



TFT-LCD TV/MONITOR

Chassis
DU26UO
DU32UO

Model
LN-P267W
LN-P327W

SERVICE Manual

TFT-LCD TV/MONITOR



CONTENTS

1. Precautions
2. Product Specifications
3. Disassembly & Reassembly
4. Alignment & Adjustments
5. Troubleshooting
6. Exploded View & Parts List
7. Parts List
8. Block Diagram
9. Wiring Diagram
10. PCB Layout
11. Schematic Diagrams
12. Panel Description



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4 Alignments and Adjustments

4-1 General Alignment Instruction

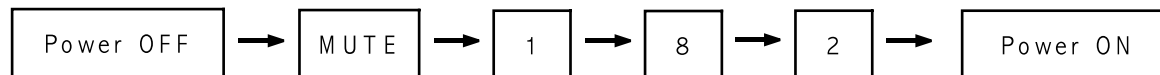
1. Usually, a color TV-VCR needs only slight touch-up adjustment upon installation.
Check the basic characteristics such as height, horizontal and vertical sync.
2. Use the specified test equipment or its equivalent.
3. Correct impedance matching is essential.
4. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test result.
5. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.
6. Do not attempt to connect or disconnect any wire while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.
7. To protect against shock hazard, use an isolation transform.

4-2 Factory Mode Adjustments

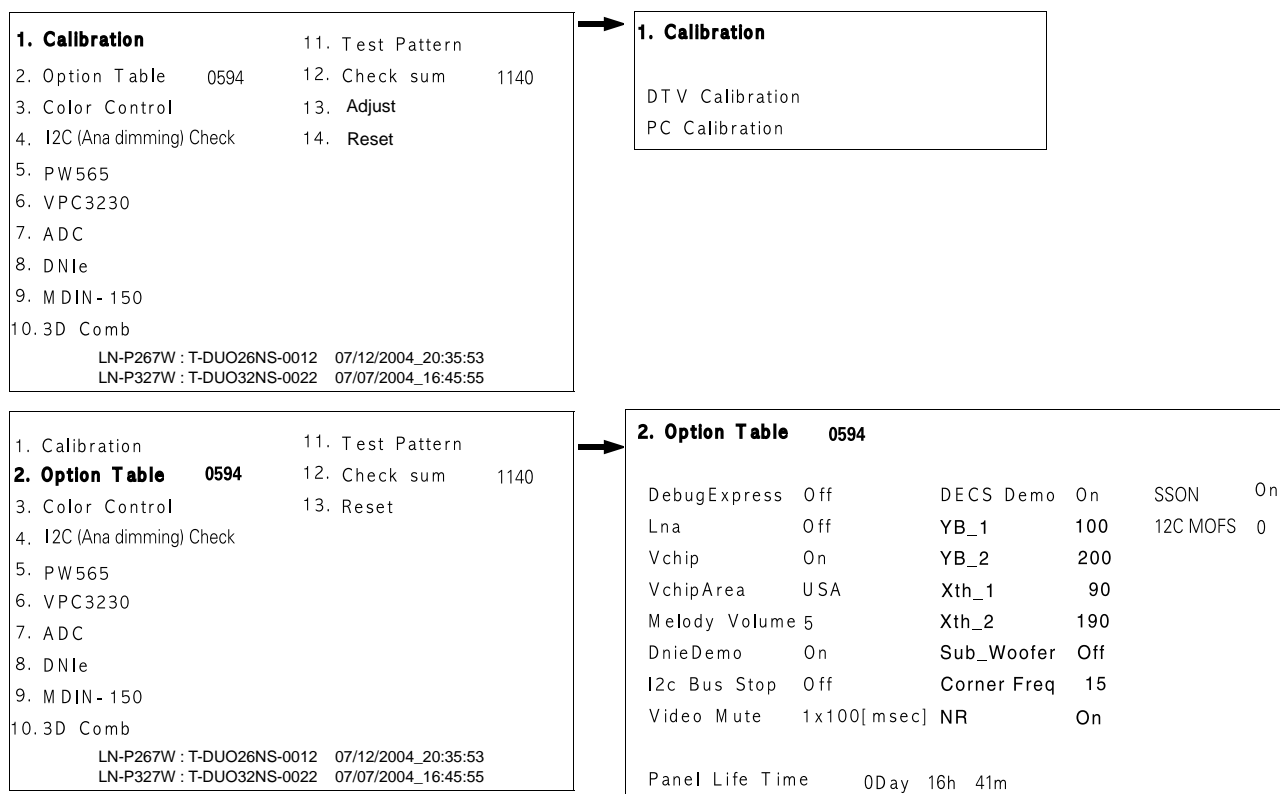
4-2-1 Entering Factory Mode

- To enter “Service Mode” Press the remote -control keys in this sequence :

- If you do not have Factory remote - control



4-2-2 Factory Mode Tree



1. Calibration		11. Test Pattern	
2. Option Table	0594	12. Check sum	1140
3. Color Control		13. Adjust	
4. I2C (Ana dimming) Check		14. Reset	
5. PW565			
6. VPC3230			
7. ADC			
8. DNle			
9. MDIN - 150			
10. 3D Comb			
LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53			
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55			

3. Color Control

PW565 (White Balance)

DNle (White Balance)

3. Color Control

Sub- Bright (DNle)	128	Sub- Contrast	50
Red Offset	128	Red Gain	128
Green Offset	128	Green Gain	128
Blue Offset	128	Blue Gain	128
Brightness	50	Contrast	100

3. Color Control

Sub- Bright (PW565)	146	Sub- Contrast	128
Red Offset	129	Red Gain	113
Green Offset	128	Green Gain	128
Blue Offset	129	Blue Gain	150

4 Alignments and Adjustments

1. Calibration	11. Test Pattern
2. Option Table 0594	12. Check sum 1140
3. Color Control	13. Adjust
4. I2C (Ana dimming) Check	14. Reset
5. PW565	
6. VPC3230	
7. ADC	
8. DNle	
9. MDIN - 150	
10. 3D Comb	
LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53	
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55	

4. I2C (Ana dimming) Check

I2C (Ana dimming) Check

1. Calibration	11. Test Pattern
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LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53	
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55	

5. PW565

Red Gain	128
Green Gain	128
Blue Gain	128
Red Offset	128
Green Offset	128
Blue Offset	128
Sharpness	50

1. Calibration	11. Test Pattern
2. Option Table 0594	12. Check sum 1140
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4. I2C (Ana dimming) Check	14. Reset
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6. VPC3230	
7. ADC	
8. DNle	
9. MDIN - 150	
10. 3D Comb	
LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53	
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55	

6. VPC3230

CT	27	CIPCT	15	KILVL	0A
BR	90	PFS	02	LDLY	09
ACC_SAT	6E	PK	00	PKCOR	01
TINT	32	VPK	03		
SATCb	12	LPF2	00		
SATCr	3F	CBW2	00		
CIPTNT	20	CBW	03		
CIPBR	CB	IFC	03		

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3. Color Control		13. Adjust	
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LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53			
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55			

**7. ADC**

Red Gain	176	Pr Gain	195
Green Gain	173	Y Gain	201
Blue Gain	196	Pb Gain	218
Red Offset	140	Pr Offset	124
Green Offset	138	Y Offset	139
Blue Offset	138	Pb Offset	108
Current	0		
VCO	0		

1. Calibration		11. Test Pattern	
2. Option Table	0594	12. Check sum	1140
3. Color Control		13. Adjust	
4. I2C (Ana dimming) Check		14. Reset	
5. PW565			
6. VPC3230			
7. ADC			
8. DNle			
9. MDIN - 150			
10. 3D Comb			
LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53			
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55			

**8. DNle TV**

Pattern_SEL	0	Y_TH_HPF	7	DCE_Adap_SEL	1
NR_LimitY	125	Y_TH_EDGE	5	BS_Tilt	90
NR_LimitC	125	DEP_Gain1_X	12	BS_Gain Max	370
NR_SEL	2	DEP_Gain1_Y	45	NE_Core	3
SCALEMAX_Y	48	DEP_Gain2_X	5	NE_RTH2	3
SCALEMAX_C	48	DEP_Gain2_Y	45	CTE_H_min	6
SCALEMIN_Y	16	DEP_Gain3_X	3	DEP_Scale_R	
SCALEMIN_C	16	DEP_Sup_ScaleTH1	3		
SCALENOISE_Y	72	DEP_Sup_ScaleTHF	16		
SCALENOISE_C	100	WTE_MCCT_FAC	150		

4 Alignments and Adjustments

- | | | | |
|----------------------------|------|------------------|------|
| 1. Calibration | | 11. Test Pattern | |
| 2. Option Table | 0594 | 12. Check sum | 1140 |
| 3. Color Control | | 13. Adjust | |
| 4. I2C (Ana dimming) Check | | 14. Reset | |
| 5. PW565 | | | |
| 6. VPC3230 | | | |
| 7. ADC | | | |
| 8. DNle | | | |
| 9. MDIN- 150 | | | |
| 10. 3D Comb | | | |

LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55

9. MDIN- 150

Front Noise Reduction Filter
Horizontal Peaking Filter
Edge Enhancement Filter
Input Test Pattern
Output Test Pattern
Deinterlace Control
Test

9. MDIN- 150

Front Noise Reduction Filter

Noise_Reduction_Flt0	256	Noise_Reduction_Flt_On	1
Noise_Reduction_Flt1	0	Noise_Reduction_Flt_Difference	0
Noise_Reduction_Flt2	0	Median_Flt_On	0
Noise_Reduction_Flt3	0	Median_Flt_Difference	0
Noise_Reduction_Flt4	0	Noise_Reduction_Flt_Diff_Sel	0
Noise_Reduction_Flt5	0		
Noise_Reduction_Flt6	0		
Noise_Reduction_Flt7	0		

9. MDIN- 150

Horizontal Peaking Filter

H_Peaking_Flt0	256	H_Peaking_Flt_Enable	1
H_Peaking_Flt1	0	H_Peaking_Flt_Gain	5
H_Peaking_Flt2	896	H_Peaking_No_Sum	0
H_Peaking_Flt3	0	H_Peaking_Inverse	0
H_Peaking_Flt4	0		
H_Peaking_Flt5	0		
H_Peaking_Flt6	0		
H_Peaking_Flt7	0		

9. MDIN- 150

Edge Enhancement Filter

Edge_Cor_Offse	4
Edge_Enh_Level	1
Edge_Enh_2D_Flt_Enable	1

9. MDIN- 150

Input Test Pattern

In_Test_RGB	0
In_Test_Ptrn	0
In_Test_Format	0

9. MDIN- 150

Output Test Pattern

Out_Test_Ptrn 0

Out_Dark_Scrn_Main 0

9. MDIN- 150

Deinterlace Control

Deint_Mode	1	Deint_Edge_En	2	Deint_Film_Min	0
Deint_C_Delay_Sel	0	Deint_Edge_Thres	255	Film_Mode_Thres	5
Median_Tap	0	Film_Invaild_Lines	8	Bad_Edit_En	1
Expander_Tap	1	Film32_Mo_Thres	160	Caption_Mode	3
Deint_Thres	16	Film_Mode	5	D_Caption_V_Posi	160
Fast_Mode	1	D_Film_Slide_Cnt	0	Deint_Disp_Color	0
N_Median_Tap	0	D_Film_Slide_Cor	40	Deint_Disp_Mode	0
D_Fast_Mode_Thres	2	Deint_Film_Plus	1	MDIN_Tint	94
N_Deint_Thres	24	Deint_Film_Minus	3		
Very_Fast_En	1	Deint_Film_Max	3		

9. MDIN- 150

Test

0 x 508 64

0 x 509 24

0 x 523 63

0 x 524 2184

- | | |
|----------------------------|-----------------------|
| 1. Calibration | 11. Test Pattern |
| 2. Option Table 0594 | 12. Check sum 1140 |
| 3. Color Control | 13. Reset |
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| 5. PW565 | |
| 6. VPC3230 | |
| 7. ADC | |
| 8. DNle | |
| 9. MDIN- 150 | |

10. 3D Comb

LN-P267W : T-DUO26NS-0012 07/12/2004_20:35:53
LN-P327W : T-DUO32NS-0022 07/07/2004_16:45:55

10. 3D Comb

Register Part 1

Register Part 2

10.3D Comb

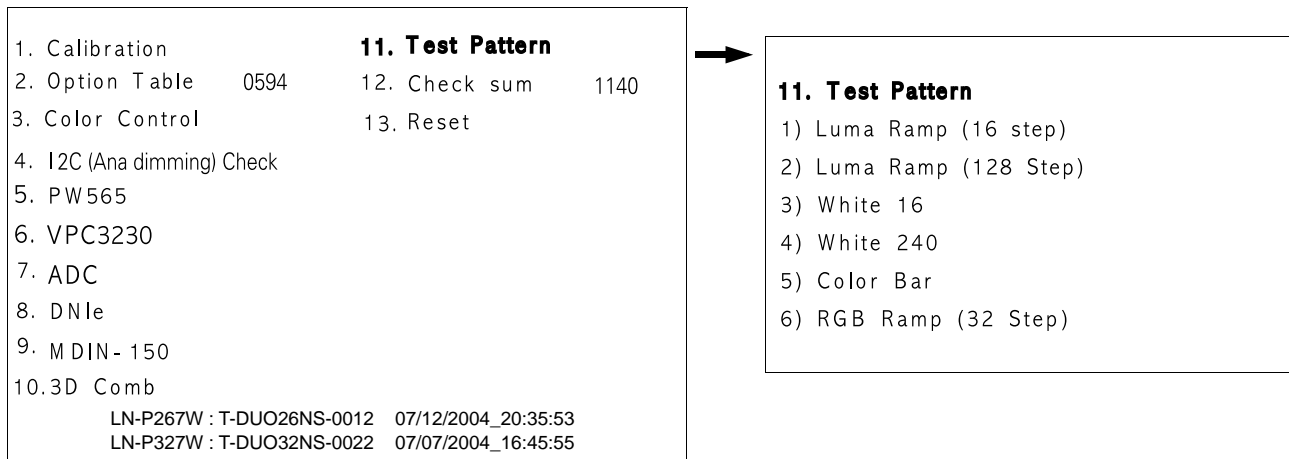
Register Part 1

YAPS	1	DYCOS	2	YNRLIM	1	VTRH	1
COUTS	1	CDL	2	YNRINV	0	WSC	1
NRMD	0	HDP	0	YNRK	0	TT	0
KILS	0	CPP	0	STOS	1	FELCHK	1
MSS	0	DYGAIN	9	ST1S	3	TH	0
NSDS	0	DYCOR	2	CLK80FF	1	IS1DECON	1
CLKS	0	DCGAIN	6	IDWOA2	0	WSS	0
EXCSS	1	DCCOR	10	ID1WOA1	0	VAINV	18
PECS	0	CNRLIM	1	ID1ON	1	VAPGAIN	3
MFREEZE	0	CNRINV	0	LDSR	2	YPFG	8
EXADINS	0	CNRK	0	VTRR	1	YPFT	3

10.3D Comb

Register Part 2

SELD2FH	0	YHCGAIN	1	FSCFG	0	ADPDS	1
CLPH	0	YHCOR	2	BPLLFS	1	ADCLKS	2
COHS	0	CLKGT	0	HPLLFS	0	HIZEN	0
CC3N	0	CLKGEB	0	VSSL	8	EXTDYCO	0
VEGS	2	CLKGGT	0	HSSL	15	SYSPDS	0
V1PS	2	CLKG2D	1	BGPW	3	ADCLPSTP	0
SELD1FL	0	OTT	0	BGPS	7	ADCLPFSW	0
KCTT	0	VCT	0	VT VH	0	HCNTFSYN	0
CSHDT	0	SHT	0	FSCOFF	0	CNROFS	0
OVST	0	KILR	2	NRZOFF	0		
ED2OFF	0	PLLFG	1	NSDSW	0		



1. Calibration	11. Test Pattern
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7. ADC	
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1. Calibration	11. Test Pattern
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* Unless otherwise specifid, do not adjust data in Factory Mode.

* Data may be changed for display improvement.

4-3 White Balance Adjustment

1. In factory mode (1, 3, 6), you can adjust the white balance.
2. As the adjustment and data values differ depending on input sources, different adjustments are required for RF, DTV (Component 1, 2) and PC/DVI modes.
3. Optimum condition data for each mode are saved as default values. (Refer to Table 2, 3)
4. As the RF mode is applied with the same values as for VIDEO and S-VIDEO, adjustment can be made in any of RF, VIDEO and S-VIDEO modes.

Table 4-1. White Balance Setting Conditions

Mode	High Light			Low Light		
	"x"	"y"	Y	"x"	"y"	Y
RF	255	260	Fix	270	260	0.45fL
DTV	255	260	Fix	270	260	0.7fL
PC	255	260	Fix	270	260	1.4fL

Table 4-2. Color Control Default Value

Mode	RF	DTV	PC	Mode	RF	DTV	PC
Sub-Brightness	127	131	149	Sub-Contrast	95	65	42
Red Offset	130	133	128	Red Gain	128	128	128
Green Offset	128	128	128	Green Gain	128	128	128
Blue Offset	130	131	128	Blue Gain	131	128	128
Brightness	45	45	50	Contrast	100	100	80

Table 4-3. ADC Default Value

Mode	PC	Mode	DTV
Red Gain	176	Pr Gain	195
Green Gain	173	Y Gain	201
Blue Gain	196	Pb Gain	218
Red Offset	140	Pr Offset	124
Green Offset	138	Y Offset	139
Blue Offset	133	Pb Offset	108
Current	5		
VCO	2		

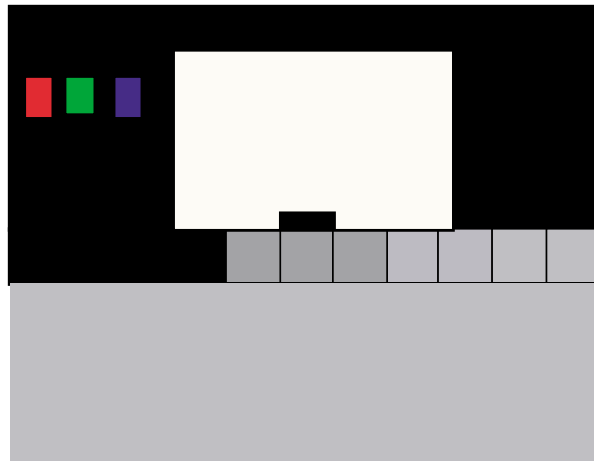
4-3-1 Conditions for Measurement

1. On the basis of toshiba ABL pattern : High Light level (57 IRE)
 - INPUT SIGNAL GENERATOR : MSPG-925LTH
 - * Mode NO 1 : 744X484@60 Hz
 - NO 6 : 1280X720@60 Hz
 - NO 21 : 1024X768@60 Hz
 - * Pattern NO 36 : 16 Color Pattern
 - NO 16 : Toshiba ABL Pattern
2. Optical measuring device : CA210 (FL)
 - Please use the MSPG-925 LTH generator for model LT26A33W.

4-3-2 Method of Adjustment

1. Adjust the basic level of DTV and PC input signals.
 - a) Set the input to the mode in which the adjustment will be made (DTV → PC).
 - * Input signal - DTV Mode : Model #6 (1280*720 Mode), Pattern #36
 - PC Mode : Model #21 (1024*768 Mode), Pattern #16 (Picture 4-1)
 - b) Enter factory Calibration, confirm the ADC data (DTV, PC Mode Only).
 - * ADC default value : Table 4-3.

Picture 4-1 Toshiba ABL Pattern

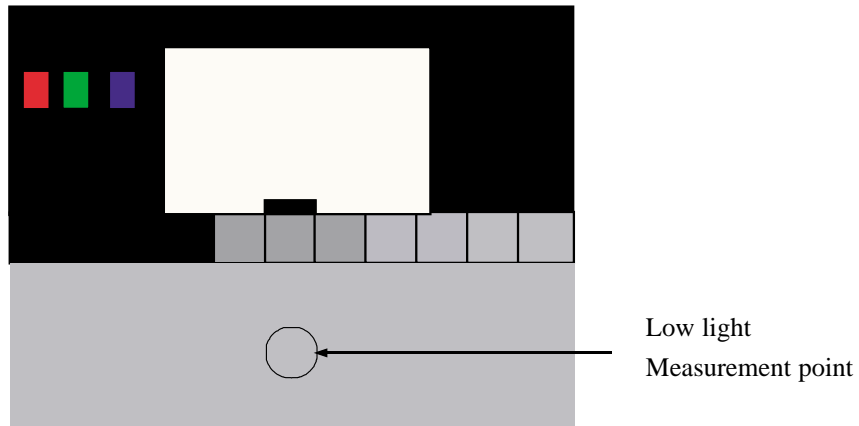


2. Adjust the white balance of RF, DTV, PC and DVI Modes.
 - a) Set the input to the mode in which the adjustment will be made (RF → DTV → PC → DVI).
 - * Input signal - VIDEO Mode : Model #1 (744*484 Mode), Pattern #16
 - DTV,DVI Mode : Model #6 (1280*720 Mode), Pattern #16
 - PC Mode : Model #21 (1024*768 Mode), Pattern #16
 - b) Enter factory color control, confirm the data.

4 Alignments and Adjustments

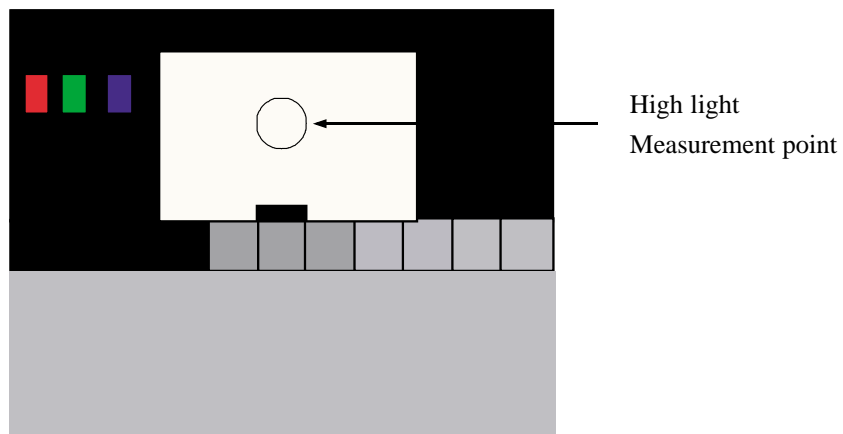
- c) Adjust the low light. (Refer to table 1, 2 in adjustment position by mode)
- Adjust sub - Brightness to set the 'Y' value.
 - Adjust red offset ('x') and blue offset ('y') to the color coordinates.
- * Do not adjust green offset data.

Picture 4-2 Toshiba ABL Pattern



- d) Adjust the high light. (Refer to table 1, 2 in adjustment position by mode)
- Adjust red gain ('x') and blue gain ('y') to the color coordinates.
- * Do not adjust the green gain and sub-contrast (Y) data.

Picture 4-3 Toshiba ABL Pattern



4-3-3 Option Table

Option	Default	Option 1	Option 2	Option 3	Remark
DebugExpress	Off	Off (FIX)	Off (FIX)	Off (FIX)	* When a Jig control use to On
LNA	Off	Off (FIX)	Off (FIX)	Off (FIX)	-
Vchip	On	On	On	On	-
VchipArea	USA	USA+ Canada	USA	USA+ Canada	-
Melody Volume	10	10	0 ~ 19	0 ~ 19	0 ~ 19
DnieDemo	On	On	On	On	-
I2c Bus Stop	Off	Off	Off	Off	-
Video Mute	3 X 100	3 X 100	3 X 100	3 X 100	[msec]
DECS Demo	On	On	On	On	-
YB_1	110	100	100	100	1 ~ 255
YB_2	190	200	200	200	1 ~ 255
Xth_1	100	90	90	90	1 ~ 254
Xth_2	190	190	190	190	10 ~ 254
Sub_Woofer	Off	Off	Off	Off	Don't Adjust
Corner Freq.	15	15	15	15	Don't Adjust
NR	On	On	On	On	-
SSON	On	On	On	On	EMI Option
I2C MOFS	0	0	0	0	0 ~ 63

* The default settings are most recommended for Option Data. Each data may be adjusted.

4-3-4 PW565

* Below figures are for contrast adjustment of PW565 (IC565). Do not change the data.

Mode	Data
Red Gain	128
Green Gain	128
Blue Gain	128
Red Offset	128
Green Offset	128
Blue Offset	128
Sharpness	30

4 Alignments and Adjustments

4-3-5 VPC 3230-MAIN

* Data may be adjusted.

MODE	Data	MODE	Data
CT	20	PK	03
BR	8E	VPK	00
ACC_SAT	80	LPF2	00
TINT	32	CBW2	00
SATCb	1F	CBW	03
SATCr	3F	IFC	03
CIPTNT	20	LILVL	0C
CIPBR	B5	LDLY	07
CIPCT	20	PKCOR	01
PFS	02		

4-3-6 ADC

*Adjust the R(Pr), G(Y), B(Pb) gain and offset to the basic level of DTV and PC Input signals.

Mode	PC	Mode	DTV
Red Gain	176 →Adjust	Pr Gain	195 →Adjust
Green Gain	173 →Adjust	Y Gain	201 →Adjust
Blue Gain	196 →Adjust	Pb Gain	218 →Adjust
Red Offset	140 →Adjust	Pr Offset	124 →Adjust
Green Offset	138 →Adjust	Y Offset	139 →Adjust
Blue Offset	133 →Adjust	Pb Offset	108 →Adjust
Current	5		
VCO	2		

4-3-7 DNLe

- * Control the specify item that a output signals of scalar (PW565).
- * This data can be changed without notice.

Mode	Data	Mode	Data	Mode	Data
Pattern_SEL	0	DEP_Gain1_X	12	NE_RTH2	3
NR_LimitY	125	DEP_Gain1_Y	30	CTE_H_min	6
NR_LimitC	125	DEP_Gain2_X	5	DEP_SCALE_R	80
NR_SEL	2	DEP_Gain2_Y	45		
SCALEM AX_Y	48	DEP_Gain3_X	3		
SCALEM AX_C	48	DEP_Sup_ScaleTH1	3		
SCALEM IN_Y	16	DEP_Sup_ScaleTHF	16		
SCALEM IN_C	16	WTE_MCCT_FAC	150		
SCALENOISE_Y	72	DCE_Adap_SEL	1		
SCALENOISE_C	100	BS_Tilt	90		
Y_TH_HPF	7	BS_GainMax	370		
Y_TH_EDGE	5	NE_Core	3		

4-3-8 MDIN-150

- * Control the specify item that a output signals (RF, CVBS, S-VHS Modes) of MDIN-150 (IC405).
- * This data can be changed without notice.

4-3-9 3D Comb

- * Control the specify item that a input signals (RF, CVBS, S-VHS Modes) of D64083 (IC303).
- * This data can be changed without notice.

4-3-10 Test Pattern

- * Use below test patters to demonstrate the image display of PW565 (IC602).

- 1) Luma Ramp (16 step)
- 2) Luma Ramp (128 Step)
- 3) White 16
- 4) White 240
- 5) Color Bar
- 6) RGB Ramp (32 Step)

4-3-11 Check sum

- * XXXX : Displays the current check sum size of the MICOM.
(Varies depending on program update)

4-3-12 Reset

- * Initializes the data in the MICOM. (Set to default value)
Use 'Reset' to restore adjustments made in Factory Mode to the original settings.

4-3-13 T_NPL26NUS_0400 03/30/2004 9:19:40

- * Displays the MICOM program version

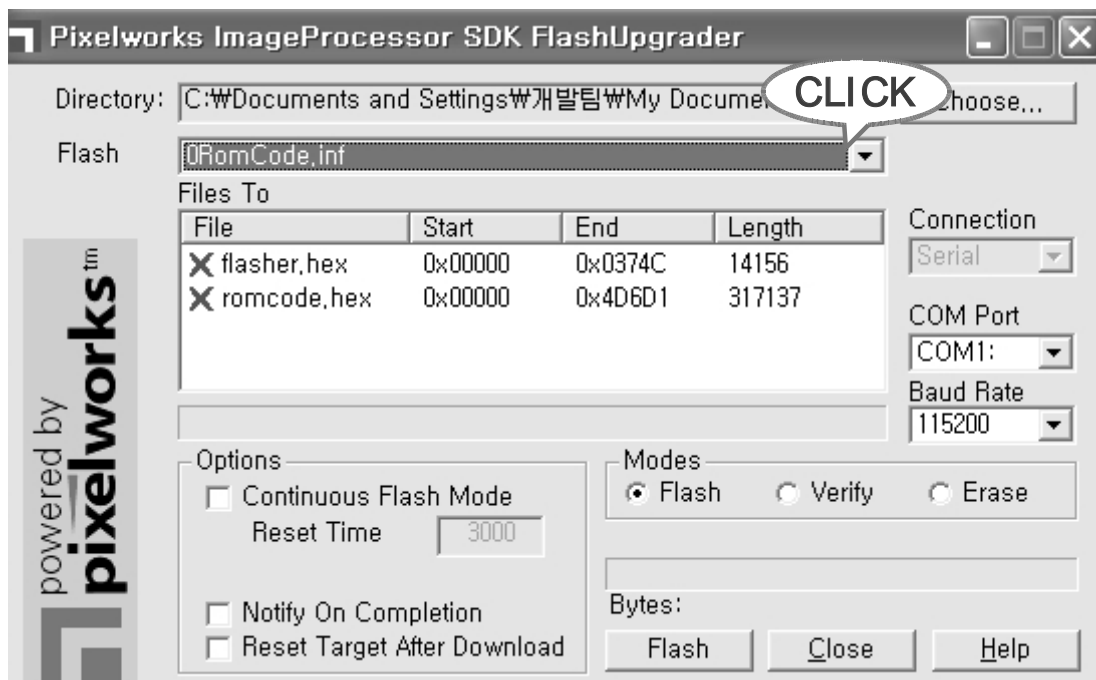
4-4 How to use SW(FlashupgradNT) for LN-P267W/LN-P327W Set program update

1. Store program practice file in new folder.



Picture 4-4

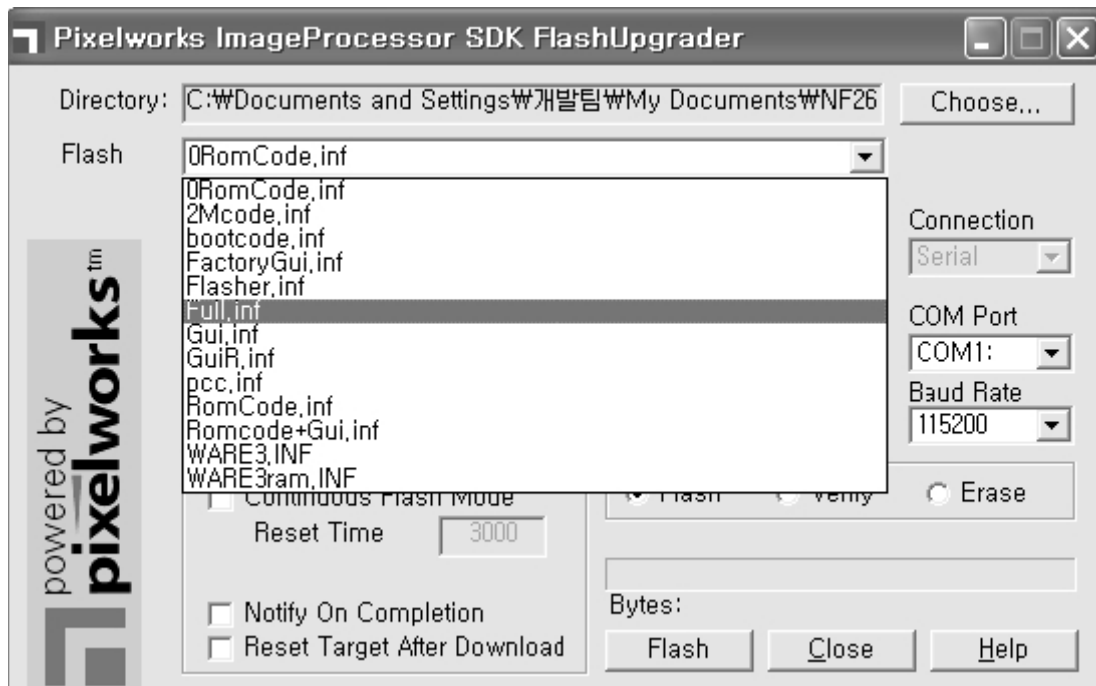
2. Connect Set and Jig Cable to execute Program Update.
-Refer to the Picture 4-4 attachment
3. After completing the JIG Cable connection, store Update practice program (hex file 3EA) in new folder.
(guiR, romcode, factoryGui).
4. Click FlashupgradNT.exe icon 2 times and execute it.
-Refer to Picture 4-1, 4-2



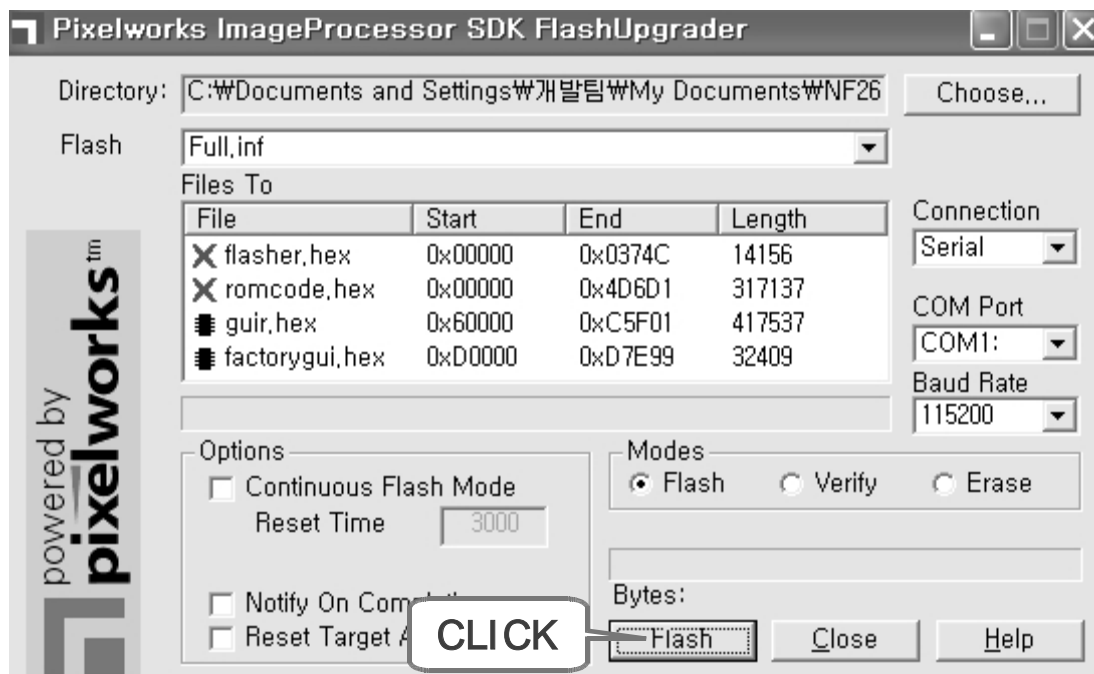
Picture 4-5

5. Select Full.inf in Flash. (flaher, romcode, guir, factorygui items look in Files To)

-Refer to Picture 4-3, 4-4



Picture 4-6



Picture 4-7

4 Alignments and Adjustments

6. Click the “Flash” that is under right of OSD screen.

(if warning message comes out, Click the “Yes”(Y).)

-Refer to Picture 4-5



Picture 4-8

7. After acting No.6, extract Set's Power Cable and connect it again.

8. During acting No.7, program Update sledging is marked sequentially on OSD screen.

9. After Program Update completion, Extract a Set's Power Cord and connect it again.

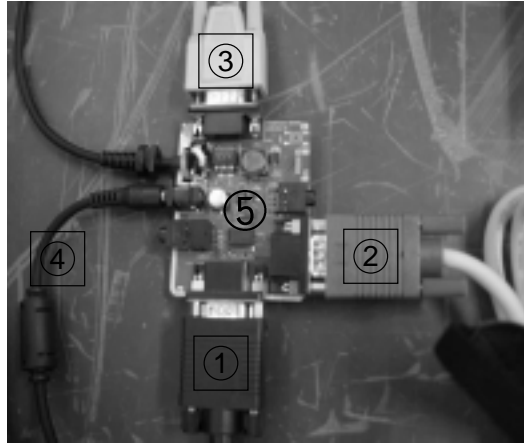


Picture 4-9

10. If Power turn on and Picture display, Program Update is Completed.

<Part List>

1. JIG & Set Connection Cable (15 Pin)
2. PC Signal Input Port.
3. JIG & PC Connection Cable (9 Pin)
4. JIG Power Adaptor(DC 14V) & Power Cord.
5. JIG PBA ASS'Y



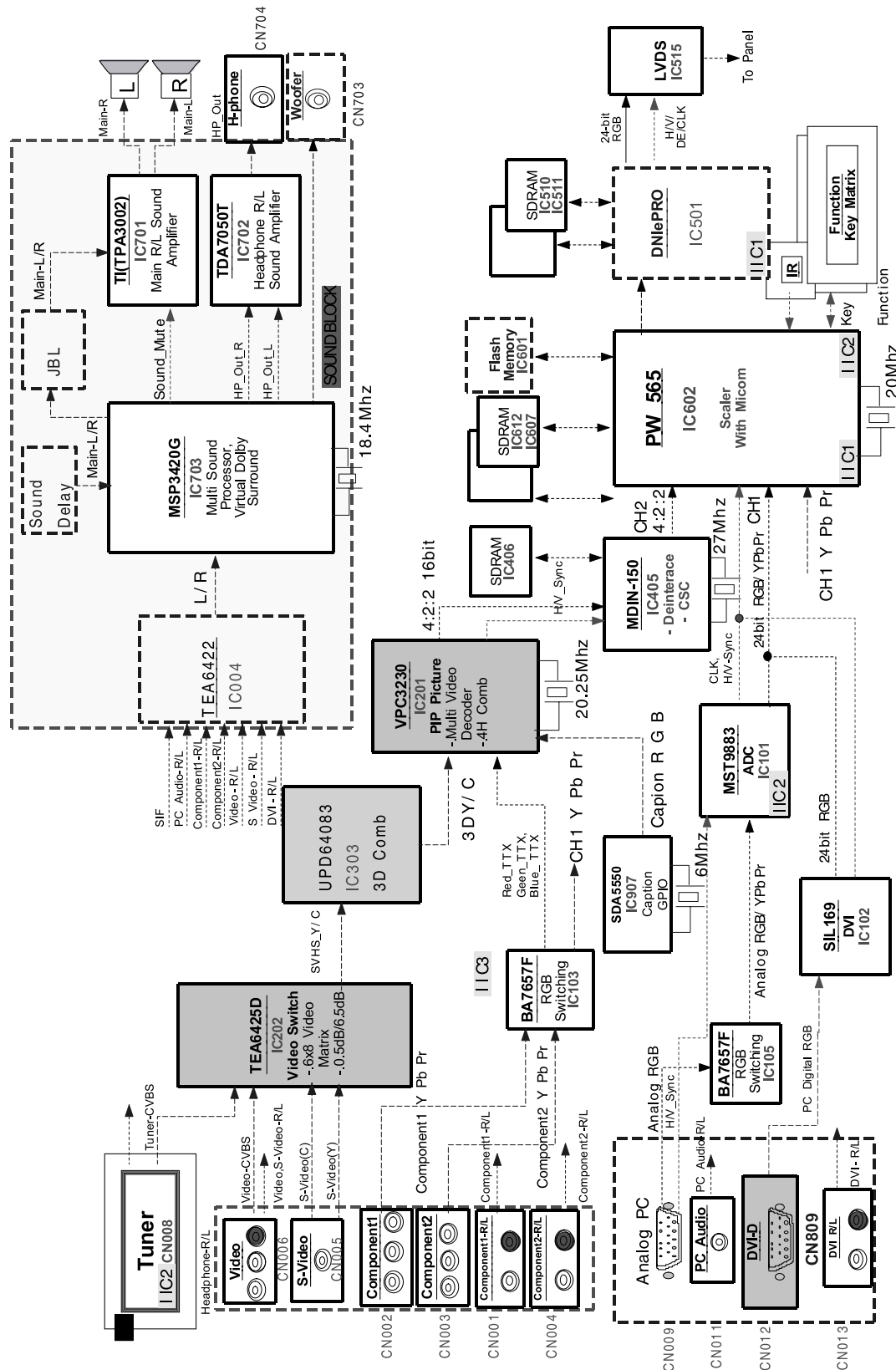
Picture 4-10

<Attachment Picture 4-10 : JIG Cable Connection Explain>

1. Connect with PC Pattern Generator's output.(N0.2)
(Connect only when you want to see PC screen.)
2. Connect with JIG Output (15 pins) and PC Input (15 pins) terminal.(No.1)
3. Connect with COM Port1 of PC (9 Pin, No.3).
4. Connect 14V 4.5A Adaptor Cable.(No.4)

Memo

8-1 Signal Path Block Diagram



Memo

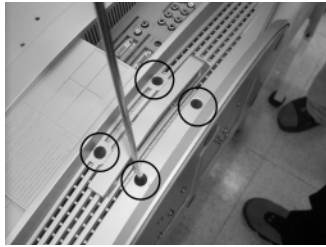
3 Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the LN-P267W/LN-P327W LCD TV.

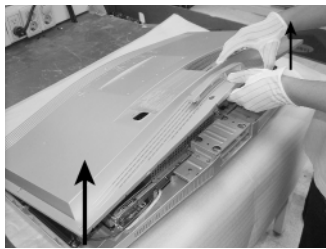
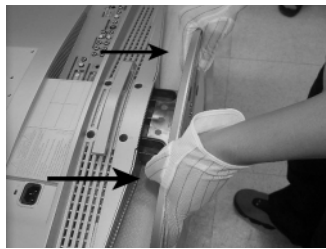
⚠ WARNING: This monitor contains electrostatically sensitive devices. Use caution when handling these components.

3-1 LN-P267W Disassembly

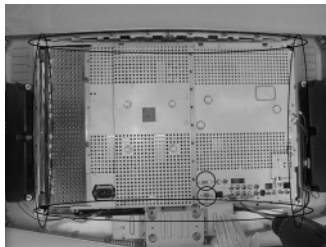
⚠ Cautions: 1. Disconnect the monitor from the power source before disassembly.



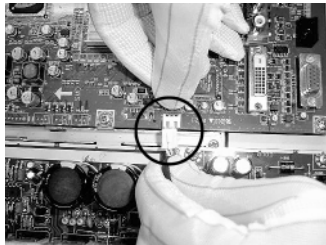
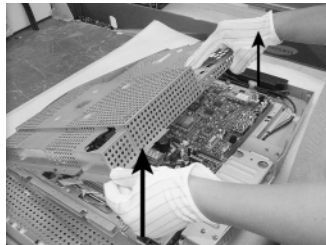
1. Place LCD TV face down on cushioned table. Remove 9 screws from the rear cover. Remove 4 screws from grip on the stand, and remove the stand.



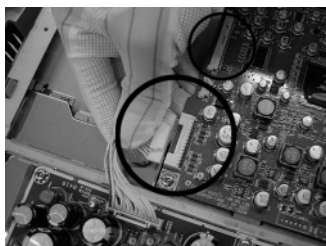
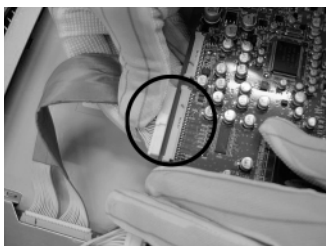
2. Remove the stand and lift up the rear cover.



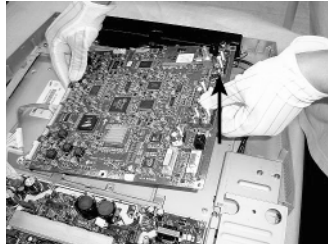
3. Disconnect speaker cable, function cable from the shield and remove 18 screws from the shield and lift up the shield.



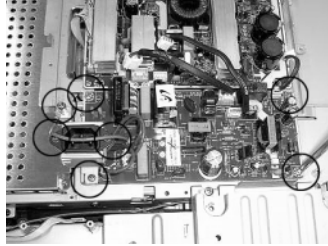
4. Disconnect CN811 connector, LVDS cable, inverter cable from the boards.



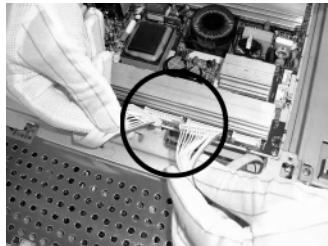
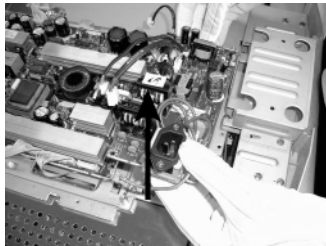
3 Disassembly and Reassembly



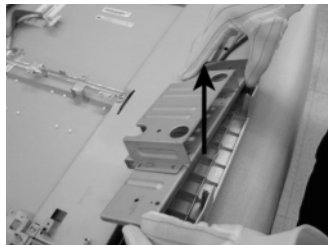
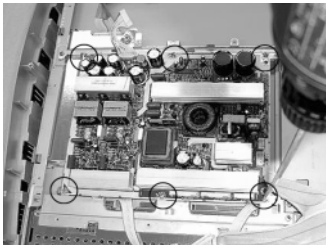
5. Remove 6 screws from the Main board and lift up the board.



6. Remove 6 screws from the Sub power board and lift up the board.



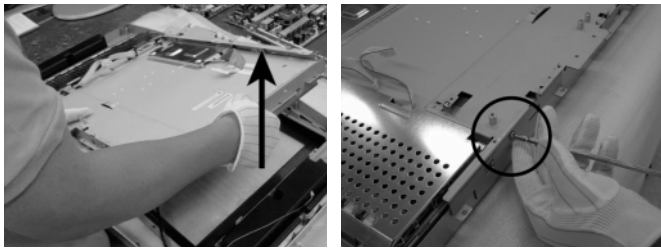
7. Disconnect inverter cable. Remove 6 screws from the main power board and lift up the board.



8. Remove 8 screws

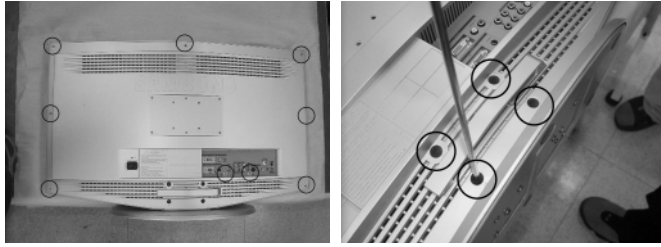


9. Remove 6 screws from the panel BRKT. Remove 16 screws from the cabinet BRKT and lift up the panel.

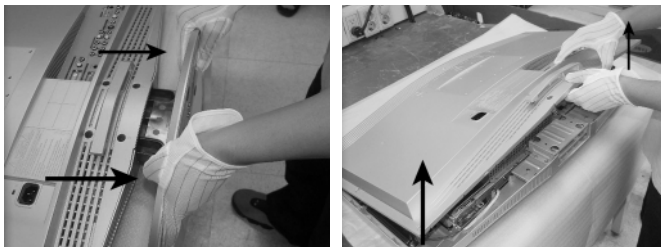


8. Lift up the panel. Remove 4 screws from the panel BRKT. (Left/Right)
Disconnect BRKT from the panel.

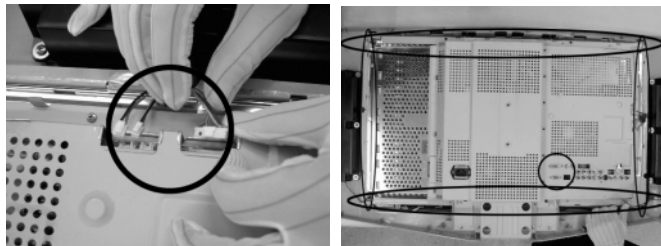
3-2 LN-P327W Disassembly



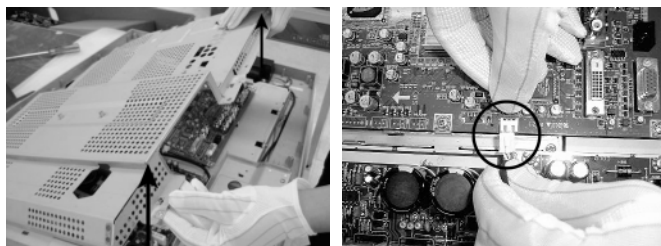
1. Place LCD TV face down on cushioned table. Remove 9 screws from the rear cover. Remove 4 screws from grip on the stand, and remove the stand.



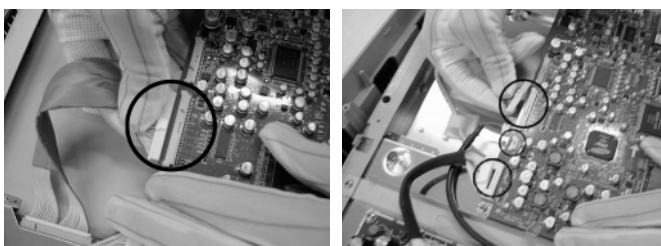
2. Remove the stand and lift up the rear cover.



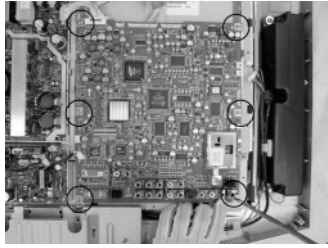
3. Disconnect speaker cable, function cable from the shield and remove 18 screws from the shield and lift up the shield.



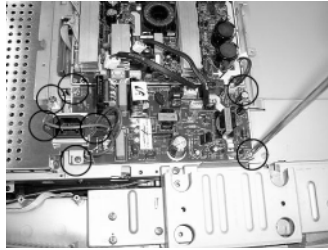
4. Disconnect CN811 connector, LVDS cable, inverter cable from the boards.



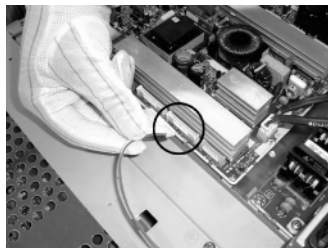
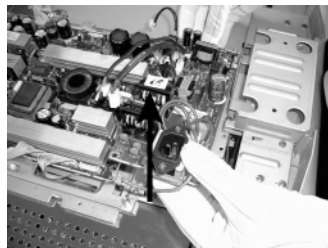
3 Disassembly and Reassembly



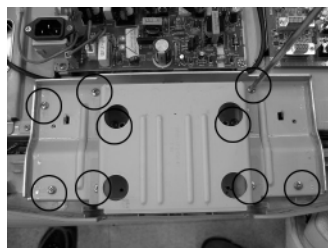
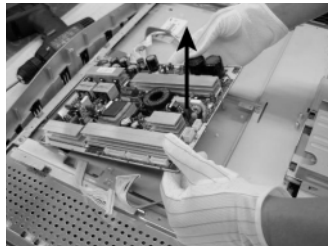
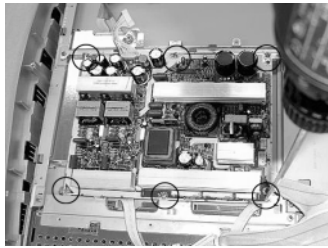
5. Remove 6 screws from the Main board and lift up the board.



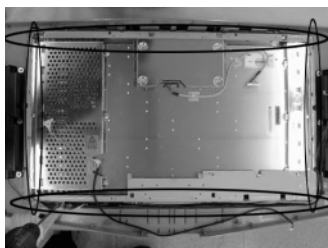
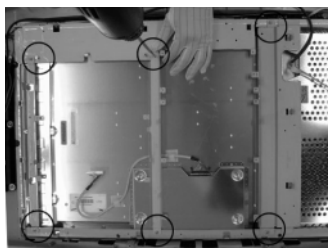
6. Remove 6 screws from the Sub power board and lift up the board.



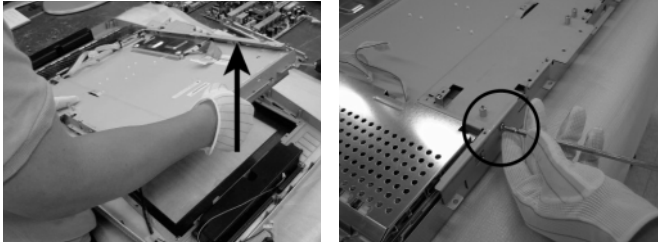
7. Disconnect inverter cable. Remove 6 screws from the main power board and lift up the board.



8. Remove 13 screws



9. Remove 6 screws from the panel BRKT. Remove 14 screws from the cabinet BRKT and lift up the panel.



8. Lift up the panel. Remove 4 screws from the panel BRKT. (Left/Right)
Disconnect BRKT from the panel.

3-3 Reassembly

Reassembly procedures are in the reverse order of disassembly procedures.

7 Parts List

※ You can search for updated part codes through ITSELF web site.

URL : <http://itself.sec.samsung.co.kr/>

7-1 Part Lists

Description	Code No.(LT-P267W)	Description	Code No.(LT-P327W)
ASSY PCB MAIN	BN94 - 00595R	ASSY PCB MAIN	BN94 - 00595S
ASSY COVER FRONT	BN90 - 00677M	ASSY COVER FRONT	BN90 - 00677Q
ASSY COVER REAR	BN90 - 00678A	ASSY COVER REAR	BN90 - 00678C
LCD-PANEL	BN07 - 00121A	LCD-PANEL	BN07 - 00172A
ASSY CHASSIS	BN91 - 00814A	ASSY CHASSIS	BN91 - 00814B
ASSY SHIELD	BN91 - 00813A	ASSY SHIELD	BN91 - 00813B
ASSY BOX	BN92 - 01133Z	ASSY BOX	BN92 - 01160D
ASSY LABEL	BN92 - 01044U	ASSY LABEL	BN92 - 01044U
REMOCON	BN59 - 00409B	REMOCON	BN59 - 00409B
ASSY ACCESSORY	BN92 - 01146T	ASSY ACCESSORY	BN92 - 01146X
ASSY PCB POWER_CH	BN94 - 00443F	ASSY PCB POWER_CH	BN94 - 00443Z
ASSY PCB POWER_SUB PCB	BN94 - 00444N	ASSY PCB POWER_SUB PCB	BN94 - 00444N

<OPTION PART LIST>

IF Cable	: AA39-00039A
A/V Cable	: BN39-00057A
S-Video Cable	: BN39-00060A
COMPONENT Cable	: BN39-00279A
SOUND Cable(R, L)	: BN39-00148A
PC DVI(D) Cable	: BN39-00126A
PC DVI(A) Cable	: BN39-00310A
DVI AUDIO Cable	: BN81-00120A
STEREO Cable	: BN39-00448A
D-SUB Cable	: BN39-00244B

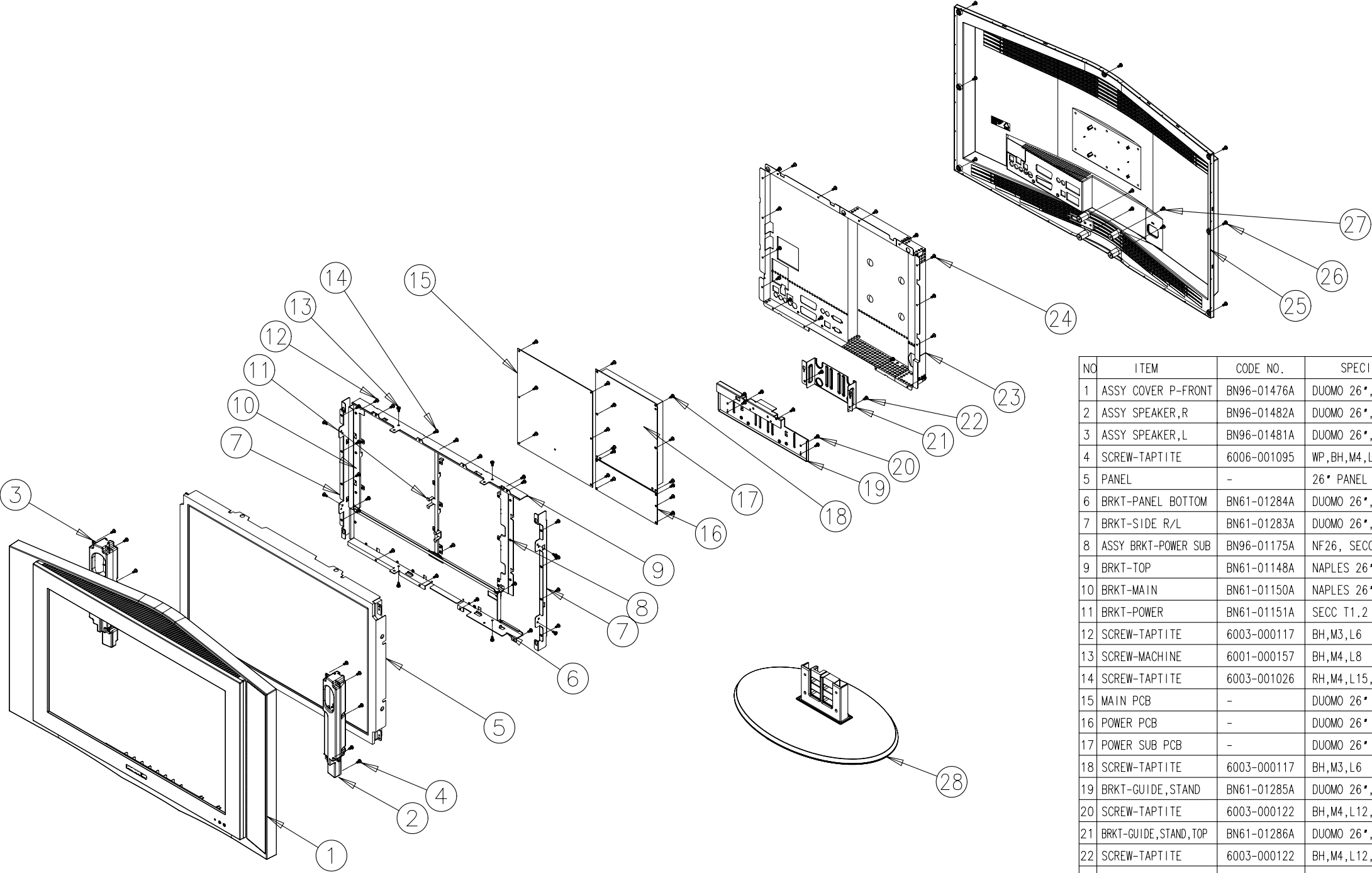
7 Parts List

Memo

6 Exploded View and Parts List

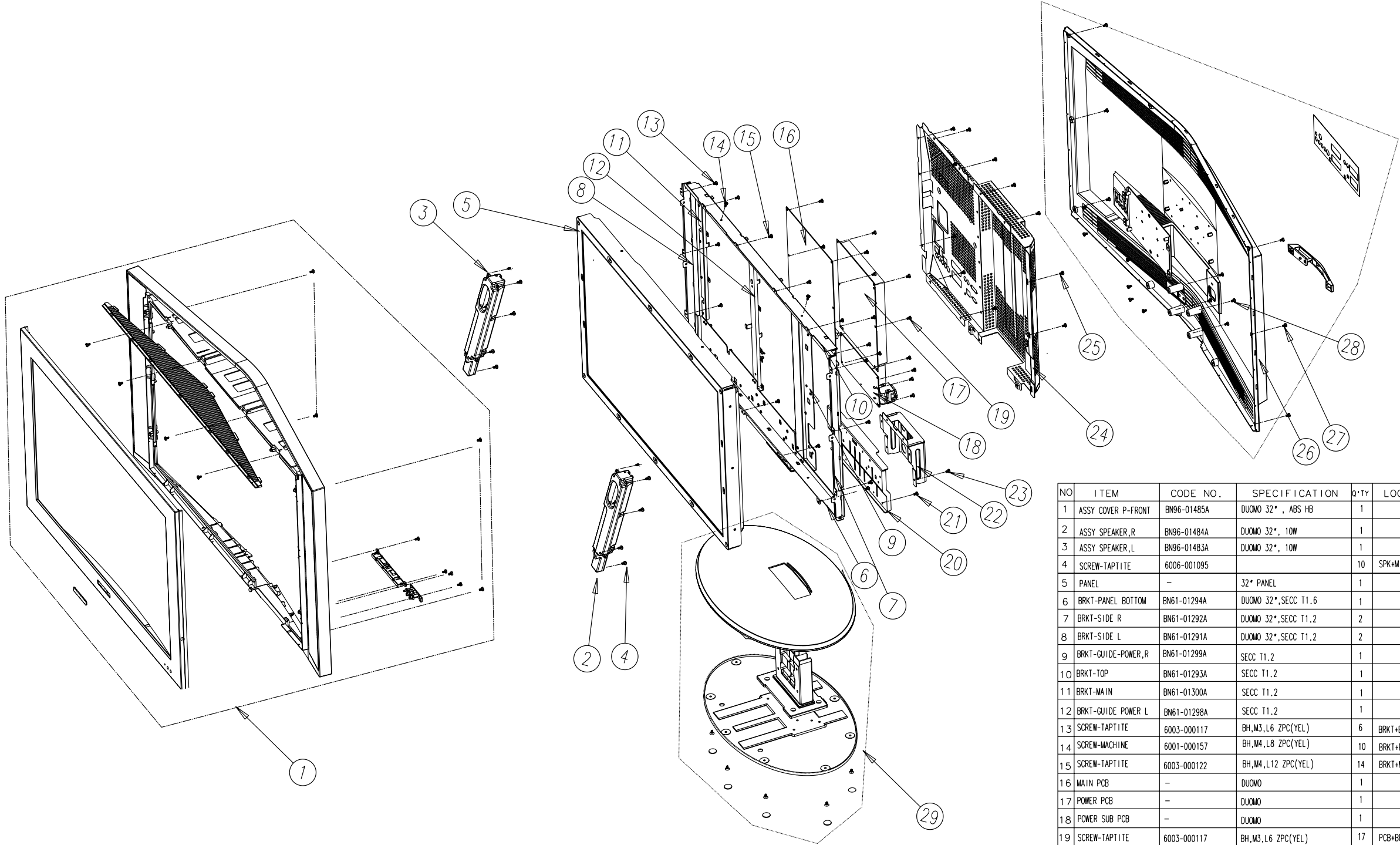
※ You can search for updated part codes through ITSELF web site.
URL : <http://itself.sec.samsung.co.kr/>

6-1 LN-P267W



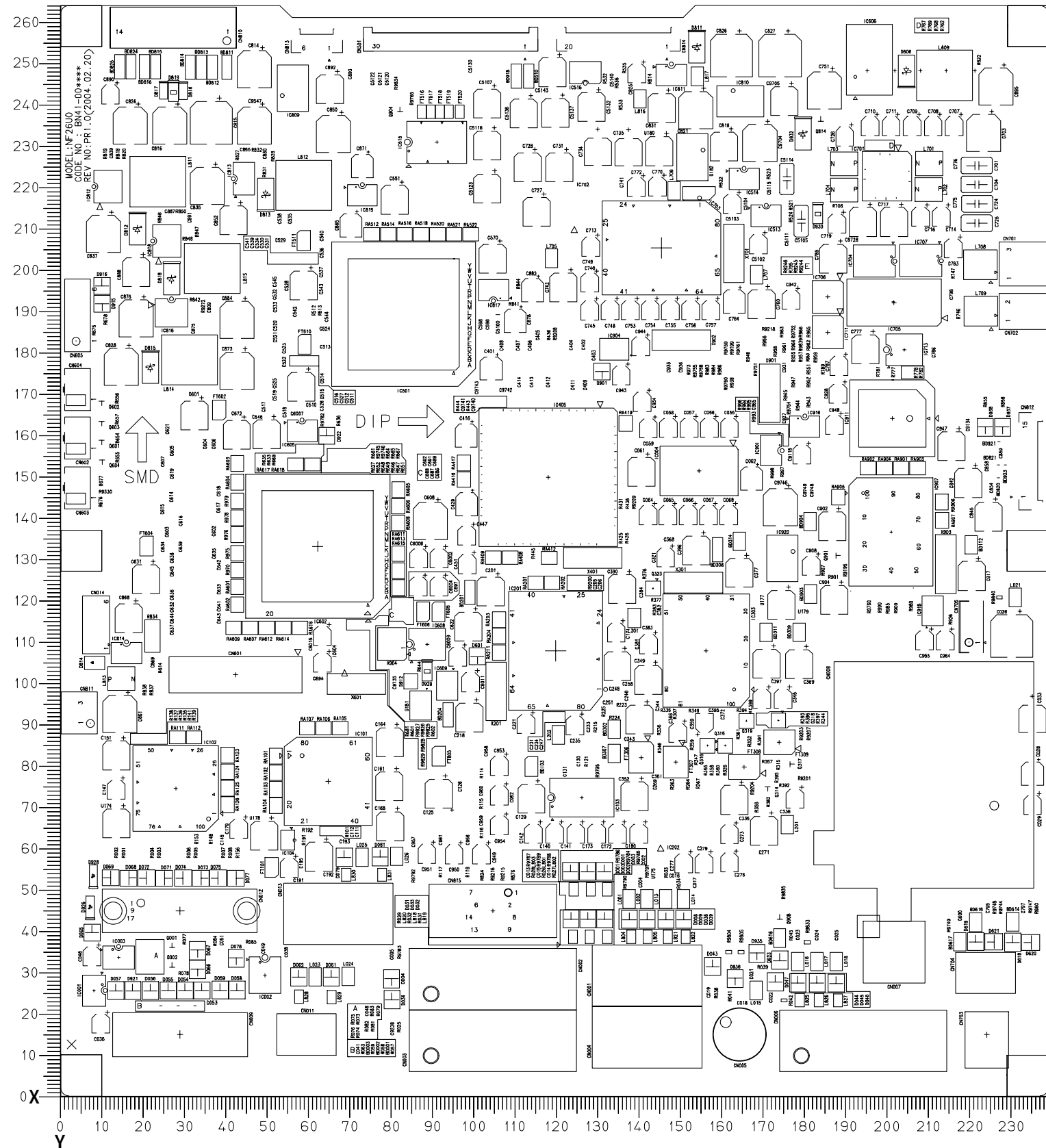
NO	ITEM	CODE NO.	SPECIFICATION	Q'TY	LOCATION	REMARK
1	ASSY COVER P-FRONT	BN96-01476A	DUOMO 26", ABS HB	1		SA
2	ASSY SPEAKER,R	BN96-01482A	DUOMO 26", 5W	1		SA
3	ASSY SPEAKER,L	BN96-01481A	DUOMO 26", 5W	1		SA
4	SCREW-TAPTITE	6006-001095	WP,BH,M4,L12	10	SPK+MIDDLE	SA
5	PANEL	-	26" PANEL	1		SA
6	BRKT-PANEL BOTTOM	BN61-01284A	DUOMO 26", SECC T1.0	1		SNA
7	BRKT-SIDE R/L	BN61-01283A	DUOMO 26", SECC T1.0	2		SNA
8	ASSY BRKT-POWER SUB	BN96-01175A	NF26, SECC T1.2	1		SNA
9	BRKT-TOP	BN61-01148A	NAPLES 26" SECC T1.2	1		SNA
10	BRKT-MAIN	BN61-01150A	NAPLES 26" SECC T1.2	1		SNA
11	BRKT-POWER	BN61-01151A	SECC T1.2	1		SNA
12	SCREW-TAPTITE	6003-000117	BH,M3,L6	6	BRKT+BRKT	SA
13	SCREW-MACHINE	6001-000157	BH,M4,L8	8	BRKT+PANEL	SA
14	SCREW-TAPTITE	6003-001026	RH,M4,L15,BLK	16	BRKT+MIDDLE	SA
15	MAIN PCB	-	DUOMO 26"	1		SA
16	POWER PCB	-	DUOMO 26"	1		SA
17	POWER SUB PCB	-	DUOMO 26"	1		SA
18	SCREW-TAPTITE	6003-000117	BH,M3,L6	17	PCB+BRKT	SA
19	BRKT-GUIDE,STAND	BN61-01285A	DUOMO 26", SECC T1.6	1		SNA
20	SCREW-TAPTITE	6003-000122	BH,M4,L12,YEL	6	B/GUIDE+MIDDLE	SA
21	BRKT-GUIDE,STAND,TOP	BN61-01286A	DUOMO 26", SECC T1.0	1		SNA
22	SCREW-TAPTITE	6003-000122	BH,M4,L12,YEL	2	GUIDE,TOP+B/GUIDE	SA
23	ASSY SHIELD-PCB	BN96-01129A	NA26, SECC T0.5	1		SA
24	SCREW-TAPTITE	6003-000117	BH,M3,L6	15	SHIELD+BRKT	SNA
25	ASSY COVER-REAR	BN96-01477A	DUOMO 26", ABS HB	1		SA
26	SCREW-TAPTITE	6003-001323	BH,M4,L12,NI PLT	1	REAR+C/MIDDLE	SA
27	SCREW-TAPTITE	6003-000009	BH,M4,L16,YEL	4	SET+STAND	SA
28	ASSY STAND	BN96-01478A	DUOMO 26", ABS HB	1		SA

6-2 LN-P327W



NO	ITEM	CODE NO.	SPECIFICATION	Q'TY	LOCATION	REMARK
1	ASSY COVER P-FRONT	BN96-01485A	DUOMO 32" , ABS HB	1		SA
2	ASSY SPEAKER,R	BN96-01484A	DUOMO 32" , 10W	1		SA
3	ASSY SPEAKER,L	BN96-01483A	DUOMO 32" , 10W	1		SA
4	SCREW-TAPTITE	6006-001095		10	SPK+MIDDLE	SA
5	PANEL	-	32" PANEL	1		SA
6	BRKT-PANEL BOTTOM	BN61-01294A	DUOMO 32",SECC T1.6	1		SNA
7	BRKT-SIDE R	BN61-01292A	DUOMO 32",SECC T1.2	2		SNA
8	BRKT-SIDE L	BN61-01291A	DUOMO 32",SECC T1.2	2		SNA
9	BRKT-GUIDE-POWER,R	BN61-01299A	SECC T1.2	1		SNA
10	BRKT-TOP	BN61-01293A	SECC T1.2	1		SNA
11	BRKT-MAIN	BN61-01300A	SECC T1.2	1		SNA
12	BRKT-GUIDE POWER L	BN61-01298A	SECC T1.2	1		SNA
13	SCREW-TAPTITE	6003-000117	BH,M3,L6 ZPC(YEL)	6	BRKT+BRKT	SNA
14	SCREW-MACHINE	6001-000157	BH,M4,L8 ZPC(YEL)	10	BRKT+PANEL	SA
15	SCREW-TAPTITE	6003-000122	BH,M4,L12 ZPC(YEL)	14	BRKT+MIDDLE	SA
16	MAIN PCB	-	DUOMO	1		SA
17	POWER PCB	-	DUOMO	1		SA
18	POWER SUB PCB	-	DUOMO	1		SA
19	SCREW-TAPTITE	6003-000117	BH,M3,L6 ZPC(YEL)	17	PCB+BRKT	SA
20	BRKT-GUIDE,STAND,BTM	BN61-01296A	DUOMO 32",SECC T2.0	1		SNA
21	SCREW-TAPTITE	6003-000122	BH,M4,L12 ZPC(YEL)	7	B/GUIDE+MIDDLE	SA
22	BRKT-GUIDE,STAND,TOP	BN61-01295A	DUOMO 32",SECC T1.0	1		SNA
23	SCREW-TAPTITE	6003-000122	BH,M4,L12 ZPC(YEL)	6	GUIDE,TOP+B/GUIDE	SA
24	ASSY SHIELD-PCB	BN96-01611A	SECC T1.0	1		SNA
25	SCREW-TAPTITE	6003-000117	BH,M3,L6 ZPC(YEL)	11	SHIELD+BRKT	SA
26	ASSY COVER-REAR	BN96-01486A	DUOMO 32",HIPS HB	1		SA
27	SCREW-TAPTITE	6003-001324	BH,M4,L16,N1 PLT	12	REAR+C/MIDDLE	SA
28	SCREW-TAPTITE	6003-000009	BH,M4,L16,ZPC(YEL)	4	SET+STAND	SA
29	ASSY STAND	BN96-01487A	DOMO 32",ABS HB	1		SA

10-1 Main PCB Layout



10 PCB Layout

Loc. No.	Description	X	Y
DIODE			
D001	DIODE-ZENER	123.9	54.6
D002	DIODE-ZENER	132.1	54.6
D003	DIODE-ZENER	128.0	54.6
D004	DIODE-ZENER	80.5	28.6
D005	DIODE-ZENER	123.9	54.6
D006	DIODE-ZENER	132.1	54.6
D007	DIODE-ZENER	128.0	54.6
D008	DIODE-ZENER	138.2	42.9
D009	DIODE-ZENER	142.5	42.9
D010	DIODE-ZENER	138.2	42.9
D011	DIODE-ZENER	142.5	42.9
D031	DIODE-ZENER	124.0	43.0
D032	DIODE-ZENER	132.2	43.0
D033	DIODE-ZENER	128.1	43.0
D034	DIODE-ZENER	80.5	23.4
D035	DIODE-ZENER	124.8	43.0
D036	DIODE-ZENER	133.0	43.0
D037	DIODE-ZENER	128.9	43.0
D038	DIODE-ZENER	147.1	42.9
D039	DIODE-ZENER	151.4	42.9
D041	DIODE-ZENER	147.1	42.9
D042	DIODE-ZENER	151.4	42.9
D043	DIODE-ZENER	158.4	31.5
D044	DIODE-ZENER	179.1	27.5
D045	DIODE-ZENER	183.8	27.5
D046	DIODE-ZENER	188.4	27.4
D047	DIODE-ZENER	173.6	27.7
D048	DIODE-ZENER	179.1	27.5
D049	DIODE-ZENER	183.8	27.5
D051	DIODE-ZENER	188.4	27.5
D052	DIODE-ARRAY	7.8	26.0
D053	DIODE-SWITCHING	34.3	25.7
D054	DIODE-SWITCHING	30.2	25.7
D055	DIODE-SWITCHING	26.1	25.7
D056	DIODE-ZENER	21.8	25.6
D057	DIODE-ZENER	13.4	25.6
D058	DIODE-ZENER	42.8	25.7
D059	DIODE-ZENER	38.7	25.7
D061	DIODE-ZENER	65.7	28.9
D062	DIODE-ZENER	57.8	28.9
D063	DIODE-ZENER	57.8	28.9
D064	DIODE-ZENER	65.7	28.9
D065	DIODE-ARRAY	7.6	39.8

Loc. No.	Description	X	Y
D066	DIODE-ZENER	33.3	30.9
D067	DIODE-ZENER	33.3	35.5
D068	DIODE-SWITCHING	16.6	53.0
D069	DIODE-SWITCHING	12.1	53.0
D071	DIODE-SWITCHING	25.2	53.0
D072	DIODE-SWITCHING	20.8	53.0
D073	DIODE-SWITCHING	34.1	53.0
D074	DIODE-SWITCHING	29.7	53.0
D075	DIODE-SWITCHING	38.2	53.0
D077	DIODE-SWITCHING	42.6	53.0
D078	DIODE-ZENER	42.7	33.6
D079	DIODE-ZENER	68.9	58.0
D081	DIODE-ZENER	77.6	58.1
D082	DIODE-ZENER	68.9	58.0
D083	DIODE-ZENER	77.6	58.1
D105	DIODE-SWITCHING	45.7	62.0
D106	DIODE-ZENER	39.2	64.6
D324	DIODE-SWITCHING	142.1	110.4
D601	DIODE-SWITCHING	101.3	106.8
D606	DIODE-RECTIFIER	205.5	249.2
D618	DIODE-ZENER	231.3	37.3
D619	DIODE-ZENER	222.3	37.5
D620	DIODE-ZENER	235.8	37.3
D621	DIODE-ZENER	226.8	37.5
D622	DIODE-ZENER	174.7	33.0
D623	DIODE-ZENER	174.7	33.0
D701	DIODE-ZENER	119.1	217.9
D702	DIODE-SWITCHING	114.5	217.7
D703	DIODE-ZENER	126.8	231.0
D704	DIODE-ZENER	134.9	230.9
D705	DIODE-ZENER	119.5	197.5
D706	DIODE-ZENER	148.3	221.8
D707	DIODE-ZENER	166.9	194.0
D811	DIODE-RECTIFIER	154.6	254.8
D812	DIODE-RECTIFIER	18.7	210.6
D813	DIODE-RECTIFIER	49.8	219.2
D814	DIODE-SCHOTTKY	8.4	105.3
D815	DIODE-RECTIFIER	21.8	177.0
D816	DIODE-ZENER	29.8	244.1
D817	DIODE-ZENER	25.0	244.2
D818	DIODE-RECTIFIER	27.0	198.5
D819	DIODE-ZENER	27.4	243.9
D901	DIODE-SWITCHING	131.6	176.1
D908	DIODE-SWITCHING	205.8	112.1

Loc. No.	Description	X	Y
D912	DIODE-ZENER	85.1	100.8
D915	DIODE-SWITCHING	10.1	192.5
D916	DIODE-SWITCHING	10.0	196.9
D921	DIODE-ZENER	17.5	25.6
D922	DIODE-SWITCHING	64.6	160.5
D924	DIODE-SWITCHING	194.2	212.7
D926	DIODE-ZENER	7.2	46.0
D927	DIODE-ZENER	20.1	31.7
D928	DIODE-ZENER	8.0	53.6
D929	DIODE-ZENER	89.0	103.2
D932	DIODE-RECTIFIER	180.4	233.7
D933	DIODE-ZENER	184.0	214.3
D935	DIODE-ZENER	169.2	34.8
D936	DIODE-ZENER	163.9	28.7
D937	DIODE-ZENER	228.9	162.6
D938	DIODE-ZENER	224.7	162.6
D939	DIODE-ZENER	227.3	147.0
D940	DIODE-ZENER	231.0	154.3
IC			
IC001	IC-EEPROM	8.1	25.7
IC002	IC-CMOS LOGIC	49.7	29.4
IC003	IC-EEPROM	14.1	33.7
IC004	IC-AUDIO SWITCH	155.1	151.9
IC101	IC-A/D CONVERTER	65.0	76.5
IC102	IC-RECEIVER	28.0	74.8
IC103	IC-VIDEO SWITCH	126.6	72.6
IC104	IC-POSITIVE REG.	55.2	62.2
IC105	IC-VIDEO SWITCH	95.1	69.6
IC106	IC-VOL. DETECTOR	45.6	68.1
IC201	IC-VIDEO PROCESS	120.3	108.2
IC202	IC-VIDEO SWITCH	151.5	67.8
IC303	IC-SEPARATOR	156.8	108.2
IC405	IC-VIDEO PROCESS	118.5	150.4
IC406	IC-DRAM	119.4	176.4
IC501	IC-VIDEO PROCESS	83.3	190.0
IC510	IC-DRAM	58.9	176.2
IC511	IC-DRAM	58.9	200.5
IC513	IC-TIMER	171.4	213.9
IC514	IC-TIMER	166.1	222.9
IC515	IC-TRANSMITTER	91.4	231.8
IC516	FET-SILICON	127.5	248.6
IC601	IC-FLASH MEMORY	40.8	102.0
IC602	IC-LCD CONTROLLER	62.5	133.6

Loc. No.	Description	X	Y
IC604	IC-MODULATOR	70.9	108.2
IC605	IC-EEPROM	58.7	161.8
IC606	IC-DC/DC CONVERTER	196.5	252.3
IC607	IC-DRAM	31.6	148.4
IC608	IC-CMOS LOGIC	89.1	109.8
IC609	IC-VOL. DETECTOR	93.9	99.6
IC612	IC-DRAM	31.6	124.7
IC613	IC-OP AMP	196.0	249.2
IC614	IC-OP AMP	202.7	249.2
IC616	IC-OP AMP	208.9	249.2
IC617	IC-OP AMP	215.2	249.2
IC618	IC-OP AMP	222.1	249.2
IC701	IC-AUDIO AMP	200.8	223.5
IC702	IC-AUDIO AMP	126.7	215.9
IC703	IC-SOUND PROCESSOR	146.0	206.1
IC704	IC-TTL	197.7	202.9
IC705	IC-SRAM	202.5	192.8
IC706	IC-CMOS LOGIC	186.4	194.2
IC707	IC-TTL	209.0	203.0
IC708	IC-TTL	214.8	186.1
IC709	IC-TTL	214.8	197.4
IC711	IC-CMOS LOGIC	186.4	185.6
IC712	IC-TTL	202.4	193.0
IC713	IC-TTL	205.0	181.4
IC809	IC-POSITIVE REG.	56.4	245.3
IC810	IC-POSITIVE REG.	165.6	241.7
IC811	IC-SWITCH REG.	148.4	248.2
IC812	IC-SWITCH VOL. REG.	11.5	221.0
IC813	IC-DC/DC CONVERTER	44.5	222.9
IC814	IC-DC/DC CONVERTER	16.0	107.8
IC815	IC-POSITIVE ADJUST REG.	73.3	218.9
IC816	IC-SWITCH VOL. REG.	27.0	190.3
IC817	IC-POSITIVE ADJUST REG.	105.2	195.8
IC818	IC-SWITCH VOL. REG.	25.8	207.8
IC901	IC-RESET	172.7	156.9
IC902	IC MICOM	177.6	178.4
IC903	IC MICOM	157.3	178.1
IC904	IC-VOL. DETECTOR	134.4	181.5
IC907	IC-DECODER	201.8	137.1
IC911	IC-EPROM	202.1	164.7
IC916	IC-OP AMP	180.8	162.7
IC918	IC-VOL. DETECTOR	211.9	118.1
IC919	IC-MODULATOR	75.7	108.9
IC920	IC-POSITIVE REG.	175.4	130.2

Loc. No.	Description	X	Y
TRANSISTOR			
Q001	FET-SILICON	27.1	36.1
Q002	FET-SILICON	27.1	31.4
Q301	TR-SMALL SIGNAL	160.8	91.7
Q302	TR-SMALL SIGNAL	154.0	93.1
Q303	TR-SMALL SIGNAL	164.9	92.0
Q304	TR-SMALL SIGNAL	135.7	83.4
Q305	TR-SMALL SIGNAL	135.5	79.4
Q306	TR-SMALL SIGNAL	139.6	79.4
Q307	TR-SMALL SIGNAL	139.8	83.4
Q308	TR-SMALL SIGNAL	147.7	93.4
Q309	TR-SMALL SIGNAL	145.1	78.8
Q311	TR-SMALL SIGNAL	151.2	78.9
Q312	TR-SMALL SIGNAL	147.4	74.8
Q313	TR-SMALL SIGNAL	151.0	89.2
Q314	TR-SMALL SIGNAL	171.8	75.2
Q315	TR-SMALL SIGNAL	161.5	85.2
Q316	TR-SMALL SIGNAL	157.2	85.2
Q317	TR-SMALL SIGNAL	177.2	80.7
Q318	TR-SMALL SIGNAL	174.4	91.3
Q319	TR-SMALL SIGNAL	166.6	91.2
Q323	TR-SMALL SIGNAL	143.9	123.4
Q510	TR-SMALL SIGNAL	135.9	237.9
Q511	TR-SMALL SIGNAL	136.0	248.0
Q601	FET-SILICON	10.0	159.4
Q602	FET-SILICON	10.0	168.9
Q603	FET-SILICON	10.0	164.0
Q604	FET-SILICON	10.1	154.6
Q611	TR-SMALL SIGNAL	125.7	203.5
Q612	TR-SMALL SIGNAL	128.7	196.8
Q701	TR-SMALL SIGNAL	122.3	227.5
Q702	TR-SMALL SIGNAL	227.5	234.9
Q703	TR-SMALL SIGNAL	202.4	215.1
Q810	TR-SMALL SIGNAL	226.6	158.0
Q811	TR-SMALL SIGNAL	224.9	165.2
Q812	TR-SMALL SIGNAL	13.1	240.7
Q814	TR-SMALL SIGNAL	184.7	236.9
Q901	TR-SMALL SIGNAL	188.4	131.4
Q903	TR-SMALL SIGNAL	201.6	123.0
Q904	TR-SMALL SIGNAL	82.5	239.2
Q905	TR-SMALL SIGNAL	10.1	32.4
Q906	TR-SMALL SIGNAL	16.2	30.2
Q907	TR-SMALL SIGNAL	190.0	215.3
Q908	TR-SMALL SIGNAL	174.7	43.1

1 Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1 Safety Precautions

1-1-1 Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC Power Jack before servicing.

1-1-2 Servicing the LCD Monitor

1. When servicing the LCD Monitor Disconnect the AC line cord from the AC outlet.
2. It is essential that service technicians have an accurate voltage meter available at all times. Check the calibration of this meter periodically.

1-1-3 Fire and Shock Hazard

Before returning the monitor to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the monitor.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):
WARNING: Do not use an isolation transformer during this test.

Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (UL Publication UL1410, 59.7).

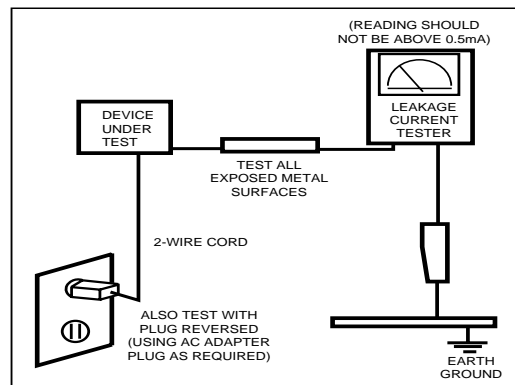



Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4 Product Safety Notices

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by  on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2 Servicing Precautions

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.

Caution: Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.

Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
(a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to the blades of the AC plug.
The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Electrostatically Sensitive Devices (ESD) Precautions

Some semiconductor (solid state) devices can be easily damaged by static electricity. Such components are commonly called Electrostatically Sensitive Devices (ESD). Examples of typical ESD are integrated circuits and some field-effect transistors. The following techniques will reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the monitor.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
Caution: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

2 Product Specifications

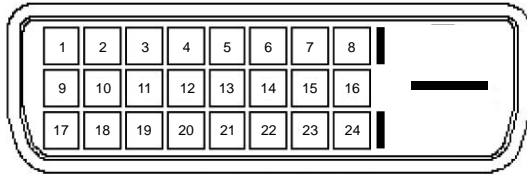
2-1 LN-P267W, LN-P327W Specifications

Item	Description	
	LN-P267W	LN-P327W
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 26-inch viewable, 0.4425 (H) x 0.264 (V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 68 kHz (Automatic) Vertical : 50 Hz ~ 85 Hz (Automatic)	Horizontal : 30 kHz ~ 61 kHz (Automatic) Vertical : 56 Hz ~ 75 Hz (Automatic)
Display Colors	16.2 Million colors	
Maximum Resolution	Horizontal : 1280 Pixels Vertical : 768 Pixels	Horizontal : 1366 Pixels Vertical : 768 Pixels
Input Video Signal	Analog 0.7 Vp-p \pm 5% positive at 75 Ω , internally terminated	
Input Sync Signal	Type : Separate H/V Level : TTL level	
Maximum Pixel Clock rate	80 MHz	80 MHz
Active Display Horizontal/Vertical	556.4 mm / 339.8 mm	697.7 mm / 392.4 mm
AC power voltage & Frequency	AC 100 ~ 240V, 50 ~ 60 Hz	
Power Consumption	130 W	130 W
Dimensions(W x D x H) Set	32.6 x 10.9 x 20.5 Inches (827.0 X 278 X 520mm) After installation Stand 37.0 x 13.3 x 27.4 Inches (827.5 X 112.5 X 504.5 mm) Without stand	38.2 x 12.5 x 22.7 Inches (972.0 X 317.0 X 577.5 mm) After installation Stand 38.2 x 4.6 x 22.2 Inches (972.0 X 116.0 X 565.0 mm) Without Stand
Package	37.0 x 13.3 x 27.4 Inches (965 X 338 X 695 mm)	44.5 x 16.0 x 22.9 Inches (1130 X 408 X 760 mm)
Weight Set(After installation Stand) / Package	18 Kg (39.7 lbs) / 24 Kg (52.9 lbs)	21.5 Kg (54.0lbs) / 28 Kg (61.7 lbs)
Environmental Considerations	Operating Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C) Operating Humidity : 10 % ~ 80 % Storage Temperature : -4 °F ~ 113 °F (-20 °C ~ 45 °C) Storage Humidity : 5 % ~ 95 %	
TV System	Tuning	Frequency Synthesize
	System	NTSC-M
	Sound	MONO, STEREO, SAP
Antena Input	75 Ω	
Sound Characteristic	– MAX Internal speaker Out : LN-P267W : Right => 5W, Left => 5W LN-P327W : Right => 10W Left => 10W	
	– BASS Control Range : -8 dB ~ + 8dB – TREBLE Control Range : -8 dB ~ +8 dB – Headphone Out : 10 mW MAX – Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	

2-2 Pin Assignments

2-2-1 DVI-D (Digital)

Ref) DVI-D : Digital only



Pin No.	Signal Assignment	Pin No.	Signal Assignment	Pin No.	Signal Assignment
1	RX2-	11	GND	21	NC
2	RX2+	12	NC	22	GND
3	GND	13	NC	23	RXC+
4	NC	14	DDC Input Power(+5V)	24	RXC-
5	NC	15	IDENT_PC		
6	DDC Clock (SCL)	16	5V		
7	DDC Data (SDA)	17	RX0-		
8	Analog Vertical Sync.	18	RX0+		
9	RX1-	19	GND		
10	RX1+	20	NC		

2-2-2 Component 1, 2

RCA Green	Y
	GND
RCA Blue	Pb (Cb)
	GND
RCA Red	Pr (Cr)
	GND
RCA White	Audio L
	GND
RCA Red	Audio R
	GND

2-2-3 S-Video

Pin	Separate
1	GND
2	Y
3	C
4	GND
5	GND

2-2-4 A/V

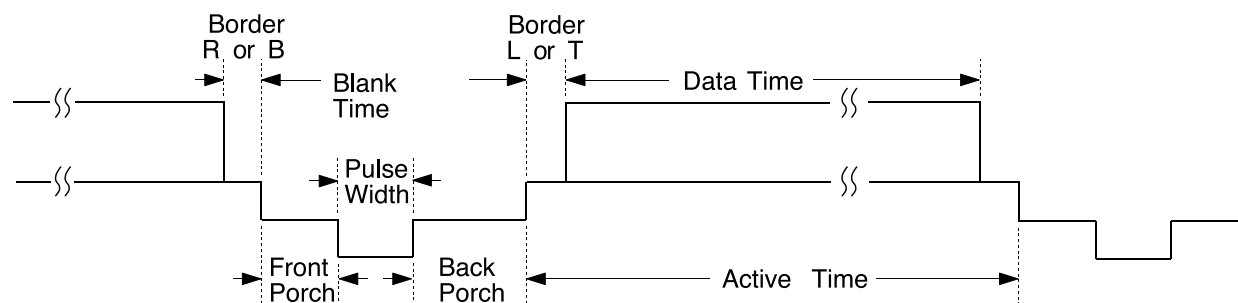
RCA Yellow	CVBS
RCA White	Audio L
	GND
RCA Red	Audio R
	GND

2-3 Timing Chart

This section of the service manual describes the timing that the computer industry recognizes as standard for computer-generated video signals.

2-3-1 LCD Panel Mode1 mode

Timing No.	LN-P267W	LN-P327W
Originator	VESA	VESA
Mode Name	1280/60Hz	1366/60Hz
Resolution (HxV)	1280x768	1366x768
HORIZONTAL		
Frequency	47.700kHz	47.712kHz
Total time	20.964 μ s	20.959 μ s
Active time	15.973 μ s	15.906 μ s
Blank time	4.992 μ s	5.053 μ s
Border(L / R)	0.000 μ s	0.000 μ s
Data time	15.964 μ s	15.906 μ s
Front porch	0.799 μ s	0.749 μ s
Sync. width	1.697 μ s	1.702 μ s
Back porch	2.496 μ s	2.994 μ s
Sync. polarity	Negative	Positive
VERTICAL		
Frequency	60.000Hz	60.015Hz
Total time	16.667ms	16.662ms
Active time	16.101ms	16.097ms
Blank time	0.566ms	0.566ms
Border(T / B)	0.000ms	0.000ms
Data time	16.101ms	16.097ms
Front porch	20.964ms	0.063ms
Sync. width	62.893ms	0.105ms
Back porch	482.180	0.377ms
Sync polarity	Positive	Positive
Dot Clock	80.136MHz	85.500MHz
Sync. Type	Separate	Separate
Scan Type	N/I	N/I



2-3-1 Supported Modes (1)

Timing No.	2	3	11	17	32
Originator	IBM	IBM	VESA	VESA	MAC
Mode Name	VGA2	VGA3	640/72Hz	640/75Hz	640/67Hz
Resolution (HxV)	720x400	640x480	640x480	640x480	640x480
HORIZONTAL					
Frequency	31.469kHz	31.469kHz	37.861kHz	37.500kHz	35.000kHz
Total time	31.777μs	31.778μs	26.413μs	26.667μs	28.571μs
Activetime	26.058μs	26.058μs	20.825μs	20.317μs	21.164μs
Blank time	5.720μs	5.720μs	5.588μs	6.350μs	7.407μs
Border(L / R)	0.318μs	0.318μs	0.254μs	0.000μs	0.000μs
Data time	25.422μs	25.422μs	20.317μs	20.317μs	21.164μs
Front porch	0.318μs	0.318μs	0.508μs	0.508μs	2.116μs
Sync. width	3.813μs	3.813μs	1.270μs	2.032μs	2.116μs
Back porch	1.589μs	1.589μs	3.810μs	3.810μs	3.175μs
Sync. polarity	Negative	Negative	Negative	Negative	Negative
VERTICAL					
Frequency	70.087Hz	59.940Hz	72.809Hz	75.000Hz	66.667Hz
Total time	14.268ms	16.683ms	13.735ms	13.333ms	15.000ms
Active time	13.155ms	15.761ms	13.100ms	12.800ms	13.714ms
Blank time	1.113ms	0.922ms	0.635ms	0.533ms	1.286ms
Border(T / B)	0.222ms	0.254ms	0.211ms	0.000ms	0.000ms
Data time	12.711ms	15.253ms	12.678ms	12.800ms	13.714ms
Front porch	0.191ms	0.064ms	0.026ms	0.027ms	0.086ms
Sync. width	0.064ms	0.064ms	0.079ms	0.080ms	0.086ms
Back porch	0.858ms	0.794ms	0.528ms	0.427ms	1.114ms
Sync polarity	Positive	Negative	Negative	Negative	Negative
Dot Clock	28.322MHz	25.175MHz	31.500MHz	31.500MHz	30.240MHz
Sync. Type	Separate	Separate	Separate	Separate	Separate
Scan Type	N/I	N/I	N/I	N/I	N/I

2 Product Specifications

2-3-1 Supported Modes (2)

Timing No.	13	14	18	33
Originator	VESA	VESA	VESA	MAC
Mode Name	800/60Hz	800/72Hz	800/75Hz	832/75Hz
Resolution (HxV)	800x600	800x600	800x600	832x624
HORIZONTAL				
Frequency	37.879kHz	48.077kHz	46.875kHz	49.726kHz
Total time	26.400 μ s	20.800 μ s	21.333 μ s	20.110 μ s
Activetime	20.000 μ s	16.000 μ s	16.162 μ s	14.524 μ s
Blank time	6.400 μ s	4.800 μ s	5.171 μ s	5.586 μ s
Border(L / R)	0.000 μ s	0.000 μ s	0.000 μ s	0.000 μ s
Data time	20.000 μ s	16.000 μ s	16.162 μ s	14.524 μ s
Front porch	1.000 μ s	1.120 μ s	0.323 μ s	0.559 μ s
Sync. width	3.200 μ s	2.400 μ s	1.616 μ s	1.117 μ s
Back porch	2.200 μ s	1.280 μ s	3.232 μ s	3.910 μ s
Sync. polarity	Positive	Positive	Positive	Negative
VERTICAL				
Frequency	60.317Hz	72.188Hz	75.000Hz	74.551Hz
Total time	16.579ms	13.853ms	13.333ms	13.414ms
Active time	15.840ms	12.480ms	12.800ms	12.549ms
Blank time	0.739ms	1.373ms	0.533ms	0.865ms
Border(T / B)	0.000ms	0.000ms	0.000ms	0.000ms
Data time	15.840ms	12.480ms	12.800ms	12.549ms
Front porch	0.026ms	0.770ms	0.021ms	0.020ms
Sync. width	0.106ms	0.125ms	0.064ms	0.060ms
Back porch	0.607ms	0.478ms	0.448ms	0.784ms
Sync polarity	Positive	Positive	Positive	Negative
Dot Clock	40.000MHz	50.000MHz	49.500MHz	57.284MHz
Sync. Type	Separate	Separate	Separate	Separate Composite
Scan Type	N/I	N/I	N/I	Sync.- on-G N/I

2-3-1 Supported Modes (3)

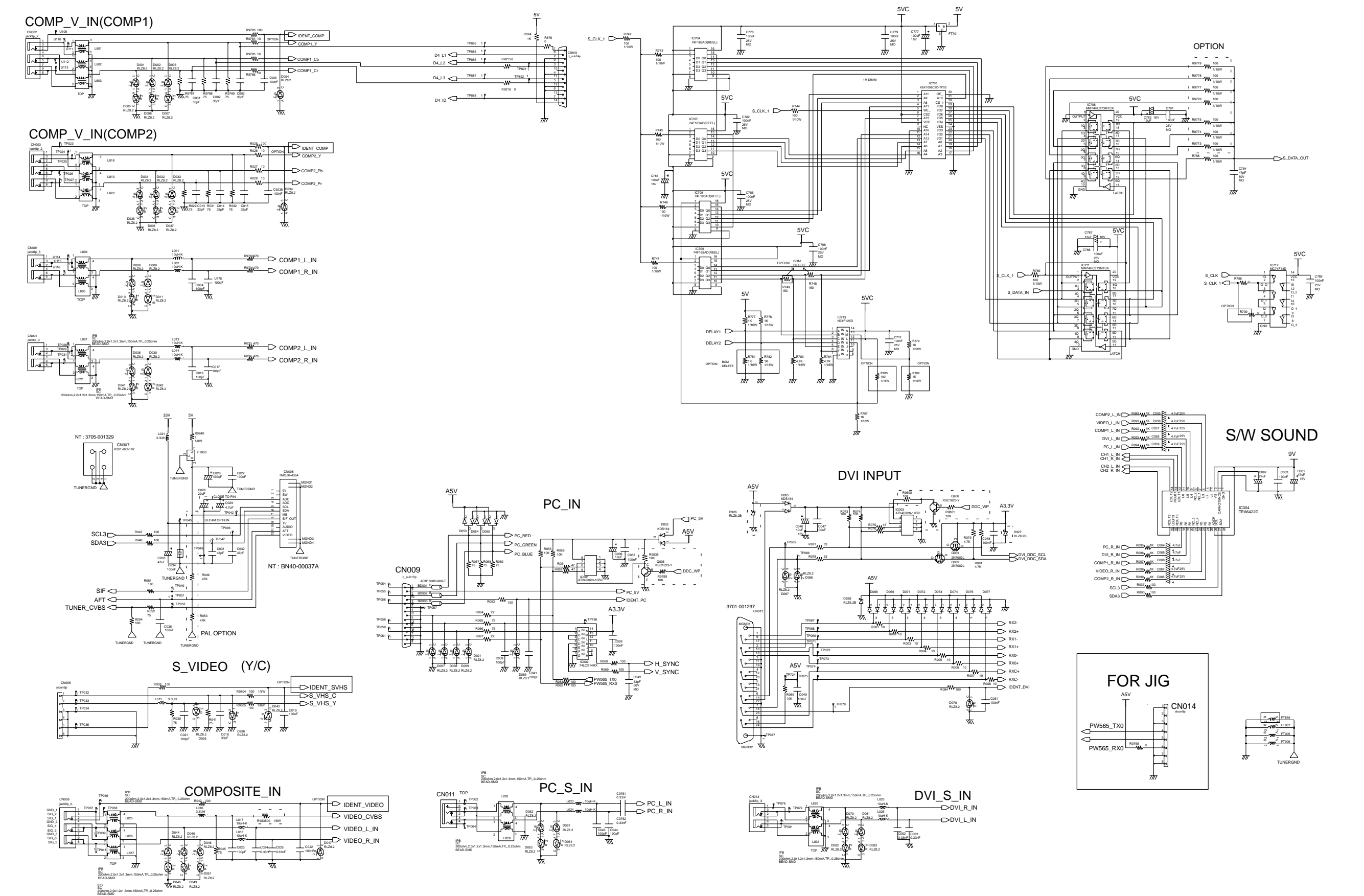
Timing No.	15	16	19	(Only LN-P327W)
Originator	VESA	VESA	VESA	VESA
Mode Name	1024/60Hz	1024/70Hz	1024/75Hz	1360/60Hz
Resolution (HxV)	1024x768	1024x768	1024x768	1360x768
HORIZONTAL				
Frequency	48.363kHz	56.476kHz	60.023kHz	47.712kHz
Total time	20.677 μ s	17.707 μ s	16.660 μ s	20.959 μ s
Activetime	15.754 μ s	13.653 μ s	13.003 μ s	15.906 μ s
Blank time	4.923 μ s	4.053 μ s	3.777 μ s	5.053 μ s
Border(L / R)	0.000 μ s	0.000 μ s	0.000 μ s	0.000 μ s
Data time	15.754 μ s	13.653 μ s	13.003 μ s	15.906 μ s
Front porch	0.369 μ s	0.320 μ s	0.323 μ s	0.749 μ s
Sync. width	2.092 μ s	1.813 μ s	1.219 μ s	1.702 μ s
Back porch	2.462 μ s	1.920 μ s	2.235 μ s	2.994 μ s
Sync. polarity	Negative	Negative	Positive	Positive
VERTICAL				
Frequency	60.004Hz	70.069Hz	75.029Hz	60.015Hz
Total time	16.666ms	14.272ms	13.328ms	16.662ms
Active time	15.880ms	13.599ms	12.795ms	16.097ms
Blank time	0.786ms	0.672ms	0.533ms	0.566ms
Border(T / B)	0.000ms	0.000ms	0.000ms	0.000ms
Data time	15.880ms	13.599ms	12.795ms	16.097ms
Front porch	0.062ms	0.053ms	0.017ms	0.063ms
Sync. width	0.124ms	0.106ms	0.050ms	0.105ms
Back porch	0.600ms	0.513ms	0.466ms	0.377ms
Sync polarity	Negative	Negative	Positive	Positive
Dot Clock	65.000MHz	75.000MHz	78.750MHz	85.500MHz
Sync. Type	Separate	Separate	Separate	Separate
Scan Type	N/I	N/I	N/I	N/I

Memo

11 Schematic Diagrams

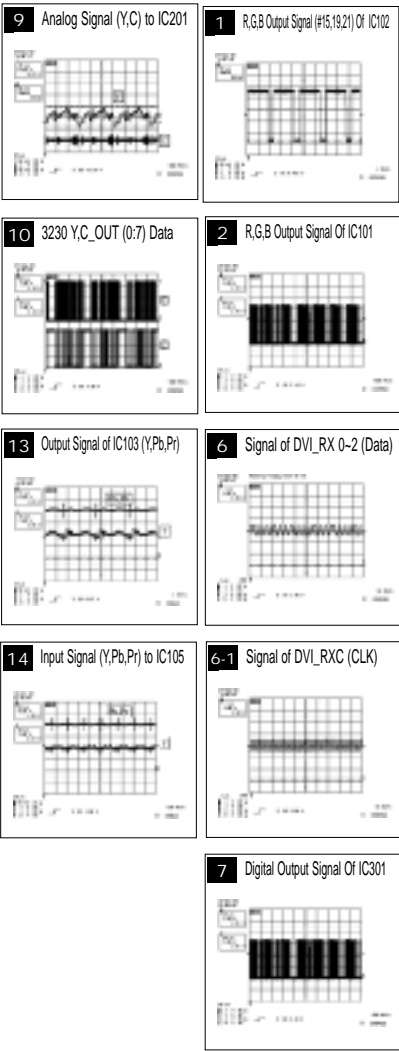
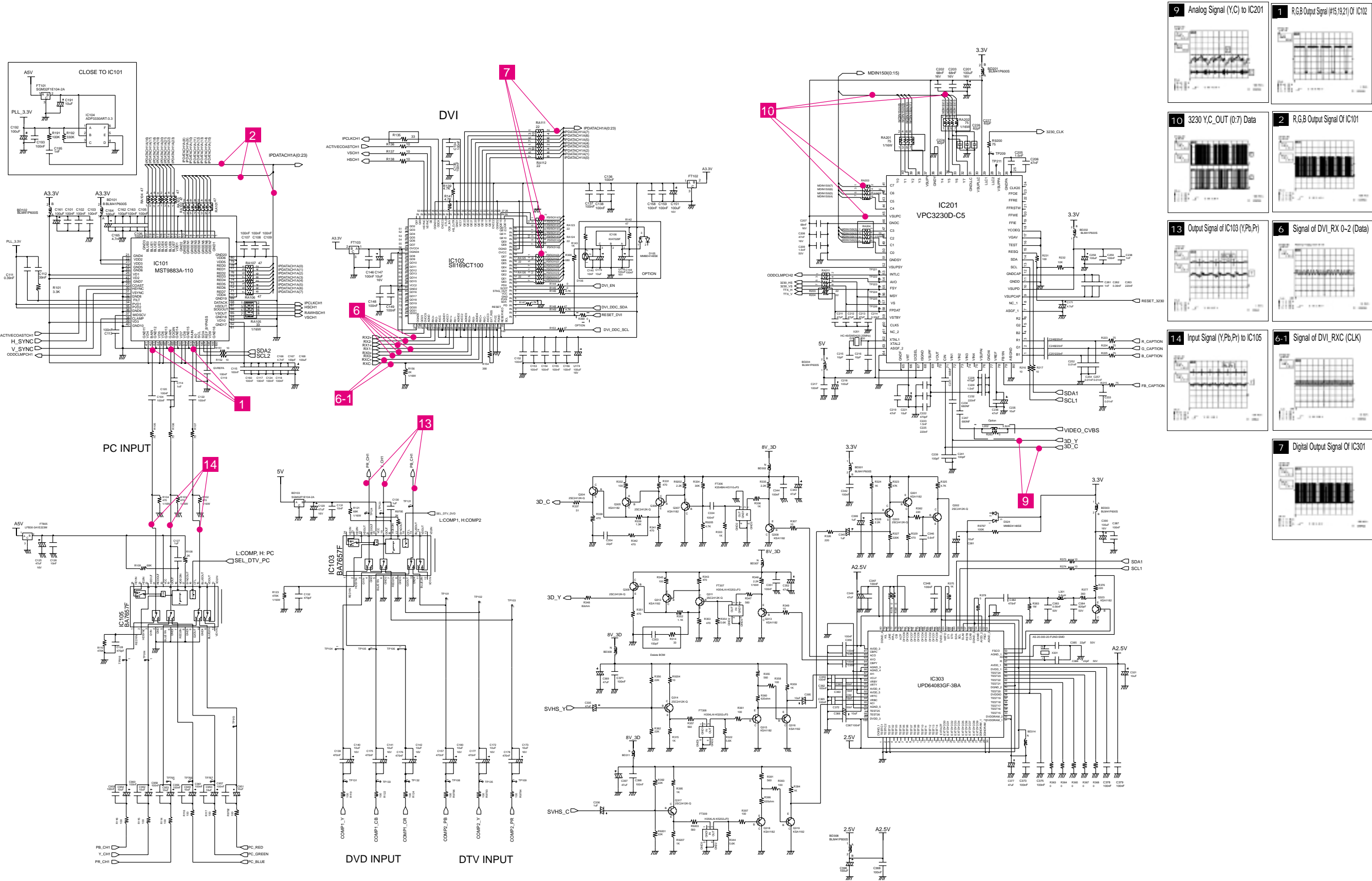
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11-1 AV INOUT SOUND DELAY Schematic Diagram

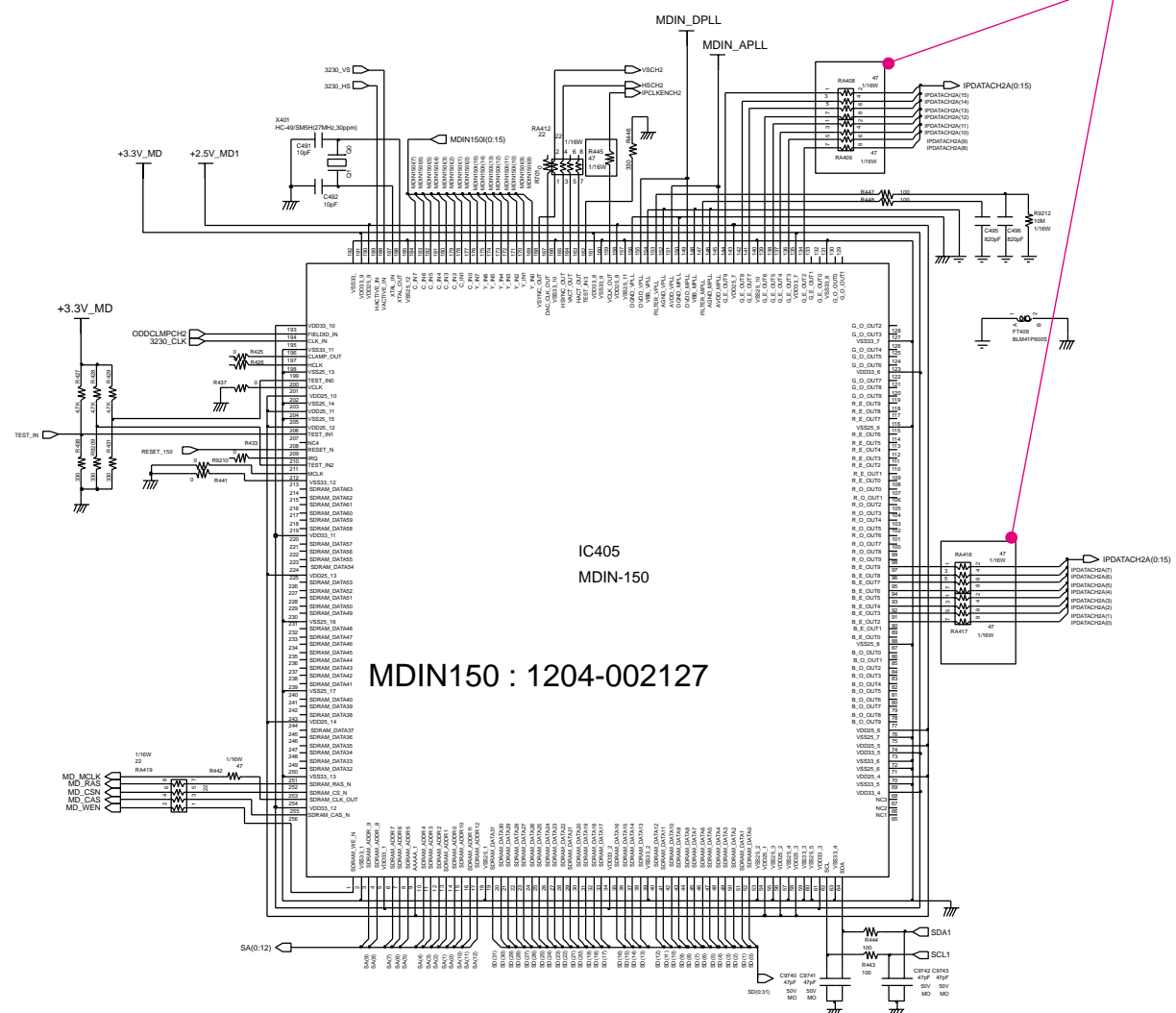
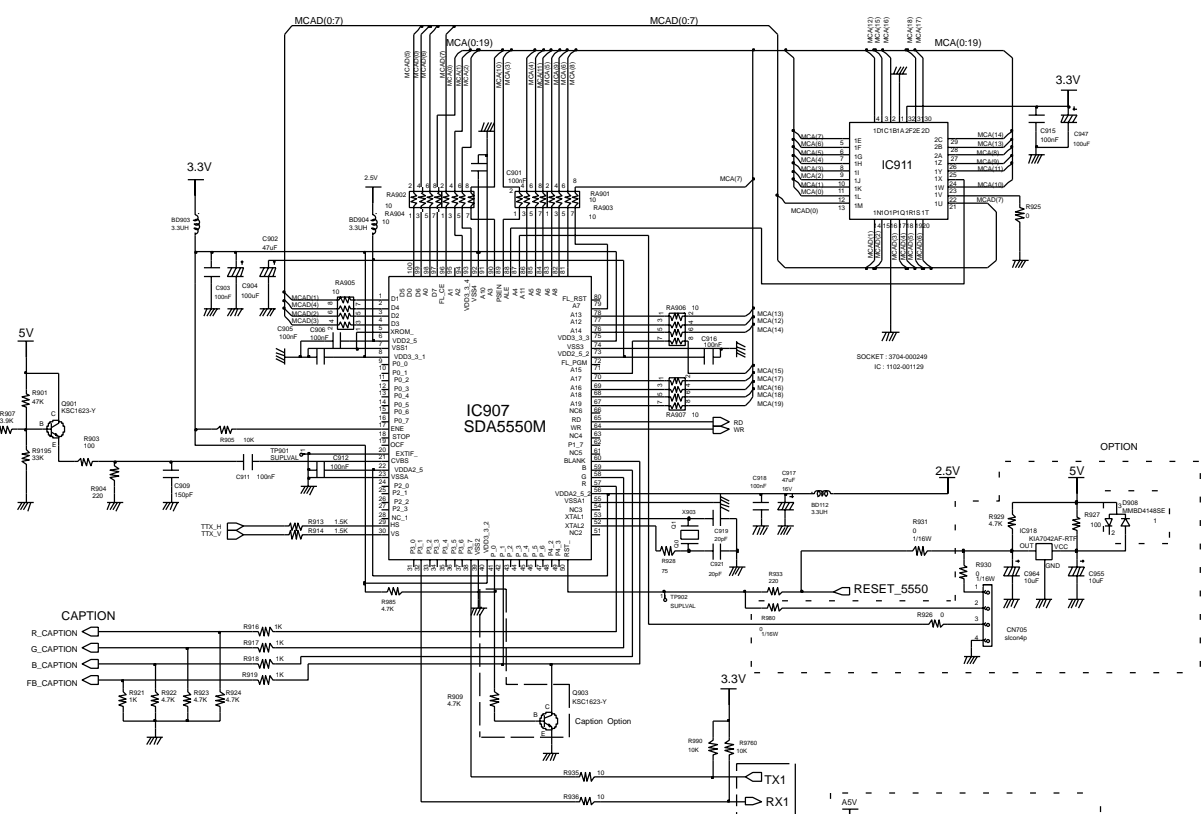
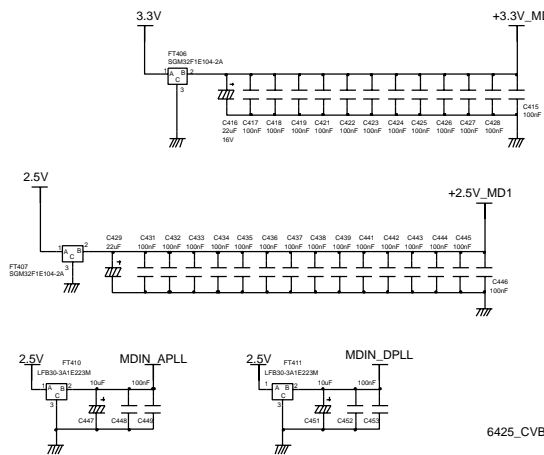


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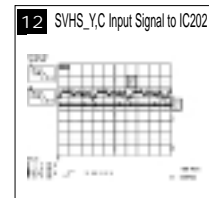
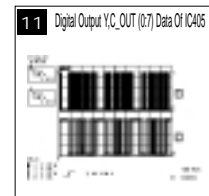
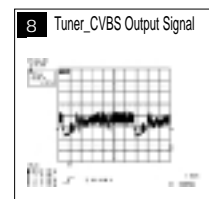
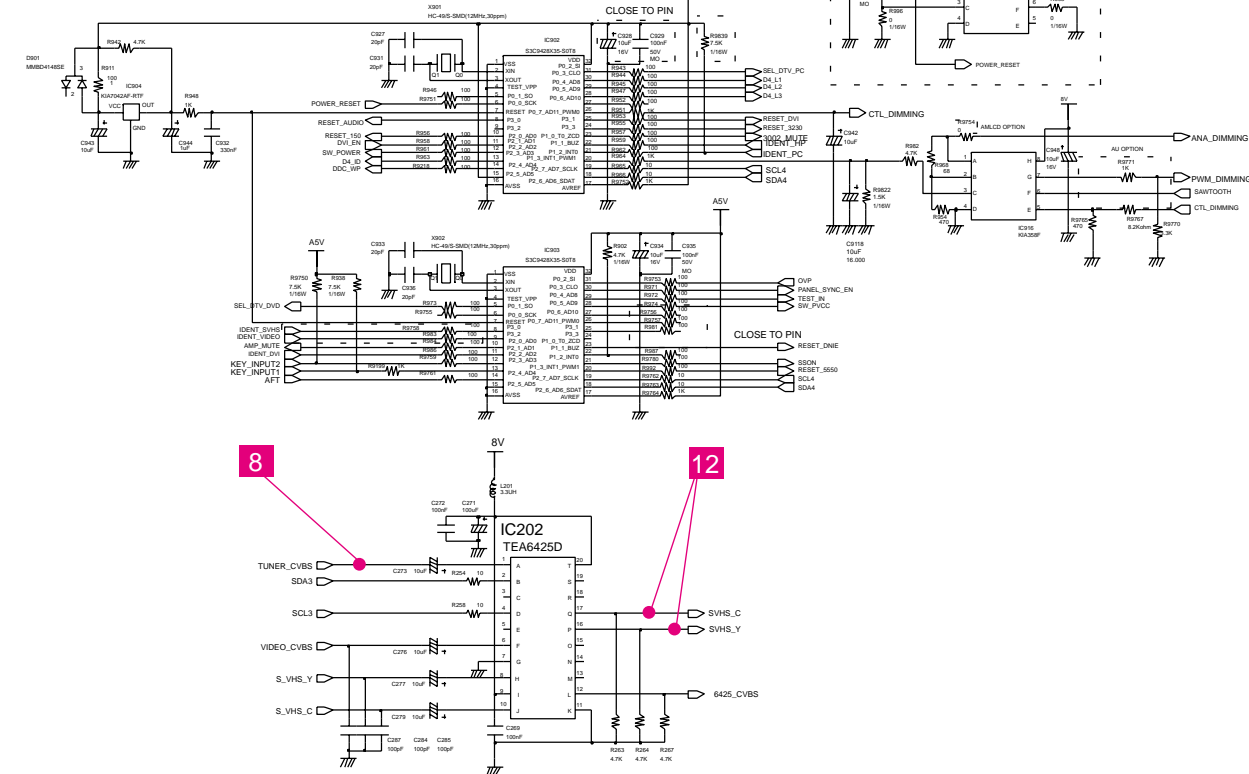
11-2 ADC DVI VIDEO Schematic Diagram



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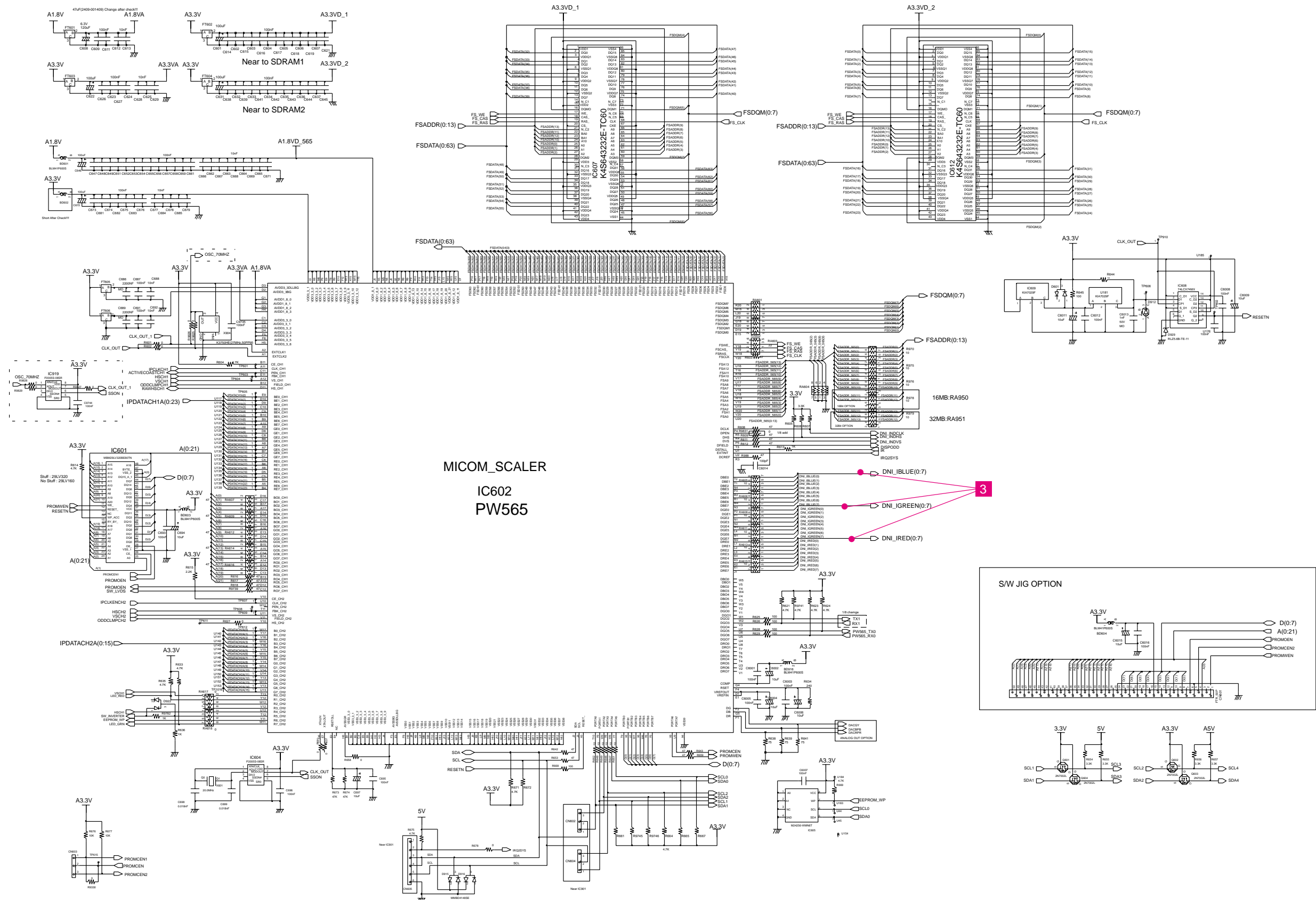


MDIN150 : 1204-002127



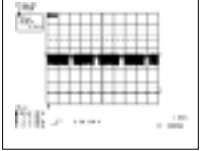
* This Document can not be used without Samsung's authorization.

11-4 PW565_SCALER Schematic Diagram



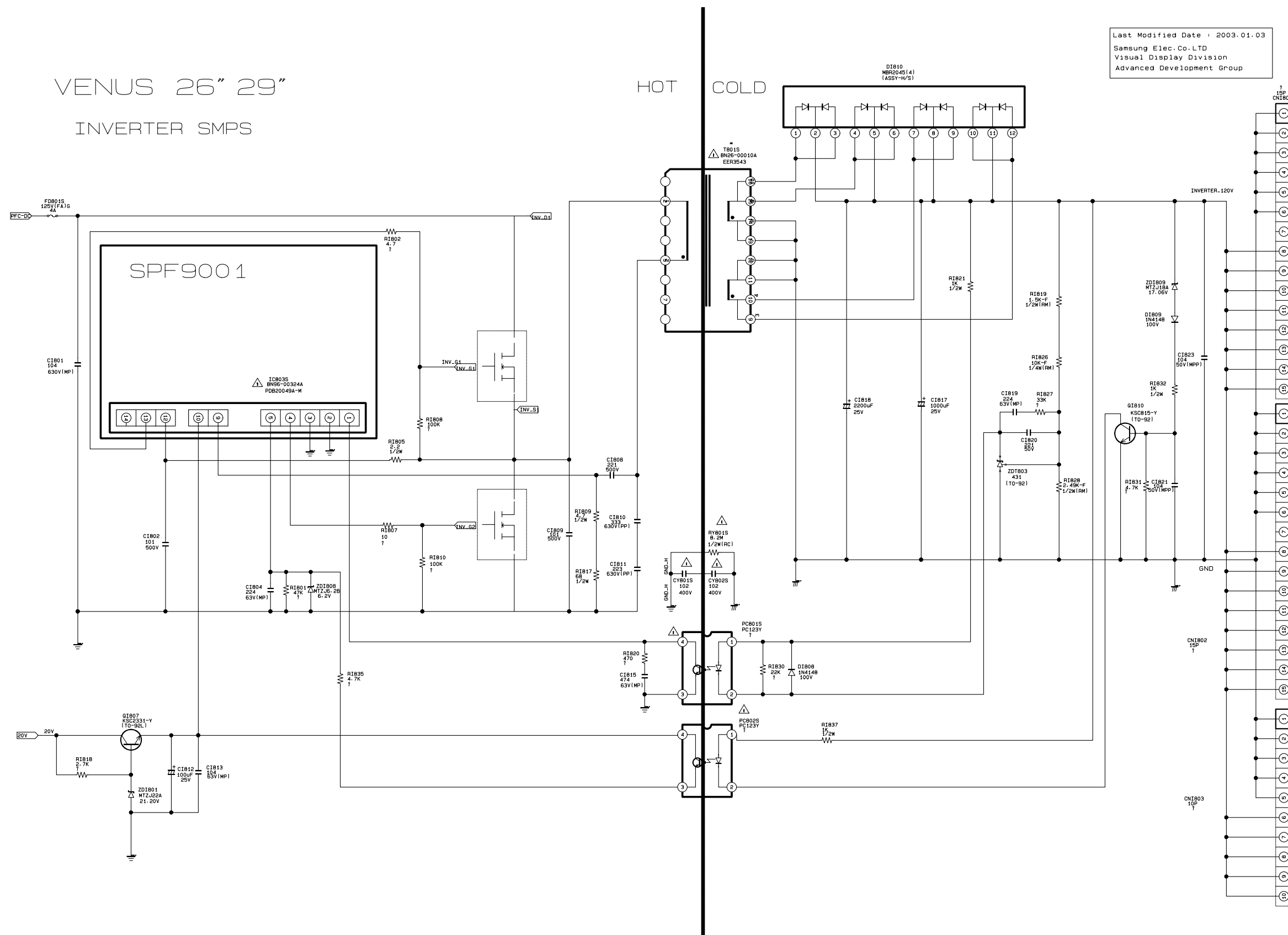
[illegible]

11-6 DNIE, LVDS Schematic Diagram



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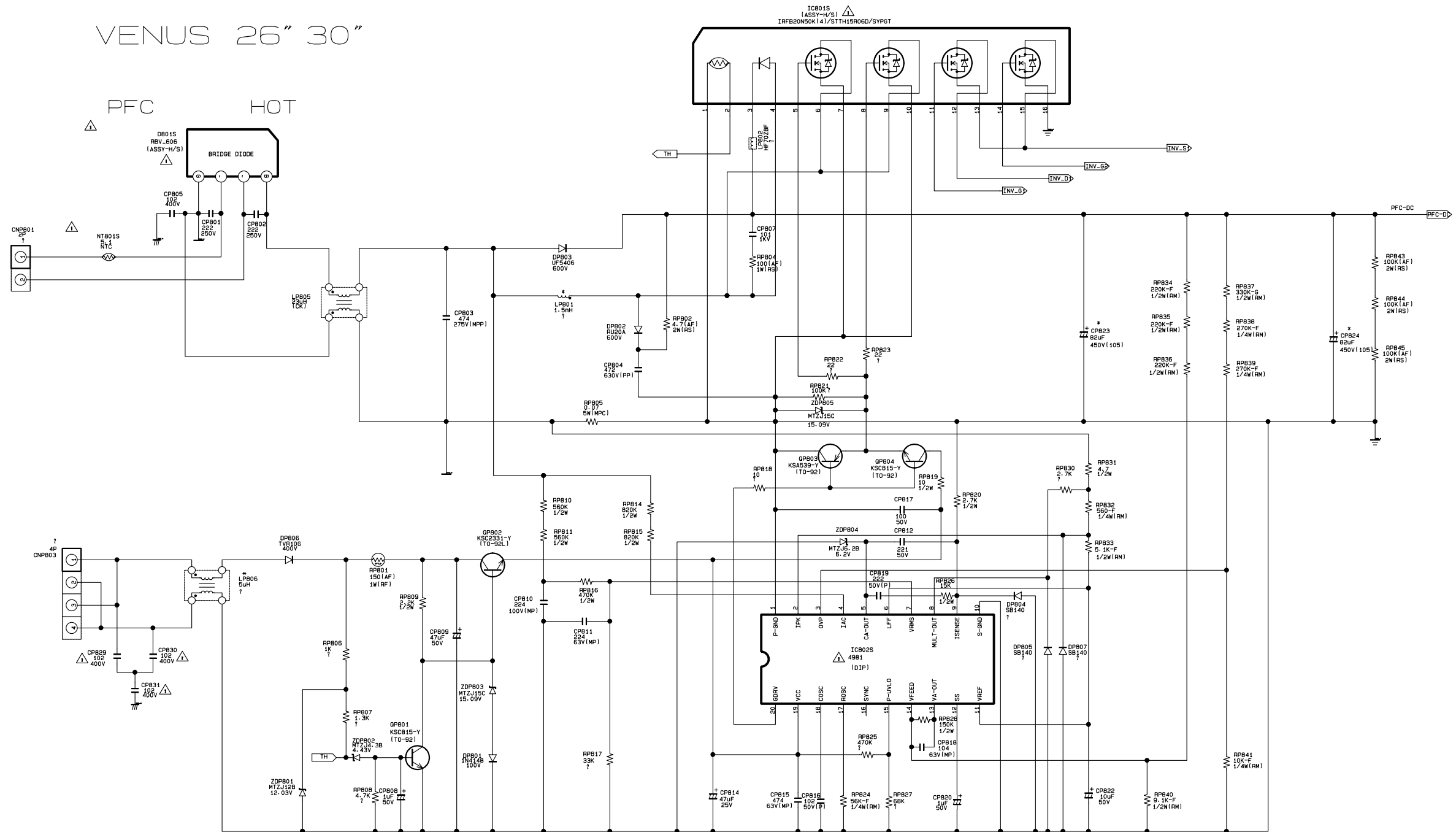
11-7 MAIN POWER 1_INVERTER Schematic Diagram



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11-8 MAIN POWER 2_PFC Schematic Diagram

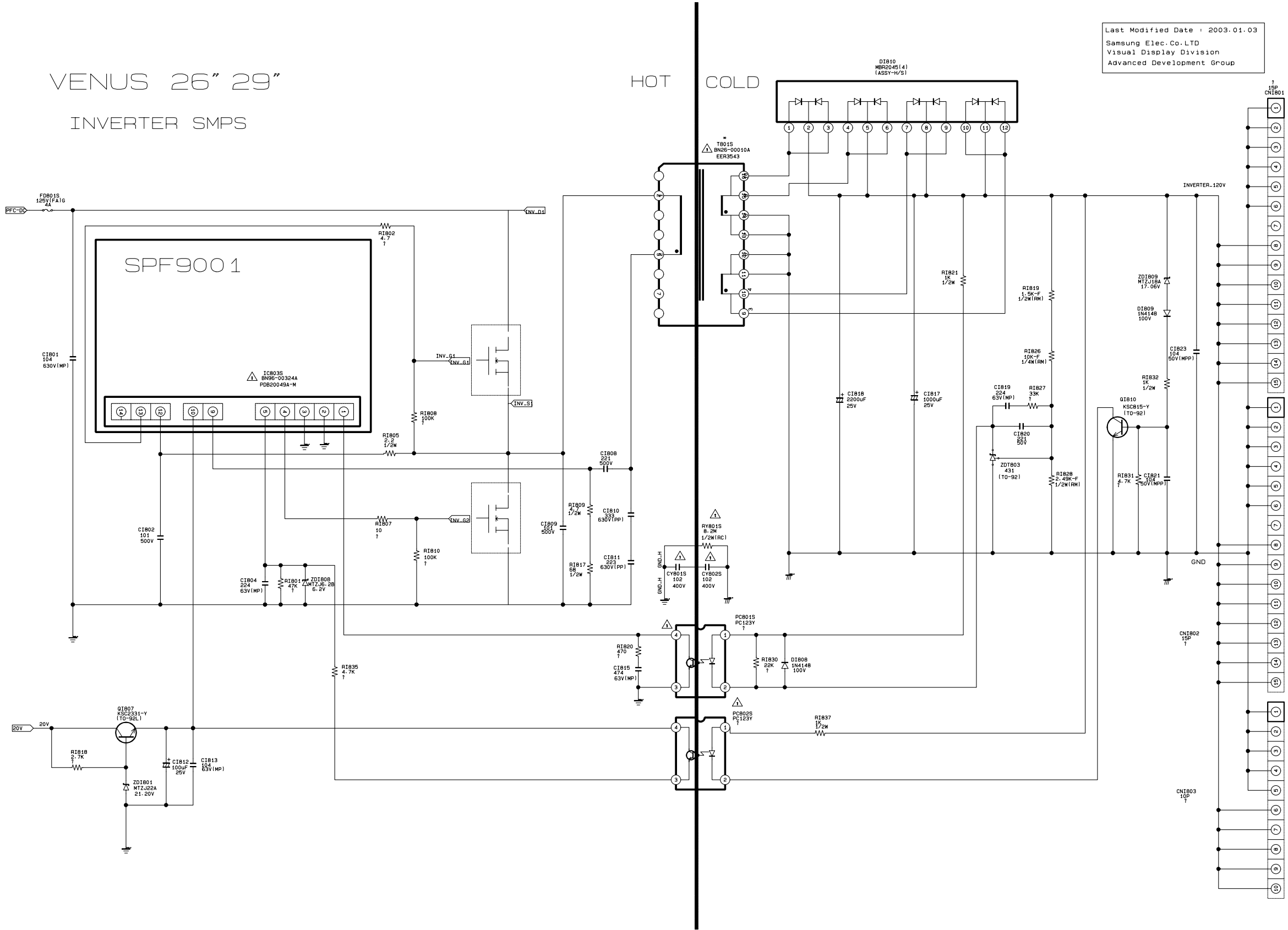
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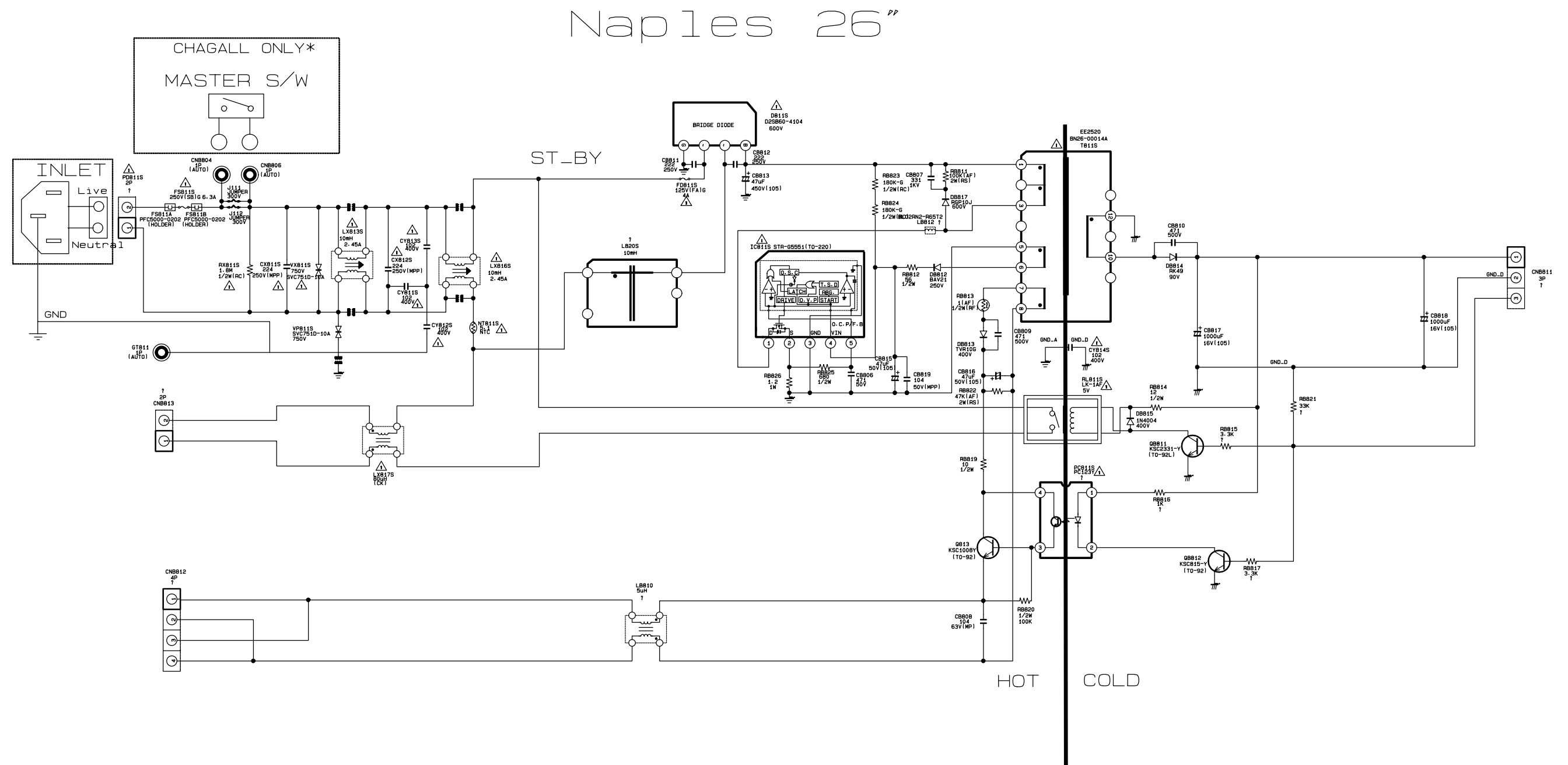
11-9 MAIN POWER 3_MULTI Schematic Diagram



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11-10 SUB POWER Schematic Diagram

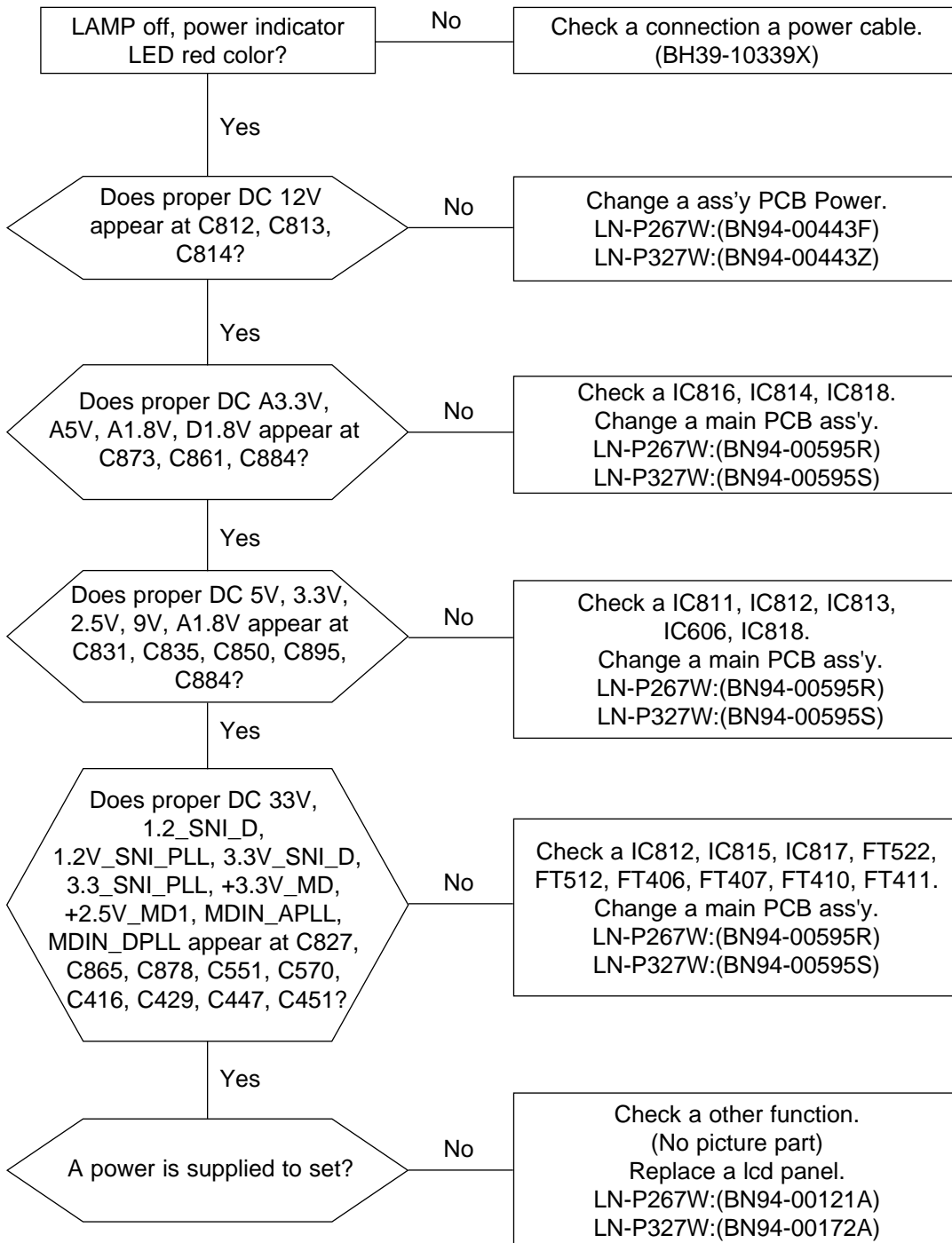
This drawing is property of SEC
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technical-document managing department is prohibited.



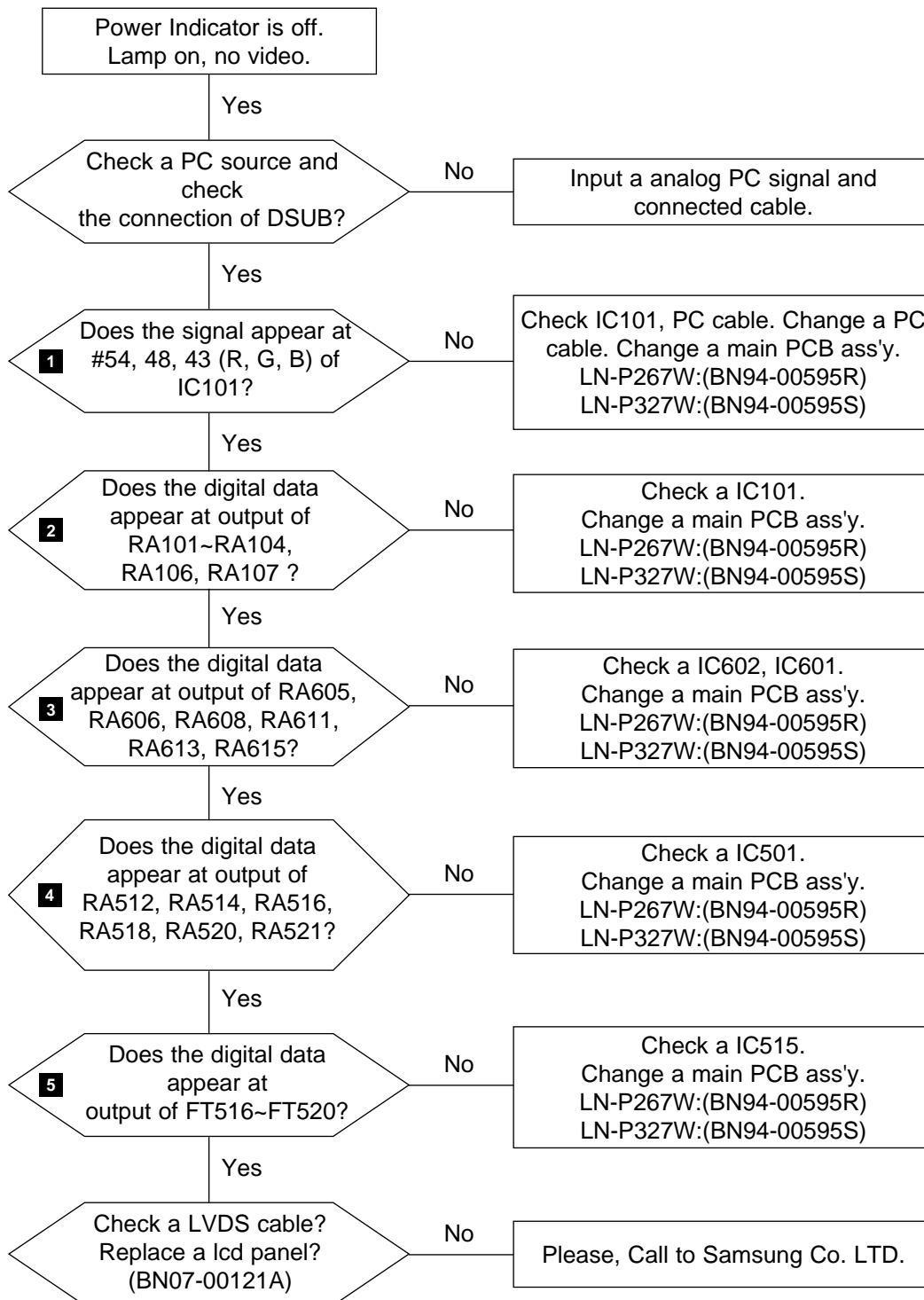
Last Modified Date 2003.08.12
Samsung Elec.Co.LTD
Visual Display Division
Advanced Development Group

5 Troubleshooting

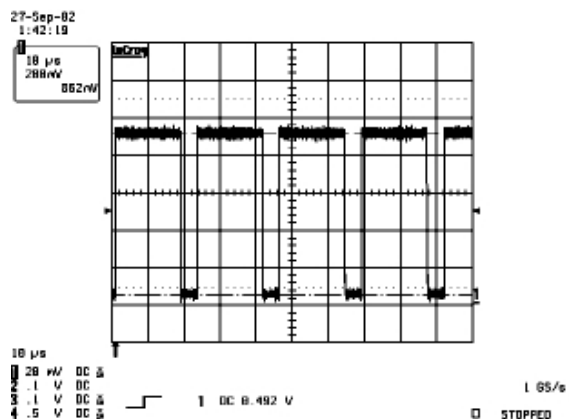
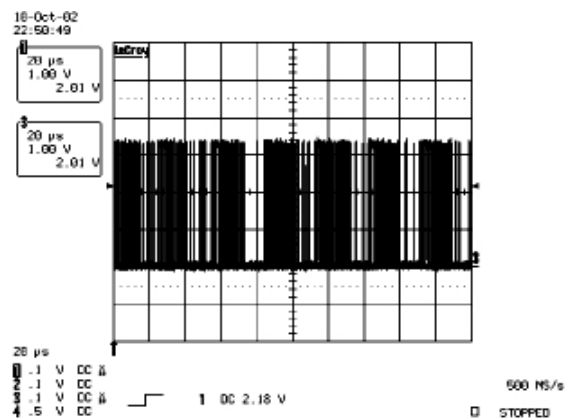
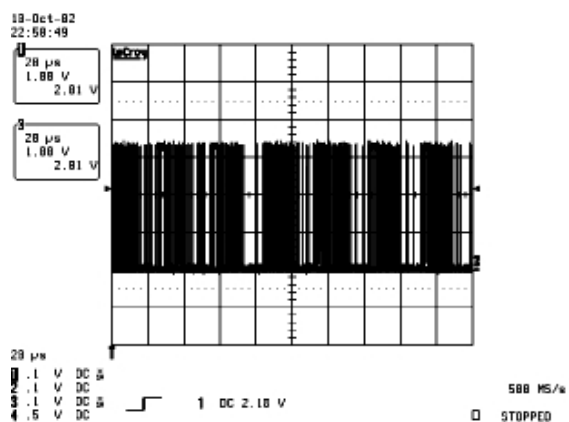
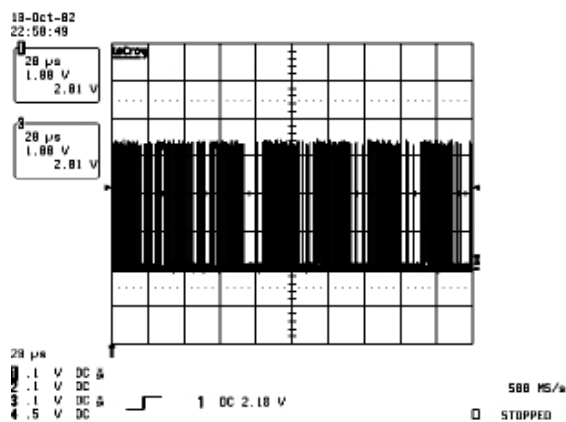
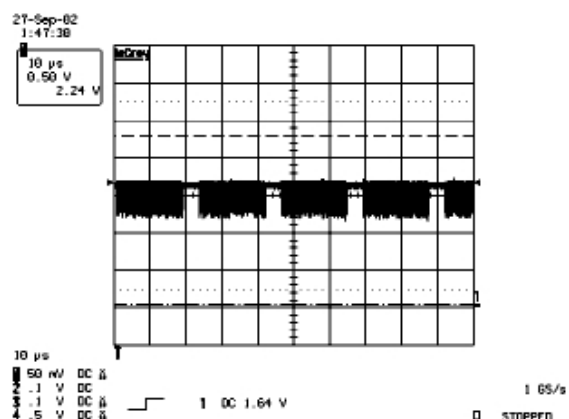
5-1 No Power



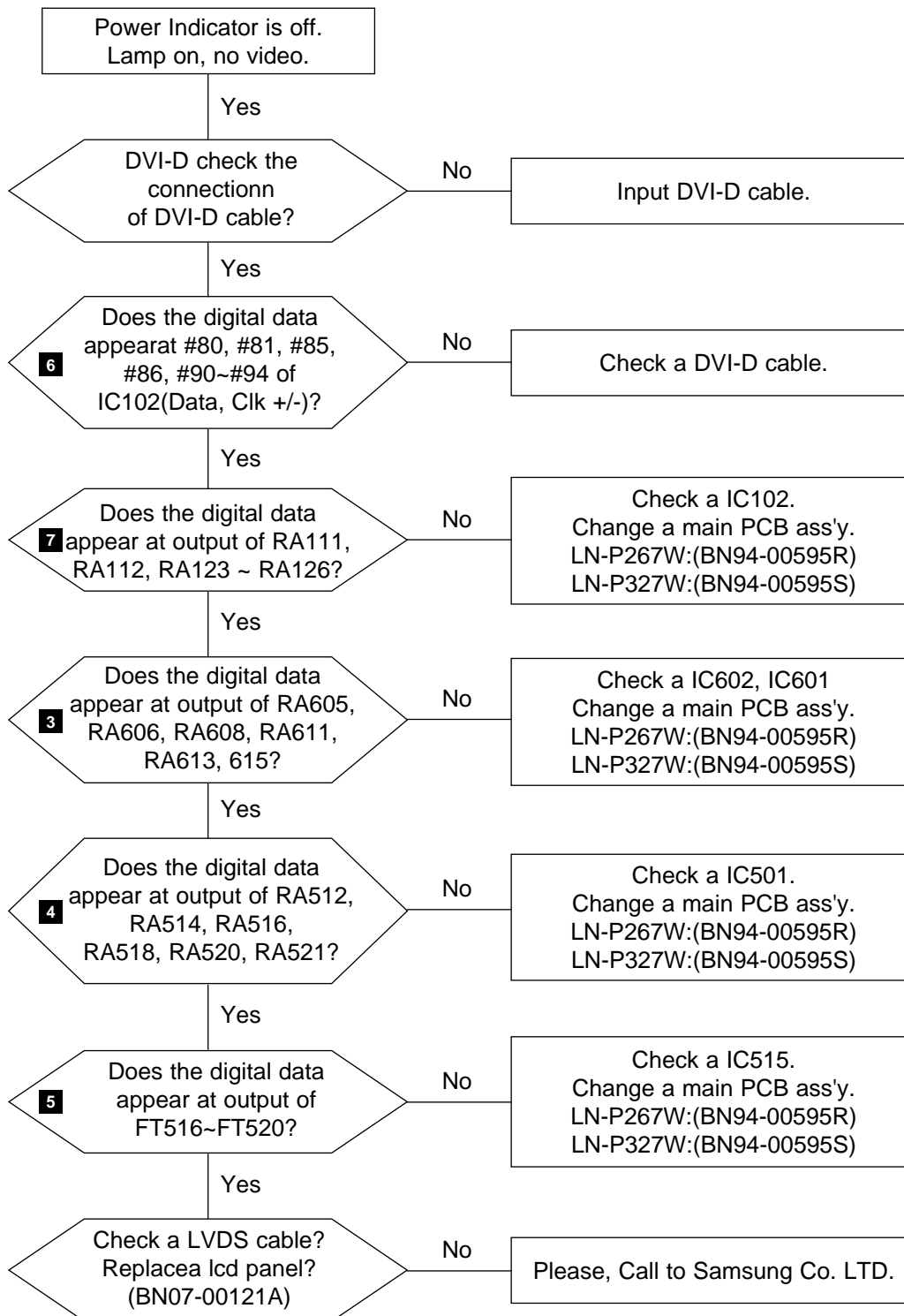
5-2 No Video (Analog PC Signal)



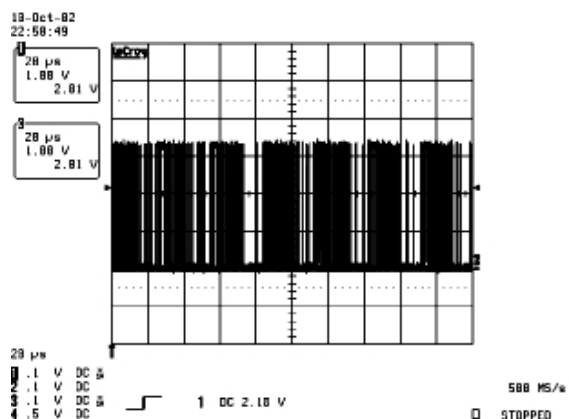
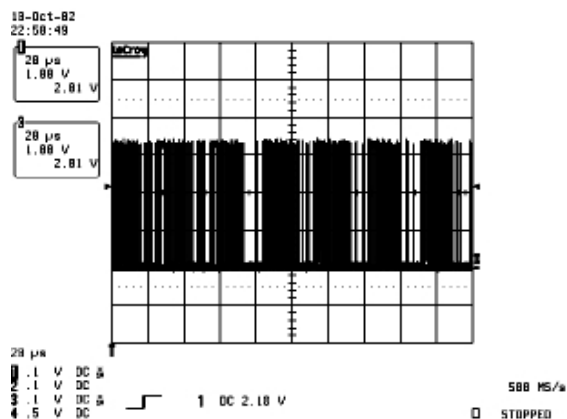
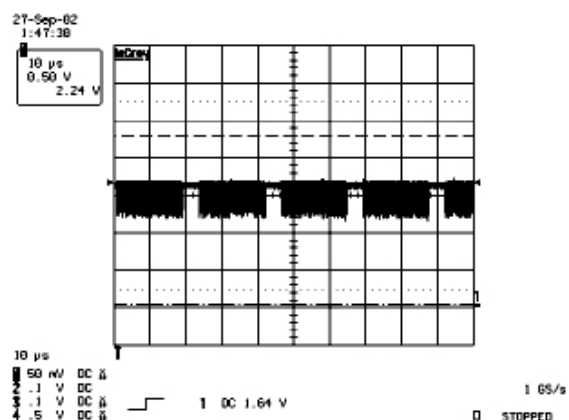
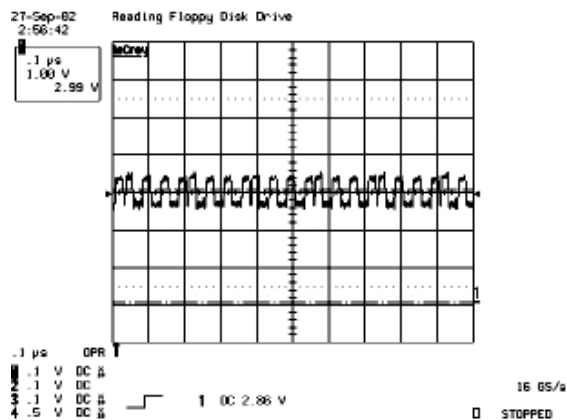
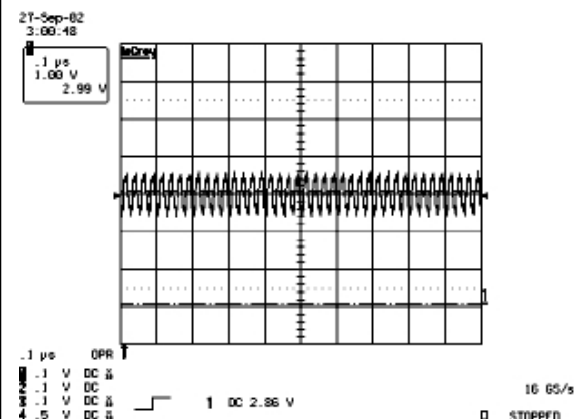
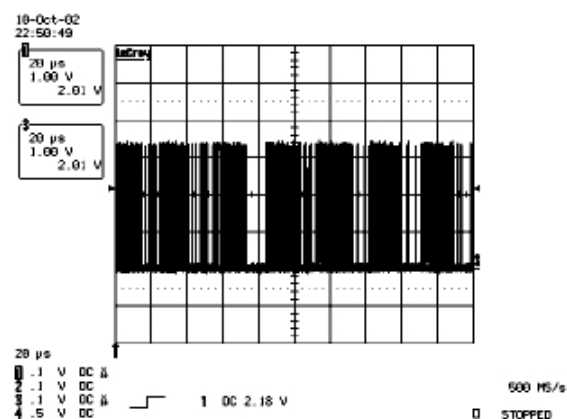
WAVEFORMS

1 R,G,B Input Signal (#54,48,43) Of IC101**2** R,G,B Output Signal Of IC101**3** Output Digital Signal of IC602**4** Output Digital Signal of IC501**5** Digital Output Data of IC515

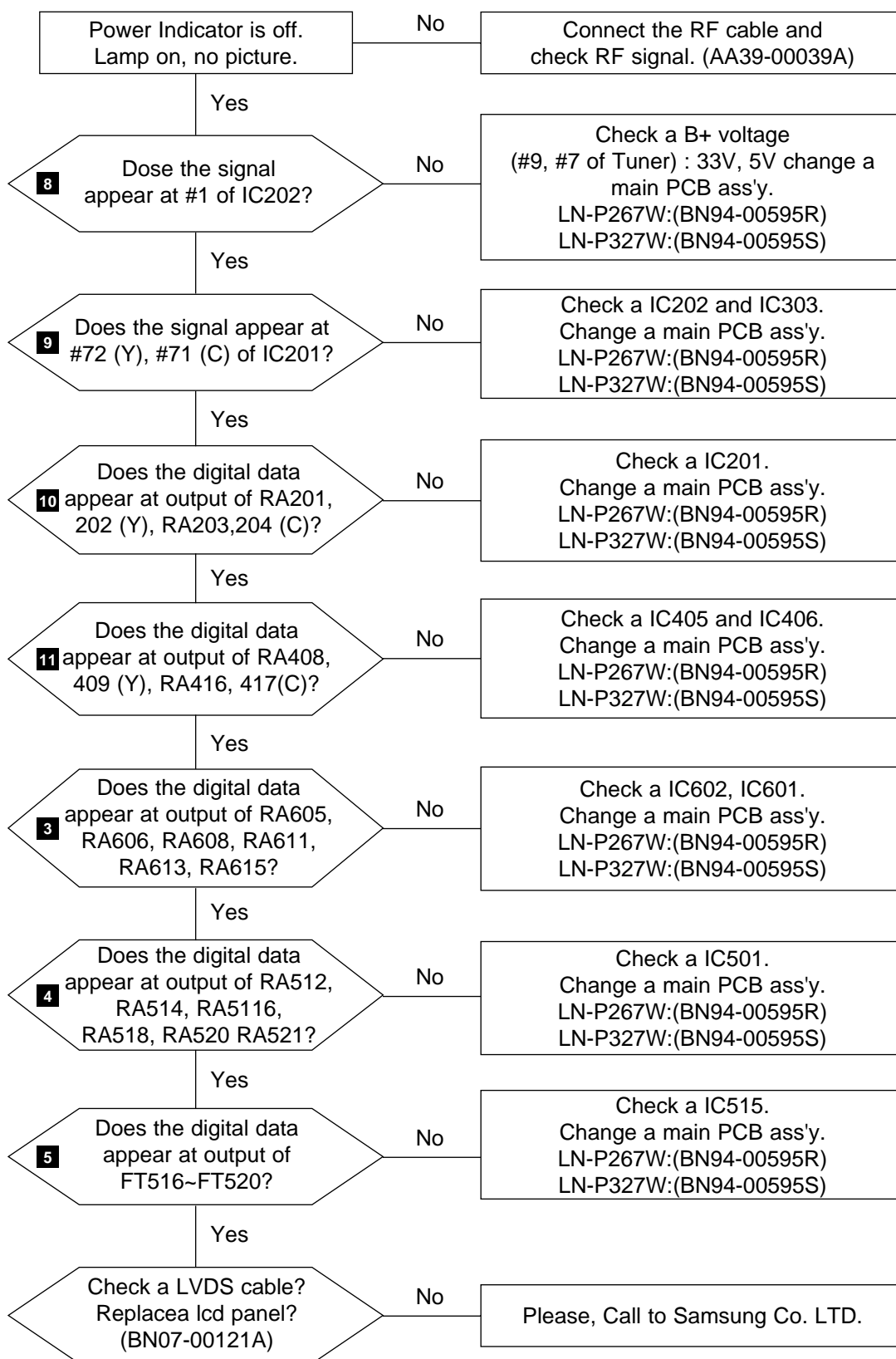
5-3 No Video (DVI - Digital Signal)



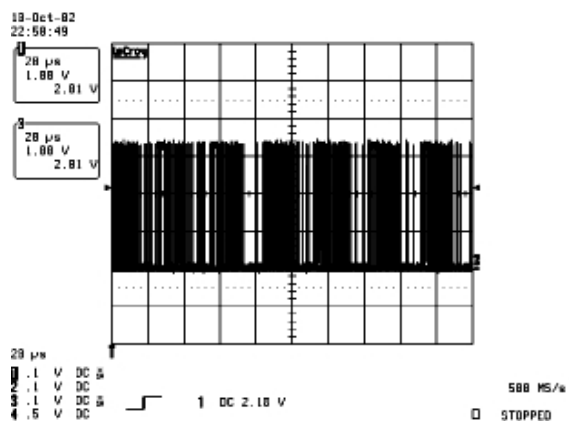
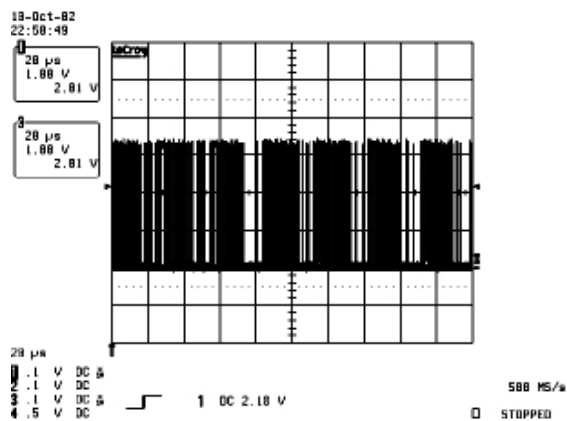
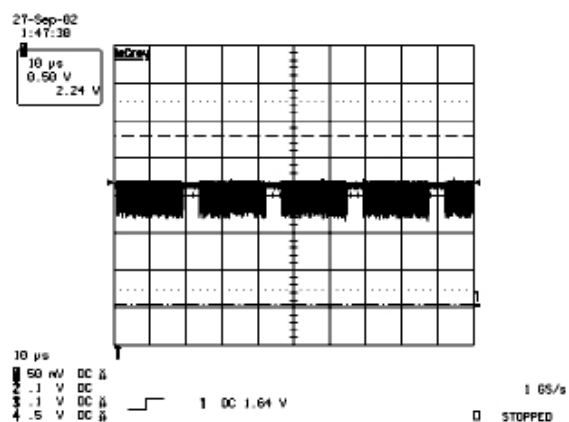
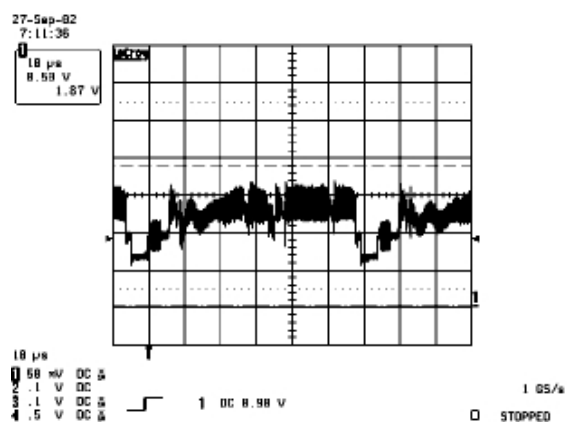
WAVEFORMS

3 Output Digital Signal of IC602**4** Output Digital Signal of IC501**5** Digital Output Data of IC515**6** Signal of DVI_RX 0~2 (Data)**6-1** Signal of DVI_RXC (CLK)**7** Digital Output Signal Of IC102

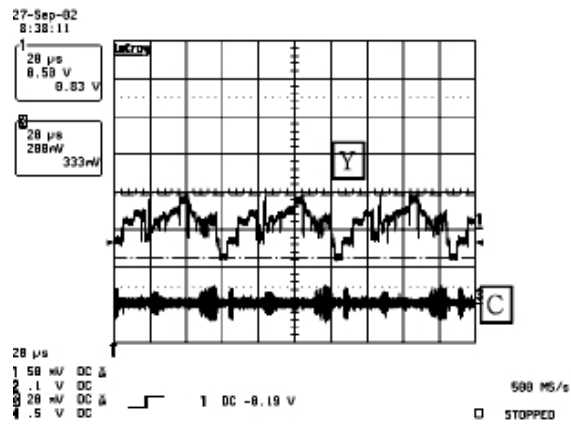
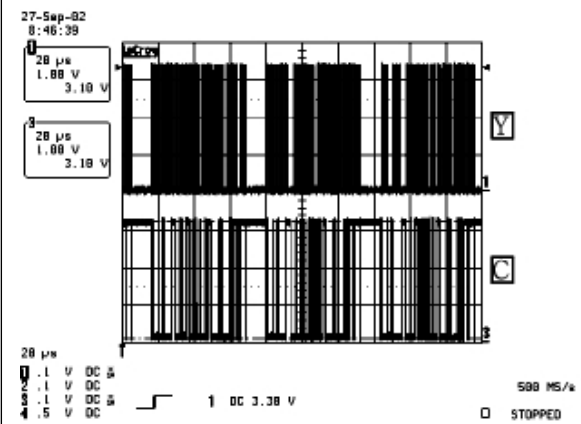
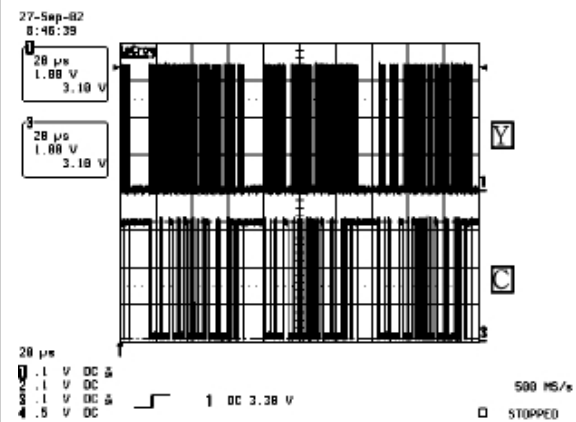
5-4 No Picture (Tuner_CVBS)



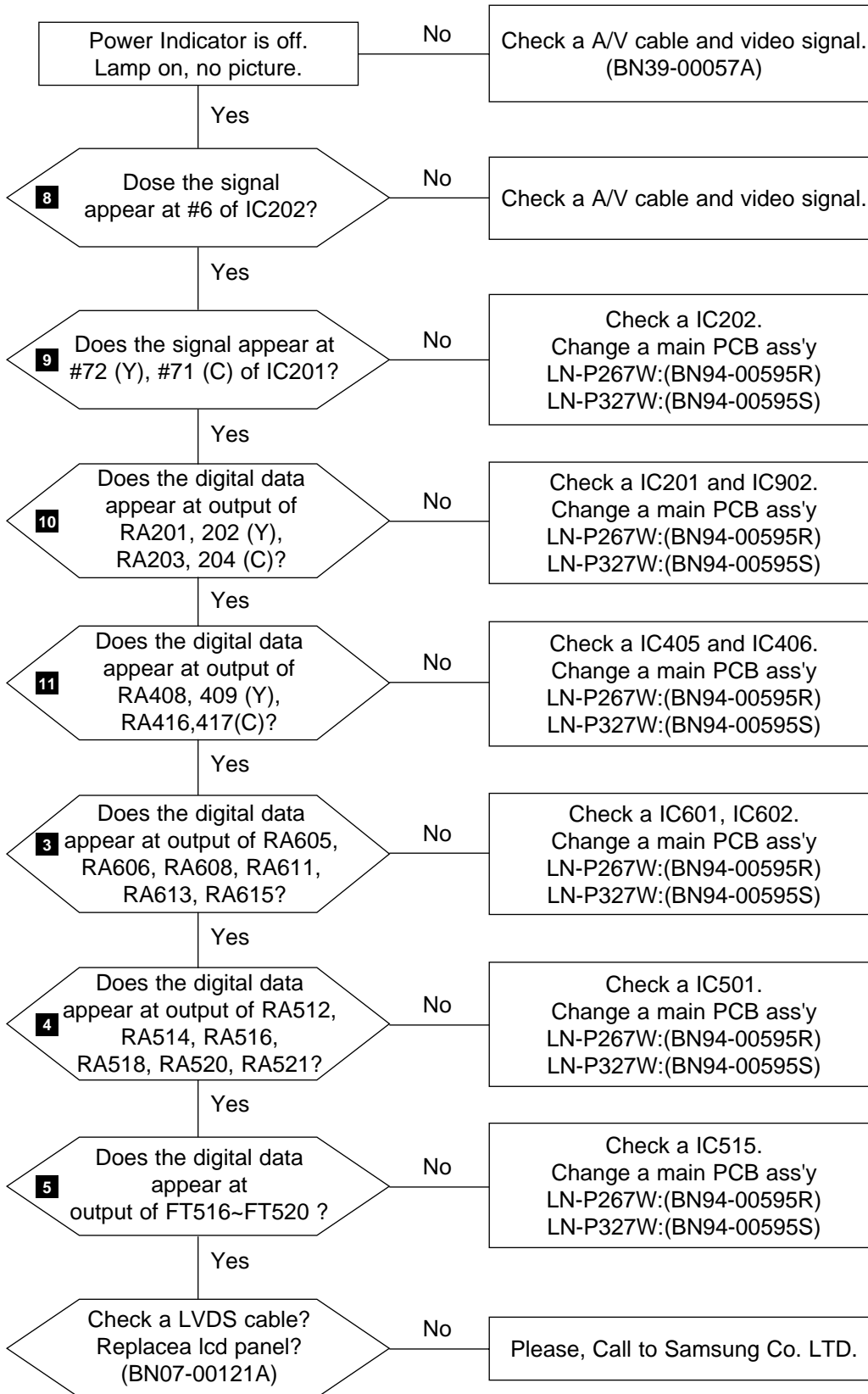
WAVEFORMS

3 Output Digital Signal of IC602**4** Output Digital Signal of IC501**5** Digital Output Data of IC515**8** Tuner_CVBS Output Signal

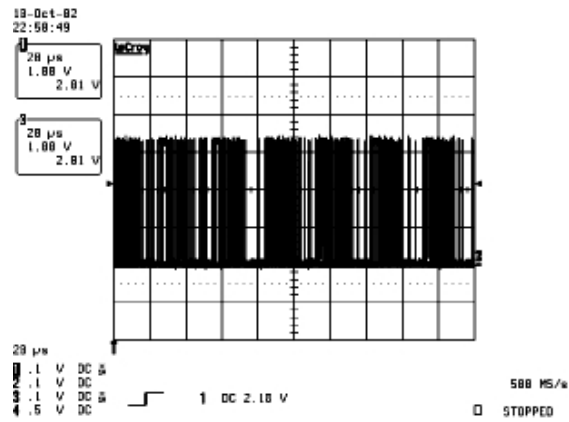
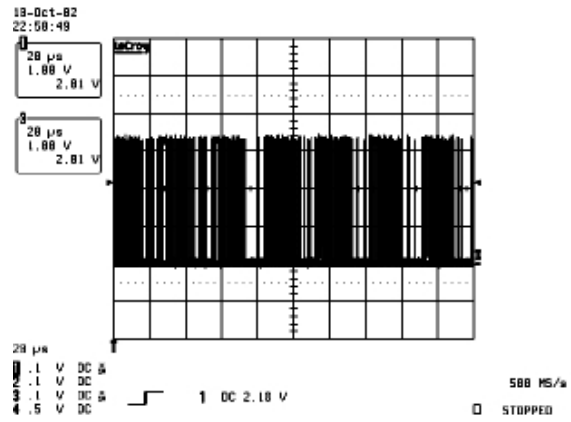
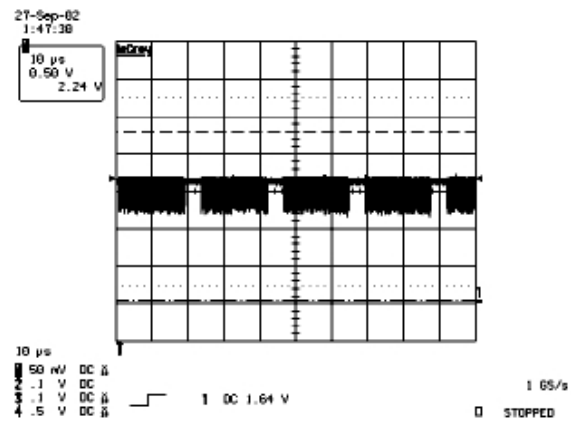
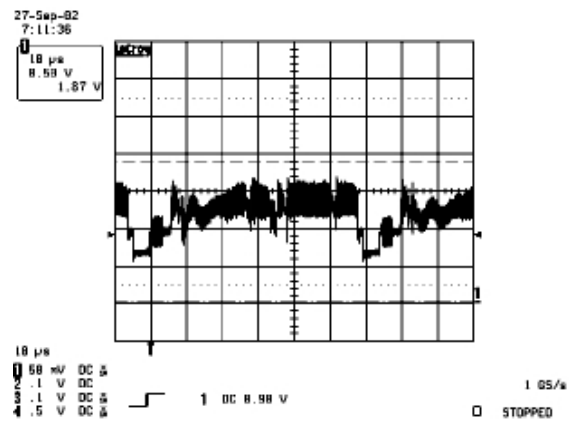
WAVEFORMS

9 Analog Signal (Y,C) to IC201**10** 3230 Y,C_OUT (0:7) Data**11** Digital Output Y,C_OUT (0:7) Data Of IC405

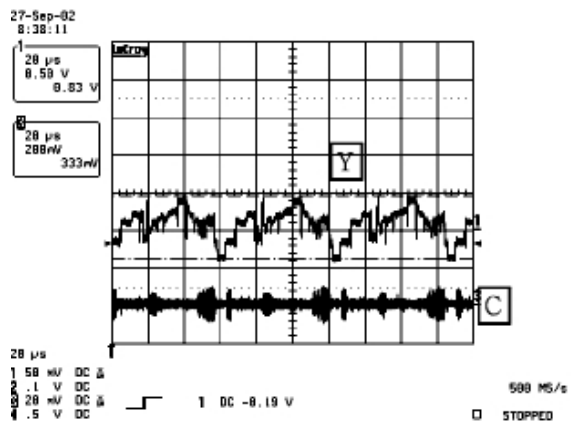
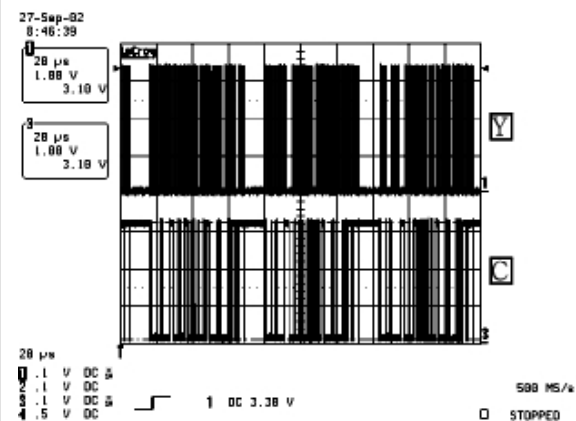
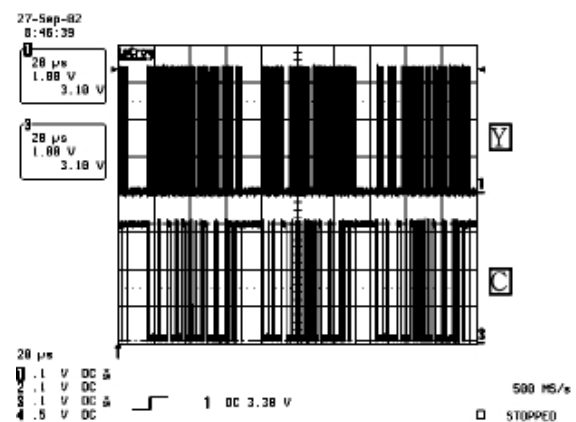
5-5 No Picture (Video_CVBS)



WAVEFORMS

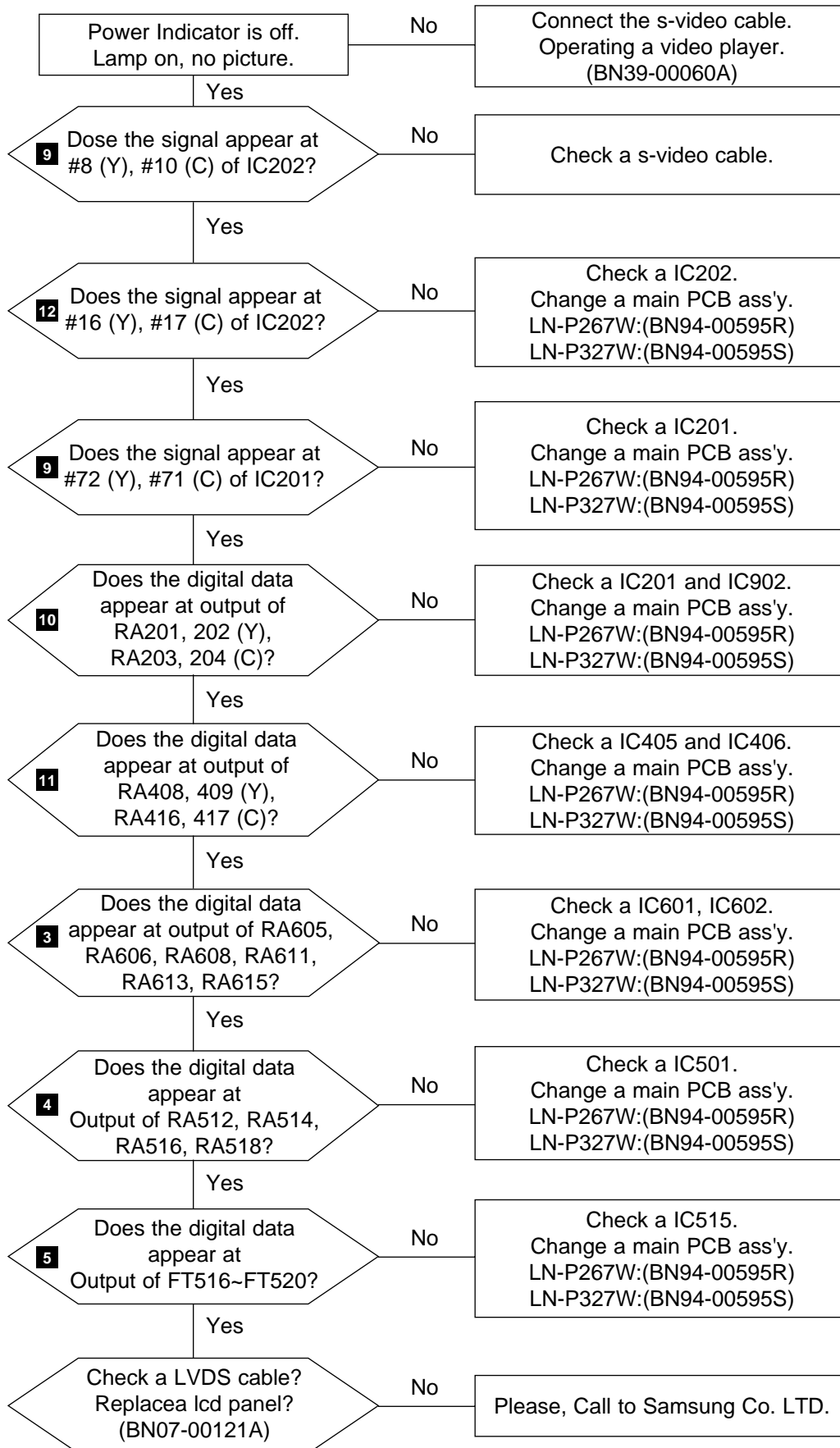
3 Output Digital Signal of IC602**4** Output Digital Signal of IC501**5** Digital Output Data of IC515**8** Tuner_CVBS Output Signal

WAVEFORMS

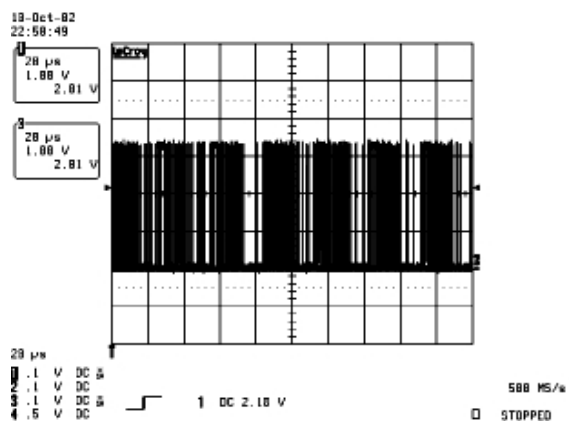
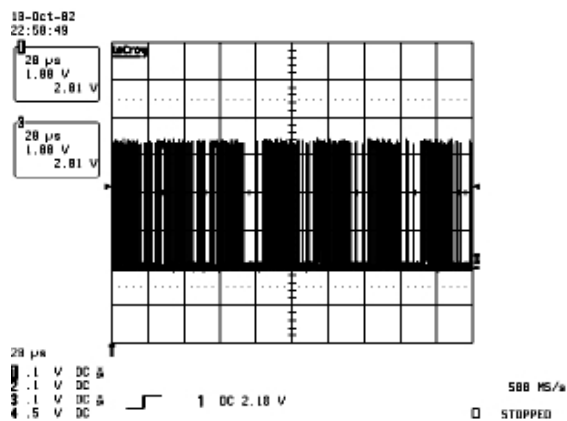
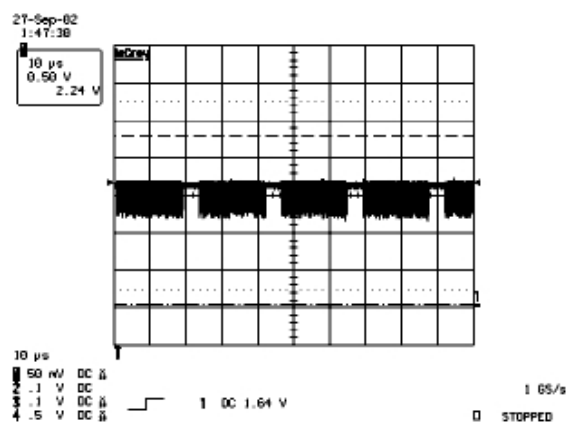
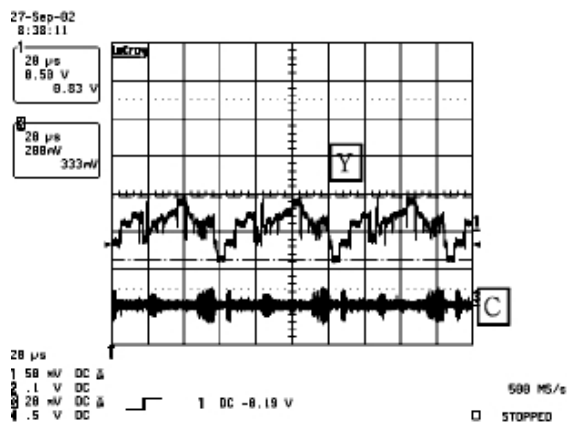
9 Analog Signal (Y,C) to IC201**10** 3230 Y,C_OUT (0:7) Data**11** Digital Output Y,C_OUT (0:7) Data Of IC405

5 Troubleshooting

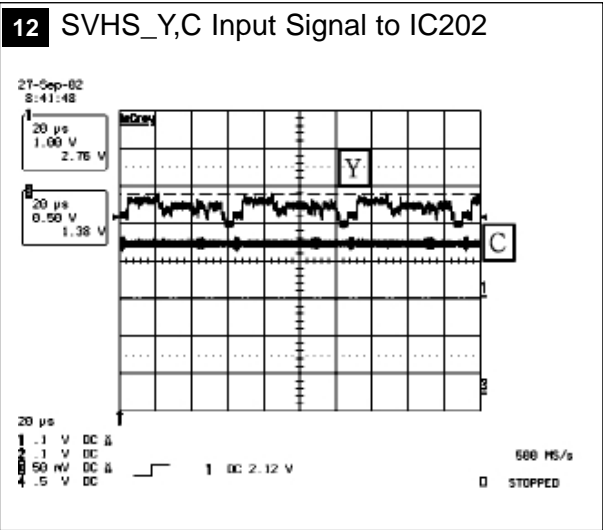
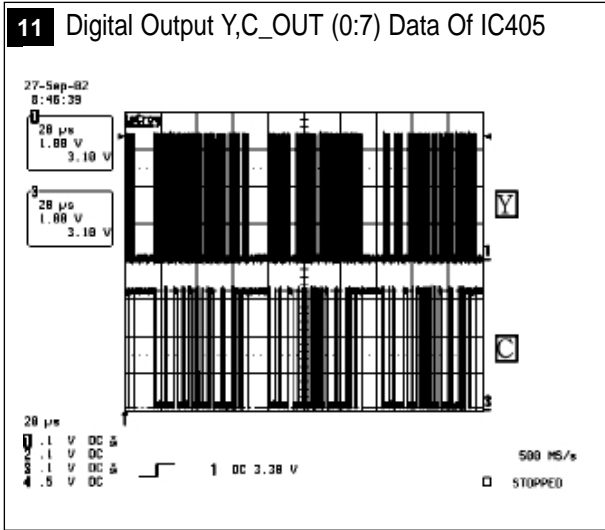
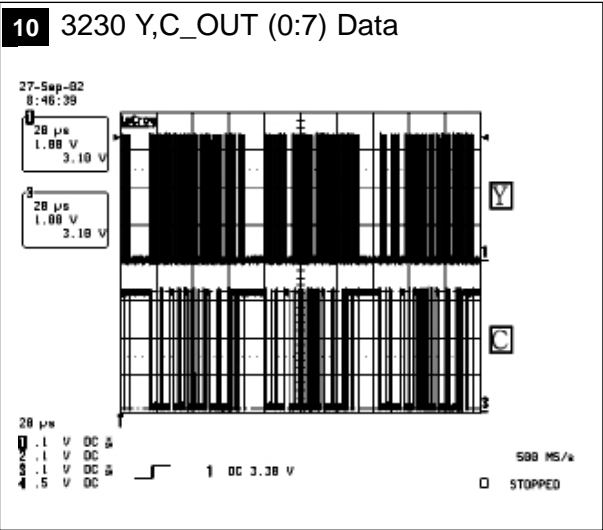
5-6 No Picture (S-VIDEO_Y,C)



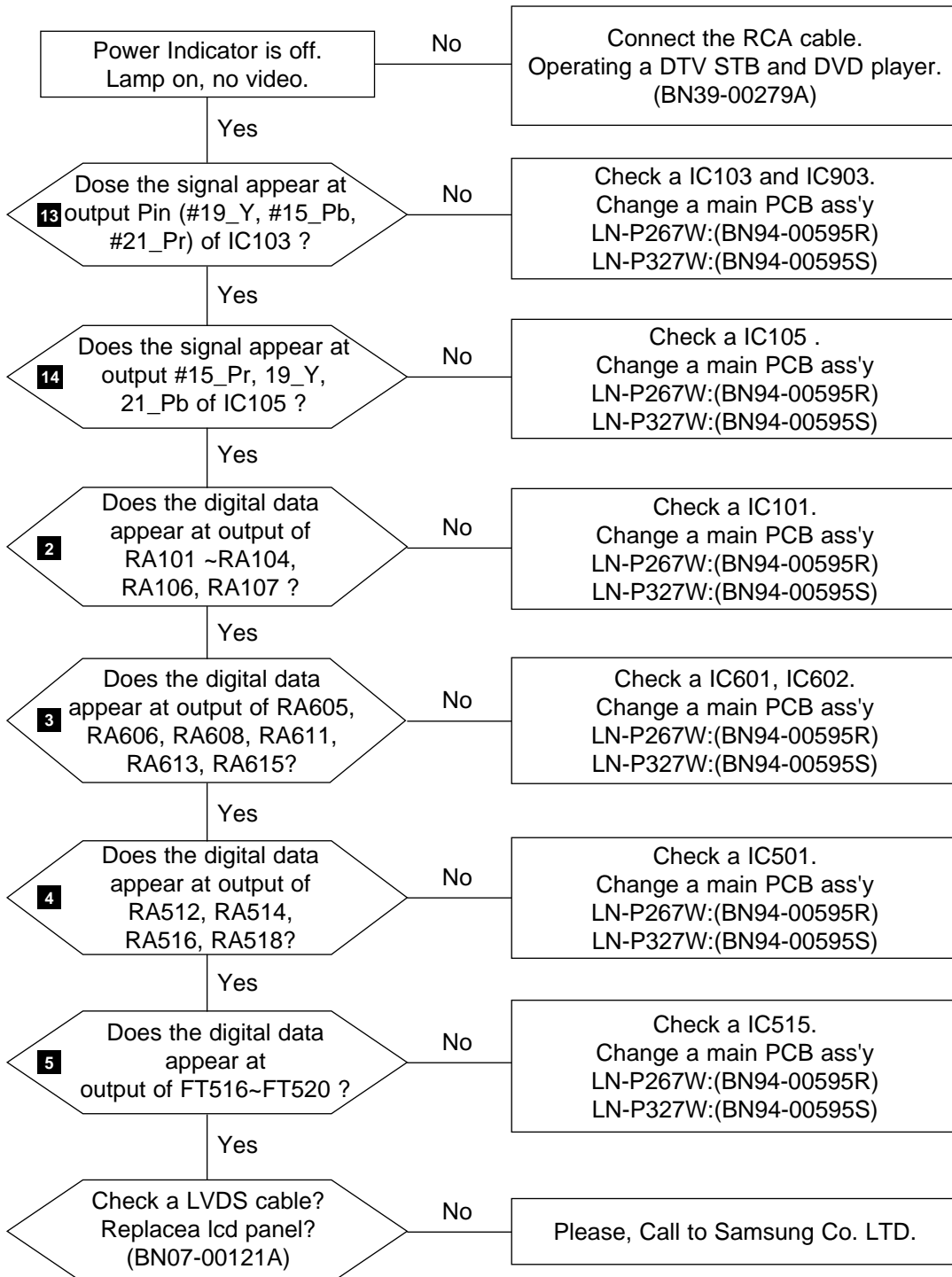
WAVEFORMS

3 Output Digital Signal of IC602**4** Output Digital Signal of IC501**5** Digital Output Data of IC515**9** Analog Signal (Y,C) to IC201

WAVEFORMS

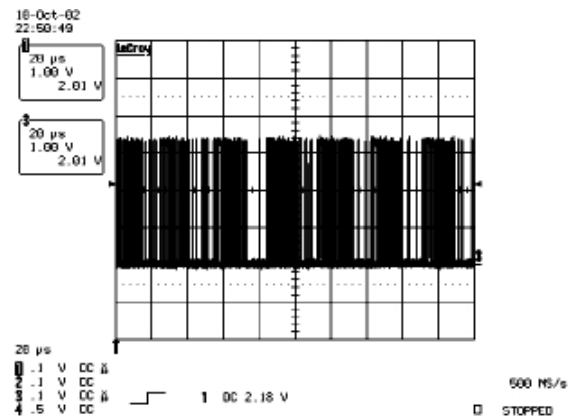


5-7 No Picture (Component1, 2 : 480i, 480p, 720p, 1080i [Y, Pb, Pr])

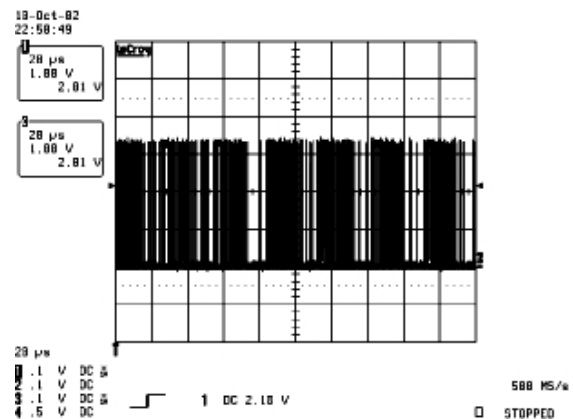


WAVEFORMS

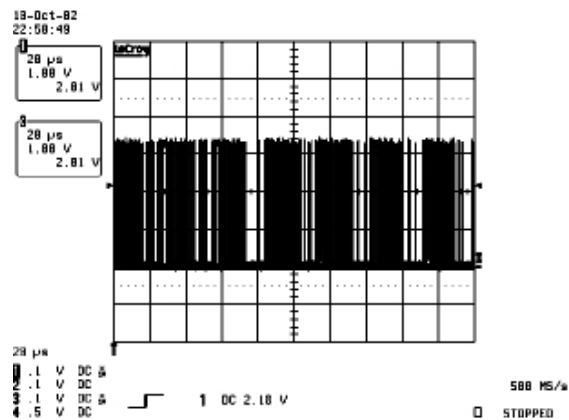
2 R,G,B Output Signal Of IC101



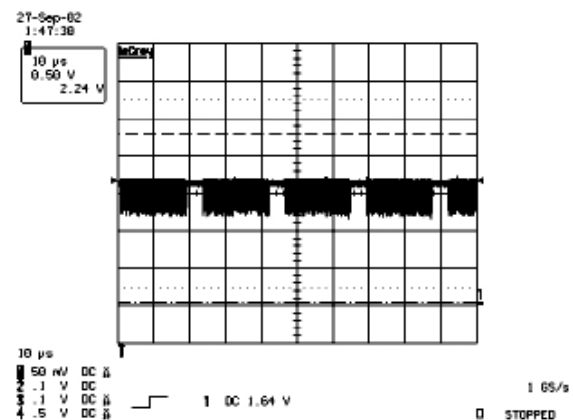
3 Output Digital Signal of IC602



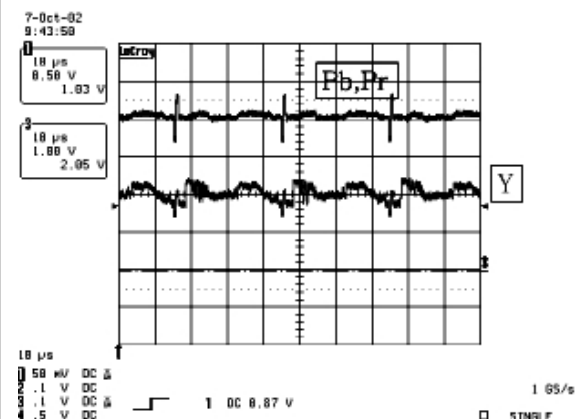
4 Output Digital Signal of IC501



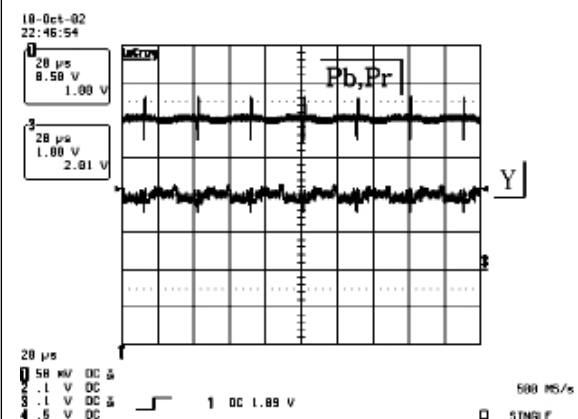
5 Digital Output Data of IC515



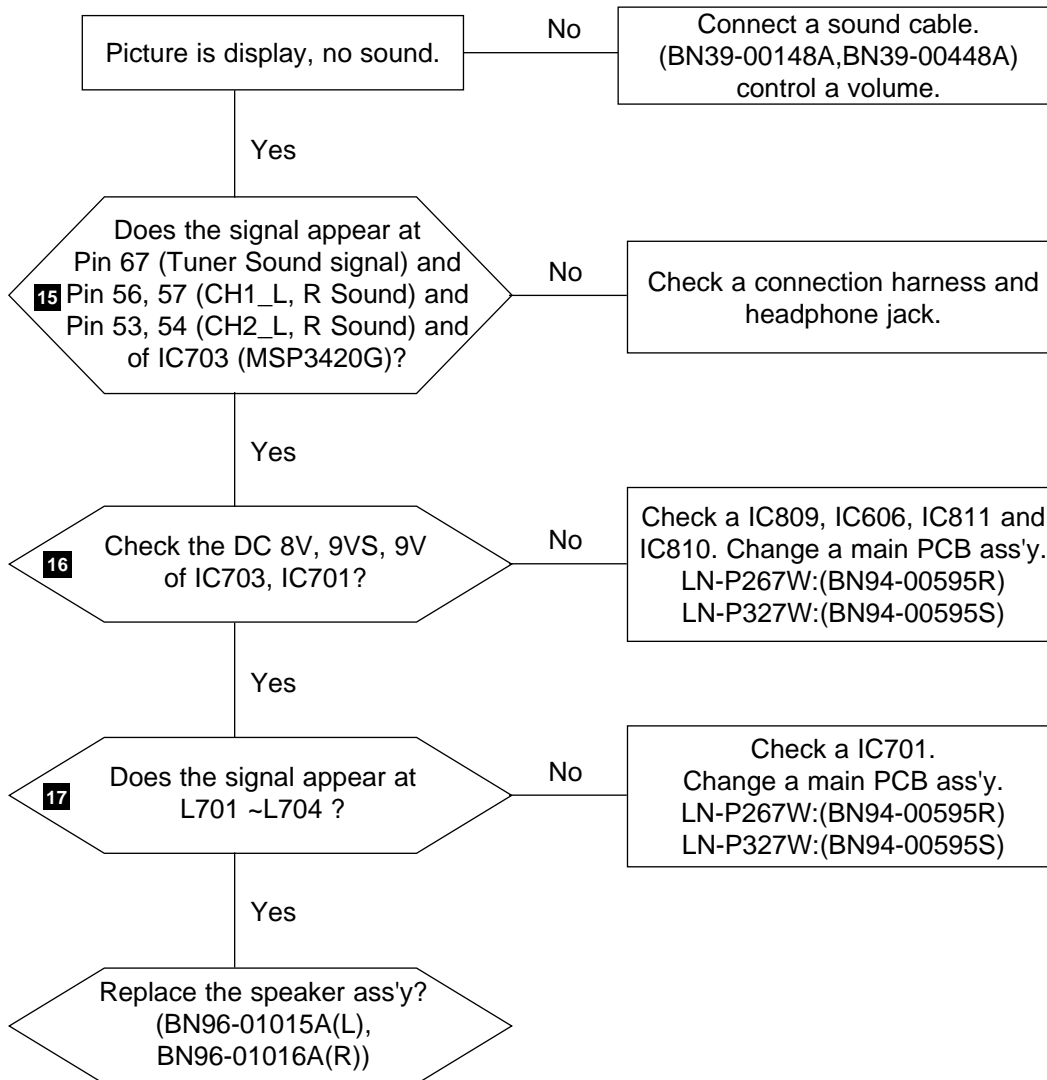
13 Output Signal of IC103 (Y,Pb,Pr)



14 Input Signal (Y,Pb,Pr) to IC105

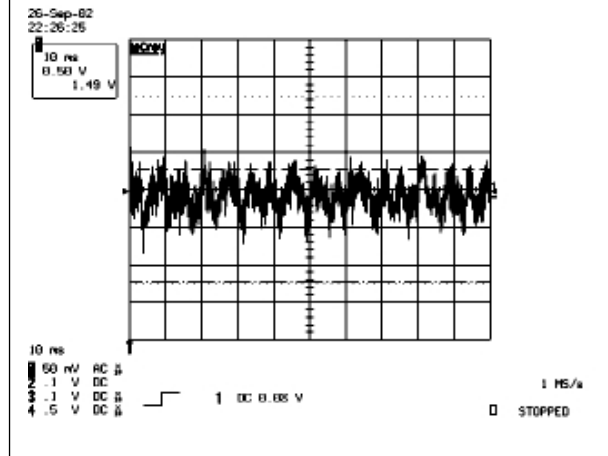


5-8 No Sound

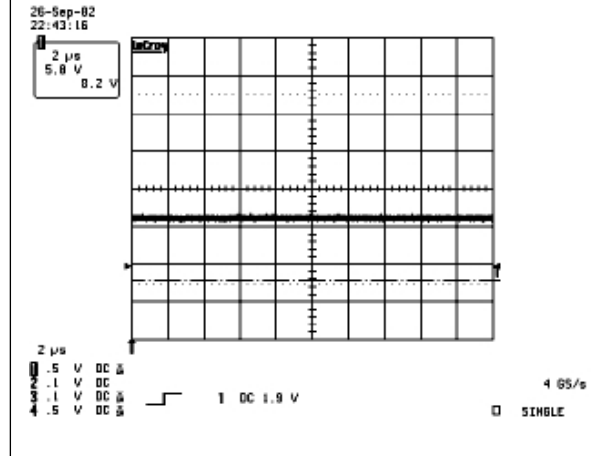


WAVEFORMS

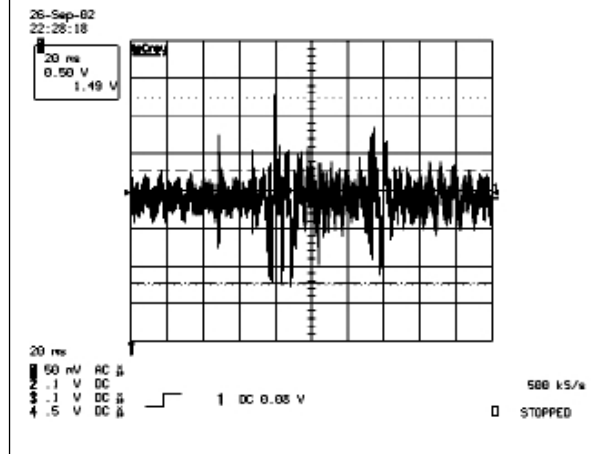
15 The Signal are Inputed to IC703



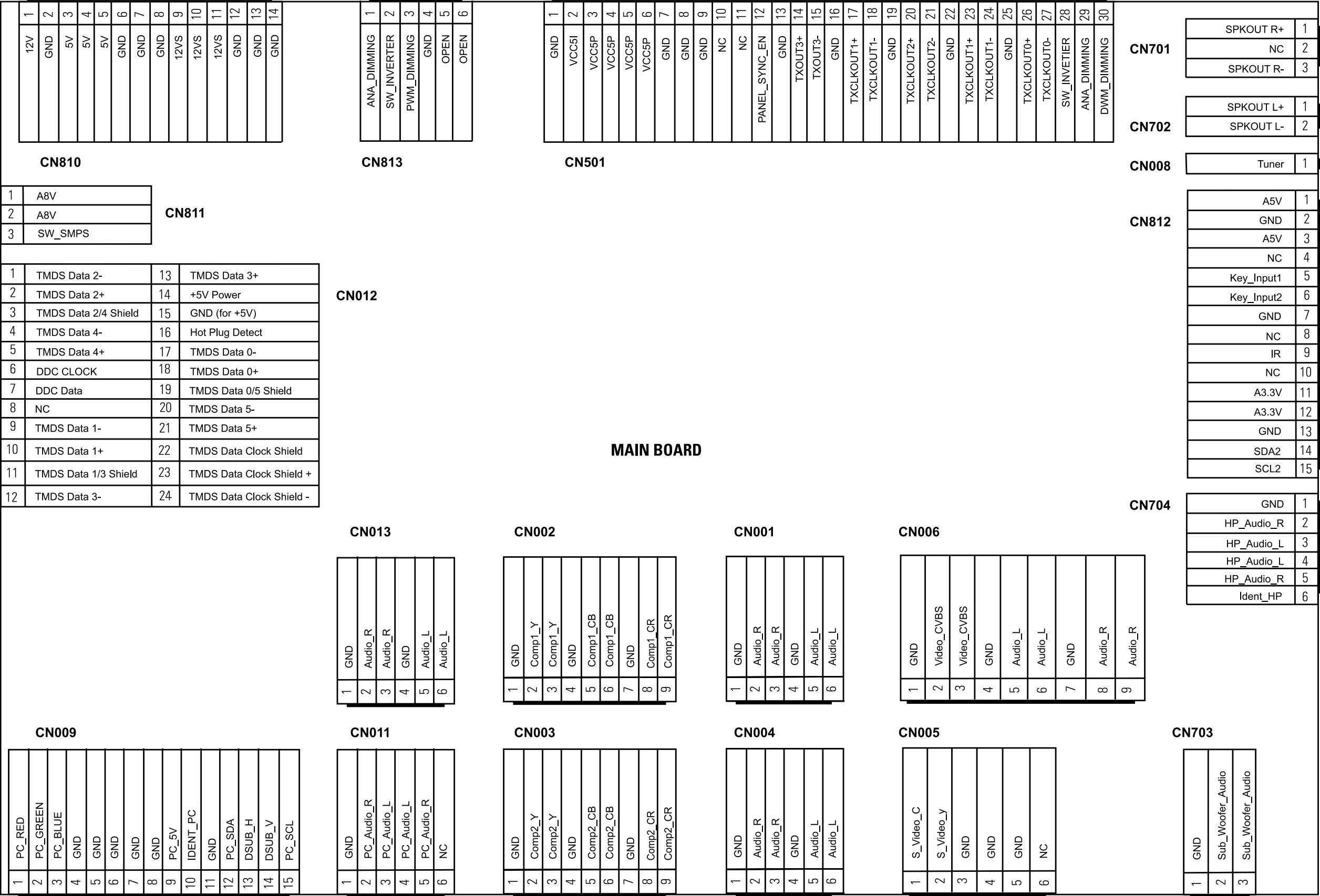
16 DC +8V



17 Output WaveForm



9 Wiring Diagram



Memo