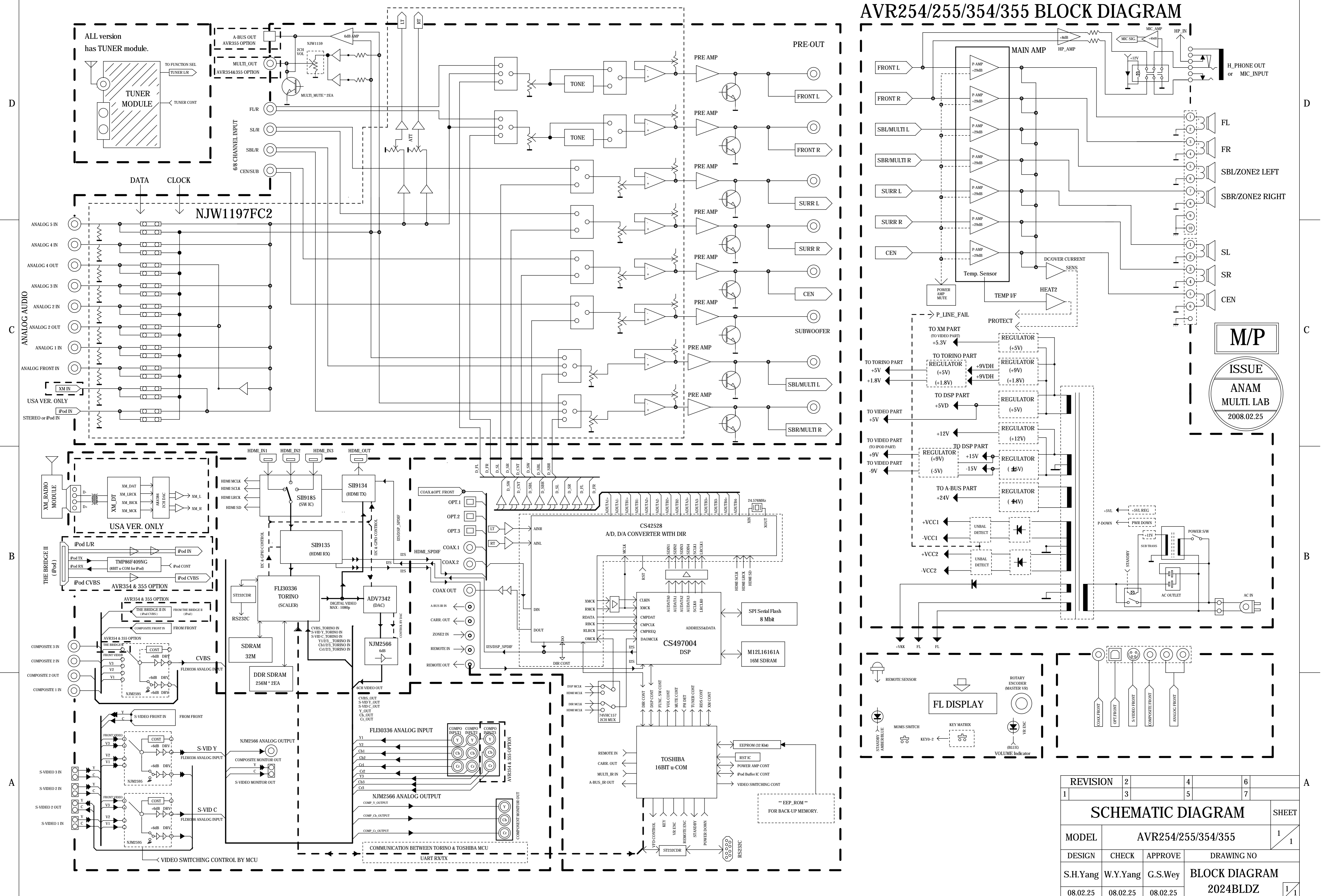
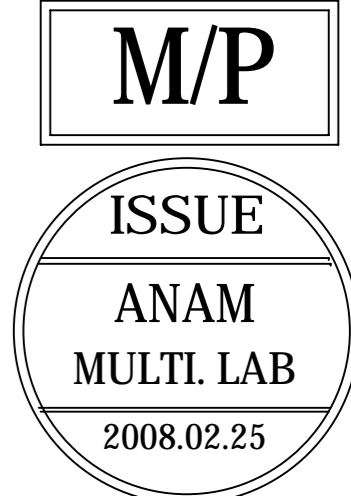


6 5 4 3 2 1

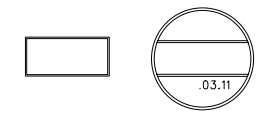
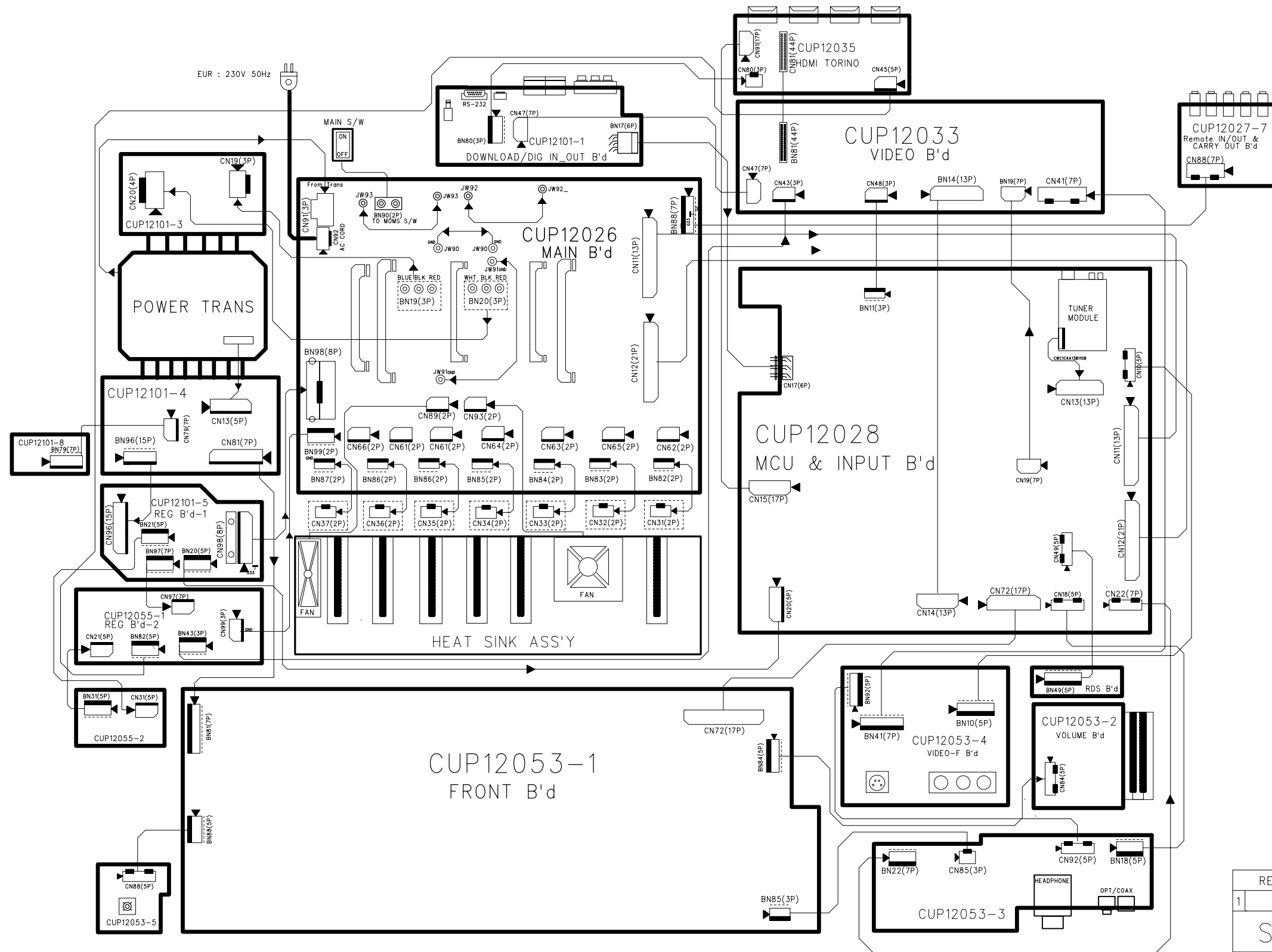
# AVR254/255/354/355 BLOCK DIAGRAM



REVISION	2	4	6
1	3	5	7
<b>SCHEMATIC DIAGRAM</b>			
MODEL	AVR254/255/354/355		
DESIGN	CHECK	APPROVE	DRAWING NO
S.H.Yang	W.Y.Yang	G.S.Wey	<b>BLOCK DIAGRAM</b>
08.02.25	08.02.25	08.02.25	<b>2024BLDZ</b>



# AVR255/230 WIRING DIAGRAM



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
SHEET			
MODEL	AVR255/230		
1/1			
DESIGN	CHECK	APPROVE	DRAWING NO
J.T.B	W.Y.Y	K.S.W	WIRING DIAGRAM
08.03.11	08.03.11	08.03.11	1190SCDZ

## AMPLIFIER SECTION BIAS ADJUSTMENT

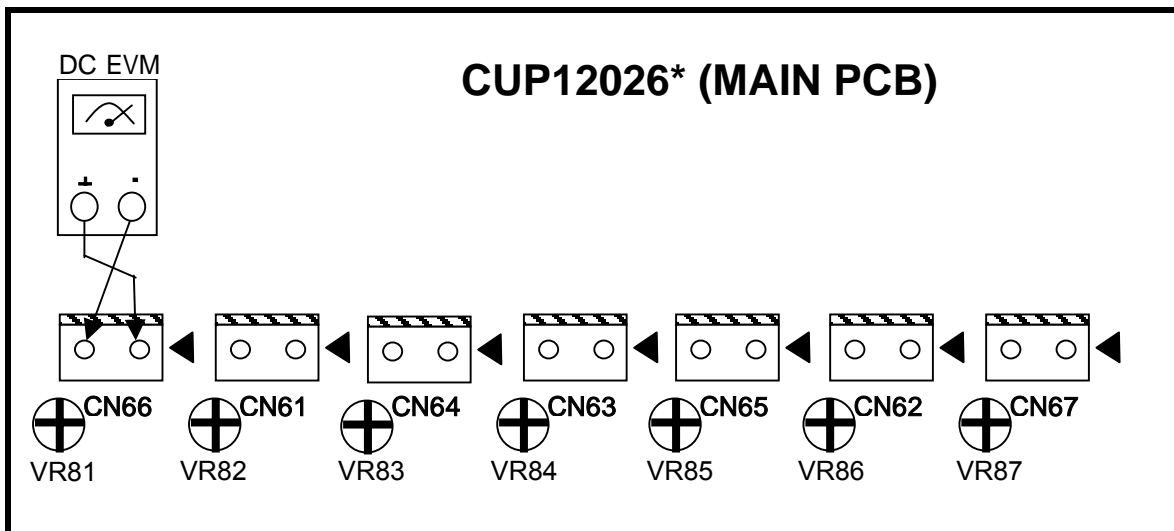
### Measurement condition

.No input signal or volume position is minimum.

### Standard value

.Ideal current = 48mA ( $\pm 5\%$ )

.Ideal DC Voltage = 25.92mV ( $\pm 5\%$ )

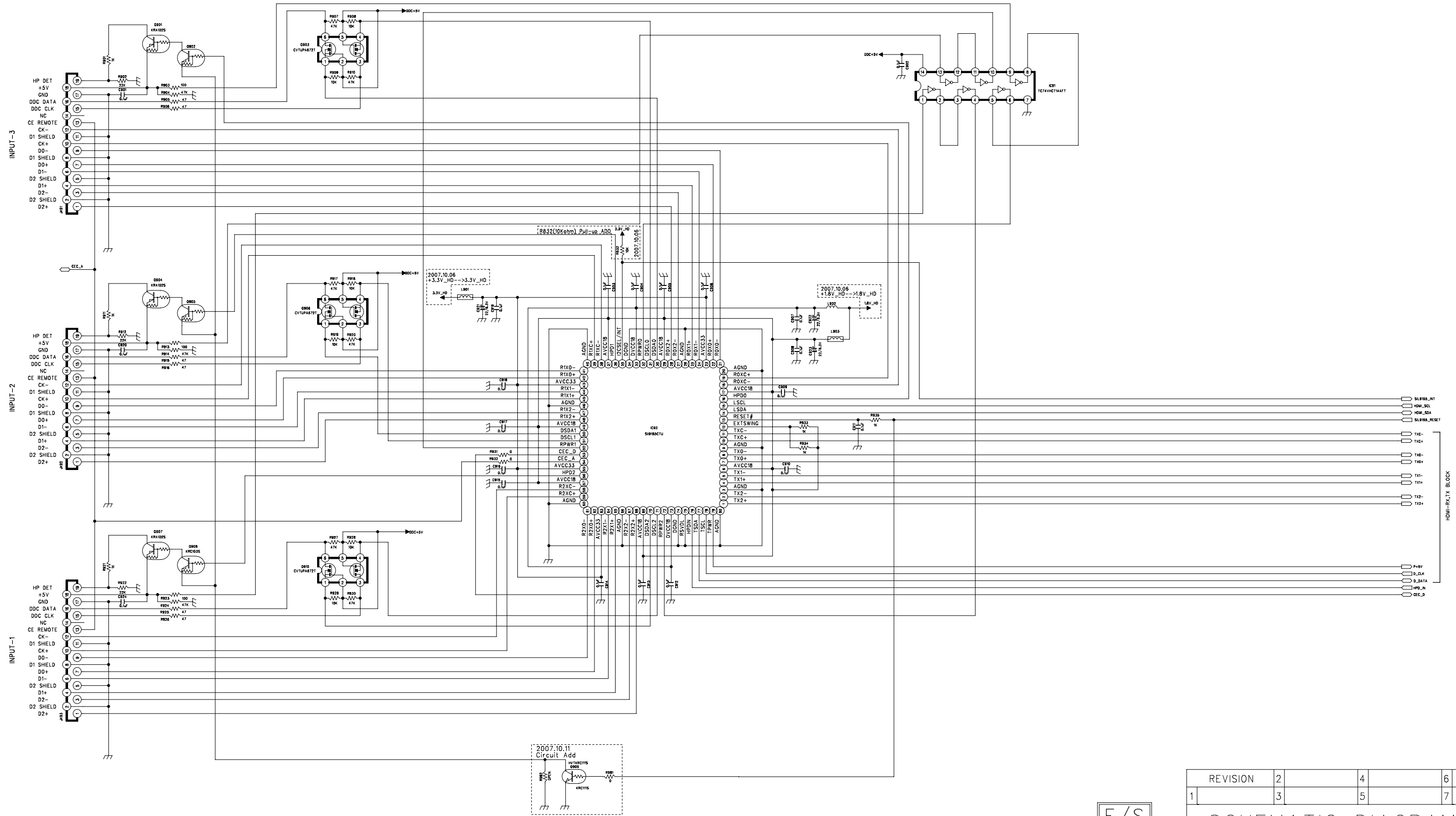


### DC VOLTMETER ; Connect to

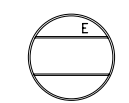
CN66(SL),CN61(CEN),CN64(SR),CN63(FL),CN65(SBL(AVR254,255,354,355)),CN62(FR),CN67(SBR)

NO.	Channel	Adjust for	Adjustment
1	Front Left	25.92mV ( $\pm 5\%$ )	CN63
2	Front Right	25.92mV ( $\pm 5\%$ )	CN62
3	Center	25.92mV ( $\pm 5\%$ )	CN61
4	Surround Left	25.92mV ( $\pm 5\%$ )	CN66
5	Surround Right	25.92mV ( $\pm 5\%$ )	CN64
6	Surround Back Left	25.92mV ( $\pm 5\%$ )	CN65
7	Surround Back Right	25.92mV ( $\pm 5\%$ )	CN67

# CUP12035Z

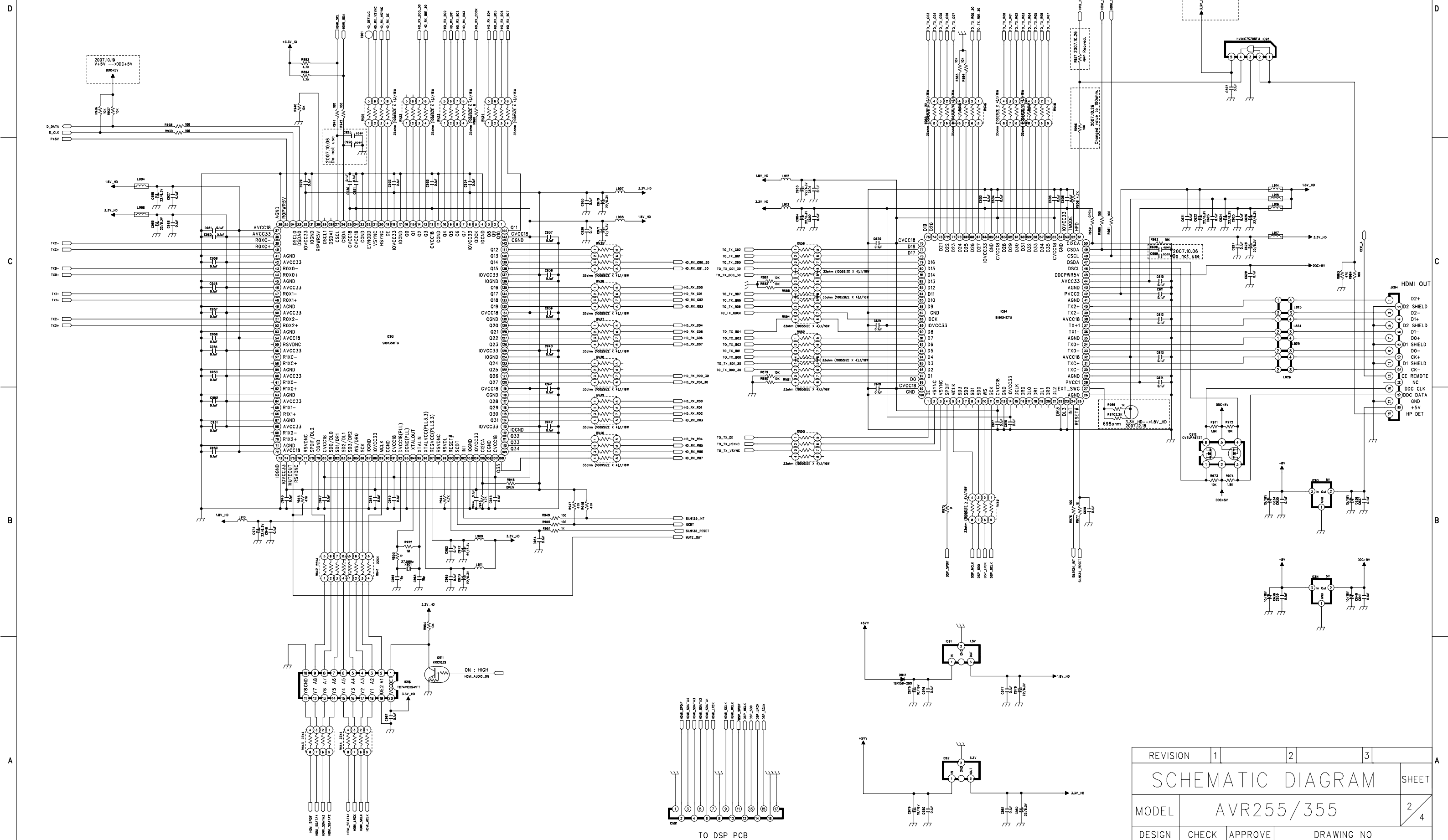


E/S



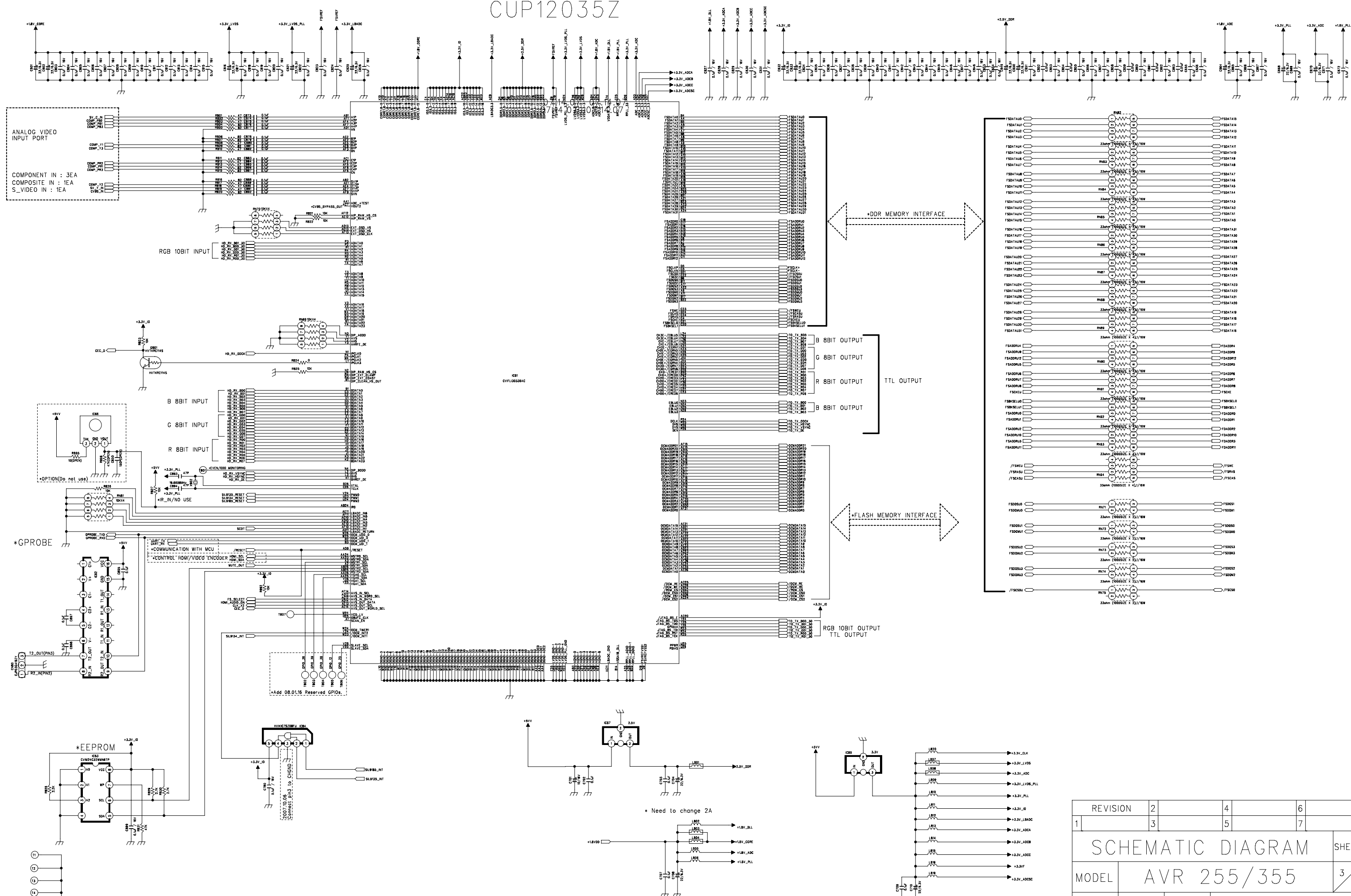
REVISION	2	4	6
	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR255/355		
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(HDMI-INPUT)

# CUP12035Z



REVISION	1	2	3
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR255/355		2/4
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(HDMI-RX,TX)

# CUP12035Z



REVISION	2	4	6
	3	5	7
<b>SCHEMATIC DIAGRAM</b>			
MODEL	AVR 255/355		
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(TORINO)

# CUP12035Z

D

C

B

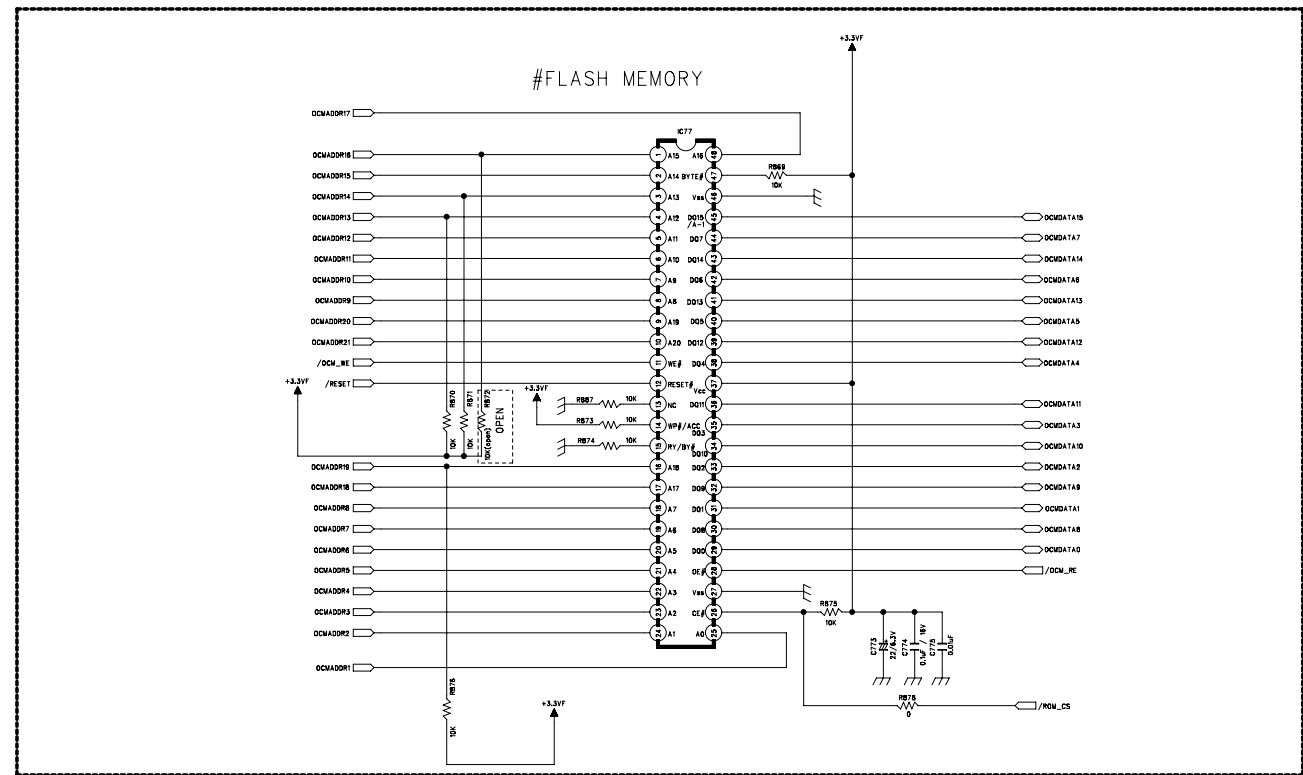
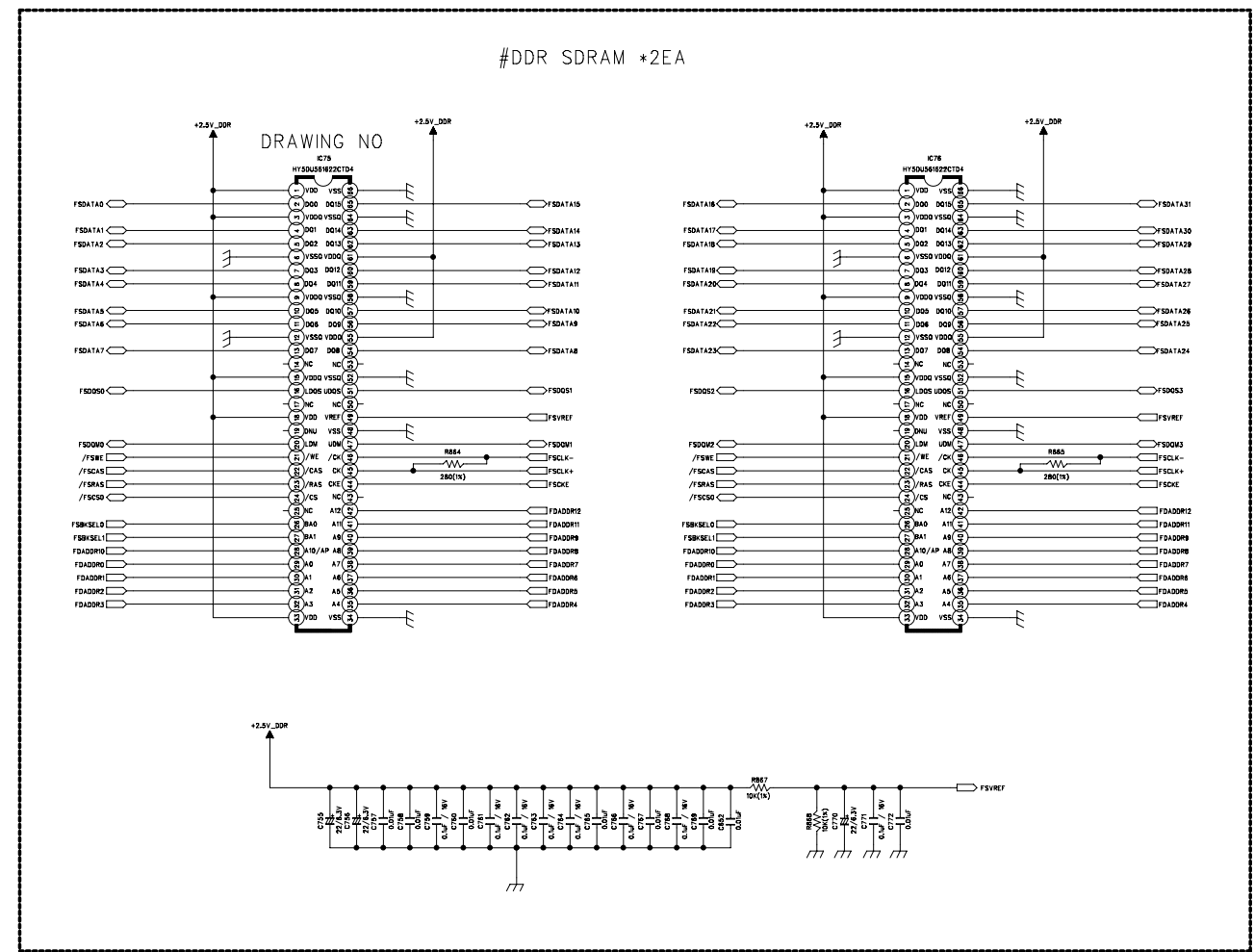
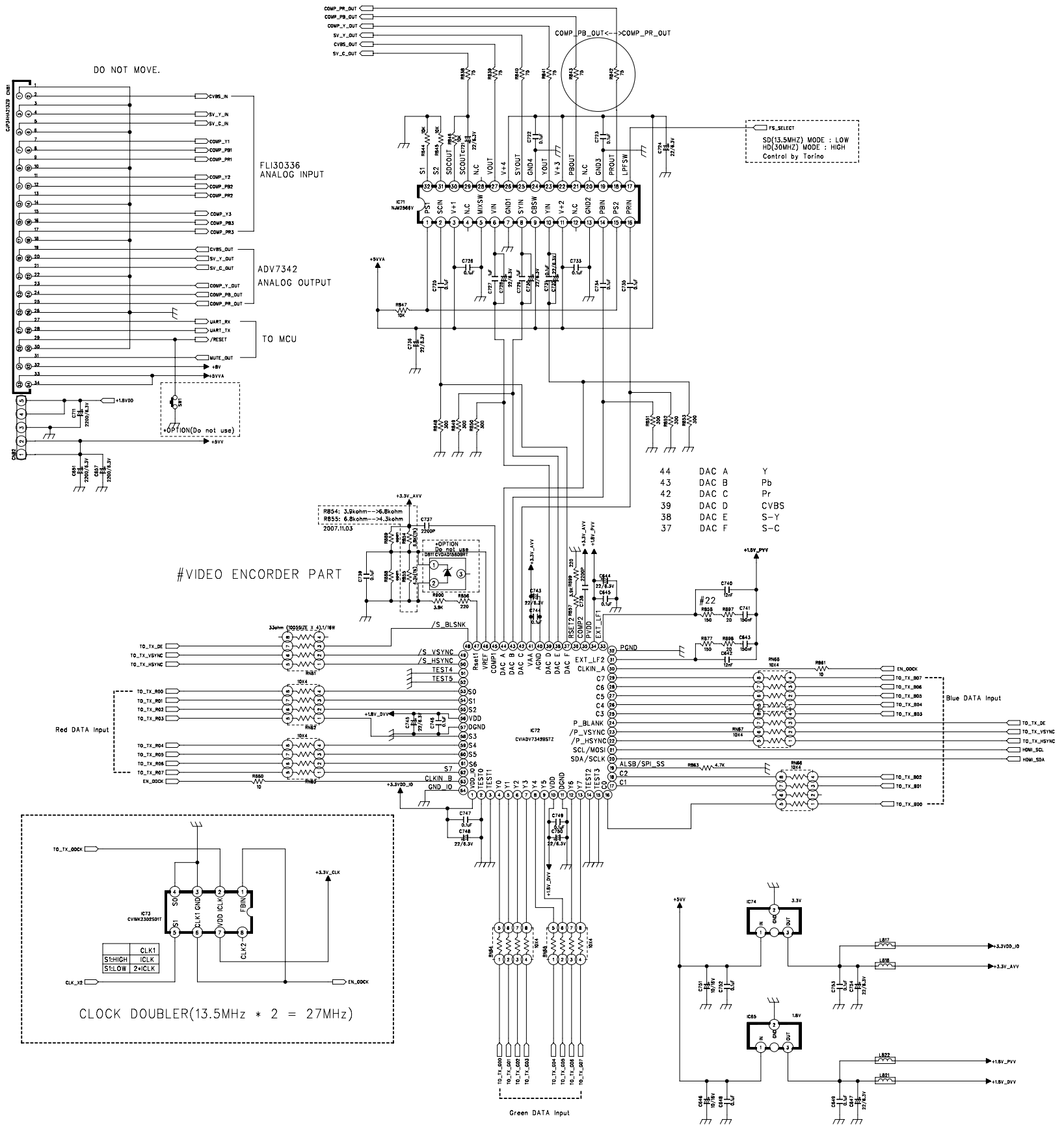
A

D

C

B

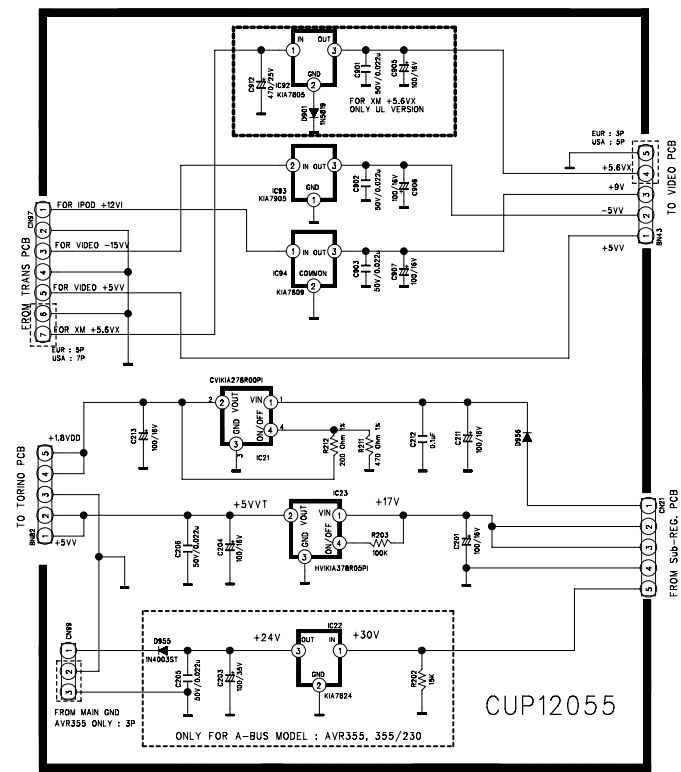
A



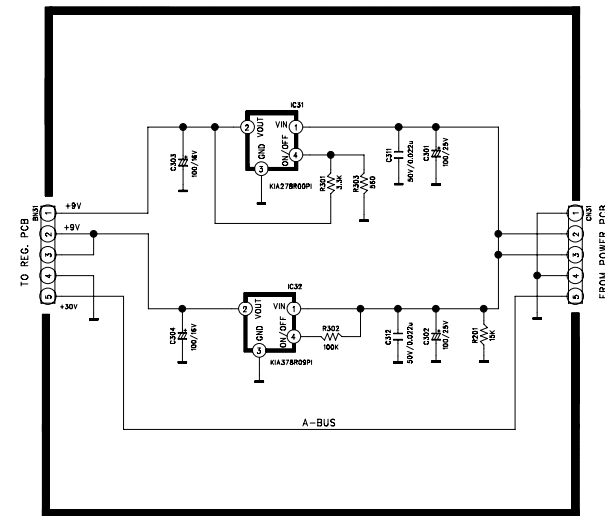
- 44 DAC A Y
- 43 DAC B Pb
- 42 DAC C Pr
- 39 DAC D CVBS
- 38 DAC E S-Y
- 37 DAC F S-C

REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR255/355		
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(ADV7342+MEM.)

< REGULATOR PCB >



< Sub-REGULATOR PCB >



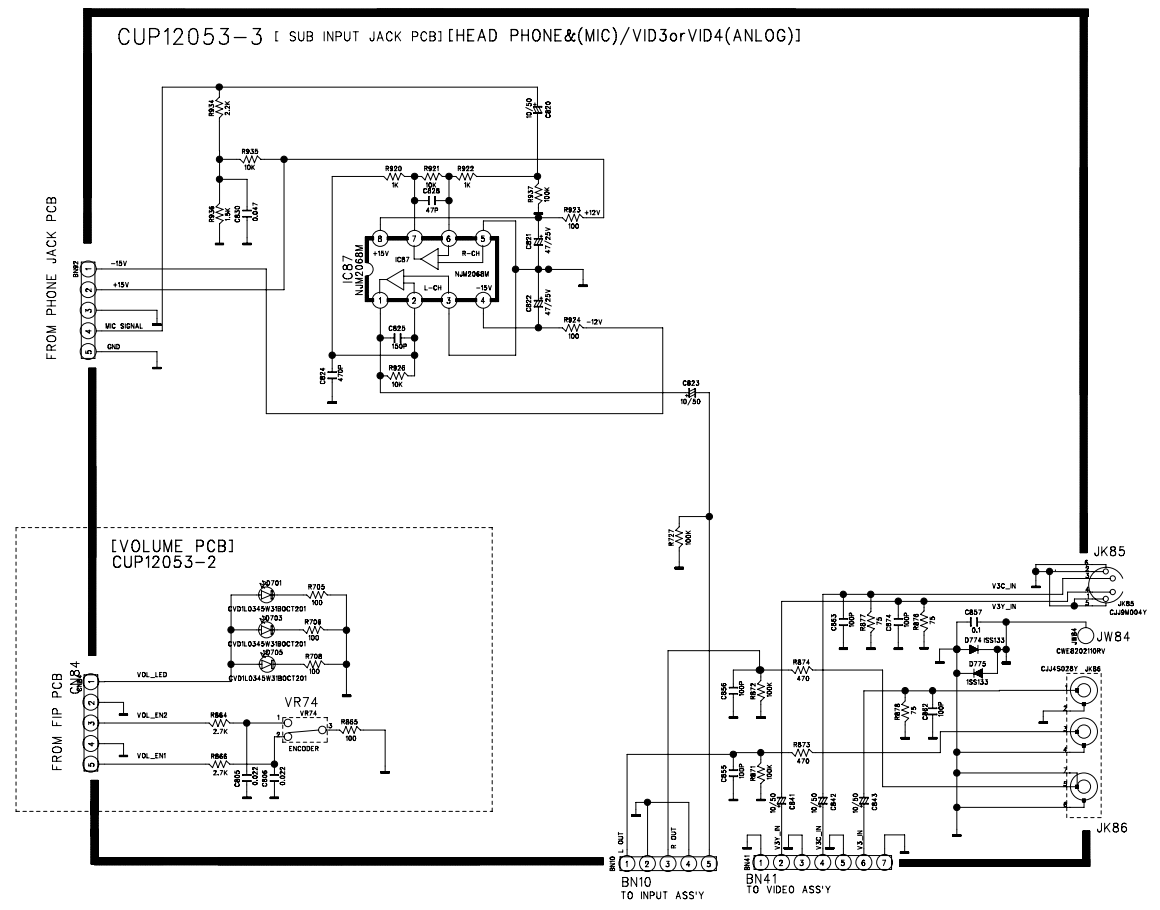
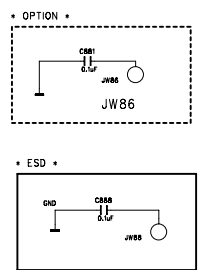
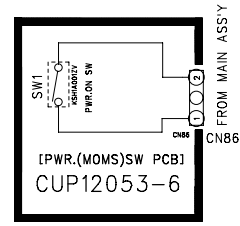
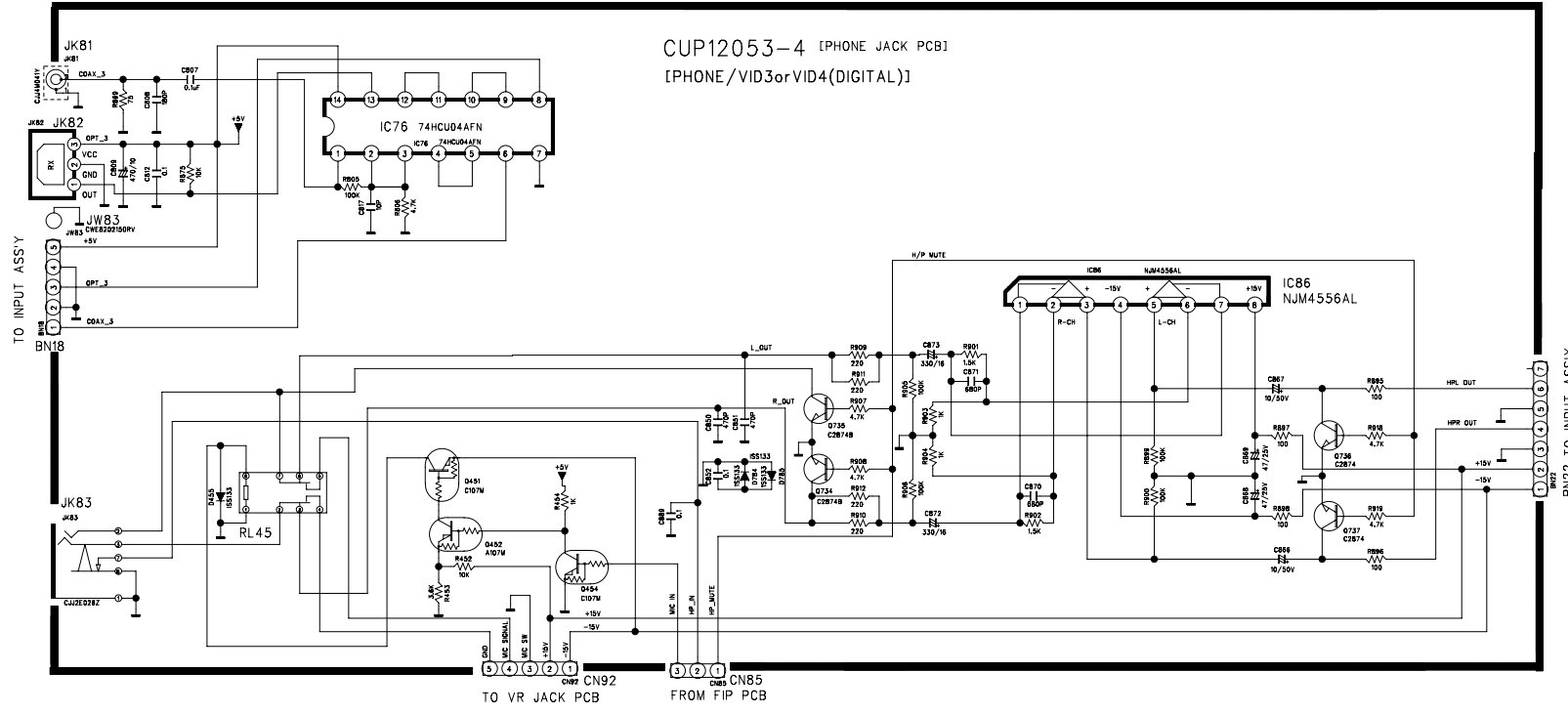
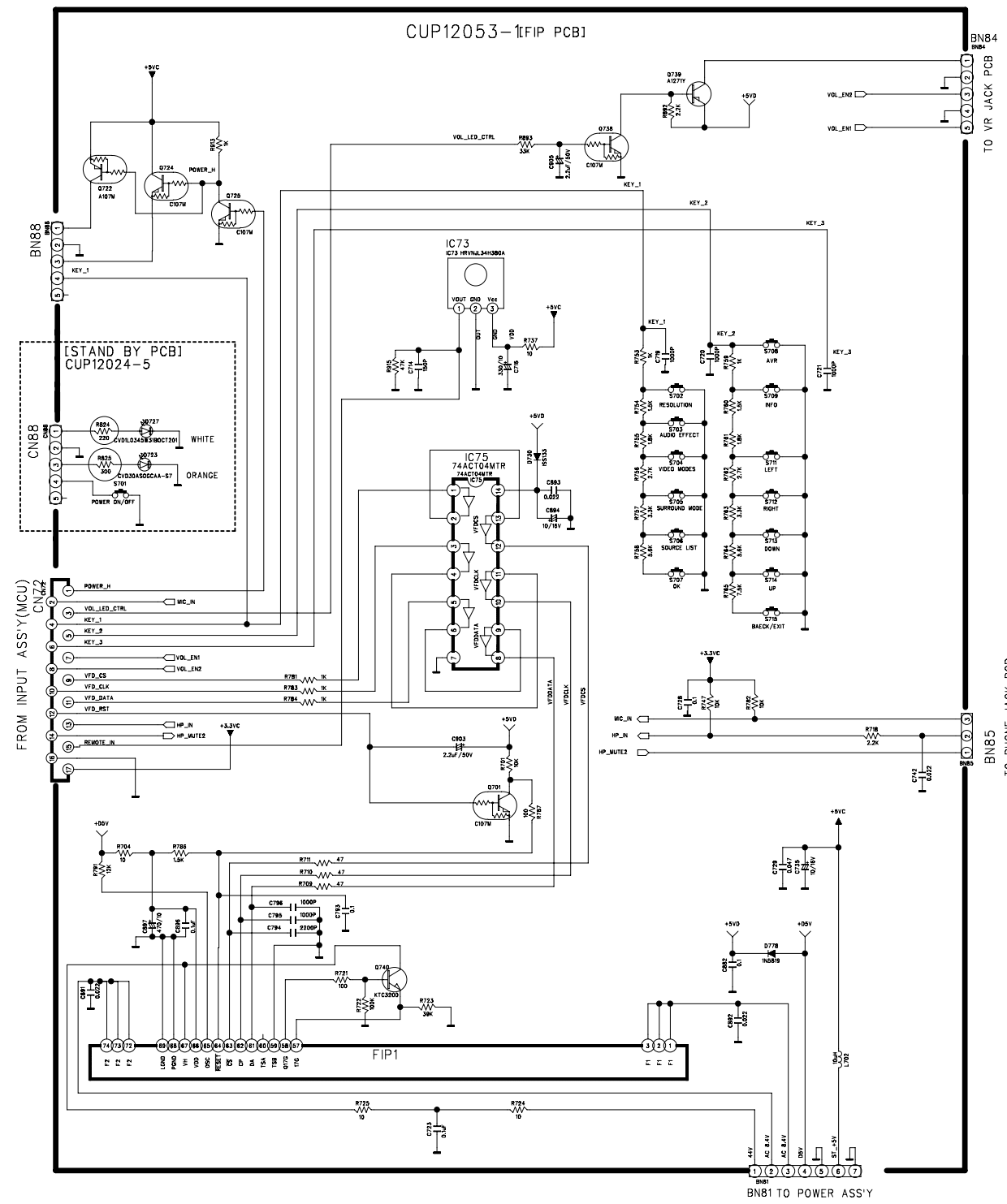
LPP

J. SUE

REVISION	2	4	6	
1	3	5	7	
SCHEMATIC DIAGRAM				SHEET
MODEL	AVR 254/255/354/355			1/1
DESIGN	CHECK	APPROVE	DRAWING NO	
J.T.B	Y.Y.W	K.S.W	CUP12055Z	
08.01.19			(REGULATOR)	

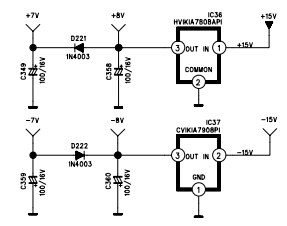
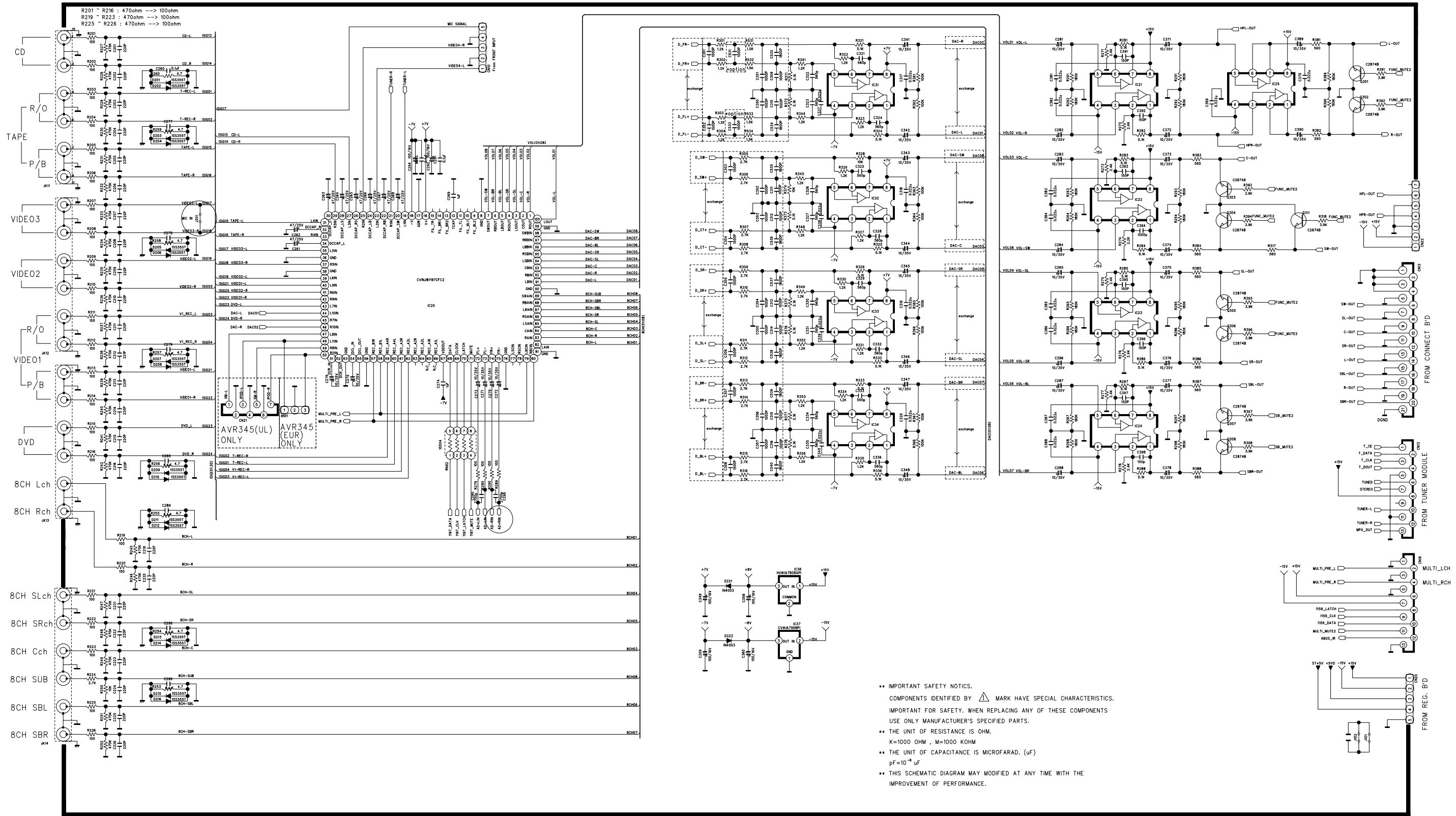


# AVR 255/355 FRONT (CUP12053Z)



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
SHEET			
MODEL	AVR255/355		
DESIGN	CHECK	APPROVE	DRAWING NO
J.T.B	W.Y.Y	K.S.W	CUP12053Z
08.01.15			(FRONT)



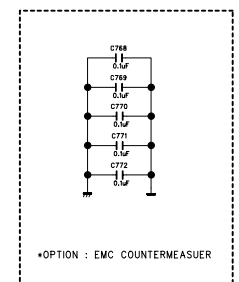
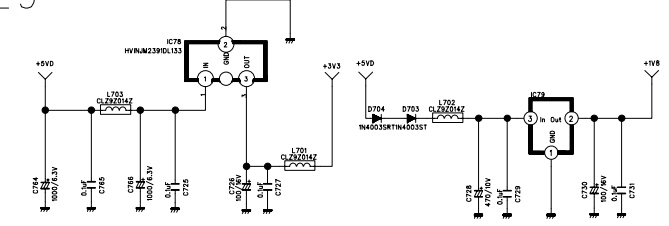
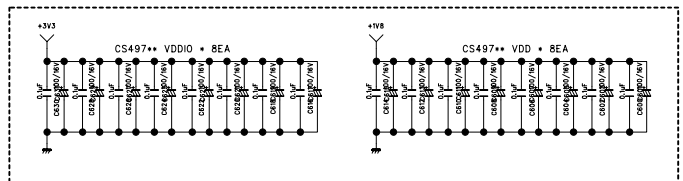
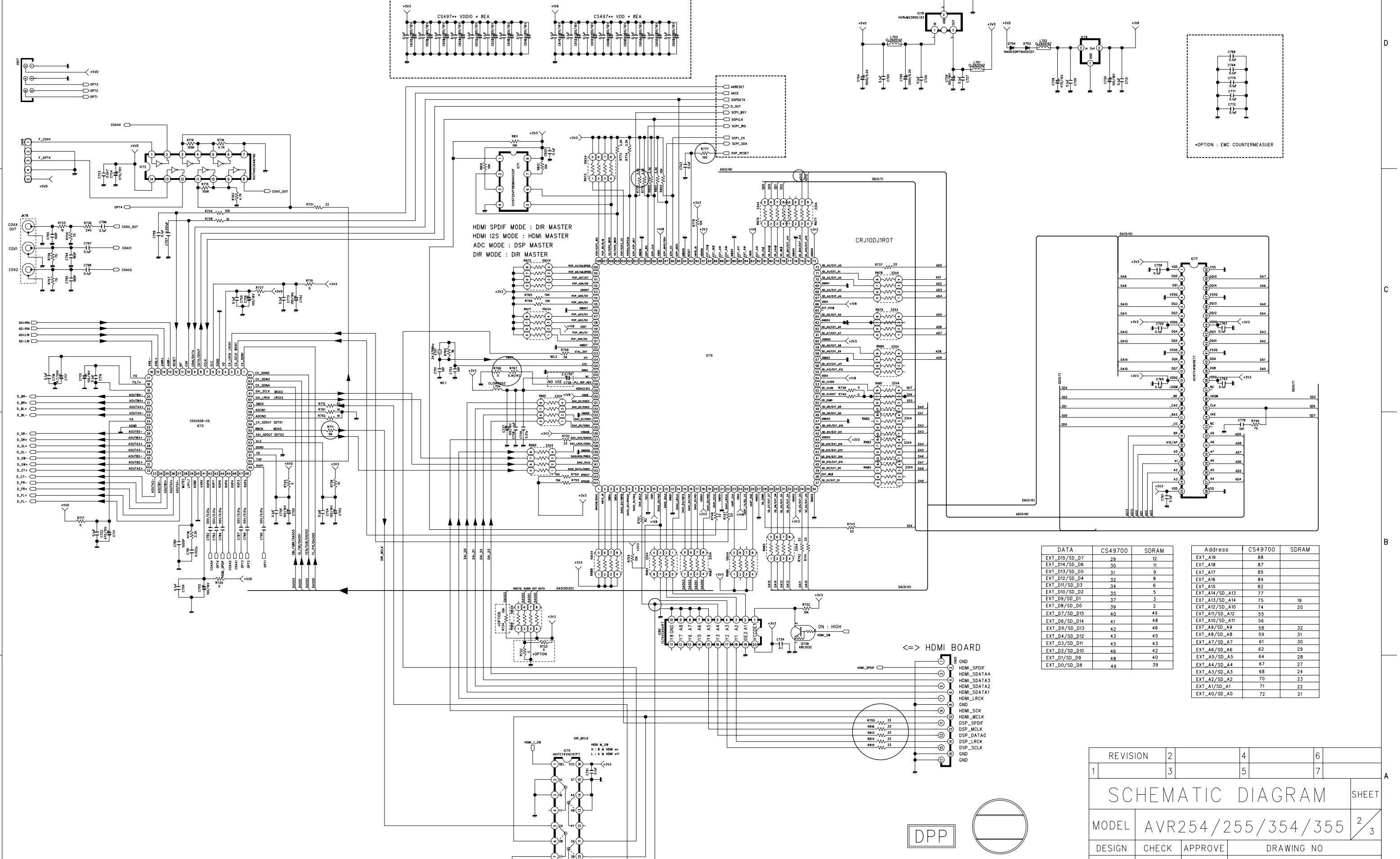


•• IMPORTANT SAFETY NOTICES.  
 COMPONENTS IDENTIFIED BY  $\Delta$  MARK HAVE SPECIAL CHARACTERISTICS.  
 IMPORTANT FOR SAFETY, WHEN REPLACING ANY OF THESE COMPONENTS  
 USE ONLY MANUFACTURER'S SPECIFIED PARTS.  
 •• THE UNIT OF RESISTANCE IS OHM.  
 K=1000 OHM , M=1000 KOHM  
 •• THE UNIT OF CAPACITANCE IS MICROFARAD. ( $\mu$ F)  
 $\mu$ F=10<sup>-6</sup> F  
 •• THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE  
 IMPROVEMENT OF PERFORMANCE.

REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254/255/354/355		
DESIGN	CHECK	APPROVE	DRAWING NO
		G.	2029SCLZ (INPUT)



# CUP12029

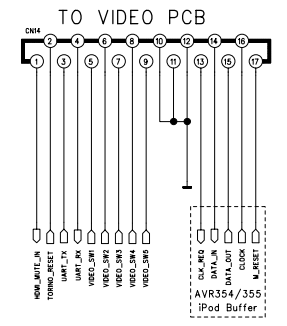
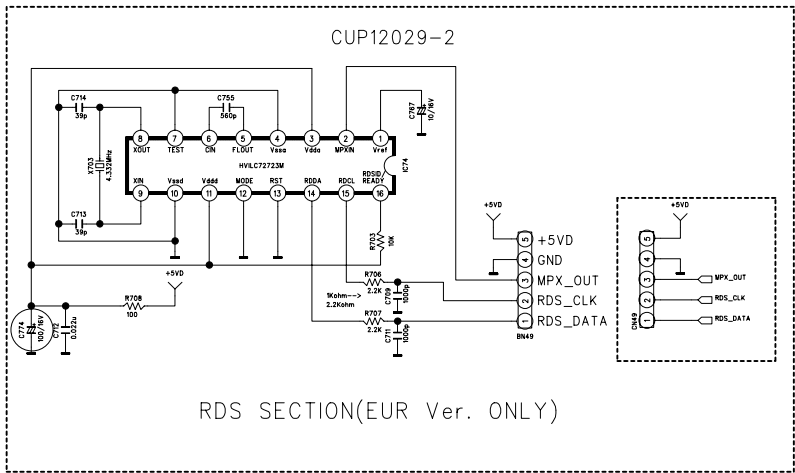


HDMI SPDIF MODE : DIR MASTER  
 HDMI I2S MODE : HDMI MASTER  
 ADC MODE : DSP MASTER  
 DIR MODE : DIR MASTER

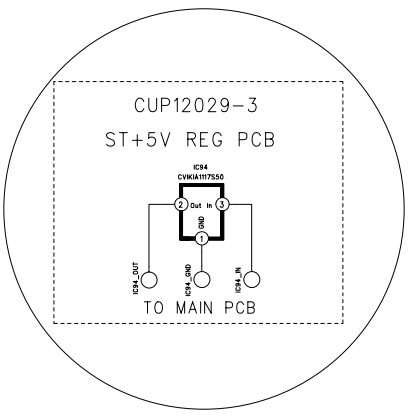
DATA	CS49700	SDRAM
EXT_D15/SD_D7	29	12
EXT_D14/SD_D6	30	11
EXT_D13/SD_D5	31	9
EXT_D12/SD_D4	32	8
EXT_D11/SD_D3	34	6
EXT_D10/SD_D2	35	5
EXT_D9/SD_D1	37	3
EXT_D8/SD_D0	39	2
EXT_D7/SD_D15	40	49
EXT_D6/SD_D14	41	48
EXT_D5/SD_D13	42	46
EXT_D4/SD_D12	43	45
EXT_D3/SD_D11	45	43
EXT_D2/SD_D10	46	42
EXT_D1/SD_D9	48	40
EXT_D0/SD_D8	49	39

Address	CS49700	SDRAM
EXT_A19	89	
EXT_A18	87	
EXT_A17	85	
EXT_A16	84	
EXT_A15	82	
EXT_A14/SD_A13	77	
EXT_A13/SD_A14	75	19
EXT_A12/SD_A10	74	20
EXT_A11/SD_A12	55	
EXT_A10/SD_A11	56	
EXT_A9/SD_A9	58	32
EXT_A8/SD_A8	59	31
EXT_A7/SD_A7	62	30
EXT_A6/SD_A6	62	30
EXT_A5/SD_A5	64	28
EXT_A4/SD_A4	67	27
EXT_A3/SD_A3	68	24
EXT_A2/SD_A2	70	23
EXT_A1/SD_A1	71	22
EXT_A0/SD_A0	72	21

REVISION	2	4	6
	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254/255/354/355		SHEET 2/3
DESIGN	CHECK	APPROVE	DRAWING NO
			2029SCLZ
			(DSP)

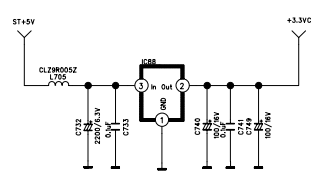
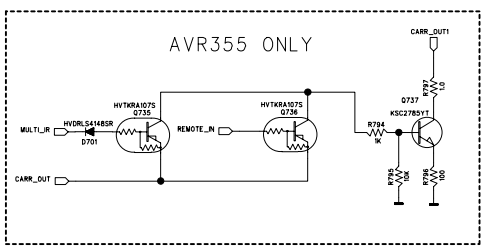
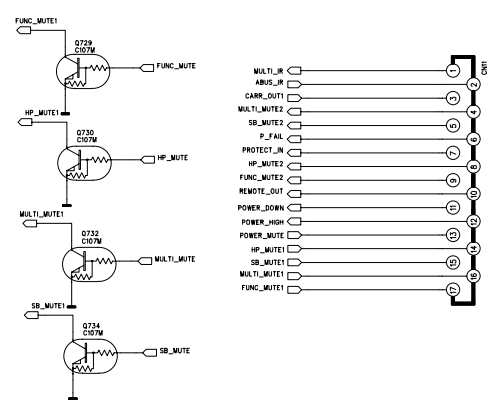
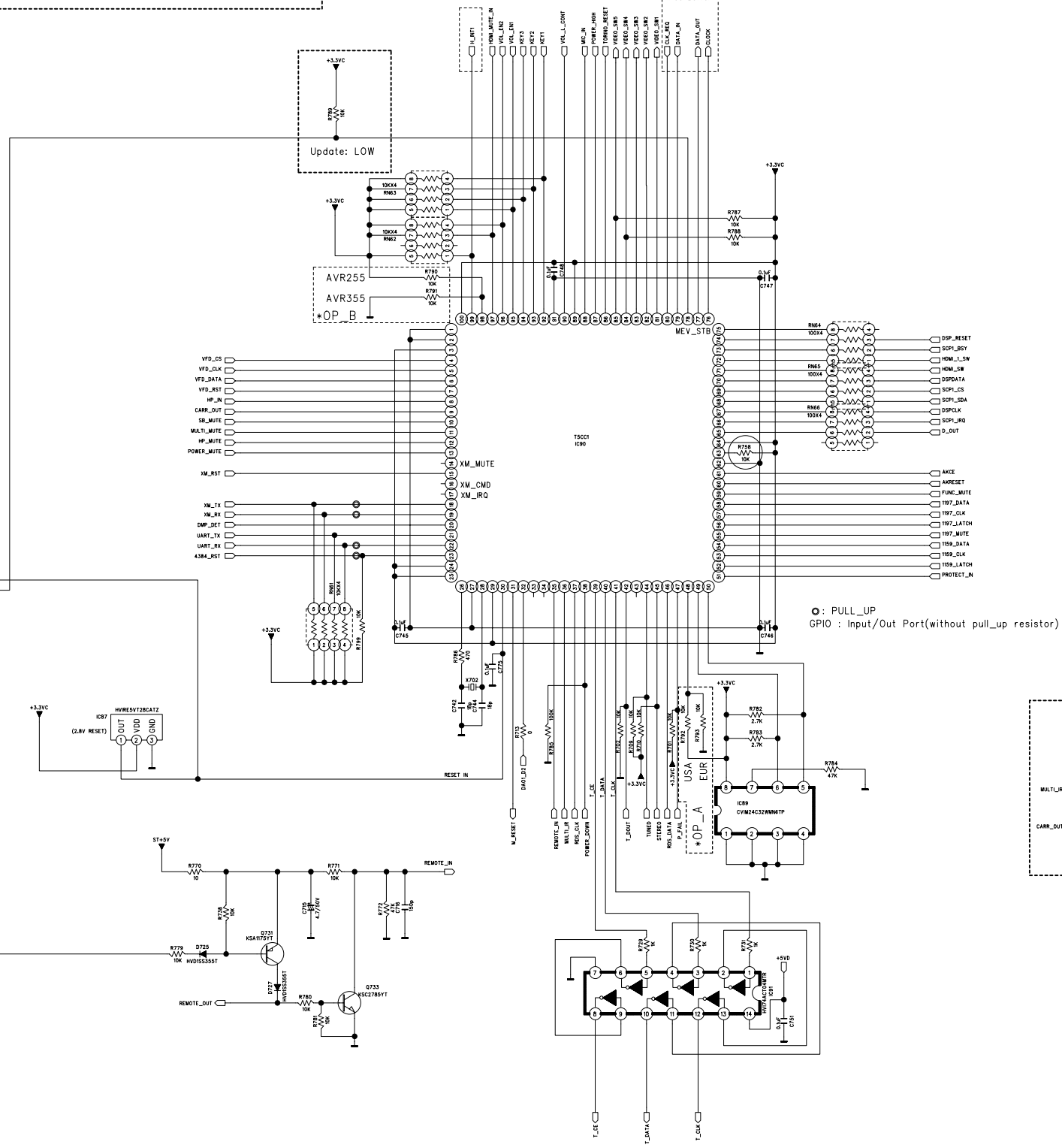
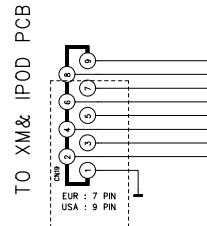
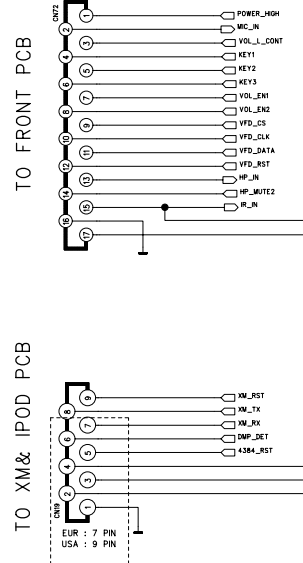


U-COM	AVR255	AVR355	AVR155
PIN 97	HDMI_MUTE_IN	HDMI_MUTE_IN	N.A
PIN 86	TORINO_RESET	TORINO_RESET	N.C
PIN 21	UART_TX(TORINO&PC)	UART_TX(TORINO&PC)	UART_TX(PC)
PIN 22	UART_RX(TORINO&PC)	UART_RX(TORINO&PC)	UART_RX(PC)
PIN 81	VIDEO_SW1	VIDEO_SW1	N.A
PIN 82	VIDEO_SW2	VIDEO_SW2	OSD_CS1
PIN 83	VIDEO_SW3	VIDEO_SW3	OSD_CLK
PIN 84	VIDEO_SW4	VIDEO_SW4	OSD_DA
PIN 85	VIDEO_SW5	VIDEO_SW5	OSD_M
PIN 80	CLOCK	CLOCK	HDMI_MUX_SDA
PIN 79	DATA_OUT	DATA_OUT	HDMI_MUX_SCLK
PIN 77	DATA_IN	DATA_IN	OSD_H
PIN 76	CLK-REQ	CLK-REQ	OSD_H



\* MODEL OPTION \*

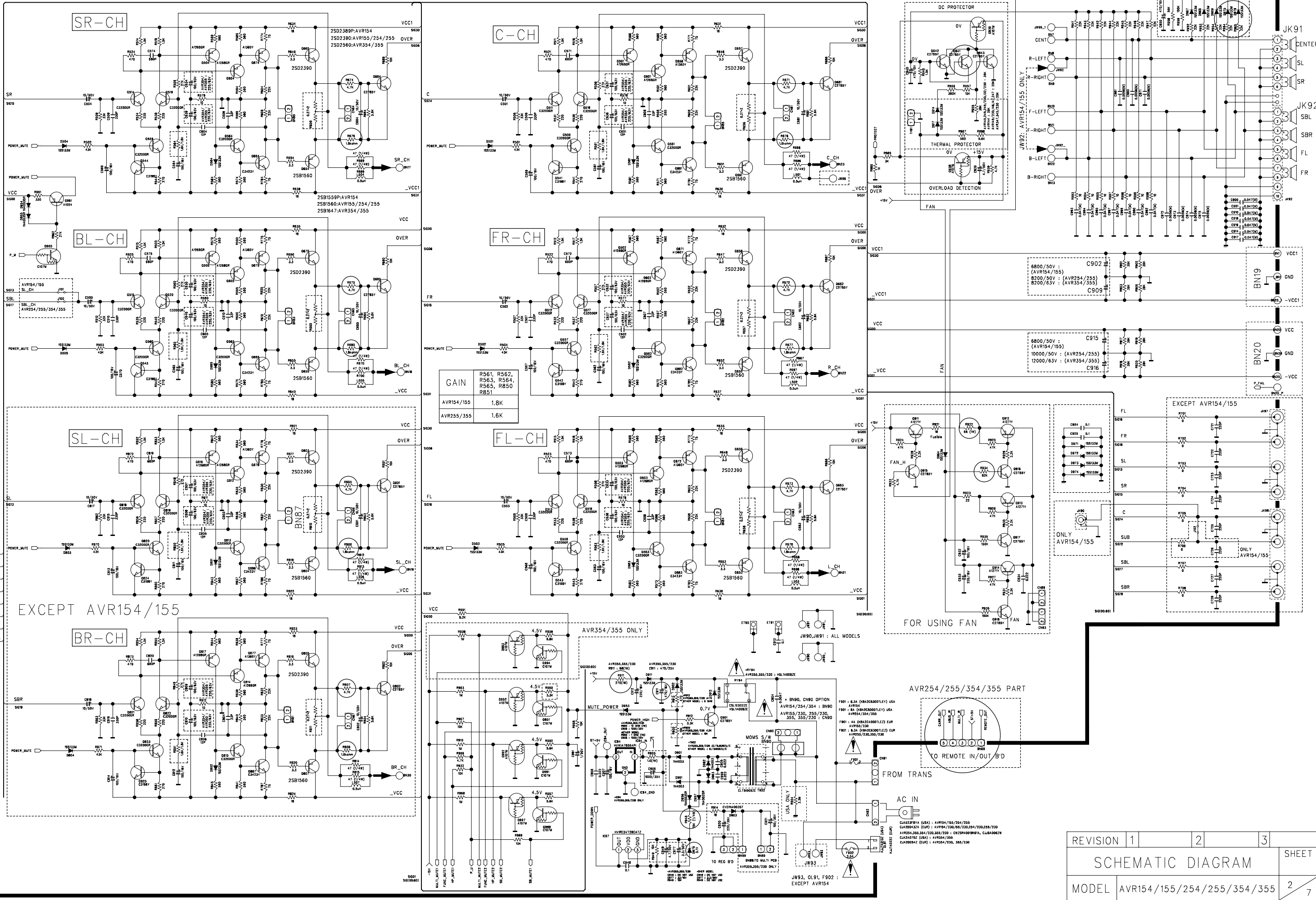
MODEL	OP_A(PIN48)	OP_B(PIN98)
AVR355	HIGH(R792)	LOW(R791)
AVR354	HIGH(R792)	LOW(R791)
AVR254	HIGH(R792)	HIGH(R790)
AVR355/230	LOW(R793)	LOW(R791)
AVR255/230	LOW(R793)	HIGH(R790)



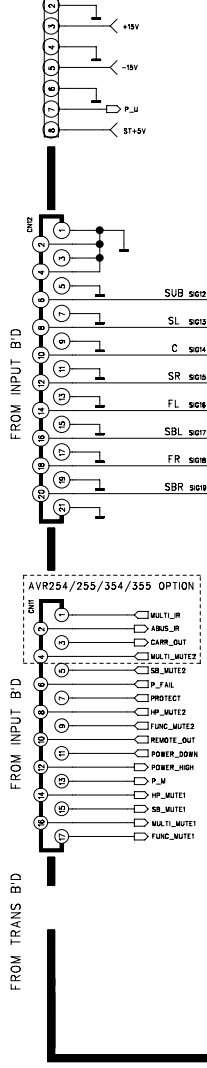
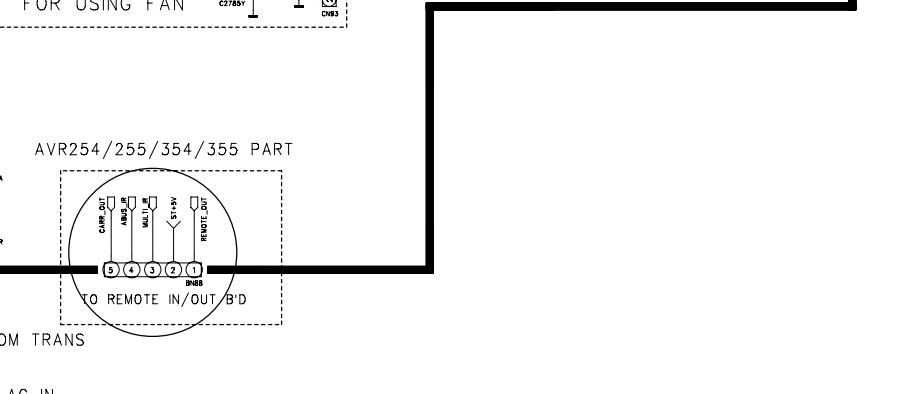
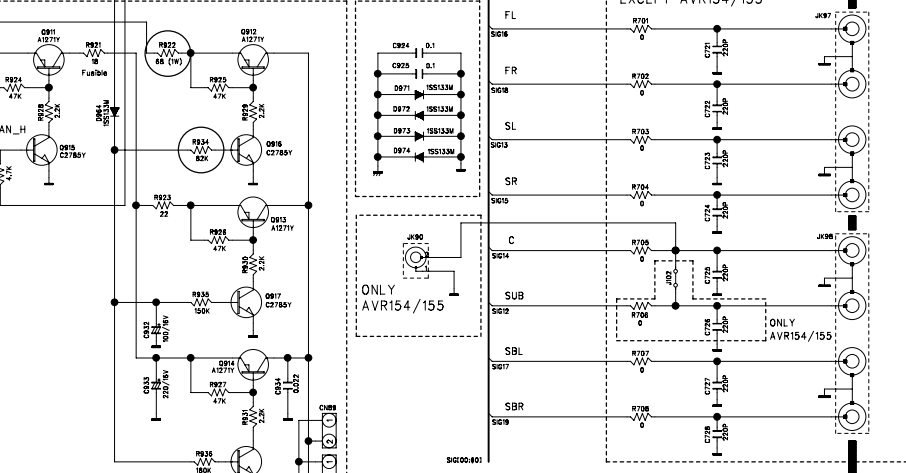
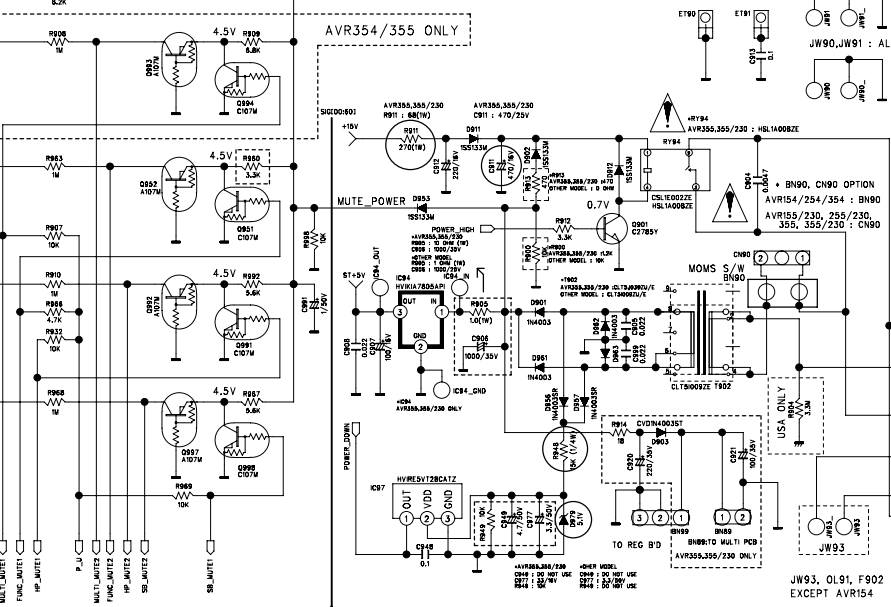
REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM SHEET

MODEL	AVR254/255/354/355	3/3
DESIGN	CHECK	APPROVE
		DRAWING NO
	G.S	2029SCLZ (CPU)



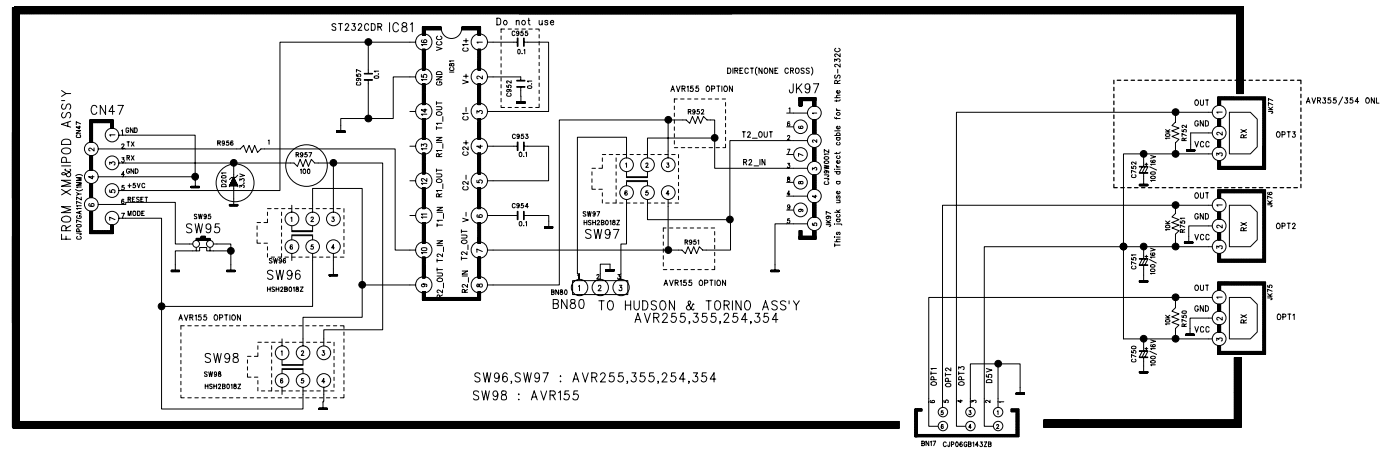
GAIN  
 R561, R562, R563, R564, R565, R560  
 R551  
 AVR154/155 1.8K  
 AVR255/355 1.6K



•• IMPORTANT SAFETY NOTICE.  
 IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS  
 USE ONLY MANUFACTURER'S SPECIFIED PARTS.  
 •• THE UNIT OF RESISTANCE IS OHM.  
 K=1000 OHM, M=1000 KOHM,  
 •• THE UNIT OF CAPACITANCE IS MICROFARAD (UF)  
 P F = 10<sup>-12</sup> UF  
 •• THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE  
 IMPROVEMENT OF PERFORMANCE

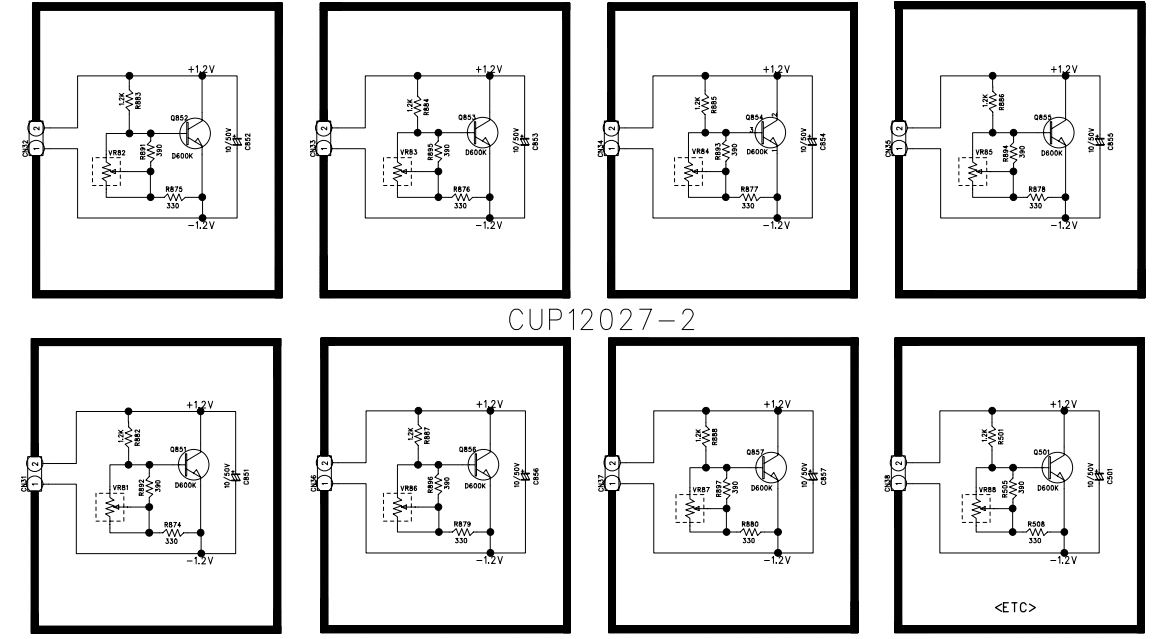
REVISION	1	2	3	
SCHEMATIC DIAGRAM				SHEET
MODEL	AVR154/155/254/255/354/355			2/7
DESIGN	CHECK	APPROVE	DRAWING NO	
C.F			2026SCLZ (MAIN)	
				23

CUP12027-1



< OPTICAL IN & RS-232 PCB >

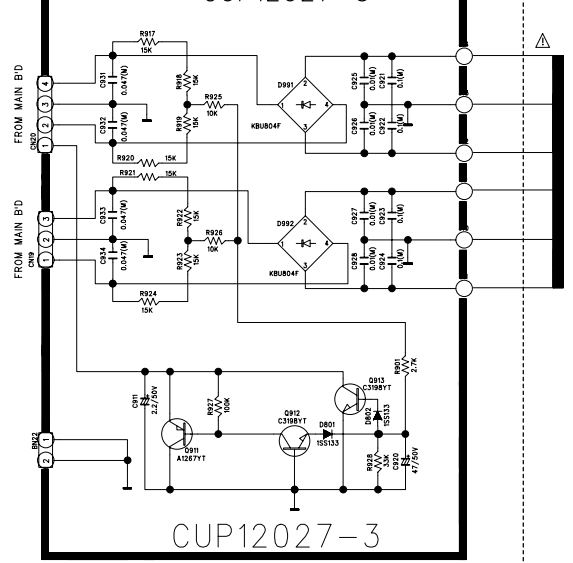
< BIAS T.R PCB >



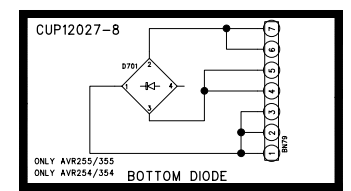
CUP12027-2

<ETC>

CUP12027-3



CUP12027-3

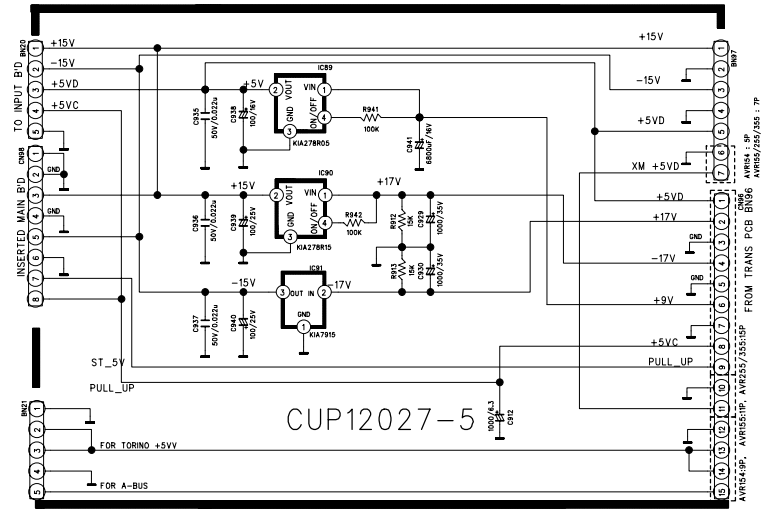
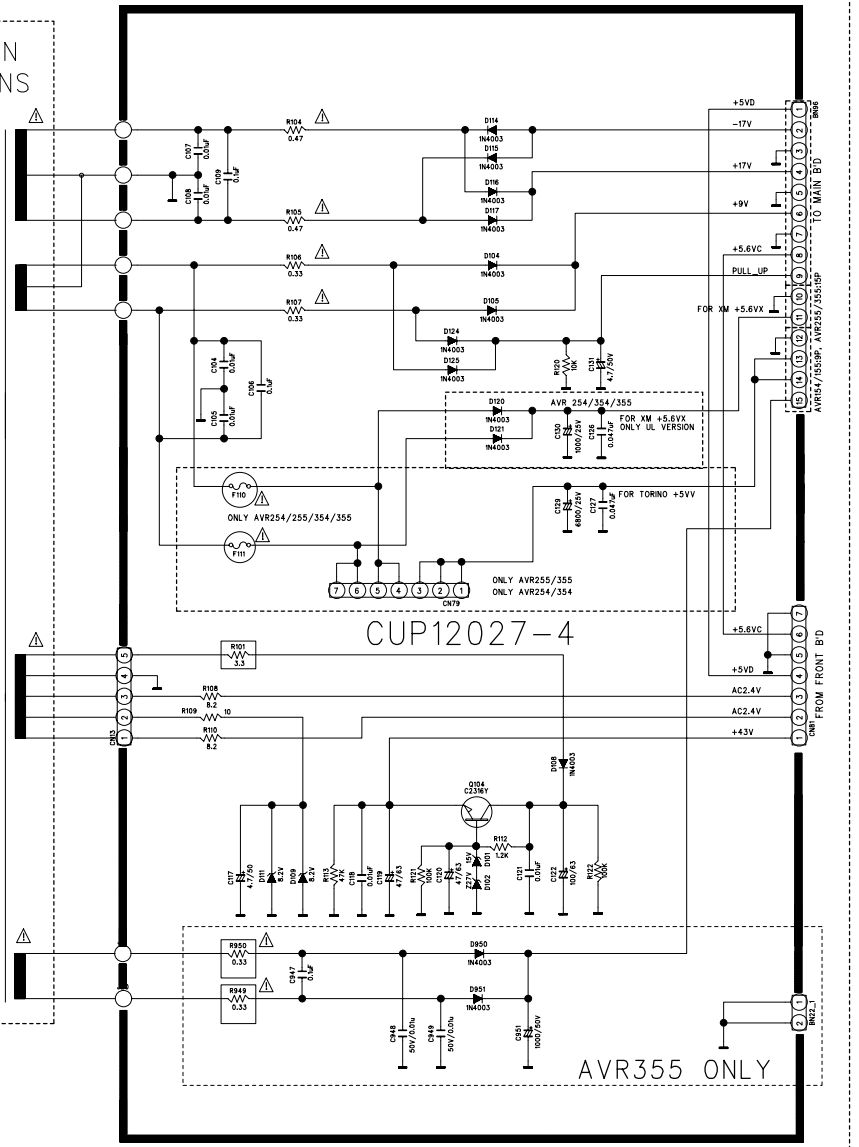


ONLY AVR255/355 ONLY AVR254/354 BOTTOM DIODE

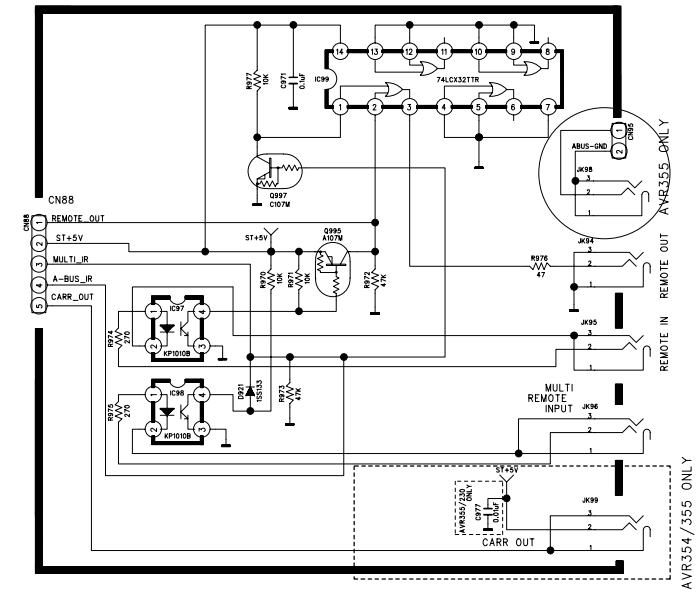
USA : AC120V 60Hz EUR : AC230V 50Hz

< TRANS PCB >

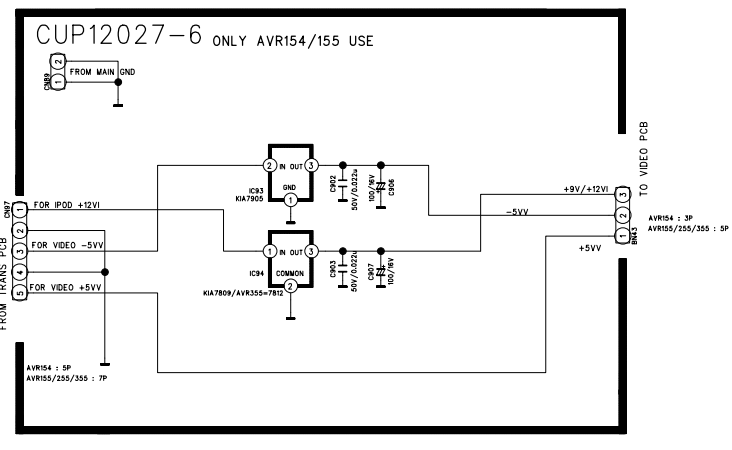
MAIN TRANS



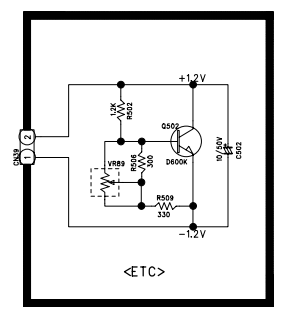
CUP12027-5



AVR254/255/354/355 ONLY CUP12027-7 < REMOTE IN/OUT PCB >

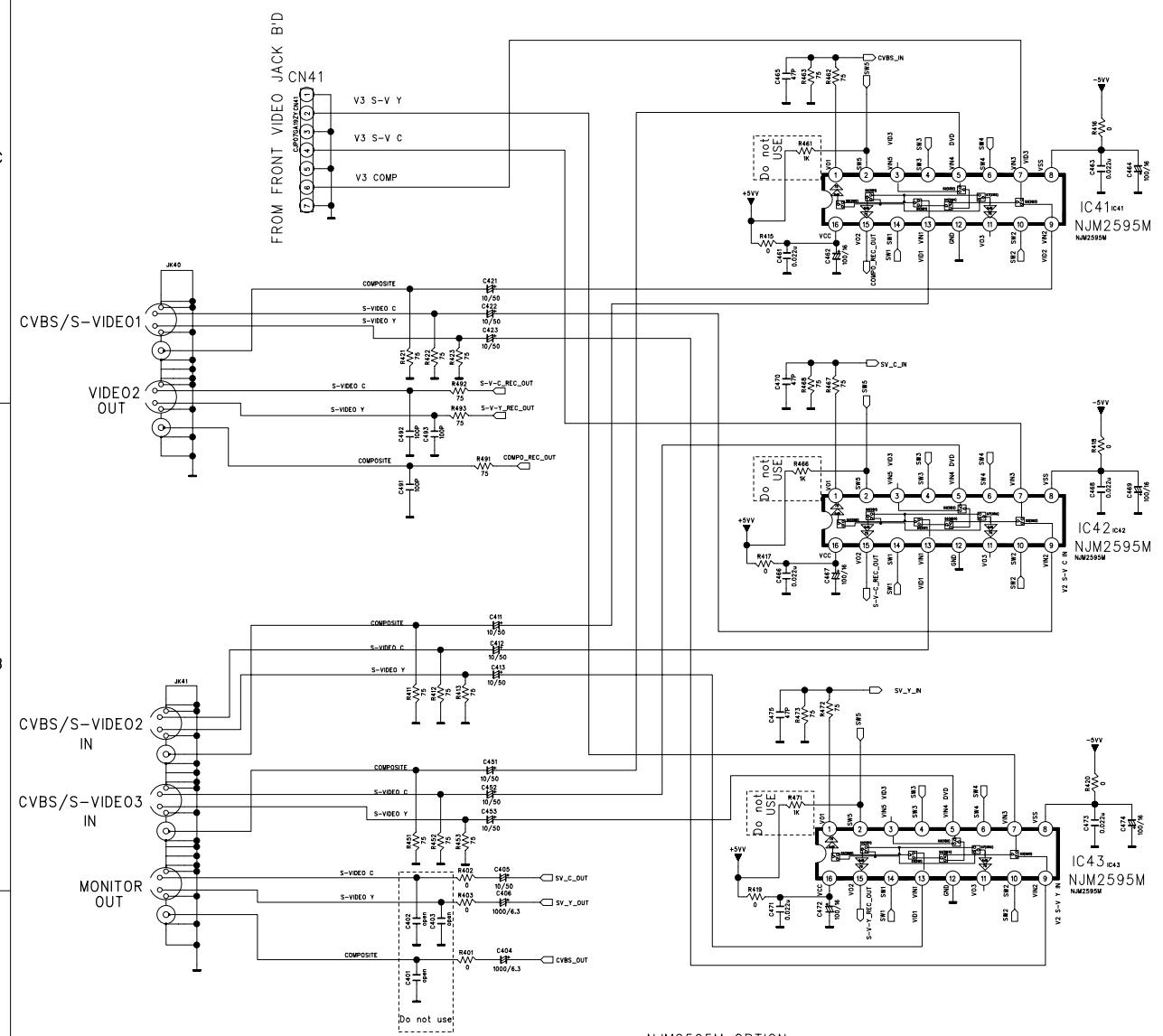
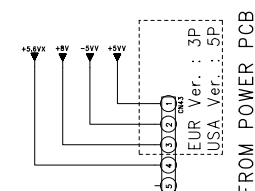


< REGULATOR PCB >



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR x54/x55		
DESIGN	CHECK	APPROVE	DRAWING NO
J.T.B	.Y.W		CUP12027Z
			(POWER)

# CUP12032Z



• DEFINITION OF I2C REGISTER ( NJM1321 )

I2C BUS FORMAT

SENBT	SLAVE ADDRESS	DATA	ACK	DATA	ACK	DATA	ACK	PCNT
LSB	LSB	MSB	LSB	MSB	LSB	MSB	LSB	MSB

SLAVE ADDRESS

MSB	Slave Address(BNT)						MSB	Hex
1	0	0	0	0	0	0	ADR<W/T>	R/NOT R<W/T>

CONTROL REGISTER TABLE

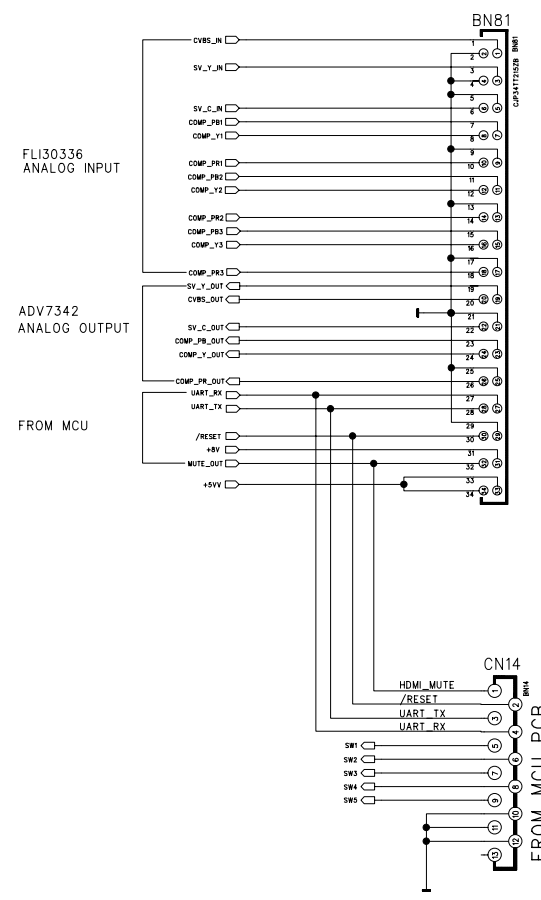
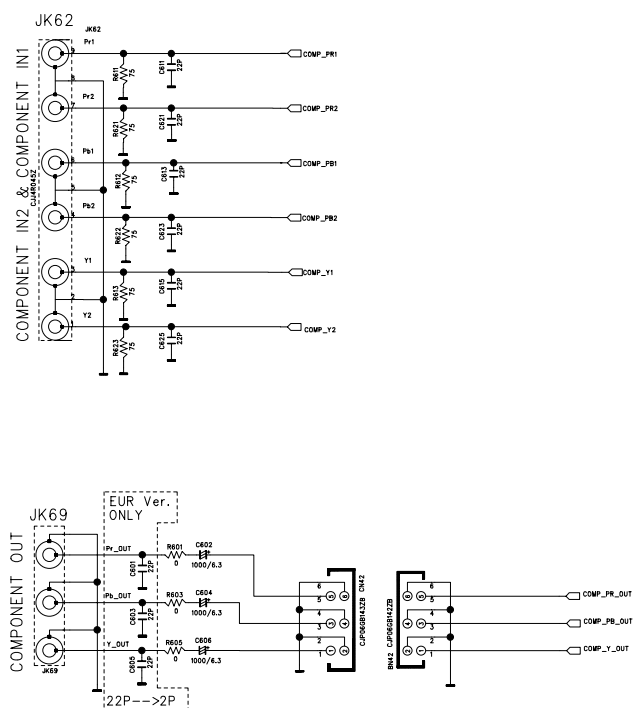
<WRITE MODE>

NO.	BIT							
DATA 1	D7	D6	D5	D4	D3	D2	D1	D0
DATA 2	PS1	PS2	OUT1	OUT2	OUT3	OUT4	OUT5	OUT6

<READ MODE>

NO.	BIT							
DATA	PORT0	PORT1	PORT2	PORT3	PORT4	PORT5	PORT6	PORT7

Legend: S: Starting Term, A: Acknowledge Bit, P: Ending Term, R/NOT R: Set the Write Mode or Read Mode, ADR: Set the Slave Address by "ADR" termOut, R/NOT R = 0: WRITE MODE, ADR = 0/1: ADR=0 Hex(40), ADR=1 Hex(50), R/NOT R = 0: READ MODE, ADR = 0/1: ADR=0 Hex(50), ADR=1 Hex(70), PS: POWER SAVE, PS = 1: POWER SAVE ON (NUTEL, PS = 0: POWER SAVE OFF (OUT ON), OUT: OUTPUT, AUX: AUXILIARY (CONTROL SIGNAL OUTPUT), PORT: INPUT

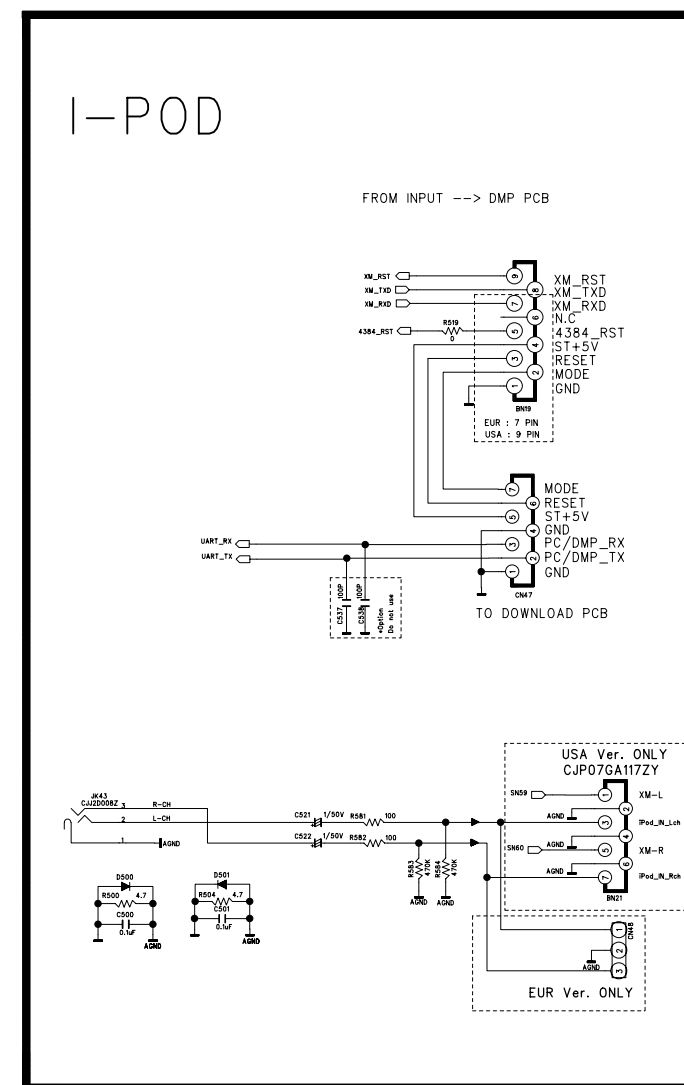
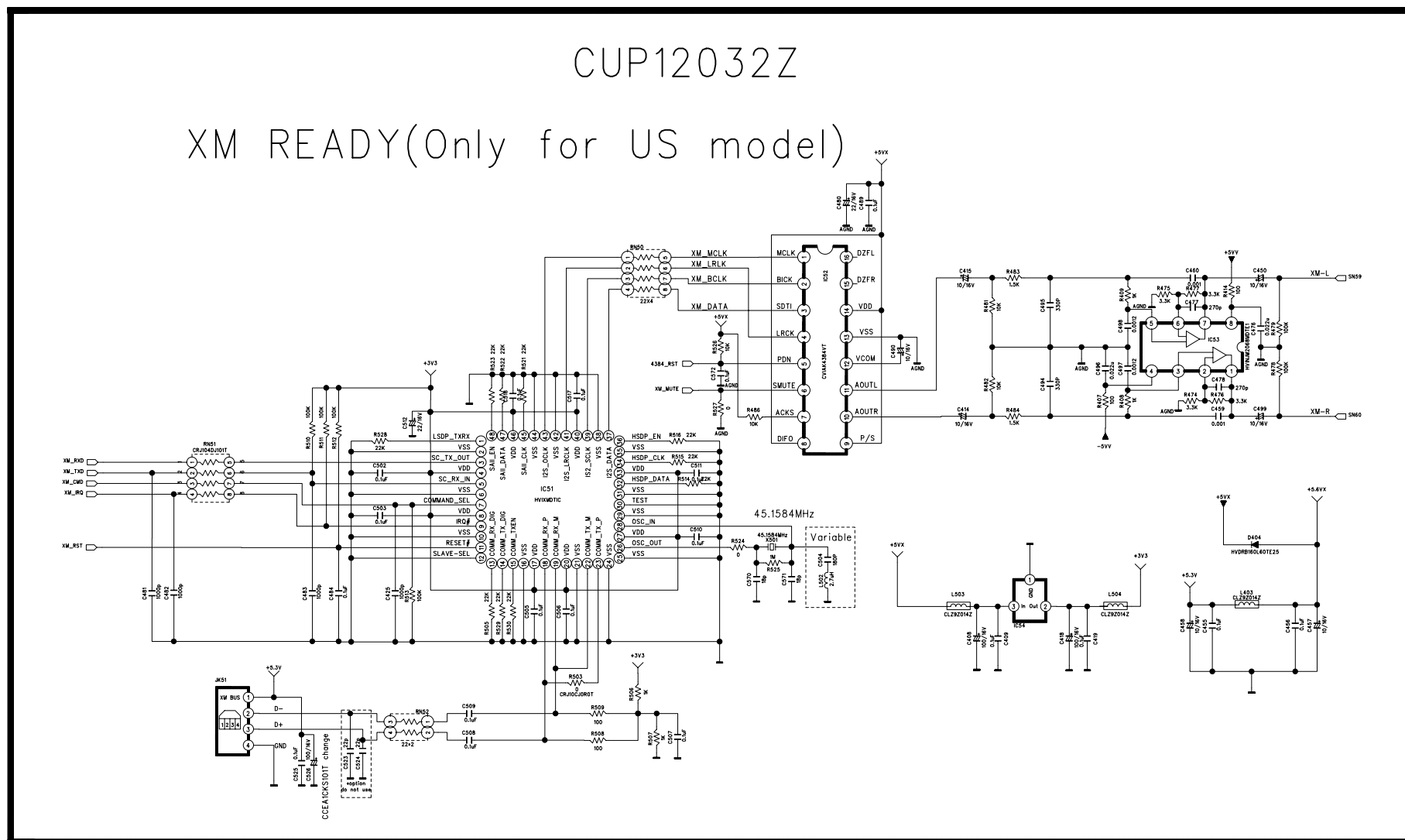


\*NJM2595M OPTION  
==>V\_MUTE "LOW" ACTIVE

FUNC.	SW1	SW2	SW3	SW4	SW5
CVBS/S-V1	H	L	L	L	H
CVBS/S-V2	L	H	L	L	H
CVBS/S-V3	H	L	L	H	H
FRONT CVBS/S-V	H	H	L	L	H
IPOD	H	L	H	H	H



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254 / 255		
DESIGN	CHECK	APPROVE	DRAWING NO
M.S.K	W.Y.Y	K.S.W	2032SCEZ
06.08.23	06.	06.	(VIDEO)



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR254 / 255		1 / 4
DESIGN	CHECK	APPROVE	DRAWING NO
M.S.K	W.Y.Y	K.S.W	2032SCEZ
05.00.00	05.00.00	05.00.00	(AMP)