

# ALi M3602 DEMO BOARD

## DB-M3602-05V02

### Ver. 5.2

share with SF\_CS1

share with SF\_CS2

#### GPIO MAPPING:

MODE_0	USAGE	USAGE DETAIL	NOTE
GPIO8	LNB1	FULL_NIM1_LNB_CUT	1:LNB power cut 0:Normal. Share with TS1
GPIO9	USB	USB_OVERLOAD_INT	
GPIO31	Panel	FP_STANDBY	0:normal 1:standby float:standby share with CA2
GPIO33	Panel	FP_DATA	share with CA2
GPIO34	Panel	FP_CLOCK	share with CA2
GPIO36	LNB2	LNB2_OVERLOAD_DETEC	0:normal 1:overload. Share with CI2
GPIO37	LNB2	FULL_NIM2_LNB_CUT	1:LNB power cut 0:Normal. Share with CI2
GPIO38	Full Nim1	FULL_NIM1_INT	Share with CI2
GPIO40	Crypto memory	CPTMEM_SCL	Share with CI2
GPIO42	LNB1	LNB1_OVERLOAD_DETEC	0:normal 1:overload. Share with CI2
GPIO45	Crypto memory	CPTMEM_SDA	Share with CI2
GPIO52	LAN	INTJ_FROM_LAN	Share with sflash_CS2
GPIO53	NC		Share with sflash_CS3
GPIO59	SCART	VCR_DETEC	Input: 0-VCR Playing
GPIO61	Power	STANDBY	0-power on , 1-standby, float-standby
GPIO62	Panel	FP_COM2/VFD_STB	
GPIO69	Panel	MUTE	1: mute 0: normal
GPIO72	Panel	AK4707_PWR_DWN	1:Normal 0: power down
GPIO74	Panel	FP_COM3/VFD_CLK	
GPIO77	Panel	FP_COM1	
GPIO84	Panel	FP_KEY1	Low Active
GPIO85	NIM	LOCK2	TS2 I/F lock led driver 1: lock led light,share with CI2
GPIO88	Panel	FP_COM4/VFD_IN/OUT	share with CI2
GPIO89	Panel	LOCK1	TS1 I/F lock led driver 1: lock led light
GPIO91	Full Nim 2	FULL_NIM2_INT	Share with CI2
GPIO93	Demoulator	DEMO_RST/FULL_NIM1_RST	Share with CI2
GPIO94	Full Nim 2	FULL_NIM2_RST	Share with CI2
GPIO99	SDIO	SD_CDN	Share with CI2
GPIO100	SDIO	SD_WP	Share with CI2

#### Version Info

Ver.	DESCRIPTION	NOTE
05V01	Create for 2 layers PCB application	2009/04/18
05V02	improve DDR design	2009/06/10

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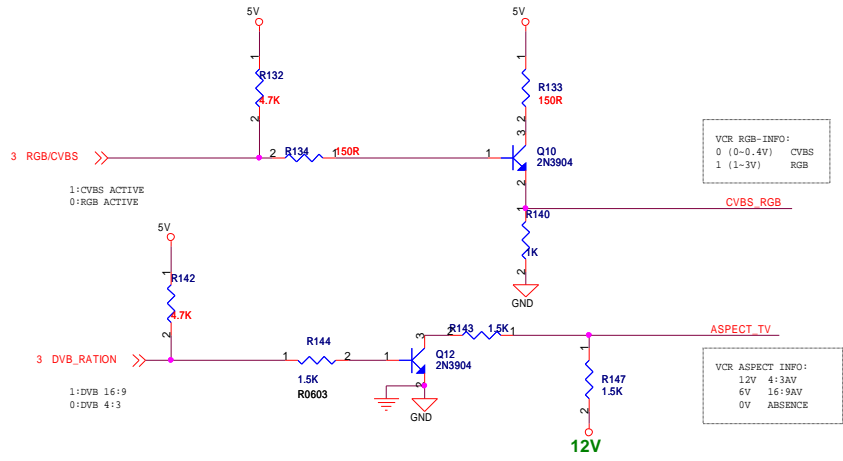
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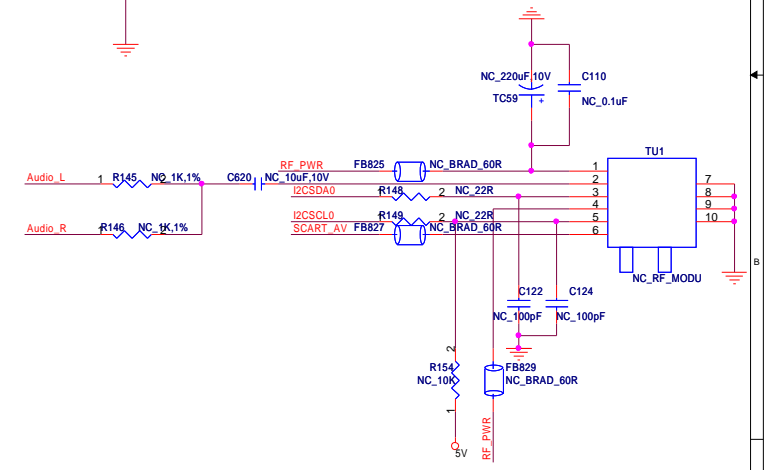
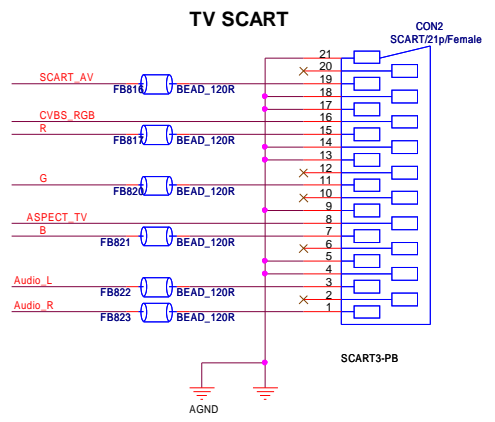
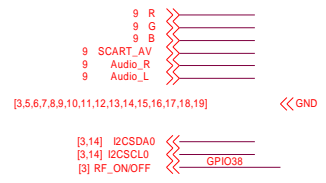
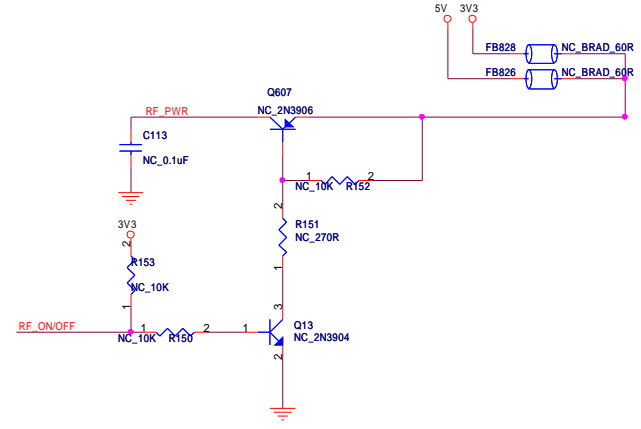
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Size B	Document Number DB-M3602-05V02	Rev 1.0
Date: Tuesday, October 20, 2009	Sheet 1 of 20	

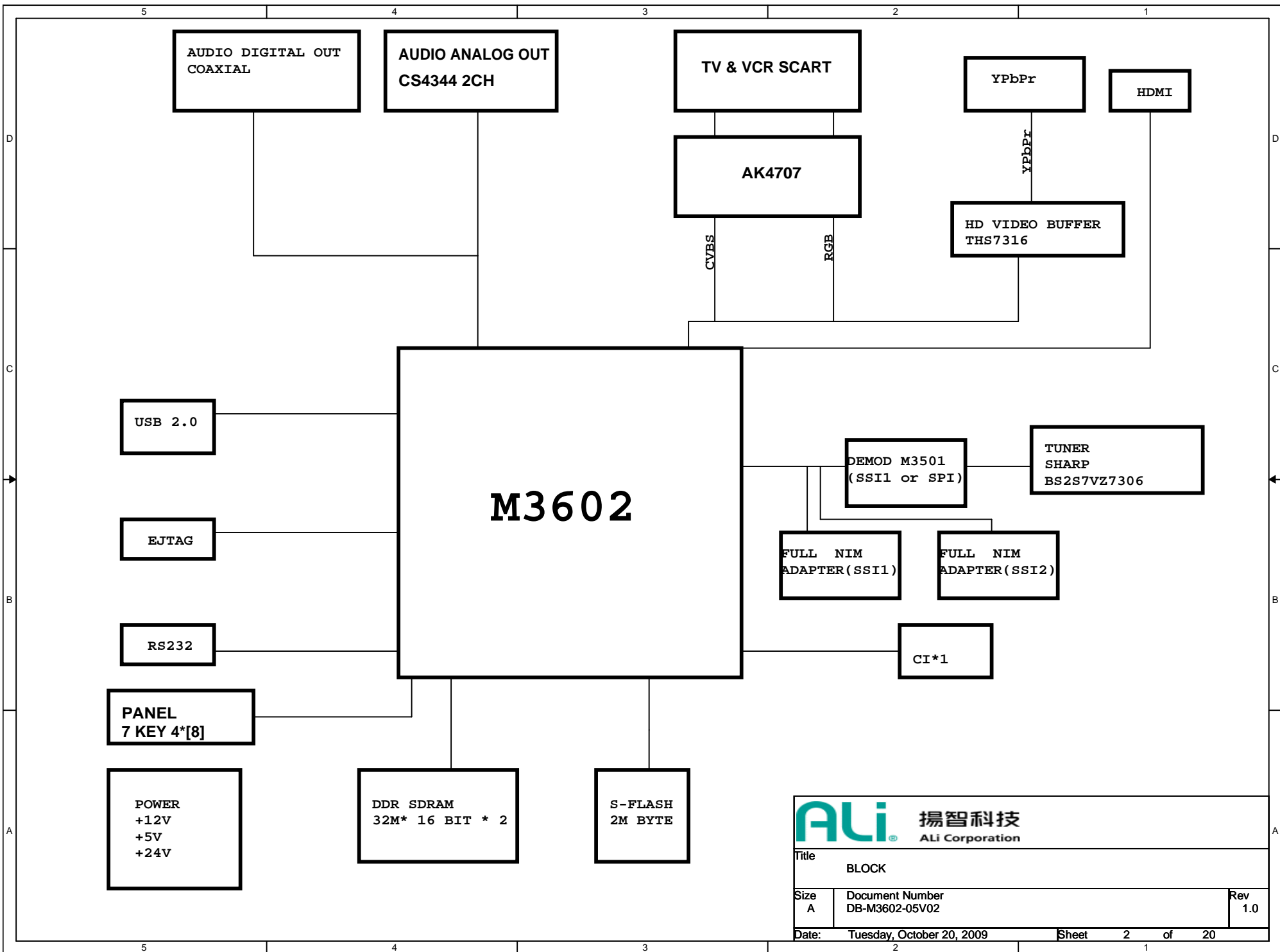


VCR\_RGB-INFO:  
 0 (0-0.4V) CVBS  
 1 (1-3V) RGB

VCR\_ASPECT-INFO:  
 12V 4:3AV  
 6V 16:9AV  
 0V ABSSENCE

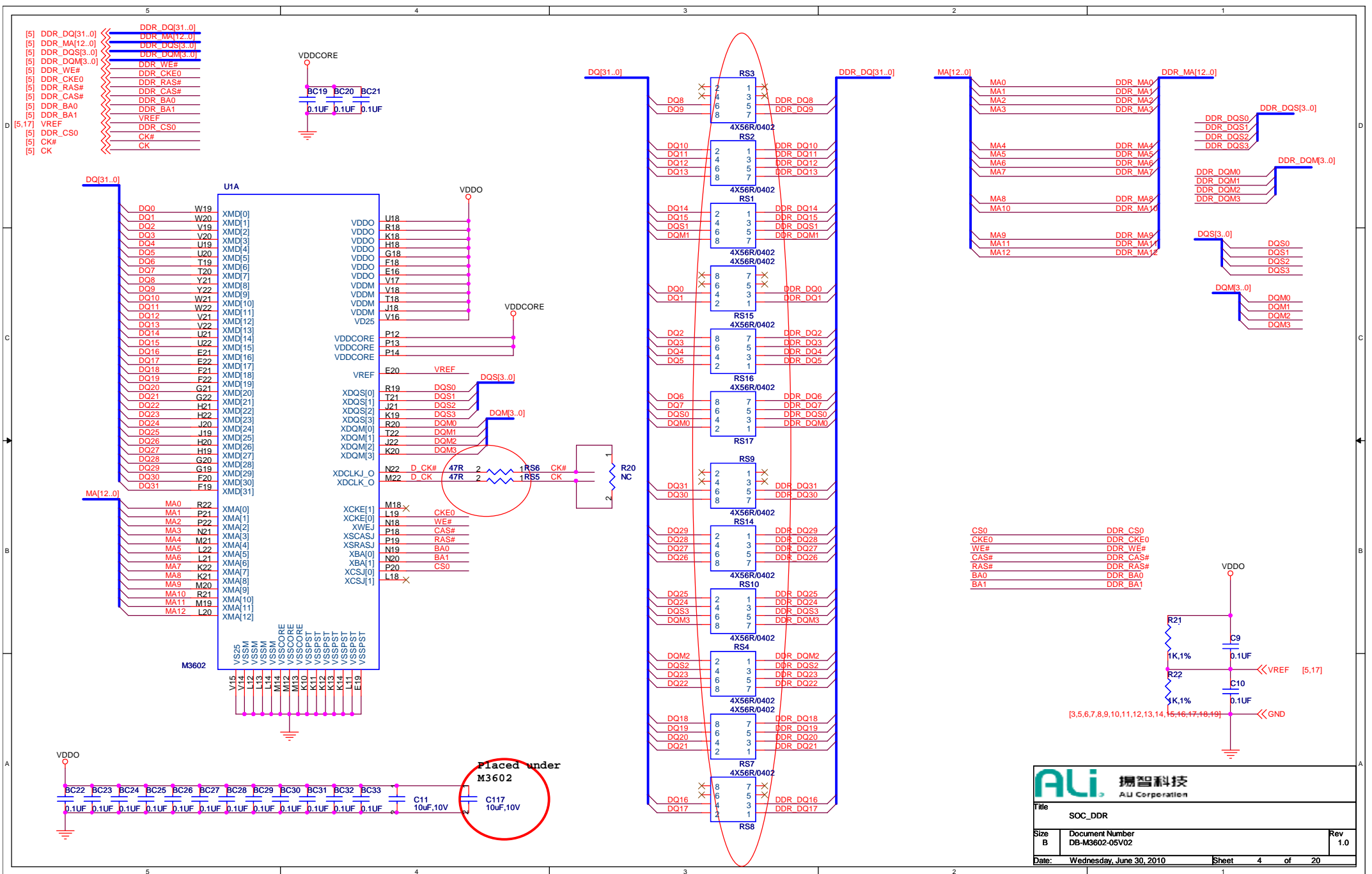


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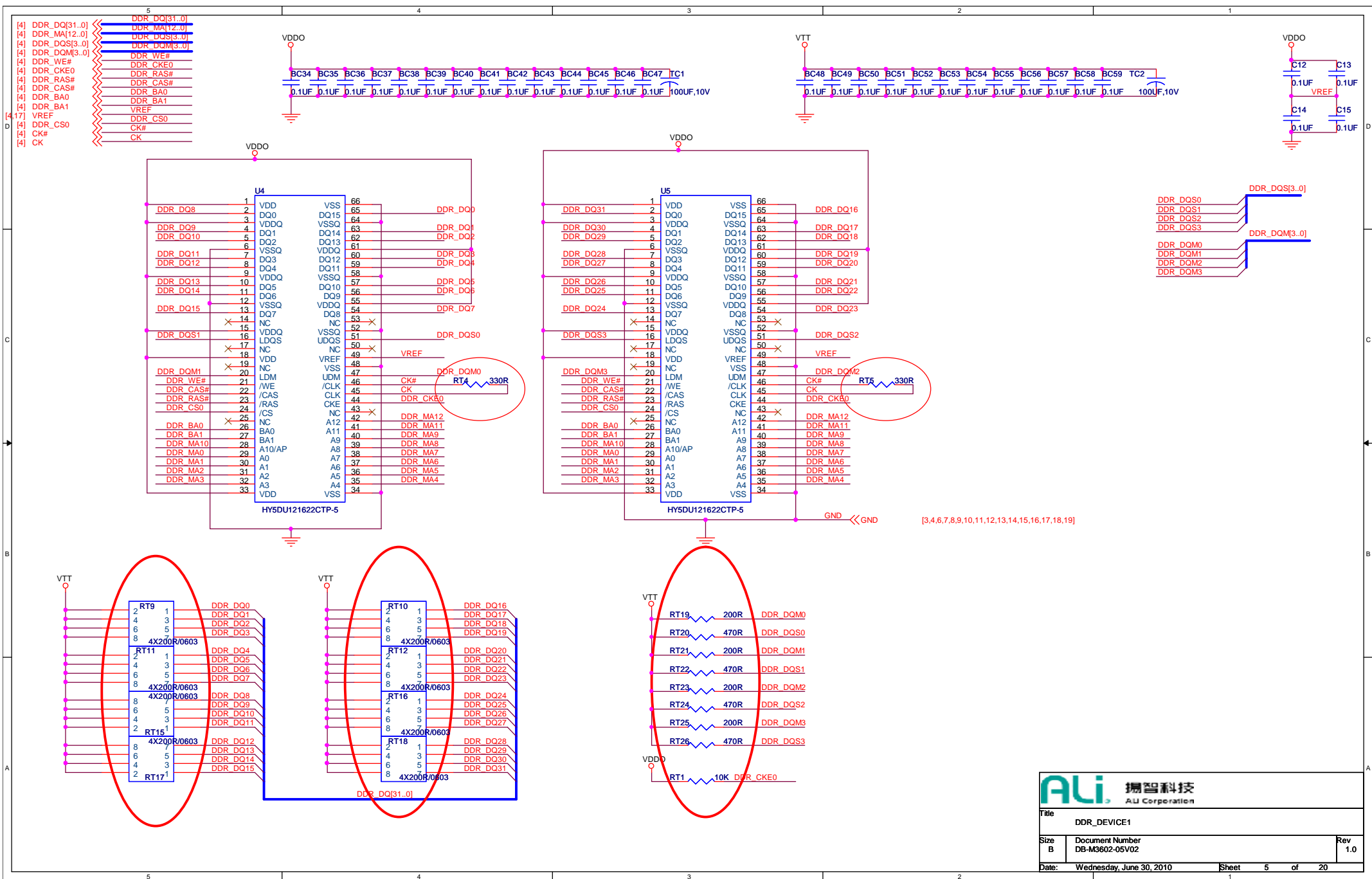
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Date: Tuesday, October 20, 2009		Sheet 2 of 20





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Size: B	Document Number: DB-M3602-05V02	
Date: Wednesday, June 30, 2010	Sheet: 4 of 20	

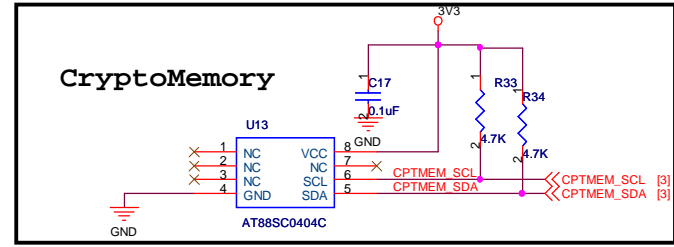
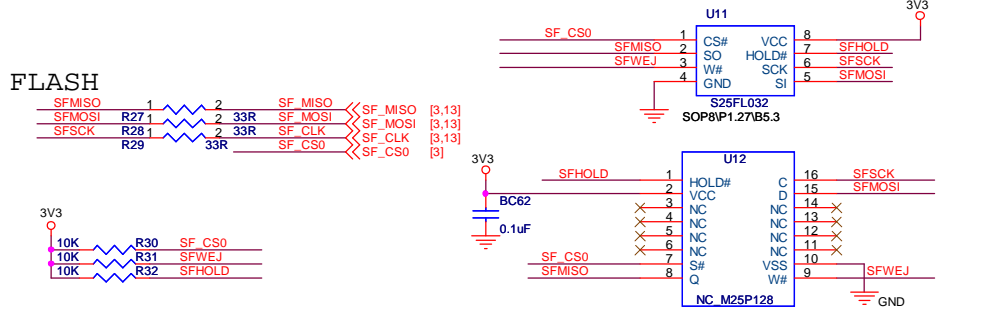
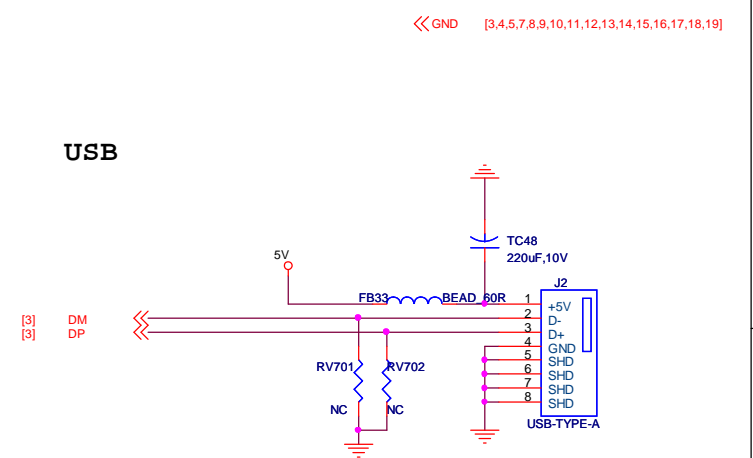
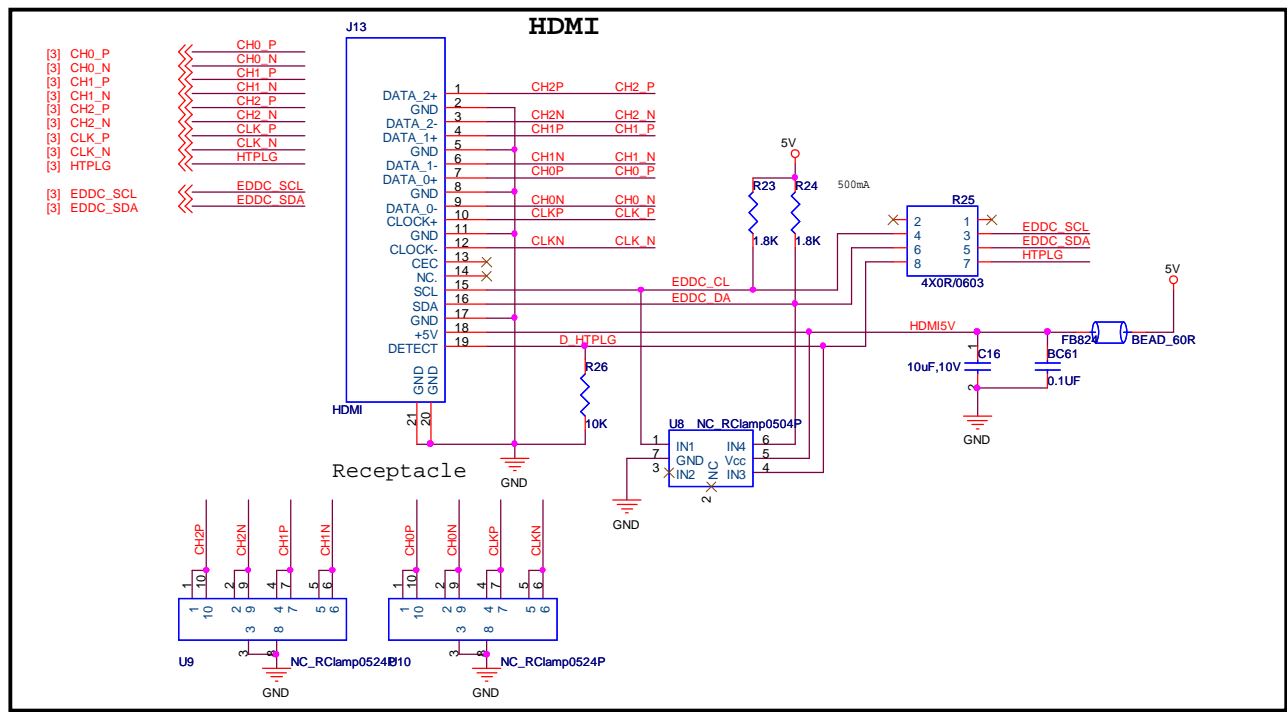


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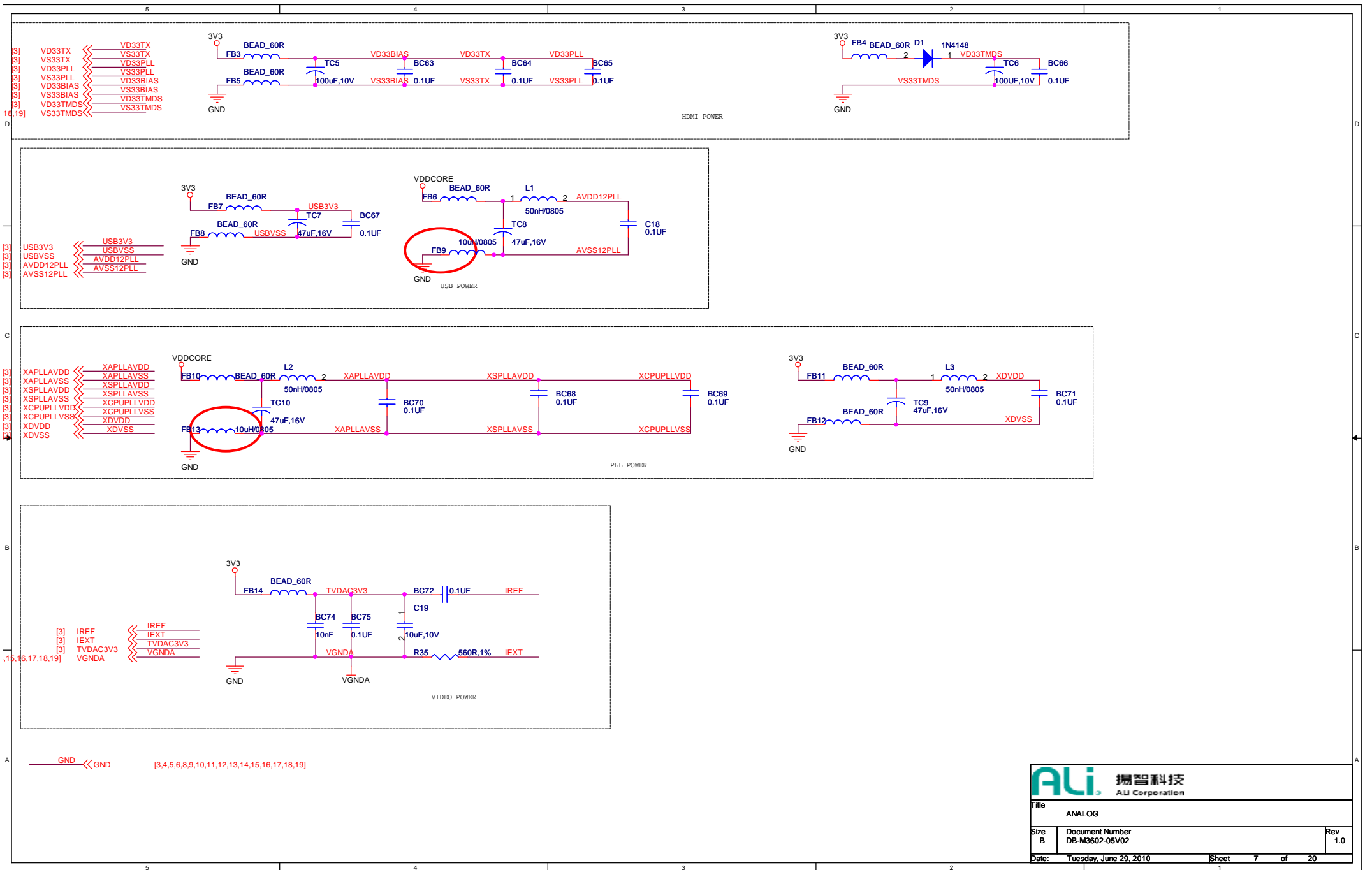
Title: DDR\_DEVICE1

Size B Document Number: DB-M3602-05V02 Rev 1.0

Date: Wednesday, June 30, 2010 Sheet 5 of 20



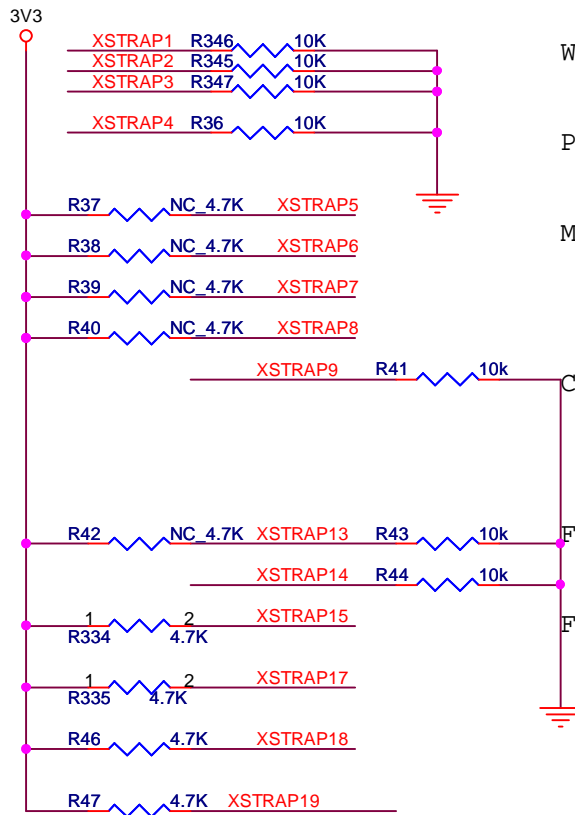
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Title: FLASH&HDMI&USB	
Size B	Document Number: DB-M3602-05V02
Date: Thursday, July 08, 2010	Rev: 1.0
Sheet: 6	of 20



<b>ALI</b> 瑞智科技 ALI Corporation	
Title: ANALOG	
Size: B	Document Number: DB-M3602-05V02
Date: Tuesday, June 29, 2010	Rev: 1.0
Sheet 7 of 20	



# STRAP PIN SETTING



[3] XSTRAP[1..9] << XSTRAP[1..9]  
 [3,9] XSTRAP[17..19] << XSTRAP[17..19]  
 [3] XSTRAP[13..15] << XSTRAP[13..15]

GND << GND [3,4,5,6,7,9,10,11,12,13,14,15,16,17,18,19]

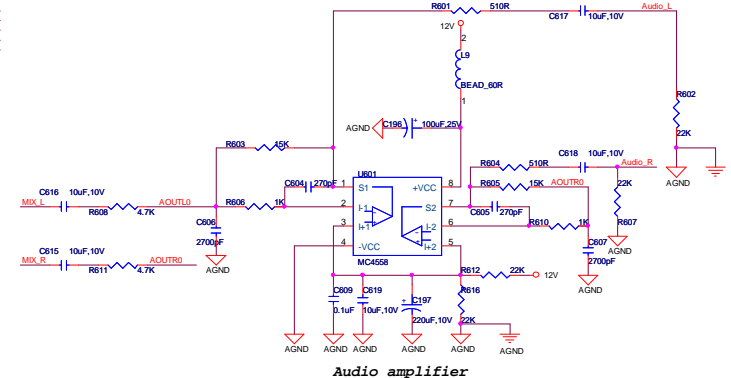
Indian\_Selection:STRAP0(XCI1\_MOCLK)  
 0: little Indian  
 1: Big Indian  
 Work\_mode: STRAP3:1(XCI1\_MDO[2:0])  
 000: Work Mode  
 other: Test Mode  
 PLL\_BYPASS:STRAP4(XCI1\_MOSTART)  
 0: Normal working mode  
 1: PLL by-pass mode  
 MCLK\_SEL:STRAP6:5(XCI1\_MDO[4:3])  
 00:198MHz  
 01:162MHz  
 10:148.5MHz  
 11:198MHz  
 CPUCLK\_SEL:STRAP8:7(XCI1\_MDO[6:5])  
 00:396MHz  
 01:486MHz  
 10:324MHz  
 11:396MHz  
 FLASH\_TYPE:STRAP9(XCI1\_MDO[7])  
 0:serial flash  
 1: parallel flash  
 FLASH\_SIZE:STRAP12:10(XCI\_IOWRJ,CI\_IORDJ,XCI\_REGJ)  
 000: 512K  
 001:1M  
 010:2M  
 011:4M  
 100:8M  
 101:16M  
 110:32M  
 111:64M

SFLASH PIO MODE:STRAP13(XCI1\_MOVALA)  
 0: SPI mode 0  
 1: SPI mode 3  
 DRAM\_TYPE:STRAP14(XCI\_RSTA)  
 0:DDR  
 1:SDR  
 PCB\_TYPE:STRAP15(XATADA[0])  
 0:4-layer  
 1:2-layer  
 VDAC\_WORK\_MODE:STRAP17(XI2SO\_DATA0)  
 0:Normal Mode  
 1:Half current Mode  
 EROM\_ENABLE:STRAP18(XI2SO\_BCK)  
 0:disable  
 1:enable  
 PROBE\_SEL:STRAP19(XI2SO\_LRCK)  
 0: disable Ejtag  
 1: enable Ejtag



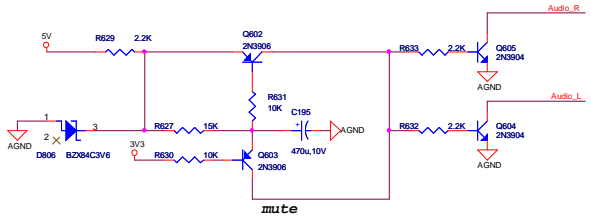
Title STRAP PIN&PANEL		
Size A	Document Number DB-M3602-05V02	Rev 1.0
Date: Saturday, June 26, 2010	Sheet 8	of 20

- [3] I2SO\_MCLK MCLK
- [3] I2SO\_BCK BCK
- [3] I2SO\_LRCK LRCK
- [3] I2SO\_DATA3 DATA3
- [3] I2SO\_SPDIF SPDIF

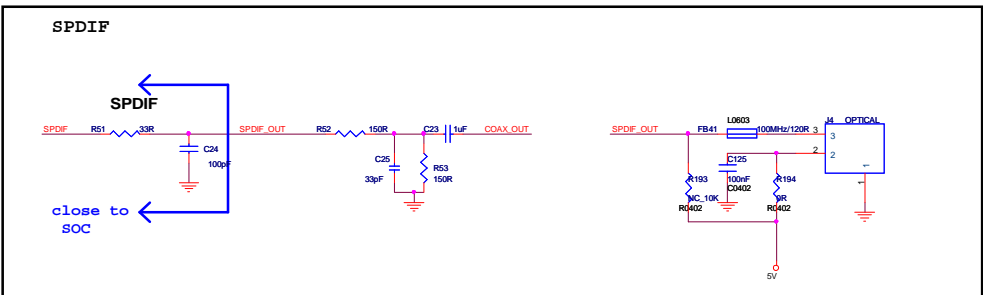
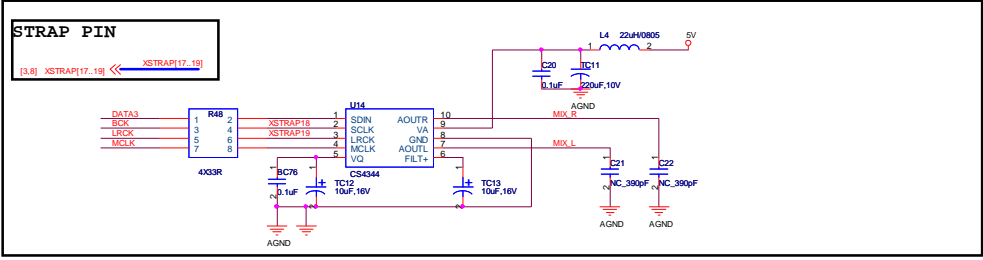


Audio DAC

Audio amplifier



mute



SPDIF

SPDIF

close to SOC

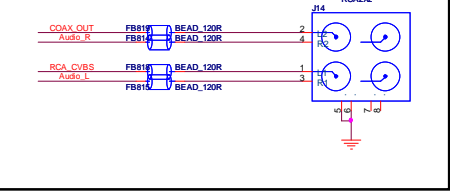
VIDEO FILTER

Half Current mode

Video Filter Parameter

	Half Current Mode			Normal Mode		
	R	L	C	R	L	C
CVBS	200/120R	5.6uH	180pF	68/100R	2.7uH	330pF
Y	150R	820nH	33pF	75R	390nH	56pF
Pb	150R	1.8uH	68pF	75R	1uH	150pF
Pr	150R	1.8uH	68pF	75R	1uH	150pF

RCA



- [19] R
- [19] G
- [19] B
- [19] Audio\_R
- [19] Audio\_L
- [19] SCART\_A

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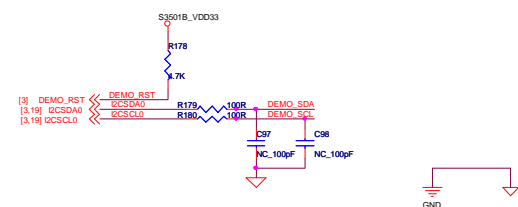
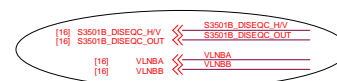
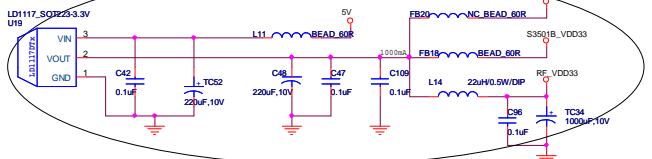
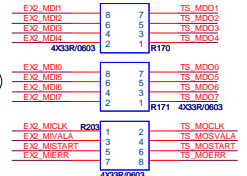
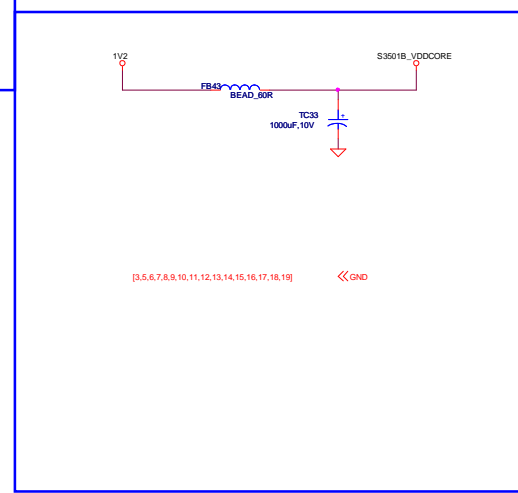
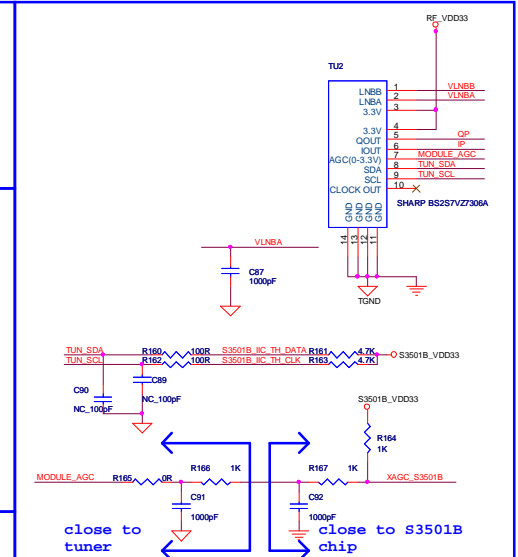
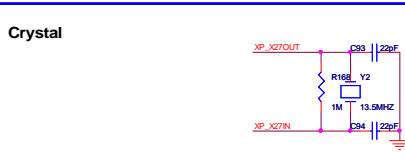
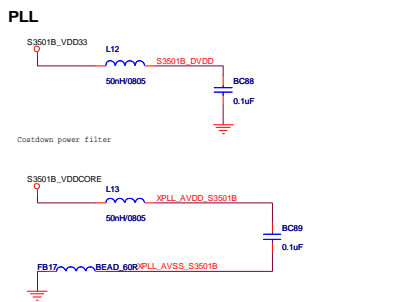
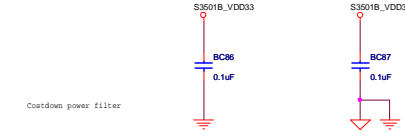
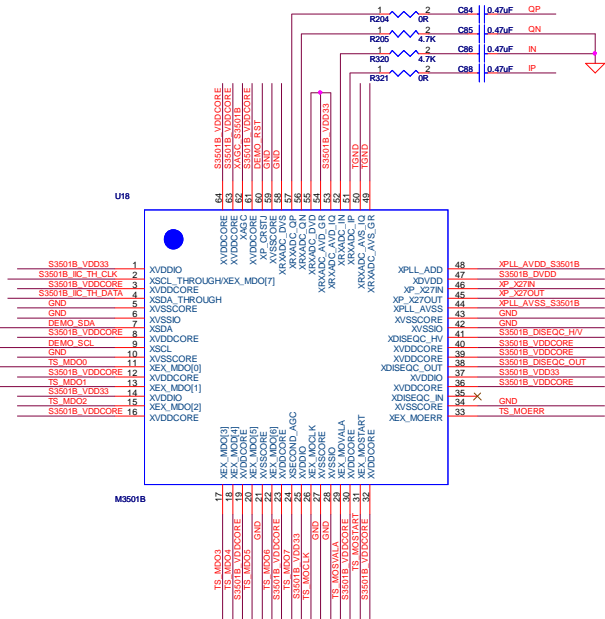
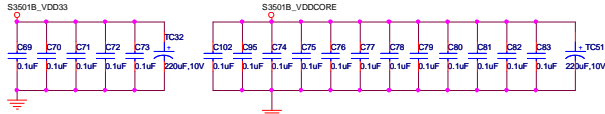
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Document Number: DB-M3602-05V02

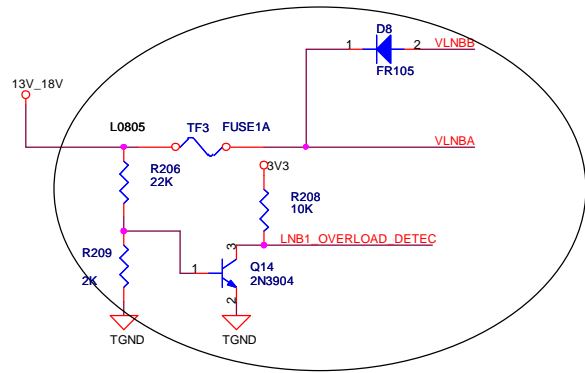
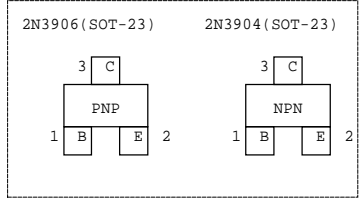
Rev: 1.0

Sheet: 9 of 20

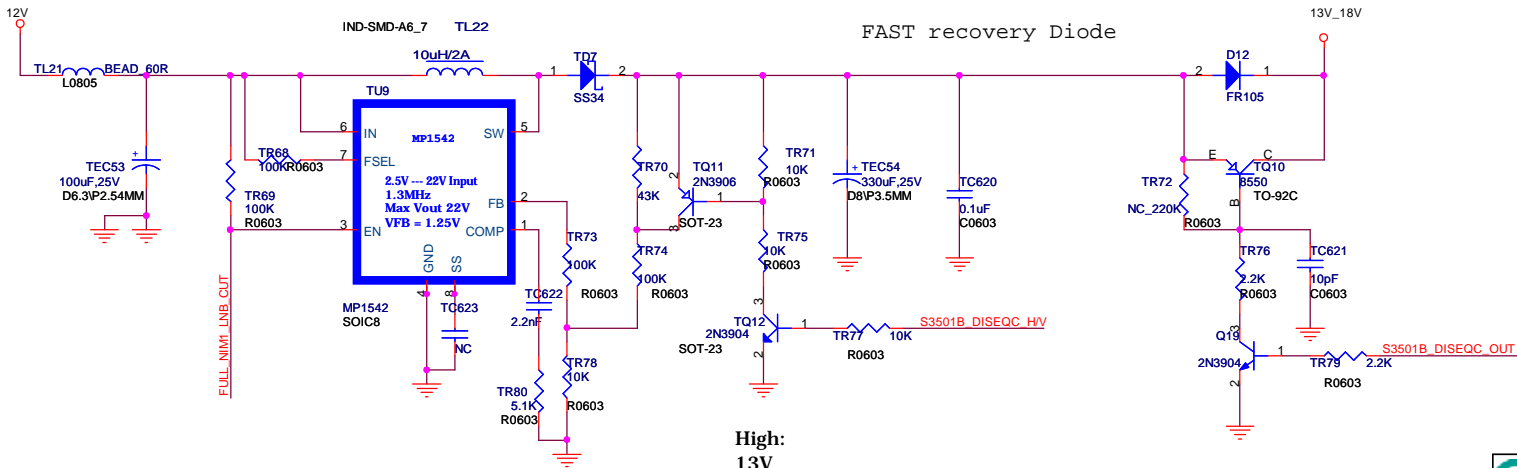
M3501



# LNB Power and DisEqC

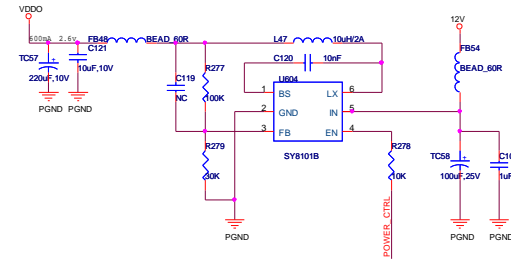
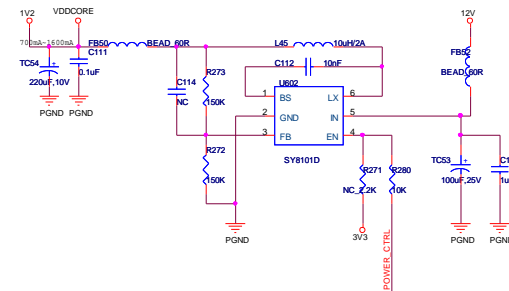
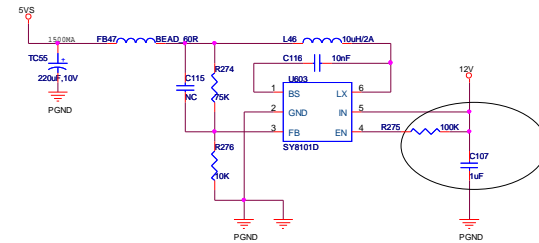
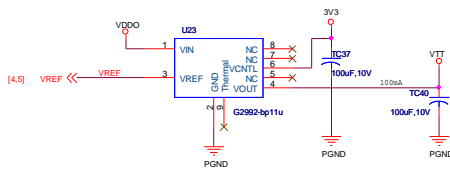
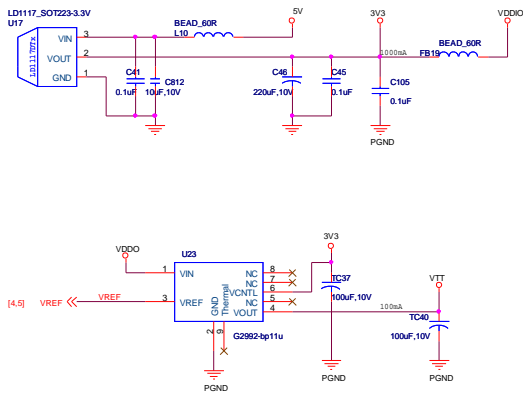
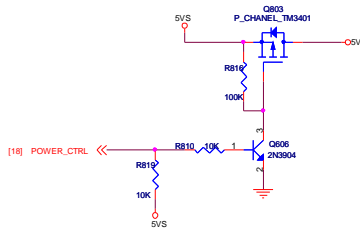
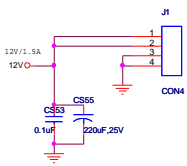


- [14] S3501B\_DISEQC\_HV << S3501B\_DISEQC\_HV
- [14] S3501B\_DISEQC\_OUT << S3501B\_DISEQC\_OUT
- [14] VLNB << VLNB
- [14] VLNB\_B << VLNB\_B
- [3] FULL\_NIM1\_LNB\_CUT << FULL\_NIM1\_LNB\_CUT
- [3] LNB1\_OVERLOAD\_DETEC << LNB1\_OVERLOAD\_DETEC
- GND << GND [3,4,5,6,7,8,9,10,11,12,13,14,15,17,18,19]



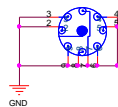
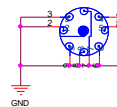
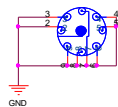
High:  
13V  
Low:  
18V

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Size: B	Document Number: DB-M3602-05V02	Rev: 1.0
Date: Tuesday, September 07, 2010	Sheet: 16	of 20



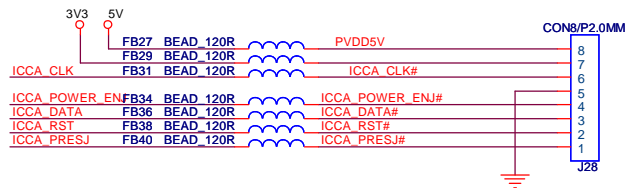
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<< GND

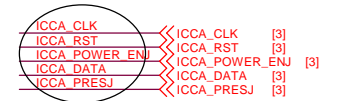
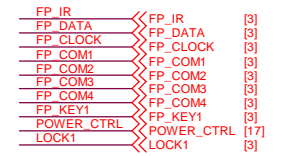
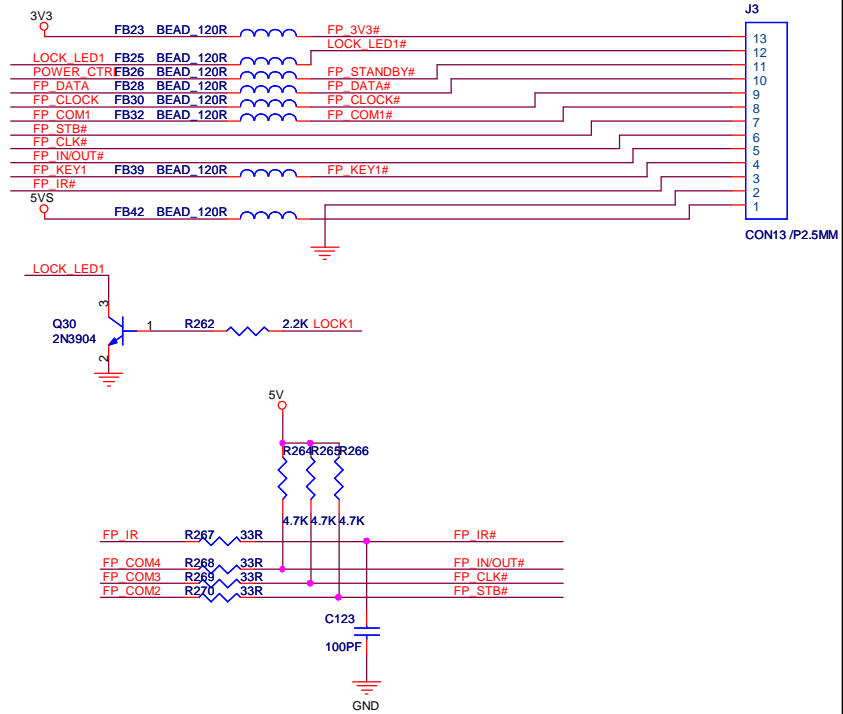


File	Power
Size	Document Number
C	DB-M3602-06V02
Date:	Tuesidw, September 07, 2010
Sheet	17 of 20
Rev	1.0

### SMART CARD I/F



### PANEL I/F



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Title: PANEL

Size B Document Number DB-M3602-05V02 Rev 1.0

Date: Tuesday, September 07, 2010 Sheet 18 of 20