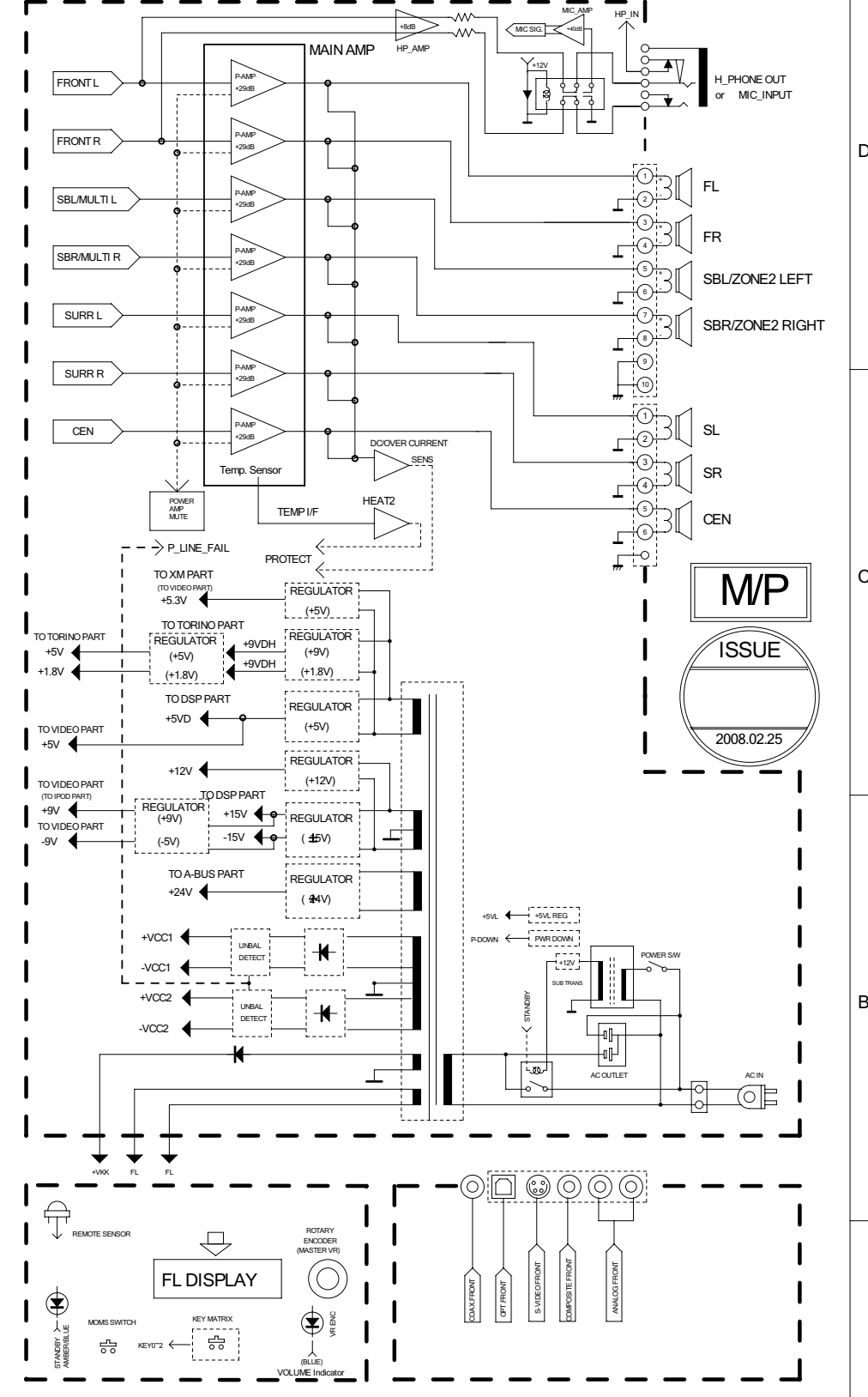
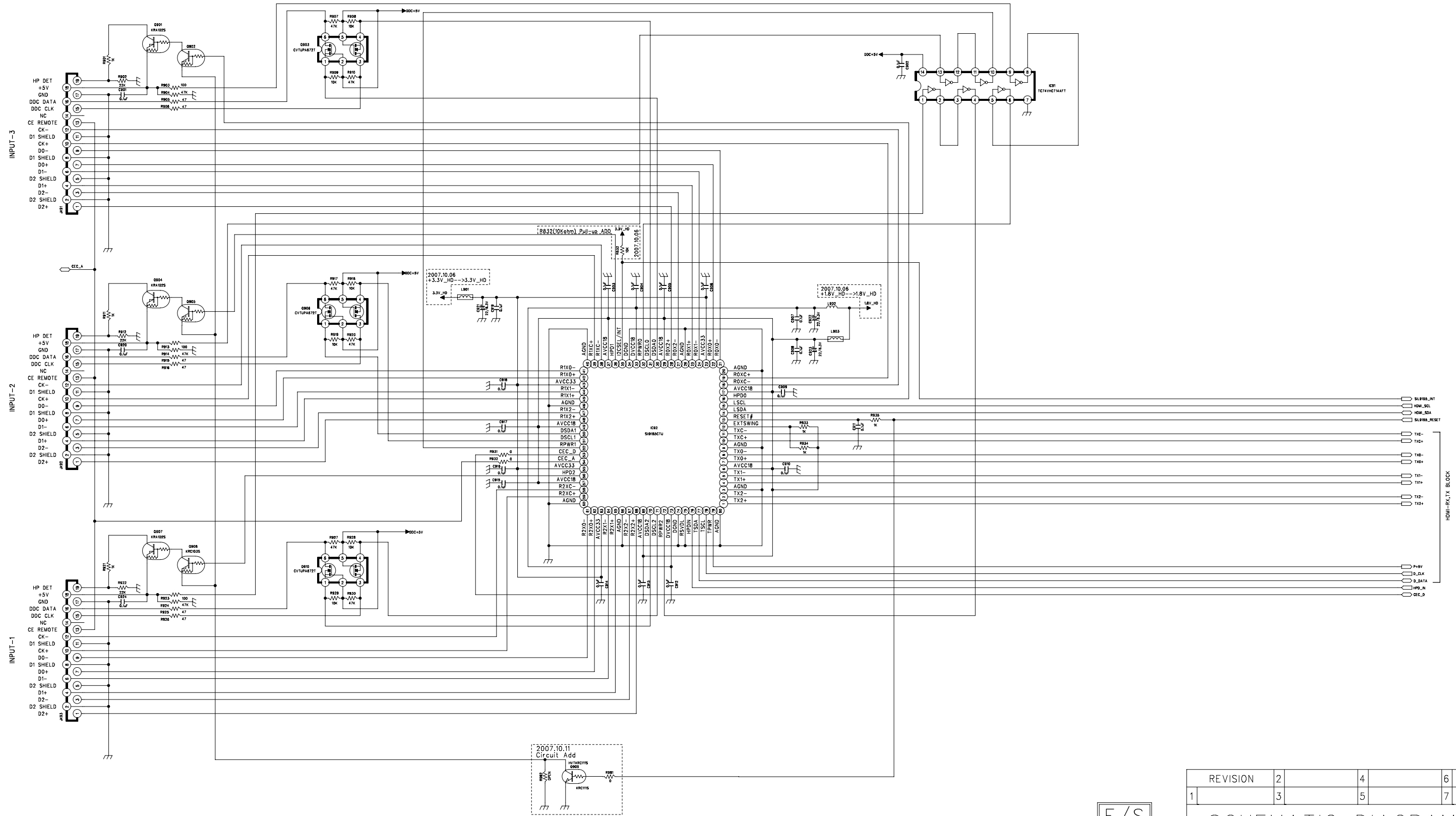


### AVR254/255/354/355 BLOCK DIAGRAM

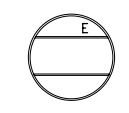


REVISION	2	4	6
1	3	5	7
<b>SCHEMATIC DIAGRAM</b>			
MODEL	AVR254/255/354/355		
DESIGN	CHECK	APPROVE	DRAWING NO
S.H.Yang	W.Y.Yang	G.S.Wey	BLOCK DIAGRAM
08.02.25	08.02.25	08.02.25	2024BLDZ

CUP12035Z

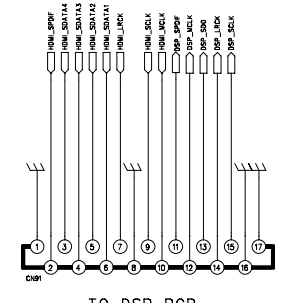
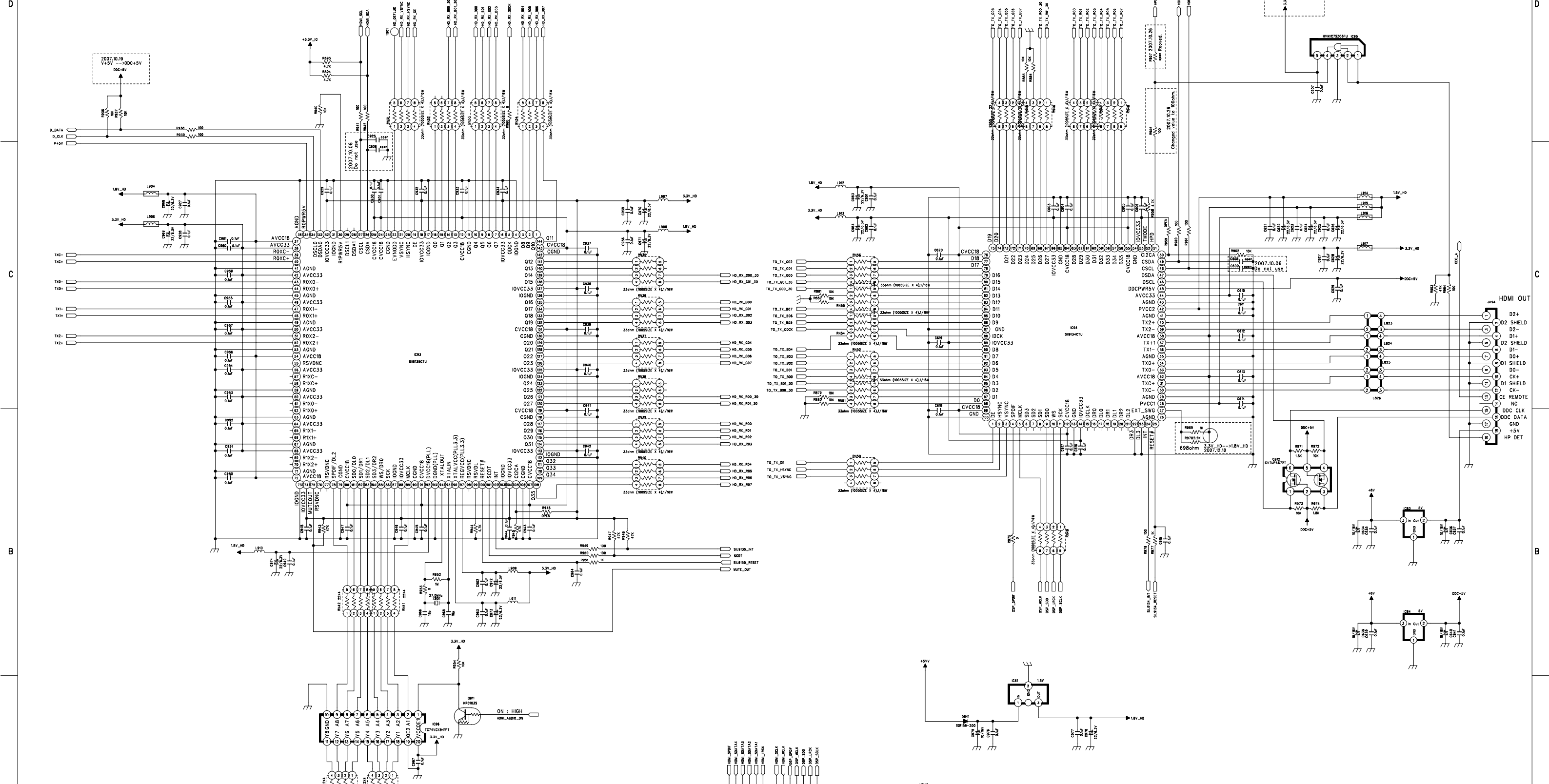


E/S



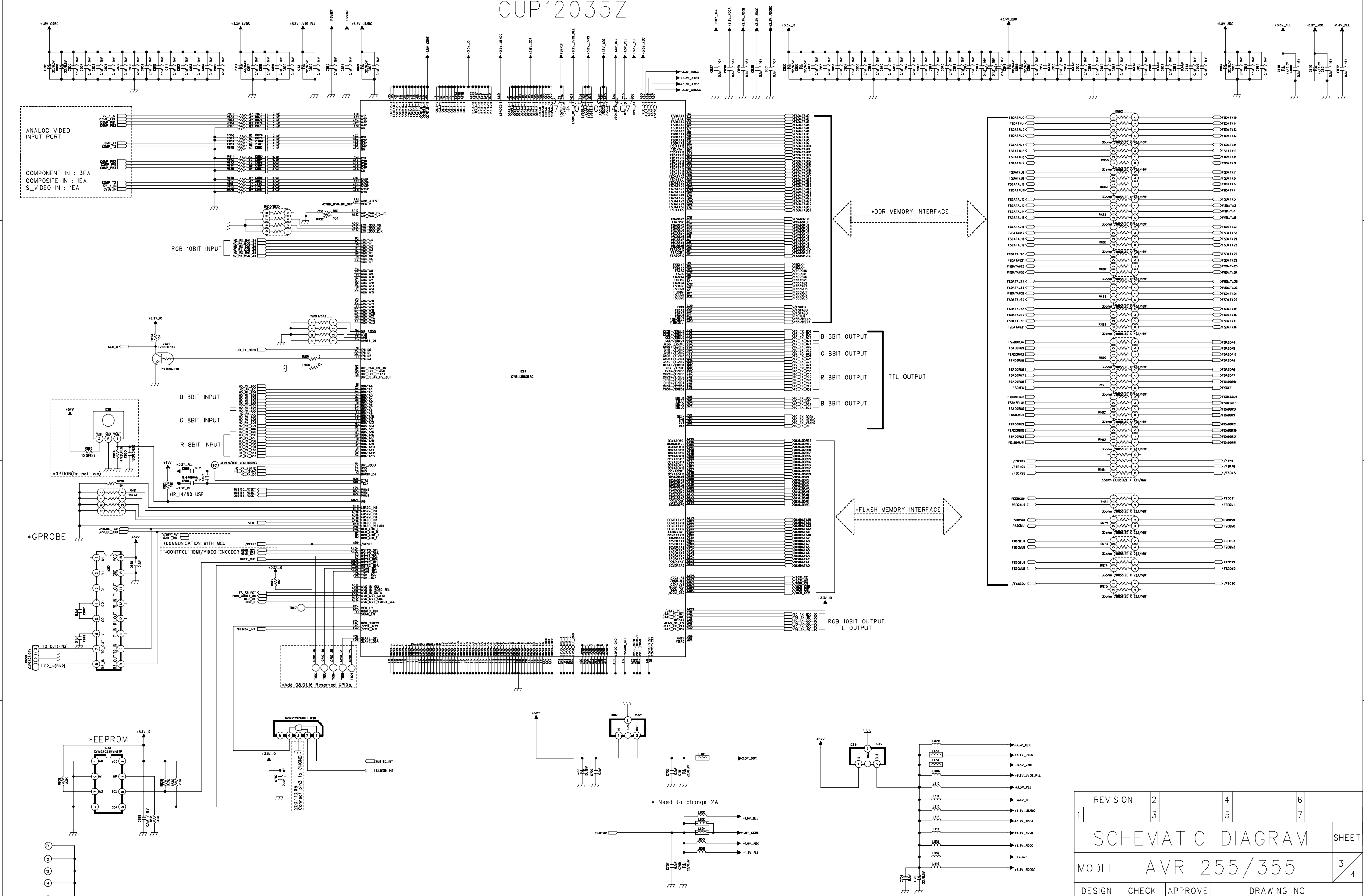
REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR255/355		1/4
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(HDMI-INPUT)

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)

# AVR254

# CUP12035Z

# harman/kardon

D

C

B

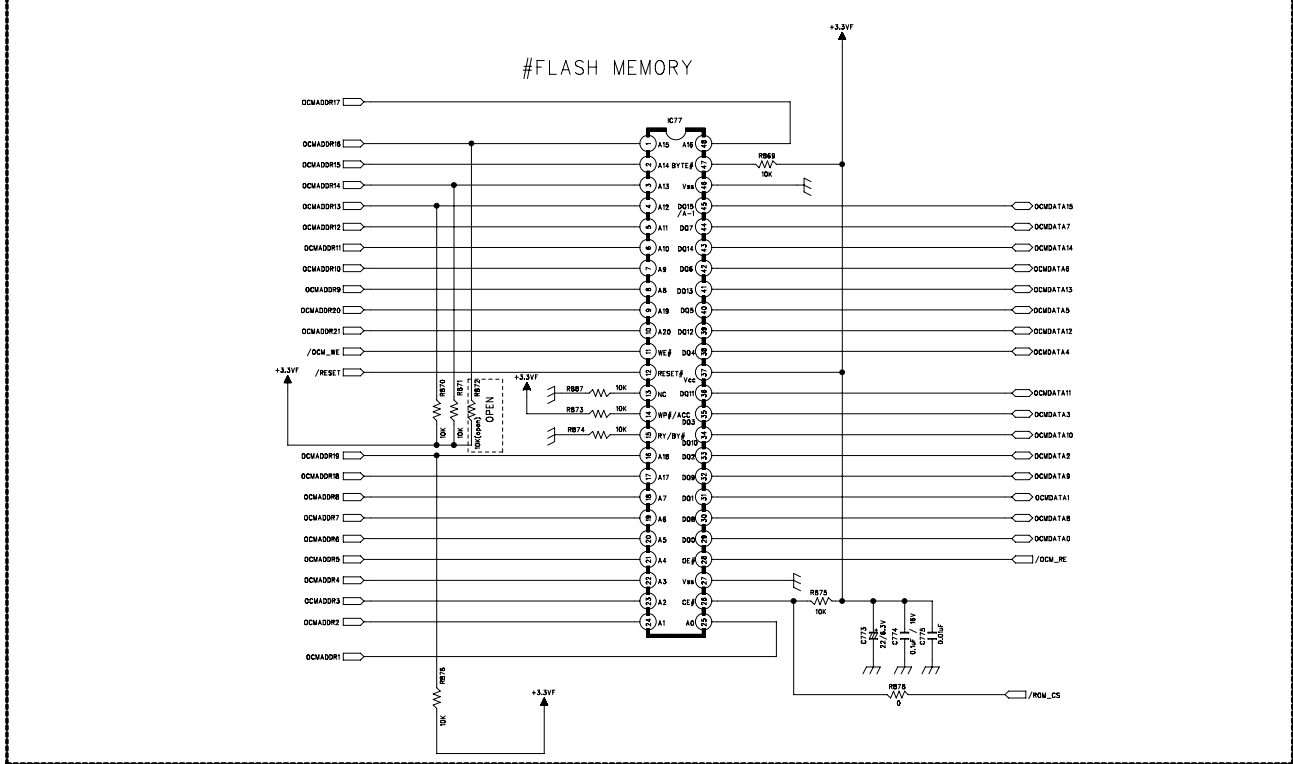
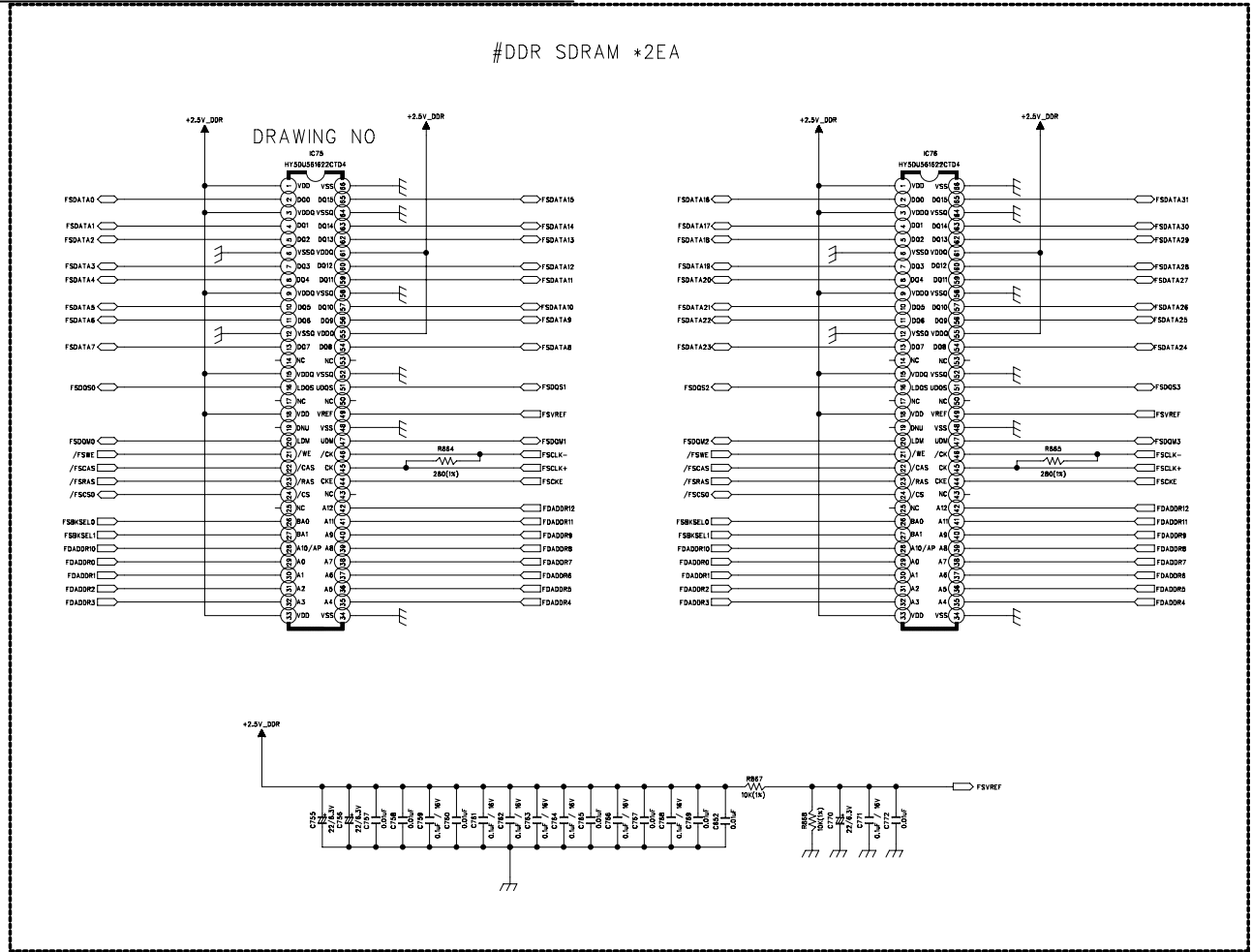
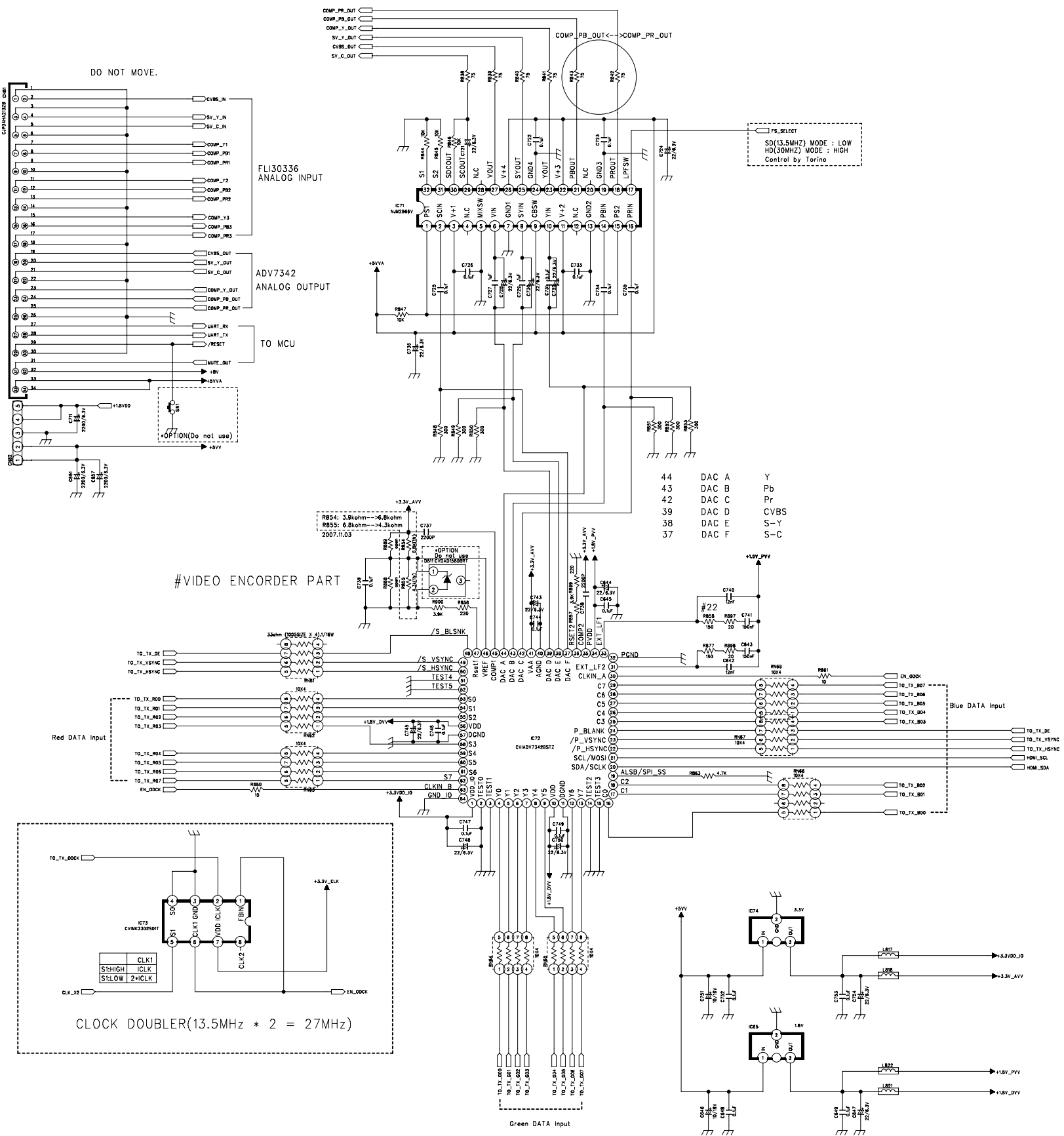
A

D

C

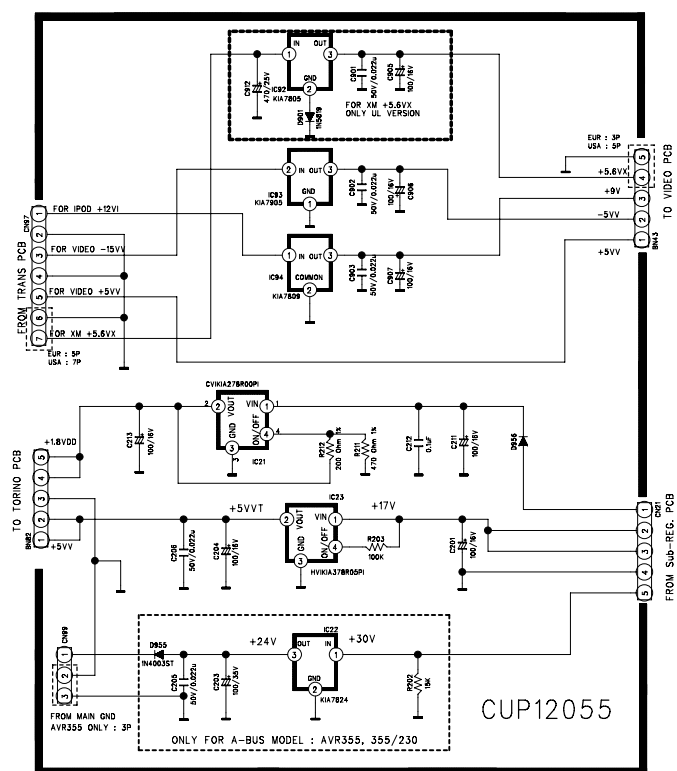
B

A

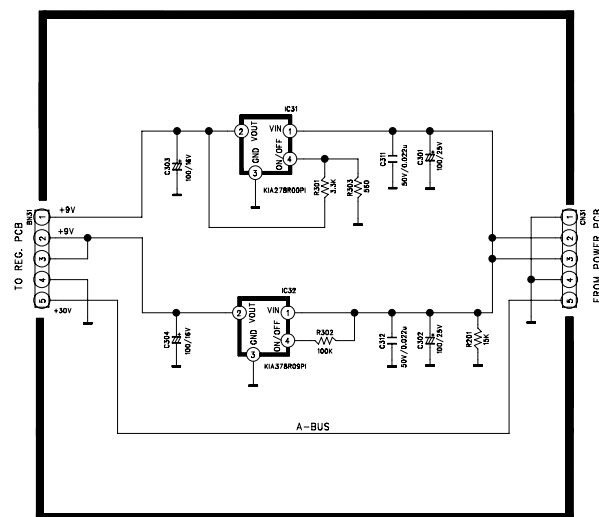


REVISION	2	4	6
	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR255/355		
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(ADV7342+MEM.)

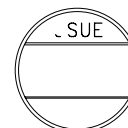
< REGULATOR PCB >



< Sub-REGULATOR PCB >



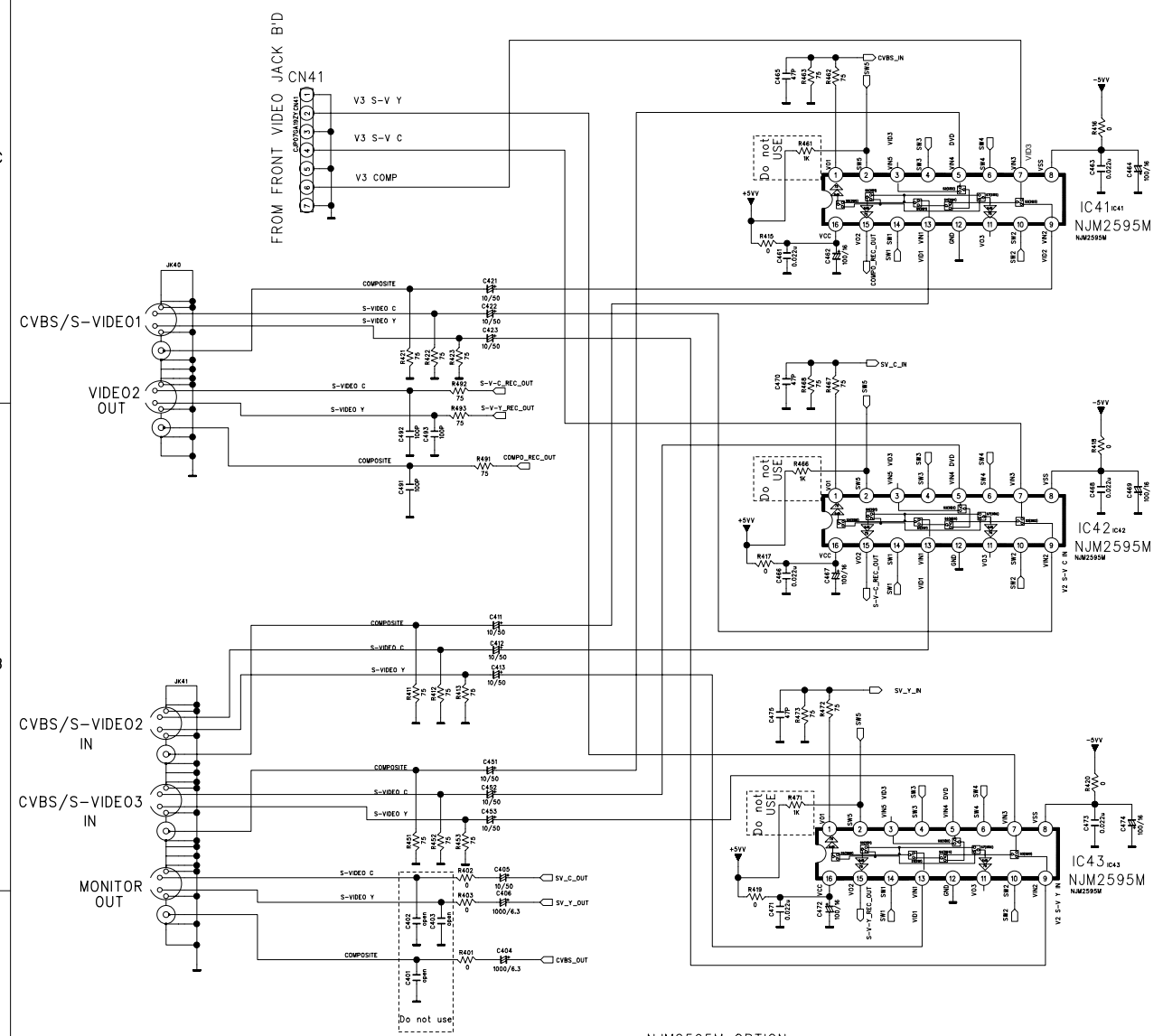
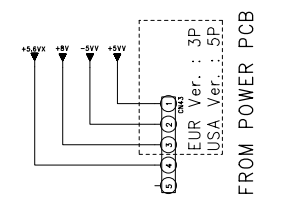
LPP



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

AVR254 harman/kardon

CUP12032Z



• DEFINITION OF I2C REGISTER ( NJW1321 )

I2C BUS FORMAT

SENT	SLAVE ADDRESS	DATA	ACK	DATA	ACK	SENT
S	A	D	A	D	A	S

SLAVE ADDRESS

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

CONTROL REGISTER TABLE

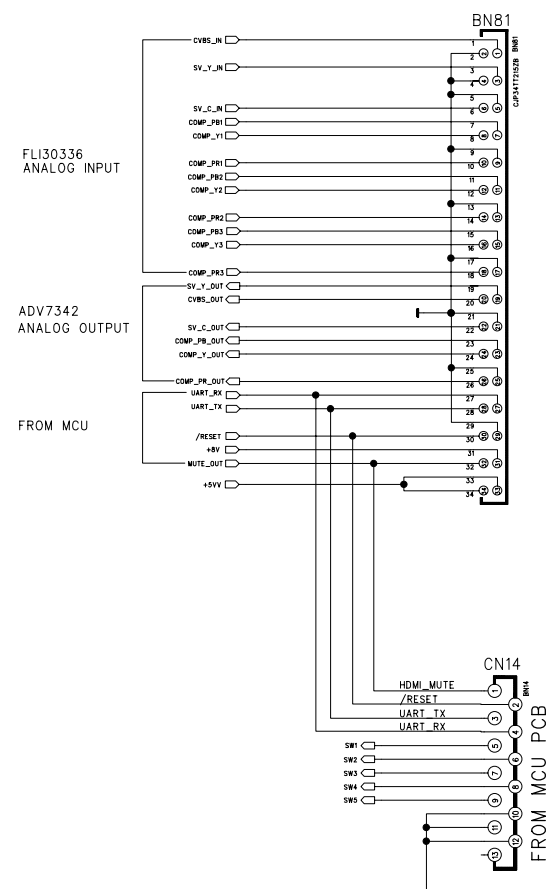
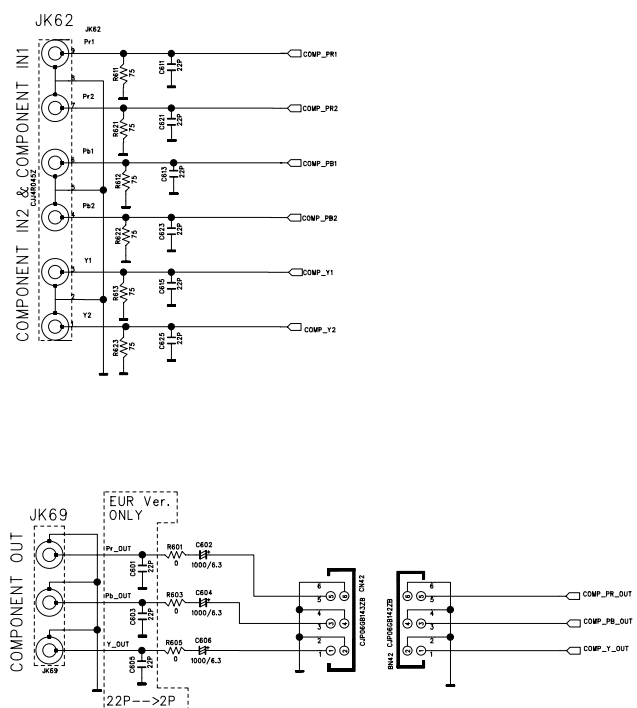
<WRITE MODE>

NO.	D7	D6	D5	D4	D3	D2	D1	D0
DATA 1	PS1	PS2	OUT1	OUT2	OUT2	OUT2	OUT2	OUT2
DATA 2	AUX0	AUX1	AUX2	AUX2	AUX2	AUX2	AUX2	AUX2

<READ MODE>

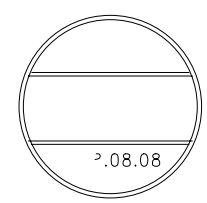
NO.	D7	D6	D5	D4	D3	D2	D1	D0
DATA	PORT0	PORT1	PORT2	PORT2	PORT2	PORT2	PORT2	PORT2

PS : POWER SAVE  
-> PS = 1 : POWER SAVE ON (MUTE), PS = 0 : POWER SAVE OFF (OUT ON)  
OUT : OUTPUT  
AUX : AUXILIARY (CONTROL SIGNAL OUTPUT)

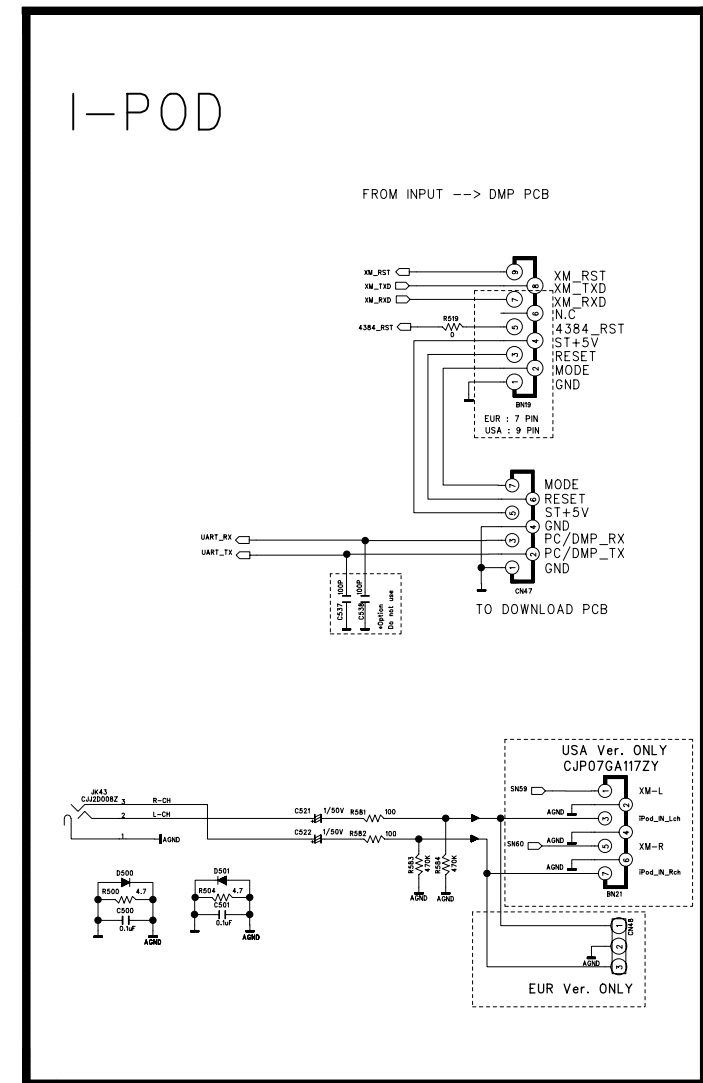
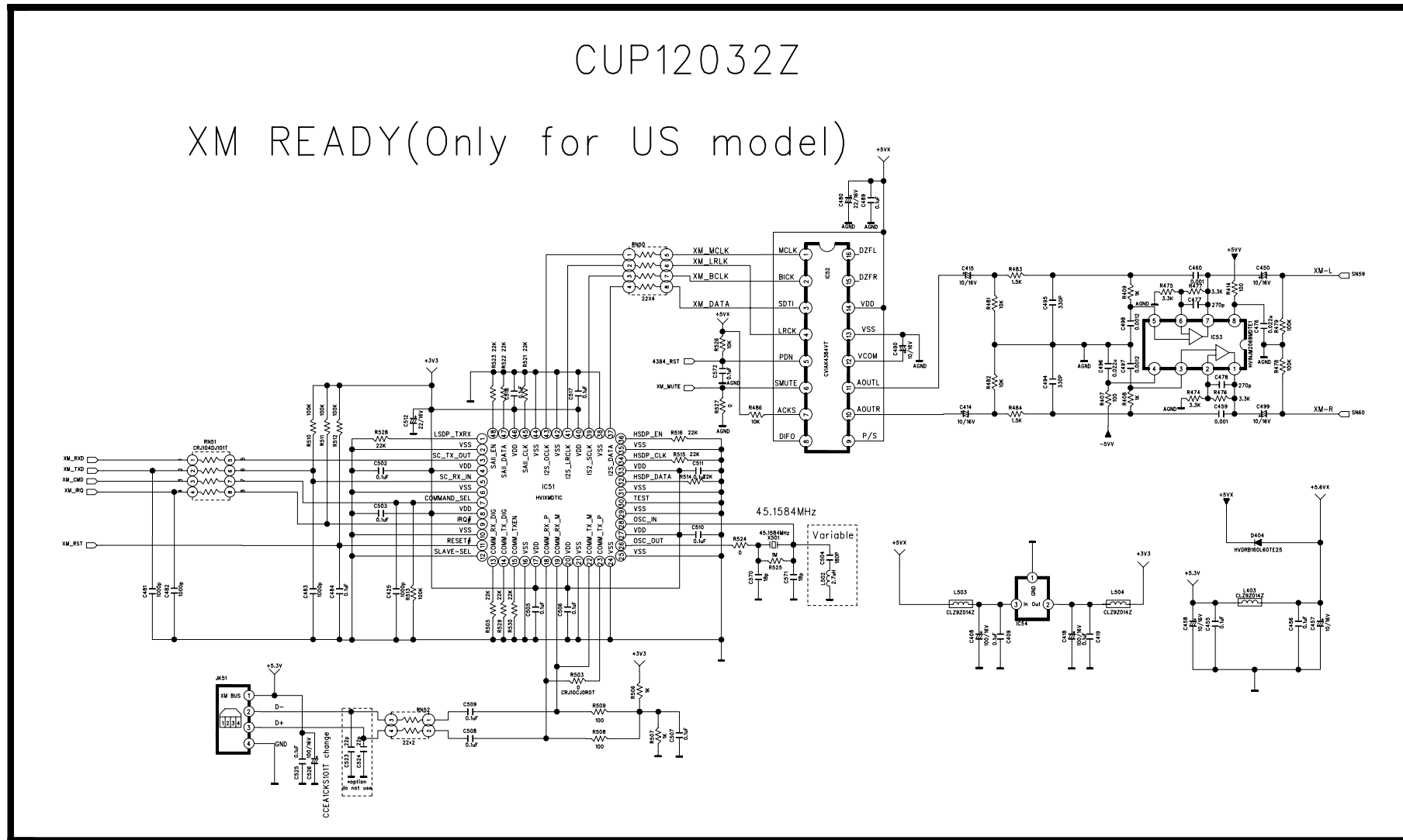


\*NJM2595M OPTION  
==>V\_MUTE "LOW" ACTIVE

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)



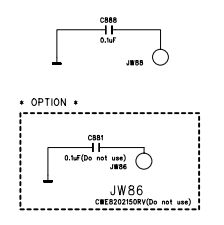
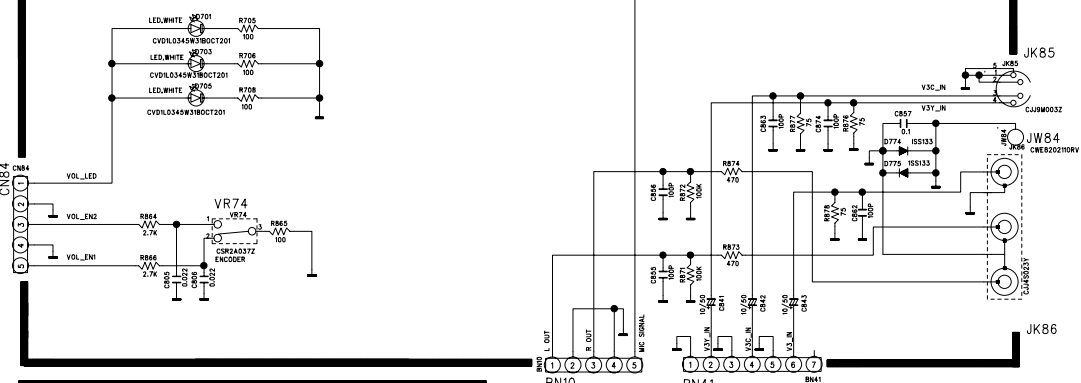
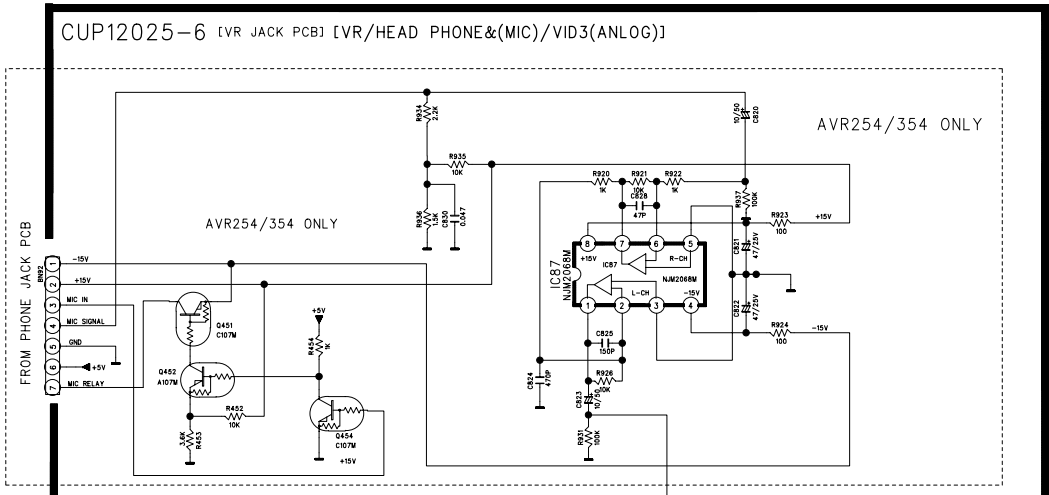
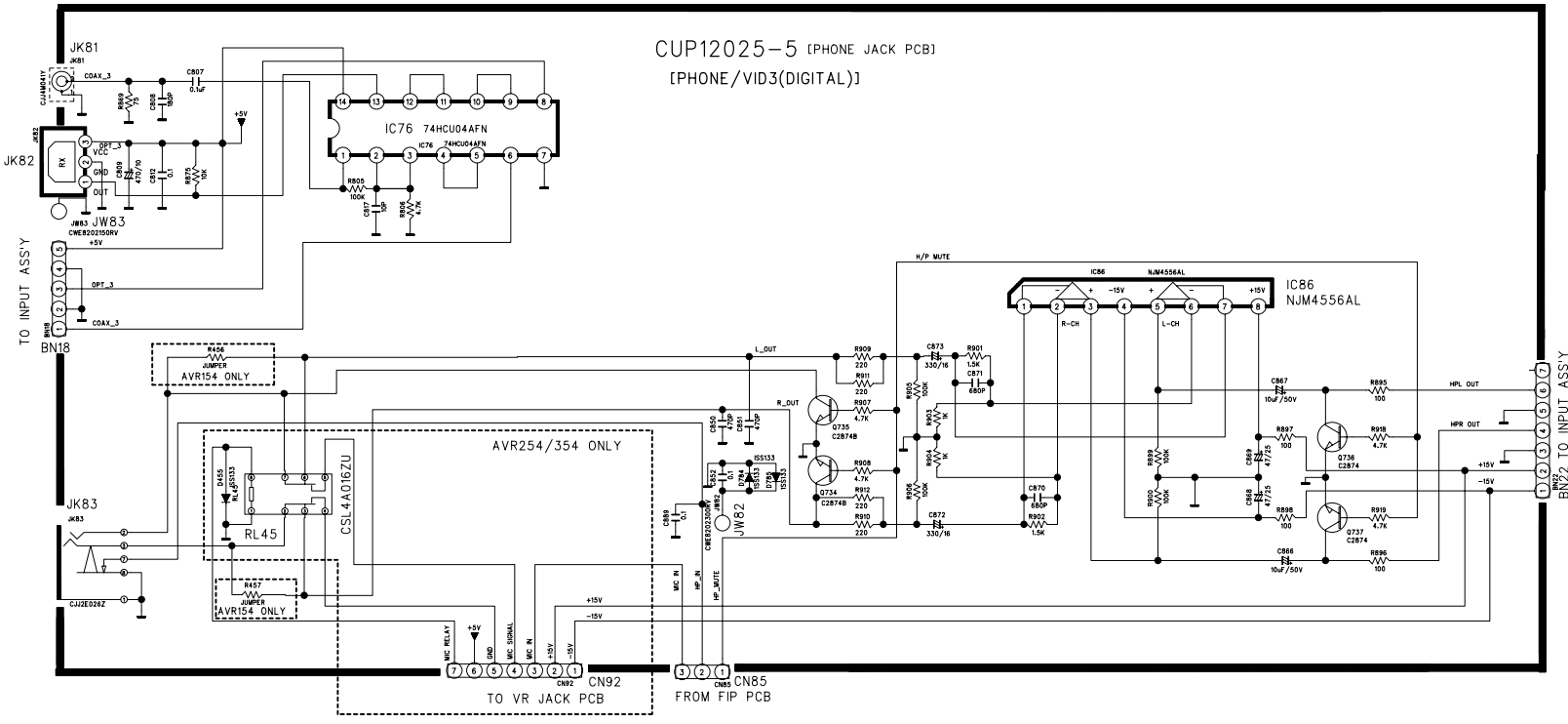
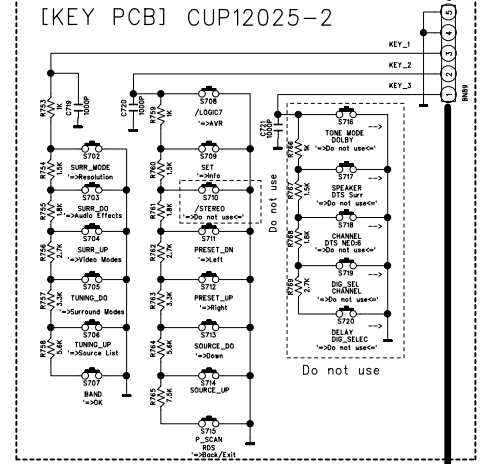
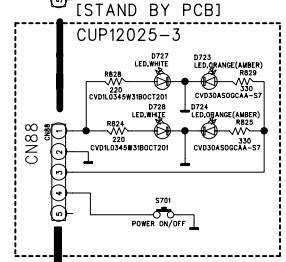
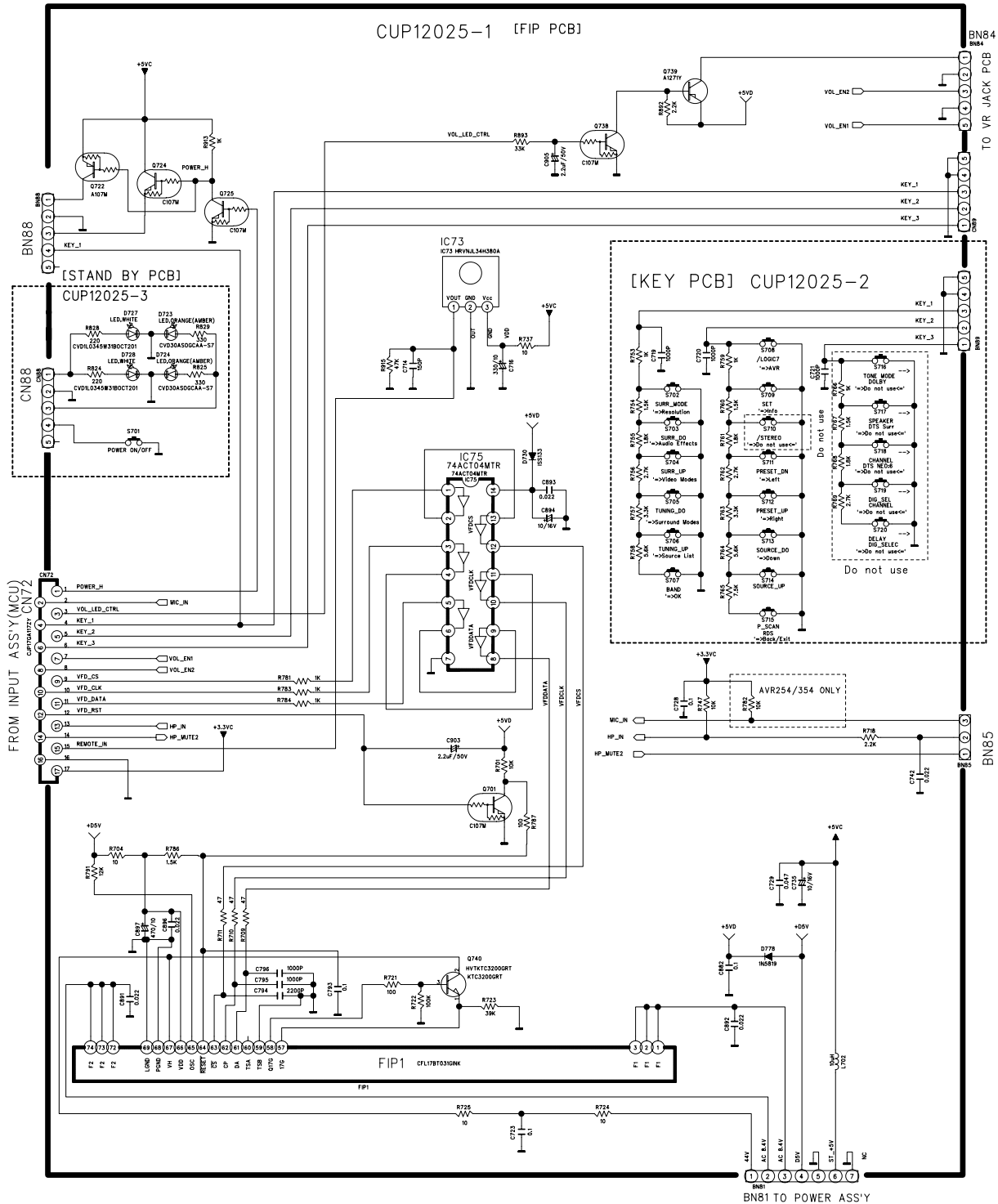
REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR254 / 255		1 / 4
DESIGN	CHECK	APPROVE	DRAWING NO
M.S.K	W.Y.Y	K.S.W	2032SCEZ
05.00.00	05.00.00	05.00.00	(AMP)



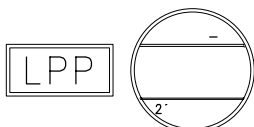
AVR254

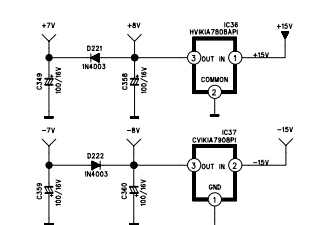
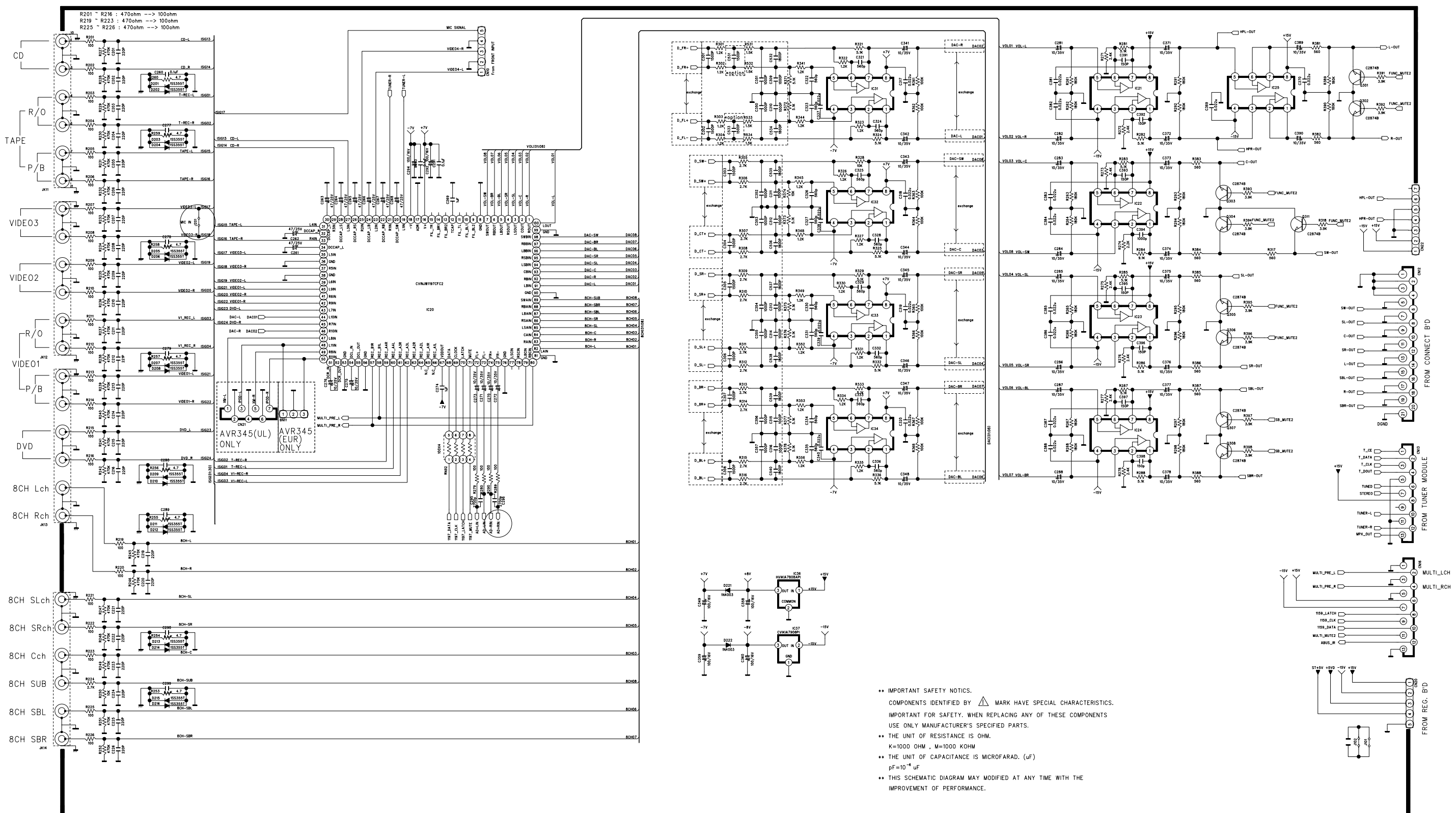
harman/kardon

CUP12025Z



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR154/254/354		
DESIGN	CHECK	APPROVE	DRAWING NO
S.H.YANG	W.Y.YANG	G.S.WEY	2025SCDZ
07.12.07	07.12.07	07.12.07	(FRONT)





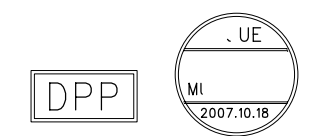
•• IMPORTANT SAFETY NOTICES.  
 COMPONENTS IDENTIFIED BY  $\Delta$  MARK HAVE SPECIAL CHARACTERISTICS.  
 IMPORTANT FOR SAFETY, WHEN REPLACING ANY OF THESE COMPONENTS  
 USE ONLY MANUFACTURER'S SPECIFIED PARTS.

•• 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.

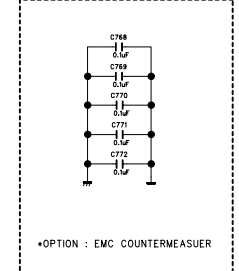
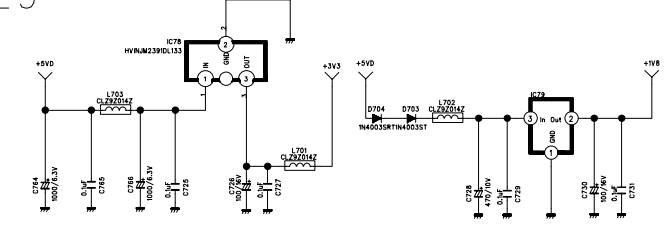
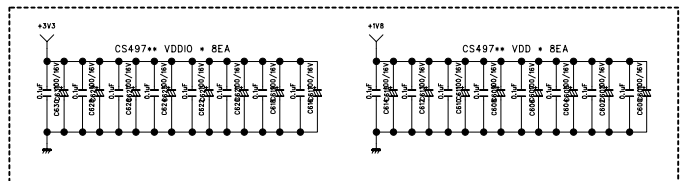
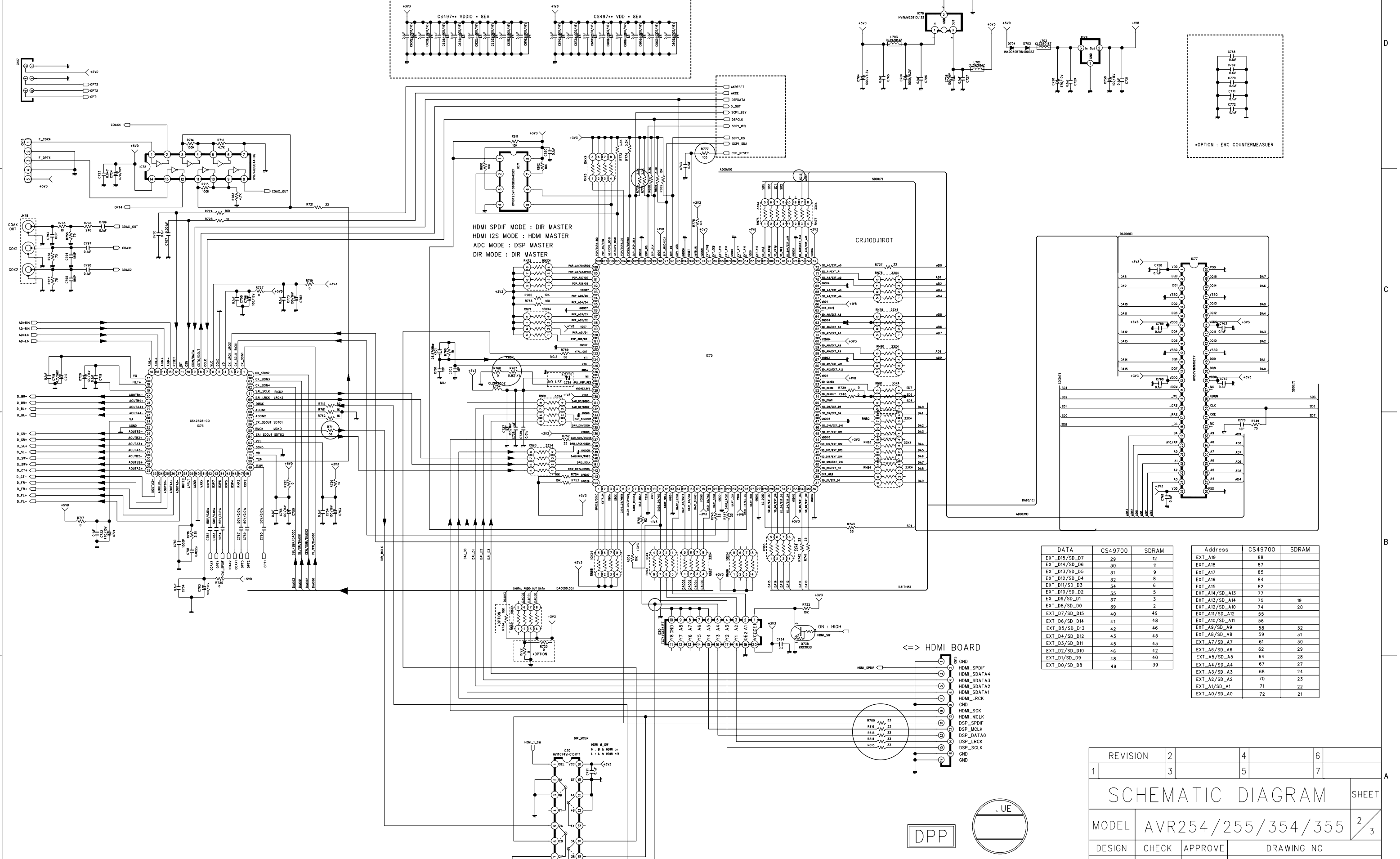
REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254/255/354/355		
DESIGN	CHECK	APPROVE	DRAWING NO
C.B.LEE	W.Y.YANG	G.S.WEY	2029SCLZ
07.10.18			(INPUT)



AVR254

harman/kardon

CUP12029

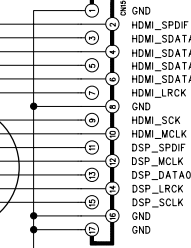


HDMI SPDIF MODE : DIR MASTER  
 HDMI I2S MODE : HDMI MASTER  
 ADC MODE : DSP MASTER  
 DIR MODE : DIR MASTER

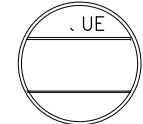
DATA	CS49700	SDRAM
EXT_D15/SD_D7	29	12
EXT_D14/SD_D6	30	11
EXT_D13/SD_D5	31	9
EXT_D12/SD_D4	32	8
EXT_D11/SD_D3	34	6
EXT_D10/SD_D2	35	5
EXT_D9/SD_D1	37	3
EXT_D8/SD_D0	39	2
EXT_D7/SD_D15	40	49
EXT_D6/SD_D14	41	48
EXT_D5/SD_D13	42	46
EXT_D4/SD_D12	43	45
EXT_D3/SD_D11	45	43
EXT_D2/SD_D10	46	42
EXT_D1/SD_D9	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	64	28
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

<=> HDMI BOARD

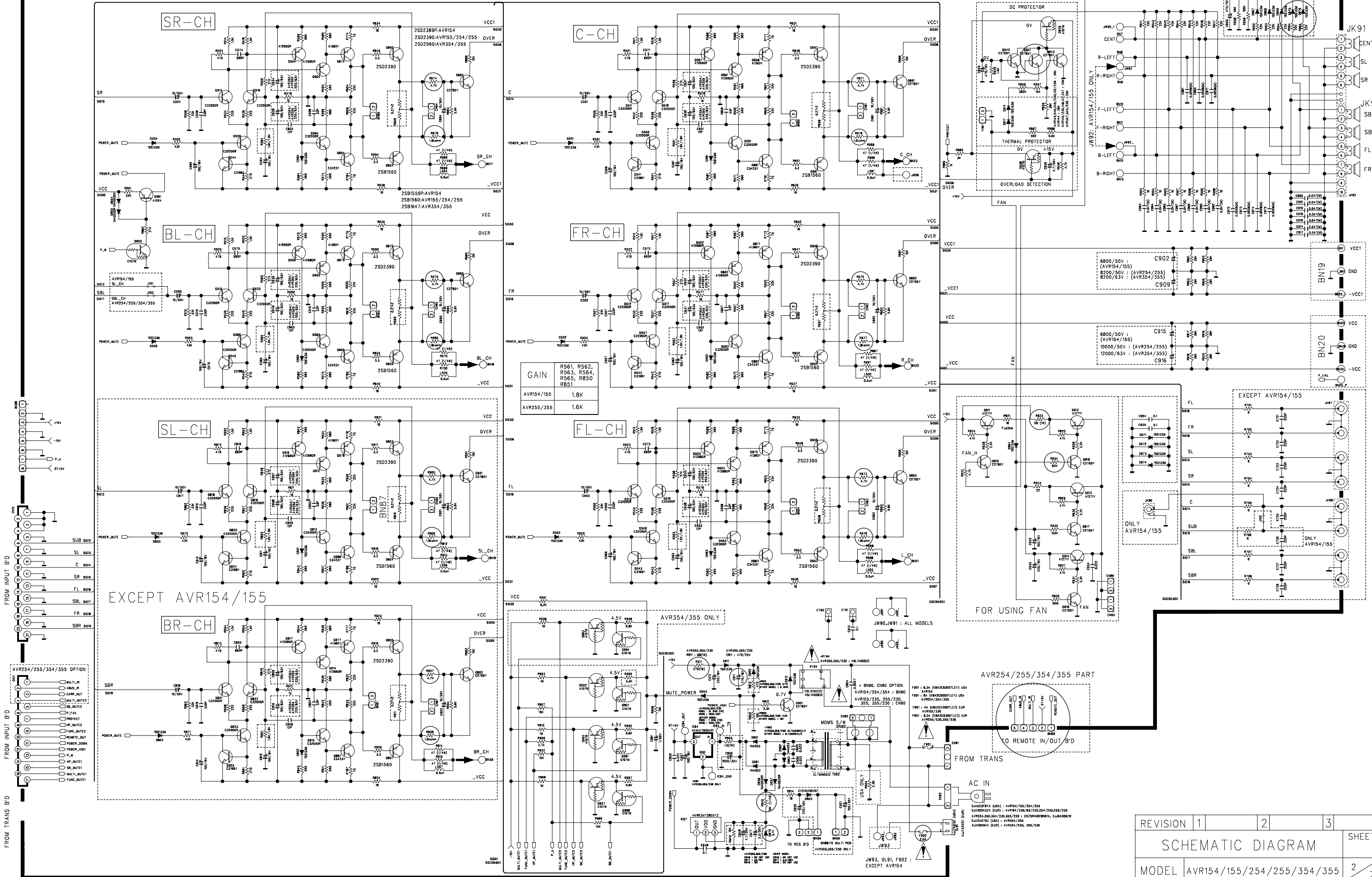


DPP



REVISION	2	4	6
	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254/255/354/355		SHEET 2/3
DESIGN	CHECK	APPROVE	DRAWING NO
C.B.LEE	W.Y.YANG	G.S.WEY	2029SCLZ
07.10.18			(DSP)





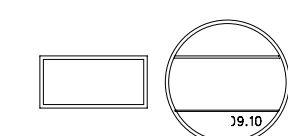
GAIN  
 R561, R562, R563, R564, R565, R560  
 R851  
 AVR154/155 1.8K  
 AVR255/355 1.6K

AVR354/355 ONLY  
 4.5V  
 4.5V  
 4.5V  
 4.5V

AVR254/255/354/355 PART  
 F901 : 6.3A (CBA2C4007LE) USA  
 AVR154  
 F901 : 4A (CBA2C4007LE) EUR  
 AVR150/230  
 F901 : 6.3A (CBA2C4007LE) EUR  
 AVR255/354/355/230

- FROM INPUT B/D
- 1 +15V
  - 2 -15V
  - 3 P.L
  - 4 ST-5V
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - 11
  - 12
  - 13
  - 14
  - 15
  - 16
  - 17
  - 18
  - 19
  - 20
  - 21
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  - 29
  - 30
  - 31
  - 32
  - 33
  - 34
  - 35
  - 36
  - 37
  - 38
  - 39
  - 40
- FROM TRANS B/D
- 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - 11
  - 12
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  - 40

•• IMPORTANT SAFETY NOTICE.  
 IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS  
 USE ONLY MANUFACTURE'S SPECIFIED PARTS.  
 •• THE UNIT OF RESISTANCE IS OHM.  
 K=1000 OHM, M=1000 KOHM,  
 •• THE UNIT OF CAPACITANCE IS MICROFARAD (UF)  
 pF = 10<sup>-6</sup> UF  
 •• THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE  
 IMPROVEMENT OF PERFORMANCE

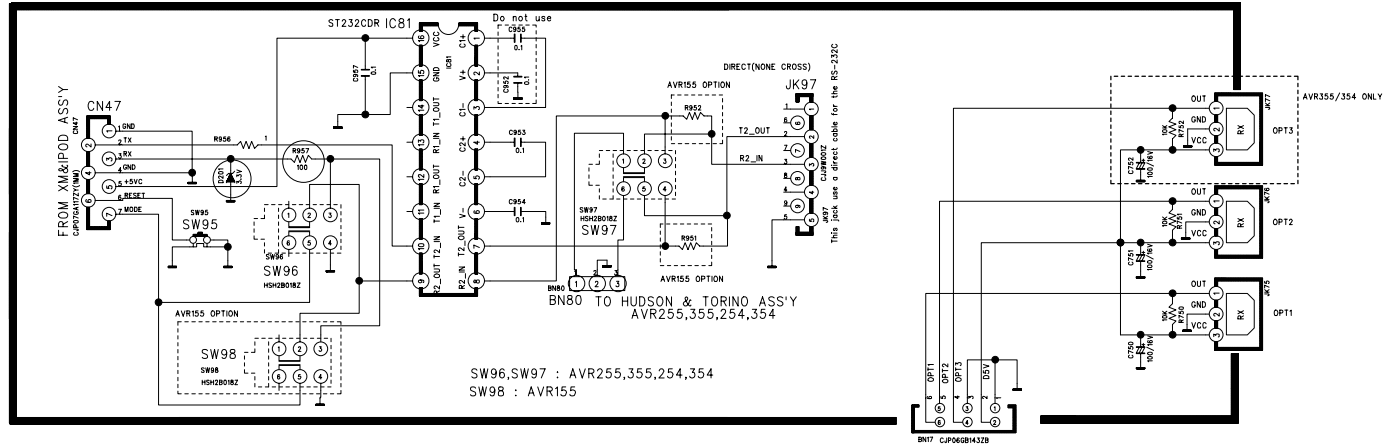


REVISION	1	2	3	SHEET
SCHEMATIC DIAGRAM				2
MODEL	AVR154/155/254/255/354/355			7
DESIGN	CHECK	APPROVE	DRAWING NO	
C.B.LEE	W.Y.YANG	G.S.WEY	2026SCLZ	
07.08.23			(MAIN)	

AVR254

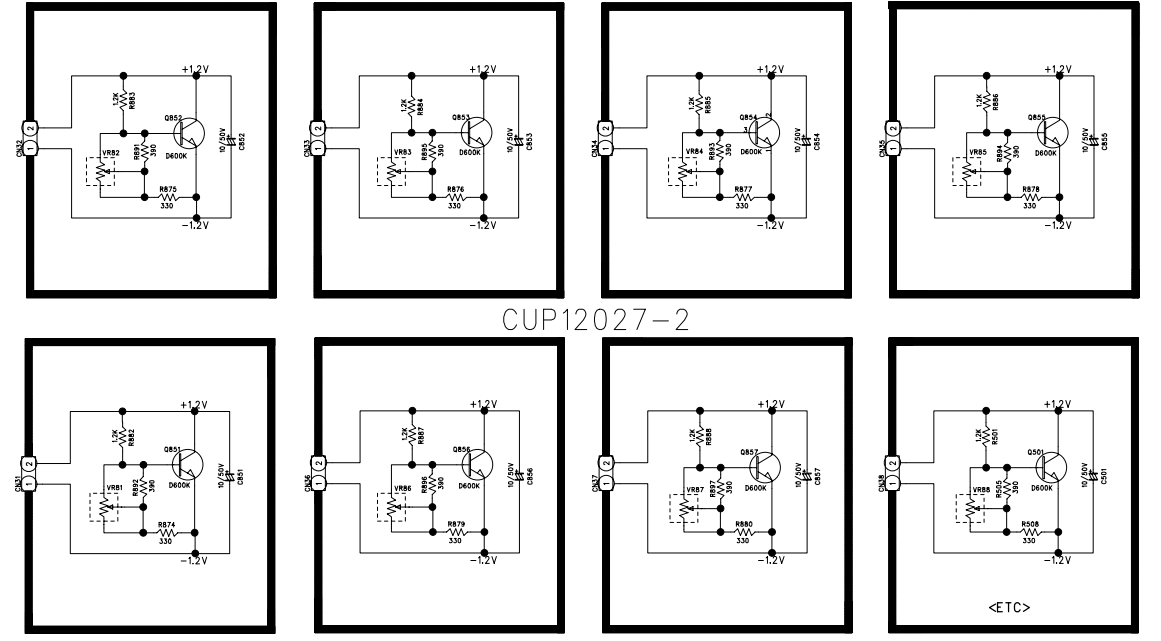
harman/kardon

CUP12027-1

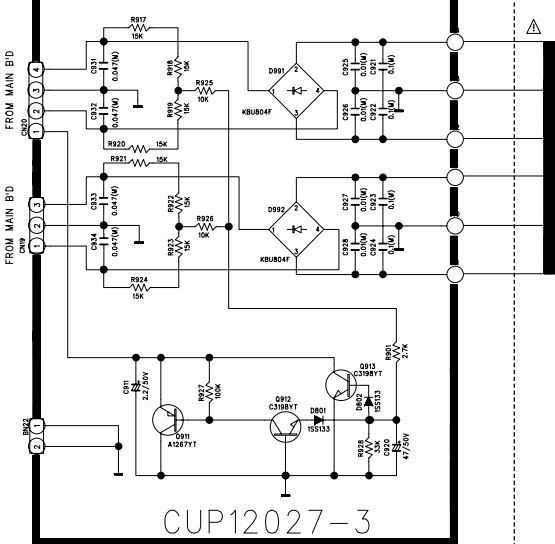


< OPTICAL IN & RS-232 PCB >

< BIAS T.R PCB >

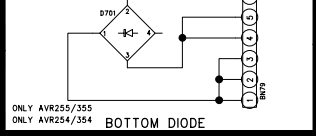


CUP12027-3



CUP12027-3

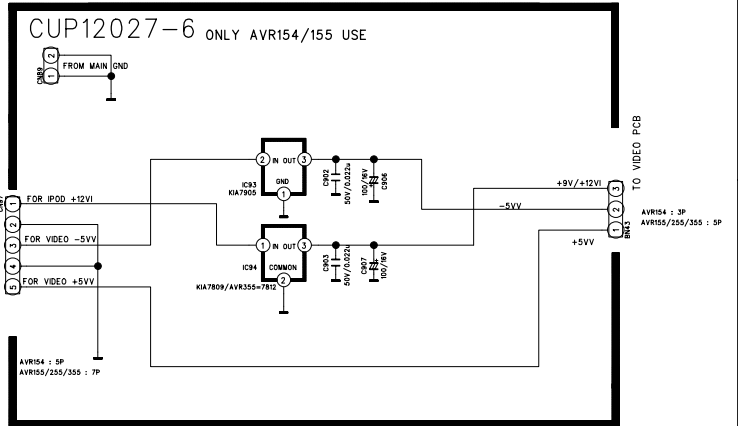
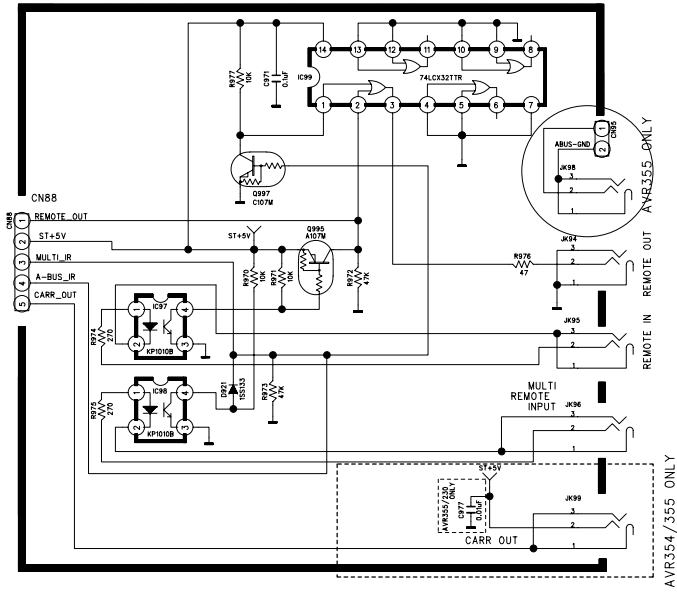
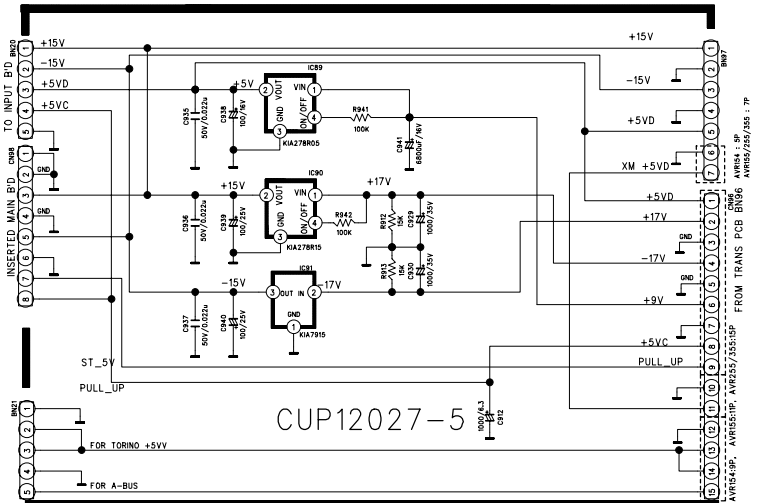
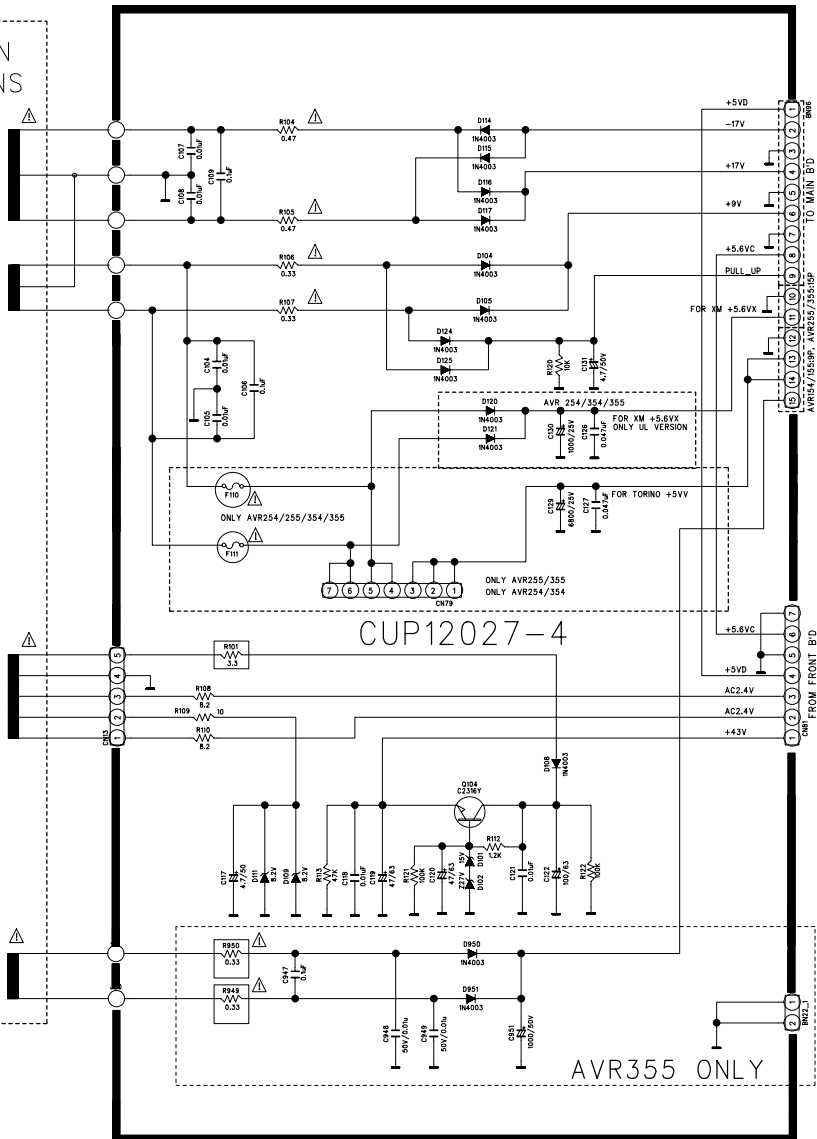
CUP12027-8



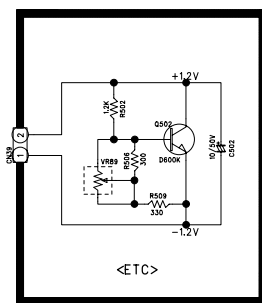
USA : AC120V 60Hz  
 EUR : AC230V 50Hz

< TRANS PCB >

MAIN TRANS



< REGULATOR PCB >



M P

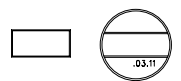
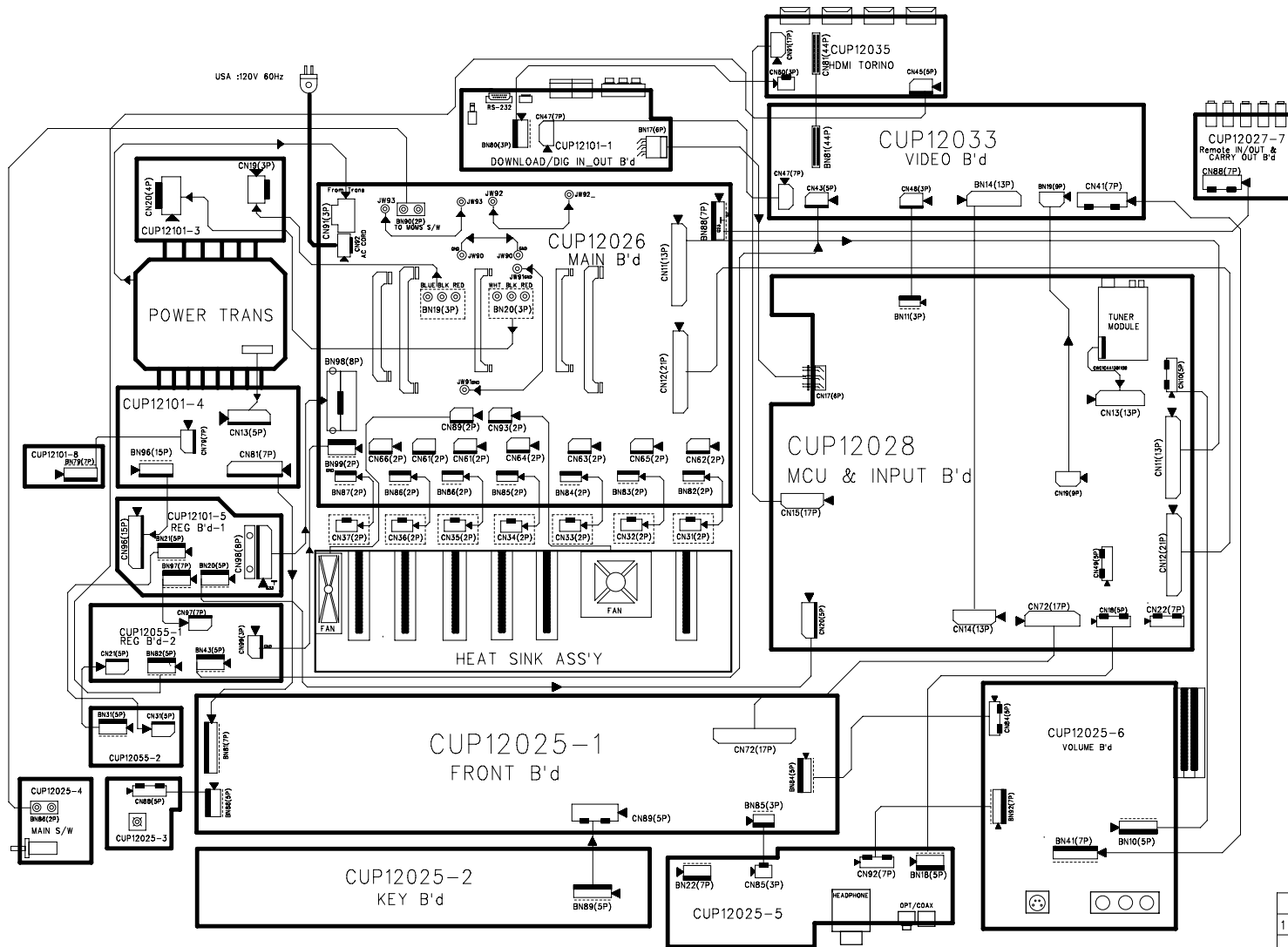


REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR x54/x55		
DESIGN	CHECK	APPROVE	DRAWING NO
J.T.B	Y.Y.W	K.S.W	CUP12027Z
08.01.22	(POWER)		

AVR254

harman/kardon

# AVR254 WIRING DIAGRAM



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254		
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