

Service Manual

**ORDER NO.
ARP3162**

PLASMA DISPLAY

PDP-4300

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-4300	KUC/CA	AC120V	

- This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-433CMX/LUCBW	ARP3155	EXPLODED VIEWS and PARTS LIST, BLOCK DIAGRAM, ADJUSTMENT
PDP-433CMX/LUCBW	ARP3156	SCHEMATIC DIAGRAM and PCB DIAGRAM

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The Δ mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ∇ mark on product are used for disassembly.

● For the applying amount of lubricants or glue, follow the instructions in this manual.

(In the case of no amount instructions, apply as you think it appropriate.)

● Reference Nos. indicate the pages and Nos. in the service manual for the base model.

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5% and K=10%).

560 \rightarrow 56 x 10¹ \rightarrow 561 RD1/4PU 561J

47k \rightarrow 47 x 10³ \rightarrow 473 RD1/4PU 473J

0.5 \rightarrow R50 RN2H R50K

1 \rightarrow 1R0 RS1P 1R0K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k \rightarrow 562 x 10¹ \rightarrow 5621 RN1/4PC 5621F

■ CONTRAST TABLE

PDP-4300/KUC/CA and PDP-433CMX/LUCBW are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			PDP-433CMX /LUCBW	PDP-4300 /KUC/CA	
		PCB ASSEMBLIES VIDEO SLOT US ASSY	Not used	AWV1907	No.1
		PACKING SECTION			
P9- 1		Packing Case	AHD3130	AHD3164	
P9- 7		Accessory Case	AHC1040	AHC1036	
P9-12		Plasma Caution Sheet	ARM1147	Not used	
P9-18	NSP	Warranty Card	ARY1093	Not used	
P9-19	NSP	Warranty Card	ARY1102	ARY1112	
P9-20		Remote Control Unit	AXD1459	AXD1466	
P9-22	NSP	Dry Cell Battery (R6p,AA)	VEM1031	AEX1026	
P9-28		Display Stand	AMR3264	Not used	
P9-29		Remote Control Holder	AMR3268	Not used	
P9-30		Hex Hole Bolt	SMZ80H400FZB	Not used	
P9-31		Washer	WB80FZB	Not used	
P9-32		Plasma Caution Sheet	ARM1220	ARM1194	
P9-33		Operating Instructions (Japanese/English/French)	ARD1052	Not used	
P9-33		Operating Instructions (English)	Not used	ARB1551	
P9-37		Warranty Card Contens Label	AAX2911	Not used	
		FRONT CASE SECTION			
P28- 2		Front Case Assy	AMB2712	AMB2762	
P28- 7		Lead Cover	AMB2703	AMR3341	
		REAR SECTION			
P29- 6	NSP	Name Label	AAL2430	AAL2444	
P29- 9		Terminal Display Label Gray	AAX2936	AAX2927	
		VIDEO SLOT SECTION			
		Screw	Not used	ABA1300	No.2

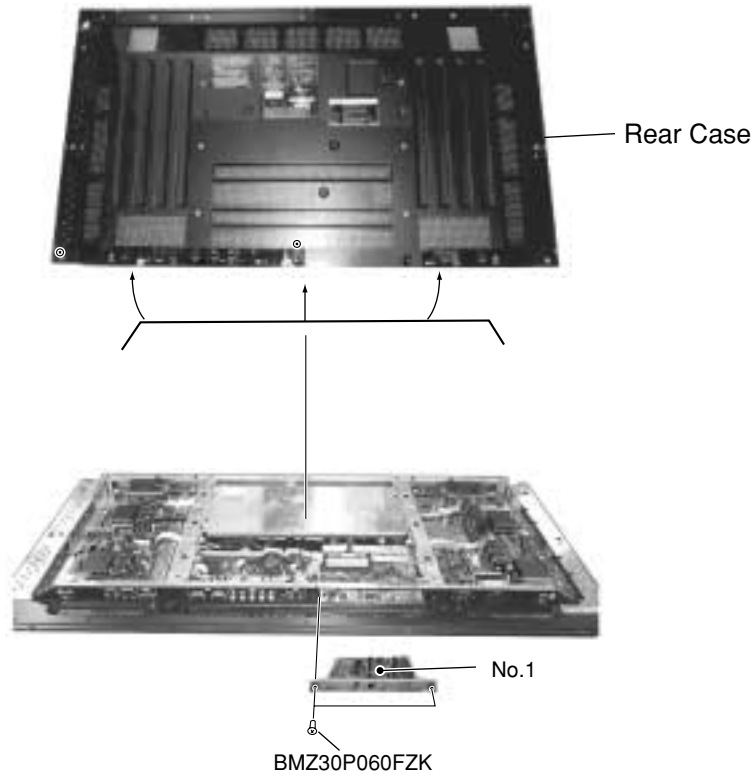
Notes : The numbers in the remarks column correspond to the numbers on the "EXPLODED VIEWS".

For the VIDEO SLOT US ASSY, refer to "PCB PARTS LIST", "2. SCHEMATIC DIAGRAM" and "3. PCB CONNECTION DIAGRAM".

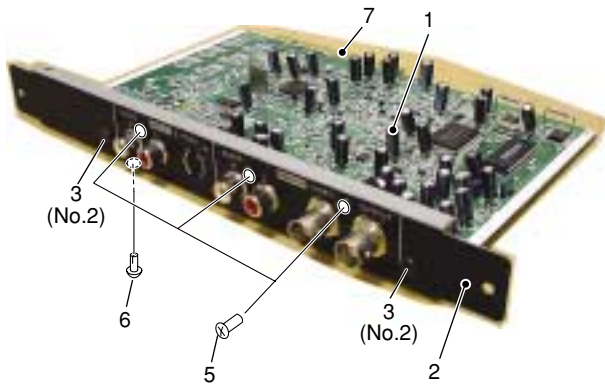
For Adjustment of the VIDEO SLOT US ASSY, refer to the service manual ARP3093 for PDA-5002.

1 ■ 2 3 4

■ EXPLODED VIEWS
● EXTERIOR SECTION



● VIDEO SLOT US ASSY



● VIDEO SLOT US Parts List

Mark	No.	Description	Part No.
	1	VIDEO SLOT US Assy	AWV1907
	2	Video Terminal Panel PRO	ANG2540
	3	Screw	ABA1300
	4	
	5	Screw	BPZ30P080FZK
	6	Rivet	AEP-211
	7	Sheet	AMR3282

PCB PARTS LIST

Mark	No.	Description	Part No.
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VIDEO SLOT US ASSY (AWV1907)

[VIDEO I/O BLOCK]

SEMICONDUCTORS

IC7002	NJM2234M
IC7003	TC4052BF
IC7001	TK15420M
IC7004	UPC4570G2
Q7001,Q7002,Q7006,Q7007	2SC2412K
Q7004,Q7005	HN1C01FU
D7001-D7004,D7007-D7010	1SS226
D7005,D7006	1SS355

CAPACITORS

C7002,C7006	CEANP470M25
C7003,C7012,C7015	CEAT100M50
C7004,C7007,C7010,C7011,C7014	CEAT220M50
C7013,C7016	CEAT4R7M50
C7017,C7020	CKSQYB105K10
C7009	CKSRYB103K50
C7022,C7023,C7025,C7026	CKSRYB222K50
C7001,C7005,C7008,C7018,C7019	CKSRYF104Z16
C7021,C7024	CKSRYF104Z16

RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

CN7002 4P DIN SOCKET	AKP1217
CN7001 BNC SOCKET	AKX1051
JA7003,JA7004 2P PIN JACK	DKB1031
7005,7006 SCREW TERMINAL	VNE1949

[Y/C SEPA BLOCK]

SEMICONDUCTORS

IC7104	24LC01B
IC7103	CXA1875AM
IC7101,IC7105	ML6428CS-1
Q7107	HN1A01FU

COILS

L7102,L7103	LCYA270J2520
L7101	LCYA470J2520

CAPACITORS

C7114	CCSRCH102J50
C7107	CCSRCH220J50
C7108	CCSRCH470J50
C7102	CCSRCH560J50
C7103,C7104	CEAT220M50
C7110,C7133	CEAT221M16
C7105	CKSQYB105K10
C7109	CKSRYB104K16
C7113	CKSRYB223K50
C7106,C7123,C7129	CKSRYF104Z16

RESISTORS

R7148,R7161	RAB4C470J
Other Resistors	RS1/16S□□□J

Mark	No.	Description	Part No.
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[3D Y/C BLOCK]

SEMICONDUCTORS

IC7203	IS41C16256-35K
IC7201	ML6428CS-1
IC7202	UPD64082GF-3BA
Q7201-Q7203,Q7206,Q7209,Q7211	2SA1037K
Q7208	2SC2412K
Q7205	DTC124EK
Q7207	HN1B04FU

COILS

L7207,L7209 FERRITE BEAD	ATX1008
L7205	LCTA4R7J2520
L7201	LCYA120J2520
L7202	LCYA220J2520

CAPACITORS

C7202	CCSRCH100D50
C7201,C7205	CCSRCH150J50
C7204,C7246,C7247	CCSRCH180J50
C7224	CCSRCH391J50
C7210	CCSRCH470J50

C7236	CCSRCH471J50
C7208	CCSRCH560J50
C7245	CEAT100M50
C7249	CEAT101M25
C7227,C7237	CEAT220M50

C7226,C7235	CKSQYB105K10
C7223,C7225	CKSRYB103K50
C7220,C7254	CKSRYB104K16
C7214,C7215,C7219,C7221,C7222	CKSRYF104Z16
C7228-C7234,C7238,C7239	CKSRYF104Z16

C7241,C7242,C7250,C7251	CKSRYF104Z16
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RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

K7201,K7202 TEST PIN	AKX9002
X7201 CRYSTAL RESONATOR (20MHz)	ASS1143

[CHROMA DEC BLOCK]

SEMICONDUCTORS

IC7301	BA7655AF
IC7302	TB1274AF
IC7303	TC7WH04FU
Q7301,Q7302	2SA1037K
Q7303-Q7306	2SC2412K

Q7307	HN1C01FU
D7301	1SS355

CAPACITORS

C7305	CCSRCH8R0D50
C7340	CCSRCH390J50
C7302,C7316,C7337	CEAT100M50
C7341	CEAT220M50
C7333	CEAT2R2M50

Mark	No.	Description	Part No.
	C7323		CEAT4R7M50
	C7304		CEATR47M50
	C7327,C7331,C7338		CKSQYB105K10
	C7303		CKSRYB103K50
	C7328,C7332,C7336		CKSRYB104K16
	C7334		CKSRYB223K50
	C7301,C7306-C7315,C7317,C7322		CKSRYF104Z16
	C7324-C7326,C7329,C7330,C7335		CKSRYF104Z16

RESISTORS

All Resistors

RS1/16S□□□J

OTHERS

K7301-K7304 TEST PIN
 X7301 CRYSTAL RESONATOR
 (16.2MHz)

AKX9002
 ASS1152

[DVI BLOCK] (AWV1906 Only)**SEMICONDUCTORS**

IC7409
 IC7402-IC7408
 IC7410
 IC7401
 D7401

24LCS21A
 TC74LCX541FT
 TC7WH04FU
 TFP201A
 1SS184

D7402,D7404
 D7403

1SS226
 RD6.8MB

CAPACITORS

C7406,C7408,C7410,C7413,C7414
 C7417,C7420,C7421,C7425-C7428
 C7432,C7434
 C7403
 C7401,C7402,C7404,C7405,C7407

CCSRCH101J50
 CCSRCH101J50
 CCSRCH101J50
 CEAT470M10
 CKSRYF104Z16

C7409,C7411,C7412,C7415,C7416
 C7418,C7419,C7422-C7424
 C7429-C7431,C7433,C7435-C7438

CKSRYF104Z16
 CKSRYF104Z16
 CKSRYF104Z16

RESISTORS

R7412
 R7401,R7402,R7408,R7409
 R7413-R7416,R7423,R7429,R7432
 R7438
 R7417,R7418

RAB4C220J
 RAB4C680J
 RAB4C680J
 RAB4C680J
 RN1/16SE1001D

Other Resistors

RS1/16S□□□J

OTHERS

CN7402 24P DVI SOCKET

AKP1216

[CONNECTOR BLOCK]**RESISTORS**

R7430
 R7439, R7440
 R7433
 R7435
 R7434

RS1/16S101J
 RS1/16S103J
 RS1/16S182J
 RS1/16S223J
 RS1/16S332J

[VIDEO REG BLOCK]**SEMICONDUCTORS**

IC7501
 IC7504

PQ05DZ11
 PQ3DZ13

Mark	No.	Description	Part No.
	IC7502		TA79L05F
	FILTERS		
	F7501-F7515	EMI FILTER	ATF1194

CAPACITORS

C7504,C7539
 C7501,C7511
 C7506,C7508,C7510,C7514,C7516
 C7520,C7524,C7526,C7528,C7530
 C7532,C7534,C7536,C7541,C7543

CEAT101M6R3
 CEAT221M16
 CEAT470M25
 CEAT470M25
 CEAT470M25

C7545
 C7502,C7503,C7505,C7507,C7509
 C7512,C7513,C7515,C7517,C7519
 C7522,C7523,C7525,C7527,C7529
 C7531,C7533,C7535,C7537,C7538

CEAT470M25
 CKSRYF104Z16
 CKSRYF104Z16
 CKSRYF104Z16
 CKSRYF104Z16

C7540,C7542,C7544

CKSRYF104Z16

RESISTORS

R7502
 R7519

RS1MMF1R0J
 RS1MMF4R7J

OTHERS

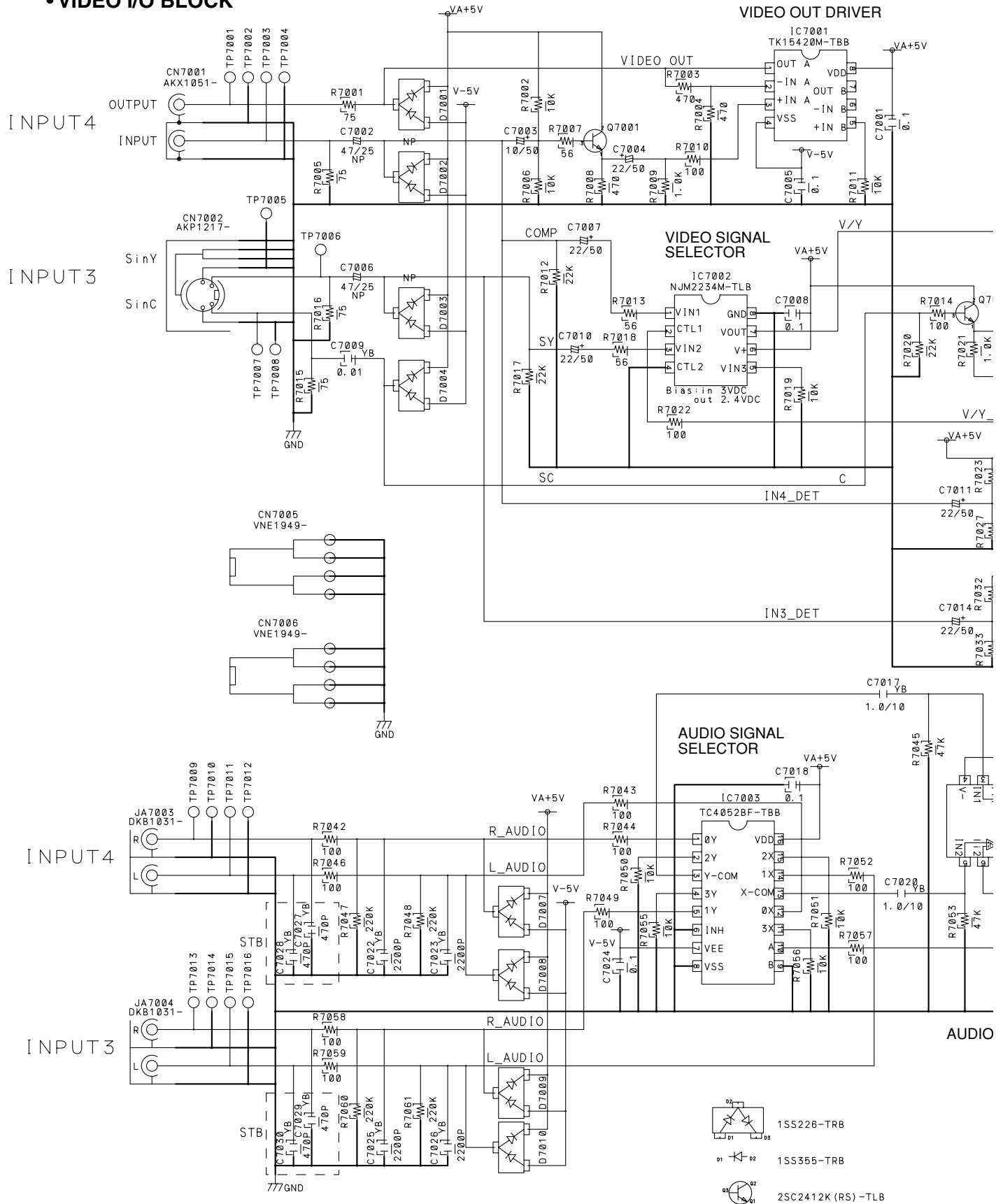
3004 SCREW
 NYRON RIVET
 PROTECTION SHEET
 HEXAGONAL HEAD SCREW
 SCREW

ABA1295
 AEP-211
 AMR3282
 BBA1051
 BPZ30P080FZK

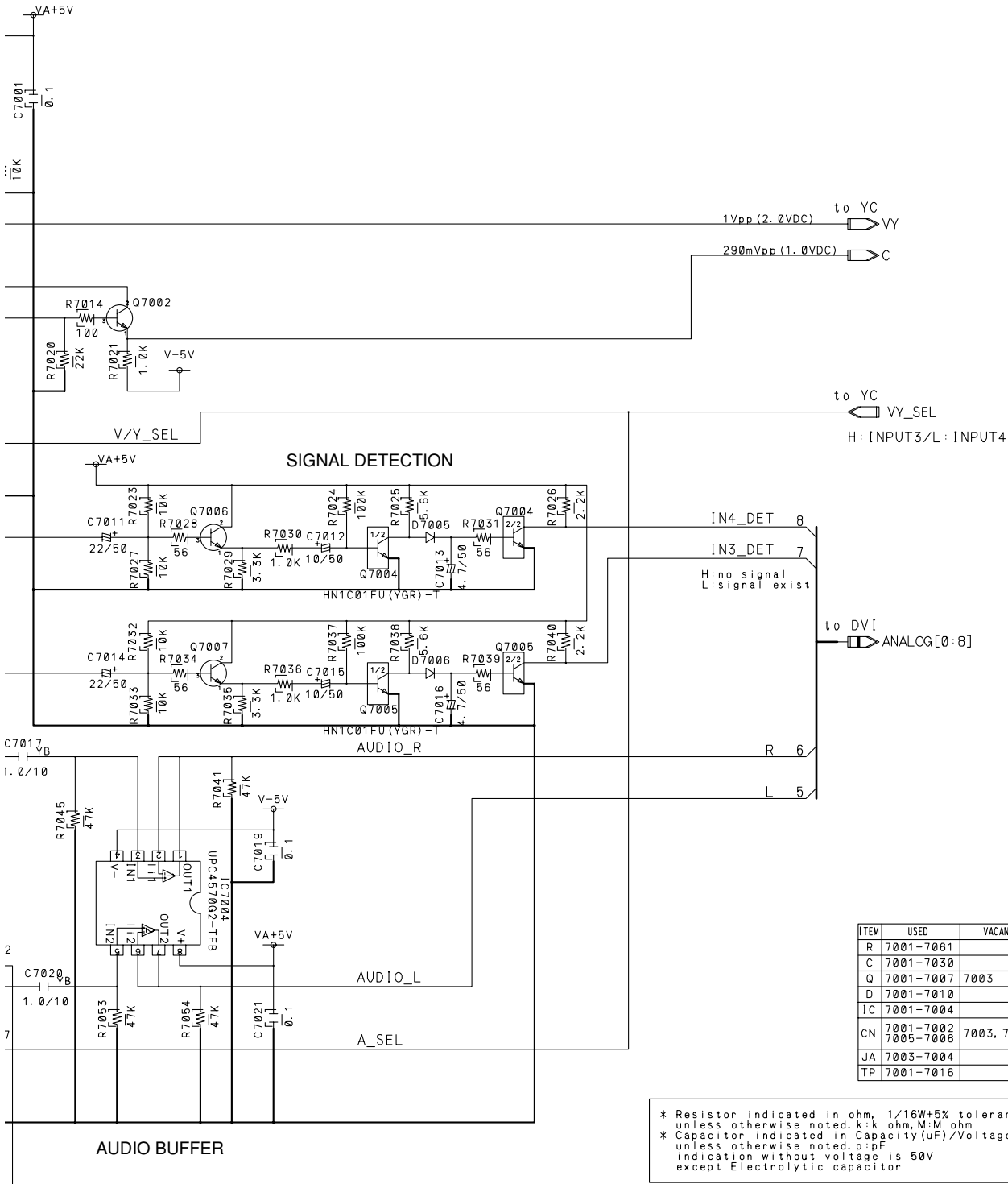
2. SCHEMATIC DIAGRAM

2.1 VIDEO SLOT US ASSY(1/6)

• VIDEO I/O BLOCK



IR



ITEM	USED	VACANT
R	7001-7061	
C	7001-7030	
Q	7001-7007	7003
D	7001-7010	
IC	7001-7004	
CN	7001-7002 7005-7006	7003, 7004
JA	7003-7004	
TP	7001-7016	

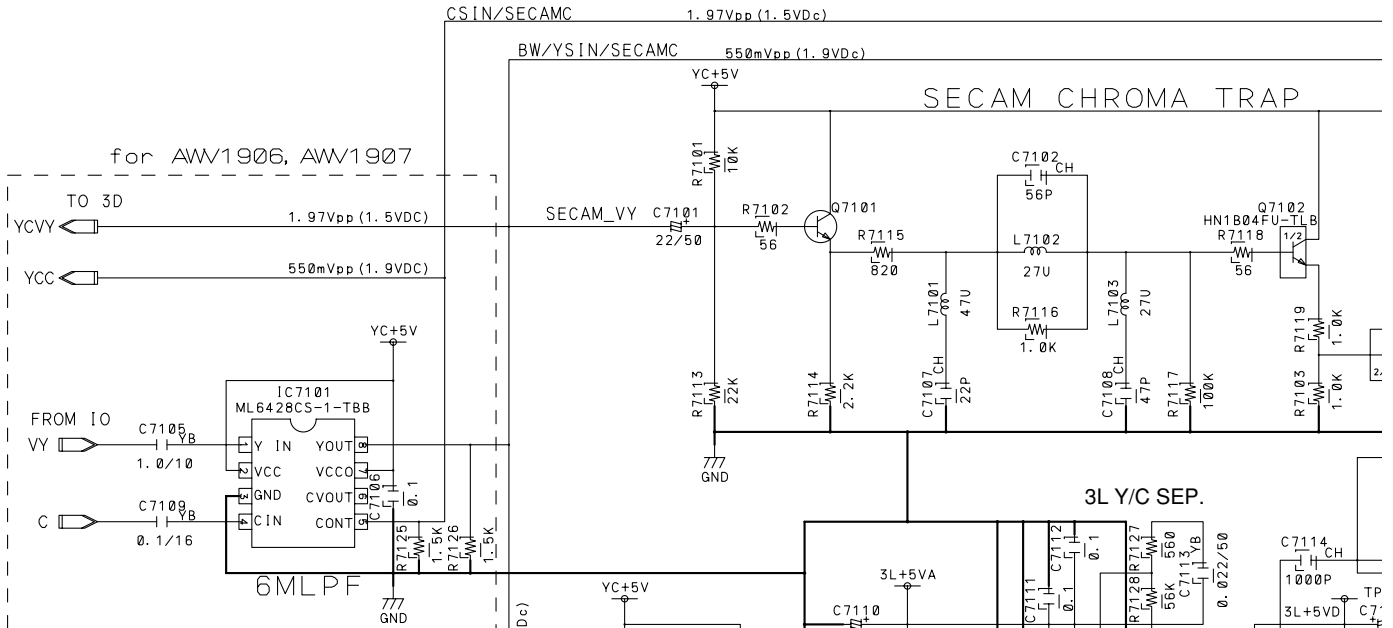
* Resistor indicated in ohm, 1/16W+5% tolerance unless otherwise noted. k:k ohm, M:M ohm
 * Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted. p:pF indication without voltage is 50V except Electrolytic capacitor

TLB

2.2 VIDEO SLOT US ASSY(2/6)

•Y/C SEPA BLOCK

A



B

C

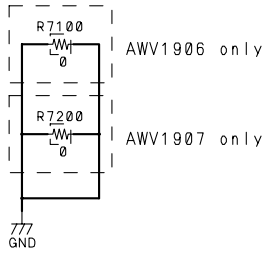
3L IC Y/C SEP MODE

	MOD1	MOD2
3LINE	L	L
BPF	L	H
Through	H	H

3L IC COLOR SYSTEM MODE

	NP	MN
NTSC	L	L
PAL	H	L
PAL M	L	H
PAL N	H	H

D



E

No marked parts for AWW1906

ITEM	USED	VACANT
R	7101-7186	
	7100, 7200	
C	7101-7135	
Q	7101-7110	
D	7101-7103	
IC	7101-7105	
L	7101-7105	
K	7101-7103	
TP	7101-7112	

2SA1037K (RS) -TLB

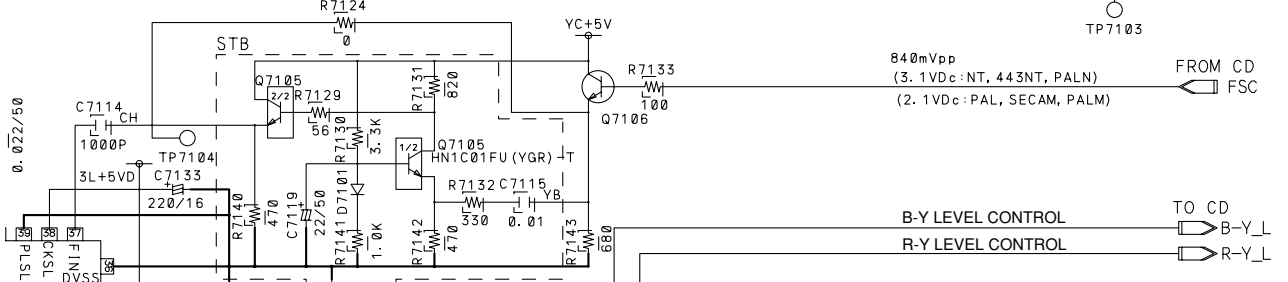
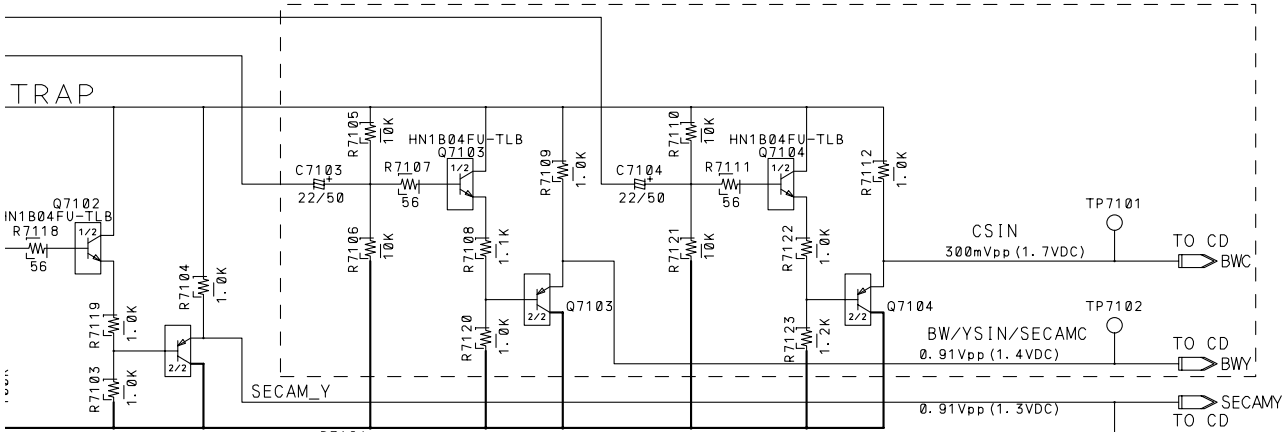
1SS355-TRB

2SC2412K (RS) -TLB

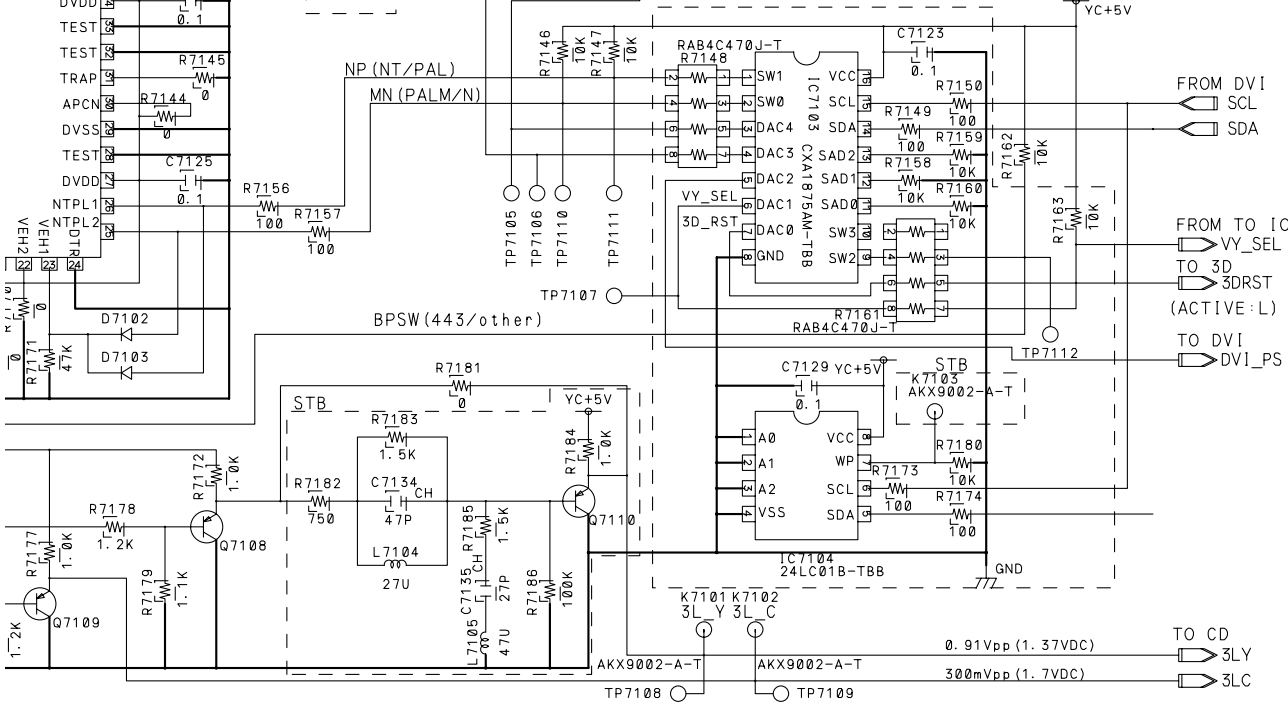
* Resistor indicated in ohm, 1/16W+5% tolerance unless otherwise noted. k:k ohm, M:M ohm
 * Capacitor indicated in Capacity (uF)/Voltage (V) unless otherwise noted. p:pF indication without voltage is 50V except Electrolytic capacitor

F

for AWW1906, AWW1907



for AWW1906, AWW1907



(V)

2.3 VIDEO SLOT US ASSY(3/6)

• 3D Y/C BLOCK

A

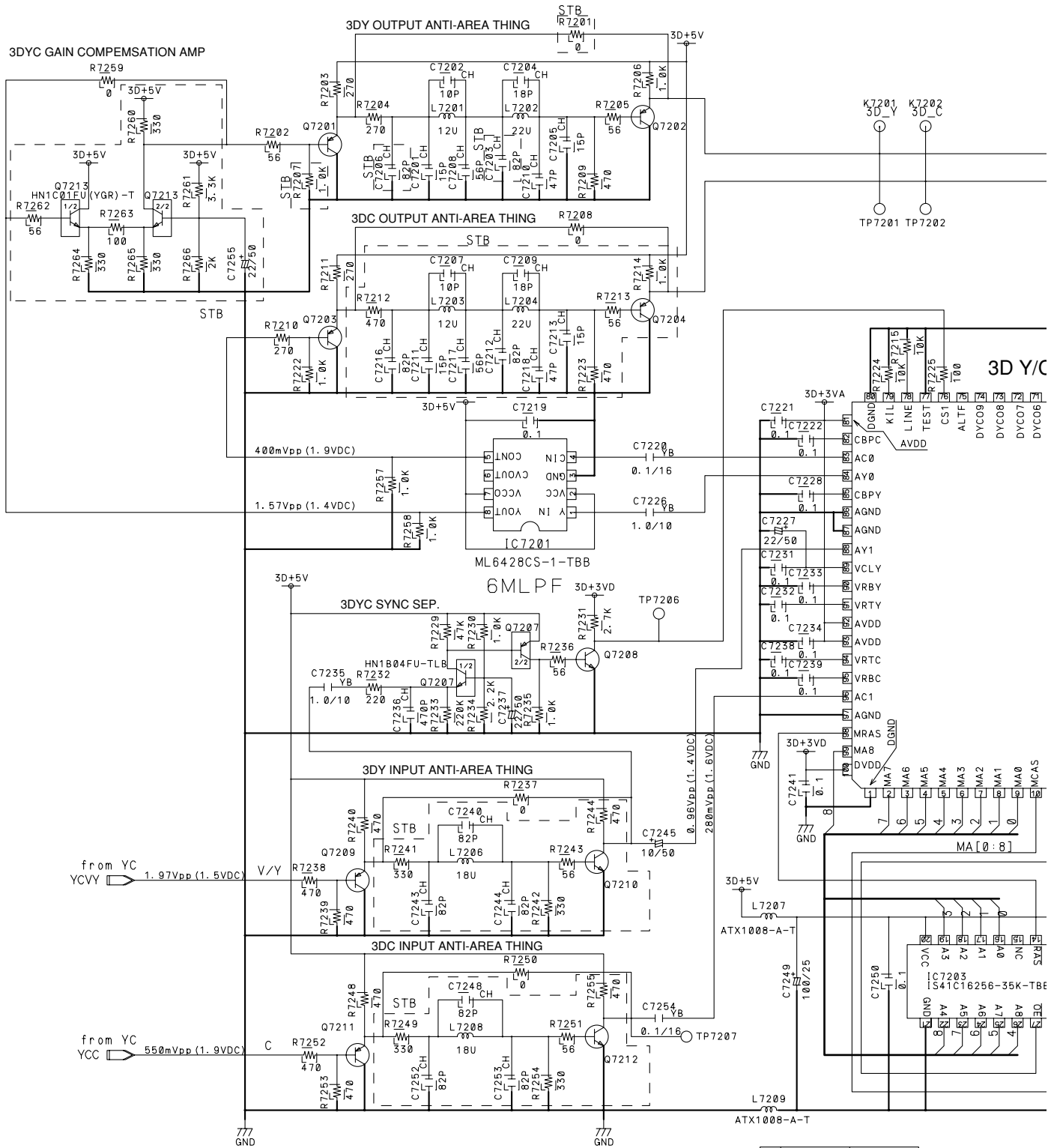
B

C

D

E

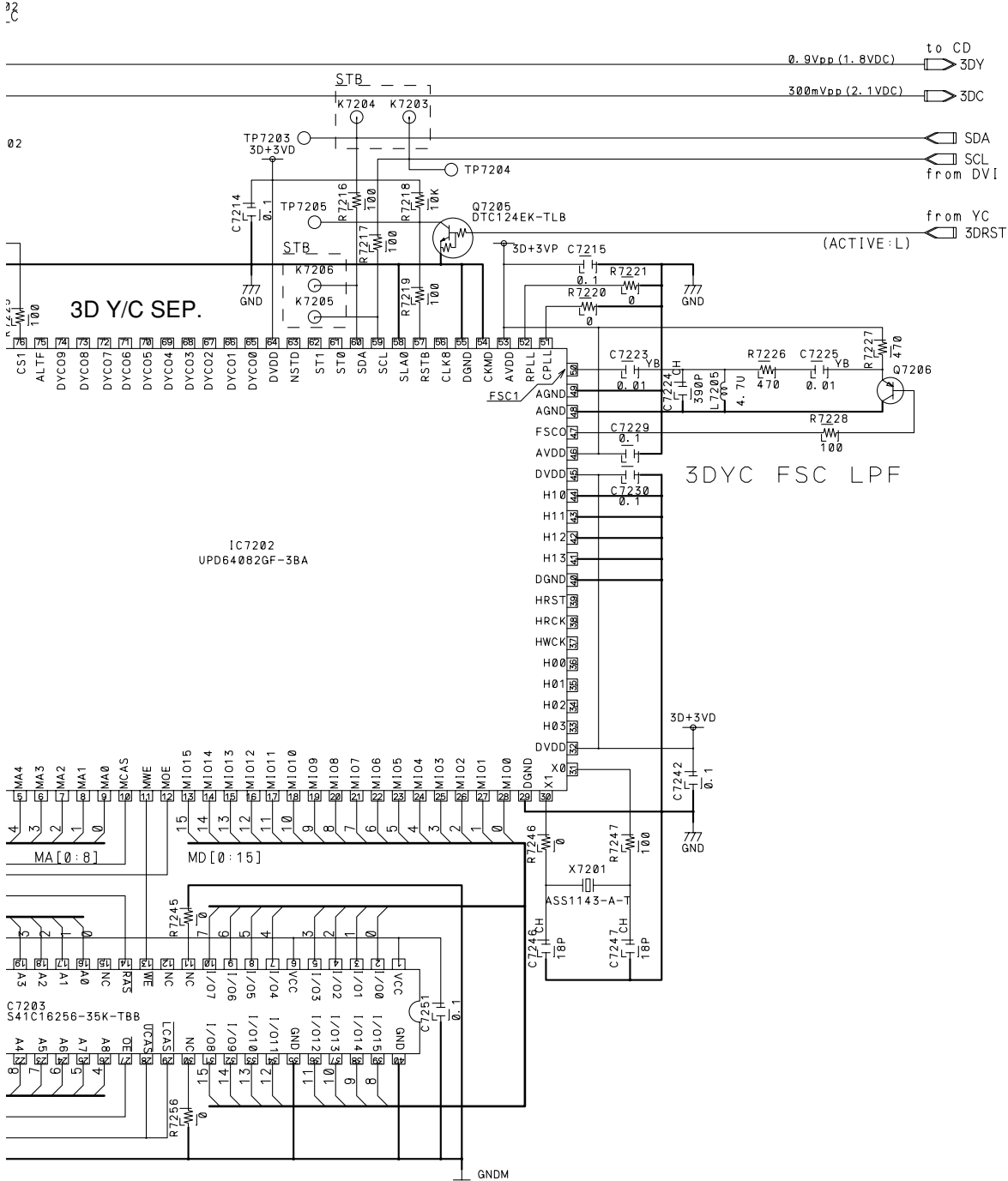
F



* Resistor indicated in ohm, 1/16W±5% tolerance unless otherwise noted. k=k Ohm, M=M Ohm
 * Capacitor indicated in Capacity (uF)/Voltage (V) unless otherwise noted. p=pF indication without voltage is 50V except Electrolytic capacitor

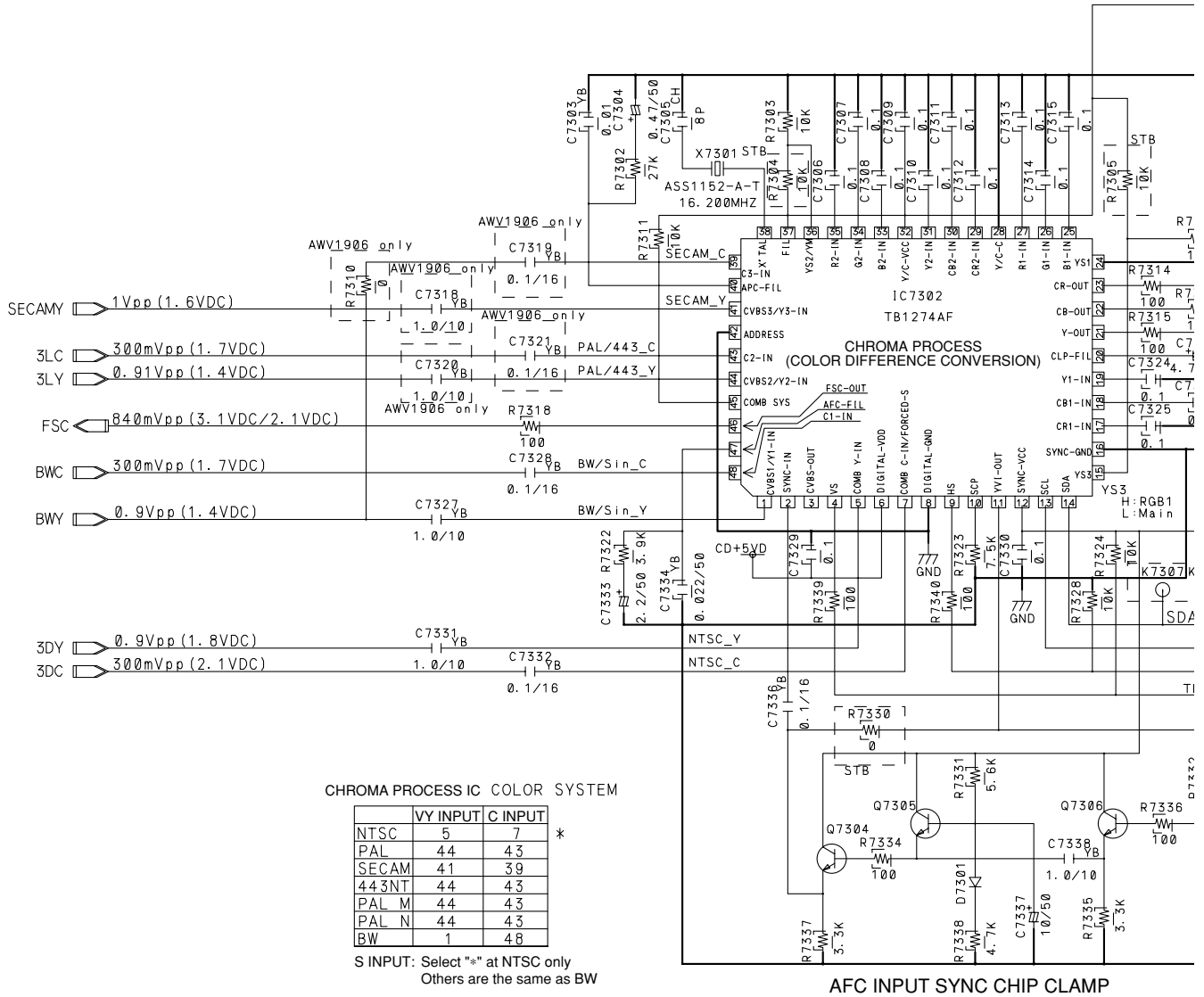
- 25A1037K (RS) -TLB
- 25C2412K (RS) -TLB
- AKX9002-A-T

ITEM	USED	VACANT
R	7201-7266	
C	7201-7255	
Q	7201-7213	
X	7201	
IC	7201-7203	
L	7201-7209	
K	7201-7206	
TP	7201-7207	



2.4 VIDEO SLOT US ASSY(4/6)

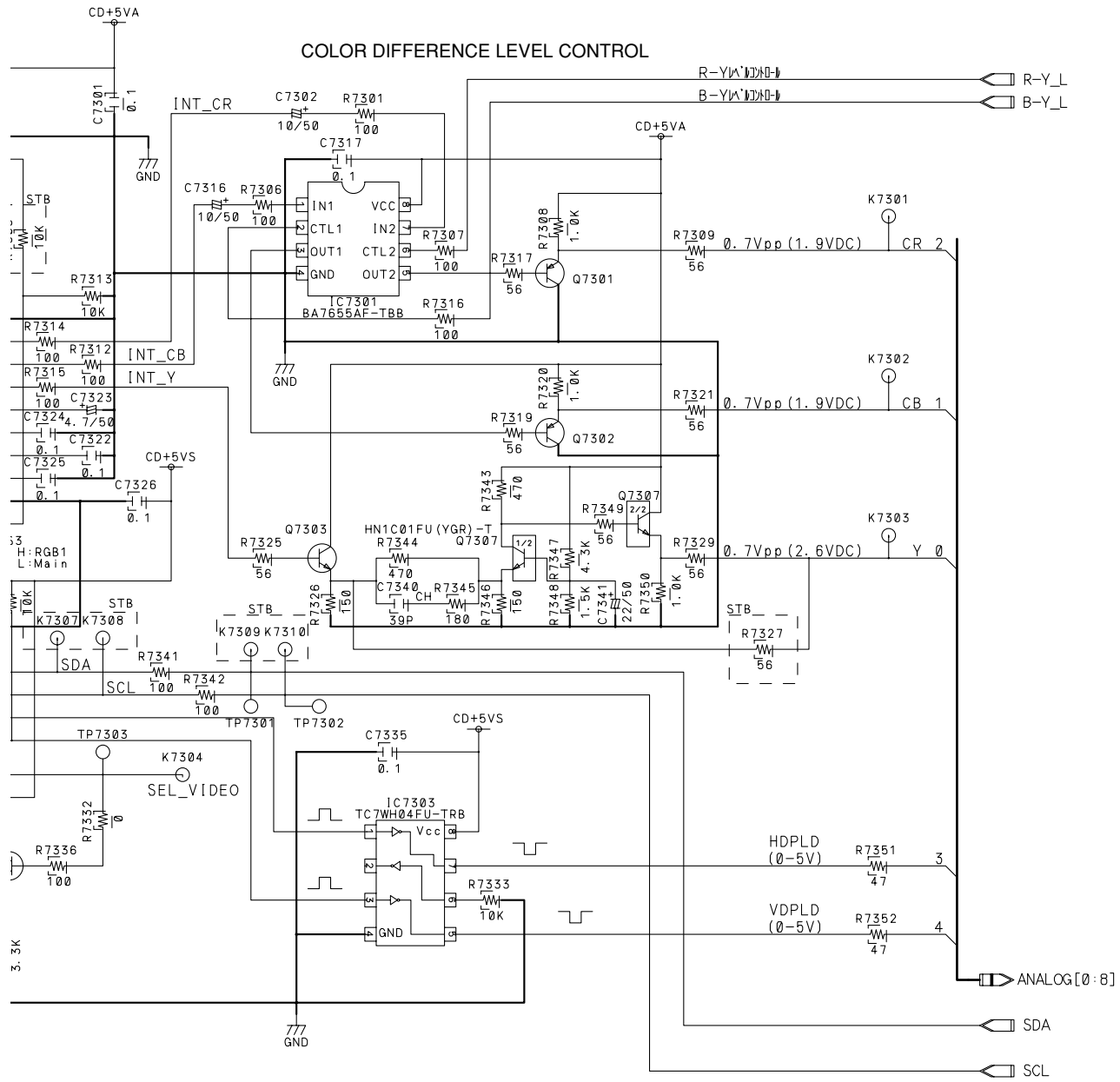
• CHROMA DECODE BLOCK



* Resistor indicated in ohm, 1/16W+5% tolerance unless otherwise noted. k:k ohm, M:M ohm
* Capacitor indicated in Capacity (uF)/Voltage (V) unless otherwise noted. p:PF indication without voltage is 50V except Electrolytic capacitor

ITEM	USED	VACANT
R	7301-7352	
C	7301-7341	7339
Q	7301-7307	
D	7301	
1C	7301-7303	
X	7301	
K	7301-7310	7305, 7306
TP	7301-7303	

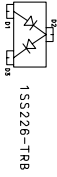
- 2SA1037K (RS) -TLB
- AKX9002-A-T
- 2SC2412K (RS) -TLB
- 1SS355-TRB



2.5 VIDEO SLOT US ASSY(5/6)

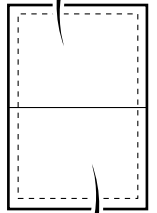
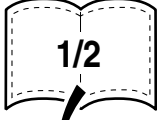
• DVI BLOCK

- 01:DATA2- 02:DATA2+ 03:SHI 2/4 04:DATA4- 05:DATA4+ 06:DDC SC
- 09:DATA1- 10:DATA1+ 11:SHI 1/3 12:DATA3- 13:DATA3+ 14:+5V
- 17:DATA0- 18:DATA0+ 19:SHI 0/5 20:DATA5- 21:DATA5+ 22:SHI CL



No marked parts for AWW1906

Large size SCH diagram



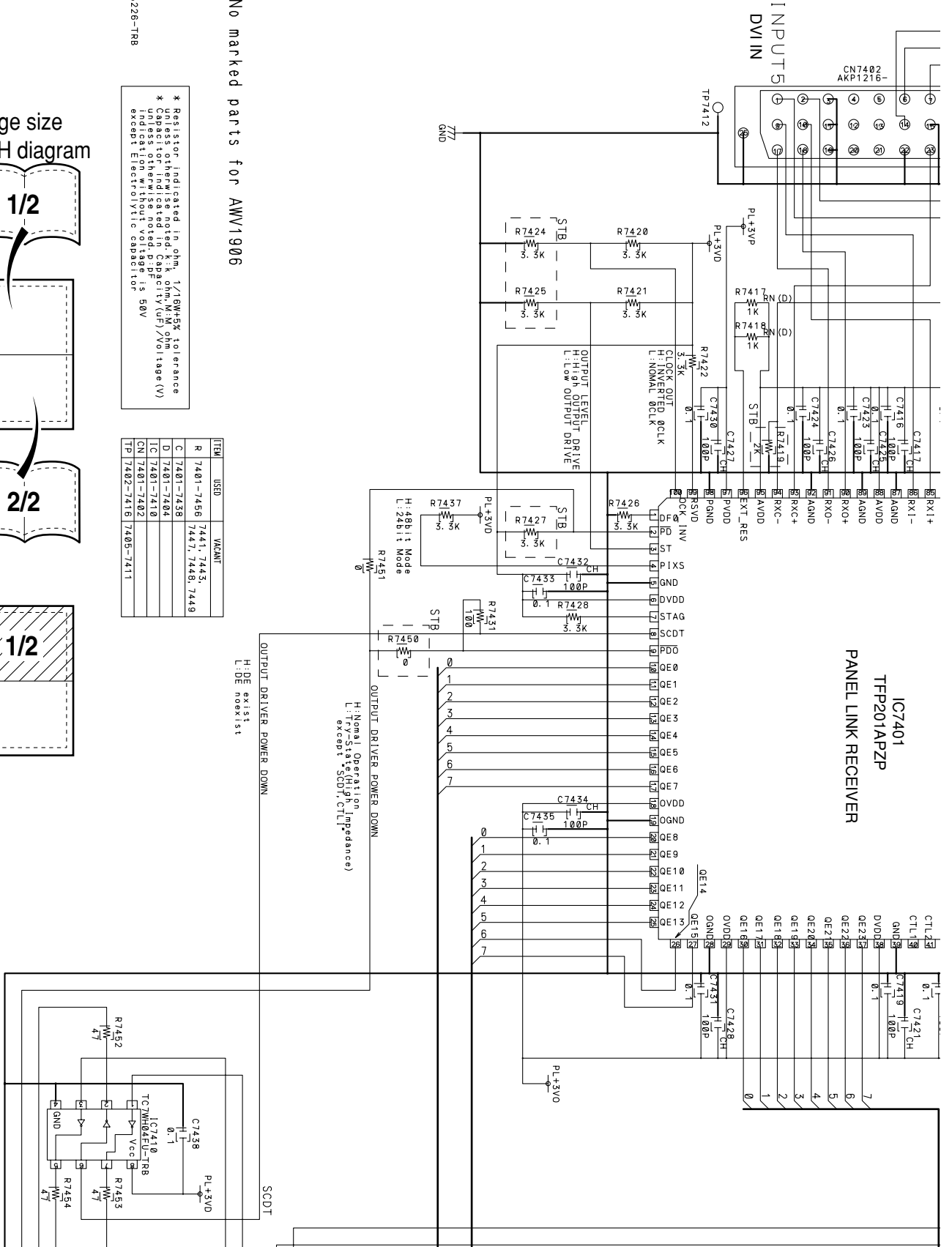
* Resistor indicated in ohm, 1/10W±% tolerance
 * Unless otherwise noted: k:k ohm, M:10k ohm
 * Capacitor indicated in Capacity(uF)/Voltage(V)
 Indicated in ohm without voltage is 50V
 except Electrolytic capacitor

ITEM	USED	VACANT
R	7401-7456 7441, 7443, 7449	
C	7401-7438	
D	7401-7404	
IC	7401-7410	
CN	7401-7402	
TP	7402-7410 7405-7411	

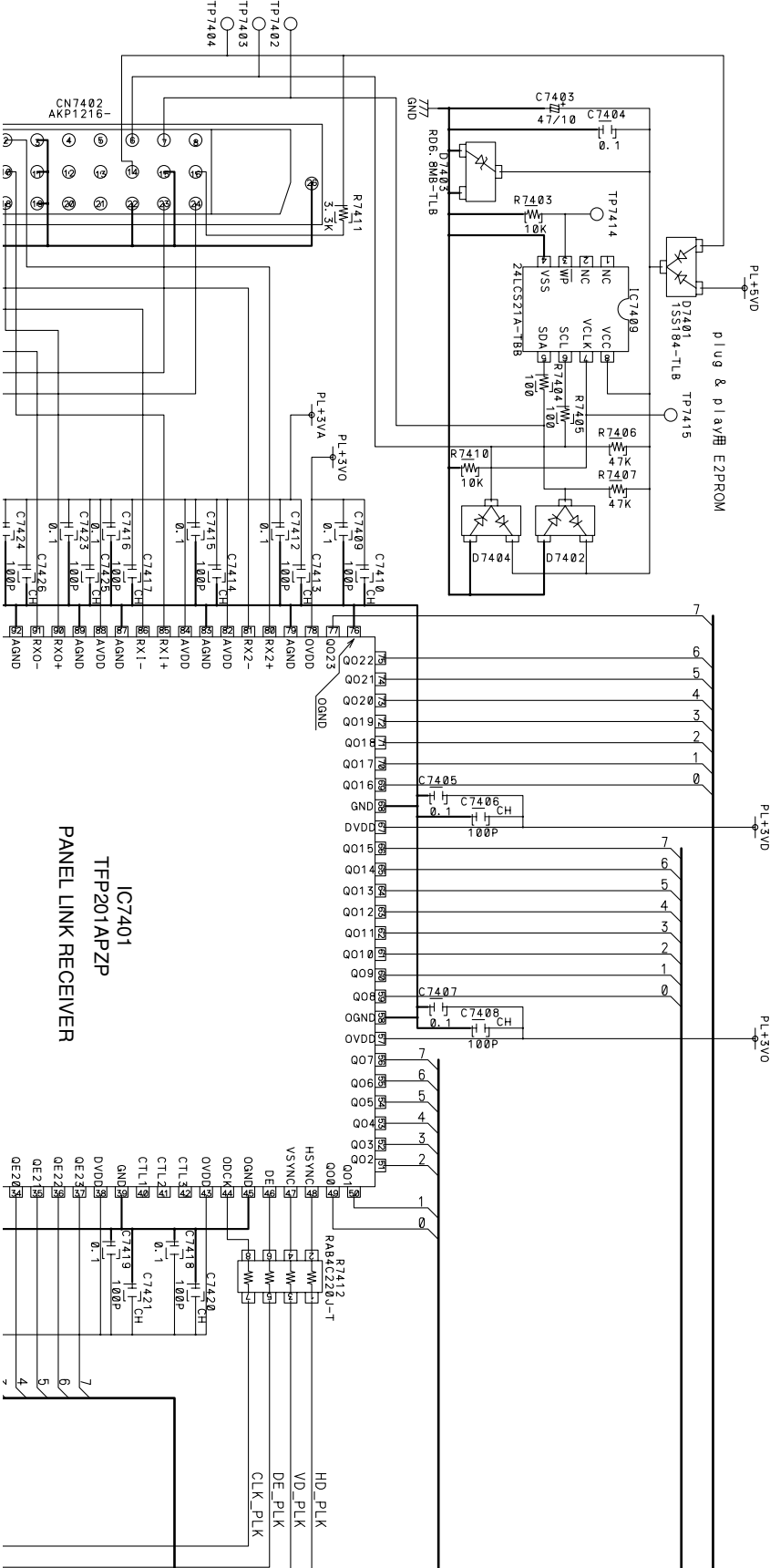
H:DE exist
 L:DE noexist

OUTPUT DRIVER POWER DOWN

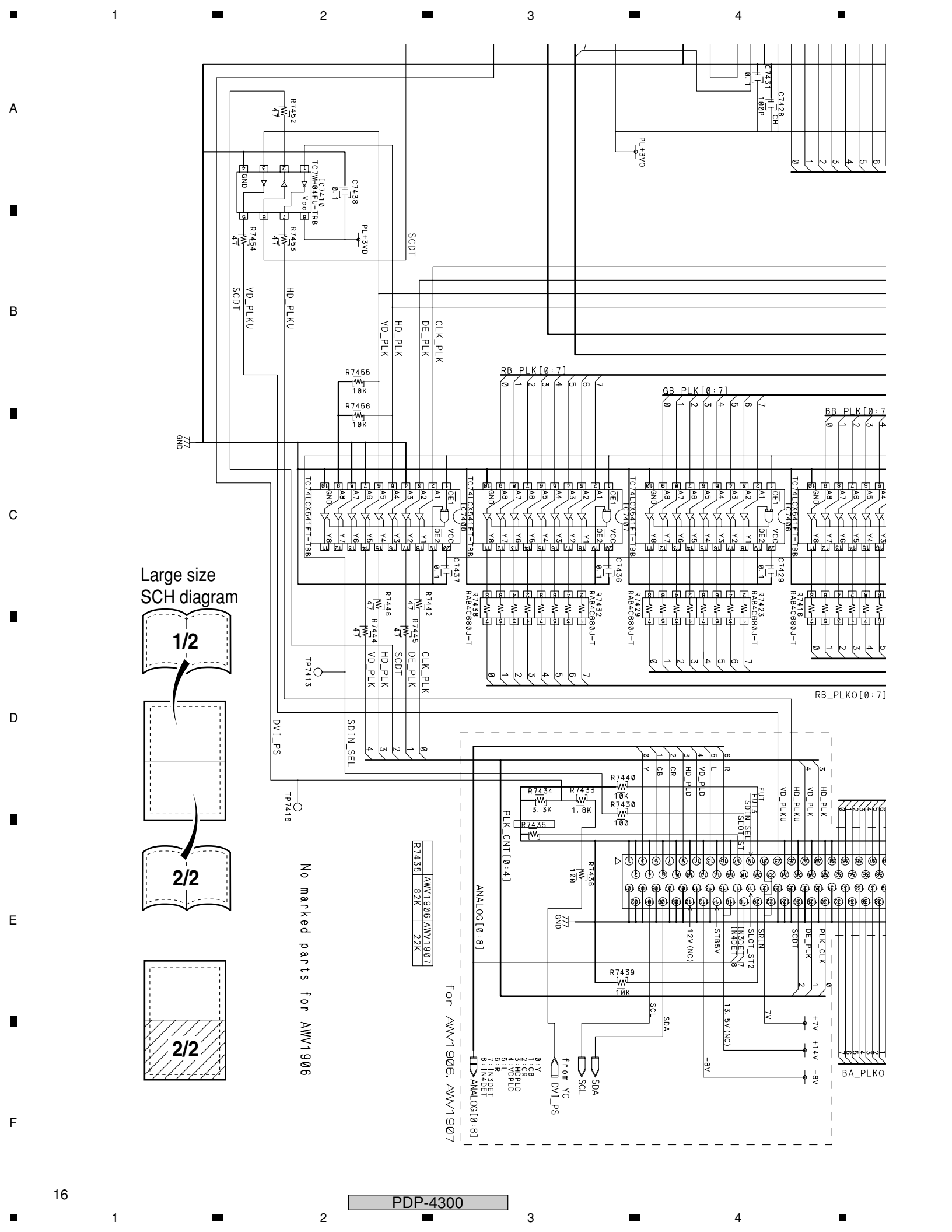
H:Normal Operation
 L:Try-State(High Impedance)
 except SC01, C111

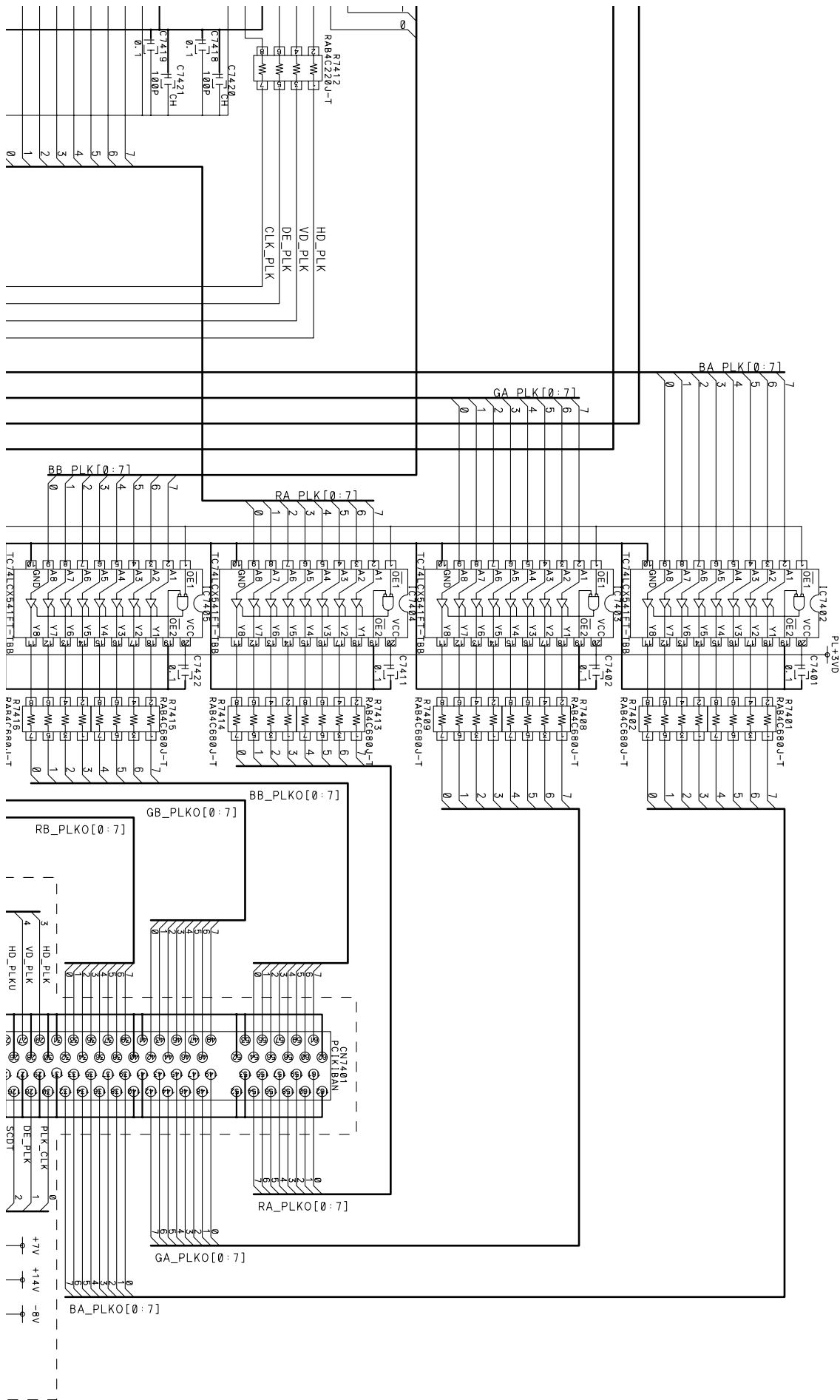


: DATA4+ 06: DDC SCL 07: DDC SDA 08: VD
 : DATA3+ 14: +5V 15: GND 16: HPD
 : DATA5+ 22: SHI CLK 23: CLK+ 24: CLK-



A
B
C
D
E
F





2.6 VIDEO SLOT US ASSY(6/6)

•VIDEO RGB BLOCK

A

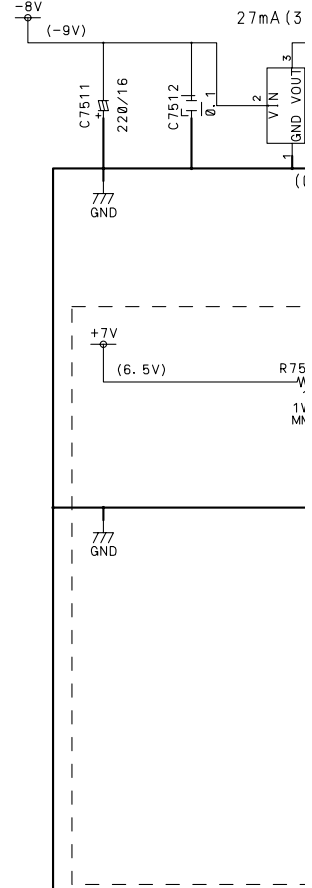
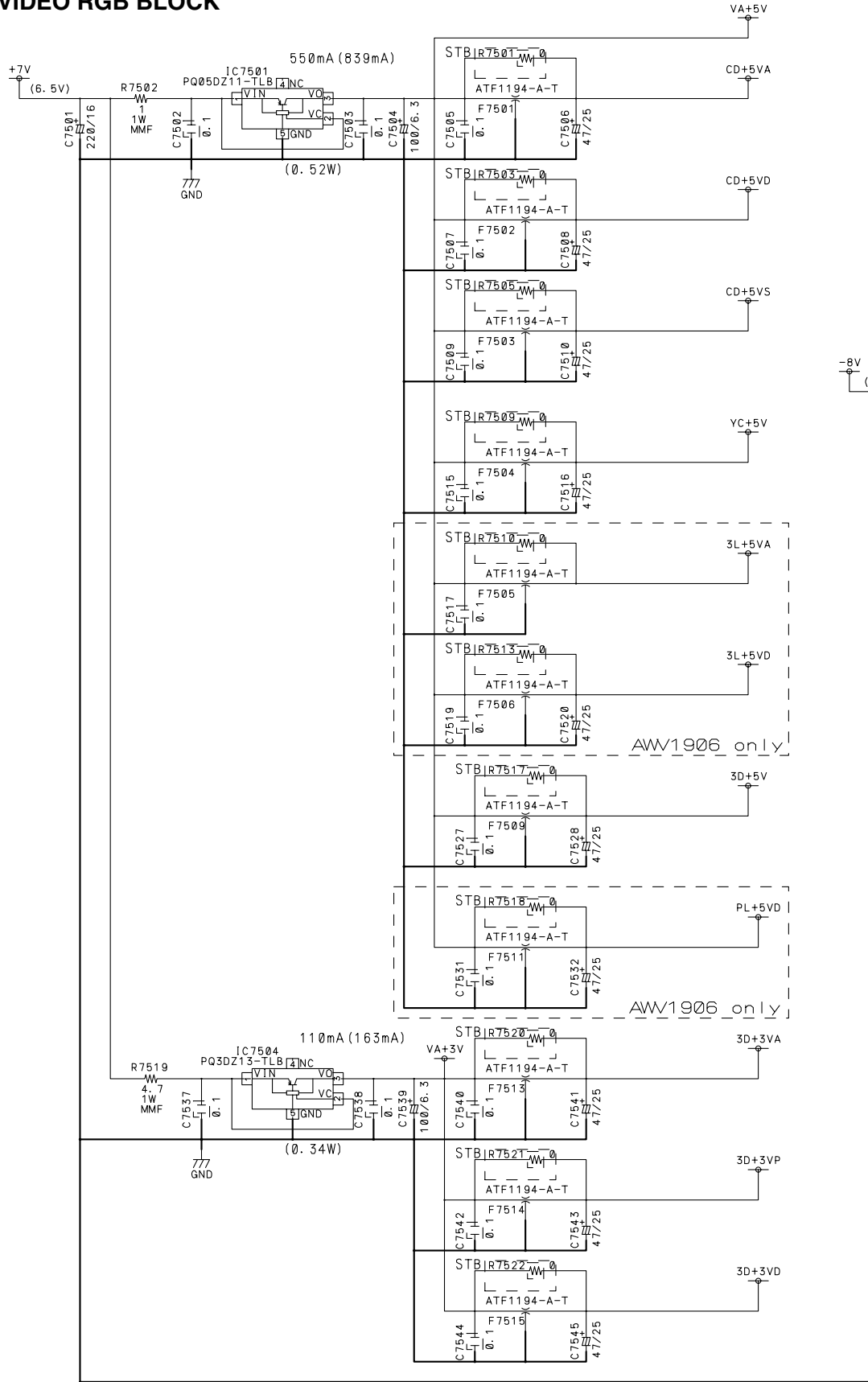
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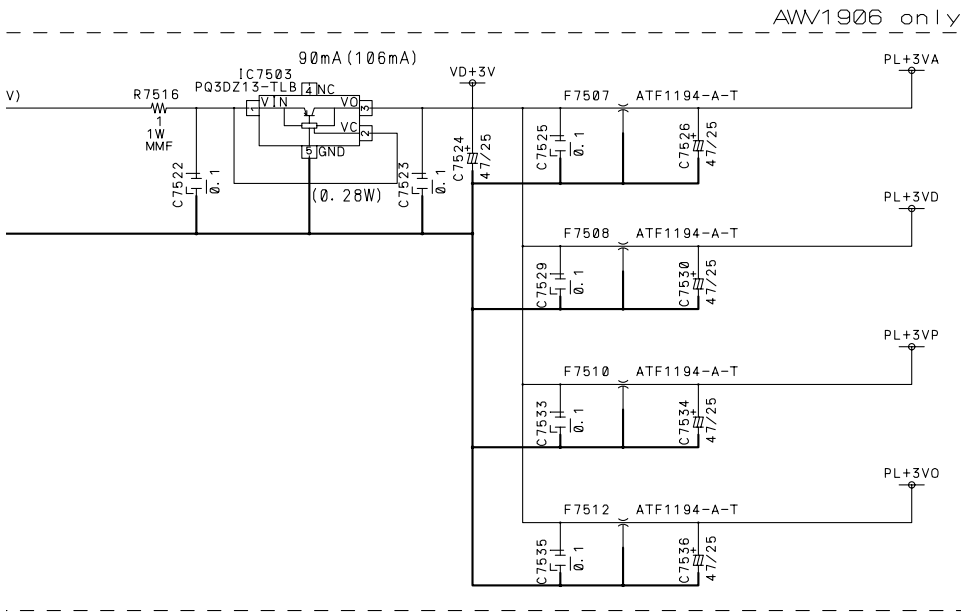
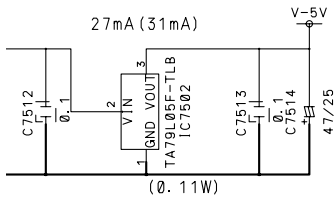
C

D

E

F





* Resistor indicated in ohm, 1/16W±5% tolerance unless otherwise noted. k=k ohm, M=M ohm
 * Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted. p=pF indication without voltage is 50V except Electrolytic capacitor

ITEM	USED	VACANT
R	7501-7522	7504, 7506-7508 7511, 7512, 7514, 7515
C	7501-7545	7518, 7521
IC	7501-7504	
F	7501-7515	

1 2 3 4

3. PCB CONNECTION DIAGRAM

3.1 VIDEO SLOT US ASSY

A

VIDEO SLOT US ASSY

SIDE A

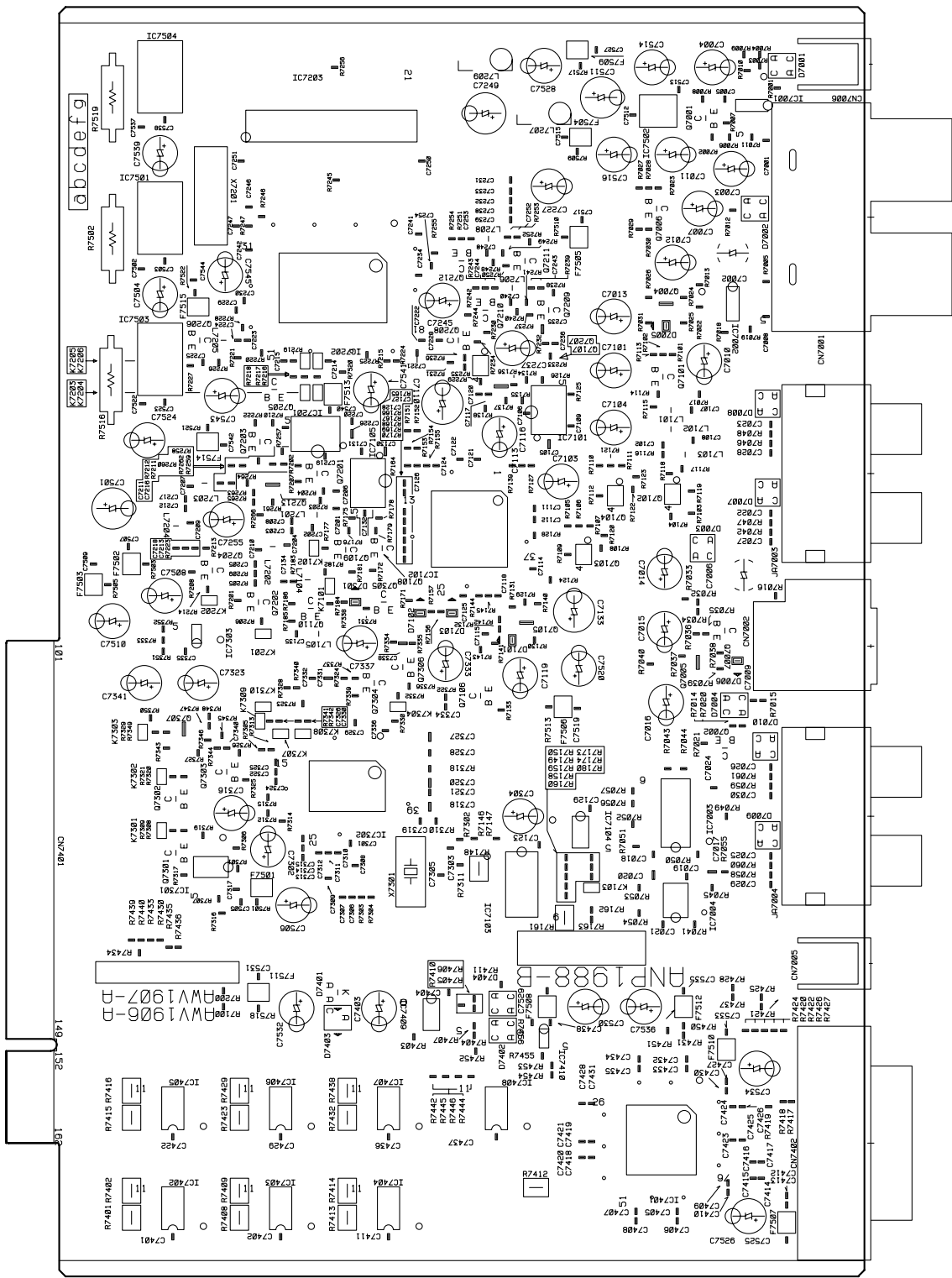
B

C

D

E

F



(ANP1988-B)

1 2 3 4