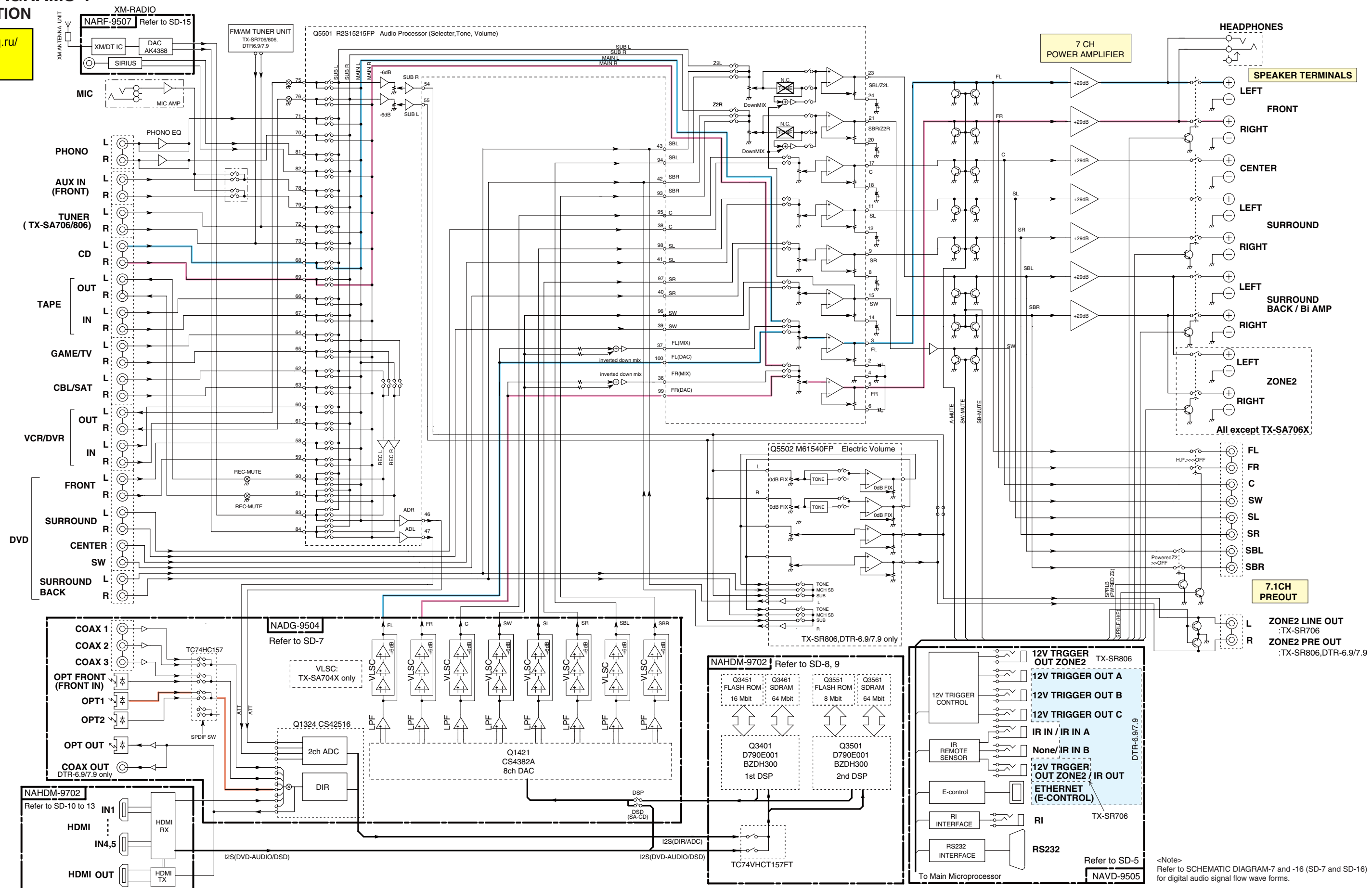


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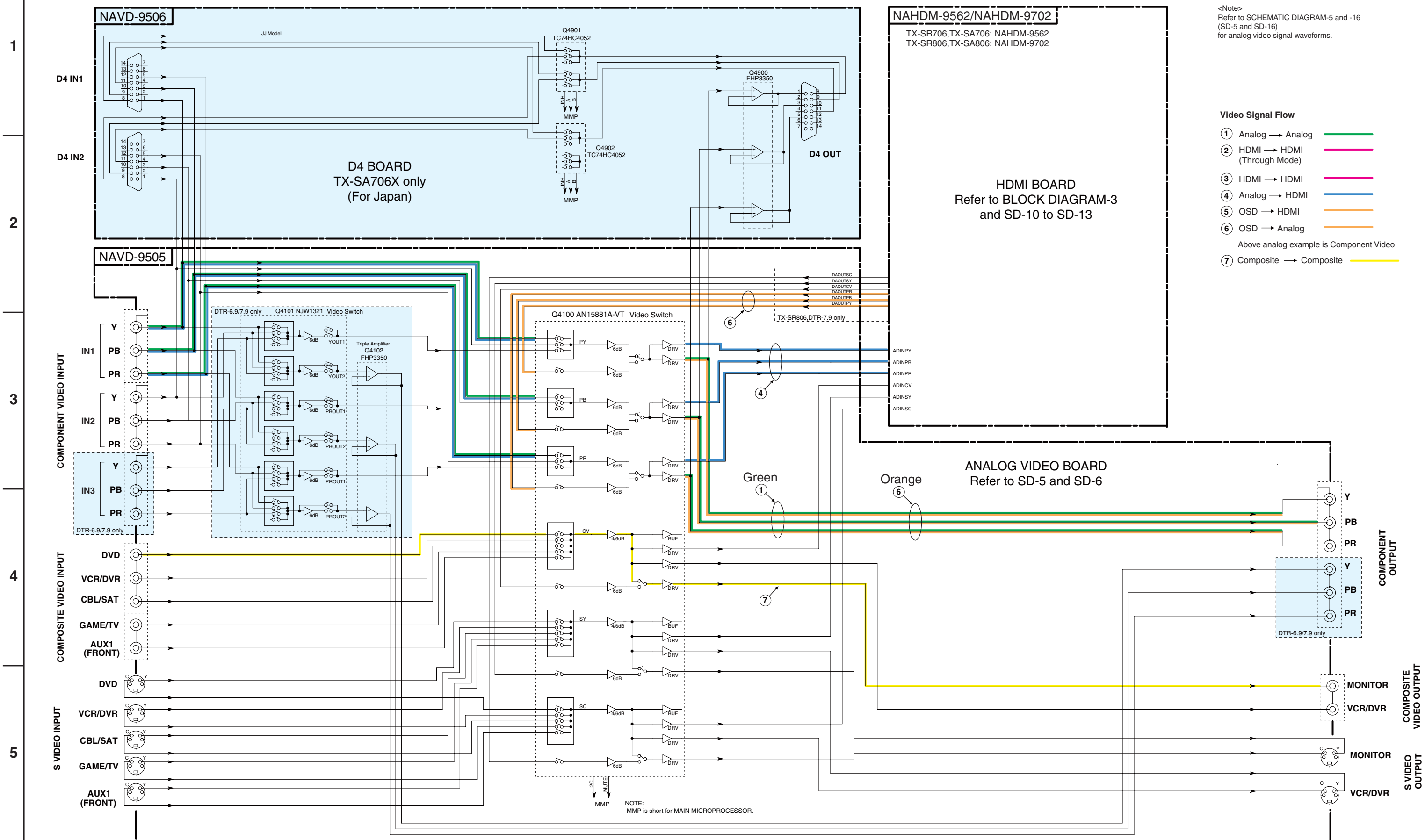
3

4

5



<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

BLOCK DIAGRAMS-3

HDMI SECTION

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 BOARDQ8200
FLI30336-AC
Digital Video ProcessorOSD Blender/
Display EngineQ8801
ADV7342bstz
Video EncoderTO NAVD-9505
VIDEO BOARDTX-SR806
DTR-7.9
only

Video Signal Flow

- ① Analog → Analog
- ② HDMI → HDMI (THROUGH MODE)
- ③ HDMI → HDMI
- ④ Analog → HDMI
- ⑤ OSD → HDMI
- ⑥ OSD → Analog

Above analog ex. is Component

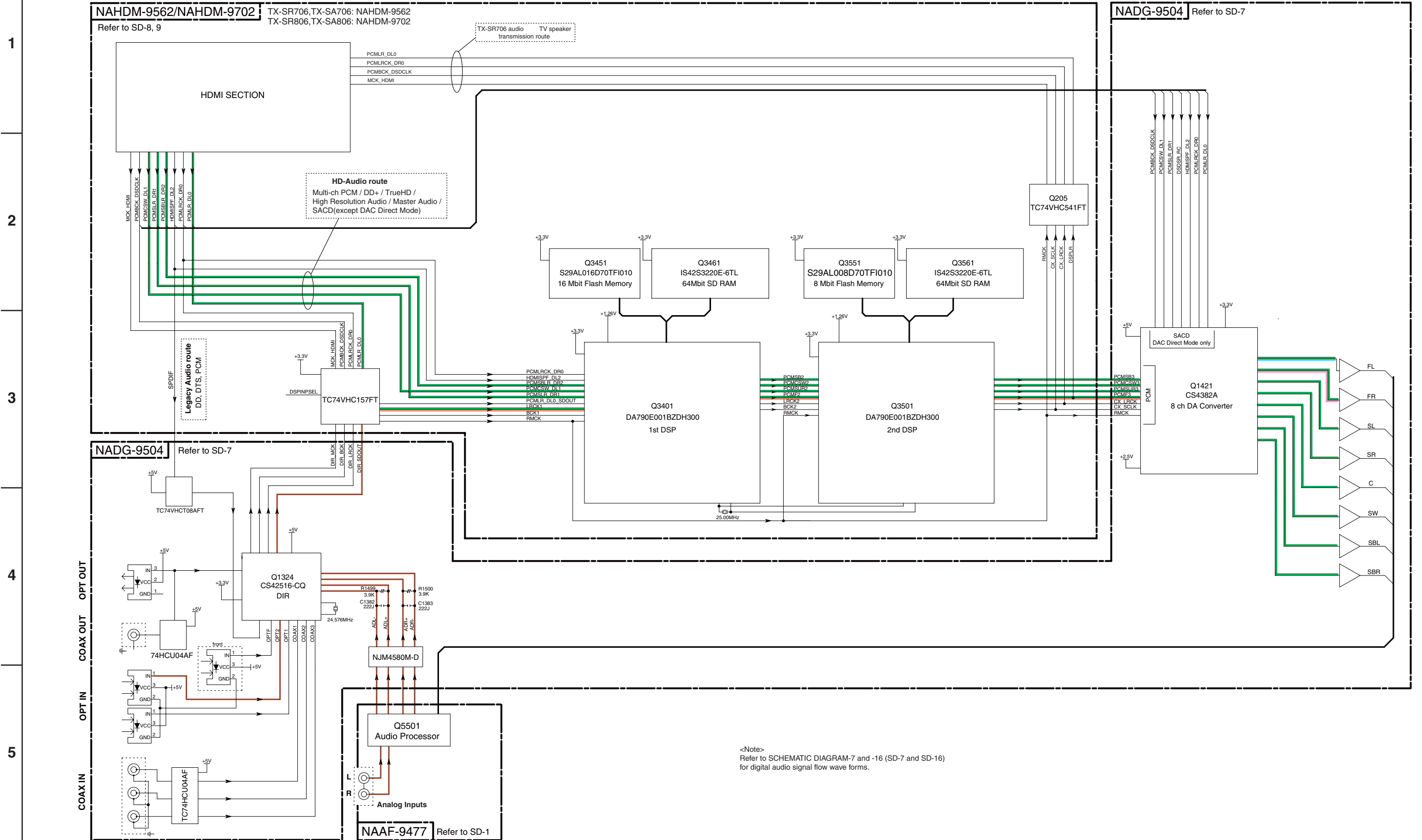
TO Q1016
MAIN
MICROPROCESSOR

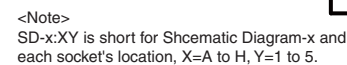
HDMI OUT

TX-SR806
TX-SA806
DTR-7.9
TX-SA706XTX-SR706
TX-SA706
DTR-6.9

TO DSP PART

BLOCK DIAGRAMS-4 DSP SECTION

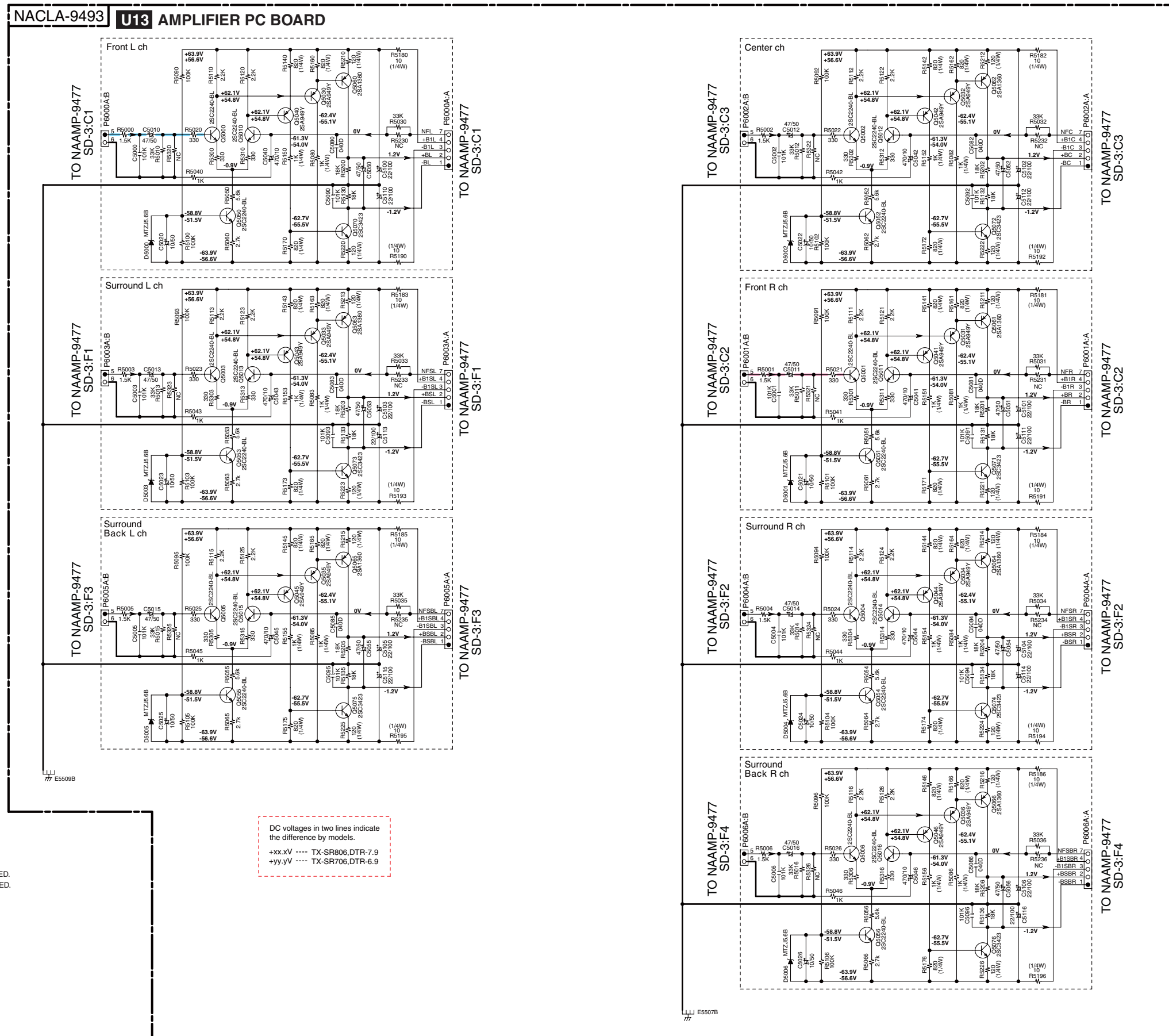




MODEL	R5700,5701,5704,5705	R5658,5659,5702,5703
TX-SR706,TX-SA706,TX-SA706X	NO	YES
TX-SR806,TX-SA806,DTR-7.9,DTR-6.9	YES	NO

Model	DEST	R56	J5999	R5671	J5994	R5664	J5997	R5663	J5998	R5665	J5995	R5662	J5996	C5671	C5661
TX-SR705, DTR-6.9	ALL	2(2W)		2(2W)			YES		YES	2(2W)		2(2W)		200/50	47/50
TX-S7A06	MR		YES	15(2W)			YES		YES	15(2W)			YES	47/50	1000/35
TX-S7A06X	JJ			2(2W)		15(5W)		5W-15			YES		YES	47/50	1000/50
TX-SR806, DTR-7.9	ALL		YES		YES	15(5W)		5W-15			YES		YES	200/50	50/50
TX-SAB06	MR		YES	6.8(2W)		15(5W)		5W-15		6.8(2W)			YES	47/50	1000/50

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



DC voltages in two lines indicate the difference by models.

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

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).
- 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 (μ) ARE IN μ F/VV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033 μ F
- ALL RESISTORS ARE IN OHMS 1/4WATT/ 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.

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

NAAMP-9477(2/2)

U01 AMPLIFIER PC BOARD

NCETC-9478

U02
THERMAL
SENSOR
PC BOARD

NAETC-9480

U04
TO COOLING FAN
TERMINAL
PC BOARDTX-SR806/
DTR-7.9 onlyTO NAVD-9505
SD-5:F4TO NATRM-9488
SD-4:A3TO POWER TRANS
T901 SD-4:H1TO NAAF-9477
SD-1:F5Front L ch
TO NACLA-9493
SD-2:C1,D1Front R ch
TO NACLA-9493
SD-2:E2,G2Center ch
TO NACLA-9493
SD-2:E1,G1

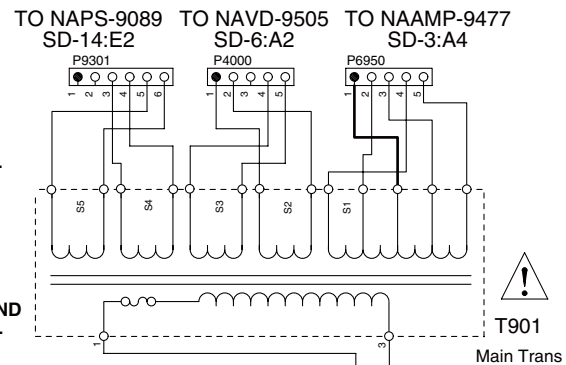
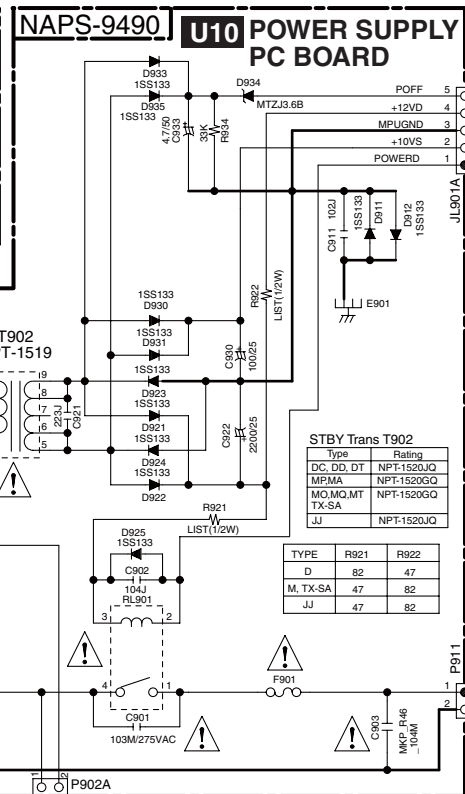
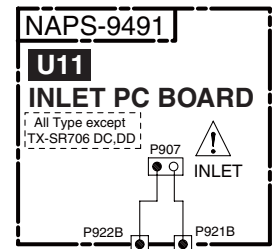
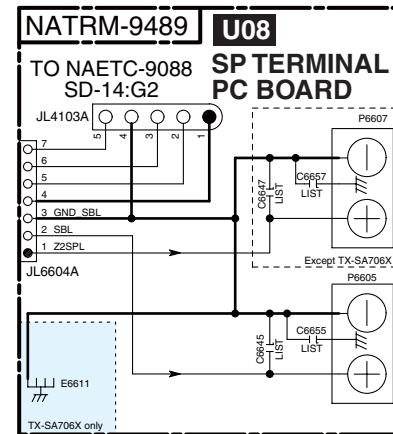
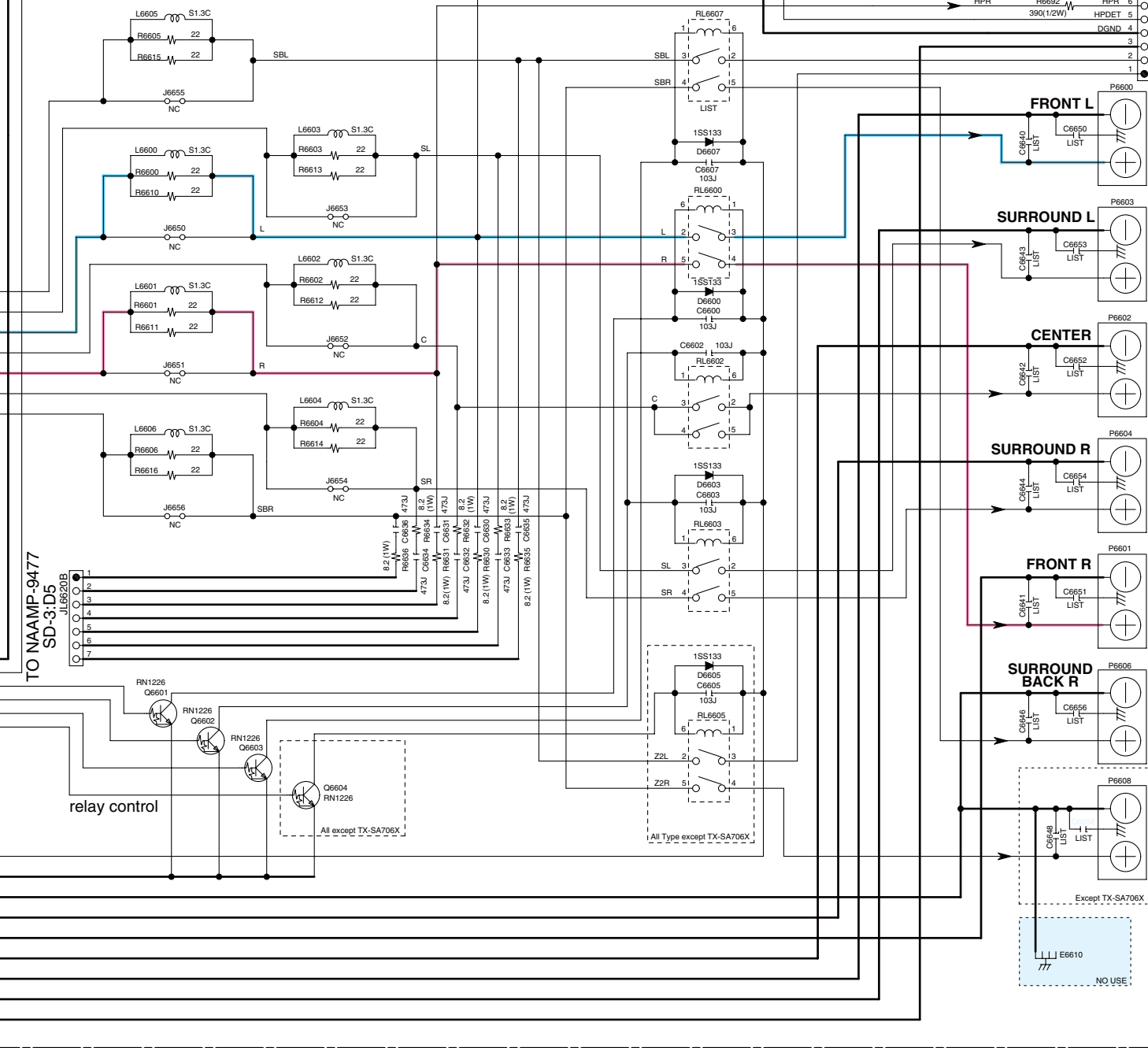
DC voltages in two lines indicate
the difference by models.
+xx.xV ---- TX-SR806,DTR-7.9
+yy.yV ---- TX-SR706,DTR-6.9

MODEL	DEST.	C6901,C6902
TX-SR706,DTR-6.9	DC,DD	12000/93V
TX-SR706,DTR-6.9	OTHER	12000/89V
TX-SR806,DTR-7.9	ALL	15000/71V

TO NATRM-9488
SD-4:A4TO NAAF-9477
SD-1:H4TO NATRM-9488
SD-4:A2Surroun L ch
TO NACLA-9493
SD-2:C2,D2Surroun R ch
TO NACLA-9493
SD-2:E4,G4Surround Back L ch
TO NACLA-9493
SD-2:C4,D4Surround Back R ch
TO NACLA-9493
SD-2:E5,G5

<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-4 (SD-4)
SP TERMINAL AND POWER SUPPLY SECTION



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

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

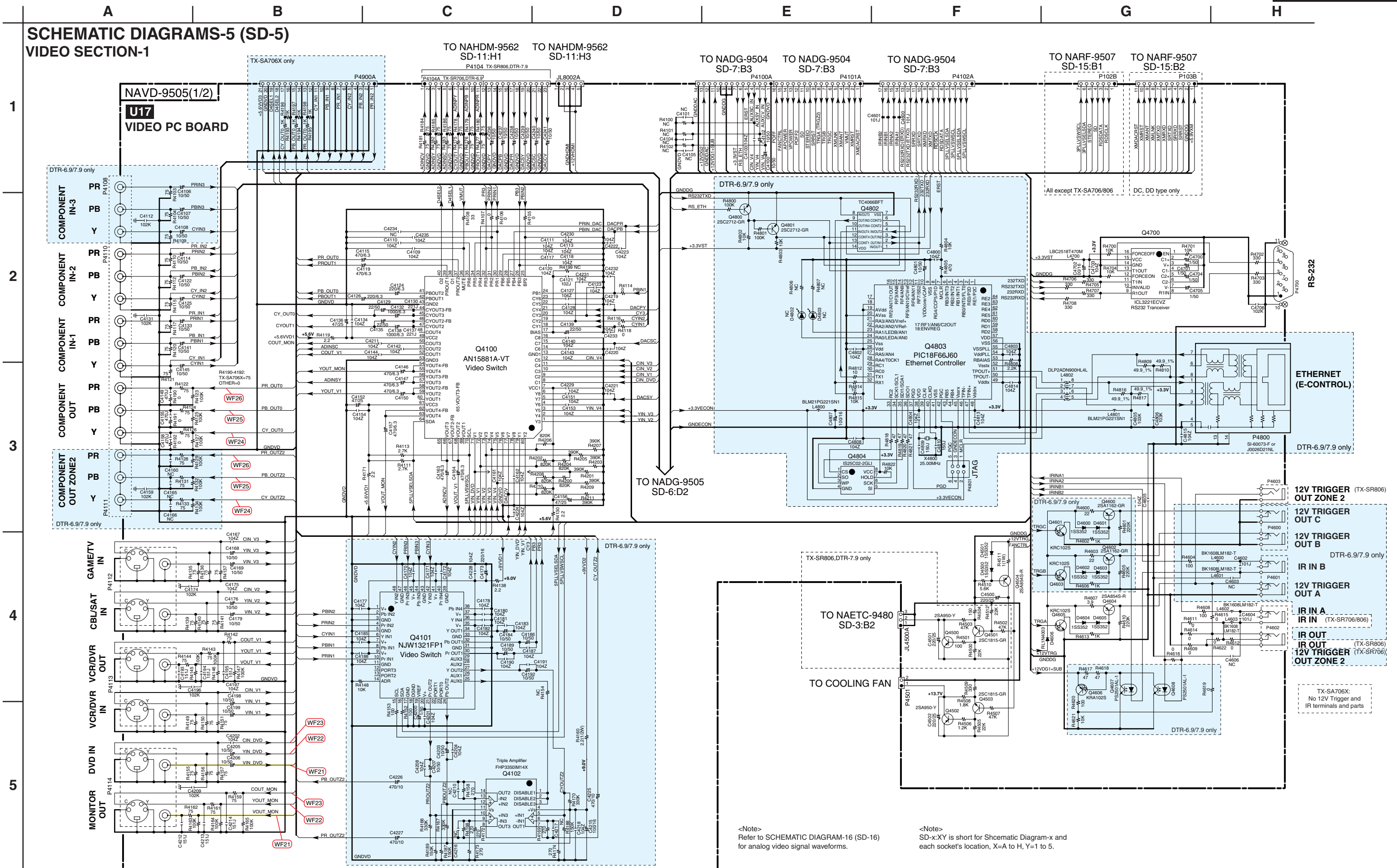
NOTE

- * 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 μ F/VV.
- * ALL CAPACITORS ARE IN pF/50VW UNLESS OTHERWISE NOTED.
- EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033 μ F
- * ALL RESISTORS ARE IN OHMS 1/4WATT/5 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.

TYPE	TX-SR706	TX-SA706	TX-SR806	TX-SA806	TX-SA706J
D	NC	---	NC	---	---
J	---	---	---	---	NC
M	472J	472J	472J	472J	---

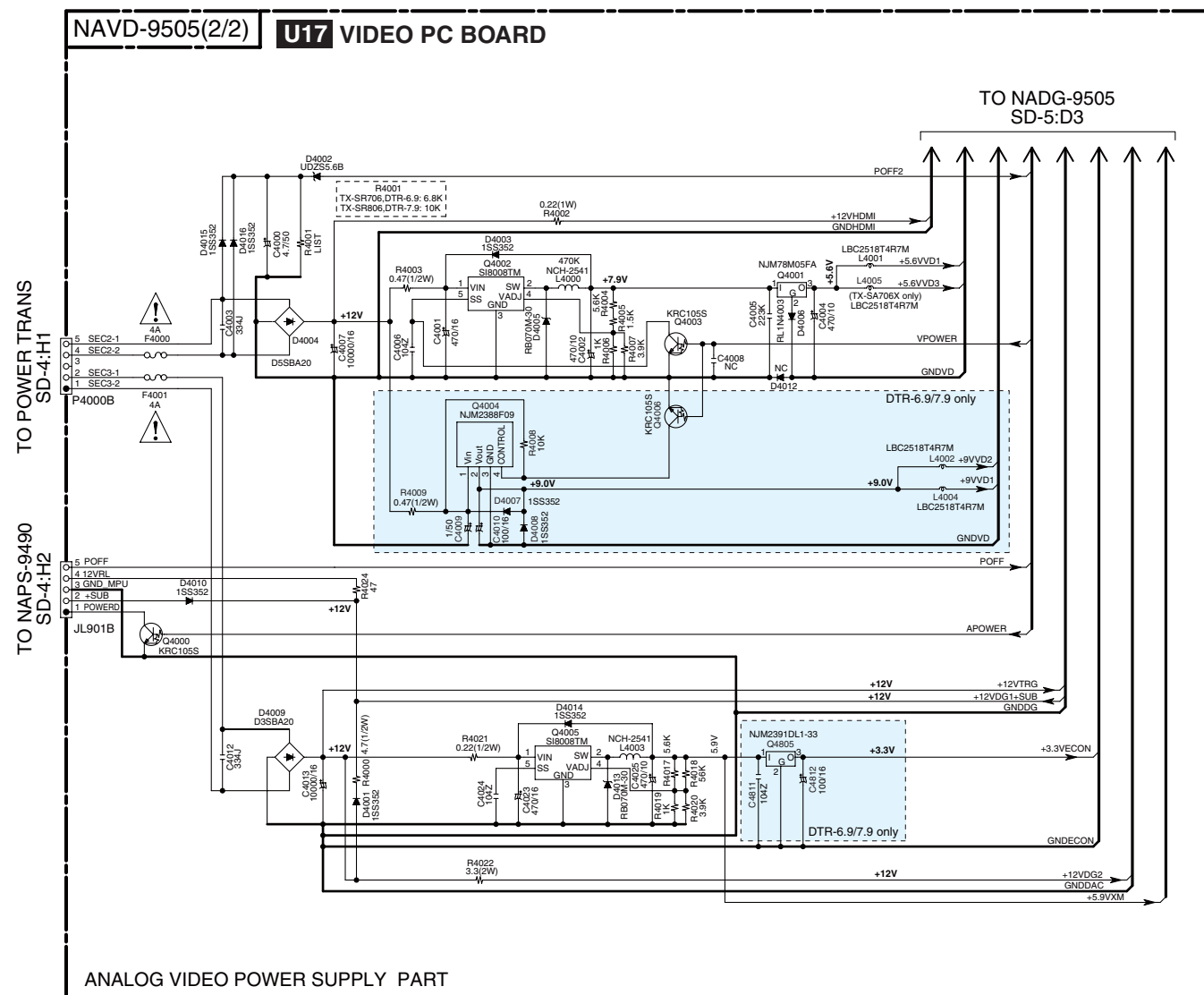
TYPE	TX-SR706	TX-SA706	TX-SR806	TX-SA806	TX-SA706
D	102J	---	102J	---	---
J	---	---	---	---	NC
M	102J	102J	102J	102J	---

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



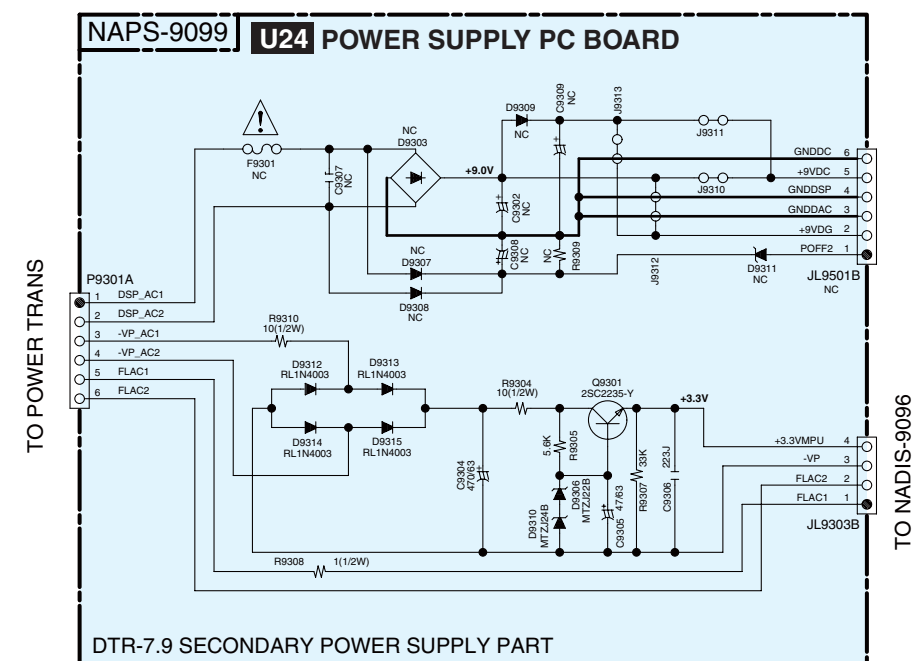
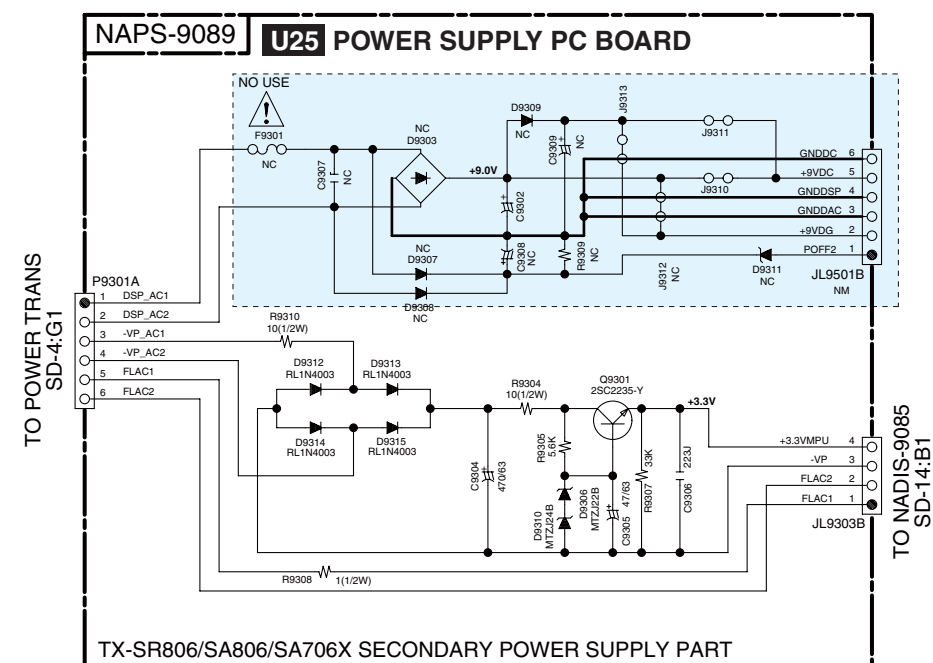
SCHEMATIC DIAGRAMS-6 (SD-6)
VIDEO SECTION-2

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

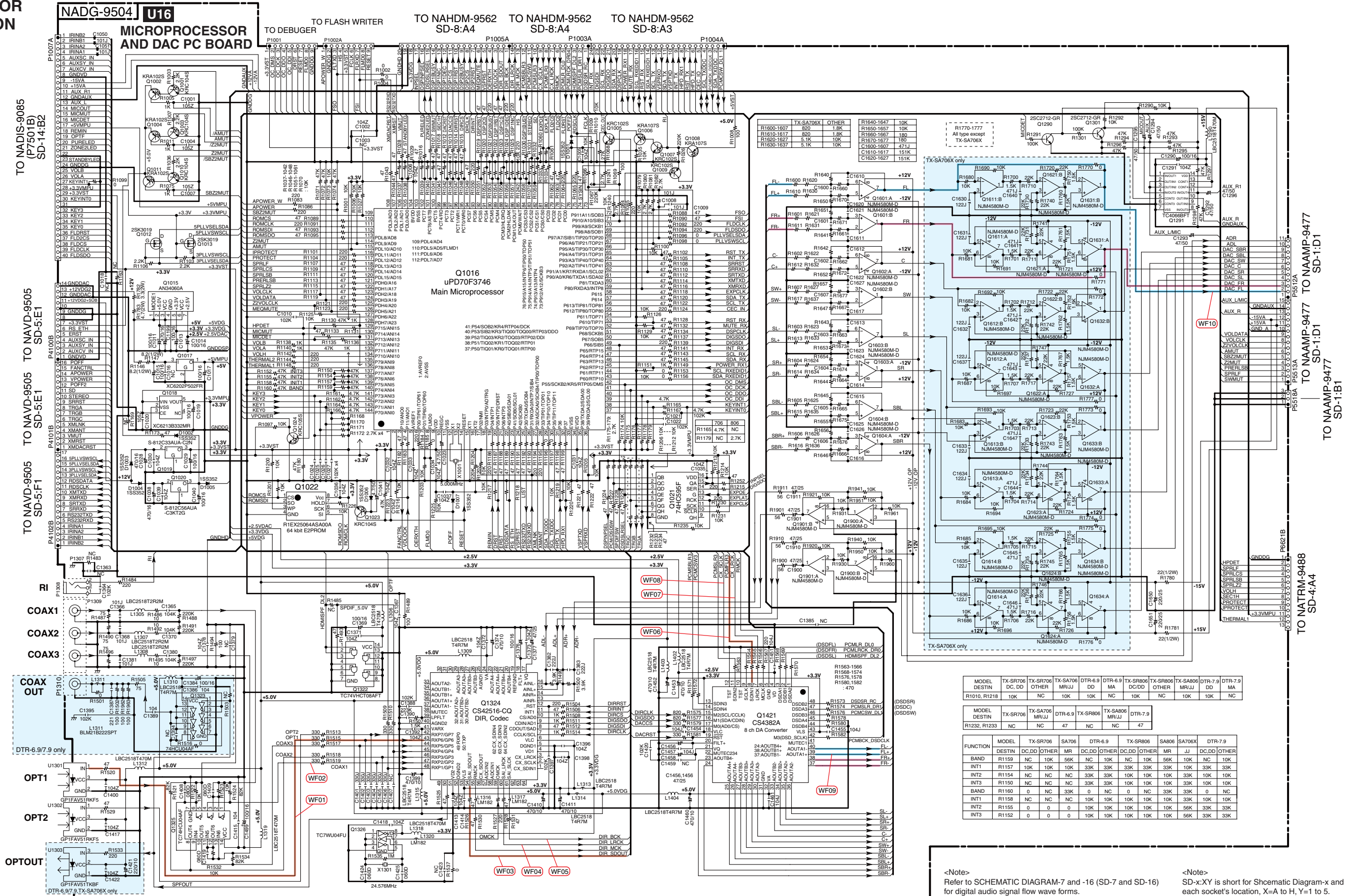


NOTE

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
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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 μ F/VV.
 - ALL CAPACITORS ARE IN pF/50VW UNLESS OTHERWISE NOTED.
- EX) 030-30p, 330-33pF, 331-330pF, 333-0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATT/5 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-7 (SD-7)
MICROPROCESSOR
AND DAC SECTION



<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 Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.
---	--

SCHEMATIC DIAGRAMS-8 (SD-8)

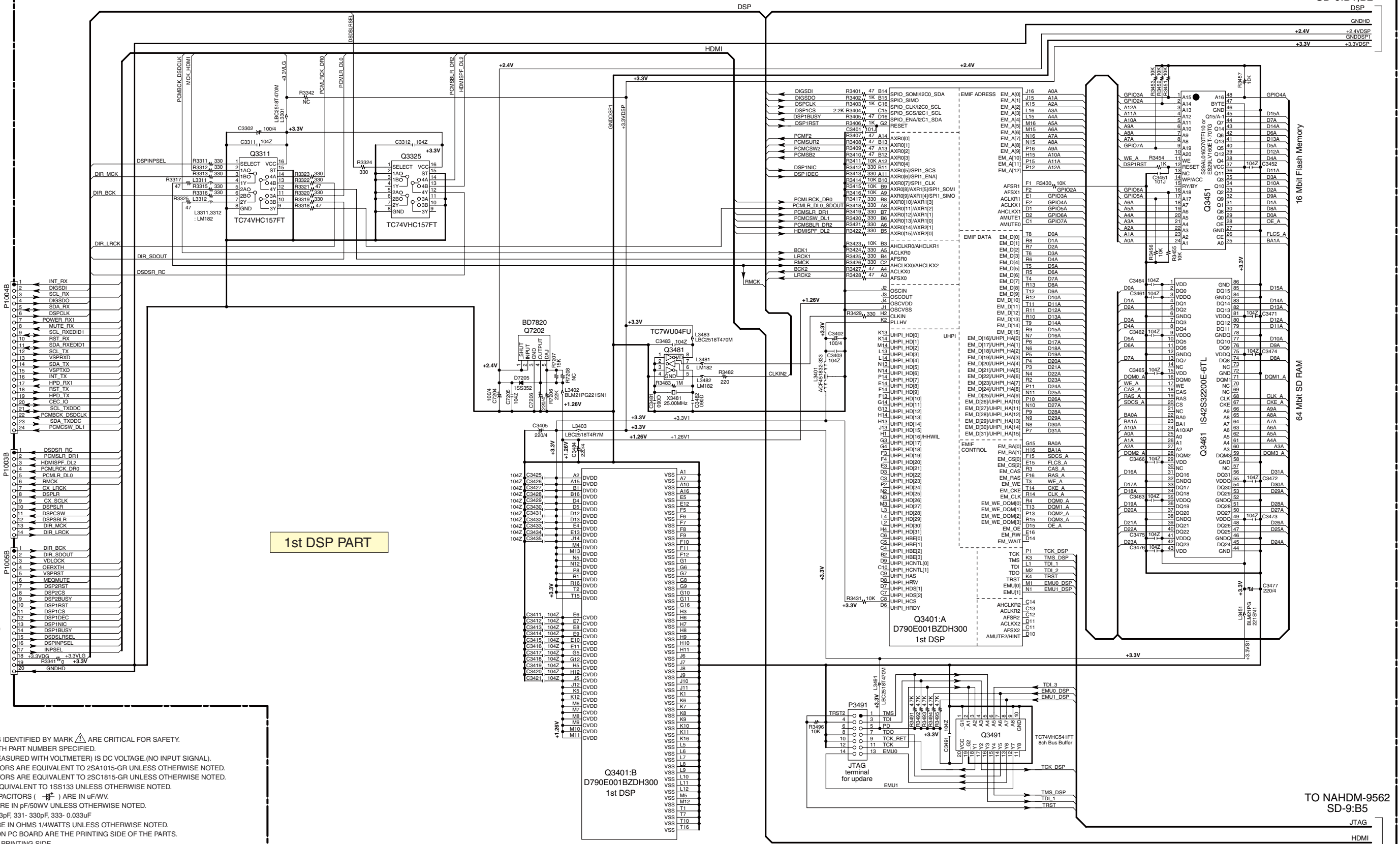
DSP SECTION-1

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

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

NAHDM-9562/NAHDM-9702(1/6)

U20 HDMI PC BOARD

TO NAHDM-9562
SD-9:B1,B2

NOTE

- THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
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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 ($\text{---}\text{||}\text{---}$) 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) $\text{---}\text{---}\text{---}$ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

TO NAHDM-9562
SD-9:B5

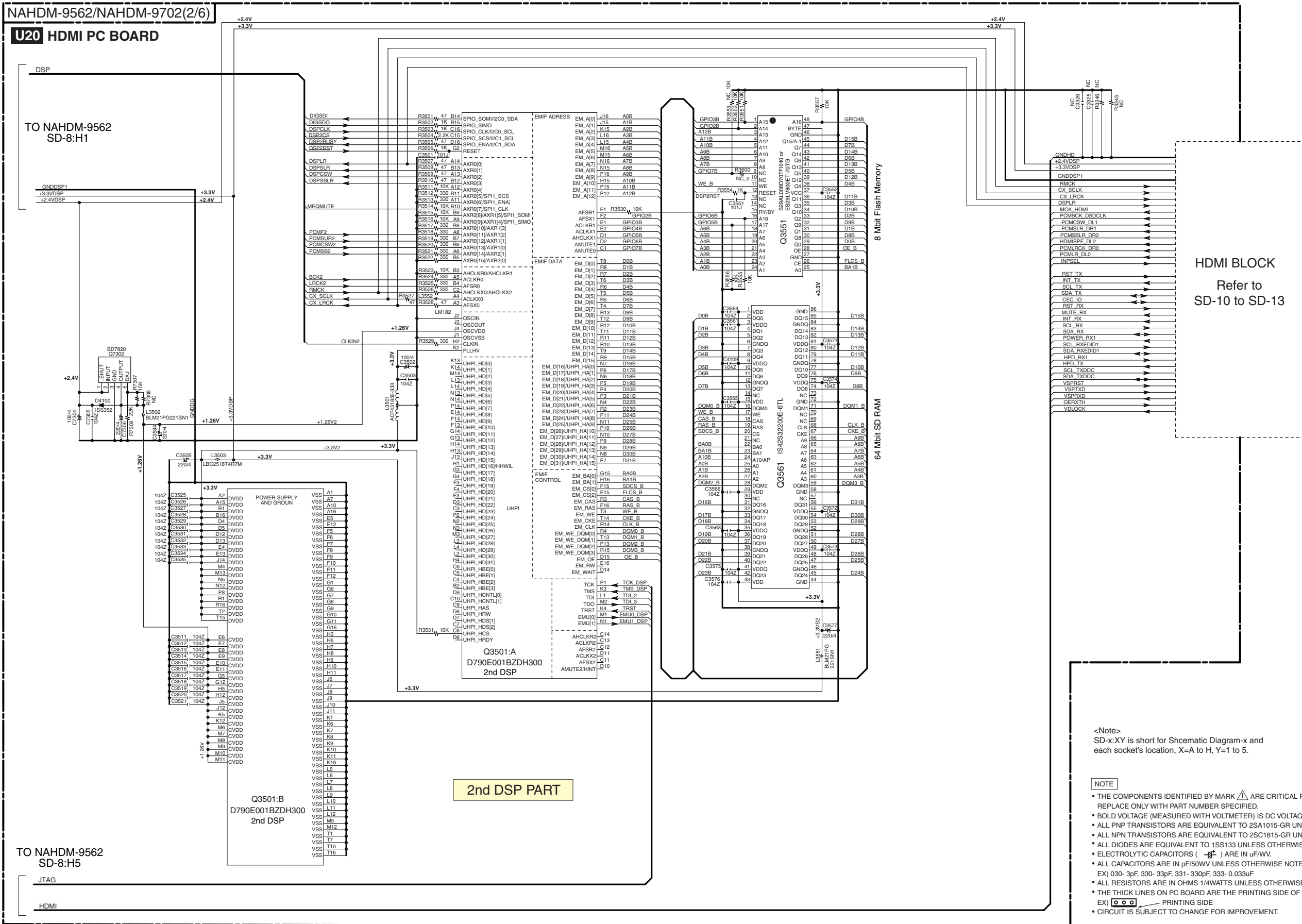
JTAG

HDMI

SCHEMATIC DIAGRAMS-9 (SD-9)

DSP SECTION-2

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



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

HDMI INPUT PART-1

Q8162
SI19185
HDMI Receiver

Q8501
SI19135
HDMI Receiver

Q8401
SI19134
HDMI Transmitter

HDMI OUTPUT PART

2nd DSP PART
SD-9

BUS SWITCH
PART
SD-9

HDMI OUT

HDMI IN4 (Not Used)

HDMI IN3 HDMI IN5

HDMI IN2 HDMI IN4

TX-SR706
TX-SA706
DTR-6.9

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

HDMI INPUT PART-2
SD-11

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

<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-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.

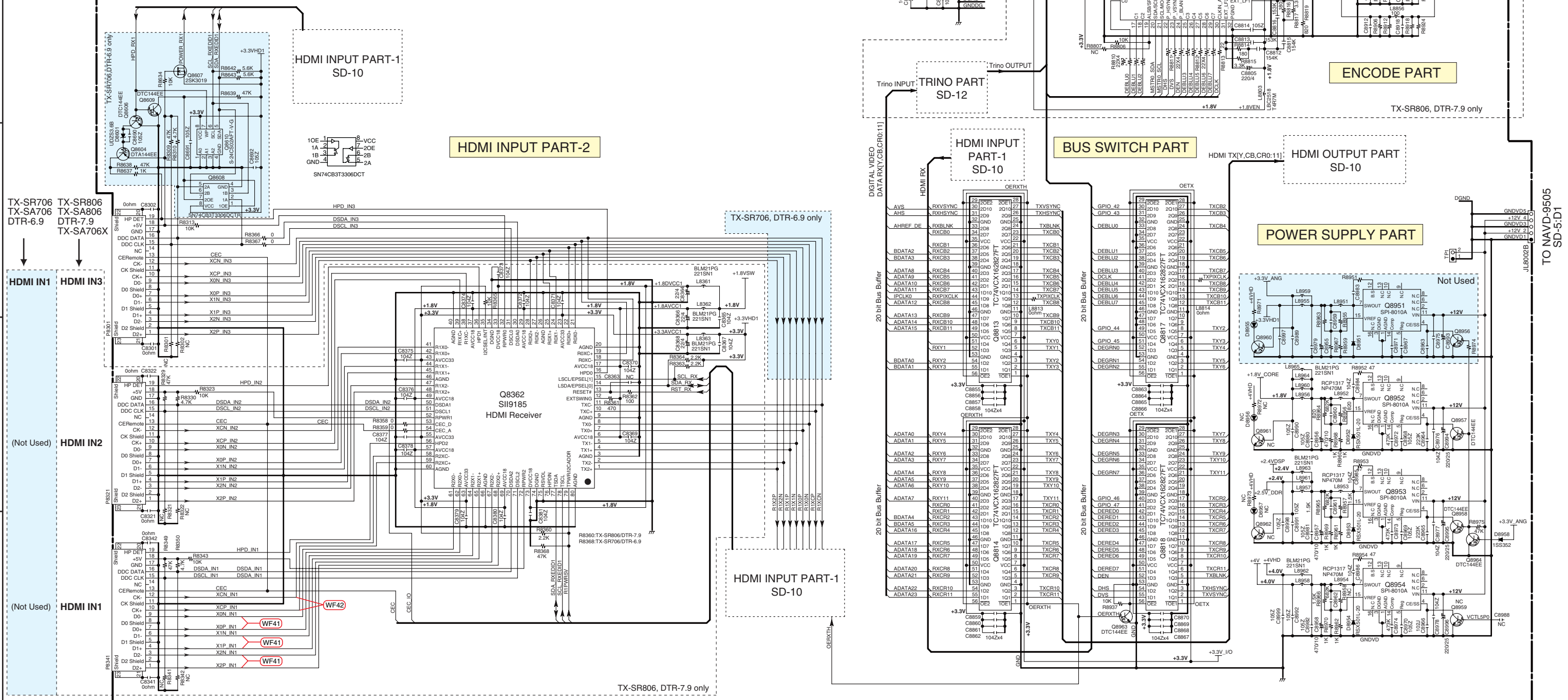
<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16) for HDMI signal waveforms.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK $\triangle$ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
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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 ($\text{---}\text{||}\text{---}$) ARE IN $\mu\text{F}/\text{VW}$.
- ALL CAPACITORS ARE IN pF/50VW 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) $\square \square \square$ 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



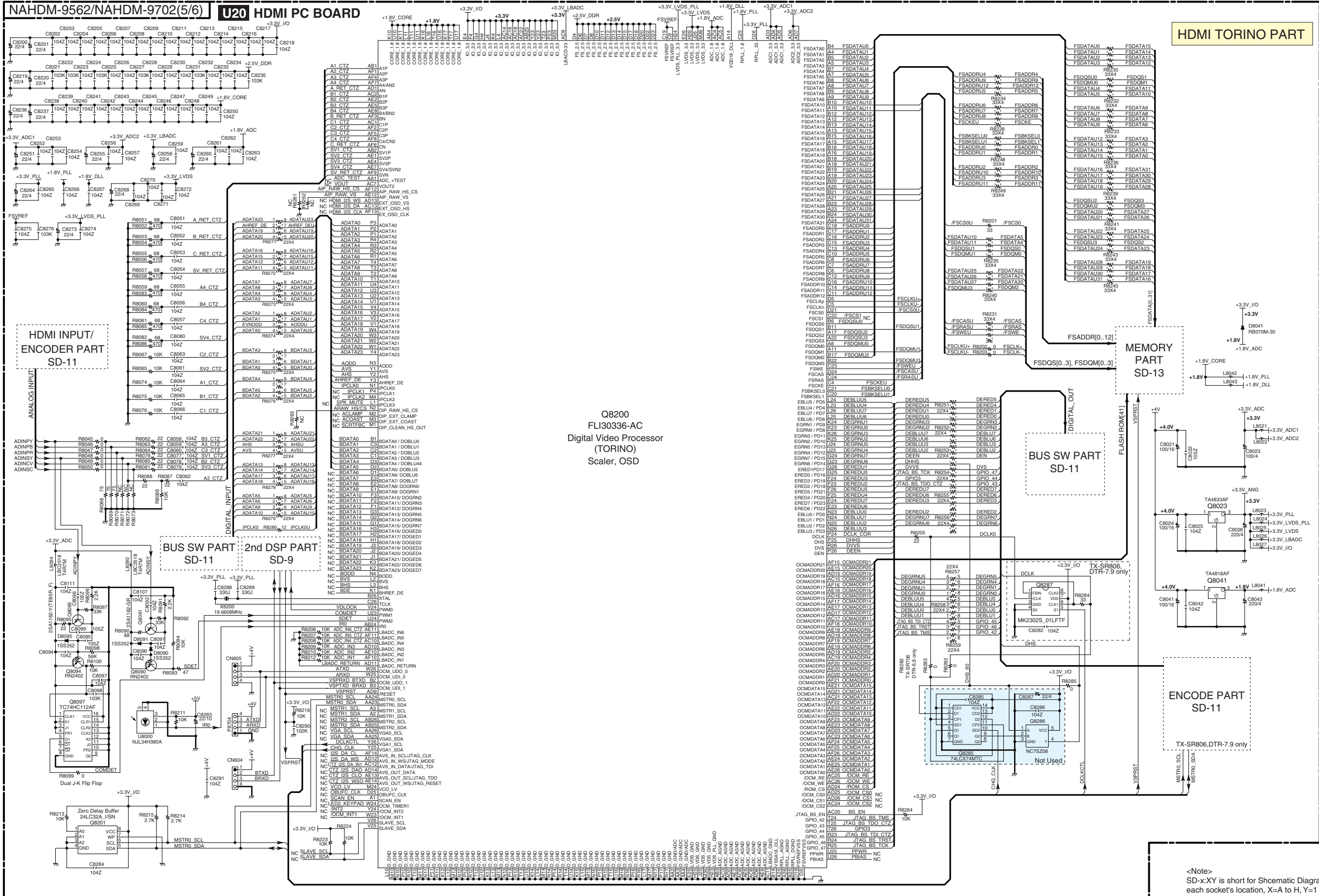
SCHEMATIC DIAGRAMS-12 (SD-12)

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

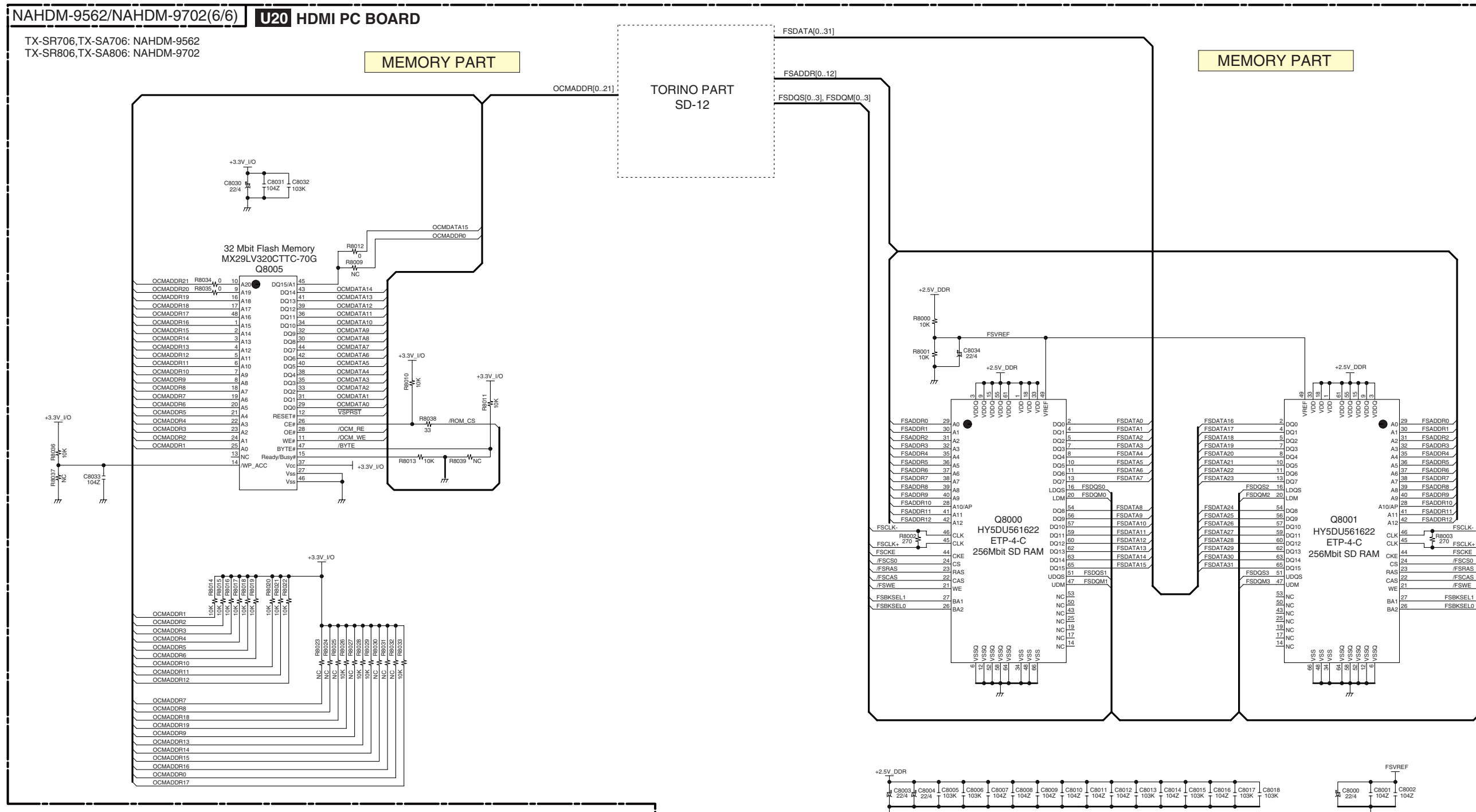


HDMI TORINO PART

MEMORY
SD-13BUS SW PART
SD-11ENCODE 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)



NOTE

- THE COMPONENTS IDENTIFIED BY MARK  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 μ F/VV.
- ALL CAPACITORS ARE IN pF/50VWV UNLESS OTHERWISE NOTED.
- EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033 μ F
- 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.

SCHEMATIC DIAGRAMS-14 (SD-14)

DISPLAY SECTION

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

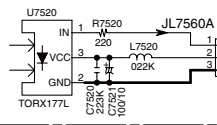
<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16) for FL driver IC control waveforms.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK  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 μ F/VV.
- ALL CAPACITORS ARE IN pF/50VW UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033 μ F
- 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.

NAETC-9090 U26 FRONT OPT PC BOARD

OPT



R

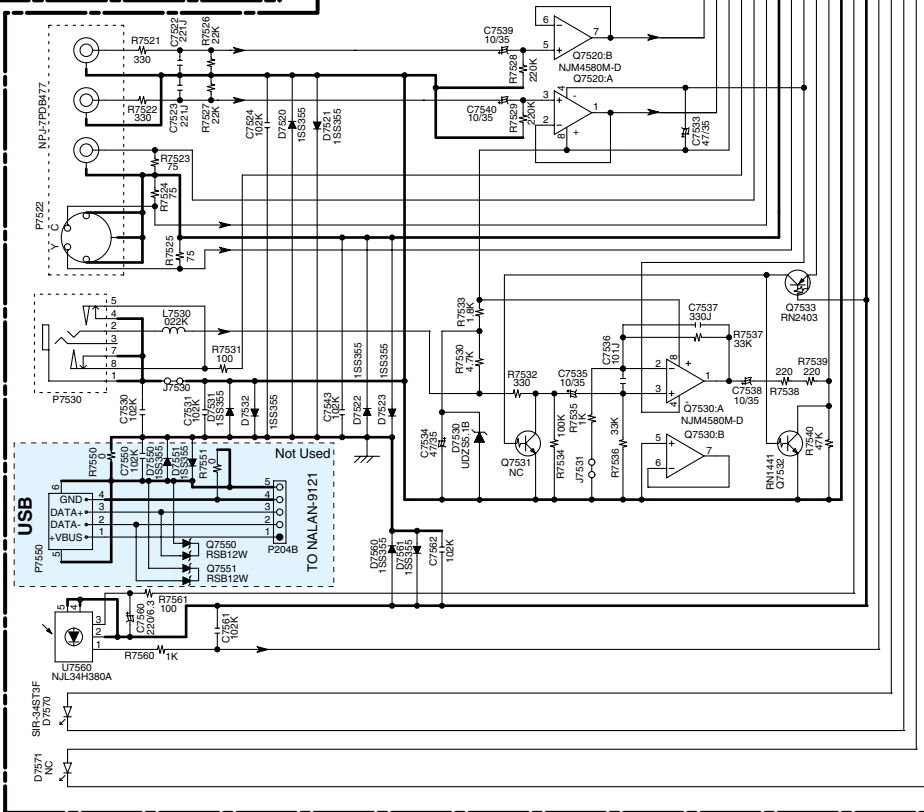
L

COMP

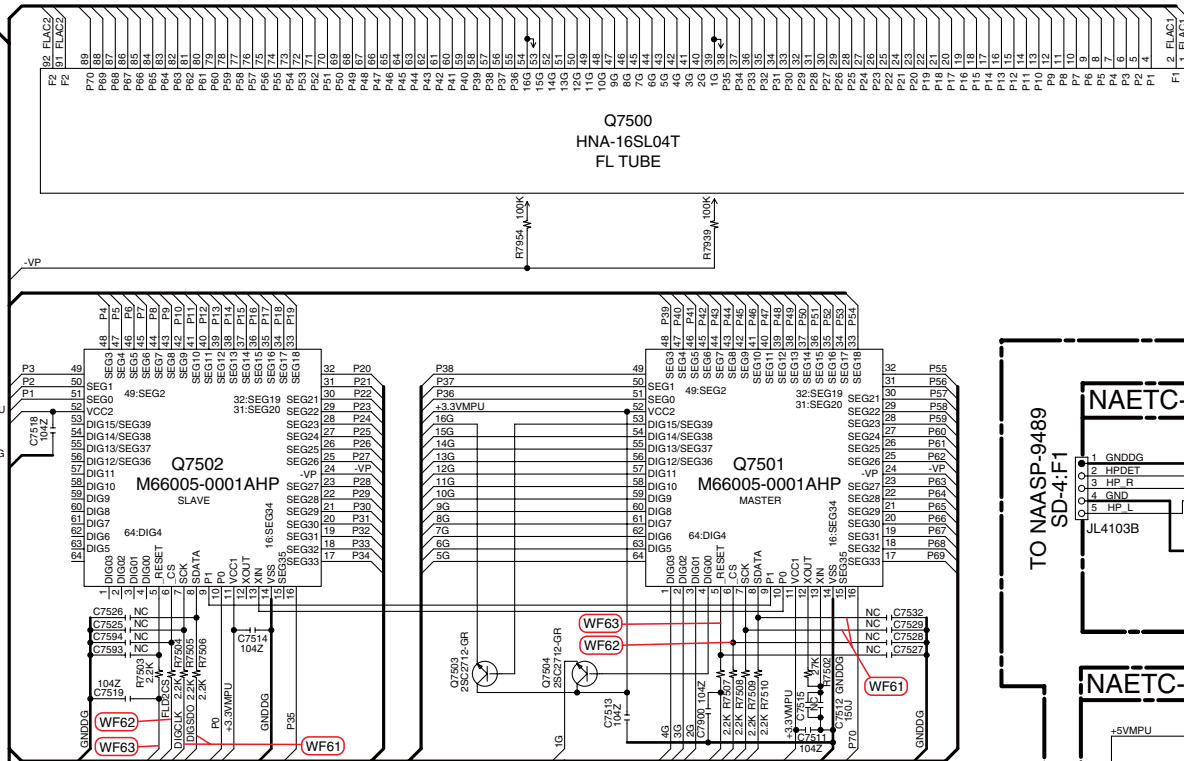
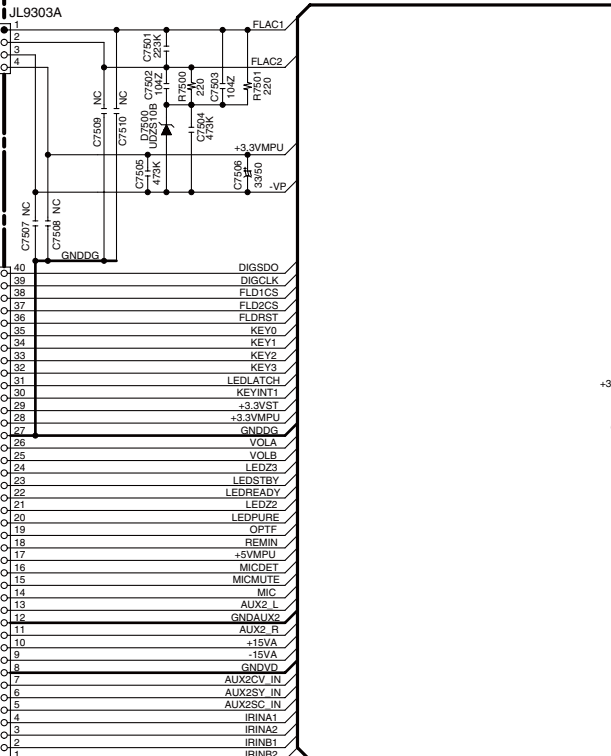
S VIDEO

MIC

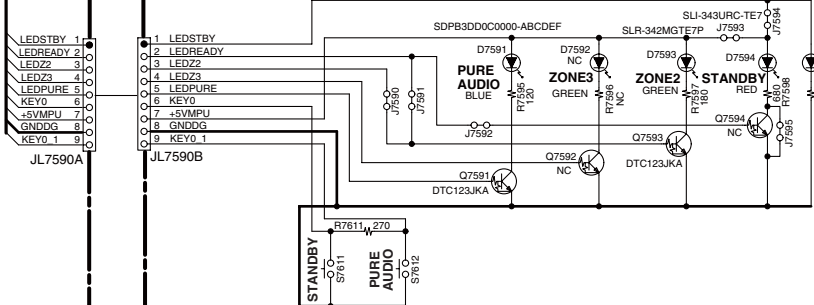
REMOTE CONTROL



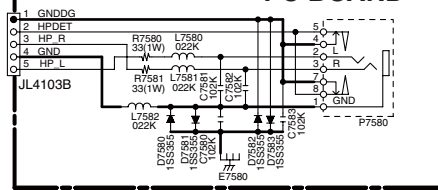
NADIS-9085 U21 DISPLAY PC BOARD

TO NAPS-9089
SD-6:H2TO NADG-9504
(P1007A)
SD-7:B1

NADIS-9086 U22 DISPLAY PC BOARD

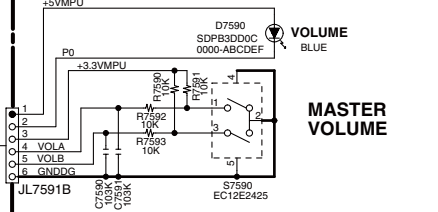


NAETC-9088 U24 HEADPHONE PC BOARD

TO NAAP-9489
SD-4:F1

HEADPHONE

NAETC-9091 U27 VOLUME PC BOARD



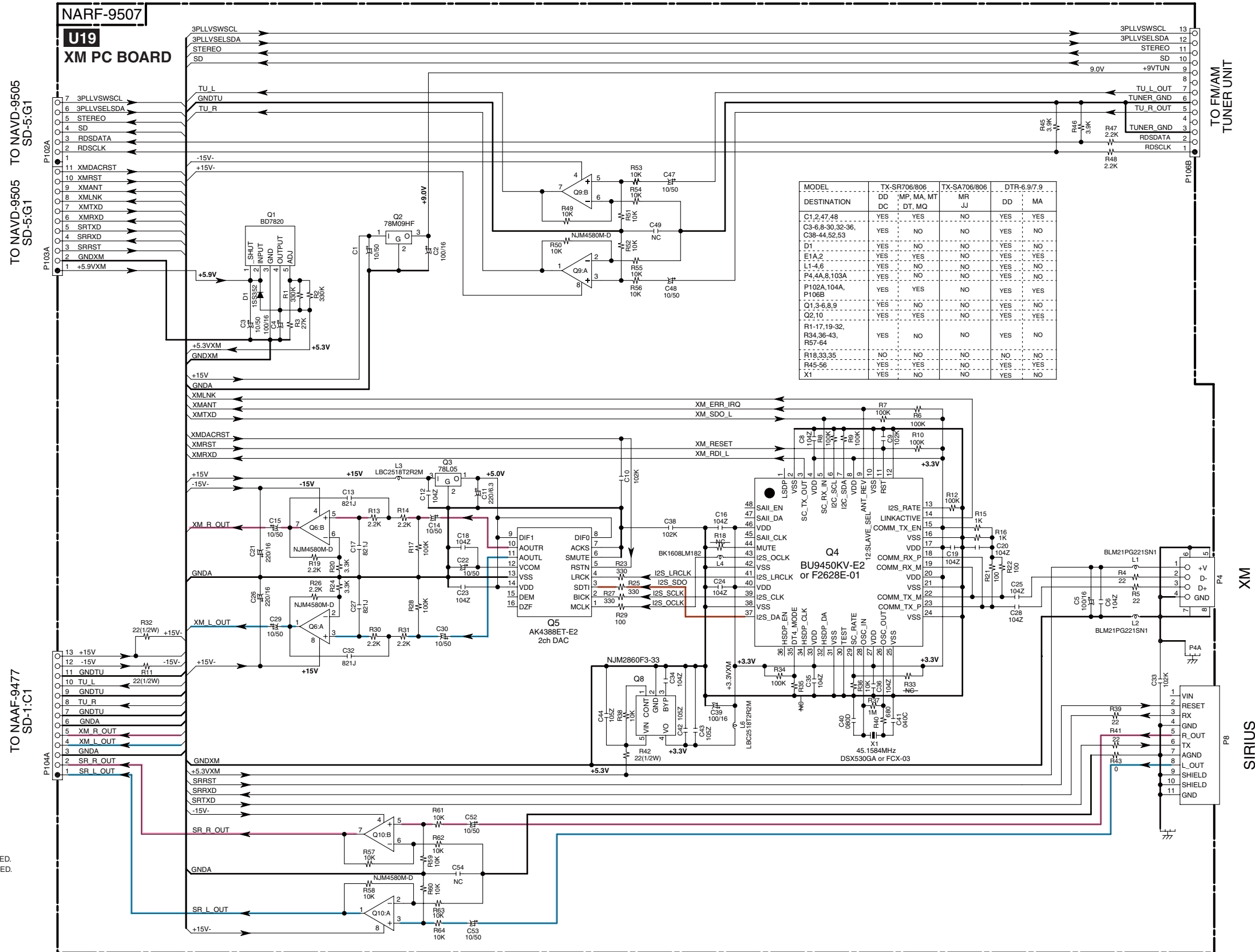
MASTER VOLUME

SCHEMATIC DIAGRAMS-15 (SD-15)

XM AND SIRIUS SECTION

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

- NOTE**
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 - 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/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.



A

B

C

D

E

F

G

H

SCHEMATIC DIAGRAM-16(SD-16)

WAVEFORM SECTION

1

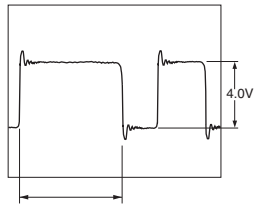
Digital Audio Waveform Part

NOTE:
1. (WF01) is short for (Waveform01)
2. Refer to SD-7(SCHEMATIC DIAGRAM-7) 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

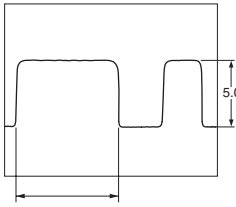
BIT CLOCK (SAI_SLCK, CX_SLCK)
64Fs=3072kHz : DVD, Clock width=325ns
64Fs=2822.4kHz : CD, Clock width=354ns

(WF01) OPT1 (SD-7:C5)



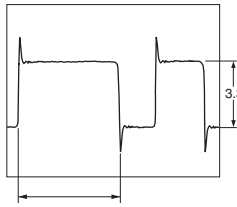
Duty varies according to audio data

(WF02) COAX1 (SD-7:C5)



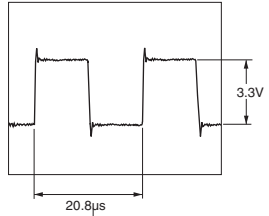
Duty always varies according to audio data

(WF03) SAI_SDOUT (SD-7:D5)

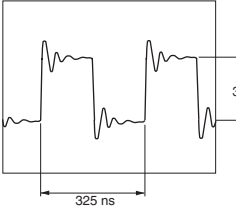


Duty varies according to audio data

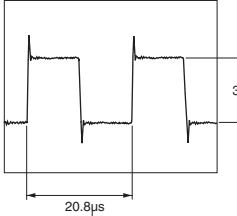
(WF04) SAI_LRCK (SD-7:D5)



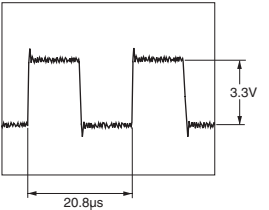
(WF05) SAI_SLCK (SD-7:D5)



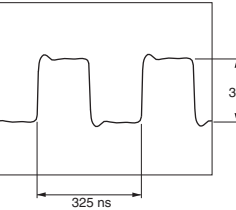
(WF06) PCMFLR3 (SD-7:E4)



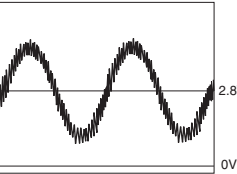
(WF07) CX_LRCK (SD-7:E4)



(WF08) CX_SCLK (SD-7:E4)

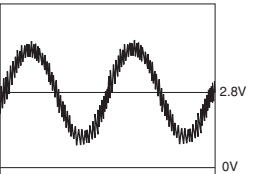


(WF09) FL+ (SD-7:F5)



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

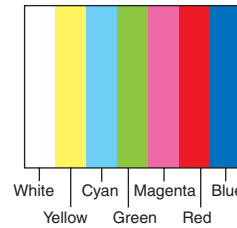
2

3

4

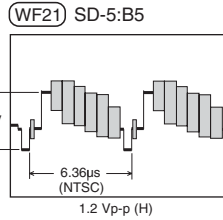
5

Video source color and pattern

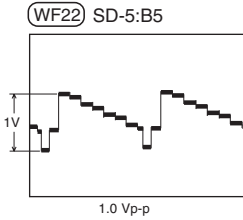


Video Waveform Part

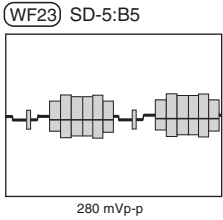
Composite waveform



S-Video Y waveform



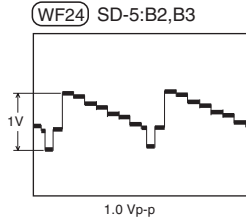
S-Video C waveform



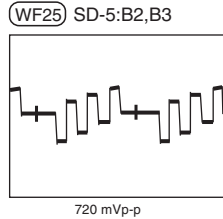
NOTE:

- (WF21) is short for (Waveform21)
- Refer to SD-5(SCHEMATIC DIAGRAM-5) for the location of each waveform on circuit.
- SD-x:XY is short for Shcematic 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.

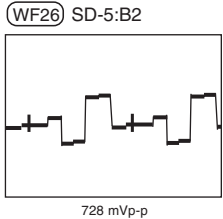
Component Y waveform



Component PB waveform



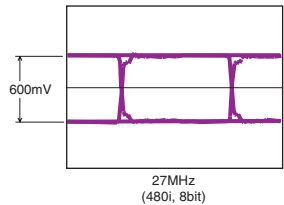
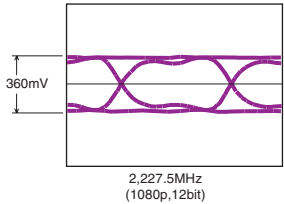
Component PR waveform



HDMI Waveform Part

HDMI D0,D1,D2 waveform

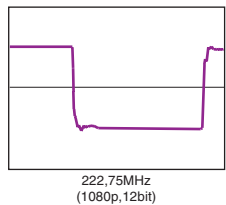
(WF41) SD-10:B3, H4 SD-11:B5



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

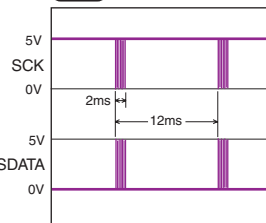


CK waveform, frequency and level differ according to video resolution, aspect and profile. D0,D1,D2 are just CK x10.

FL Driver IC Control Waveform Part

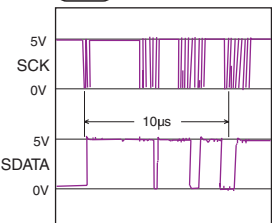
SCK/SDATA waveform

(WF61) SD-14:E3,F2



SCK/SDATA waveform

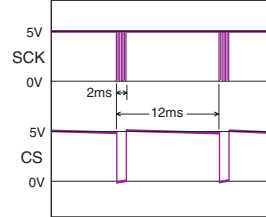
(WF61) SD-14:E3,F2



SDATA waveform varies according to the data content

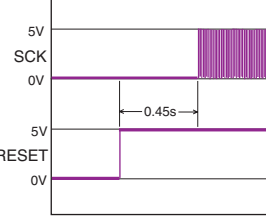
SCK/CS waveform

(WF62) SD-14:E3,F2



SCK/RESET waveform

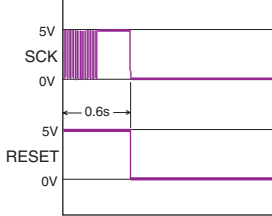
(WF63) SD-14:E3,F2



When power on

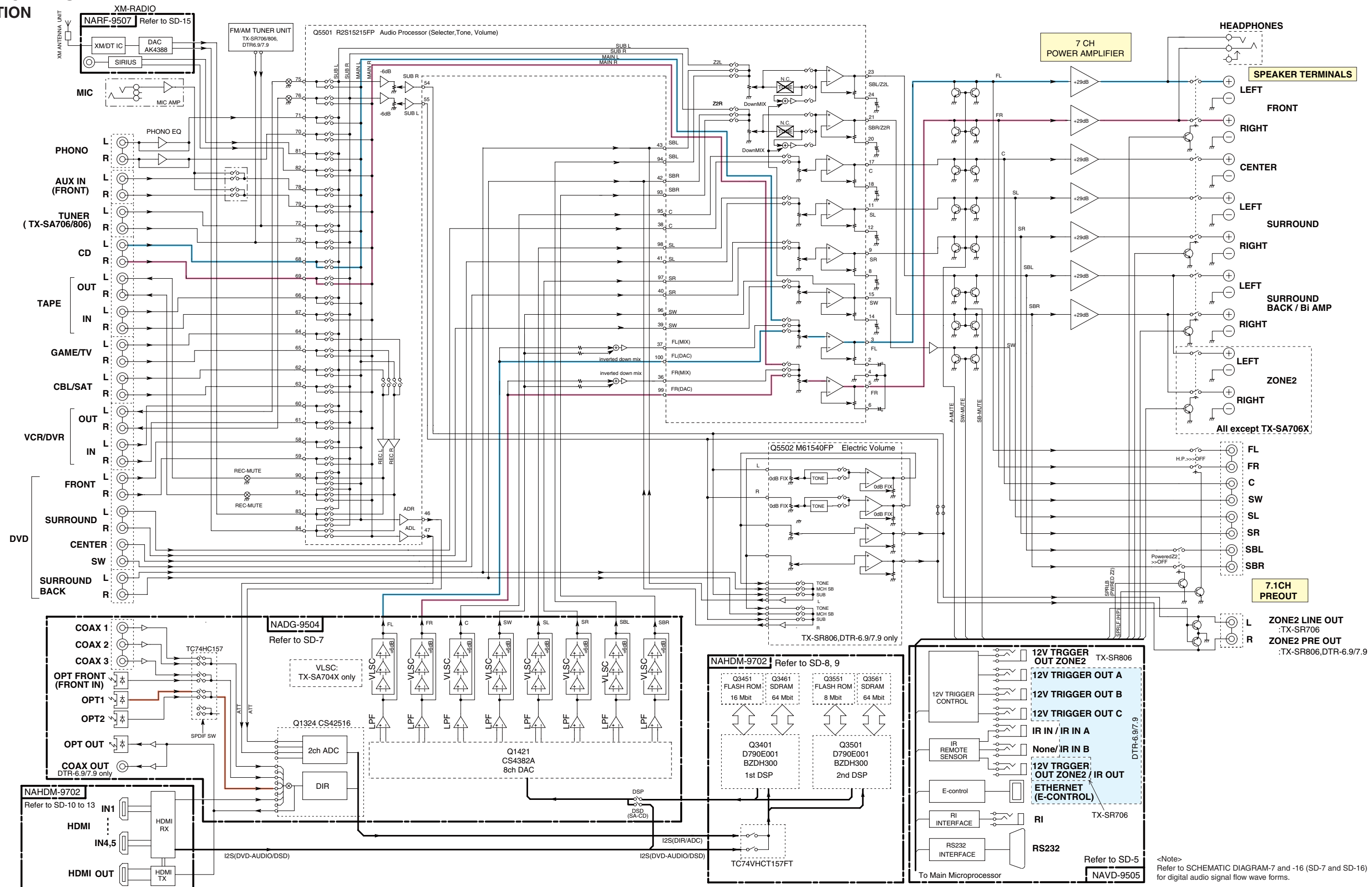
SCK/RESET waveform

(WF63) SD-14:E3,F2



When power off

BLOCK DIAGRAMS-1 AUDIO SECTION



BLOCK DIAGRAMS-2

VIDEO SECTION

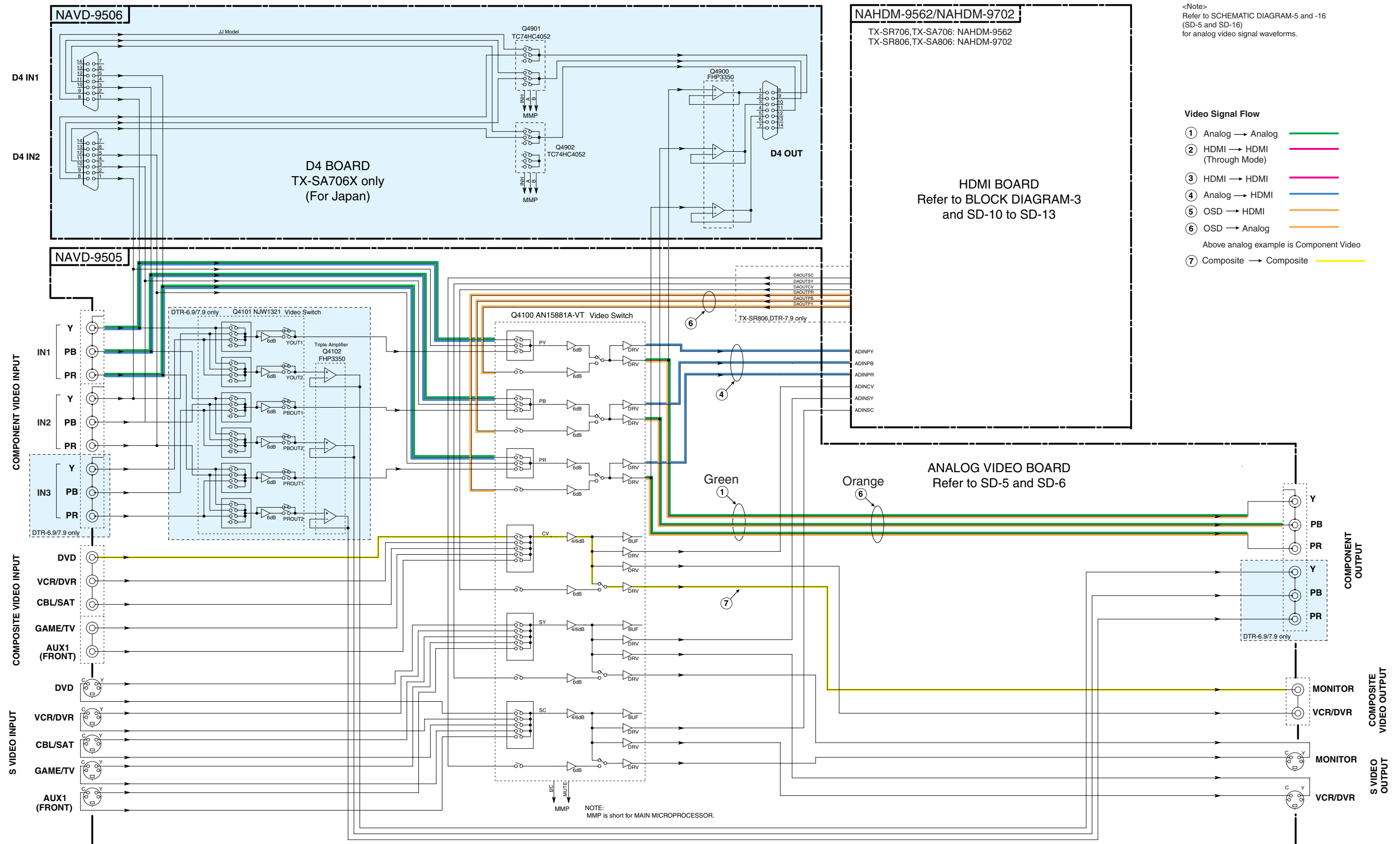
1

2

3

4

5



<Note>

Refer to SCHEMATIC DIAGRAM-5 and -16
(SD-5 and SD-16)
for analog video signal waveforms.**Video Signal Flow**

- ① Analog → Analog
 - ② HDMI → HDMI (Through Mode)
 - ③ HDMI → HDMI
 - ④ Analog → HDMI
 - ⑤ OSD → HDMI
 - ⑥ OSD → Analog
 - ⑦ Composite → Composite
- Above analog example is Component Video

BLOCK DIAGRAMS-3
HDMI SECTION

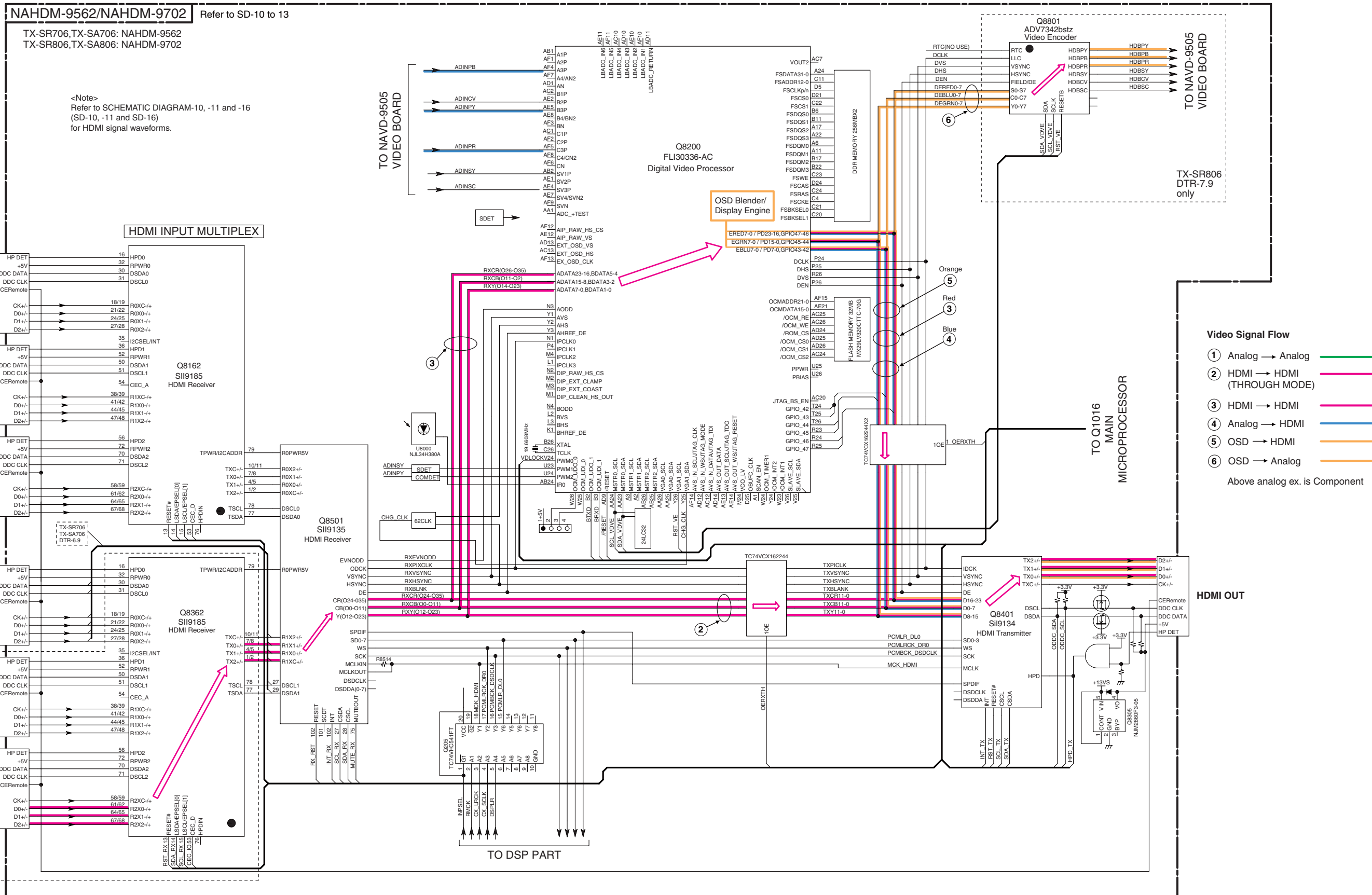
1

2

3

4

5



BLOCK DIAGRAMS-4

DSP SECTION

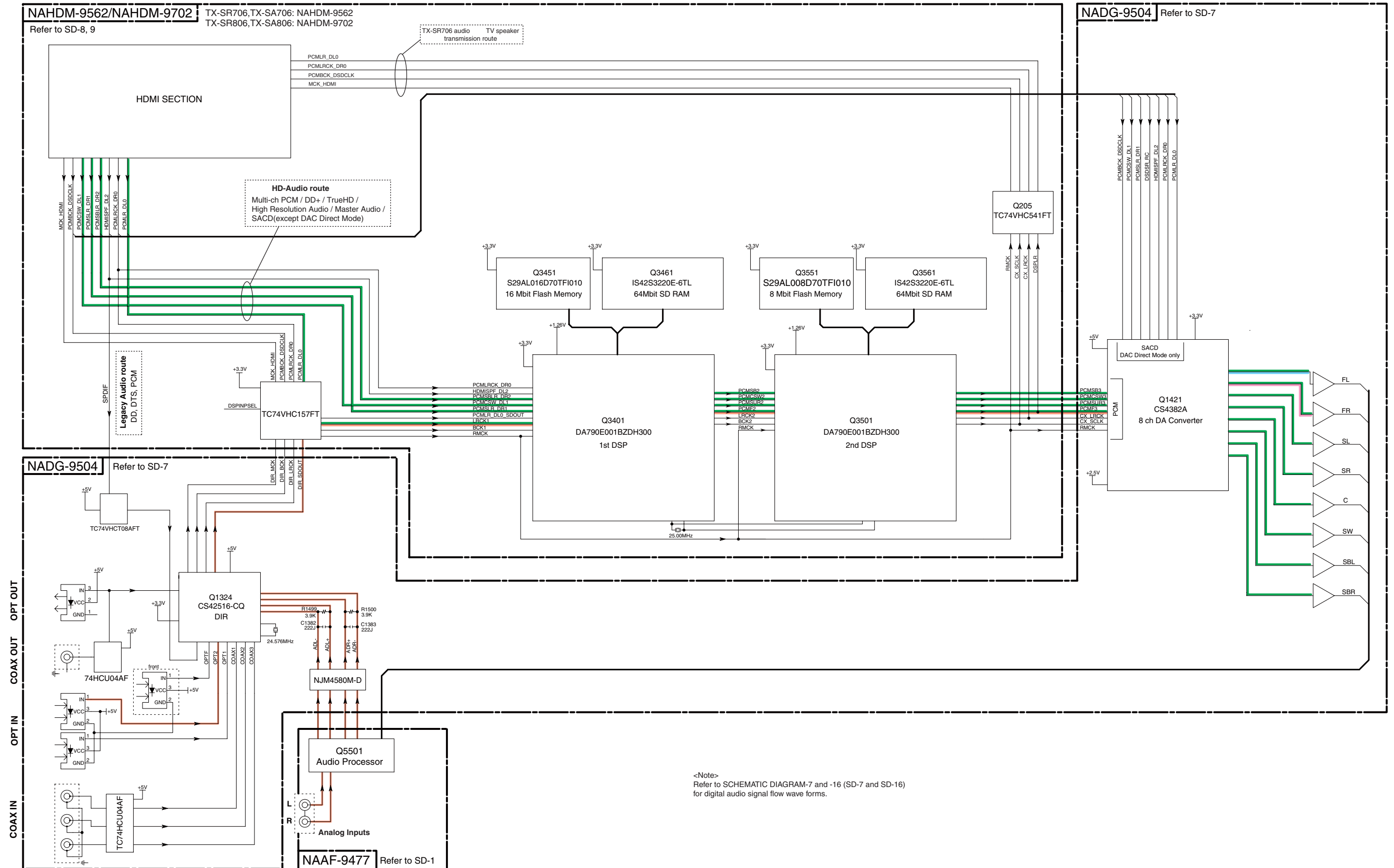
1

2

3

4

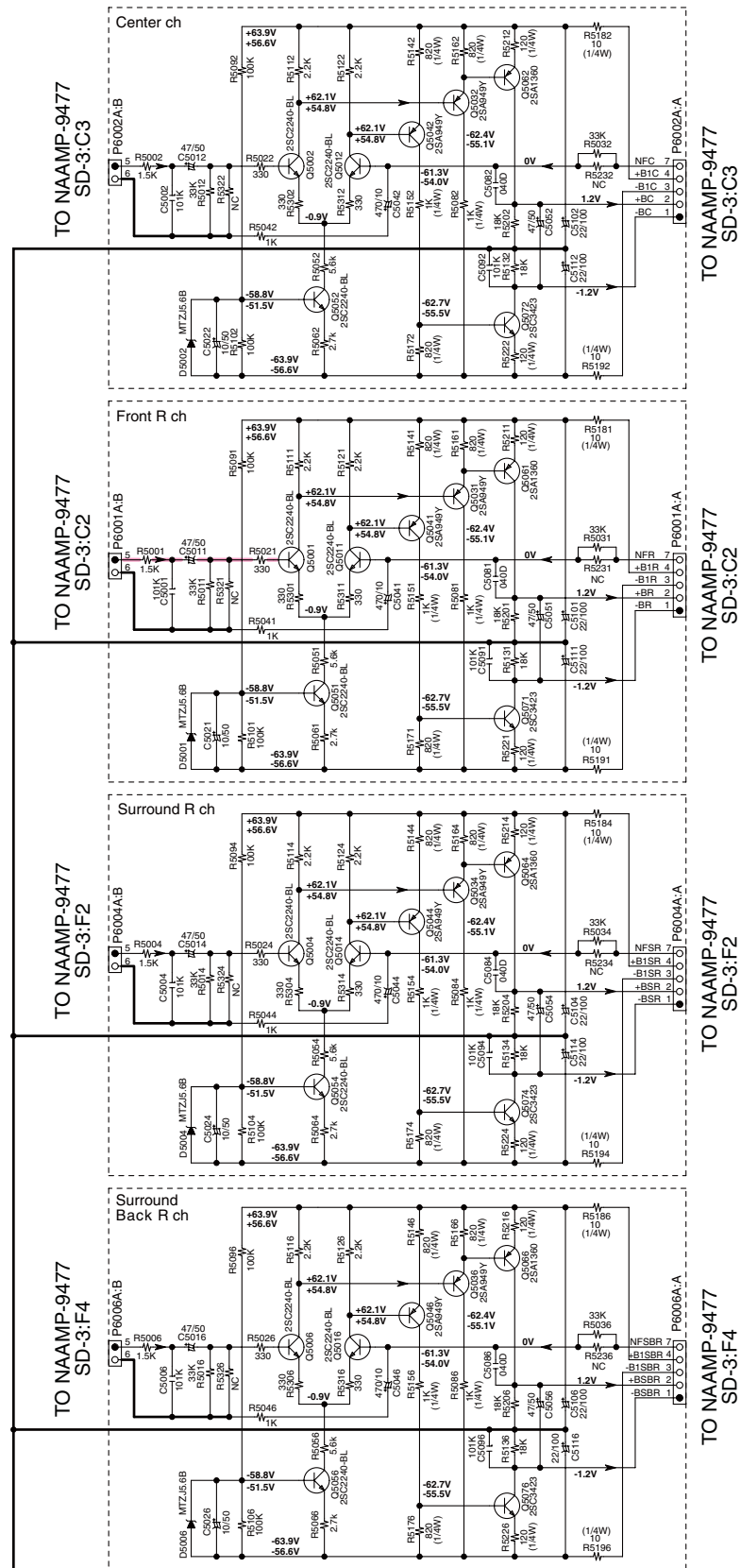
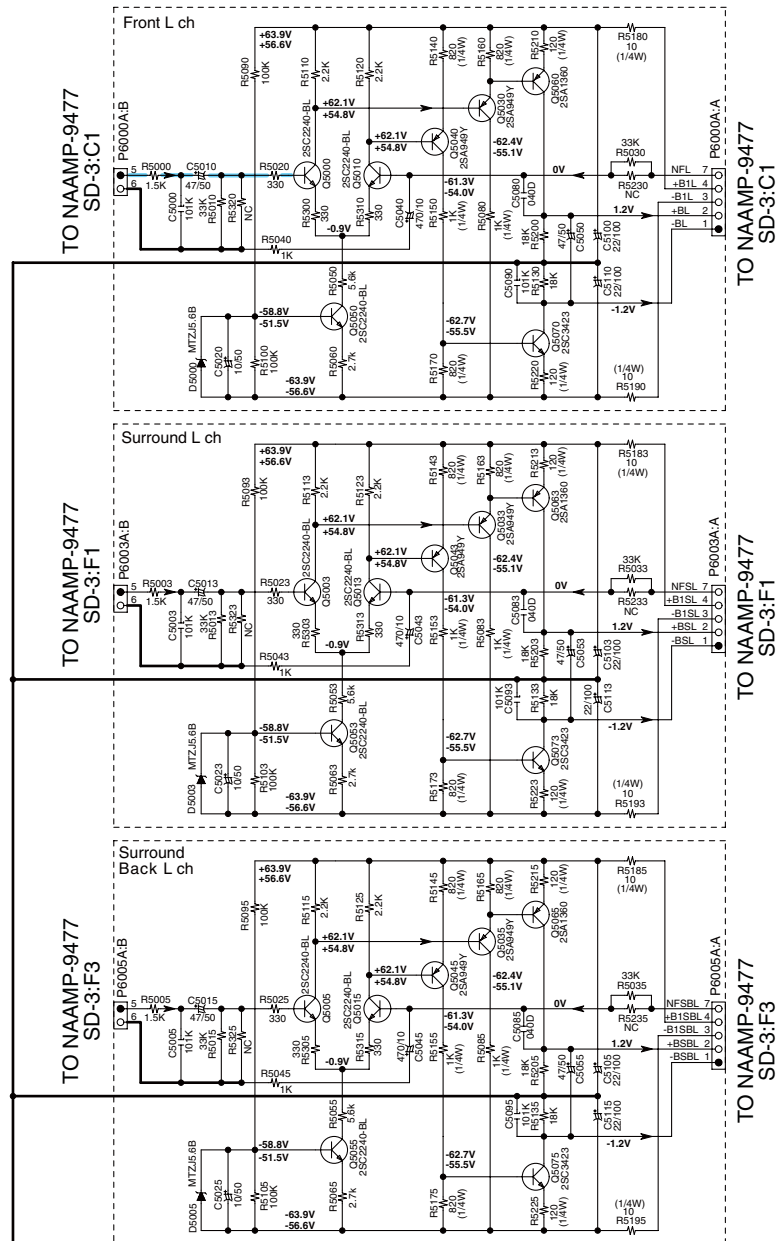
5



SCHEMATIC DIAGRAMS-2 (SD-2)

POWER AMPLIFIER SECTION-1

NACLA-9493 U13 AMPLIFIER PC BOARD



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).
- 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 ($\text{---}\text{||}\text{---}$) ARE IN $\mu\text{F/MV}$.
- ALL CAPACITORS ARE IN $\text{pF}/50\text{V}$ 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.

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

DC voltages in two lines indicate
the difference by models.

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

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

NAAMP-9477(2/2)

U01 AMPLIFIER PC BOARD

NCETC-9478

U02
THERMAL
SENSOR
PC BOARD

NAETC-9480

U04
TO COOLING FAN
TERMINAL
PC BOARDTX-SR806/
DTR-7.9 onlyTO NAVD-9505
SD-5:F4TO NATRM-9488
SD-4:A3TO POWER TRANS
T901 SD-4:H1TO NAAF-9477
SD-1:F5Front L ch
TO NACLA-9493
SD-2:C1,D1Front R ch
TO NACLA-9493
SD-2:E2,G2Center ch
TO NACLA-9493
SD-2:E1,G1

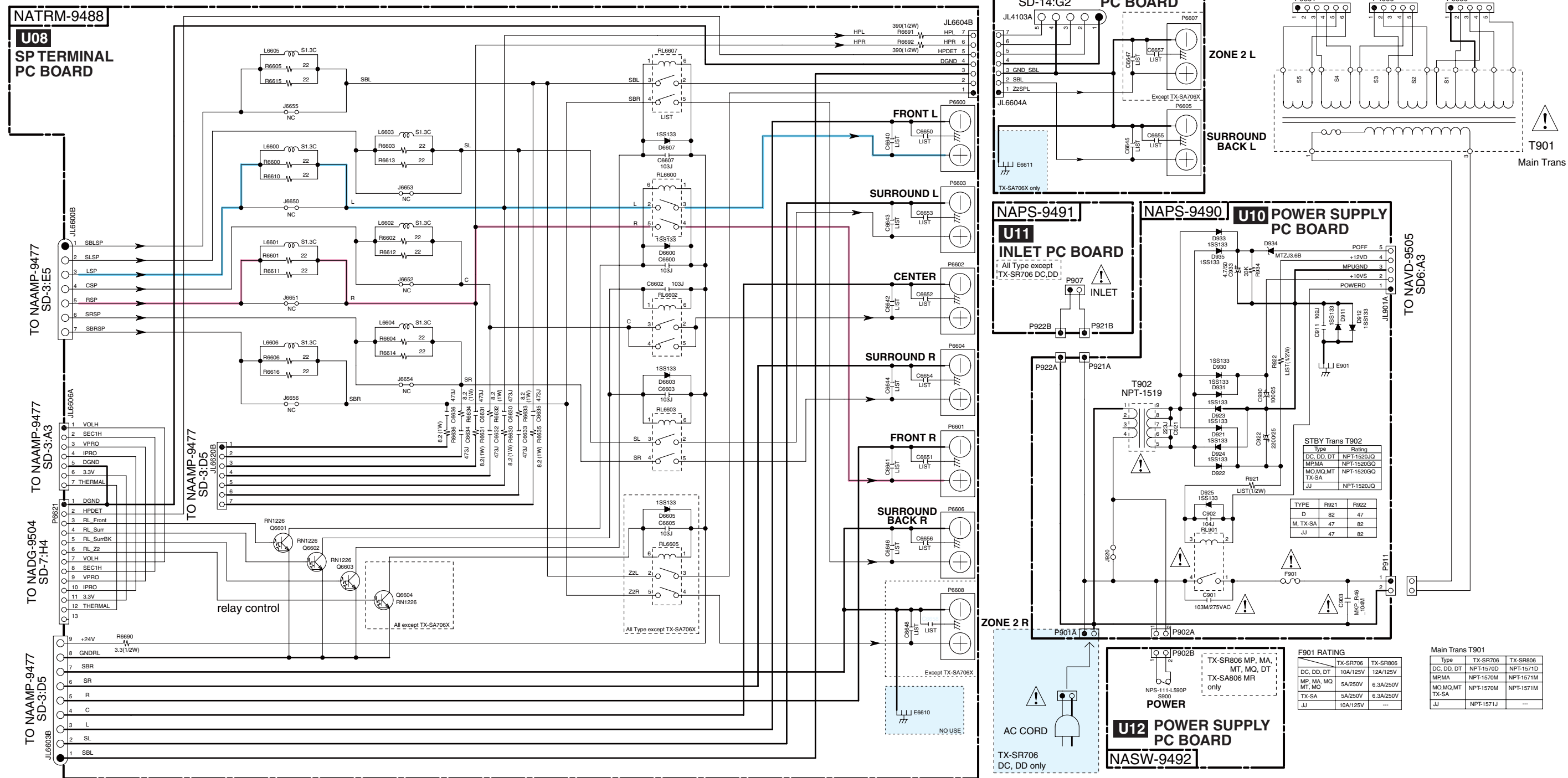
DC voltages in two lines indicate
the difference by models.
+xx.xV ---- TX-SR806,DTR-7.9
+yy.yV ---- TX-SR706,DTR-6.9

MODEL	DEST.	C6901,C6902
TX-SR706,DTR-6.9	DC,DD	12000/93V
TX-SR706,DTR-6.9	OTHER	12000/89V
TX-SR806,DTR-7.9	ALL	15000/71V

TO NATRM-9488
SD-4:A4TO NAAF-9477
SD-1:H4TO NATRM-9488
SD-4:A2Surround L ch
TO NACLA-9493
SD-2:C2,D2Surround R ch
TO NACLA-9493
SD-2:E4,G4Surround Back L ch
TO NACLA-9493
SD-2:C4,D4Surround Back R ch
TO NACLA-9493
SD-2:E5,G5

<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



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

- NOTE**

 - THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
 - BOLD VOLTAGE (MEASURED WITH VOLTMEETER) 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/MV.
 - 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.

TYPE	TX-SR706	TX-SA706	TX-SR806	TX-SA806	TX-SA706J
D	NC	***	NC	***	***
J	***	***	***	***	NC
M	472J	472J	472J	472J	***

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

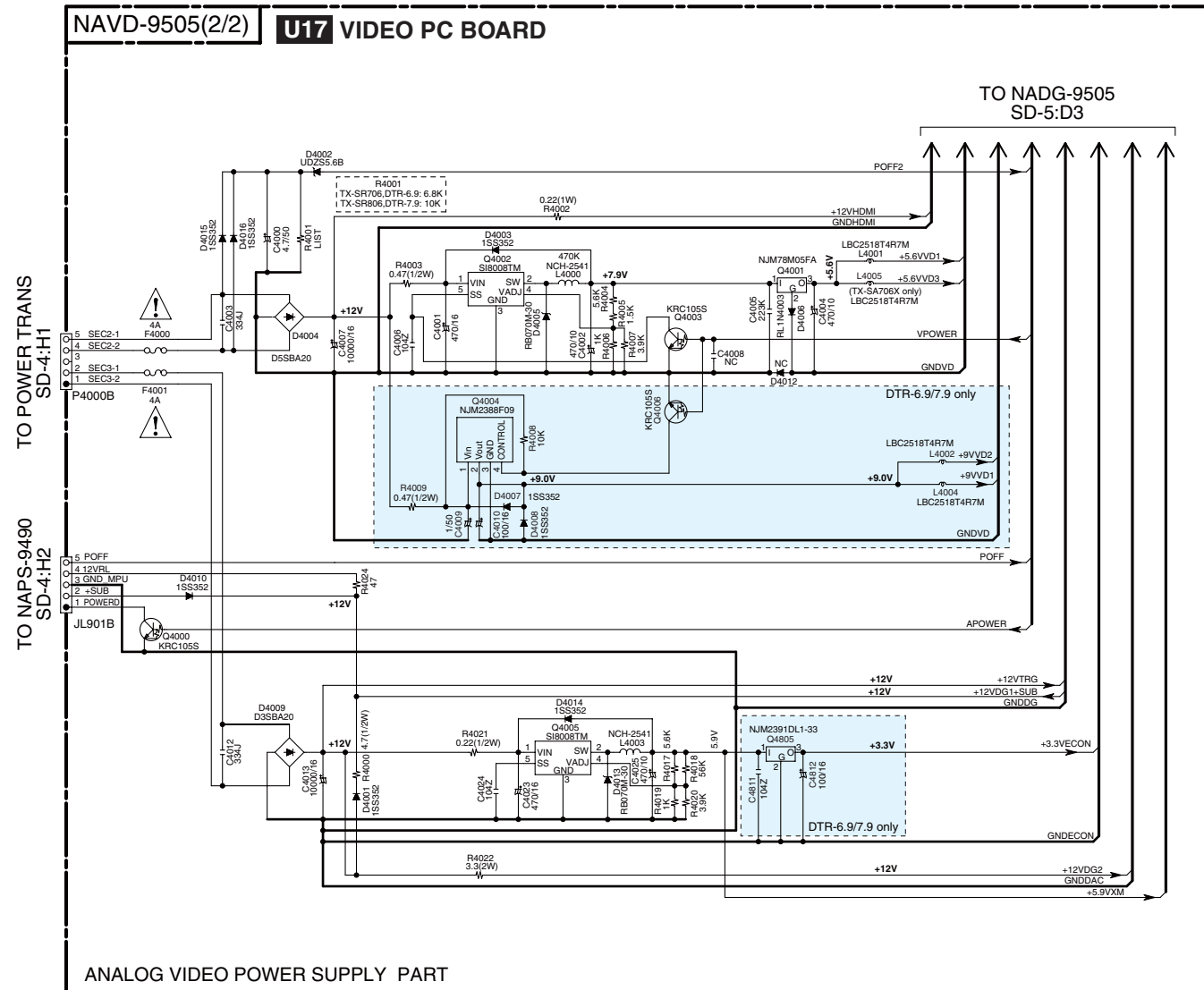
	TX-SR706	TX-SR806
DC, DD, DT	10A/125V	12A/125V
MP, MA, MQ MT, MO	5A/250V	6.3A/250V
TX-SA	5A/250V	6.3A/250V
.LI	10A/125V	---

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



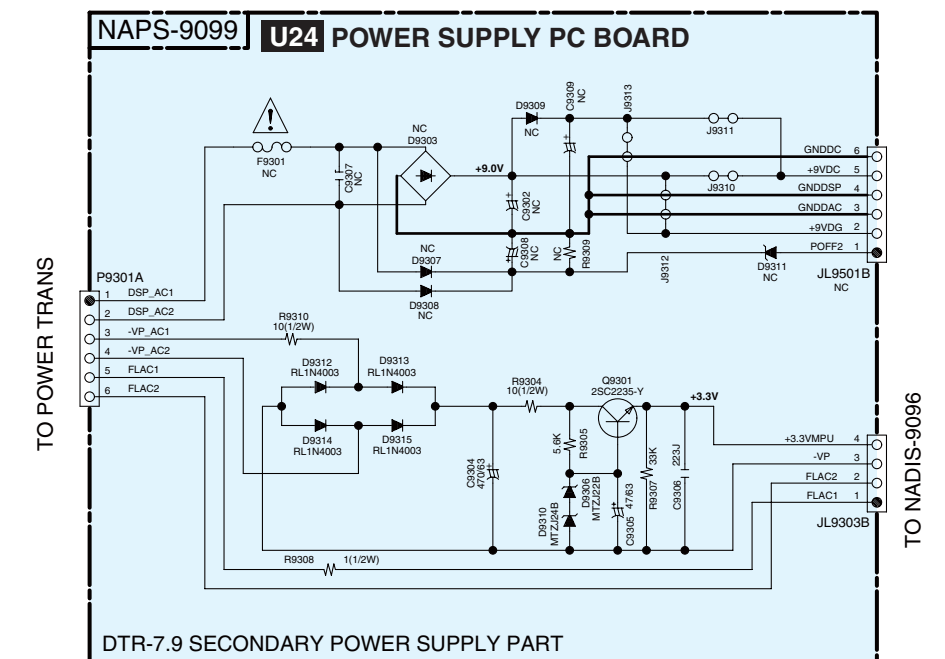
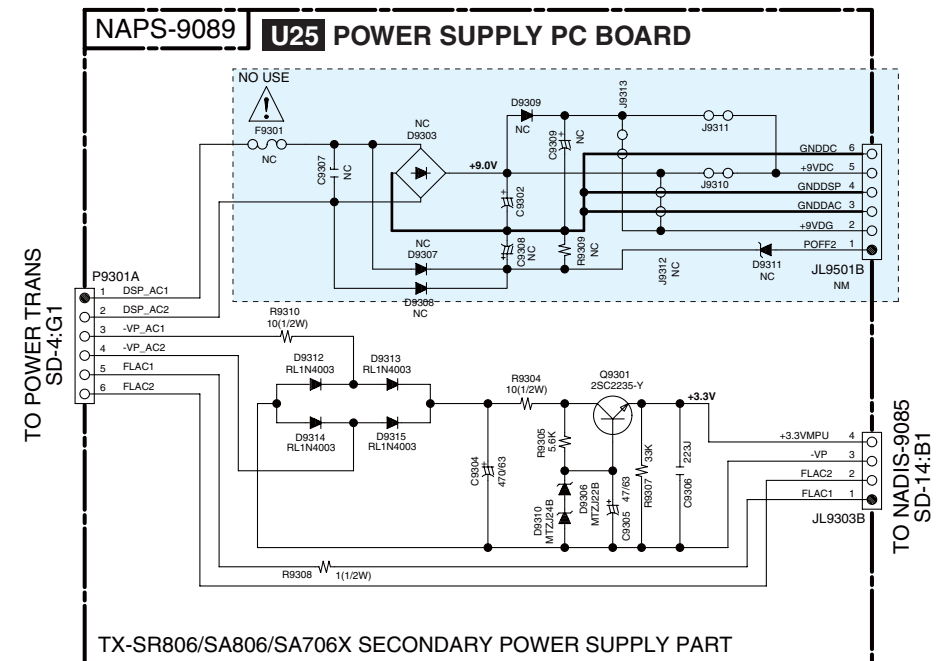
SCHEMATIC DIAGRAMS-6 (SD-6)
VIDEO SECTION-2

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



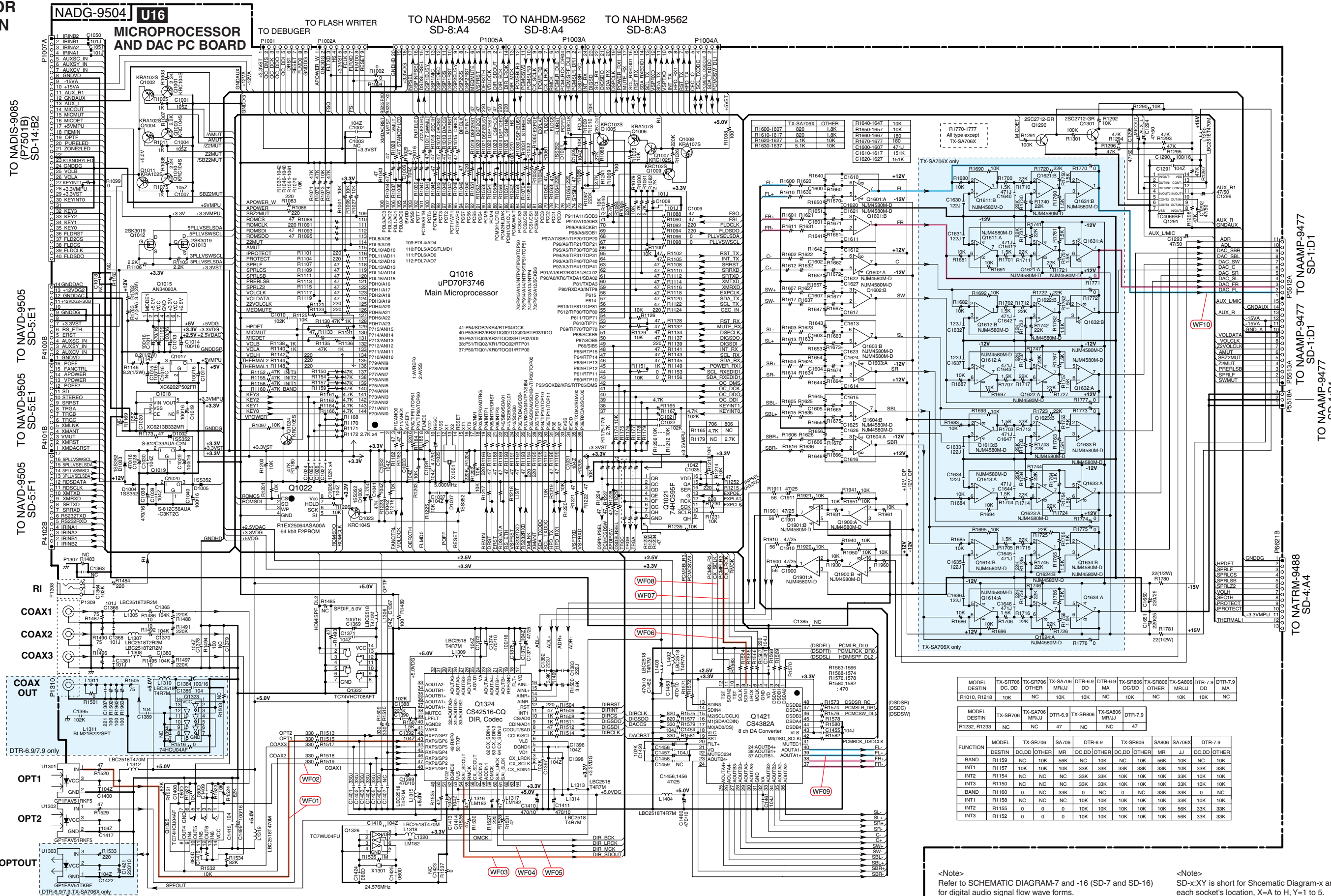
NOTE

- 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 μ F/MV.
- ALL CAPACITORS ARE IN pF/50VW 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-7 (SD-7)

MICROPROCESSOR AND DAC SECTION



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

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

SCHEMATIC DIAGRAMS-8 (SD-8)

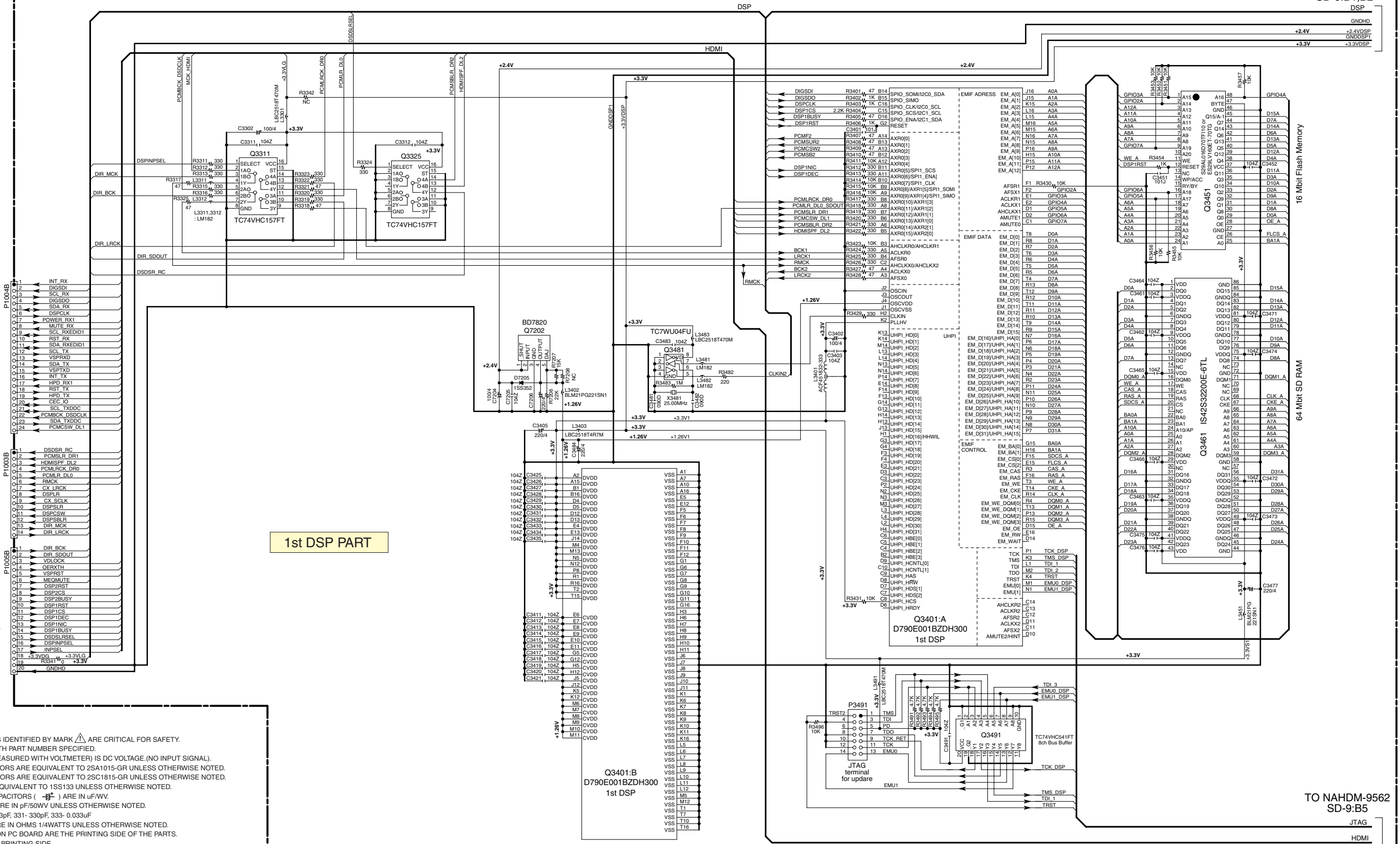
DSP SECTION-1

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

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

NAHDM-9562/NAHDM-9702(1/6)

U20 HDMI PC BOARD

TO NAHDM-9562
SD-9:B1,B2

NOTE

- THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- BOLD VOLTAGE (MEASURED WITH VOLT METER) 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 ($\text{---} \text{||} \text{---}$) ARE IN $\mu\text{F/WV}$.
- ALL CAPACITORS ARE IN pF/50VWV 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) $\text{---} \text{---} \text{---}$ PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

TO NAHDM-9562
SD-9:B5

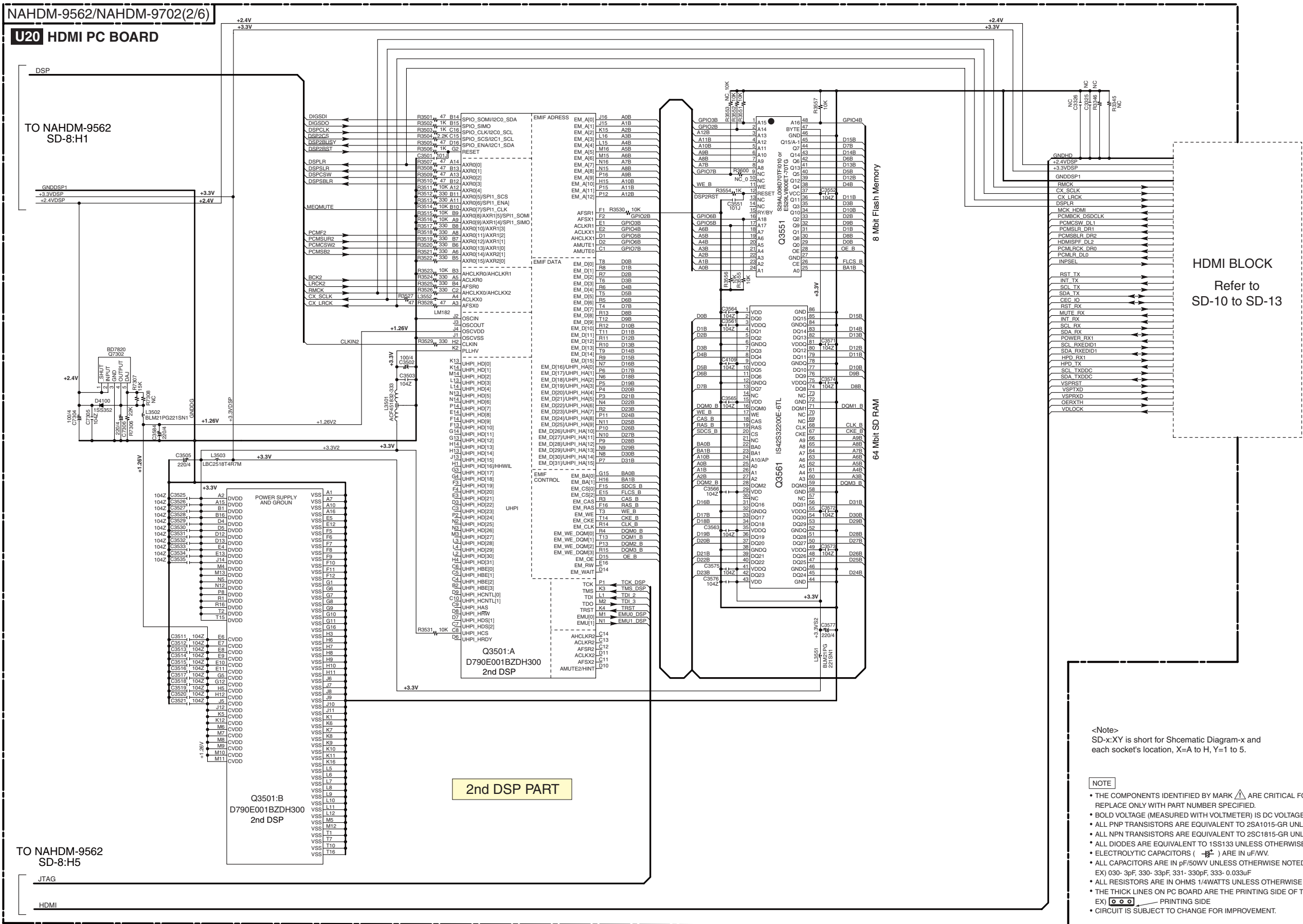
JTAG

HDMI

SCHEMATIC DIAGRAMS-9 (SD-9)

DSP SECTION-2

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



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).
- 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 ($\square$) ARE IN uF/VV.
- ALL CAPACITORS ARE IN pF/50VW UNLESS OTHERWISE NOTED.

EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF

- ALL RESISTORS ARE IN OHMS 1/4WATS 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

HDMI INPUT PART-1

Q8162
SI19185
HDMI Receiver

Q8501
SI19135
HDMI Receiver

Q8401
SI19134
HDMI Transmitter

HDMI OUTPUT PART

2nd DSP PART
SD-9

BUS SWITCH
PART
SD-9

HDMI OUT

HDMI IN4 (Not Used)

HDMI IN3 HDMI IN5

HDMI IN2 HDMI IN4

TX-SR706
TX-SA706
DTR-6.9

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

HDMI INPUT PART-2
SD-11

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

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

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.

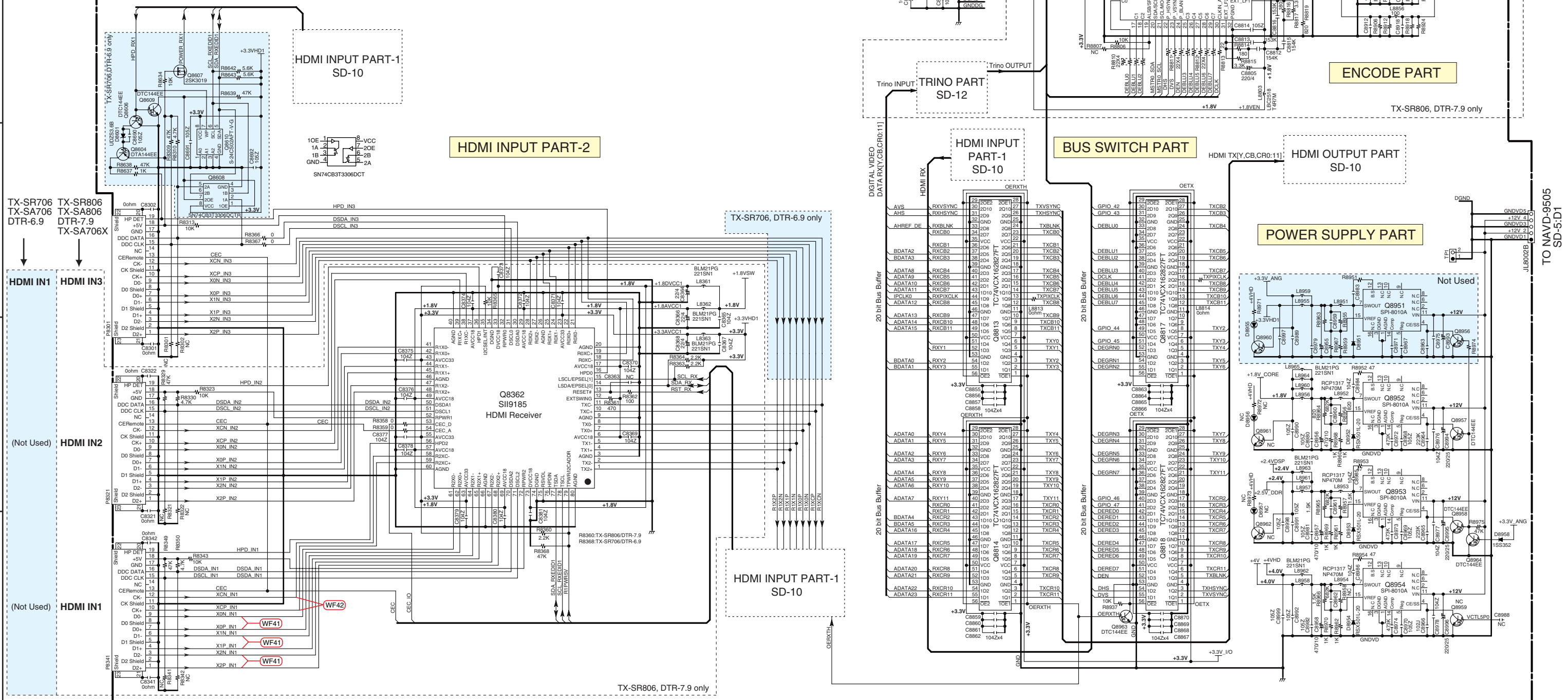
<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16) for HDMI signal waveforms.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK $\triangle$ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- BOLD VOLTAGE (MEASURED WITH VOLTMEETER) 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 $\mu\text{F}/\text{VW}$.
- ALL CAPACITORS ARE IN pF/50VW 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) $\square \square \square$ 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



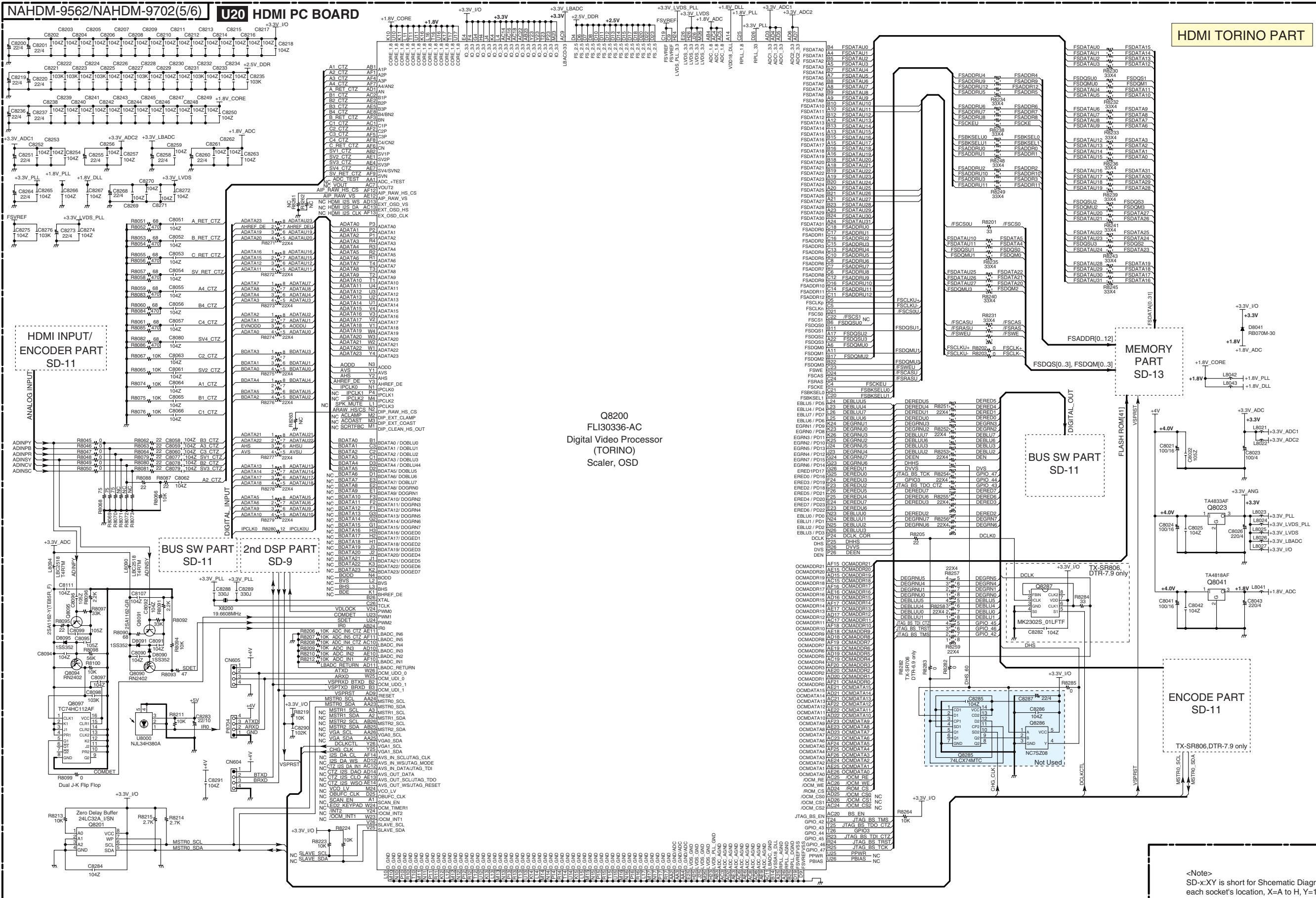
SCHEMATIC DIAGRAMS-12 (SD-12)

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



HDMI TORINO PART

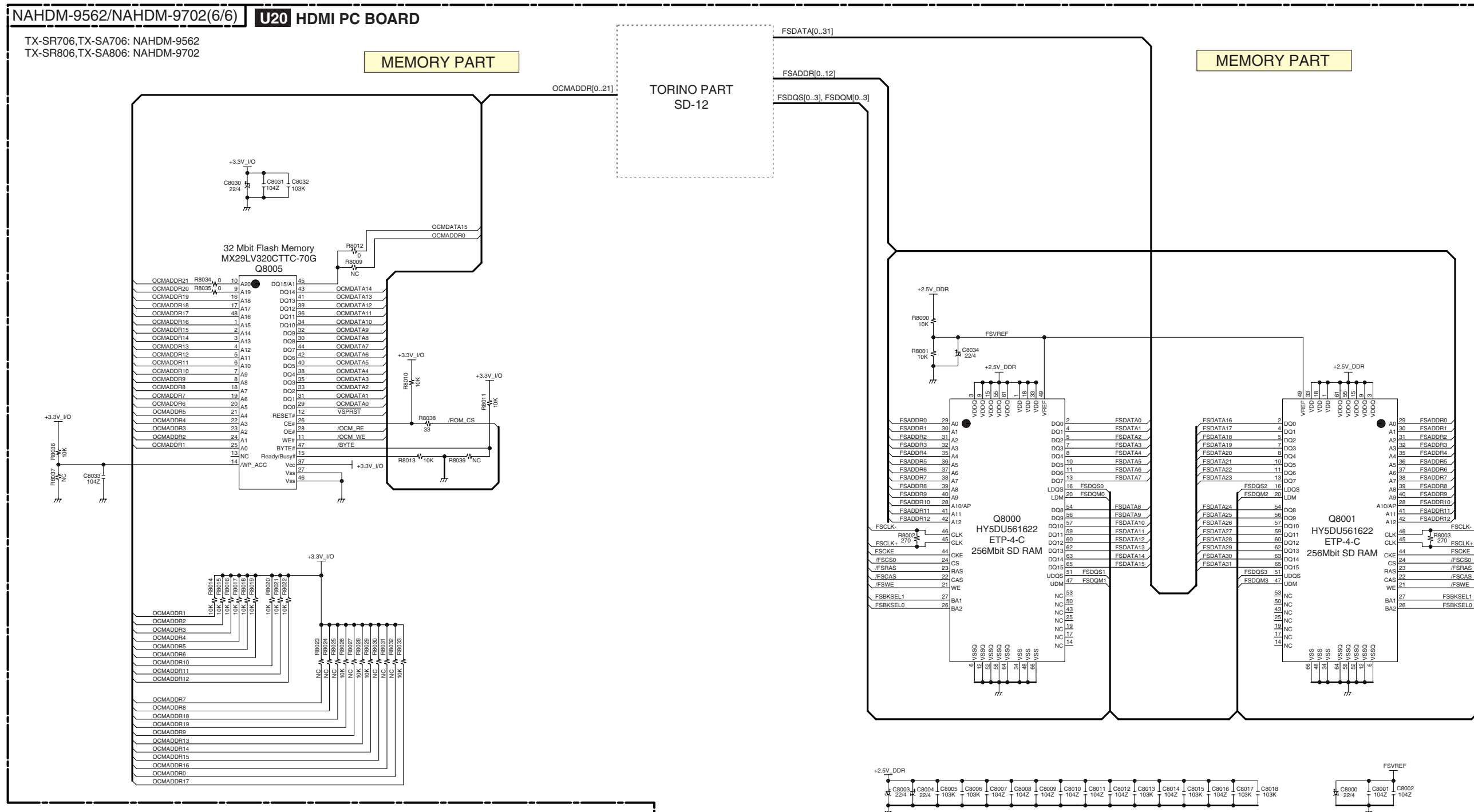
MEMORY SD-13

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)



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 μ F/VV.
- ALL CAPACITORS ARE IN pF/50VWV 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 Schematic Diagram-x and
each socket's location. X=A to H. Y=1 to 5.

SCHEMATIC DIAGRAMS-14 (SD-14)
DISPLAY SECTION

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

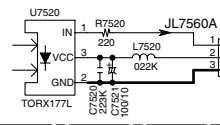
<Note>
Refer to SCHEMATIC DIAGRAM-16 (SD-16) for FL driver IC control waveforms.

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).
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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 μ F/VV.
- ALL CAPACITORS ARE IN pF/50VW UNLESS OTHERWISE NOTED.
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033 μ F
- 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.

NAETC-9090 **U26** FRONT OPT PC BOARD

OPT



R

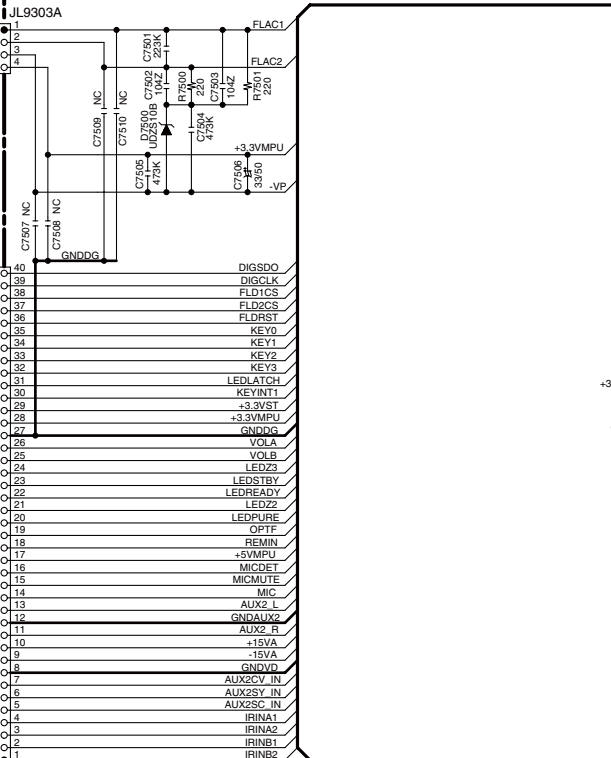
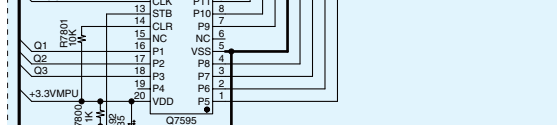
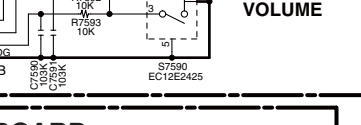
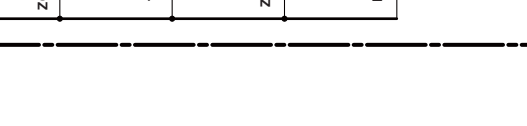
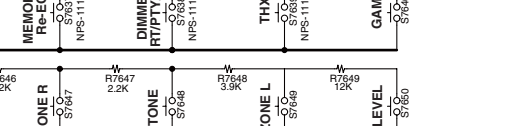
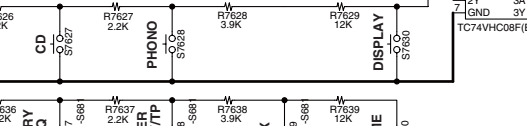
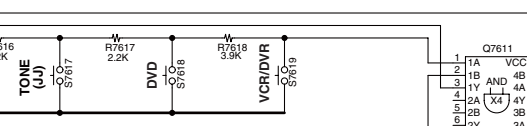
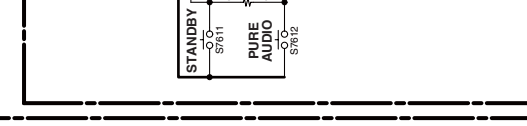
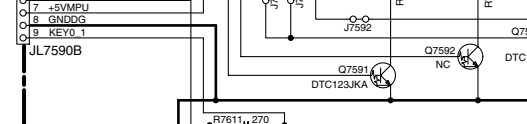
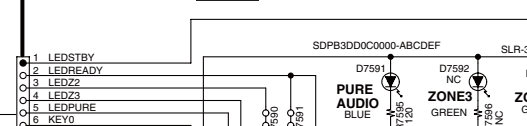
L

COMP

S VIDEO

MIC

REMOTE CONTROL

NADIS-9085 **U21** DISPLAY PC BOARDTO NAPS-9089
SD-6:H2TO NADG-9504
(P1007A)
SD-7:B1NADIS-9086 **U22** DISPLAY PC BOARDNAETC-9088 **U24** HEADPHONE PC BOARDNAETC-9091 **U27** VOLUME PC BOARDNADIS-9086 **U22** DISPLAY PC BOARD

SCHEMATIC DIAGRAMS-15 (SD-15)

XM AND SIRIUS SECTION

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

- 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/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.

