

BLOCK DIAGRAMS-1

AUDIO SECTION

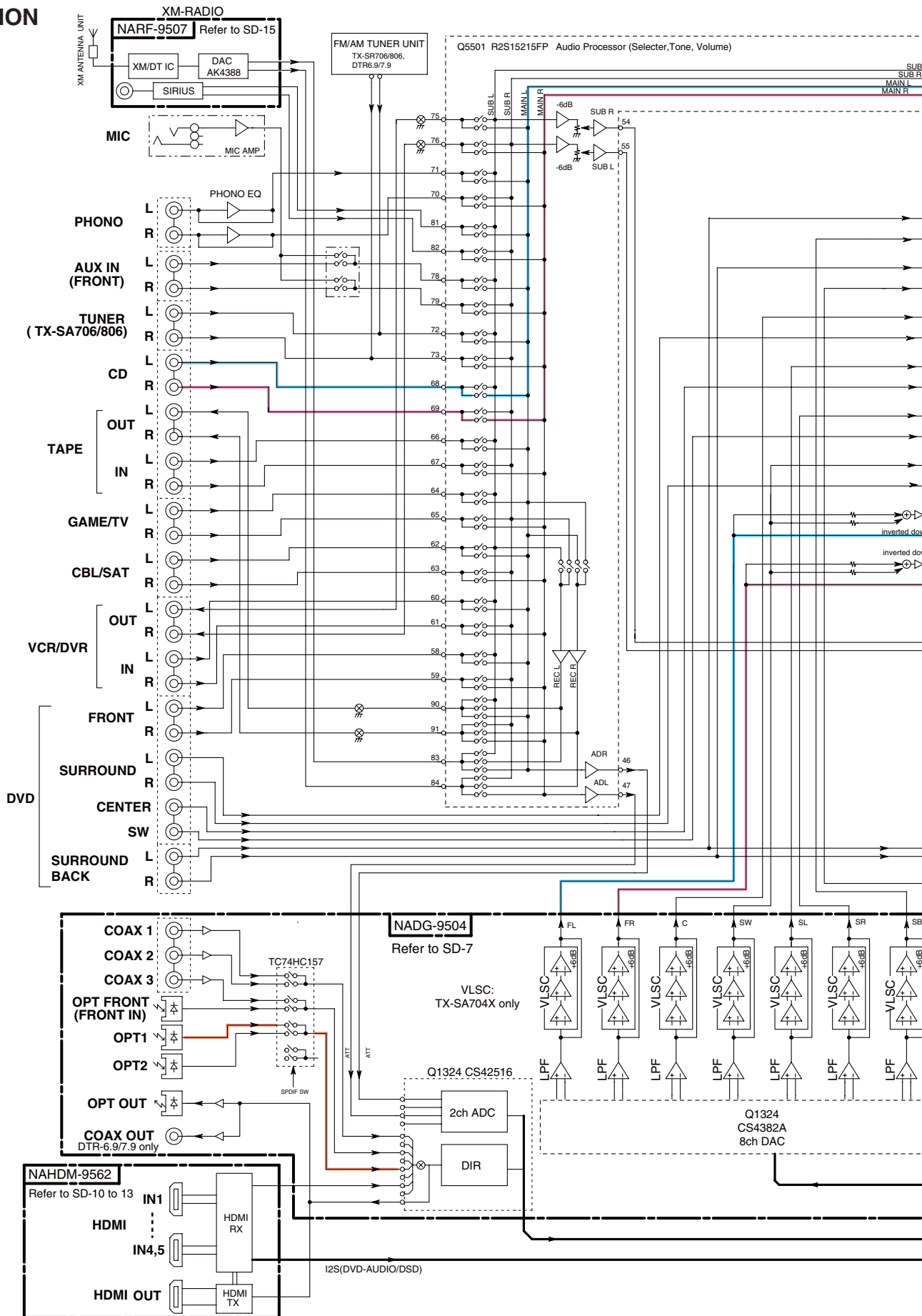
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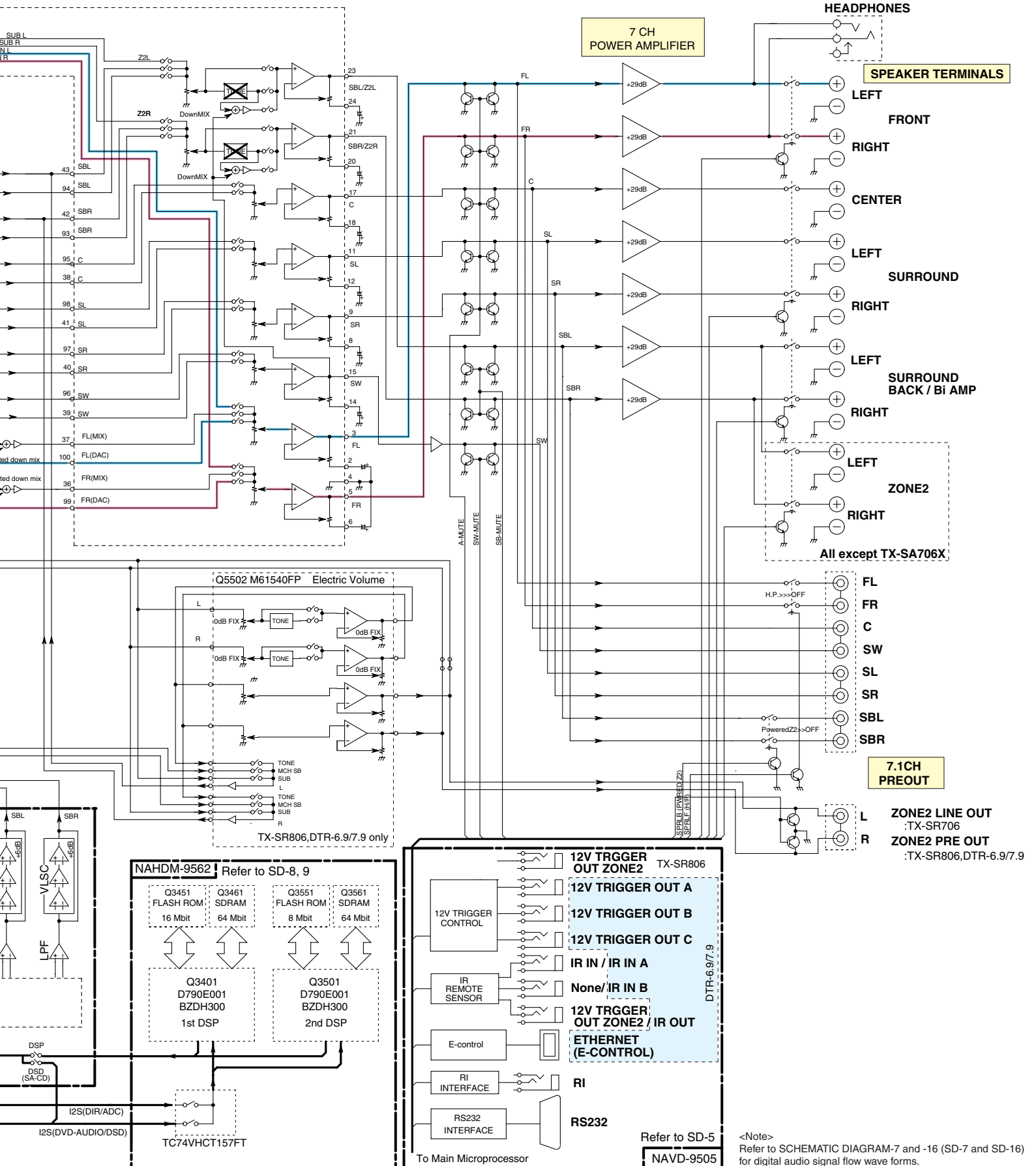
2

3

4

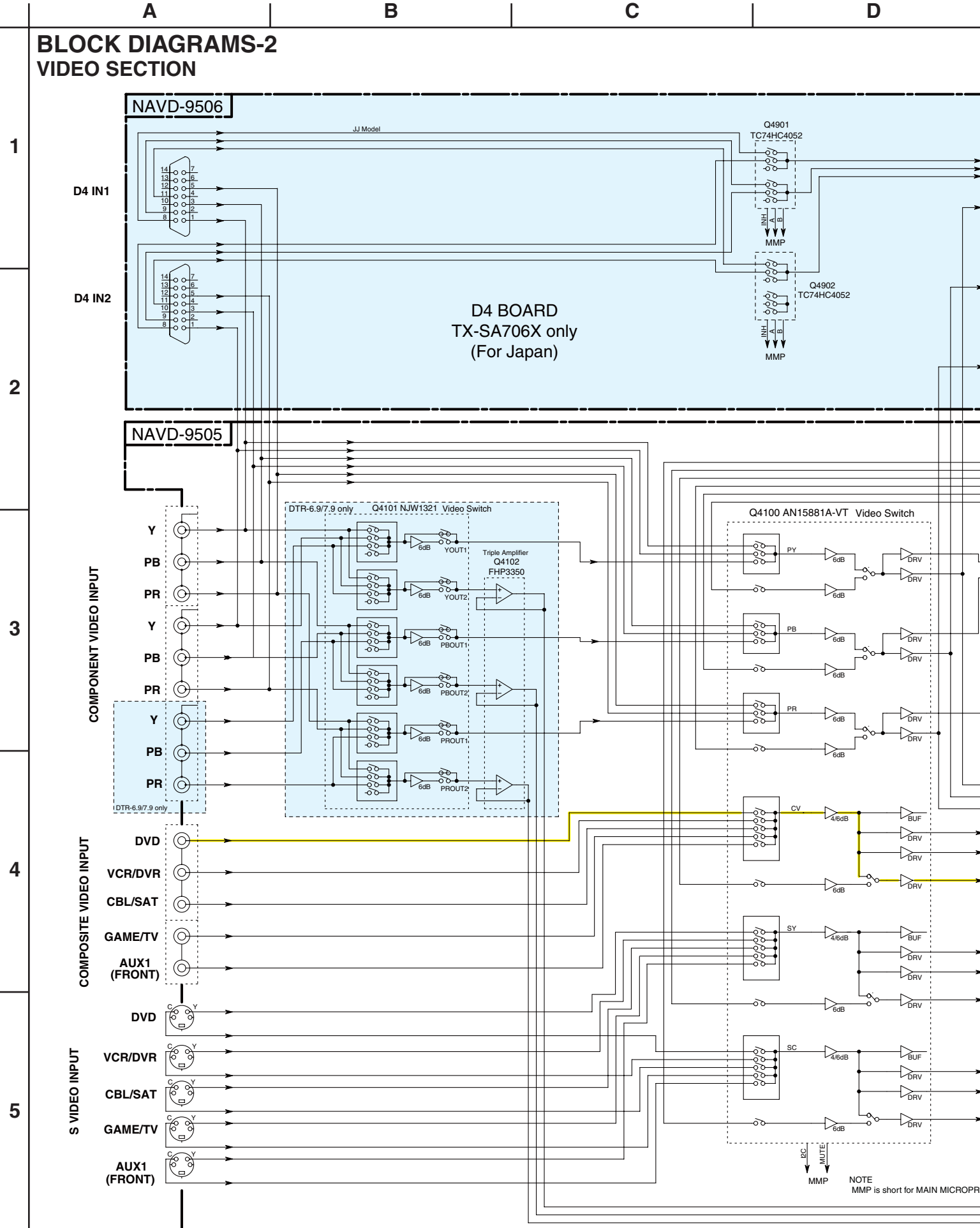
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<Note>
Refer to SCHEMATIC DIAGRAM-7 and -16 (SD-7 and SD-16) for digital audio signal flow wave forms.

BLOCK DIAGRAMS-2 VIDEO SECTION

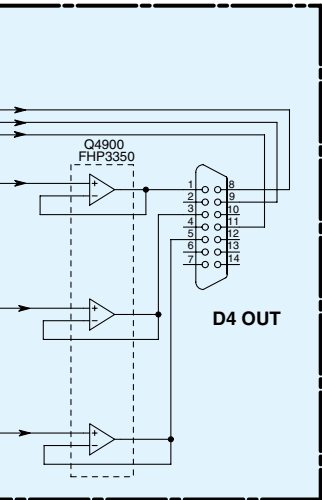


E

F

G

H

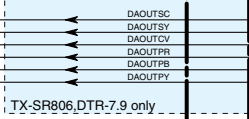


NAHDM-9562/NAHDM-9702

TX-SR706, TX-SA706: NAHDM-9562
TX-SR806, TX-SA806: NAHDM-9702

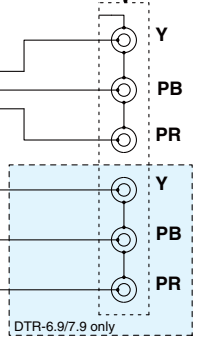
HDMI BOARD
Refer to BLOCK DIAGRAM-3
and SD-10 to SD-13

<Note>
Refer to SCHEMATIC DIAGRAM-5 and -16
(SD-5 and SD-16)
for analog video signal waveforms.

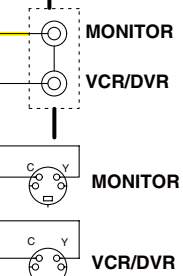


ADINPY
ADINPB
ADINPR
ADINCV
ADINSY
ADINSC

ANALOG VIDEO BOARD
Refer to SD-5 and SD-6



**COMPONENT
OUTPUT**



**COMPOSITE
VIDEO OUTPUT**

OPROCESSOR.

**BLOCK DIAGRAMS-3
HDMI SECTION**

1

NAHDM-9562/NAHDM-9702 Refer to SD-10 to 13

TX-SR706, TX-SA706: NAHDM-9562
TX-SR806, TX-SA806: NAHDM-9702

<Note>
Refer to SCHEMATIC DIAGRAM-10, -11 and -16
(SD-10, -11 and SD-16)
for HDMI signal waveforms.

TO NAVD-9505
VIDEO BOARD

2

HDMI INPUT MULTIPLEX

HDMI IN4

HDMI IN3

HDMI IN5

HDMI IN2

HDMI IN4

3

HDMI IN1

HDMI IN3

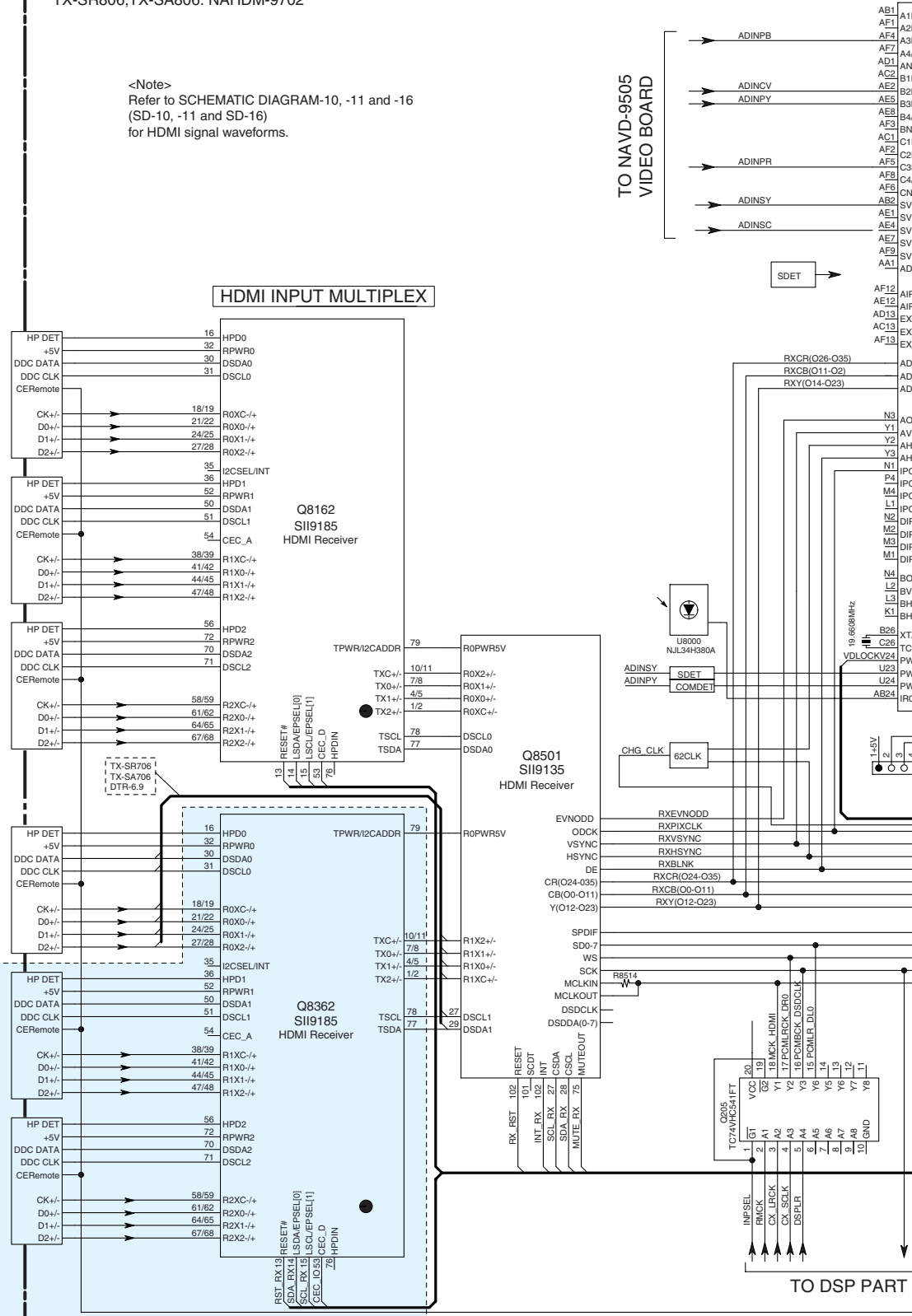
HDMI IN2

5

HDMI IN1

TX-SR706
TX-SA706
DTR-6.9

TX-SR806
TX-SA806
DTR-7.9
TX-SA706X



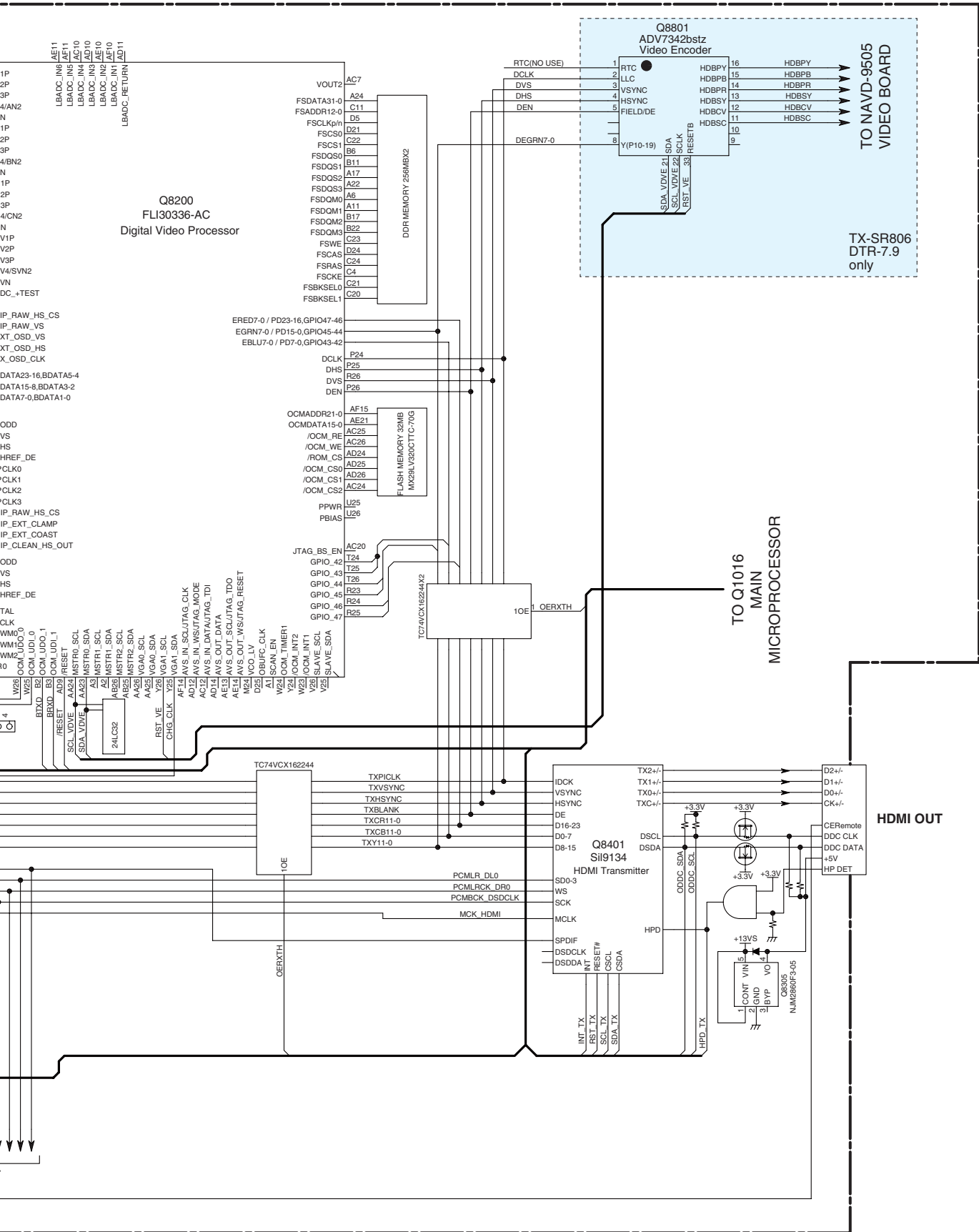
TO DSP PART

E

F

G

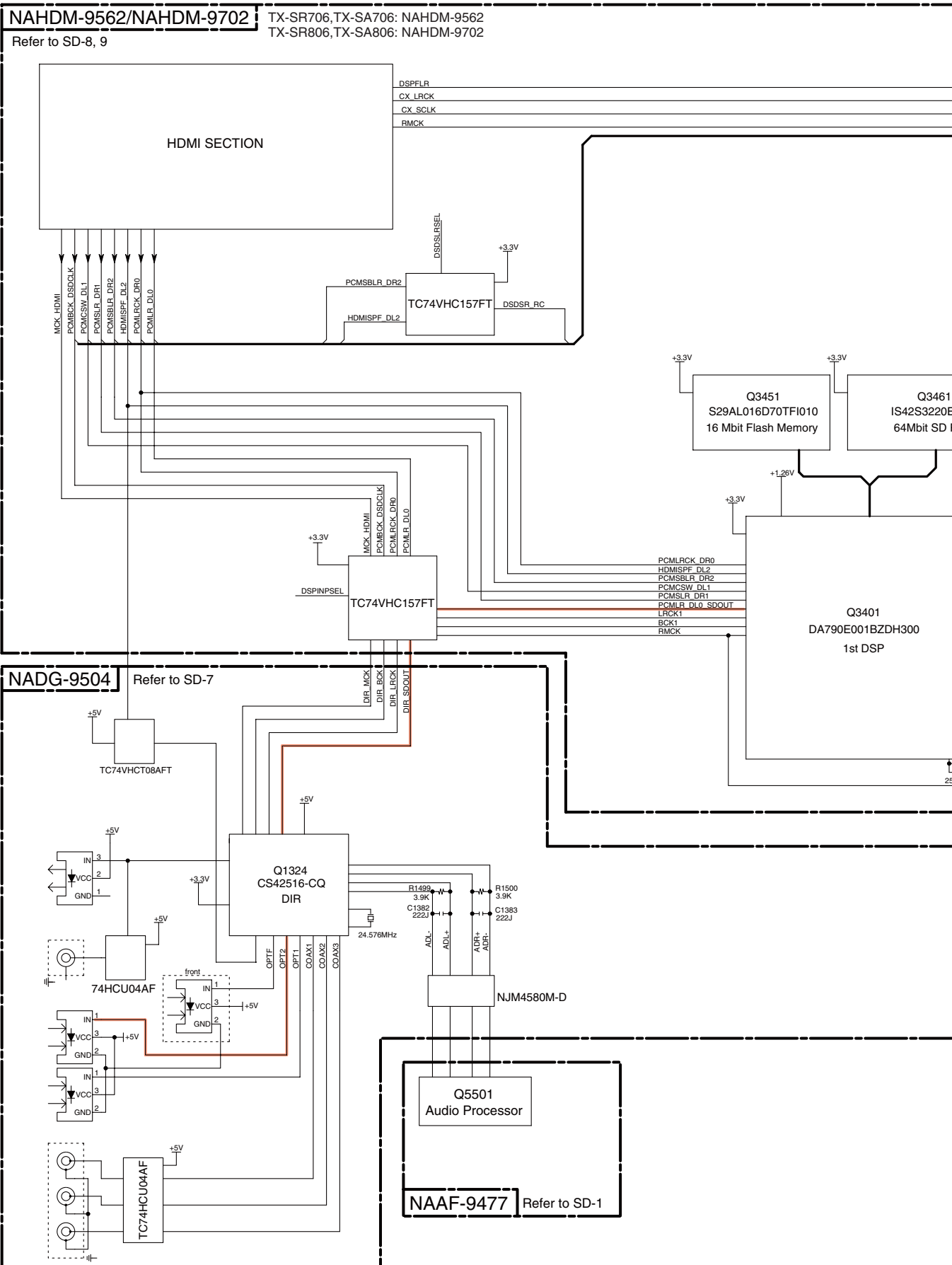
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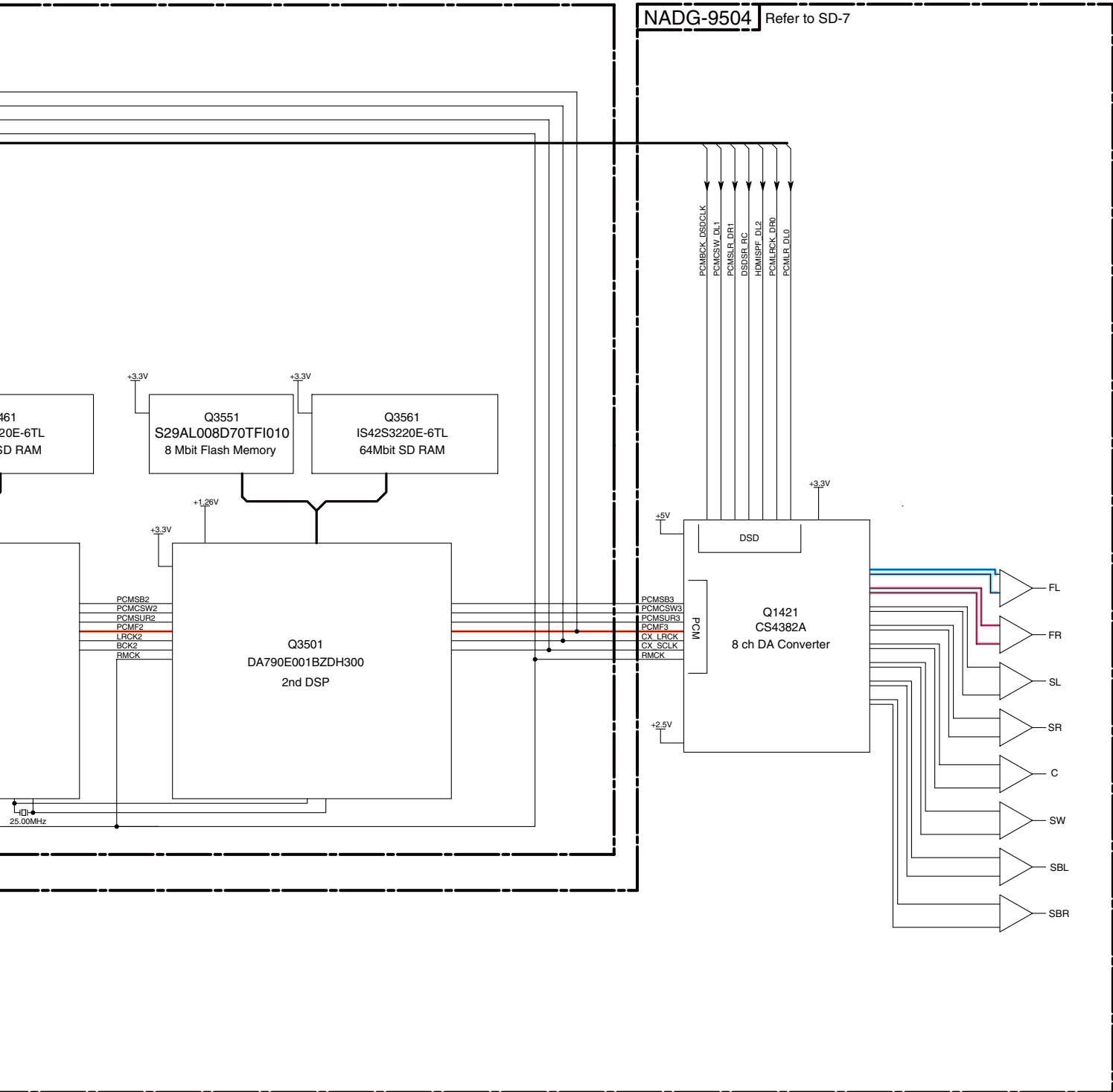


A B C D

BLOCK DIAGRAMS-4
DSP SECTION

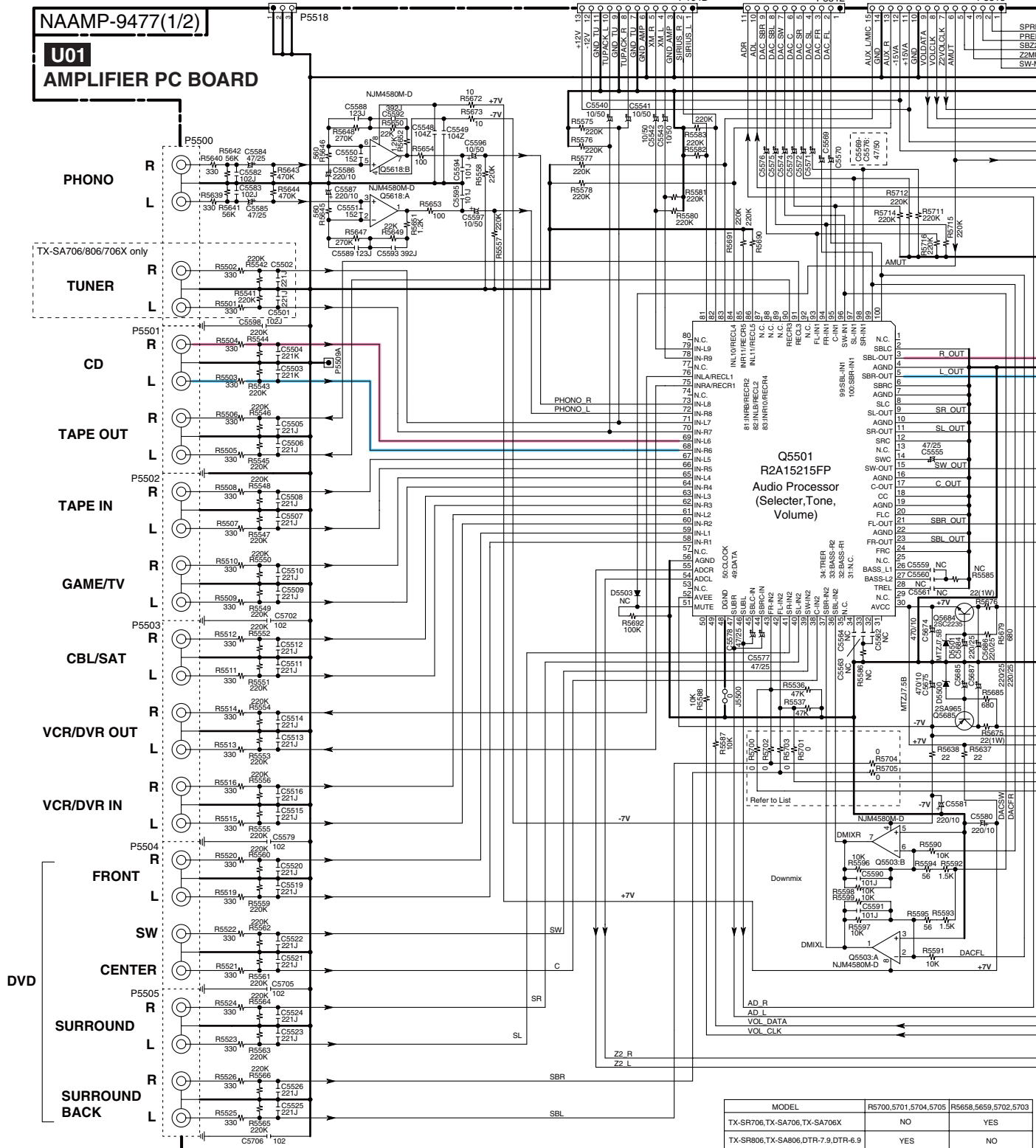
1
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<Note>
 Refer to SCHEMATIC DIAGRAM-7 and -16 (SD-7 and SD-16)
 for digital audio signal flow wave forms.

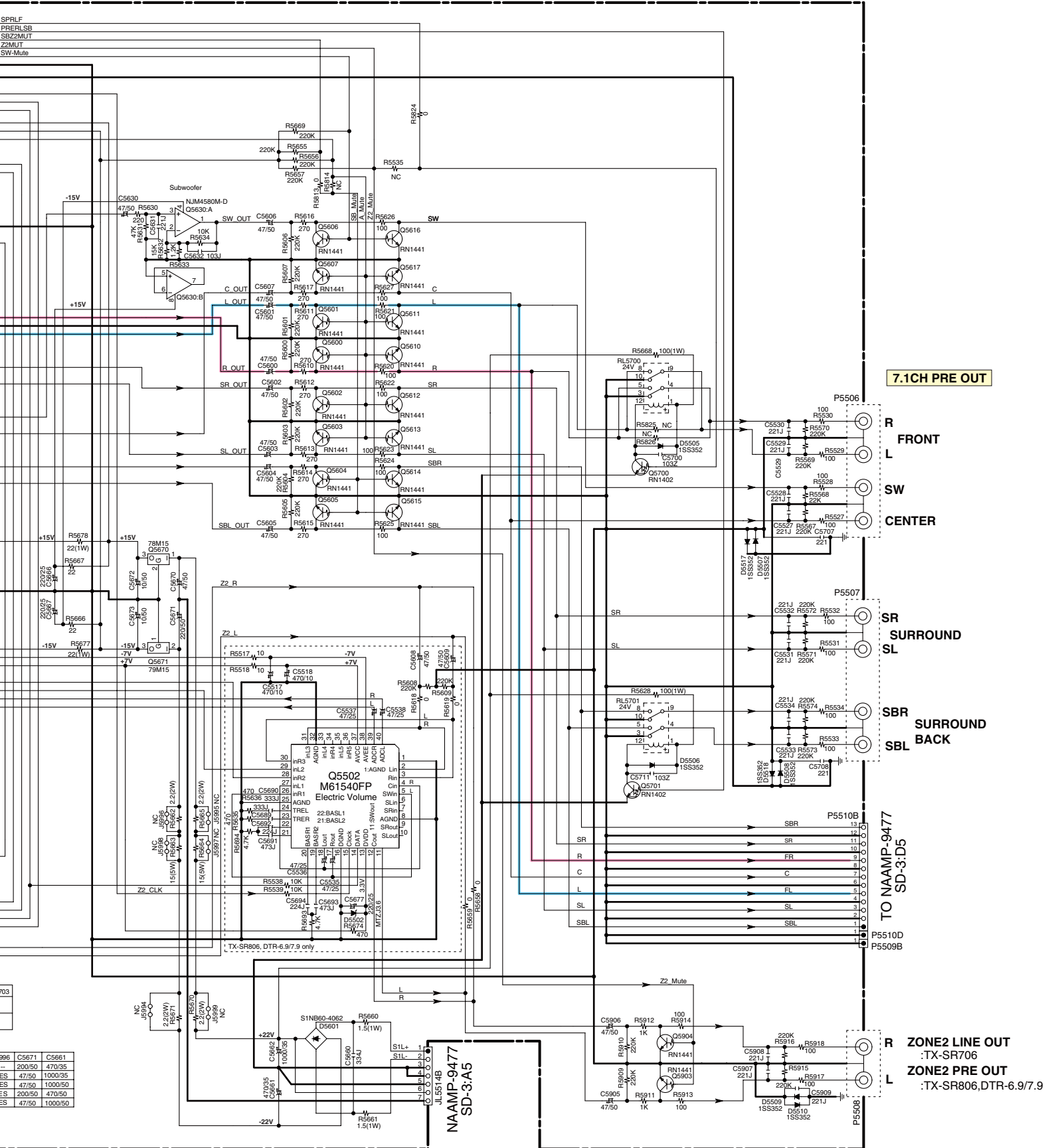
SCHEMATIC DIAGRAMS-1 (SD-1)
AUDIO SECTION



MODEL	DEST.	R5700	J5999	R5671	J5994	R5664	J5997	R5663	J5998	R5665	J5995	R5662	J5996
TX-SR706, DTR-6.9	ALL	2.2(2W)	---	2.2(2W)	---	2.2(2W)	---	2.2(2W)	---	2.2(2W)	---	2.2(2W)	---
TX-SA706X	MR	---	YES	15(2W)	---	---	YES	---	YES	15(2W)	---	---	YES
TX-SA706X	JJ	---	YES	2.2(2W)	---	---	---	5W-15	---	---	---	---	YES
TX-SR806, DTR-7.9	ALL	---	YES	---	YES	15(5W)	---	5W-15	---	---	---	---	YES
TX-SA806	MR	---	YES	6.8(2W)	---	---	---	5W-15	---	6.8(2W)	---	---	YES

MODEL	DEST.	R5700	J5999	R5671	J5994	R5664	J5997	R5663	J5998	R5665	J5995	R5662	J5996
TX-SR706, TX-SA706, TX-SA706X	NO	---	---	---	---	---	---	---	---	---	---	---	---
TX-SR806, TX-SA806, DTR-7.9, DTR-6.9	YES	---	---	---	---	---	---	---	---	---	---	---	---

<Note>
SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.



7.1CH PRE OUT

R FRONT
L FRONT
SW CENTER

SR SURROUND
SL SURROUND

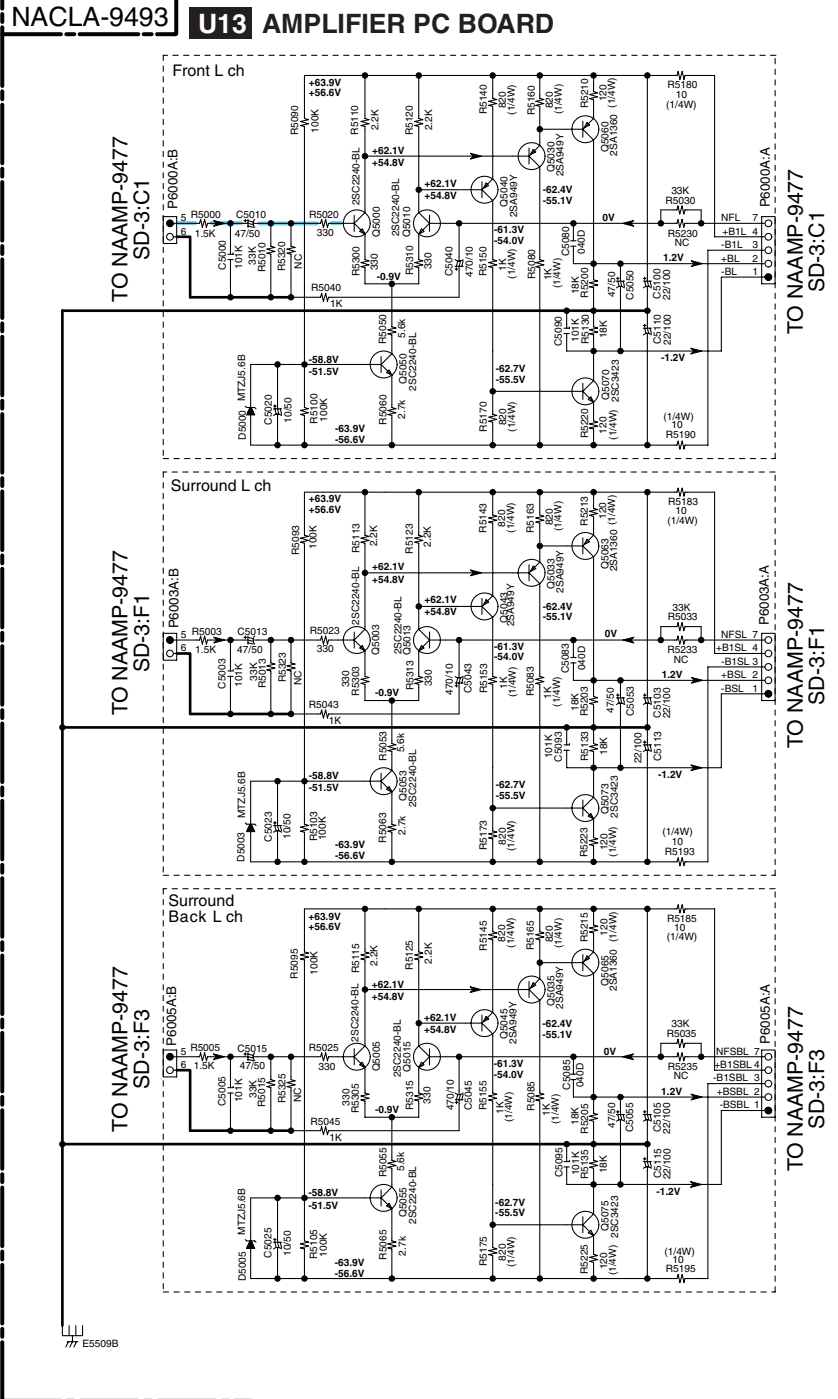
SBR SURROUND
SBL SURROUND

TO NAAMP-9477
SD-3:D5

R ZONE2 LINE OUT
L ZONE2 PRE OUT
:TX-SR706
:TX-SR806,DTR-6.9/7.9

396	C5671	C5661
200/50	470/35	
ES	47/50	1000/35
ES	47/50	1000/50
ES	200/50	470/50
ES	47/50	1000/50

**SCHEMATIC DIAGRAMS-2 (SD-2)
POWER AMPLIFIER SECTION-1**

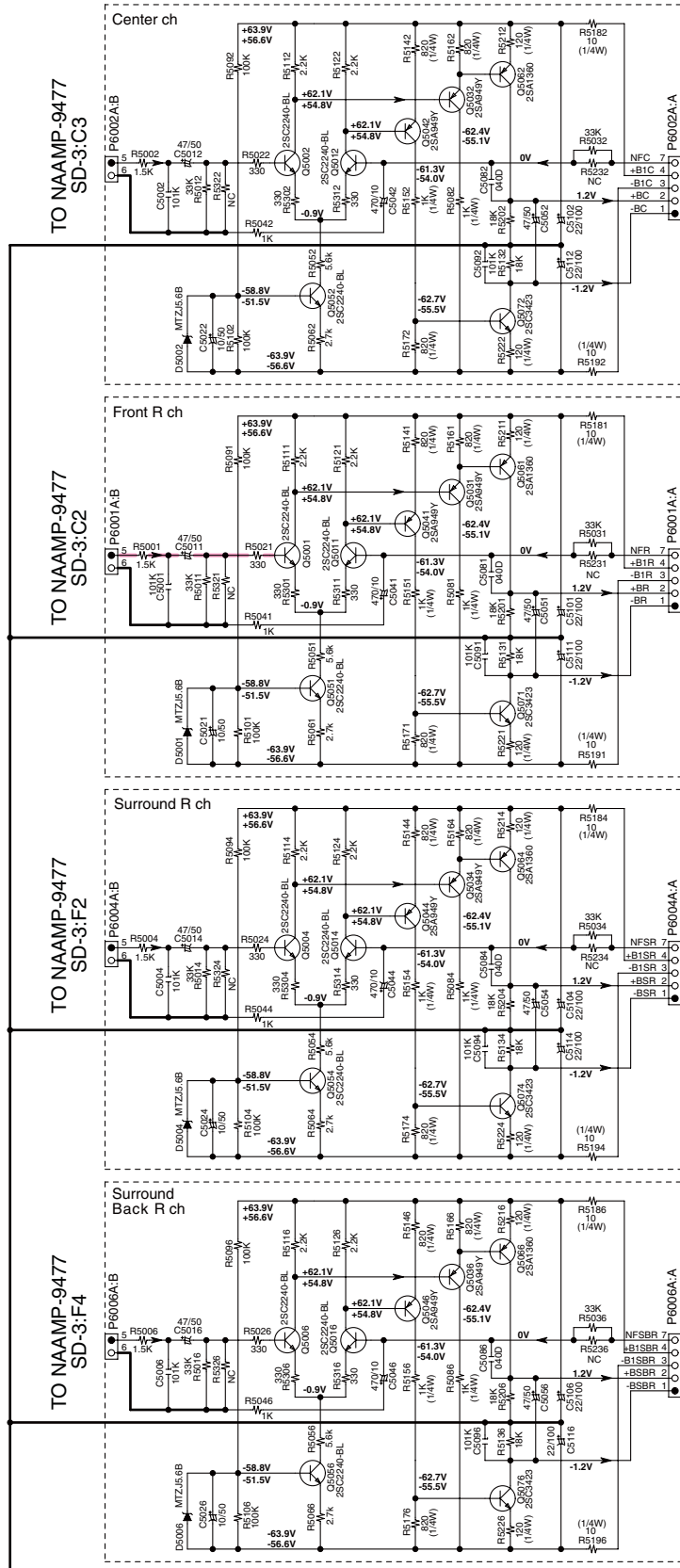


NOTE

- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- BOLD VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS () ARE IN uF/VV.
- ALL CAPACITORS ARE IN pF/50VV UNLESS OTHERWISE NOTED.
EX) 030-3pF, 330-33pF, 331-330pF, 333-0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

DC voltages in two lines indicate the difference by models.
 ++x.xV ---- TX-SR806,DTR-7.9
 ++y.yV ---- TX-SR706,DTR-6.9

<Note>
SD-x:XY is short for Schematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.



TO NAAMP-9477
SD-3:C3

TO NAAMP-9477
SD-3:C3

TO NAAMP-9477
SD-3:C2

TO NAAMP-9477
SD-3:C2

TO NAAMP-9477
SD-3:F2

TO NAAMP-9477
SD-3:F2

TO NAAMP-9477
SD-3:F4

TO NAAMP-9477
SD-3:F4

DC voltages in two lines indicate the difference by models.

---+xx.xV--- TX-SR806.DTR-7.9
 ---+yy.yV--- TX-SR706.DTR-6.9

SCHEMATIC DIAGRAMS-3 (SD-3) POWER AMPLIFIER SECTION-2

A

B

C

D

1

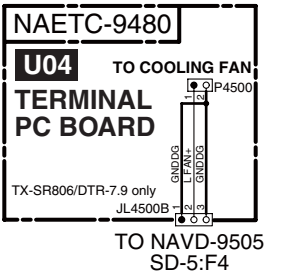
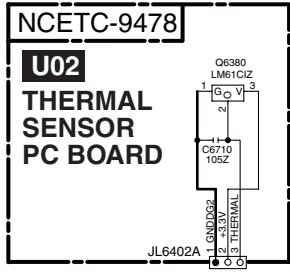
2

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5

NAAMP-9477(2/2)
U01 AMPLIFIER PC BOARD



TO NATRM-9488 SD-4:A3

TO POWER TRANS T901 SD-4:H1

TO NAAF-9477 SD-1:F5

Front L ch
TO NACLA-9493 SD-2:C1,D1

Front R ch
TO NACLA-9493 SD-2:E2,G2

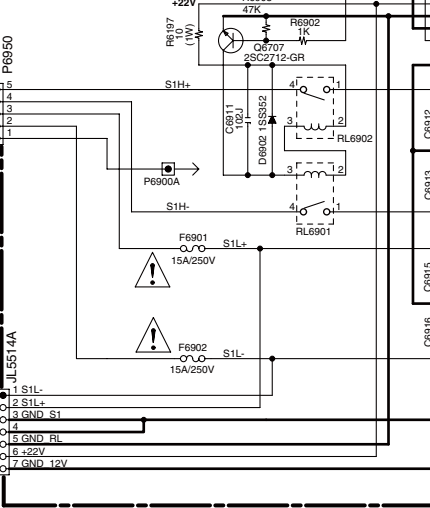
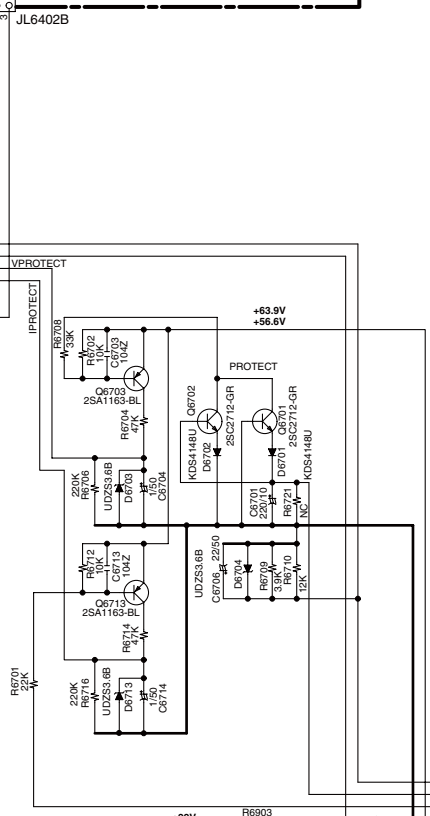
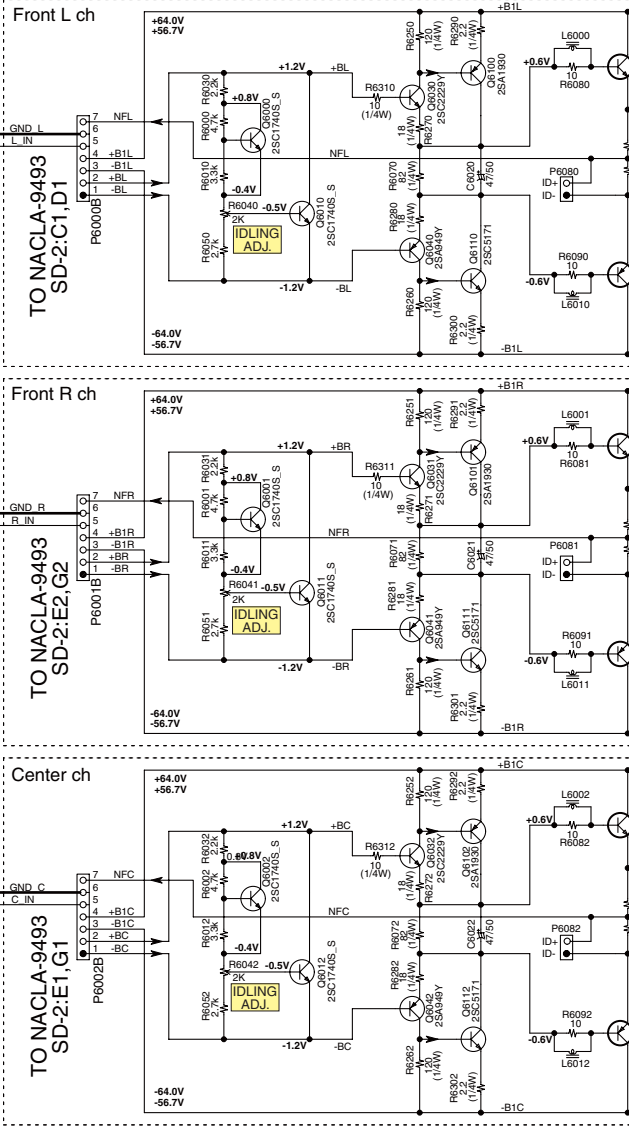
Center ch
TO NACLA-9493 SD-2:E1,G1

TO SD-3:E1

TO SD-3:E1

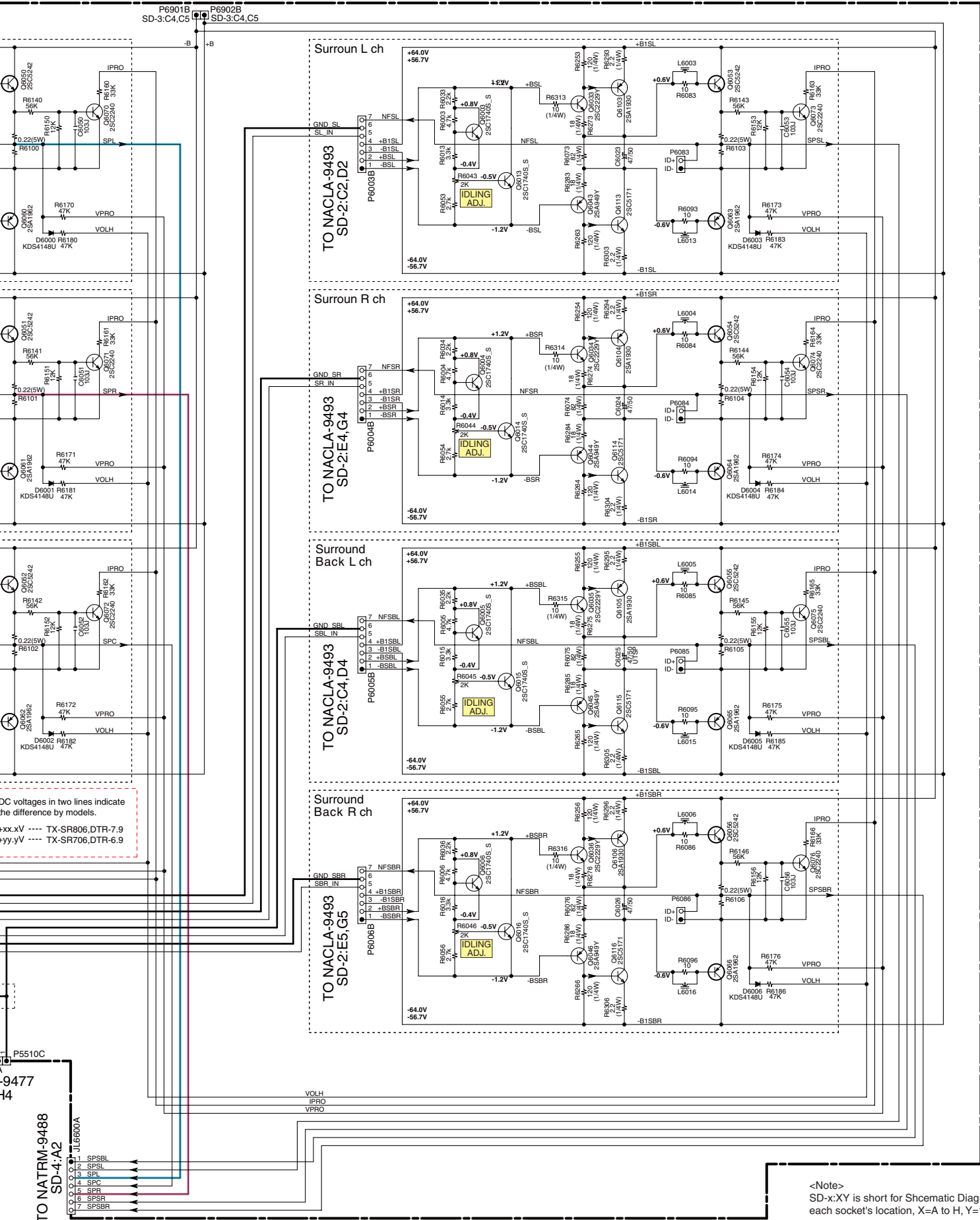
TO NATRM-9488 SD-4:A4

TO NAAF-9477 SD-1:H4



MODEL	DEST.	C6901,C6902
TX-SR706.DTR-6.9	DC,DD	12000/63V
TX-SR706.DTR-6.9	OTHER	12000/69V
TX-SR806.DTR-7.9	ALL	15000/71V

DC voltage
the di
+xx.x
+yy.y



<Note>
SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

SCHEMATIC DIAGRAMS-4 (SD-4)
SP TERMINAL AND POWER SUPPLY SECTION

1

2

3

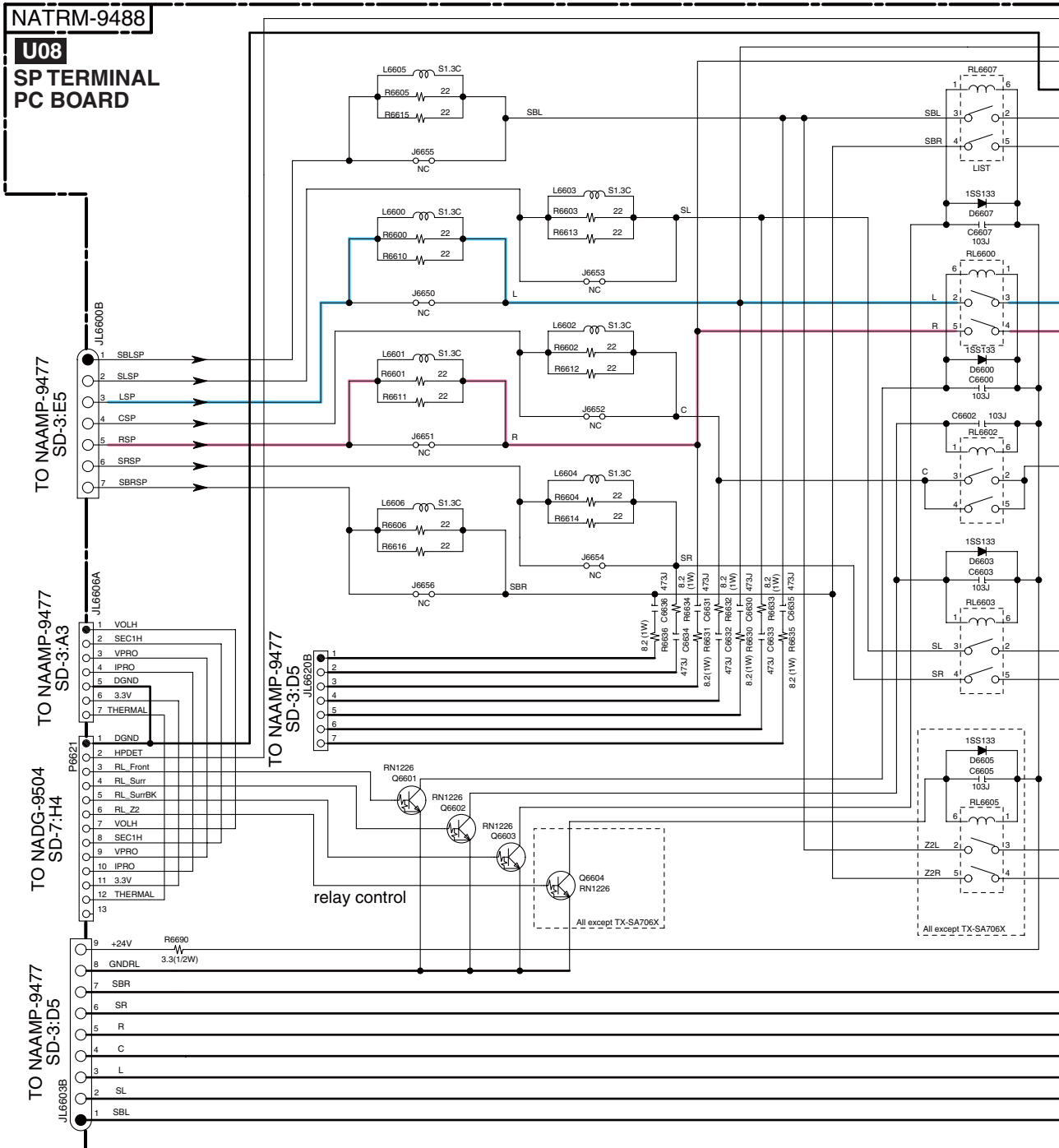
4

5

NATRM-9488

U08

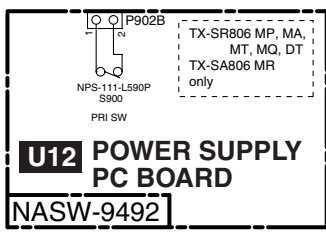
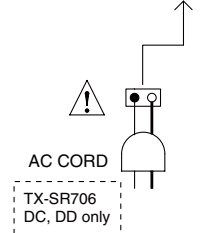
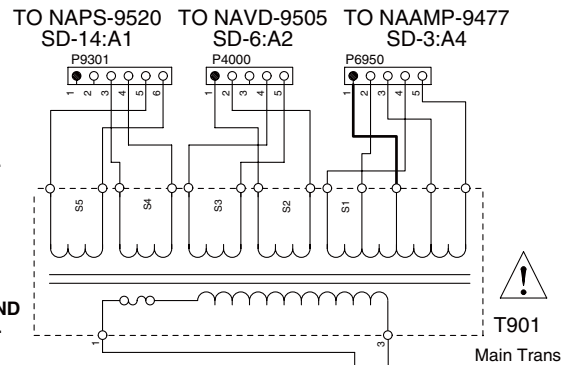
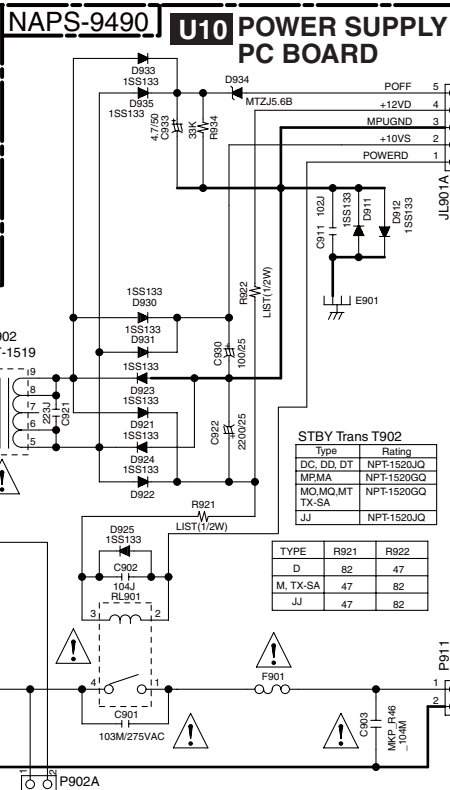
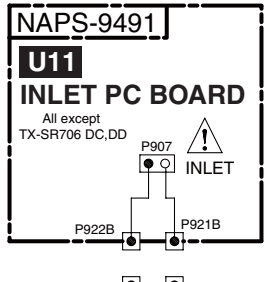
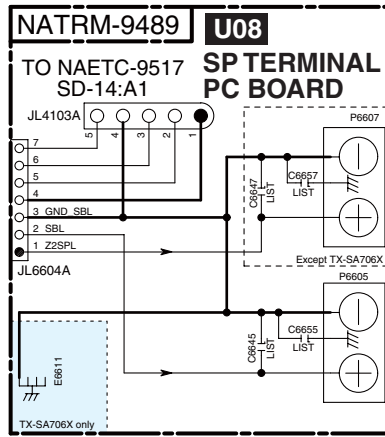
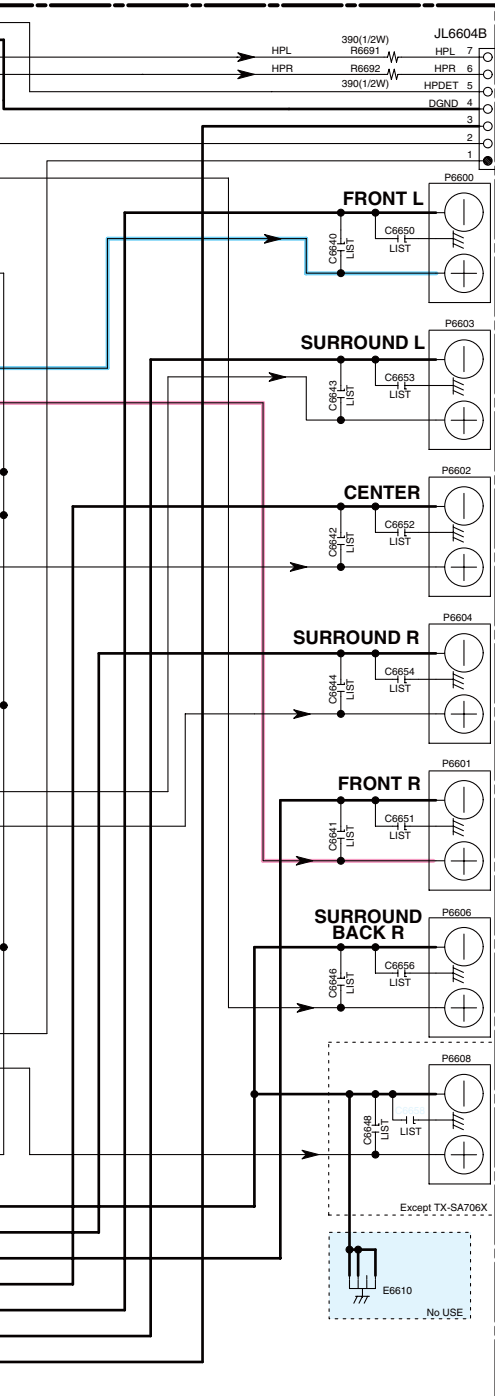
**SP TERMINAL
PC BOARD**



NOTE

- THE COMPONENTS IDENTIFIED BY MARK \triangle ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
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- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (---) ARE IN $\mu\text{F/WV}$.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.03 μF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) --- PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

<Note>
SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.



F901 RATING

	TX-SR706	TX-SR806
DC, DD, DT	10A/125V	12A/125V
MP, MA, MQ	5A/250V	6.3A/250V
MT, MO	5A/250V	6.3A/250V
TX-SA	10A/125V	---
JJ	---	---

Main Trans T901

Type	TX-SR706	TX-SR806
DC, DD, DT	NPT-1570D	NPT-1571D
MP, MA	NPT-1570M	NPT-1571M
MQ, MQ, MT	NPT-1570M	NPT-1571M
TX-SA	NPT-1571J	---
JJ	---	---

C6640-6648

TYPE	TX-SR706	TX-SA706	TX-SR806	TX-SA806	TX-SA706X
D	NC	---	NC	---	---
J	---	---	---	---	NC
M	472J	472J	472J	472J	---

C6650-6658

TYPE	TX-SR706	TX-SA706	TX-SR806	TX-SA806	TX-SA706X
D	102J	---	102J	---	---
J	---	---	---	---	NC
M	102J	102J	102J	102J	---

SCHEMATIC DIAGRAMS-5 (SD-5) VIDEO SECTION-1

TO NAHDM-9562 SD-11:H1 TO NAHDM-9562 SD-11:H3

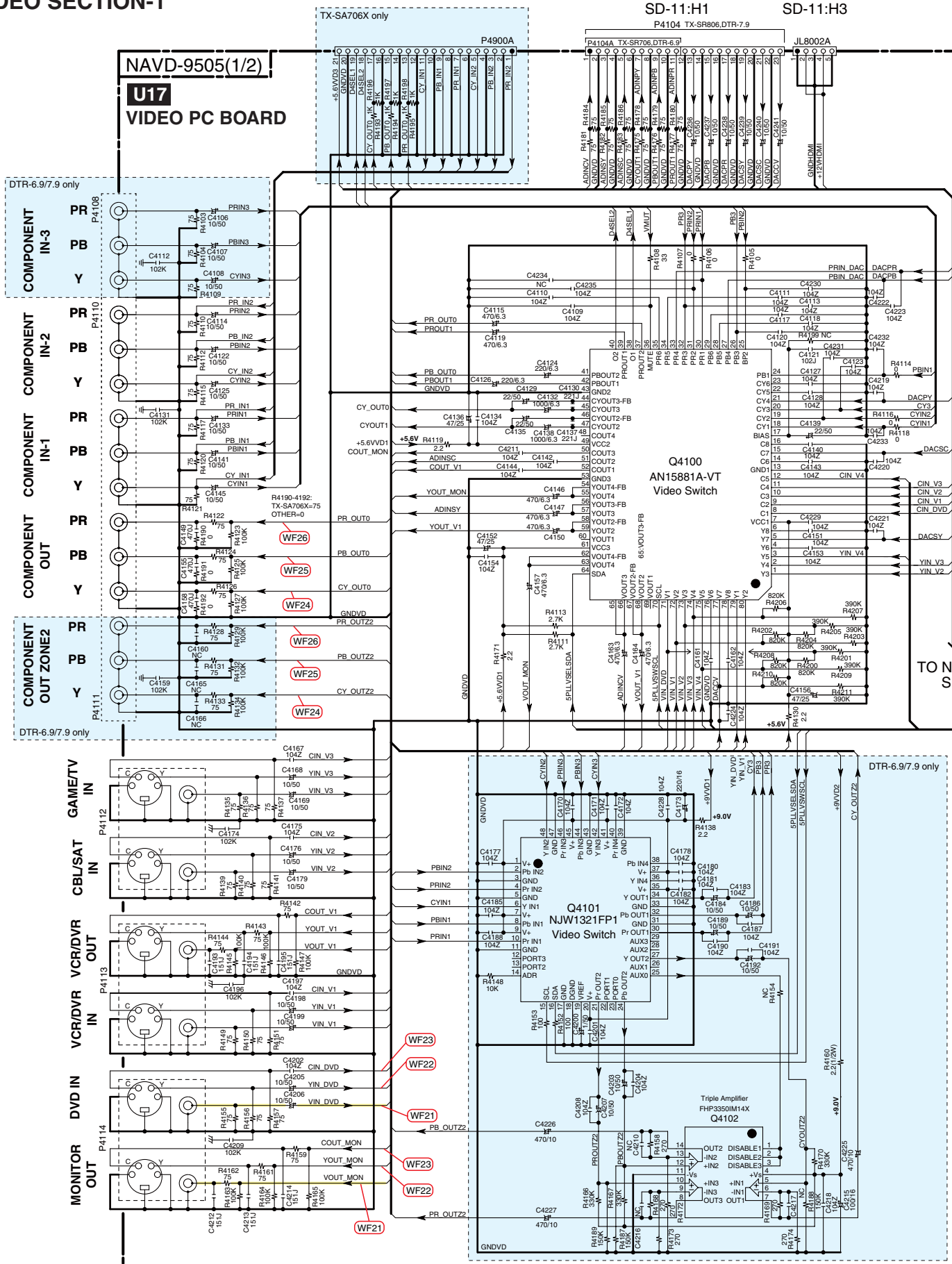
1

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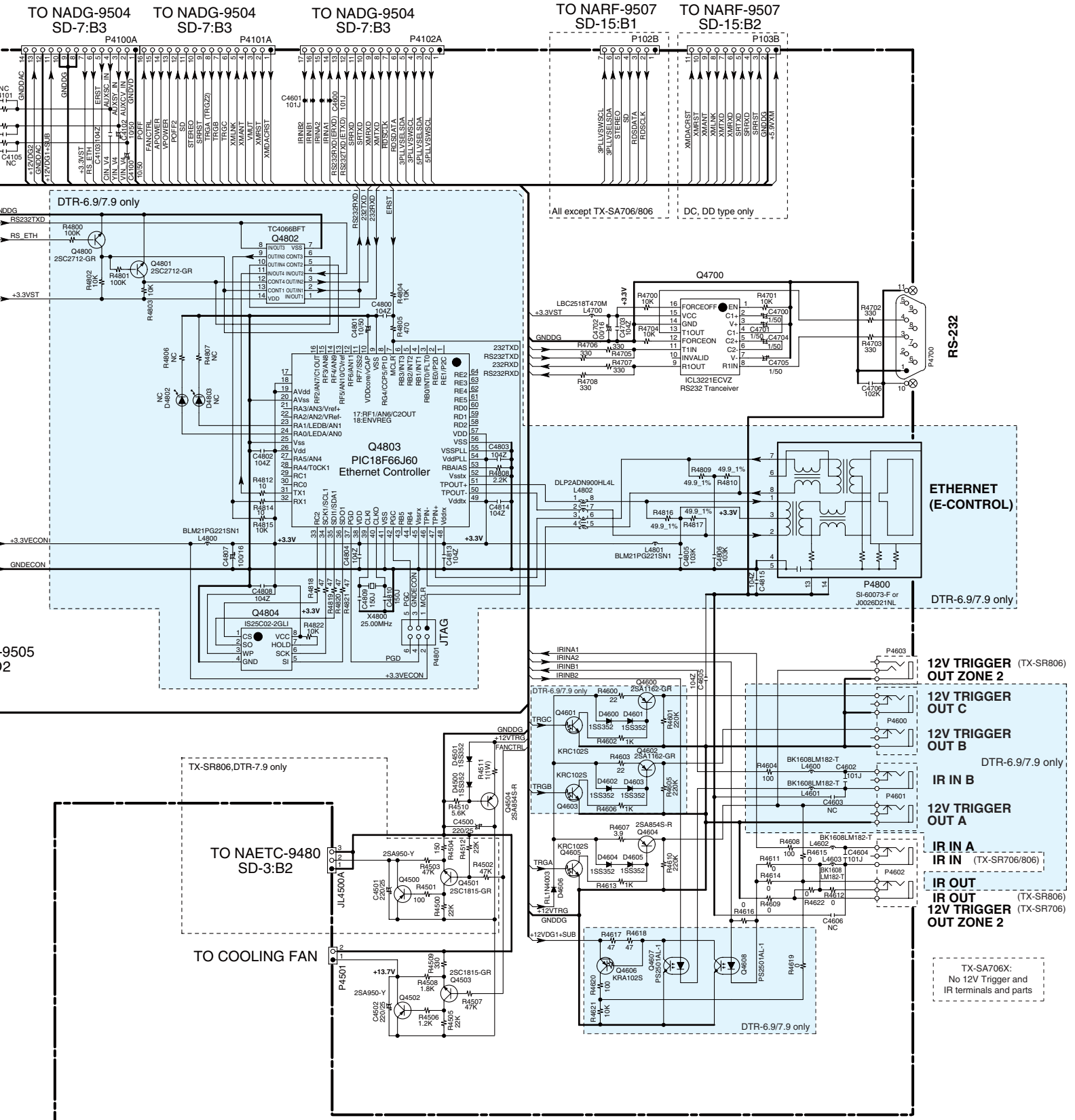
TO NADG-9506 SD-6:D2

E

F

G

H



<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16)
for analog video signal waveforms.

<Note>
SD-x:XY is short for Schematic-x and
each socket's location, X=A to H, Y=1 to 5.

TX-SA706X:
No 12V Trigger and
IR terminals and parts

SCHEMATIC DIAGRAMS-6 (SD-6)
VIDEO SECTION-2

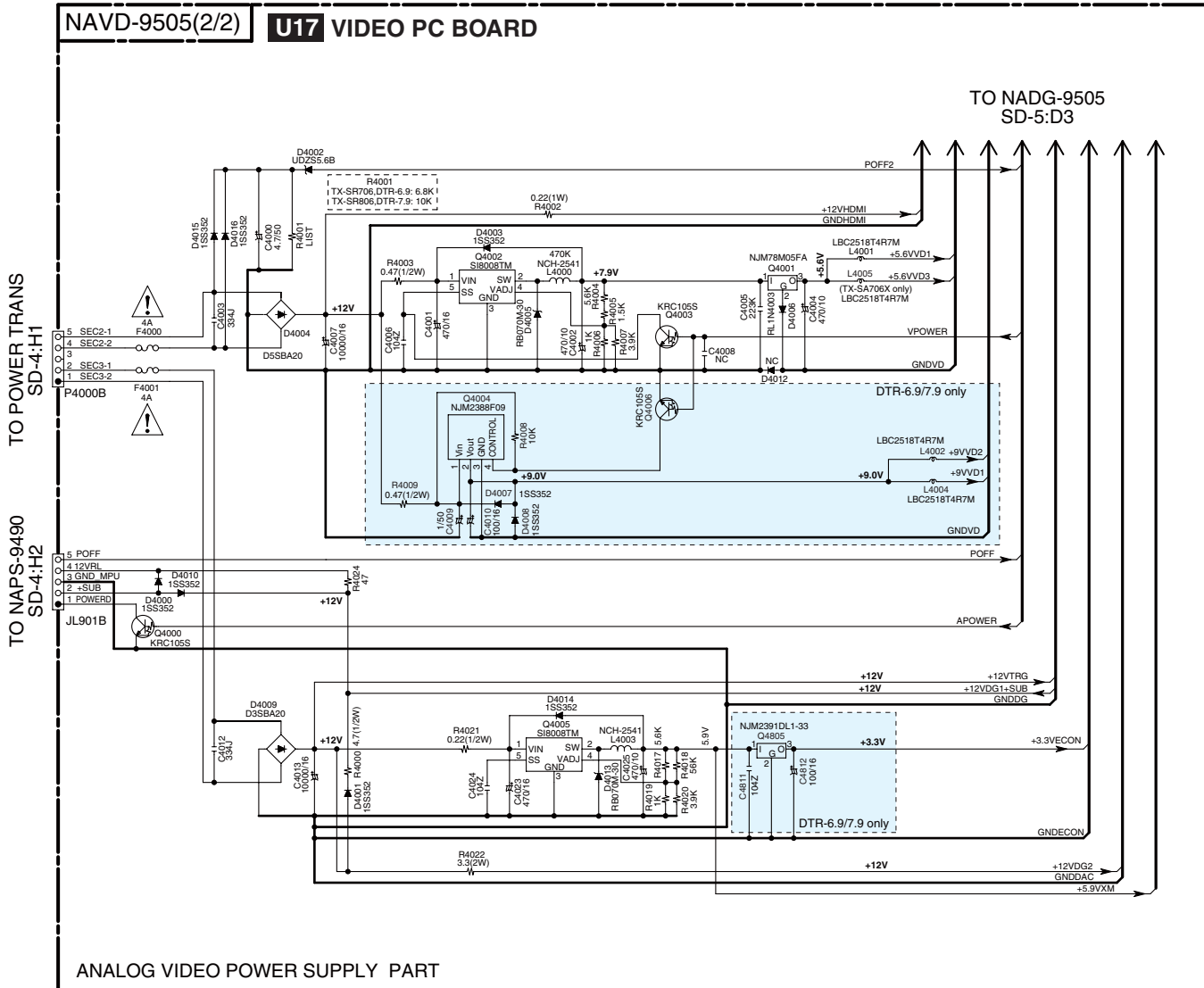
1

2

3

4

5

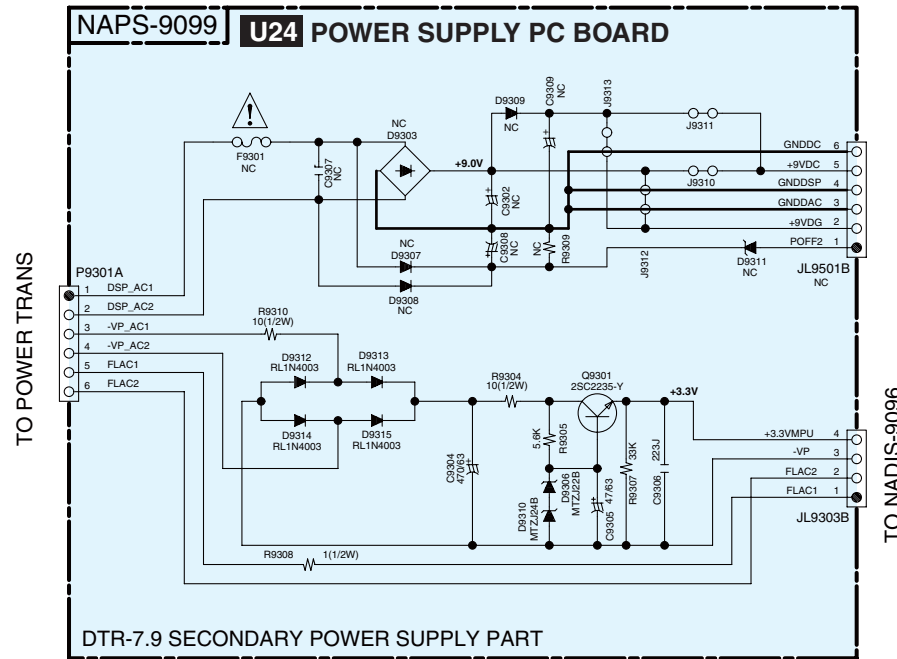
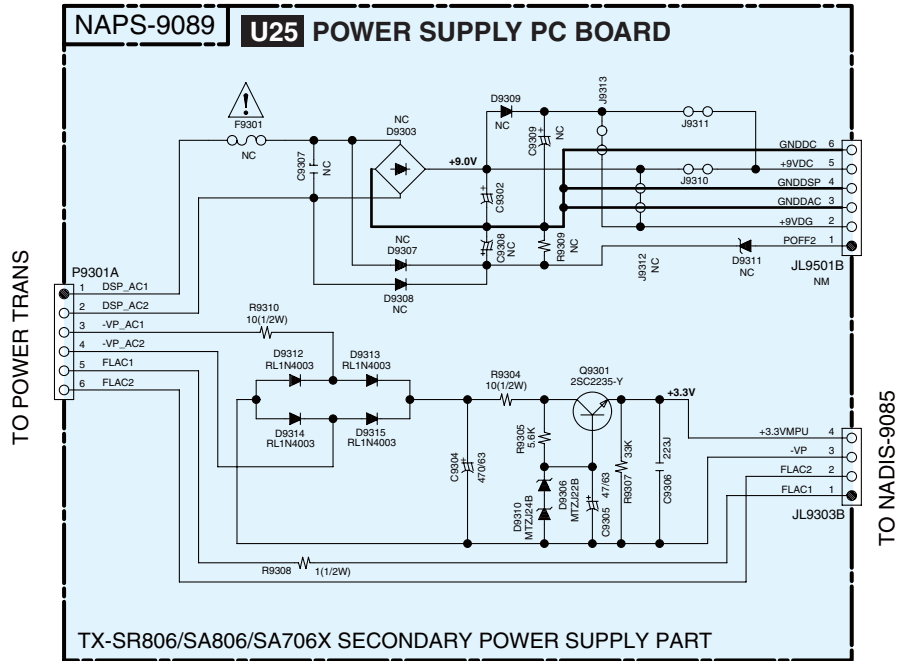


ANALOG VIDEO POWER SUPPLY PART

NOTE

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- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS () ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.



SCHEMATIC DIAGRAMS-7 (SD-7)
MICROPROCESSOR
AND DAC SECTION

A

B

C

D

1

2

3

4

5

NADG-9504

U16

MICROPROCESSOR
AND DAC PC BOARD

TO DEBUGER

TO FLASH WRITER

TO NAHDM-9562
SD-8:A4

TO NAHDM-9562
SD-8:A4

TO NADIS-9515
(P7501B)
SD-14:B2

TO NAVD-9505
SD-5:E1

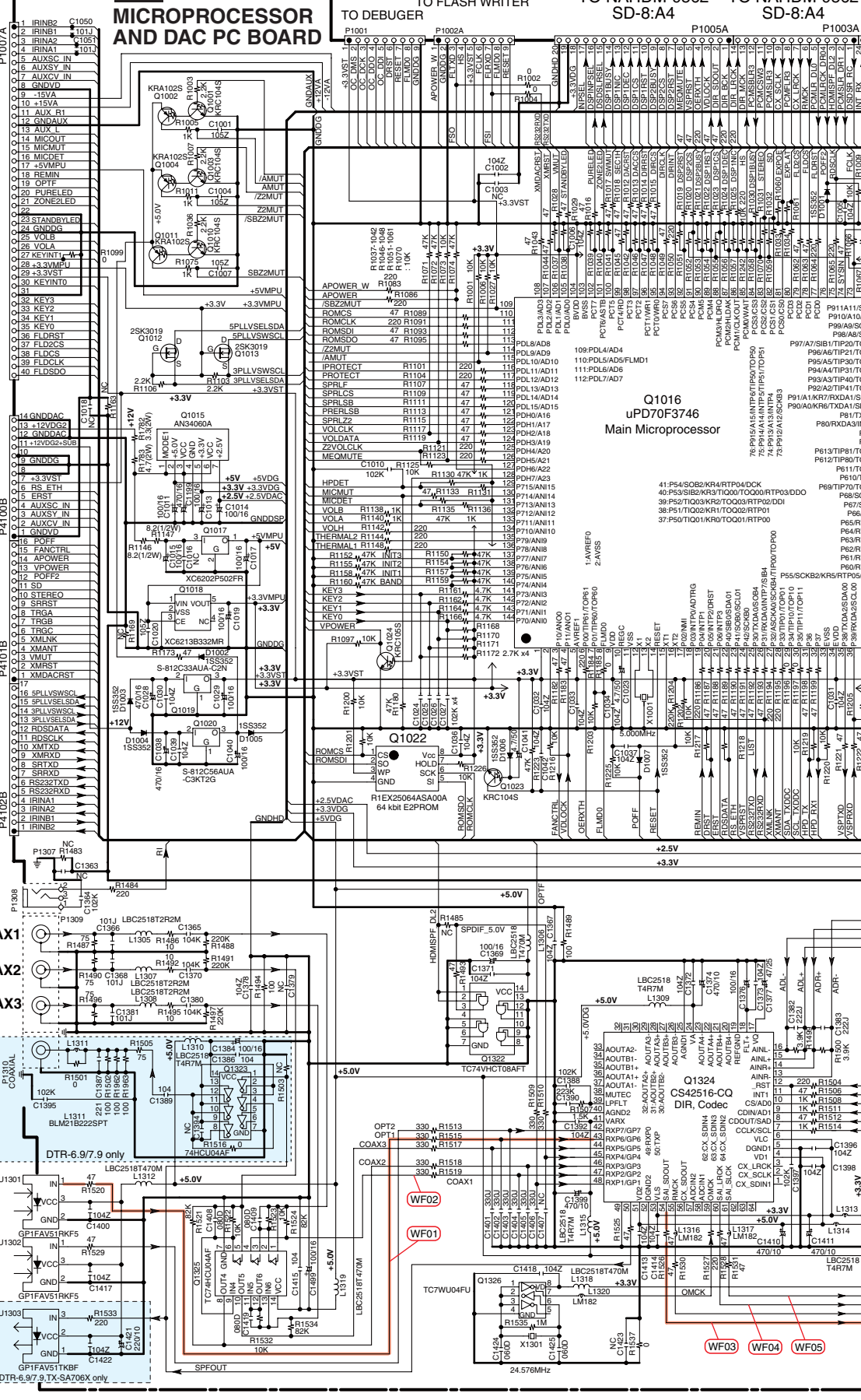
TO NAVD-9505
SD-5:F1

COAX1

COAX2

COAX3

COAX OUT



Q1016
uPD70F3746
Main Microprocessor

Q1022
R1EX25064SA00A
64-Kbit EPROM

Q1024
CS42516-CQ
DIR, Codec

WF02

WF01

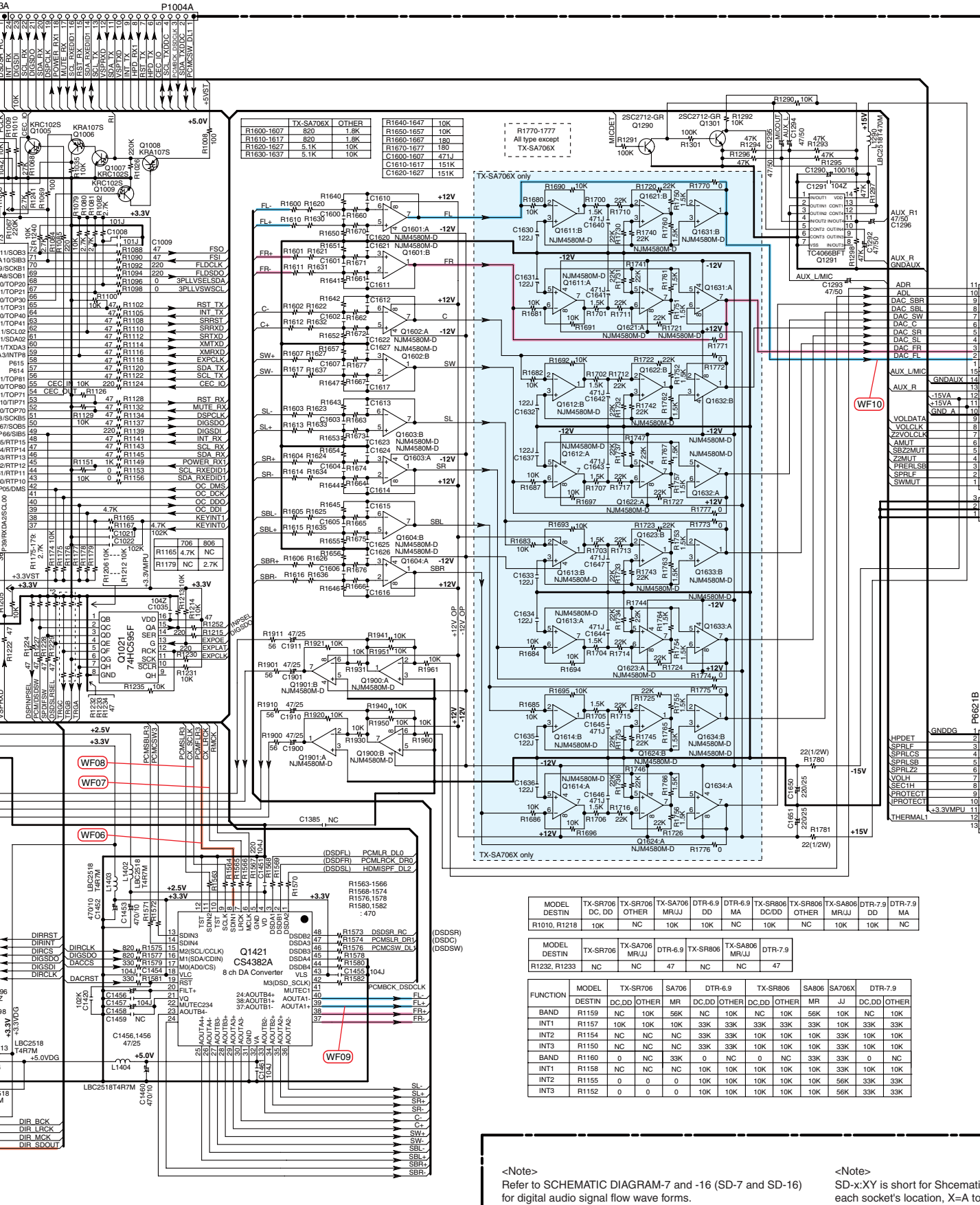
WF03

WF04

WF05

DTR-6.9/7.9 TX-SA706X only

2 TO NAHDM-9562
SD-8:A3



TX-SA706X	OTHER	
R1600-1607	820	1.8K
R1610-1617	820	1.8K
R1620-1627	5.1K	10K
R1630-1637	5.1K	10K

R1640-1647	10K
R1650-1657	10K
R1660-1667	180
R1670-1677	180
C1600-1607	47.1J
C1610-1617	151K
C1620-1627	151K

R1770-1777
All type except
TX-SA706X

MODEL	TX-SR706	TX-SR706	TX-SA706	DTR-6.9	TX-SR806	TX-SR806	TX-SA806	DTR-7.9	DTR-7.9
DESTIN	DC,DD	OTHER	MR/JJ	DD	MA	DC,DD	OTHER	MR/JJ	DD
R1010, R1218	10K	NC	10K	10K	NC	10K	NC	10K	10K

MODEL	TX-SR706	TX-SA706	DTR-6.9	TX-SR806	TX-SA806	DTR-7.9
R1232, R1233	NC	NC	47	NC	NC	47

FUNCTION	MODEL	TX-SR706	SA706	DTR-6.9	TX-SR806	SA806	SA706X	DTR-7.9
	DESTIN	DC,DD	OTHER	MR	DC,DD	OTHER	MR	JJ
BAND	R1159	NC	10K	56K	NC	10K	NC	10K
INT1	R1157	10K	10K	33K	33K	33K	33K	10K
INT2	R1154	NC	NC	NC	33K	33K	10K	10K
INT3	R1150	NC	NC	NC	33K	33K	10K	10K
BAND	R1160	0	NC	33K	0	NC	33K	33K
INT1	R1158	NC	NC	10K	10K	10K	10K	10K
INT2	R1155	0	0	10K	10K	10K	10K	56K
INT3	R1152	0	0	10K	10K	10K	10K	56K

TO NAAMP-9477 TO NAAMP-9477
SD-1:D1 SD-1:D1
TO NAAMP-9477 TO NAAMP-9477
SD-1:B1 SD-1:B1

<Note>
Refer to SCHEMATIC DIAGRAM-7 and -16 (SD-7 and SD-16)
for digital audio signal flow wave forms.

<Note>
SD-x:XY is short for Schematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.

SCHEMATIC DIAGRAMS-8 (SD-8)
DSP SECTION-1

TX-SR706, TX-SA706: NAHDM-9562
TX-SR806, TX-SA806: NAHDM-9702

NAHDM-9562/NAHDM-9702(1/6) **U20** HDMI PC BOARD

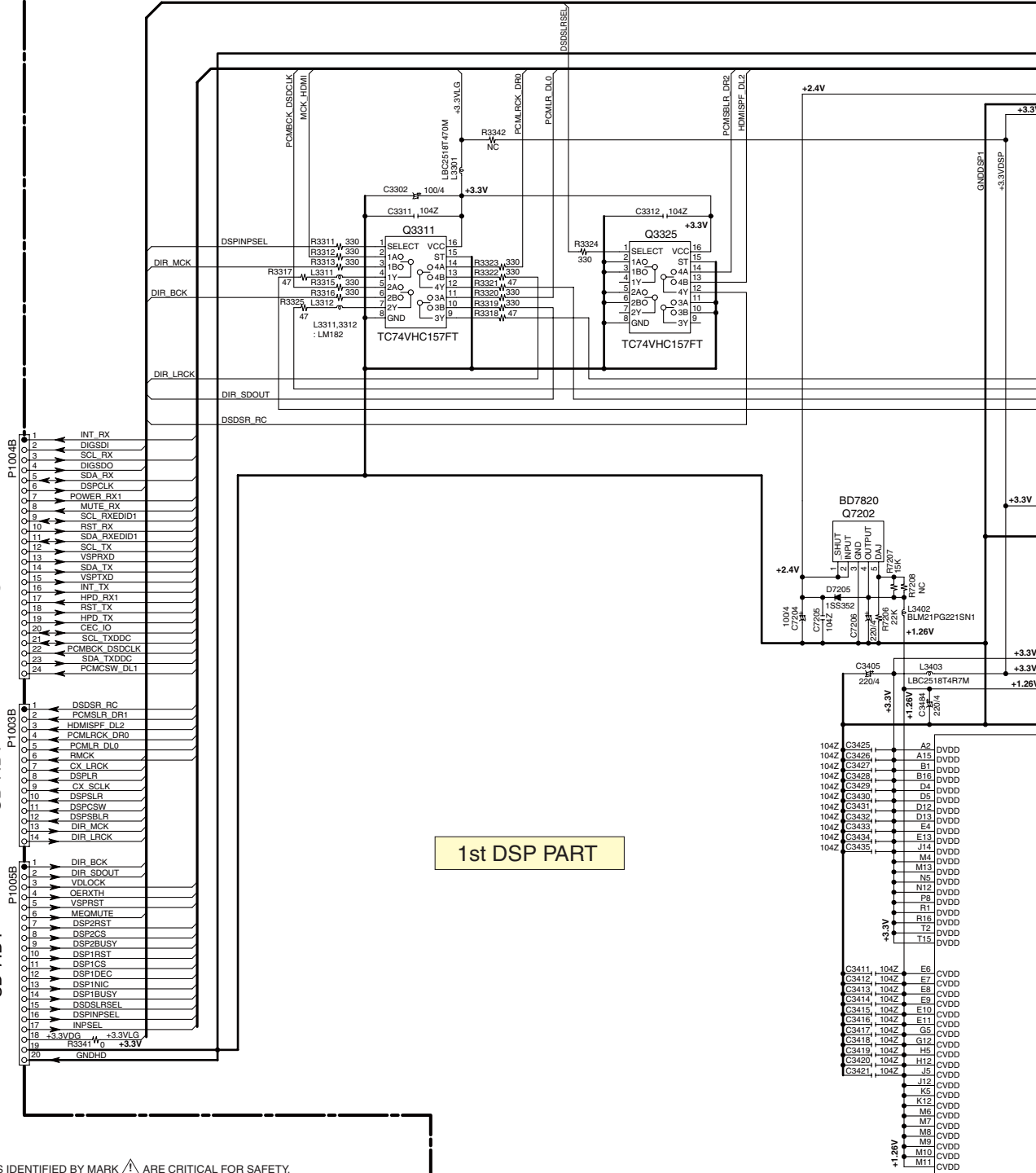
1

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5



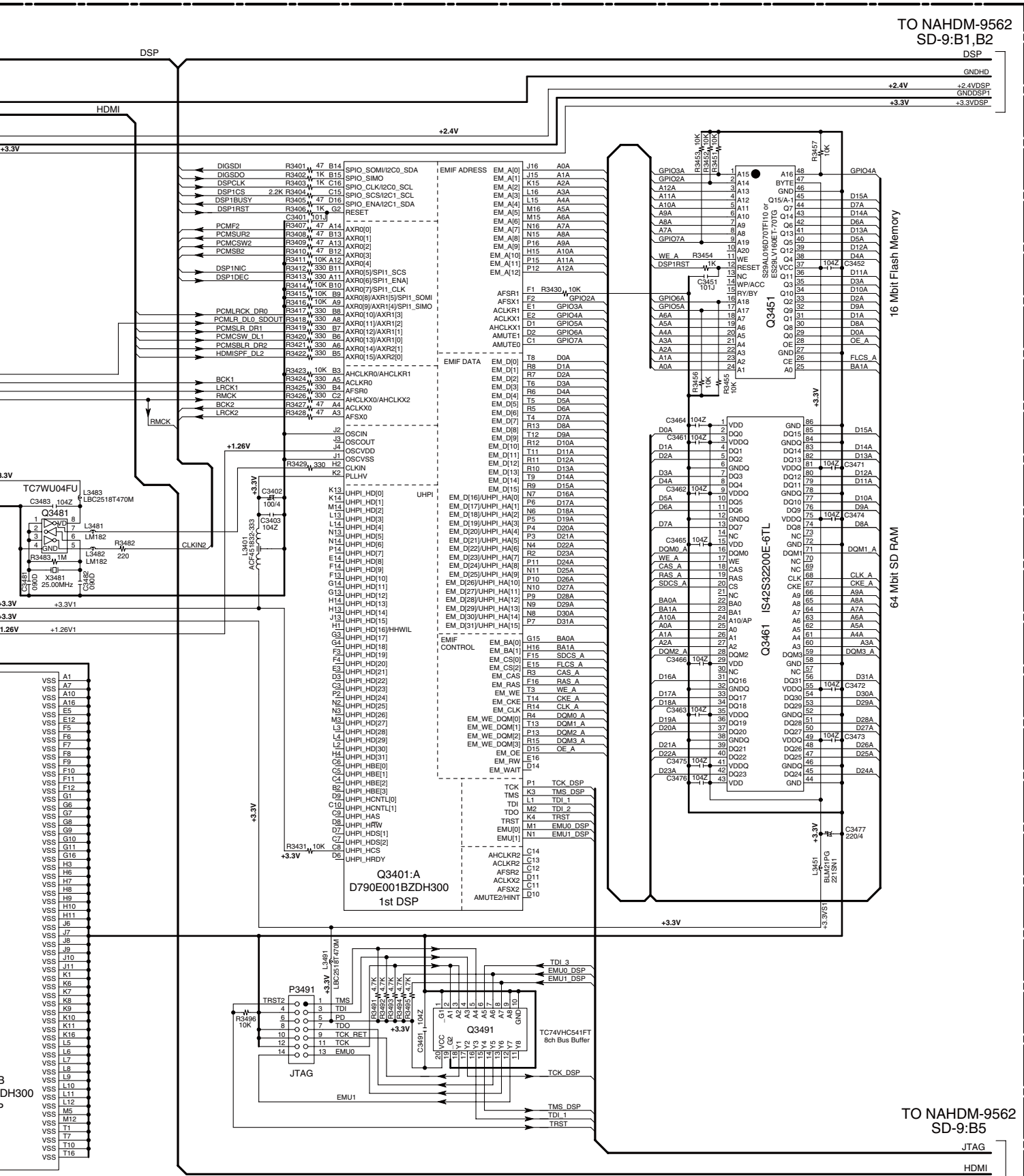
1st DSP PART

NOTE

- THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- BOLD VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE. (NO INPUT SIGNAL).
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- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (---) ARE IN $\mu\text{F/WV}$.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030-3pF, 330-33pF, 331-330pF, 333-0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) --- PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

Q3401:B
D790E001BZDH3
1st DSP

<Note>
SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.



TO NAHDM-9562
SD-9:B1,B2

TO NAHDM-9562
SD-9:B5

JTAG
HDMI

A

B

C

D

SCHEMATIC DIAGRAMS-9 (SD-9)
DSP SECTION-2

TX-SR706, TX-SA706: NAHDM-9562
TX-SR806, TX-SA806: NAHDM-9702

NAHDM-9562/NAHDM-9702(2/6)

U20 HDMI PC BOARD

1

2

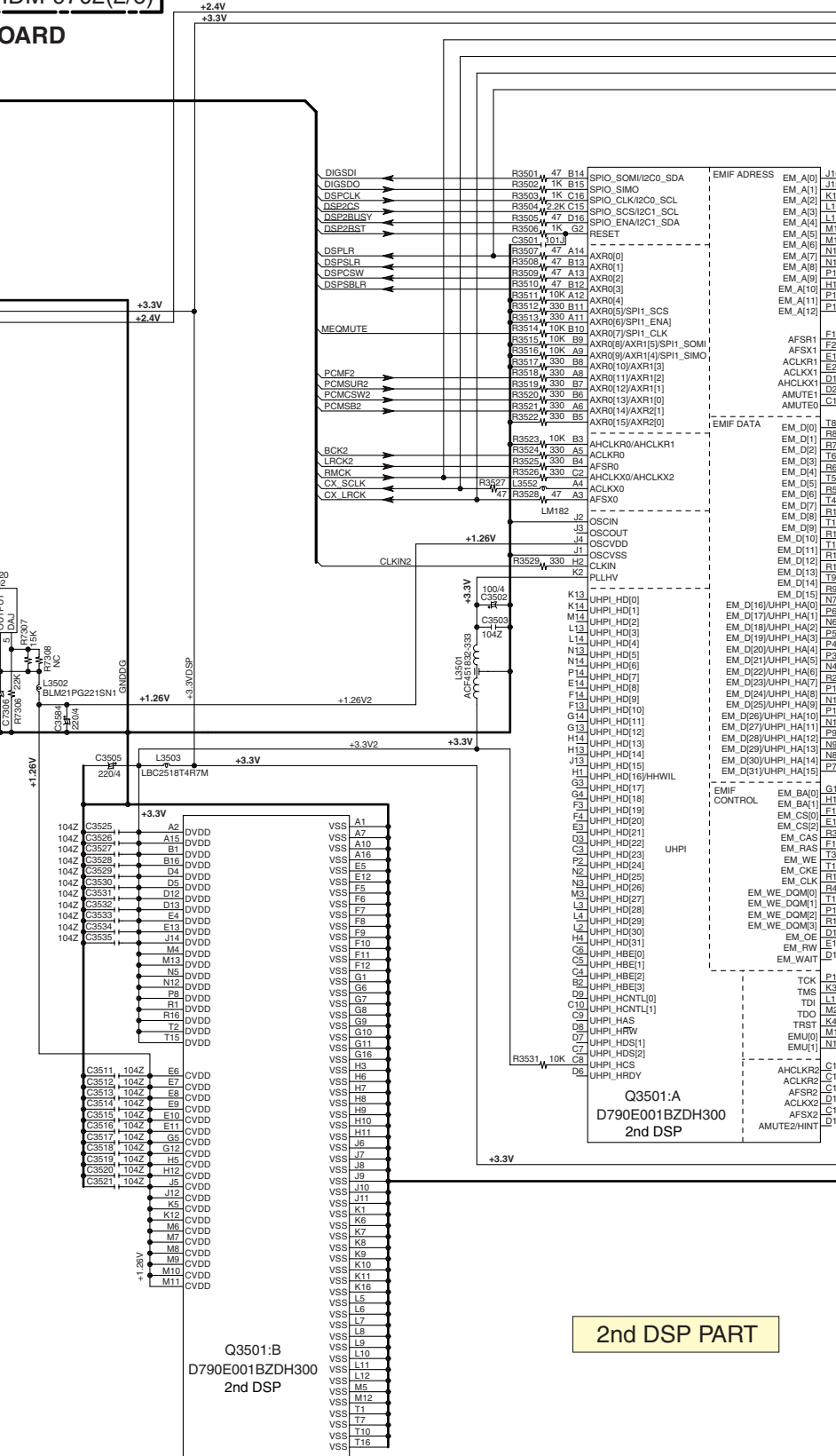
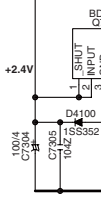
3

4

5

DSP
TO NAHDM-9562
SD-8:H1

GND DSP1
+3.3V DSP
+2.4V DSP



TO NAHDM-9562
SD-8:H5

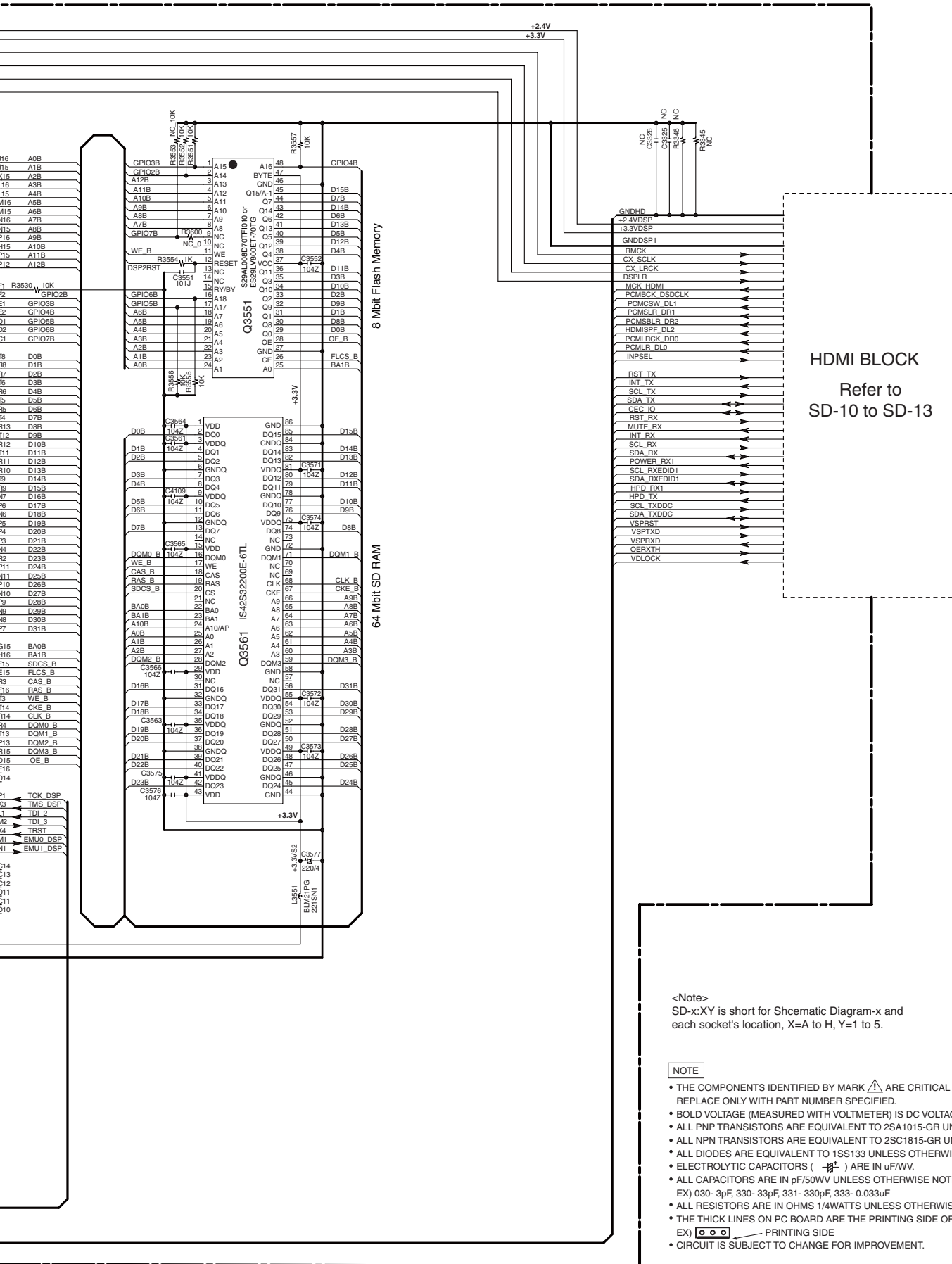
JTAG

HDMI

2nd DSP PART

Q3501:B
D790E001BZDH300
2nd DSP

Q3501:A
D790E001BZDH300
2nd DSP



<Note>
SD-x:XY is short for Shoematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

- NOTE**
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 - ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
 - ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
 - ELECTROLYTIC CAPACITORS () ARE IN uF/WV.
 - ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
 - ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
 - THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) — PRINTING SIDE
 - CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAMS-10 (SD-10) HDMI SECTION-1

TX-SR706, TX-SA706: NAHDM-9562
TX-SR806, TX-SA806: NAHDM-9702

NAHDM-9562/NAHDM-9702(3/6) U20 HDMI PC BOARD

1

HDMI IN4 (NO USE)

2

HDMI IN3 HDMI IN5

3

HDMI IN2 HDMI IN4

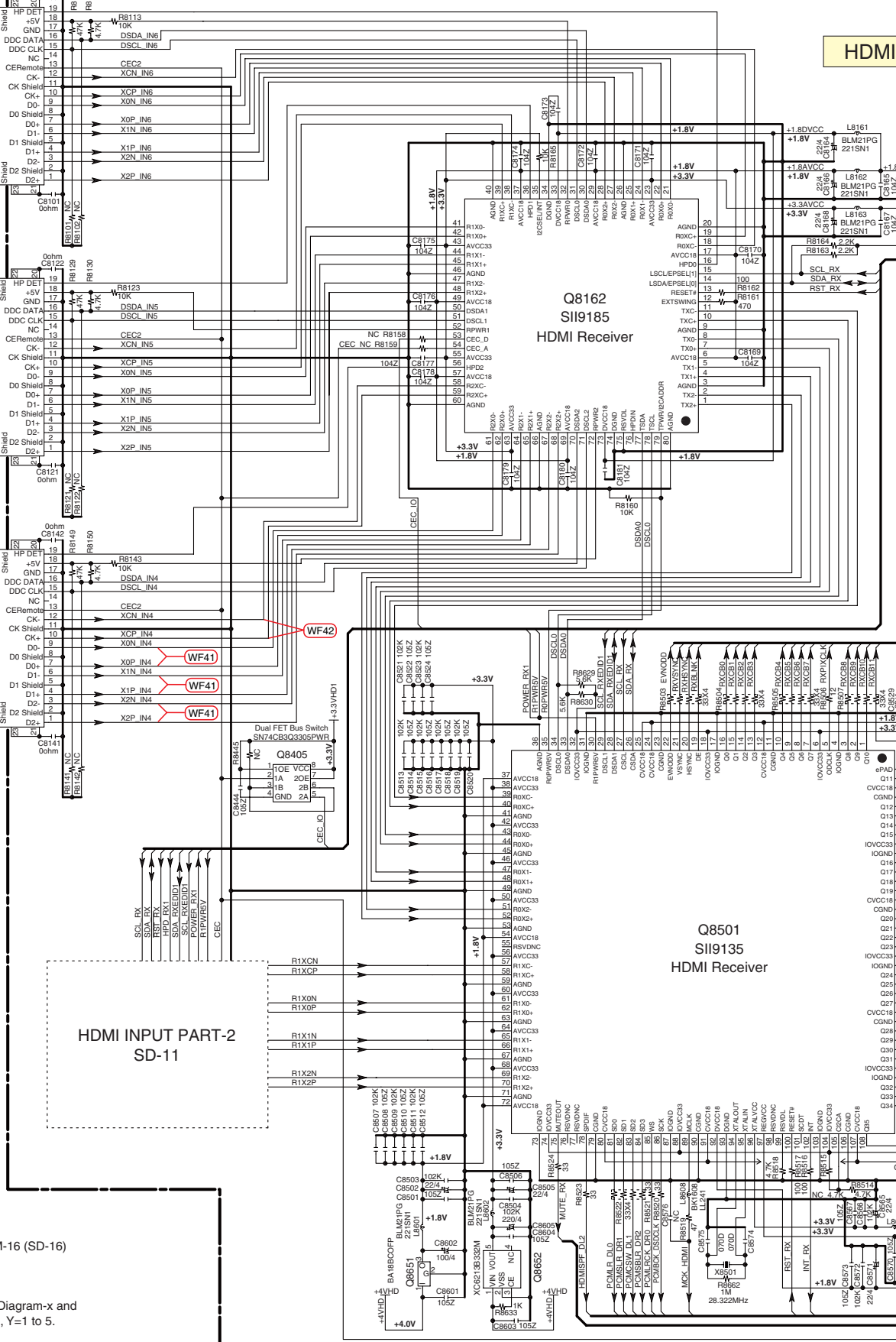
4

TX-SR706 TX-SA706 DTR-6.9
TX-SR806 TX-SA806 DTR-7.9 TX-SA706X

5

<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16) for HDMI signal waveforms.

<Note>
SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.



HDMI

HDMI INPUT PART-2 SD-11

Q8162 SII9185 HDMI Receiver

Q8501 SII9135 HDMI Receiver

Q8405 Dual FET Bus Switch SN74CB30305PWR

WF42

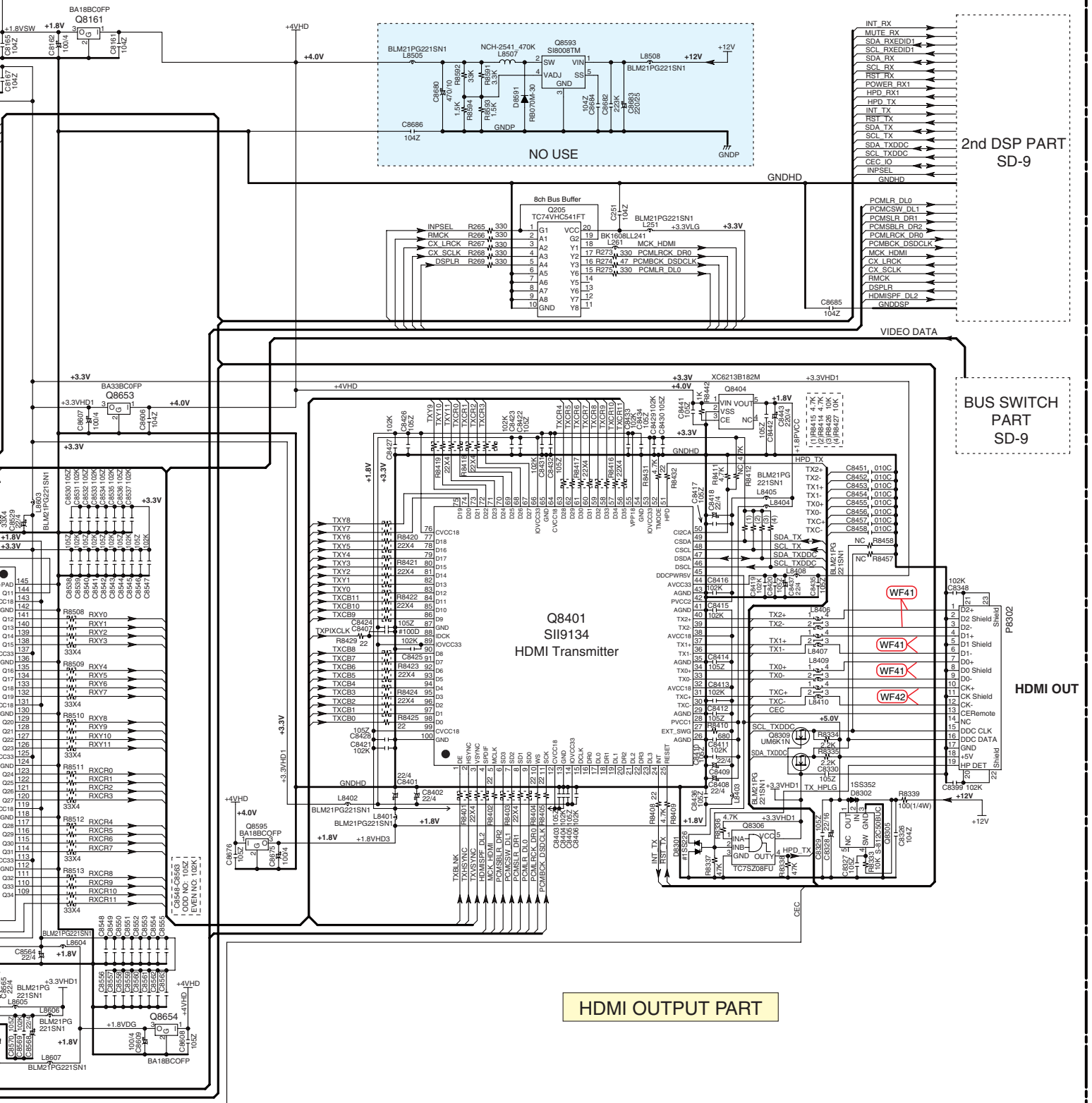
WF41

WF41

WF41

- Q101
- Q102
- Q103
- Q104
- Q105
- Q106
- Q107
- Q108
- Q109
- Q110
- Q111
- Q112
- Q113
- Q114
- Q115
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- Q190
- Q191
- Q192
- Q193
- Q194
- Q195
- Q196
- Q197
- Q198
- Q199
- Q200

MI INPUT PART-1



NO USE

2nd DSP PART SD-9

BUS SWITCH PART SD-9

Q8401 SI19134 HDMI Transmitter

HDMI OUTPUT PART

**SCHEMATIC DIAGRAMS-11 (SD-11)
HDMI SECTION-2**

<Note>
SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

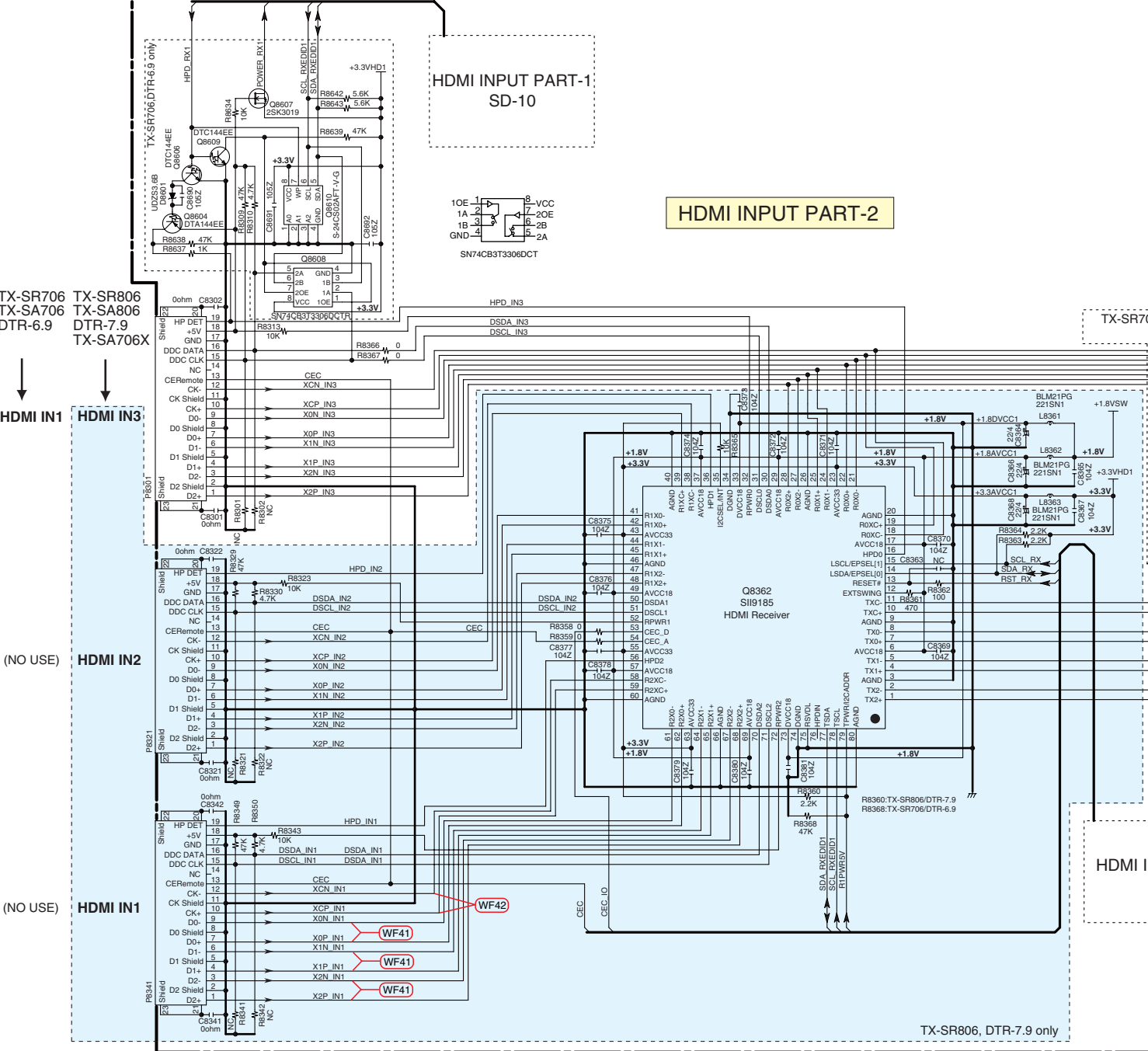
<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16) for HDMI signal waveforms.

NOTE

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- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (---) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50V UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) $\square \circ \square$ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

TX-SR706, TX-SA706: NAHDM-9562
TX-SR806, TX-SA806: NAHDM-9702

NAHDM-9562/NAHDM-9702(4/6) U20 HDMI PC BOARD



1

2

3

4

5

TX-SR706 TX-SR806
TX-SA706 TX-SA806
DTR-6.9 DTR-7.9
TX-SA706X

HDMI IN1

HDMI IN3

(NO USE) HDMI IN2

(NO USE) HDMI IN1

HDMI INPUT PART-1
SD-10

HDMI INPUT PART-2

TX-SR706

HDMI IN

TX-SR806, DTR-7.9 only

SCHEMATIC DIAGRAMS-12 (SD-12)
HDMI SECTION-3

TX-SR706,TX-SA706: NAHDM-9562
TX-SR806,TX-SA806: NAHDM-9702

NAHDM-9562/NAHDM-9702(5/6) U20 HDMI PC BOARD

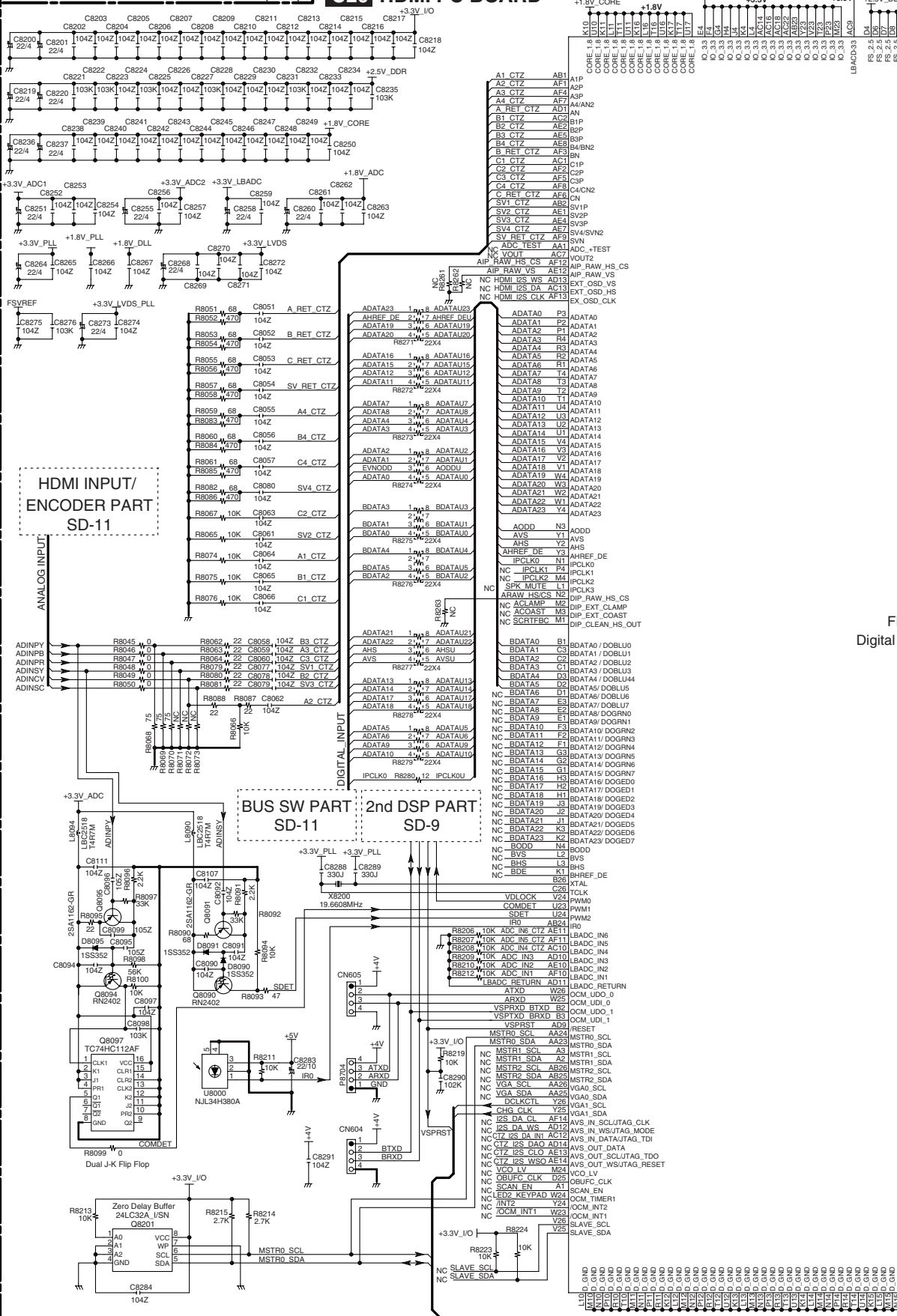
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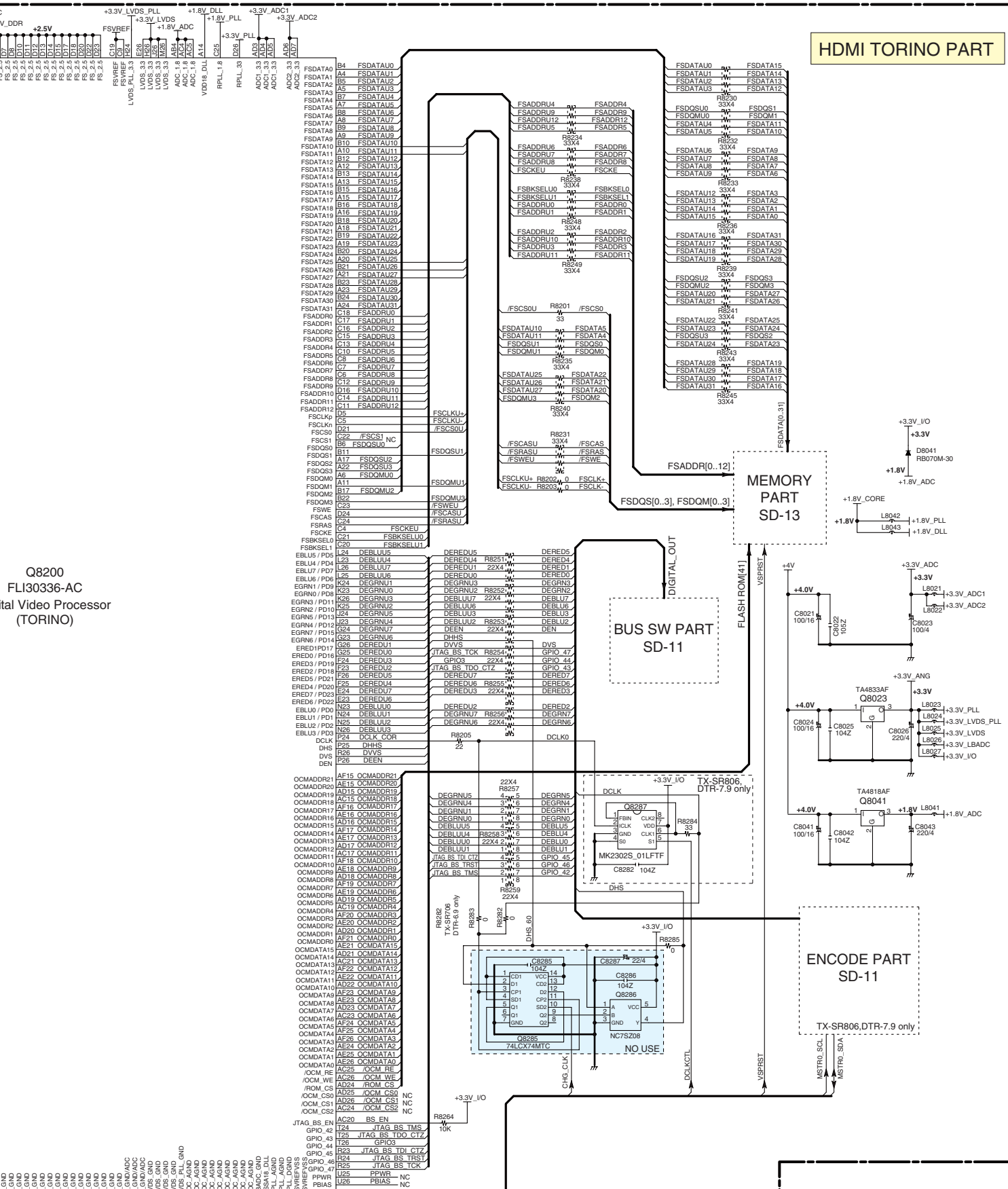
2

3

4

5





HDMI TORINO PART

MEMORY PART SD-13

BUS SW PART SD-11

ENCODE PART SD-11

<Note> SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

SCHEMATIC DIAGRAMS-13 (SD-13)
HDMI SECTION-4

1

NAHDM-9562/NAHDM-9702(6/6) **U20** HDMI PC BOARD

TX-SR706, TX-SA706: NAHDM-9562
TX-SR806, TX-SA806: NAHDM-9702

MEMORY PART

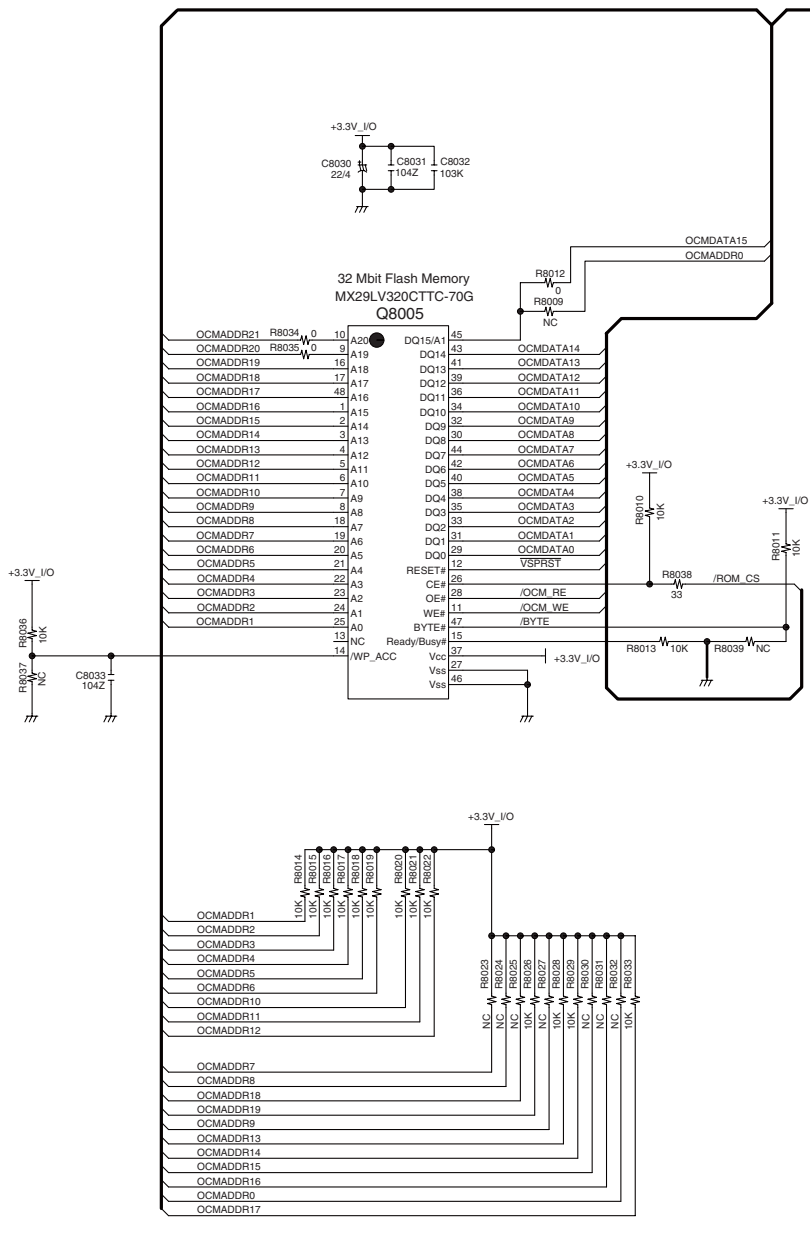
TORINO PART
SD-12

2

3

4

5



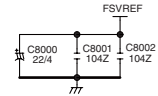
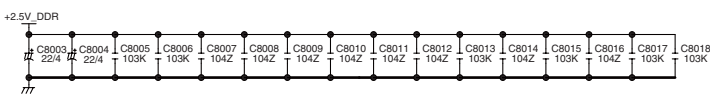
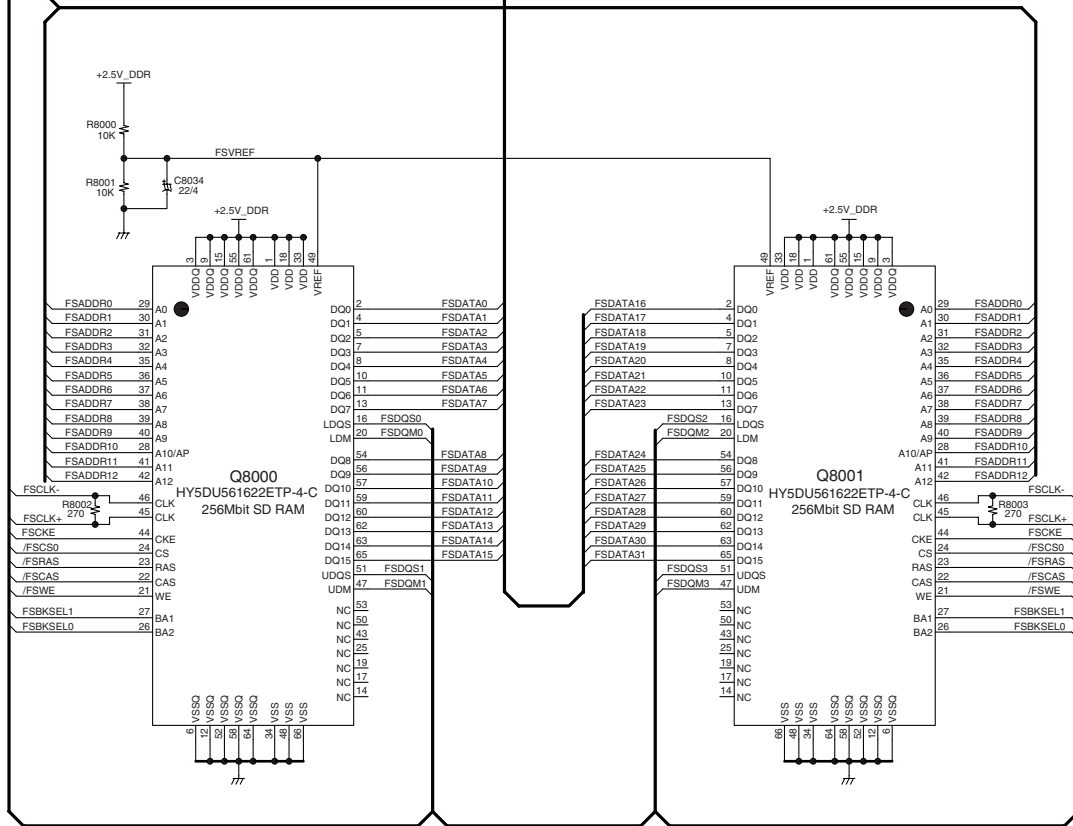
NOTE

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- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
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- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
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<Note>
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

MEMORY PART

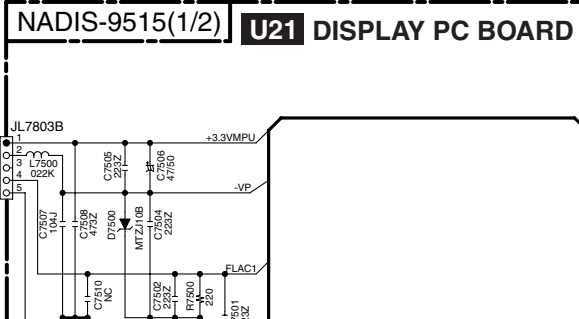
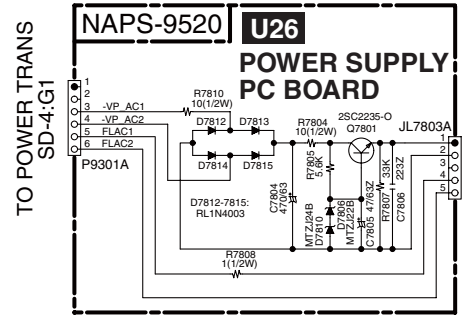
FSDATA[0..31]
FSADDR[0..12]
FSDQS[0..3], FSDQM[0..3]



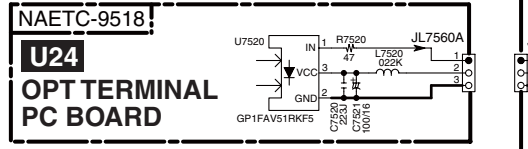
A B C D

SCHEMATIC DIAGRAMS-14 (SD-14) DISPLAY SECTION

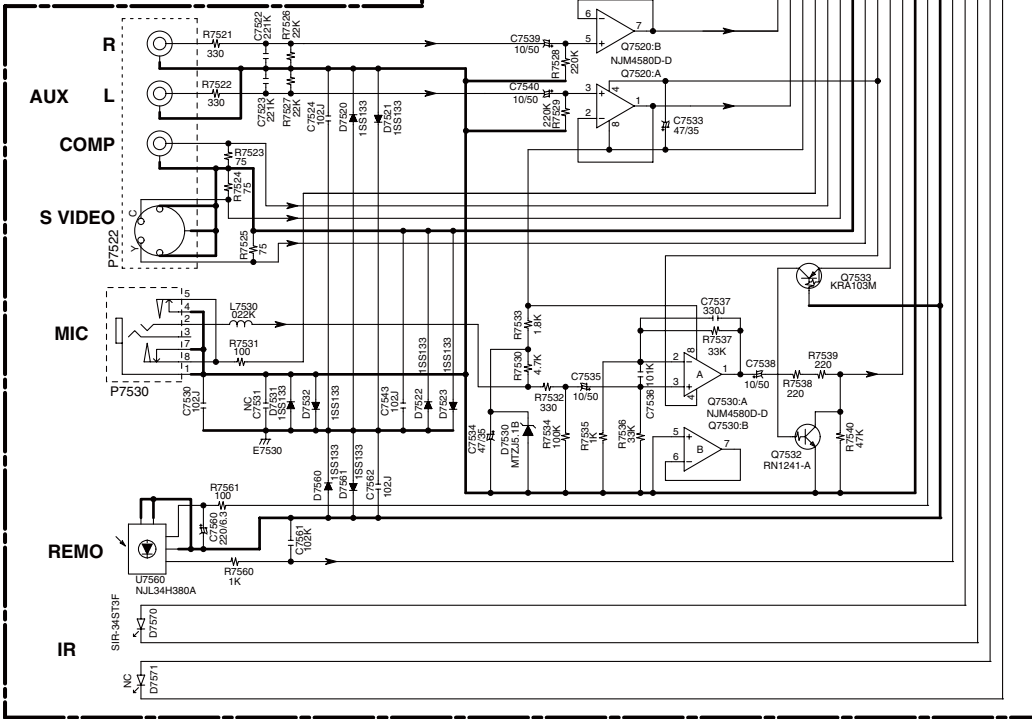
1



2

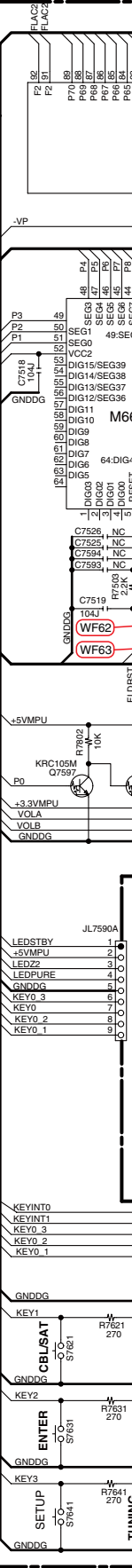


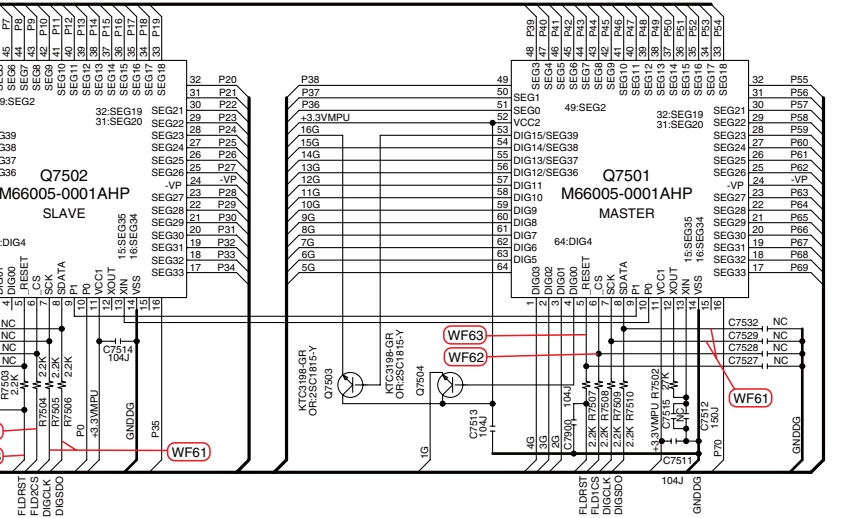
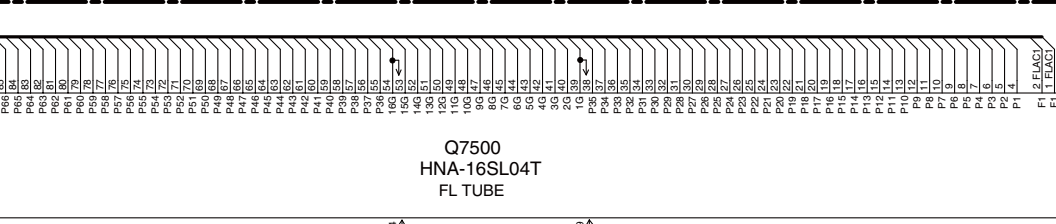
3



4

5

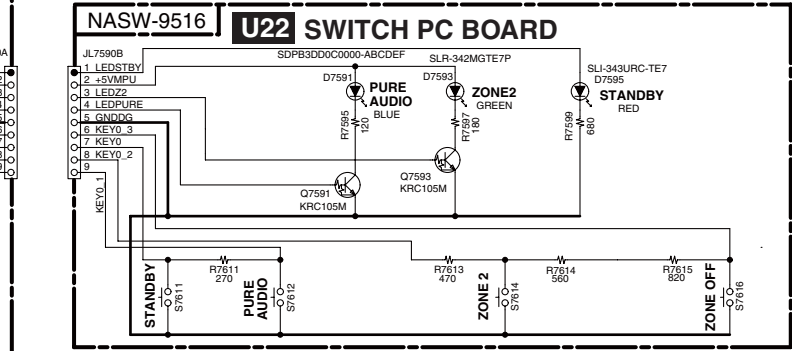
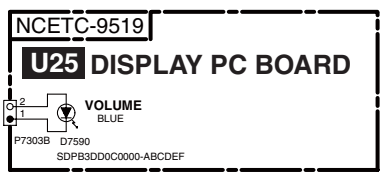
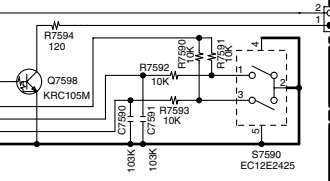




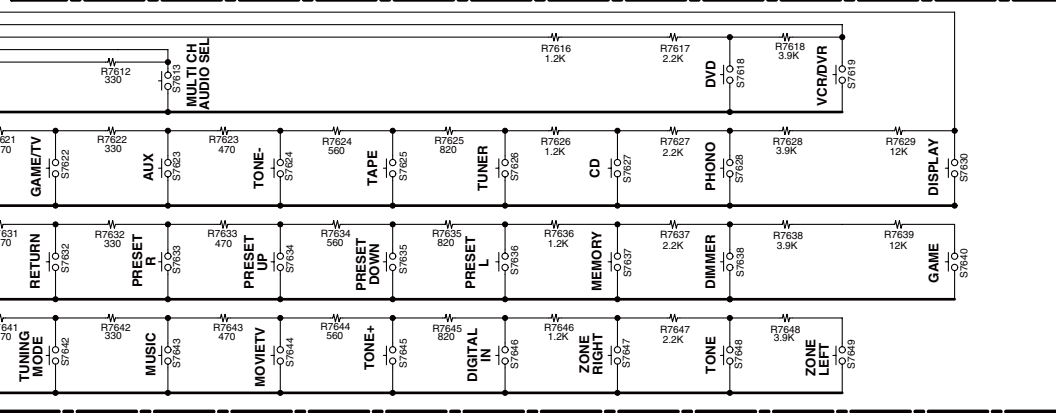
<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16)
for FL driver IC control waveforms.

<Note>
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each socket's location, X=A to H, Y=1 to 5.

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 - ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
 - ELECTROLYTIC CAPACITORS (---) ARE IN $\mu\text{F}/\text{WV}$.
 - ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
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 - ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
 - THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) $\square \square \square$ PRINTING SIDE
 - CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.



TO NATRM-9489
SD-4:FI



SCHEMATIC DIAGRAMS-15 (SD-15) XM AND SIRIUS SECTION

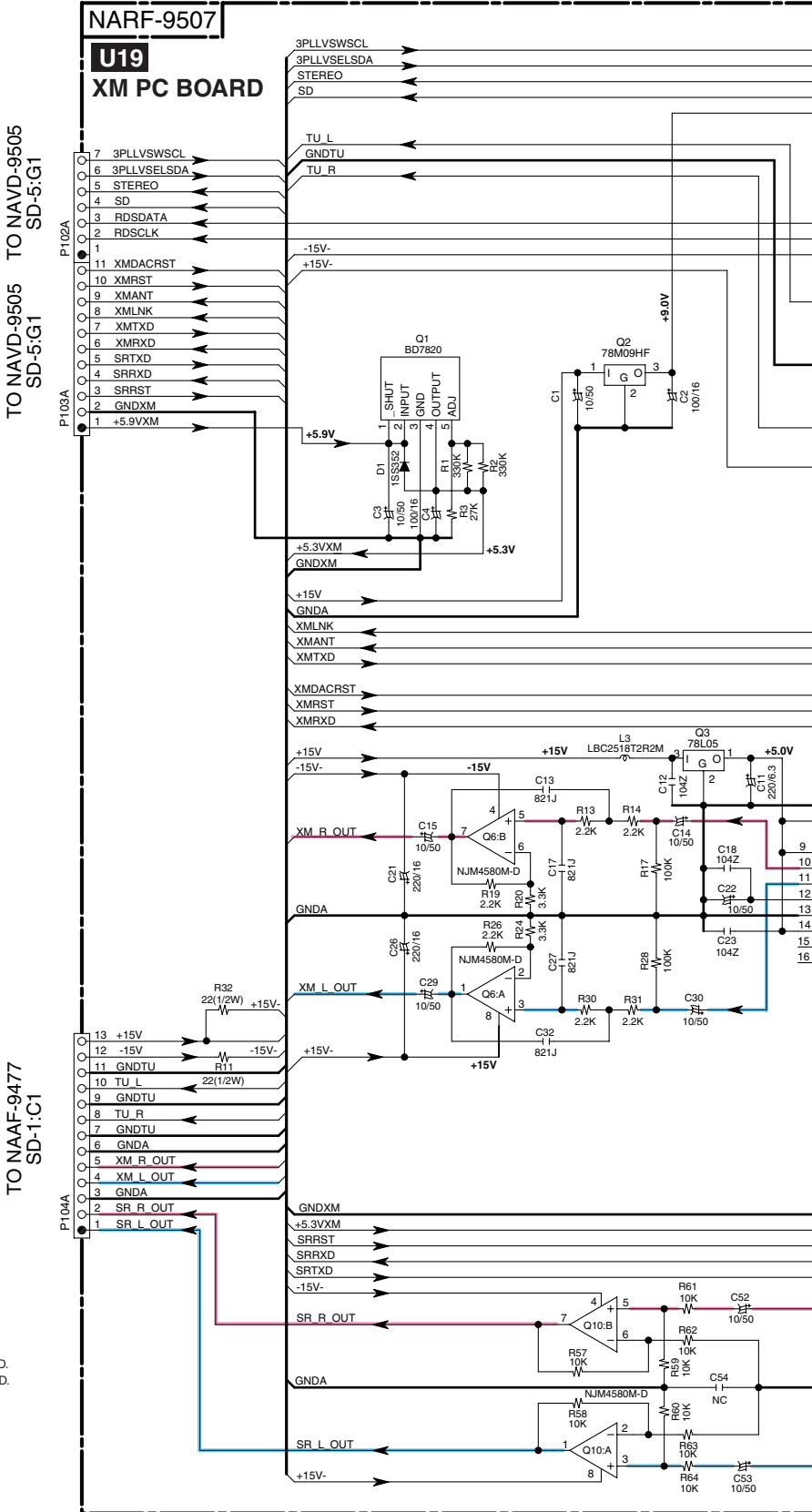
1

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<Note>
SD-x:XY is short for Schematic Diagram-x and
each socket's location, X=A to H, Y=1 to 5.

NOTE

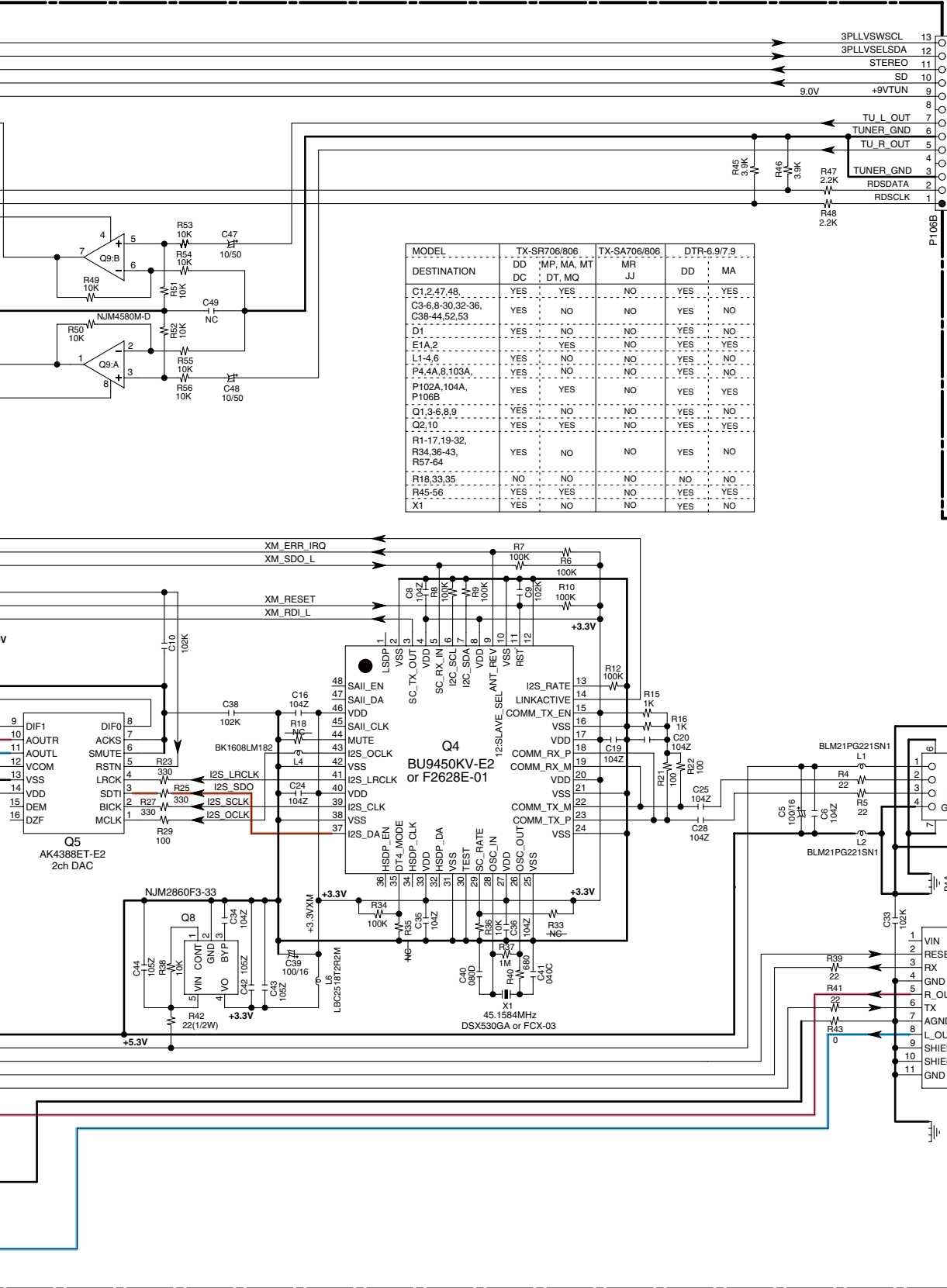
- THE COMPONENTS IDENTIFIED BY MARK \triangle ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- BOLD VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE.(NO INPUT SIGNAL).
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- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (---) ARE IN $\mu\text{F/WV}$.
- ALL CAPACITORS ARE IN $\text{pF}/50\text{WV}$ UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033 μF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
EX) \square PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

E

F

G

H



MODEL	TX-SR706/806	TX-SA706/806	DTR-6.9/7.9
DESTINATION	DD DC	MR JJ	DD MA
C1,2,47,48,	YES	NO	YES
C3-6,8-30,32-36,	YES	NO	NO
C38-44,52,53	YES	NO	NO
D1	YES	NO	YES
E1A,2	YES	NO	YES
L1-4,6	YES	NO	YES
P4,4A,8,103A,	YES	NO	YES
P102A,104A,	YES	YES	NO
P106B	YES	NO	YES
Q1,3-6,8,9	YES	NO	NO
Q2,10	YES	YES	YES
R1-17,19-32,	YES	NO	YES
R34,36-43,	YES	NO	NO
R57-64	YES	NO	NO
R18,33,35	NO	NO	NO
R45-56	YES	YES	YES
X1	YES	NO	YES

TO FM/AM
TUNER UNIT

XM

SIRIUS

P106B

P4

P8

3PLLVSWSCL 13
3PLLVSLSDA 12
STEREO 11
SD 10
+9VTUN 9
TU L OUT 8
TUNER GND 7
TU R OUT 6
TUNER GND 5
RDSDATA 4
RDSCLK 3
1

BLM21PG221SN1
L1
+V
D-
D+
GND

VIN
RESET
RX
GND
R_OUT
TX
AGND
L_OUT
SHIELD
SHIELD
GND

XM_ERR_IRQ
XM_SDO_L
XM_RESET
XM_RDI_L

Q5 AK4388ET-E2 2ch DAC
Q8 NJM2860F3-33
Q9:A NJM4580M-D
Q9:B NJM4580M-D
X1 45.1584MHz DSX530GA or FCX-03

R1-48, C1-49, L1-6, P102A, P104A, P106B, R45, R46, R47, R48

A

B

C

D

**SCHEMATIC DIAGRAM-16(SD-16)
WAVEFORM SECTION**

Digital Audio Waveform Part

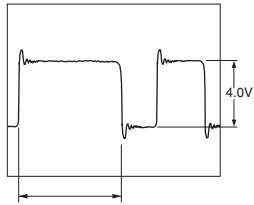
NOTE:

1. (WF01) is short for (Waveform01)
2. Refer to SD-7(SCHEMATIC DIAGRAM-9) for the location of each waveform on circuit.
3. SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

LR CLOCK (SAI_LRCK, CX_LRCK)
Fs=48kHz : DVD, Clock width=20.8us
Fs=44.1kHz : CD, Clock width=22.7us

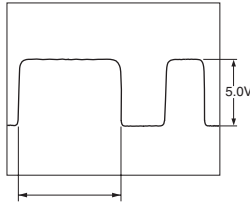
BIT CLOCK (SAI_SLCK, CX_SLCK)
64Fs=3072kHz : DVD, Clock width=325ns
64Fs=2822.4kHz : CD, Clock width=354ns

(WF01) OPT1 (SD-7:C5)



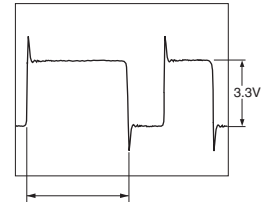
Duty varies according to audio data

(WF02) COAX1 (SD-7:C5)



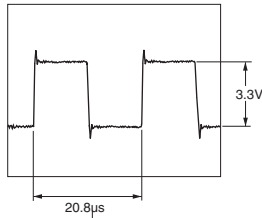
Duty always varies according to audio data

(WF03) SAI_SDOUT (SD-7:D5)

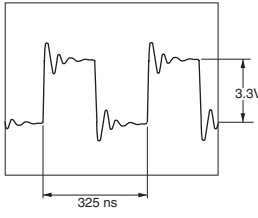


Duty varies according to audio data

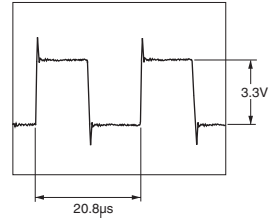
(WF04) SAI_LRCK (SD-7:D5)



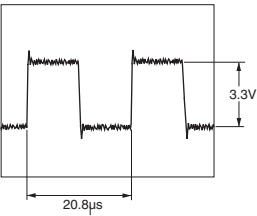
(WF05) SAI_SLCK (SD-7:D5)



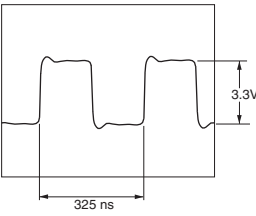
(WF06) PCMFLR3 (SD-7:E4)



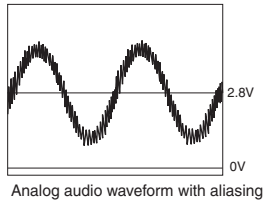
(WF07) CX_LRCK (SD-7:E4)



(WF08) CX_SCLK (SD-7:E4)

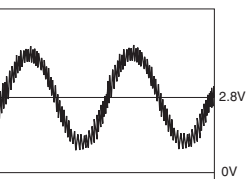


(WF09) FL+ (SD-7:F5)



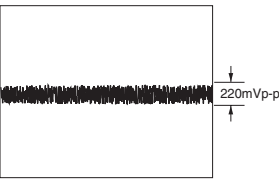
Analog audio waveform with aliasing noise

(WF10) DAC_FL (SD-7:H2)



Analog audio waveform with aliasing noise

(WF10) DAC_FL (SD-7:H2)



Aliasing noise in no audio data

1

2

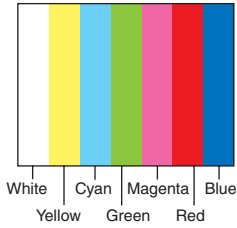
3

4

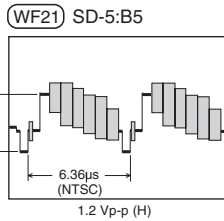
5

Video Waveform Part

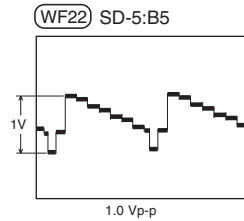
Video source color and pattern



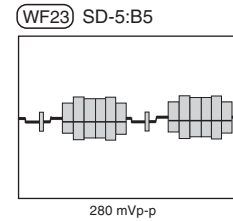
Composite waveform



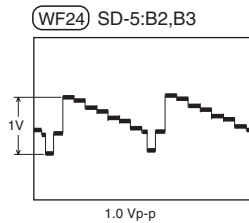
S-Video Y waveform



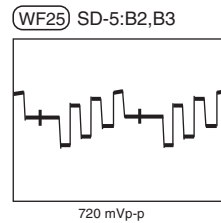
S-Video C waveform



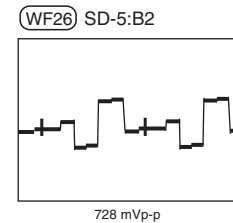
Component Y waveform



Component PB waveform



Component PR waveform



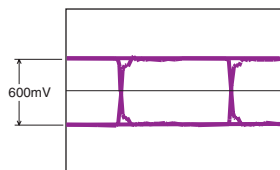
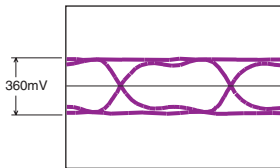
NOTE:

- (WF21) is short for (Waveform21)
- Refer to SD-5(SCHEMATIC DIAGRAM-6) for the location of each waveform on circuit.
- SD-x:XY is short for Schematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.
- In the case that video outputs are not connected to video devices, video signal output levels are doubled.

HDMI Waveform Part

HDMI D0,D1,D2 waveform

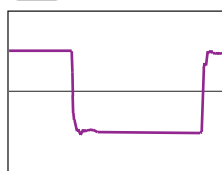
(WF41) SD-10:B3, H4 SD-11:B5



D0,D1,D2 Eye-pattern waveform, frequency and level vary according to video resolution, aspect and profile. Waveforms above are examples.

HDMI CK waveform

(WF42) SD-10:B3, H4 SD-11:B5

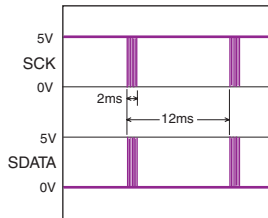


CK waveform, frequency and level differ according to video resolution, aspect and profile. D0,D1,D2 are just CK x10.

FL Driver IC Control Waveform Part

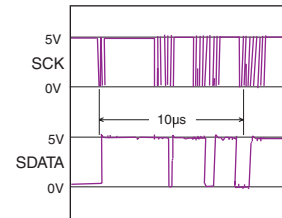
SCK/SDATA waveform

(WF61) SD-14:D3,F2



SCK/SDATA waveform

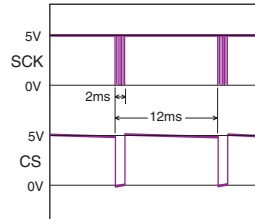
(WF61) SD-14:D3,F2



SDATA waveform varies according to the data content

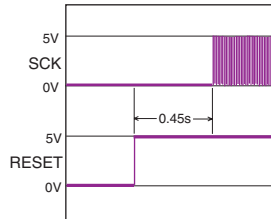
SCK/CS waveform

(WF62) SD-14:D3,F2



SCK/RESET waveform

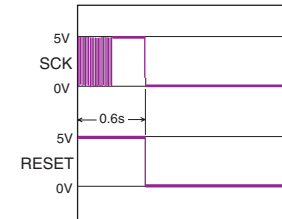
(WF63) SD-14:D3,F2



When power on

SCK/RESET waveform

(WF63) SD-14:D3,F2



When power off