D2
TS_D3
TS_D4
TS_D5
TS_D6
TS_D7
TS_CLK
TS_VLD
TS_SYNC
TS_D[7:0]
TS2
TS2DATA_[0]/TS0_D0
TS2CLK/TS0_CLK
TS2VALID/TS0_VLD
TS2SYNC/TS0_SYNC
TS_MDO0
TS_MOCLK
TS_MOVLD
TS_MOSYNC
SD
SD_D0/NAND_RBZ
SD_D1/NAND_CLE
SD_D2/NAND_ALE
SD_D3/NAND_WPZ
SD_CLK
SD_CMD
I2C-SCL
I2C-SDA
R21
4K7
R22
4K7
+3.3V_Normal
Front End
VIFP
VIFM
C8
100nF/16V
C7
100nF/16V
DIFP
DIFM
IF_AGC
IFAGC
TGPIO0
TGPIO1
R1
100R
R2
100R
RT1
10K
CT1
22nF/16V
+3.3V_T
PCMCIA SOKET
CN2
PCMCIA
TS_CLK
TS_VLD
TS_SYNC
TS_D0
TS_D1
TS_D2
TS_D3
TS_D4
TS_D5
TS_D6
TS_D7
TS_MOCLK
TS_MOVLD
TS_MOSYNC
TS_MDO0
TS_MDO1
TS_MDO2
TS_MDO3
TS_MDO4
TS_MDO5
TS_MDO6
TS_MDO7
PCM_REG_N
PCM_CE_N
PCM_OE_N
PCM_WE_N
PCM_IORD_N
PCM_IOWR_N
PCM_IRQA_N
PCM_D0
PCM_D1
PCM_D2
PCM_D3
PCM_D4
PCM_D5
PCM_D6
PCM_D7
PCM_A0
PCM_A1
PCM_A2
PCM_A3
PCM_A4
PCM_A5
PCM_A6
PCM_A7
PCM_A8
PCM_A9
PCM_A10
PCM_A11
PCM_A12
PCM_A13
PCM_A14
PCM_CD1_N
PCM_CD2_N
PCM_WAIT_N
PCM_RESET
C86
NC/10pF/50V
close to IC
R95
4K7
R94
4K7
+5V_PCMCIA
TS_MDO[8:1]
+5V_Normal
C82
1uF/6.3V
C83
NC/10uF/6.3V
R100
1K
R96
1K
R97
10K
R98
10K
R99
100K
C85
1nF/50V
PCM_CD1_N
PCM_CD2_N
PCM_CD_N
GND
NC
5V
0V
2.5V
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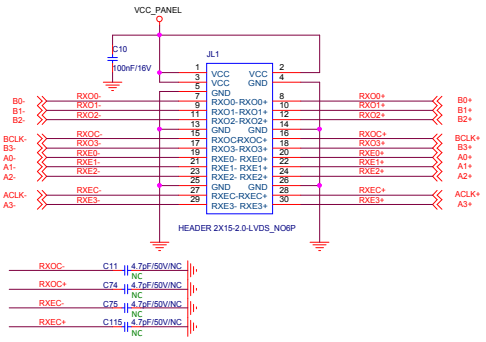
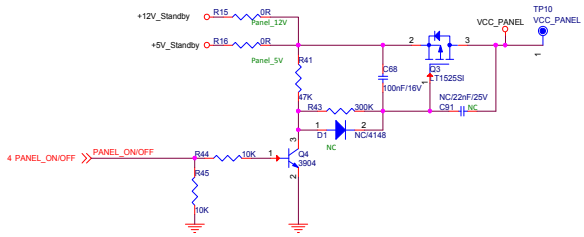
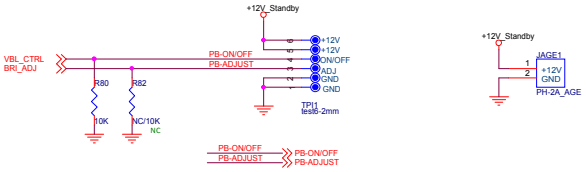
LVDS Connetor



Panel POWER



Test



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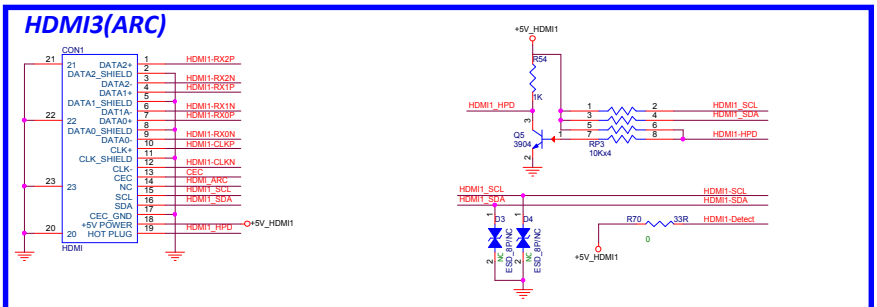
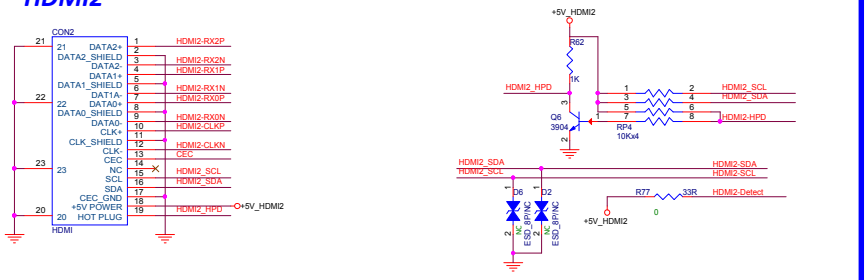
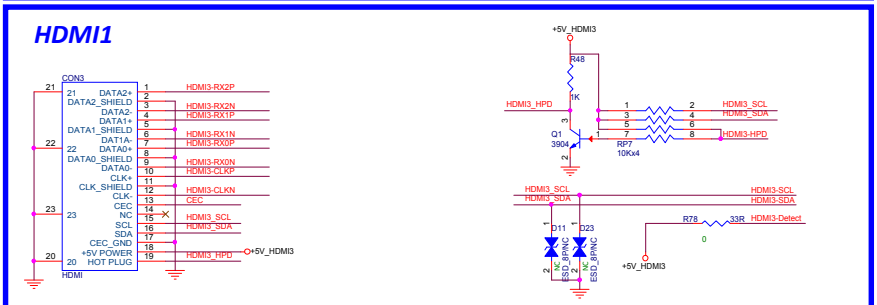
HDMI3(ARC)



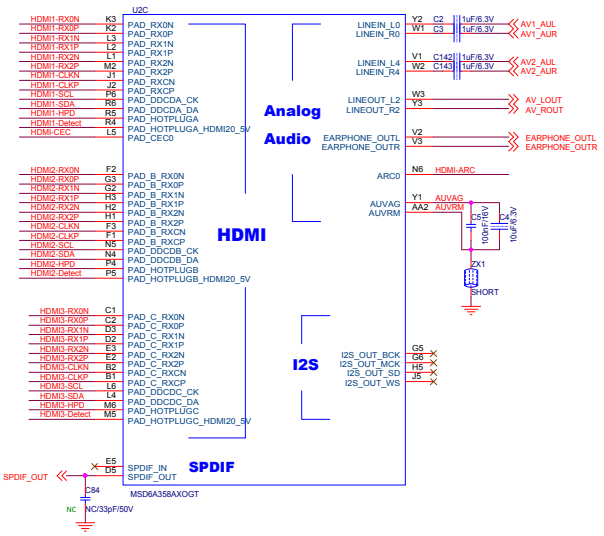
HDMI2



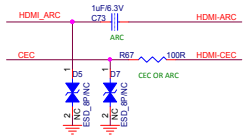
HDMI1



HDMI&Audio Block



ARC&CEC



Cultraview	Title: CV358H-T42	
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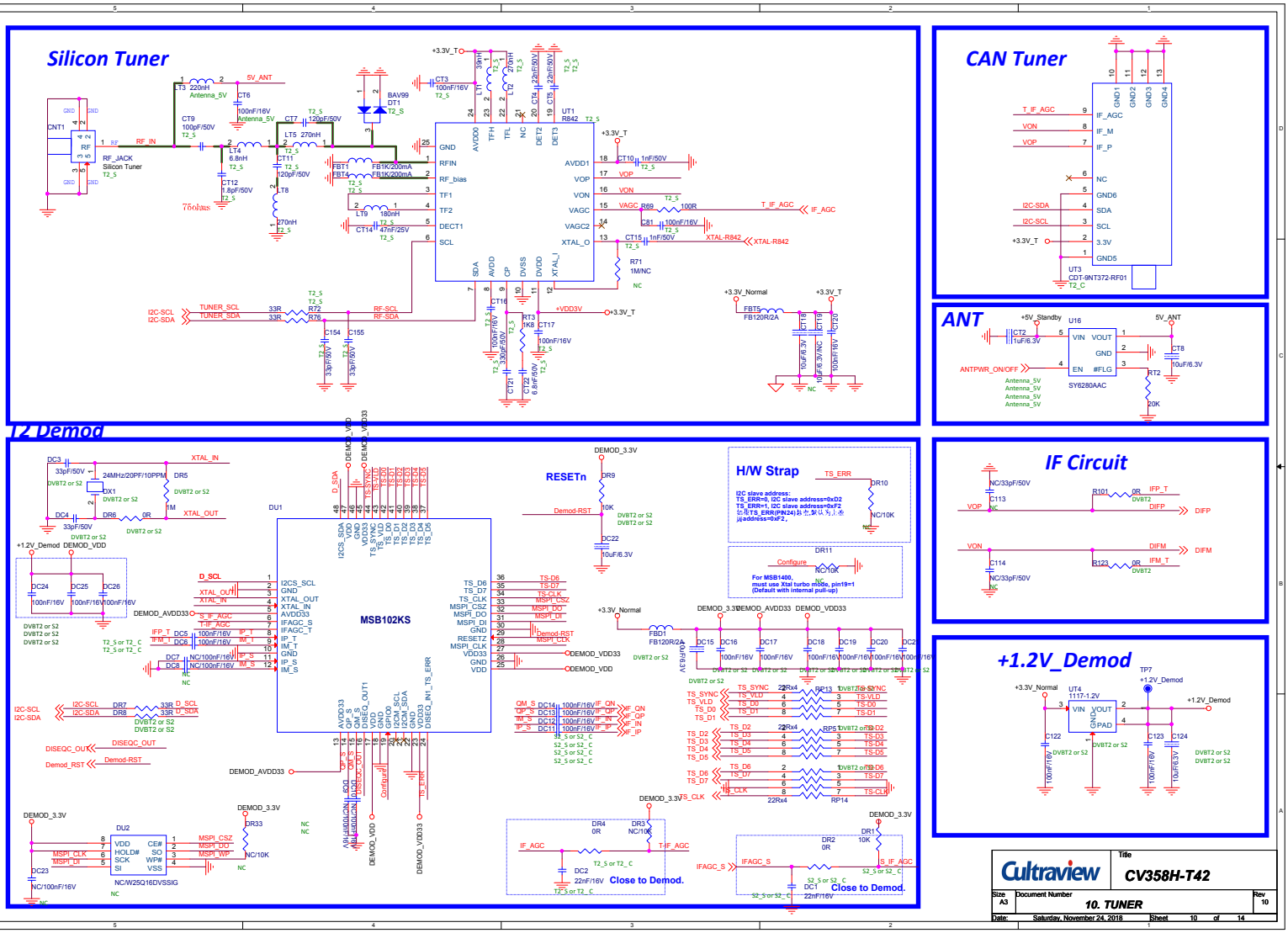
Silicon Tuner
CAN Tuner
ANT
T2 Demod
IF Circuit
+1.2V_Demod
MSB102KS
RESETn
H/W Strap
Close to Demod.
Close to Demod.
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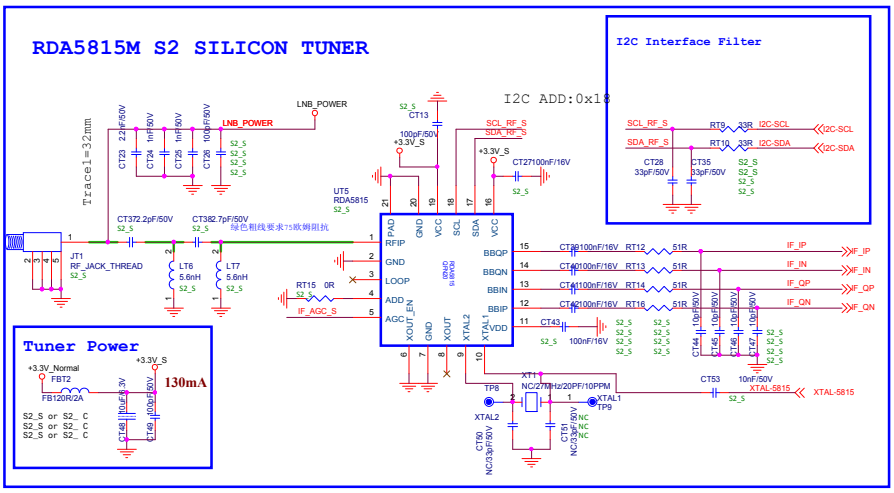
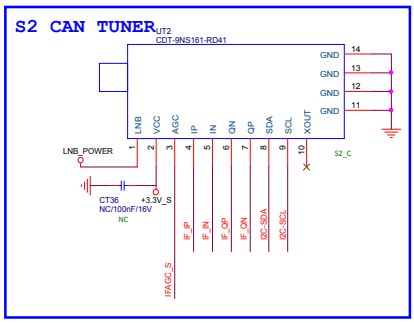
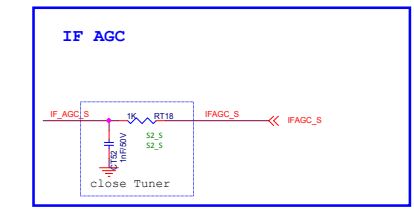
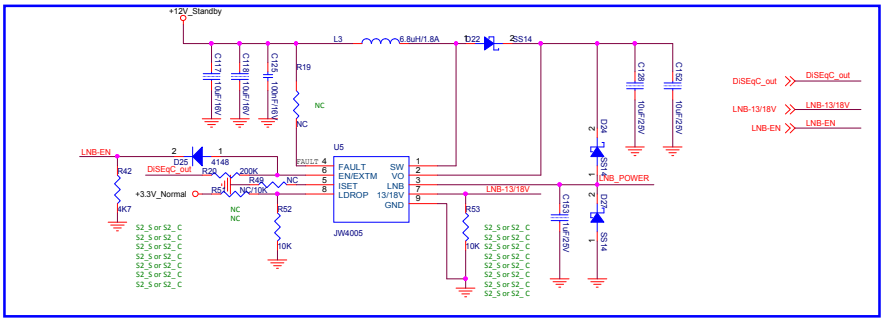
Saturday, November 24, 2018









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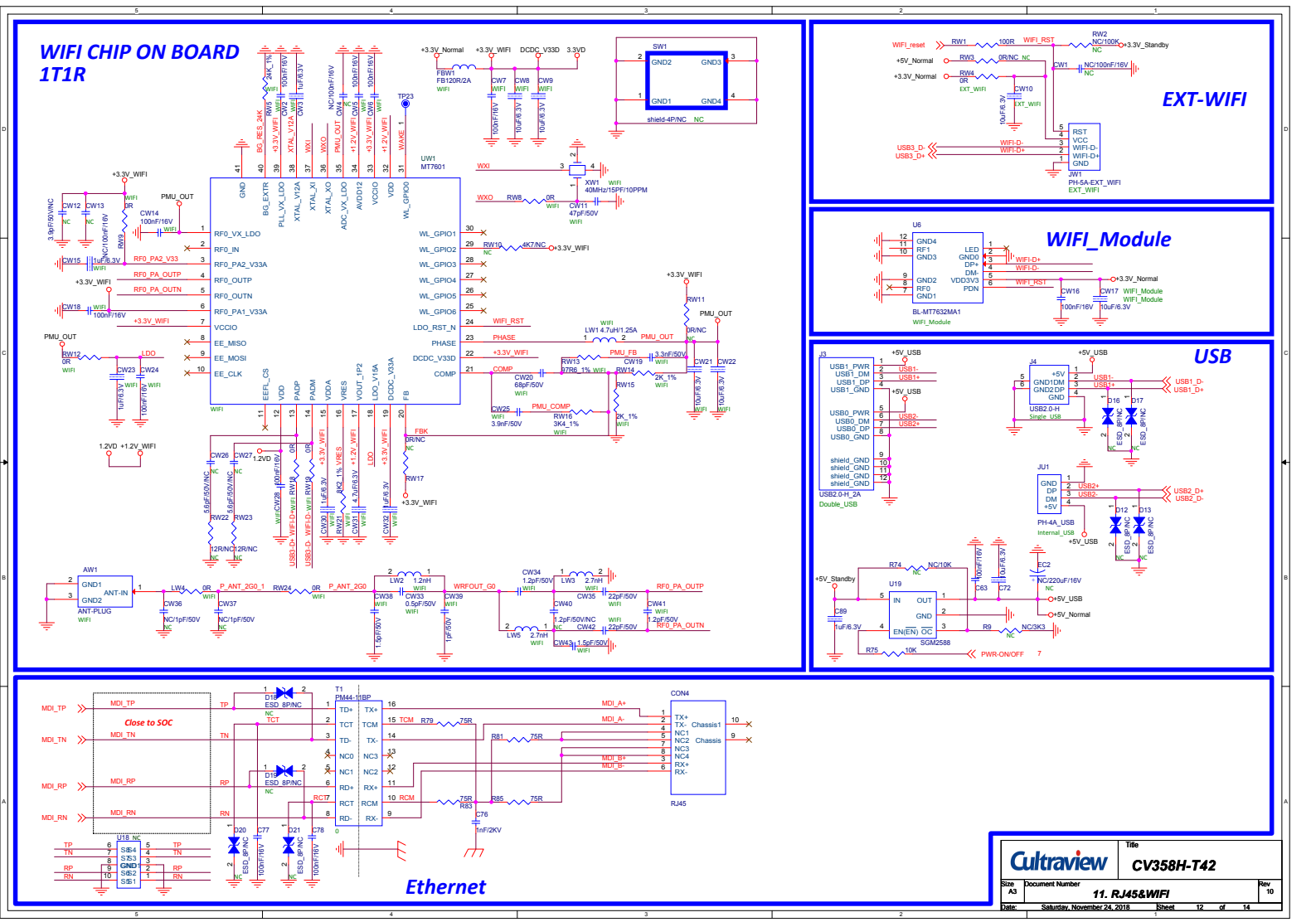
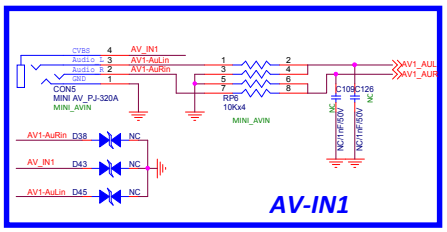
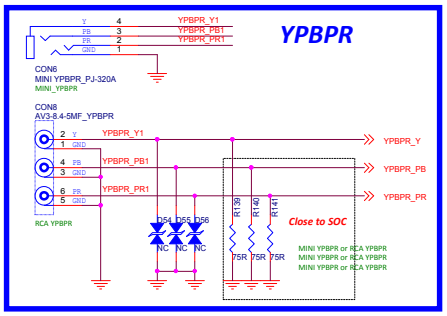
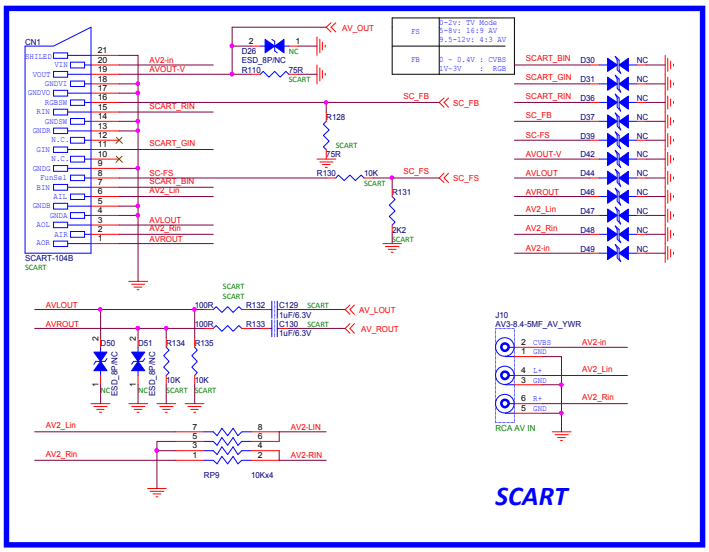
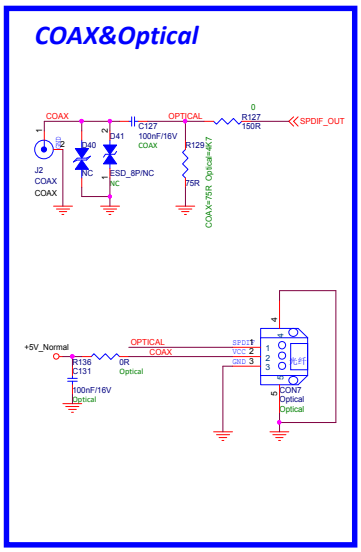
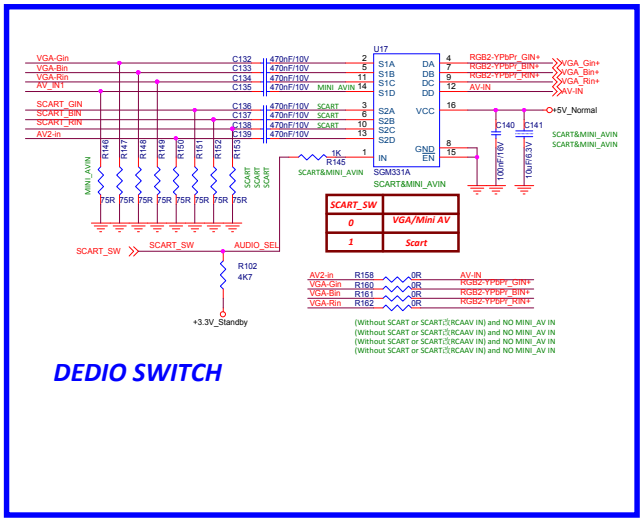

WIFI CHIP ON BOARD
1T1R
UW1
MT7601
EXT-WIFI
WIFI_Module
USB
Ethernet
Close to SOC
CV358H-T42
11. RJ45&WIFI

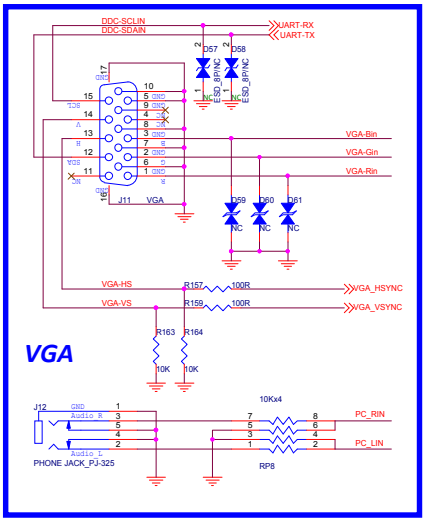


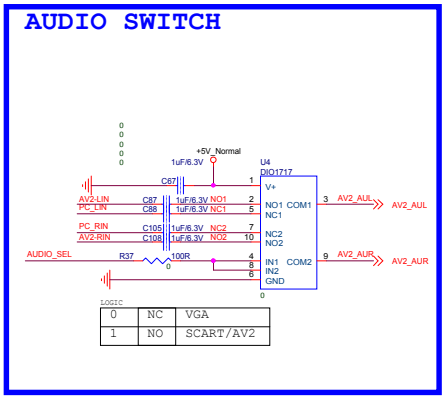












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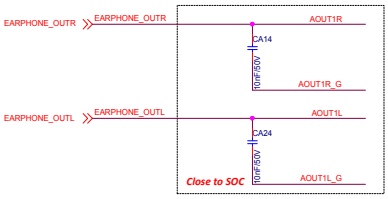
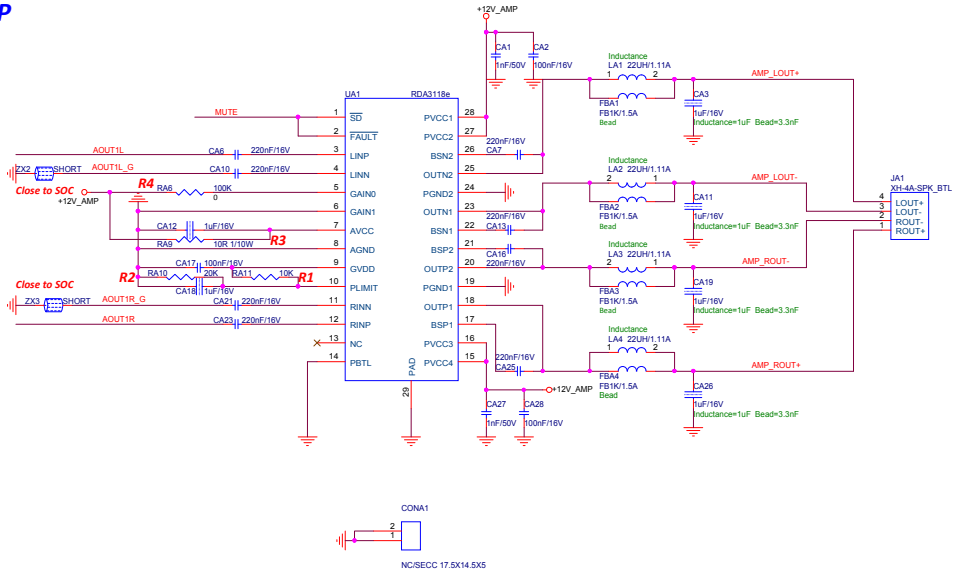
Audio AMP

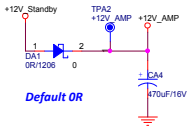




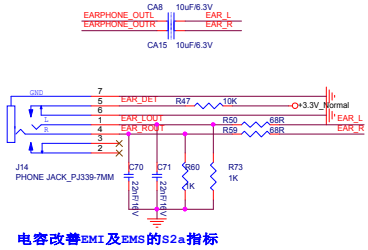
12V for 2x8W

Chip_Select	R4	R3	R2	R1	VCC
RDA3118e	NC	10R	20K	10K	9V-18V
VA2221	100K	10R	7.5K	10K	8V-26V
MP7752GF	100K	NC	12K	33K	5V-18V
TPA3110LD2	100K	10R	7.5K	10K	8V-26V

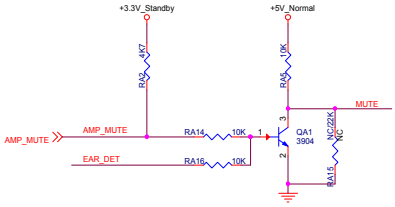
AMP POWER



Default 0R



电容改善EMI及EMS的S2a指标



Cultraview

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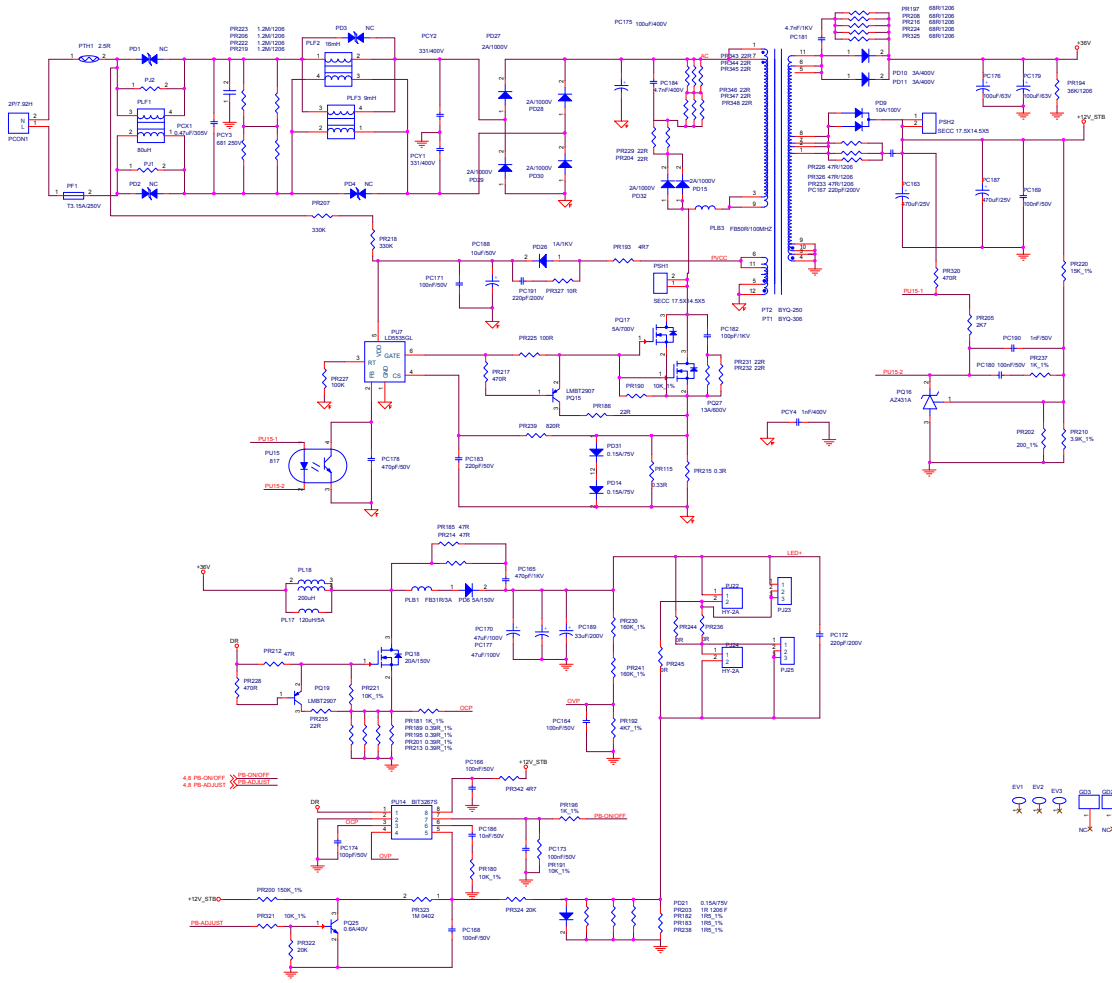

Cultraview	Title: CV348H-T42		
Size: A2	Document Number: 14. AC_POWER		Rev: 10
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