TOSHIBA

FILE NO. 060-200563GR

SERVICE MANUAL

Color Television

S5SS series

29CZ8URB
29CZ8URS

The above models are classified as green products (*1), as indicated by the underlined serial numbers. This Service Manual describes replacement parts for the green products. When repairing these green product (s), use the part (s) described in this manual and lead-free solder (*2).

For (*1) and (*2), see the next page.

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(*1)

GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.
Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.
Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

(*2)

LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

WARNING

This product is manufactured using lead free solder.

DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT!

The melting temperature of lead-free solder is higher than that of leaded solder by 86˚F to 104˚F (30˚C to 40˚C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product -especially when soldering large components, through-hole pins, and on PCBs - as the level of heat required to melt lead-free solder is high.

CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a (C) V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.

   Refer to table-1 for high voltage (A), (B) & AC voltage (C). (See SETTING & ADJUSTING DATA on page 15)

   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

SET-UP ADJUSTMENT

■ The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

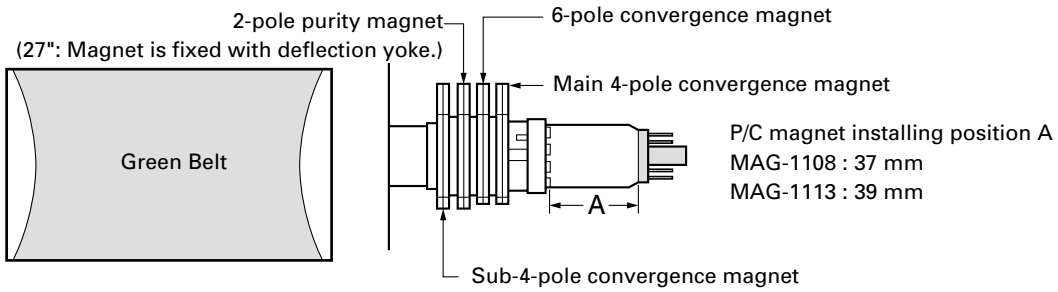
1. Color Purity
2. Convergence
3. White Balance

Note: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning. Refer to figure 1.
Mounting position of the purity magnet assembly should fit to same position as old one because slightly difference to the position depend on a kind of tube.

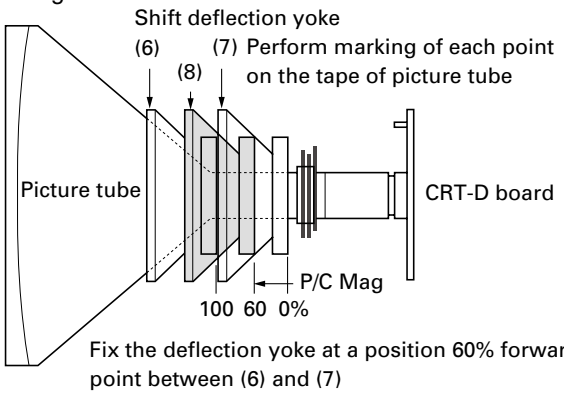
COLOR PURITY ADJUSTMENT

(1) Let the screen face in the installing direction or toward the east (when it is to be moved), bring up the service mode screen after demagnetizing (front, left, right, and top) with the degaussing coil, receive white signals by pressing the ⊕ button, and then the receiver should be operated for more than 40 munutes.
(2) Perform rough adjustment of the central convergence with the P/C magnet according to the adjustment item.
(3) Receive built-in green signals, loosen set screws on the deflection yoke, remove rubber wedges, and shift the deflection yoke to toward front.
(4) Move alternately the two 2-pole magnets of the P/C magnets so that the green raster can come to the center of the screen.

Figure 1.



(5) Receive built-in red and blue signals, check that there is no inclination of the single color raster toward one side, and if each color tilts to a great extent, make adjustment with the 2-pole magnet so that the 3 colors will come to the center evenly.
(6) Receive the green raster, shift the deflection yoke from a foremost position (hitting against the picture tube) to a backward position horizontally, stop the deflection yoke at a position where it begins to become a green raster, and perform accurate marking on the picture tube.
(7) Shift the deflection yoke further backward, and perform accurate marking at a position where the green raster begins to being luck.
(8) Fix the deflection yoke at a position 60% forward within the range marked in items (6) and (7) above.



CONVERGENCE ADJUSTMENTS

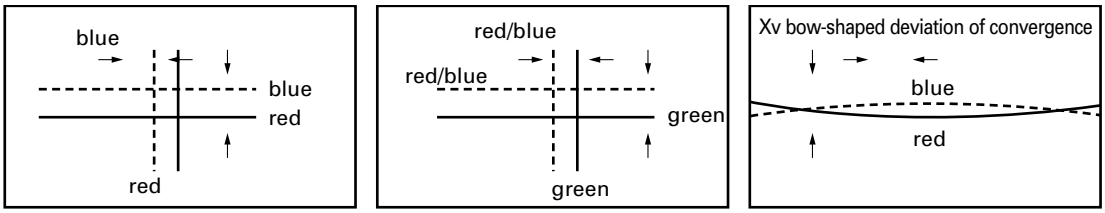
* Adjust the convergence magnet to get vest convergence in the order to (1) ~ (5).

■ **CENTER CONVERGENCE:**

(1) Receive the white crosshatch or dot pattern from the service signal generator.
(2) Use the 2 pieces of main 4-pole magnets of P/C magnets, change the open angle, and align the red and blue vertical lines on the screen center.
(3) Freeze the open angle of the main 4-pole magnets, turn them simultaneously, and align the horizontal lines.
(4) Take the same steps for items (2) and (3) above and align red/blue with green on the screen center using two 6-pole magnets.

(5) Adjust the sub-4-pole magnets only in case there is any deviation of Xv bow-shaped convergence. (To be usually set at the initial position)

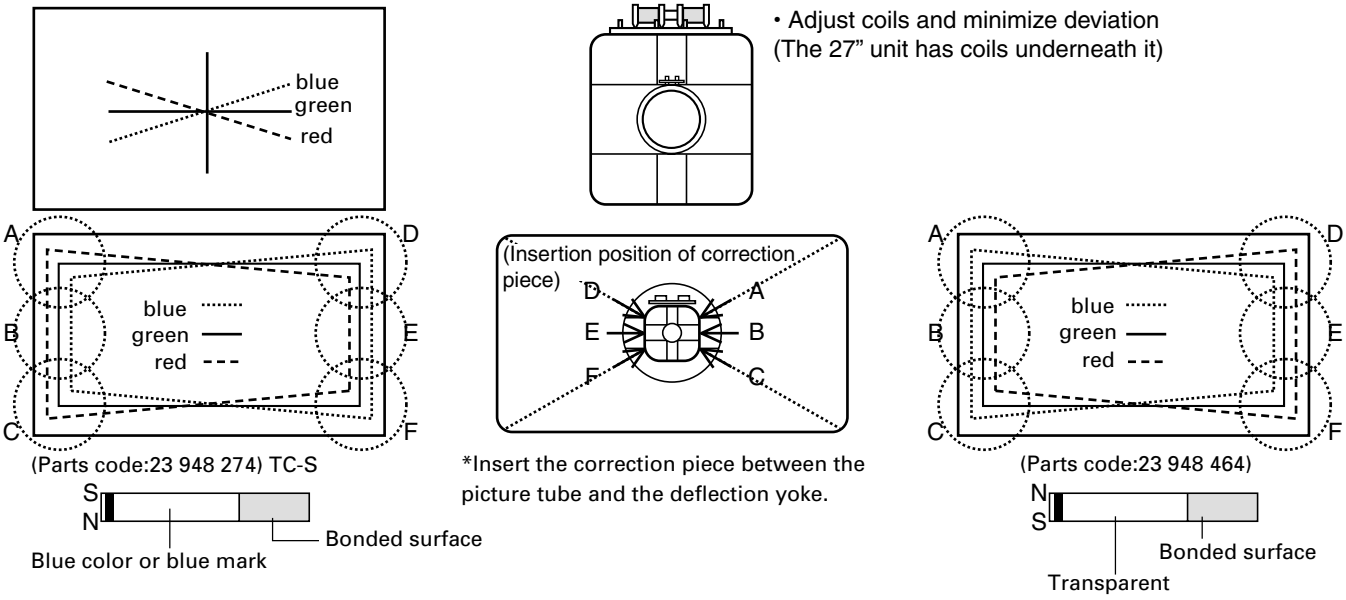
Align both sides with the sub-4-pole magnets and minimize the deviation of blue and red with the main 4-pole magnets.



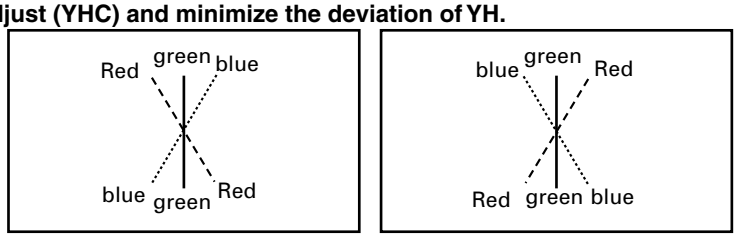
Main 4-pole magnet **6-pole magnet** **Sub-4-pole magnet**

■ CIRCUMFERENCE CONVERGENCE ADJUSTMENT

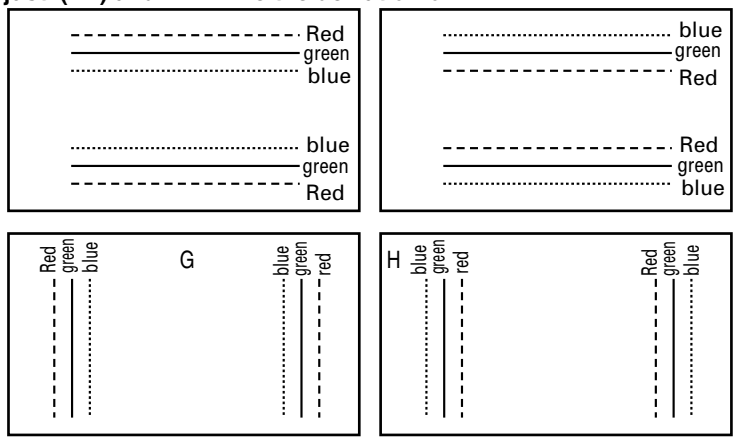
***** Perform correction in the following manner.

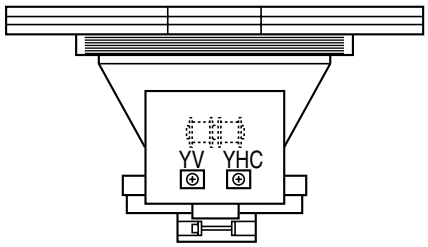


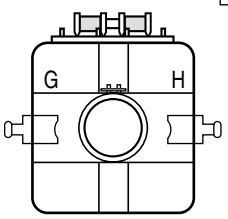
Adjust (YHC) and minimize the deviation of YH.



Adjust (YV) and minimize the deviation of YV.







Perform correction by inserting the correction piece into the clearance of terminal board coils of the deflection yoke.

Note:

Perform insertion by turning the metal side to the terminal board side of the deflection yoke.

SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

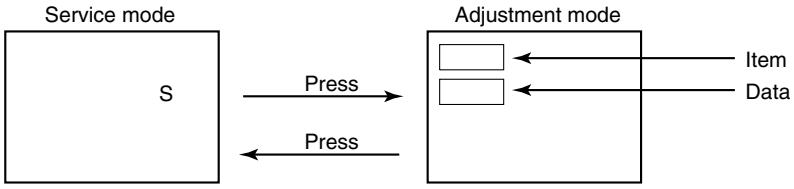
2) Press 🔇 button again to keep pressing.

3) While pressing the 🔇 button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Screen adjustment mode ON/OFF:	-/-- button (on Remote)
Test signal selection :	⊖ button (on Remote)
Selection of the adjustment items :	CH ▲/▼ (on TV or Remote)
Change of the data value :	◿ +/– (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02) :	CALL + CH ▲ (on TV)
Reset the count of operating protect circuit to "00":	CALL + CH ▼ (on TV)
"RCUT" selection :	1 button
"GCUT" selection :	2 button
"BCUT" selection :	3 button
"SCNT" selection :	4 button
"CLPI" selection :	5 button – – – – – Color thickness correction
"TNTC" selection :	6 button note: Displayed differently as shown below, depending
"OPT0" selection :	YELLOW button on the setting of the receiving color system.
Self diagnostic display ON/OFF :	9 button COLP (PAL)
	COLC (NTSC)
	COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CH ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 15)

5. ADJUSTING THE DATA

1) Pressing of ◿ +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Press POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02, the following initialization is required.

1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CH ▲ button on the TV. The initialization of QA02 has been completed.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Auto tune” on the owner’s manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. TEST SIGNAL SELECTION

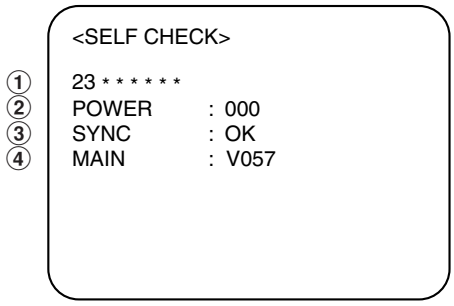
1) Every pressing of ⊣⊖ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

Signal off ◄——► ALL White

Signals	Picture
• All White	

8. SELF CHECK FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode. The diagnosis will begin to check if interface among IC’s are executed properly.
2) During diagnosis, the following displays are shown.



① Part number of microprocessor (QA01)
② Operation number of protecting circuit ----“000” is normal.
③ RF signal center frequency is locked.
④ Version information of microprocessor

DESIGN MODE

1. ENTERING TO DESIGN MODE

1) Select the Service mode. (See page 6)
2) While pressing CALL button on Remote and press MENU button on TV.
3) Press MENU button on TV.

(Design mode)

2. SELECTING THE ADJUSTING ITEMS

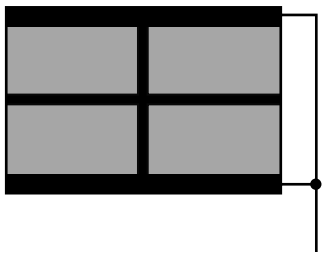
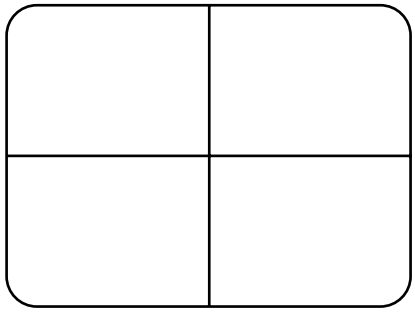
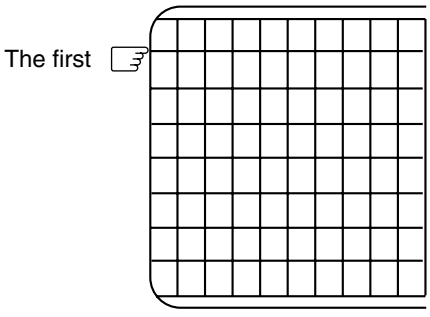
Every pressing of CH ▼ button in the design mode changes the adjustment items in the order of table-3. (▲ button for reverse order)

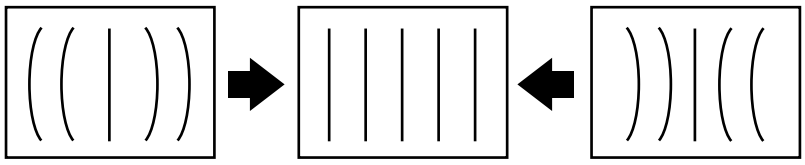
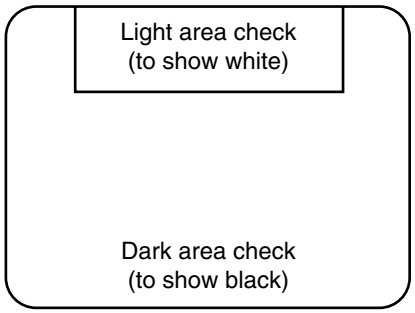
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 15)

3. ADJUSTING THE DATA

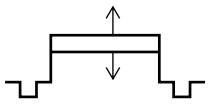
Pressing of ◿ -/+ button will change the value of data.

ELECTRICAL ADJUSTMENTS

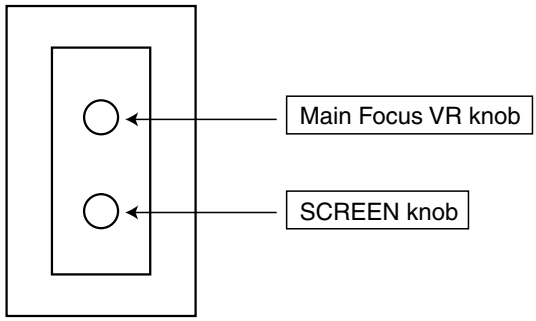
ITEM	ADJUSTMENT PROCEDURE
FOCUS VR ADJ	1. Enter the service mode, then select any register item. 2. Press the ⊖ button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.
SUB-BRIGHTNESS (BRTC) Note: Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT).	1. Set CONTRAST to minimum, and BRIGHTNESS to center by adjusting user controls. 2. Set the TV in service mode to get Black cross-bar of inside pattern. 3. Select BRTC (brightness correction), and adjust the ◿ –/+ button to reduce the value so that white portion of inside pattern slightly light. 4. Adjust ◿ –/+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast.  Belt of vertical retrace
HORIZONTAL POSITION ADJUSTMENT (HPOS) VERTICAL POSITION ADJUSTMENT (VPOS)	1. Set the TV in service mode, and get black cross-bar signal with ⊖ button on remote hand unit. 2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CH ▲, ▼ buttons, and adjust horizontal or vertical picture position in the center of screen with ◿ –/+ buttons. 
VERTICAL AMPLITUDE ADJUSTMENT (HIT)	1. Set the TV in service mode, and get black cross-hatch signal with ⊖ button on remote hand unit. 2. Select HIT (Vertical amplitude) with CH ▲, ▼ buttons, and adjust vertical amplitude with ◿ –/+ buttons so that vertical amplitude lacks a little. 3. Adjust vertical amplitude with ◿ –/+ buttons so that the first bar on cross-hatch signal touches edge of screen. 

ITEM	ADJUSTMENT PROCEDURE
WIDTH (WID)	1. Call up the adjustment mode display, then select the item **WID**. 2. Press the ◿ – /+ button to get the picture so the left and rightedges of raster begins to lack. 3. Press the ◿ – /+ button to advance the data by 7 steps. Note: Check the horizontal picture position is correct.
E-W PARABOLA (PARA)	1. Call up the adjustment mode display, then select the item **PARA**. 2. Press the ⊖ button on Remote until the cross-hatch pattern appears on the screen. 3. Press the ◿ – /+ button to make vertical lines straight as shown below. 
WHITE BALANCE ADJUSTMENT • CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) • DRIVE ADJUSTMENT (GDRV) (BDRV)	1. Set Contrast to 40, and brightness to +20 by picture control. 2. Receive the Black and White pattern. 3. Select RCUT, GCUT, BCUT, GDRV and BDRV with CH ▲, ▼ buttons. Press volume ◿ – /+ buttons to set individual values to initial reference data. 4. Press -/- - button on the remote control and rotate Screen VR to get one slight horizontal line on screen. Note: Every pressing of -/- - button provides Horizontal line picture and Normal picture alternately. 5. Press -/- - button to release horizontal line picture, and select the two other colors which did not light in the above step with CH ▲, ▼ buttons. Then tap ◿ – /+ buttons so that three colors slightly light in the same level. ※ To correct white balance in light area, select GDRV and BDRV with CH ▲, ▼ buttons to adjust. ※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT. 

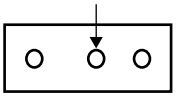
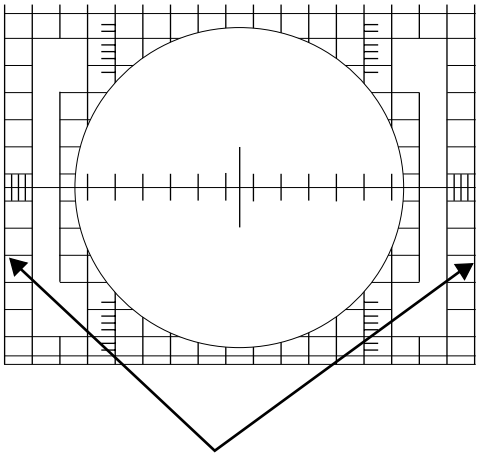
V/C syatem adjustment

No.	ADJUSTING ITEMS AND POINTS	ADJUSTMENT PROCEDURE	REMARKS
1	Cutoff adjustment and white balance adjustment RCUT GCUT BCUT GDRV BDRV Screen VR	1) Setting to horizontal alignment, turn the screen VR to stop where the brightness lines are slightly luminous. (Adjustment shall be made so that they look almost white.) 2) Cancel horizontal alignment. 3) Varying R, G and B CUTOFF, make white balance adjustment in the dark area. 4) Adjusting G and B DRIVE, make white balance adjustment in the bright area. 5) Repeat procedures 3) and 4) if necessary. Adjustable value: Bright area: 11500K+0.0075uV ($103cd/m^2$) Dark area: 10500K+0.0105uV ($17cd/m^2$)	No outside lighting shall be allowed. Measurement shall be performed at the center of CRT. Receiver shall be in the standard state. Total white signal Varying the level of input signal, adjust the brightness. 
2	Sub brightness adjustment (BRTC)	1) Select BRTC in the sub data adjustment mode. Adjust the number of black solid lines to 4±1.5.	J-2ch sub brightness signal DYNAMIC

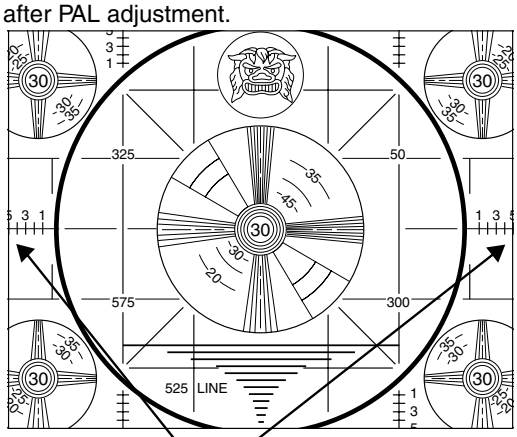
Circuit adjustment (Procedure Manual for Deflection Adjustment)

No.	ADJUSTING ITEMS AND POINTS	ADJUSTMENT PROCEDURE
1	Focus Adjustment Main Focus: T461	Conditions : PAL RETMA ch Screen Size : Wide Presentation Mode : Dynamic Only for 29-inch model 1) Adjust the Main Focus VR knob of T461 model to optimize center focus. Refer to the diagram below for the location of the Main Focus VR knob. 

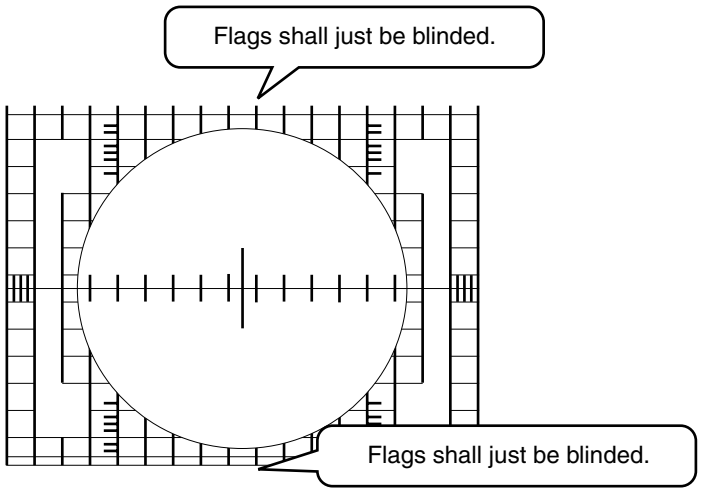
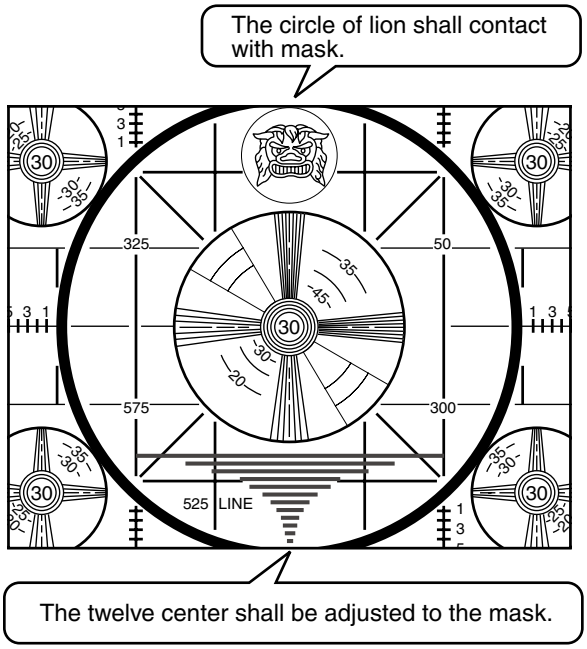
Horizontal adjustment * Deflection adjustment shall be made from PAL/100 Hz/WIDE mode.

	ADJUSTING ITEMS AND POINTS	ADJUSTMENT PROCEDURE
Hori-zontal	For PAL/100 Hz/WIDE Horizontal amplitude (WID) Side pin distortion (PARA) Trapezoidal distortion (TRAP) Corner distortion (CNR) Upper corner distortion (TCNR) Lower corner distortion (BCNR) CENT distortion (CPAR) Parallelogrammatic distortion (CSAW) Horizontal phase (HPOS) Note 1: POW/DEF board: P451/M450 Horizontal screen positional switch CENT  Right side Left side Screen position shall be switched by inserting a plug into the above pin. (CENT should take the first stage)	<Adjustment condition> Horizontal adjustment shall be made using E-12CH Philips pattern and DYNAMIC image mode. <Adjustment procedure> 1) Using WID data, reduce the horizontal amplitude until a part of it is dropped out. 2) Using WID data, adjust the horizontal amplitude so that horizontal raster inevitably contacts with CPT mask. 3) Using the following (Note 1) horizontal screen positional switch, adjust the horizontal raster position to the center position. 4) Using the horizontal amplitude (WID) and horizontal phase (HPOS), adjust the horizontal amplitude so that the right and left flags are just blinded.  The adjustment shall be made so that the right and left flags are just blinded. 5) Using PARA, TRAP, CNR and CPAR (or TCNR, BCNR or CSAW if necessary), adjust the screen distortion. 6) If necessary, make the horizontal amplitude adjustment again.

Horizontal adjustment

	ADJUSTING ITEMS AND POINTS	ADJUSTMENT PROCEDURE
Hori-zontal	For NTSC WIDE Horizontal phase (NHPO) Horizontal amplitude (NWID) Side pin distortion (NPAR) Trapezoidal distortion (NTRA) Corner distortion (NCNR) CENT distortion (NCPAR) Parallelogrammatic distortion (NCSAW) Upper corner distortion	* NTSC adjustment shall be made after PAL adjustment. 1) With domestic 13ch, WIDE mode and DYNAMIC, adjust the right and left bars to the fifth center for horizontal phase (NHPO) and horizontal amplitude (NWID).  Right and left bars shall be adjusted to the fifth center. 2) With domestic 11ch, NPAR, NTRA, NCNR and NCPAR (or NTCNR, NBCNR or NCSAW if necessary), adjust the screen distortion. 3) If necessary, make horizontal amplitude adjustment again.

Vertical adjustment

	ADJUSTING ITEMS AND POINTS	ADJUSTMENT PROCEDURE
Vertical	For PAL WIDE Vertical amplitude (HIT) Vertical screen position (TCNR) Vertical linearity (VLIN)	1) With E-12ch, WIDE mode, DYNAMIC and 100 Hz, adjust the vertical screen position (VPOS) and amplitude (HIT) as shown in the following figure:  2) With vertical linearity (VLIN), control the upper and lower balances to be optimal.
	For NTSC WIDE Vertical amplitude (NHIT) Vertical screen position (NVPO)	* NTSC adjustment shall be made after the PAL adjustment. With domestic 13ch, WIDE mode and DYNAMIC, adjust the vertical screen position (NVPO) and amplitude (NHIT) as shown in the following figure: 

Geomagnetic compensation (chassis adjustment)

	ADJUSTING ITEMS AND POINTS	ADJUSTMENT PROCEDURE
1	Output voltage control (GMF)	Conditions: User control for geomagnetic compensation: 0 Geomagnetic compensation coil: Unconnected Perform voltage measurement at both ends of RJ06 and adjust the voltage to the following adjustable value with GMF of data adjustment mode: 0 ± 1V

CIRCUIT CHECK

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below (B) kV.

Refer to table-1 for high voltage (B).
(See SETTING & ADJUSTING DATA on page 15)

4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【 SAFETY INSTRUCTIONS 】

		29"
HIGH VOLTAGE AT ZERO BEAM:	(A)	30.5 kV
MAX HIGH VOLTAGE:	(B)	34.0 kV
AC VOLTAGE	(C)	220~240 V

Table-1

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Name of adjustment	Preset	Data
RCUT	R CUTOFF	20H	←
GCUT	G CUTOFF	20H	←
BCUT	B CUTOFF	20H	←
GDRV	G DRIVE	40H	←
BDRV	B DRIVE	40H	←
BRTC	BRIGHTNESS CENTER	C0H	←
BRTR	BRIGHTNESS RGB	3FH	←
BRTO	BRIGHTNESS OSD	00H	←
CNTC	CONTRAST CENTER	3FH	←
SCNT	SUB CONTRAST (TV)	08H	←
SCNV	SUB CONTRAST (VIDEO)	0AH	←
CNTR	CONTRAST RGB	63H	←
CNTO	CONTRAST OSD	03H	←
COLC	COLOR CEN NTSC	57H	←
COLP	COLOR CEN PAL	57H	←
COLS	COLOR CEN SECAM	49H	←
TNTCN	TINT CENTER NTSC	47H	←
TNTCP	TINT CENTER PAL	3FH	←
HPOS	576i 100Hz	3AH	41H
VPOS	V-POSITION	83H	94H
HIT	HEIGHT	6BH	41H
VLIN	V-LINEARITY	0FH	0CH
VPS	V-SHIFT	3EH	←

Item	Name of adjustment	Preset	Data
WID	PICTURE WIDTH	50H	5CH
PARA	E-W PARABOLA	1BH	31H
CNR	E-W CORNER	11H	←
TRAP	TRAPEZIUM	2FH	4CH
CPAR	CENT PARABOLA	07H	←
TCNR	EW TOP CORNER	0AH	17H
BCNR	EW BOTTOM CORNER	11H	15H
CSAW	CENTER SAW	09H	07H
NHPO	NTSC H-POSITION	03H	←
SCNT	NTSC V-POSITION	04H	98H
NHIT	NTSC HIGHT	00H	37H
NVLI	NTSC V-LINEARITY	00H	0DH
NVPS	NTSC V-SHIFT	3EH	←
NWID	NTSC PICTURE WIDTH	03H	52H
NPAR	NTSC E-W PARABOLA	01H	29H
NCNR	NTSC E-W CORNER	00H	←
NTRA	NTSC TRAPEZIUM	00H	4CH
NCPAR	NTSC CENT PARABOLA	00H	08H
NTCNR	NTSC TOP CORNER	00H	15H
NBCNR	NTSC BOTTOM CORNER	00H	13H
NCSAW	NTSC CENTER SAW	FFH	07H
GMF	Geomagnetic	00H	04H

Table-2

【 DESIGN MODE 】

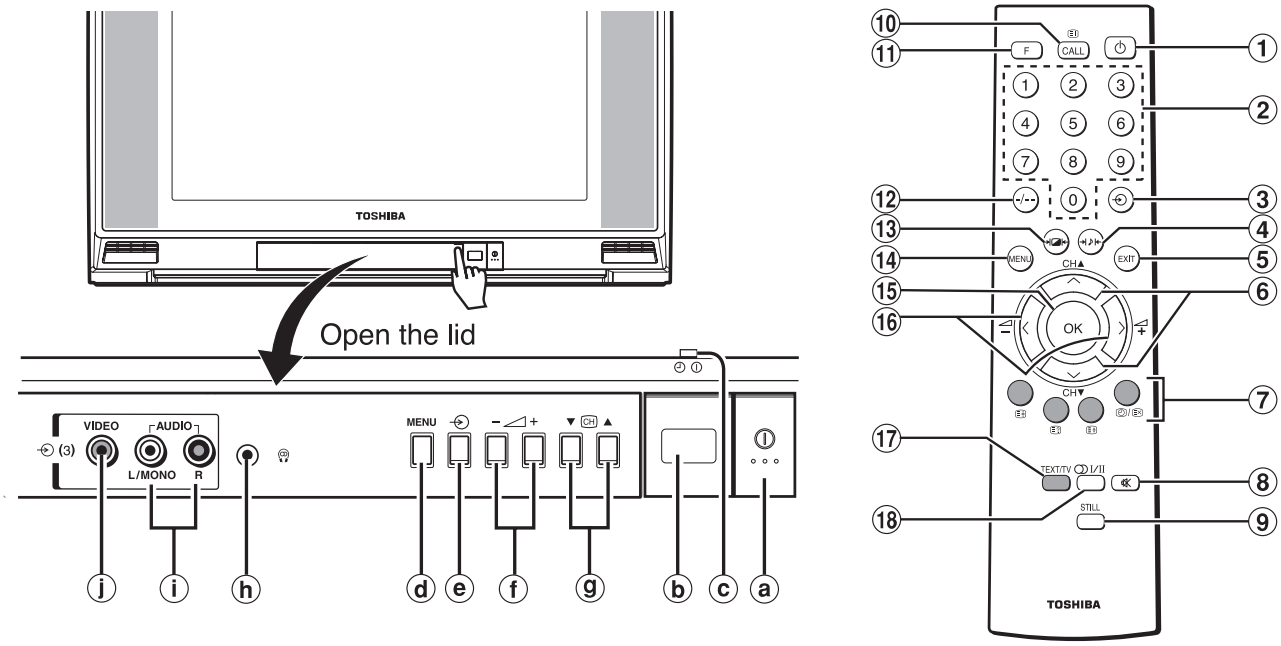
ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment	Reset
OPT0	OPTION 0	07H
OPT1	OPTION 1	10H
OPT2	OPTION 2	03H

Table-3

NAMES AND FUNCTIONS OF CONTROLS

TV Front and Remote control



TV			Remote Control					
ⓐ	⏻	Main power on/off	①	⏻	Power on/standby	⑧	🔇	Sound Mute, press again or ◿-/+ to restore the sound.
ⓑ		Remote sensor	②	**0~9**	Number buttons			
ⓒ	⏻	Power indicator (red)	③	⊕	Input source selection	⑨	**STILL**	Picture STILL
	◴	Timer-ON indicator (green)	④	⇥♪⇤	Sound selectable mode	⑩	**CALL/**▤	On-screen on/off, Teletext initial/index
ⓓ	**MENU**	Turn on menu display	⑤	**EXIT**	Press to turn off the on-screen menu.	⑪	**F**	Function button, press together with teletext function button to activate the selected function.
ⓔ	⊕	Input source selection	⑥	**CH ▲/▼** /	Channel up/down, Menu item selection			
ⓕ	-◿+	Volume down/up, Menu selection or item adjust	⑦		Teletext colored buttons Red/Green/Yellow/Blue	⑫	**-/--**	Digit selection
ⓖ	▼CH▲	Channel down/up, Menu item selection			Teletext functions Activates only while pressing **F** button.	⑬	⇥◪⇤	Picture selectable mode
ⓗ	🎧	Stereo headphones jack (3.5mm) for private listening. The sound from the speakers will be cut off automatically.		▤	– To hold a wanted page	⑭	**MENU**	Turn on menu display
				▤?	– To reveal concealed text	⑮	**OK**	Press to confirm selection.
ⓘ	**AUDIO**	Audio input terminals		▤↕	– To enlarge teletext display size	⑯	◿-/+ </ >	Volume down/up, Menu selection or item adjust
ⓙ	**VIDEO**	Video input terminal		◴/▤	– Time display, To select a page while viewing a normal picture	⑰	**TEXT/TV**	Teletext/TV selection
						⑱	◯◯I/II	Stereo/bilingual selection

Note: The shaded button is not available for 29CZ8URS. If you press the button, “MODE NOT AVAILABLE” will appear on the screen.

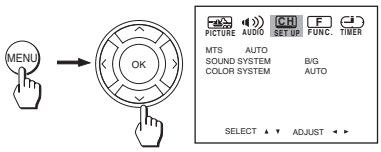
PROGRAMMING CHANNEL MEMORY

Preset the channels automatically (ASM function)

Use remote control for this operation. The buttons on the TV with similar name may also be use.

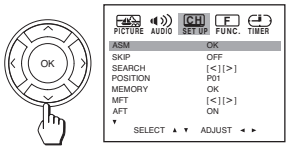
1 Select the starting position for channel to be preset. Press the Number buttons **(-/--, 0~9)** or **CH ▲/▼**.

2 Set the correct broadcast system for your region. Press **MENU** and then < / > to highlight the " SET UP" icon.



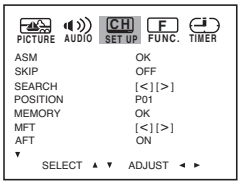
Press ∨ to scroll down the menu (second page) to confirm "COLOR SYSTEM" is set to "AUTO" and "SOUND SYSTEM" is set to proper system. If not, press ∧ / ∨ to select "COLOR SYSTEM" or "SOUND SYSTEM" and press < / > to set each proper system.

3 Press ∧ / ∨ to select "ASM", then press **OK** to start the search. When the TV screen returns to the start position, the procedure is complete.

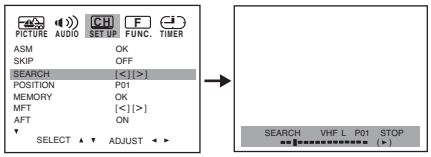


To use the SEARCH function

1 Press **MENU** and then < / > to highlight the " SET UP" icon.

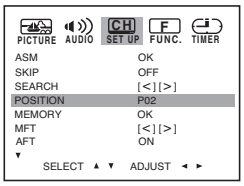


2 Press ∧ / ∨ to select "SEARCH". Press < / > to start searching. Pressing "<" searches for channels at lower frequencies while pressing ">" searches for channels at higher frequencies. While searching, pressing the opposite direction button, > and < respectively, will cancel SEARCH function.

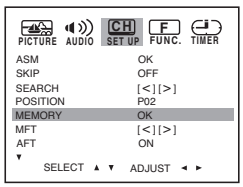


Repeat this process until you can get the desired channel.

3 When the desired channel is shown, press ∨ to select "POSITION". Press < / > repeatedly until the position number to be preset is shown.



4 Press ∨ to select "MEMORY", then press **OK** to memorize the channel at the current position.



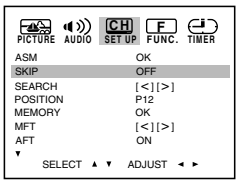
5 When you program other channels, repeat steps 2 to 4.

To skip a position number

After presetting the channels, you may skip unnecessary position numbers so that only the channels you want to watch are selected using **CH ▲/▼**.

1 First, select the position number to be skipped with **CH ▲/▼** or digit selection and number buttons (**-/--, 0~9**).

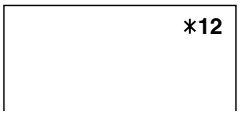
2 Highlight the "CH SET UP" icon and press ∧ / ∨ to select "SKIP".



3 Press < / > to set "SKIP" to "ON". This completes the setting for skipping the selected position number.

Notes

- When "SKIP" is set to "ON" for the selected position number, a " * " mark appears to the left of the position number.



  The position number will then be skipped when you select the position with the **CH ▲/▼** buttons.
- If you want to restore a skipped position number, select it using the **-/--** and **0~9** buttons then switch the "SKIP" setting to "OFF".

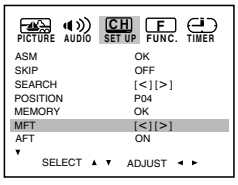
Manual fine tuning (MFT)

The adjustments below are not necessary under normal conditions. However, under some reception conditions, fine tuning may be necessary to improve the picture quality. In such cases, adjust the manual fine tuning (MFT).

1 Select the position number where the channel you want to fine-tune with **CH ▲/▼** or digit selection and number buttons (**-/--**, **0~9**).

2 Press **MENU** and then < / > to highlight the "CH SET UP" icon.

3 Press ∧ / ∨ to select "MFT". Press < / > to start fine tuning. Press < / > repeatedly until the best possible picture and sound are obtained.



Auto fine tuning (AFT)

If the signal frequency is unstable due to environmental conditions, use auto fine tuning.

1 Select the position number where the channel you want to fine-tune with **CH ▲/▼** or the digit selection and number buttons (**-/--**, **0~9**).

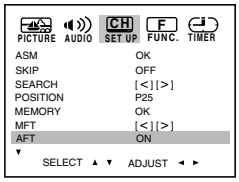
Note

When the position is set to "AFT OFF" status, the "■" mark appears to the left of the position number.

When the channel is set to "AFT ON" status,the position number is displayed without the "■" mark.

2 Press **MENU** then < / > to highlight the "CH SET UP" icon.

3 Press ∧ / ∨ to select "AFT". Press < / > to select the "ON" indication.



Notes

- When you operate MFT, AFT is switched "OFF" automatically. If you switch on AFT after fine tuning with MFT, MFT may be canceled.
- AFT may be set independently for each position.

CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with ∗ mark is no longer available after the end of the production.*

Model: 29CZ8URB/29CZ8URS

Capacitors ..... CD : Ceramic Disk PF : Plastic Film EL : Electrolytic
Resistors ..... CF : Carbon Film CC : Carbon Composition MF : Metal Film
OMF : Oxide Metal Film VR : Variable Resistor FR : Fusible Resistor
(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
#1: [29CZ8URB]		
#2: [29CZ8URS]		
CAPACITORS		
C101	76206479	ELECTROLYTIC 50V 4.7UF M 7L 3A
C102	76109102	CERAMIC CHIP 50V B 1000PF K
C103	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
C104	76109103	CERAMIC CHIP 50V B 0.01UF K
C302	76764221	ELECTROLYTIC 25V 220UF M
C304	76214471	CERAMIC DISC 500V B 470PF K
C305	76214471	CERAMIC DISC 500V B 470PF K
C306	76667102	ELECTROLYTIC 25V 1000UF M
C308	76503053	PLASTIC FILM 63V 1UF J
C310	76667102	ELECTROLYTIC 25V 1000UF M
C311	76109471	CERAMIC CHIP 50V B 470PF K
C312	76073036	ELECTROLYTIC 16V 33UF M 3A
C313	76669101	ELECTROLYTIC 50V 100UF M
C314	76764221	ELECTROLYTIC 25V 220UF M
C315	76082256	PLASTIC FILM 100V 2200PF J
C333	76082272	PLASTIC FILM 100V 0.047UF J
C366	76082057	PLASTIC FILM 100V 0.22UF J
C401	76591473	PLASTIC FILM 50V 0.047UF J
C403	76679220	ELECTROLYTIC 250V 22UF M 3A
C413	76214392	CERAMIC DISC 500V B 3900PF K
C416	76678330	ELECTROLYTIC 200V 33UF M 3A
C417	76214391	CERAMIC DISC 500V B 390PF K
C418	76764221	ELECTROLYTIC 25V 220UF M
C434	76591104	PLASTIC FILM 50V 0.1UF J
C438	76764102	ELECTROLYTIC 25V 1000UF M
C441	76693472	PLASTIC FILM 100V 4700PF J
C442	76168057	PLASTIC FILM 540)400V 204J 4-20
C443	76503196	PLASTIC FILM 1800VH 5600PF H
C444	76503198	MT PLA T 1800VH 682H CF92T3Q682HA
C445	76829473	PLASTIC FILM 400V 0.047UF J
C446	76503124	PLASTIC FILM 400V 0.068UF J
C447	76679220	ELECTROLYTIC 250V 22UF M 3A
C448	76640908	ELECTROLYTIC 160V 33UF M 3A LI
C449	76214331	CERAMIC DISC 500V B 330PF K
C461	76168056	PLASTIC FILM 540)400V 184J 4-20
C462	76820123	PLASTIC FILM 630V 0.012UF J
C464	76503149	PLASTIC FILM 250V 3.3UF
C465	76214471	CERAMIC DISC 500V B 470PF K
C466	76214471	CERAMIC DISC 500V B 470PF K
C467	76820153	PLASTIC FILM 630V 0.015UF J
C470	76766220	ELECTROLYTIC 50V 22UF M
C472	76503049	PLASTIC FILM 63V 0.47UF J
C473	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
C501	76092730	CERAMIC CHIP 16V B 0.1UF K
C502	76092730	CERAMIC CHIP 16V B 0.1UF K
C503	76092730	CERAMIC CHIP 16V B 0.1UF K
C504	76792101	ELECTROLYTIC 6.3V 100UF M
C505	76092730	CERAMIC CHIP 16V B 0.1UF K
C506	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
C507	76100103	CERAMIC CHIP 50V F 0.01UF Z
C515	76092730	CERAMIC CHIP 16V B 0.1UF K
C520	76092730	CERAMIC CHIP 16V B 0.1UF K
C521	76092730	CERAMIC CHIP 16V B 0.1UF K
C522	76092730	CERAMIC CHIP 16V B 0.1UF K
C523	76092730	CERAMIC CHIP 16V B 0.1UF K
C524	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
C525	76100103	CERAMIC CHIP 50V F 0.01UF Z
C526	76100103	CERAMIC CHIP 50V F 0.01UF Z
C527	76100103	CERAMIC CHIP 50V F 0.01UF Z
C530	76203220	ELECTROLYTIC 16V 22UF M
C531	76092730	CERAMIC CHIP 16V B 0.1UF K
C536	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
C537	76092730	CERAMIC CHIP 16V B 0.1UF K
C560	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
C562	76092730	CERAMIC CHIP 16V B 0.1UF K
C563	76092730	CERAMIC CHIP 16V B 0.1UF K
C564	76092730	CERAMIC CHIP 16V B 0.1UF K
C566	76100103	CERAMIC CHIP 50V F 0.01UF Z
C567	76100103	CERAMIC CHIP 50V F 0.01UF Z
C570	76092730	CERAMIC CHIP 16V B 0.1UF K
C571	76092730	CERAMIC CHIP 16V B 0.1UF K
C572	76092730	CERAMIC CHIP 16V B 0.1UF K
C573	76100103	CERAMIC CHIP 50V F 0.01UF Z
C574	76206478	ELECTROLYTIC 50V 0.47UF M 7L 3A
C575	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
C576	76092730	CERAMIC CHIP 16V B 0.1UF K
C579	76206229	ELECTROLYTIC 50V 2.2UF M 7L 3A
C580	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
C581	76206229	ELECTROLYTIC 50V 2.2UF M 7L 3A
C583	76100103	CERAMIC CHIP 50V F 0.01UF Z
C586	76092730	CERAMIC CHIP 16V B 0.1UF K
C588	76105471	CERAMIC CHIP 50V CH 470PF J
C624	76206478	ELECTROLYTIC 50V 0.47UF M 7L 3A
C660	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
C662	76109102	CERAMIC CHIP 50V B 1000PF K
C663	76206229	ELECTROLYTIC 50V 2.2UF M 7L 3A
C664	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
C666	76109102	CERAMIC CHIP 50V B 1000PF K
C667	76206229	ELECTROLYTIC 50V 2.2UF M 7L 3A
C669	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
C671	76763471	ELECTROLYTIC 16V 470UF M
C672	76203470	ELECTROLYTIC 16V 47UF M 7L 3A

Location No.	Parts No.	Description
C681	76765471	ELECTROLYTIC 35V 470UF M
C682	76765102	ELECTROLYTIC 35V 1000UF M
C683	76765471	ELECTROLYTIC 35V 470UF M
C686	76092883	CERAMIC CHIP 50V B 0.1UF K
C687	76092883	CERAMIC CHIP 50V B 0.1UF K
C690	76766470	ELECTROLYTIC 50V 47UF M
C704	76591822	PLASTIC FILM 50V 8200PF J
C705	76232103	CERAMIC DISC 50V F 0.01UF Z
C707	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
C712	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
C713	76709100	ELECTROLYTIC 200V 10UF M
C714	76436101	CERAMIC DISC 50V SL 100PF J
C715	76214472	CERAMIC DISC 500V B 4700PF K
C716	76436101	CERAMIC DISC 50V SL 100PF J
C717	76214472	CERAMIC DISC 500V B 4700PF K
C718	76797470	ELECTROLYTIC 50V 47UF M
C719	76435560	CERAMIC DISC 500V SL 56PF J
C720	76709100	ELECTROLYTIC 200V 10UF M
C721	76797470	ELECTROLYTIC 50V 47UF M
C726	76212102	CERAMIC DISC 50V B 1000PF K
⚠ C801	76503507	PLASTIC FILM AC275V 0.22UF K
⚠ C802	76503507	PLASTIC FILM AC275V 0.22UF K
C805	76092281	CERAMIC DISC AC250V E 4700PF
C806	76092281	CERAMIC DISC AC250V E 4700PF
C807	76503049	PLASTIC FILM 63V 0.47UF J
C808	76765101	ELECTROLYTIC 35V 100UF M
C809	76503049	PLASTIC FILM 63V 0.47UF J
C810	76073107	ELECTROLYTIC 400V 820UF
⚠ C811	76166021	CERA CAP E 250V 102 DE1E3KX102MB4BL01
⚠ C812	76591104	PLASTIC FILM 50V 0.1UF J
⚠ C813	76591104	PLASTIC FILM 50V 0.1UF J
⚠ C814	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
⚠ C815	76166021	CERA CAP E 250V 102 DE1E3KX102MB4BL01
C816	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
C817	76092339	CERAMIC DISC 2KV 330PF K
C818	76095931	PLASTIC FILM 1250VH 2200PF J
C819	76676220	ELECTROLYTIC 100V 22UF M 3A
C821	76214471	CERAMIC DISC 500V B 470PF K
C822	76763471	ELECTROLYTIC 16V 470UF M
C823	76214471	CERAMIC DISC 500V B 470PF K
C824	76591104	PLASTIC FILM 50V 0.1UF J
C825	76591104	PLASTIC FILM 50V 0.1UF J
C826	76591104	PLASTIC FILM 50V 0.1UF J
C827	76591104	PLASTIC FILM 50V 0.1UF J
C828	76591104	PLASTIC FILM 50V 0.1UF J
C829	76212271	CERAMIC DISC 50V B 270PF K
C830	76591104	PLASTIC FILM 50V 0.1UF J
C832	76591104	PLASTIC FILM 50V 0.1UF J
C833	76206229	ELECTROLYTIC 50V 2.2UF M 7L 3A
C834	76591104	PLASTIC FILM 50V 0.1UF J
C834A	23960136	ADHESIVE SILICONE TSE3843-W
C835	76591104	PLASTIC FILM 50V 0.1UF J
C836	76591104	PLASTIC FILM 50V 0.1UF J
C837	76591104	PLASTIC FILM 50V 0.1UF J
C838	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
C839	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
C841	76766101	ELECTROLYTIC 50V 100UF M
C842	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
C843	76591104	PLASTIC FILM 50V 0.1UF J
C845	76763471	ELECTROLYTIC 16V 470UF M
C884	76086916	ELECTROLYTIC 160V 330UF M 3D
C885	76214471	CERAMIC DISC 500V B 470PF K
C887	76214471	CERAMIC DISC 500V B 470PF K
C889	76766222	ELECTROLYTIC 50V 2200UF M
C891	76764102	ELECTROLYTIC 25V 1000UF M
C893	76092337	CERAMIC DISC 2KV 220PF K
C894	76764102	ELECTROLYTIC 25V 1000UF M
C895	76797471	ELECTROLYTIC 50V 470UF M
C896	76214471	CERAMIC DISC 500V B 470PF K
C898	76591272	PLASTIC FILM 50V 2700PF J
C899	76214471	CERAMIC DISC 500V B 470PF K
C902	76092349	CERAMIC DISC 2KV R 2200PF K
C904	76436471	CERAMIC DISC 50V SL 470PF J
C905	76436391	CERAMIC DISC 50V SL 390PF J
C907	76436681	CERAMIC DISC 50V SL 680PF J
C909	76073120	ELECTROLYTIC 250V 33UF
C910	76206478	ELECTROLYTIC 50V 0.47UF M 7L 3A
C911	76203100	ELECTORLYTIC 16V 10UF M 7L 3A

Location No.	Parts No.	Description
C912	76073044	ELECTROLYTIC 16V 3300UF M 3A
C913	76794102	ELECTROLYTIC 16V 1000UF M
C914	76232103	CERAMIC DISC 50V F 0.01UF Z
C918	76591104	PLASTIC FILM 50V 0.1UF J
C919	76591104	PLASTIC FILM 50V 0.1UF J
C931	76214101	CERAMIC DISC 500V B 100PF K
CA01	76109103	CERAMIC CHIP 50V B 0.01UF K
CA02	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CA03	76109103	CERAMIC CHIP 50V B 0.01UF K
CA04	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CA05	76109103	CERAMIC CHIP 50V B 0.01UF K
CA06	76105101	CERAMIC CHIP 50V CH 100PF J
CA07	76105101	CERAMIC CHIP 50V CH 100PF J
CA13	76105270	CERAMIC CHIP 50V CH 27PF J
CA22	76105100	CERAMIC CHIP 50V CH 10PF D
CA23	76105100	CERAMIC CHIP 50V CH 10PF D
CA24	76105100	CERAMIC CHIP 50V CH 10PF D
CA25	76105100	CERAMIC CHIP 50V CH 10PF D
CA28	76105050	CERAMIC CHIP 50V CH 5PF C
CA29	76105050	CERAMIC CHIP 50V CH 5PF C
CA30	76105101	CERAMIC CHIP 50V CH 100PF J
CA31	76109103	CERAMIC CHIP 50V B 0.01UF K
CA32	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CA33	76109103	CERAMIC CHIP 50V B 0.01UF K
CA34	76105101	CERAMIC CHIP 50V CH 100PF J
CA37	76105101	CERAMIC CHIP 50V CH 100PF J
CA38	76105101	CERAMIC CHIP 50V CH 100PF J
CA52	76763331	ELECTROLYTIC 16V 330UF M
CA53	76105181	CERAMIC CHIP 50V CH 180PF J
CA54	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CA55	76105102	CERAMIC CHIP 25V CH 1000PF J
CA56	76109332	CERAMIC CHIP 50V B 3300PF K
CA57	76092730	CERAMIC CHIP 16V B 0.1UF K
CA59	76092730	CERAMIC CHIP 16V B 0.1UF K
CB01	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
CB20	76212101	CERAMIC DISC 50V B 100PF K
CB21	76212221	CERAMIC DISC 50V B 220PF K
CB22	76591472	PLASTIC FILM 50V 4700PF J
CB23	76591103	PLASTIC FILM 50V 0.01UF J
CB23A	23965241	TAPE CC #12 10MM L30M
CC07	76109102	CERAMIC CHIP 50V B 1000PF K
CC08	76109102	CERAMIC CHIP 50V B 1000PF K
CC09	76109102	CERAMIC CHIP 50V B 1000PF K
CC10	76109102	CERAMIC CHIP 50V B 1000PF K
CC14	76109103	CERAMIC CHIP 50V B 0.01UF K
CC20	76011224	CHIP 1/20W 220K OHM J
CC25	76109102	CERAMIC CHIP 50V B 1000PF K
CC26	76109102	CERAMIC CHIP 50V B 1000PF K
CC32	76109103	CERAMIC CHIP 50V B 0.01UF K
CC33	76109103	CERAMIC CHIP 50V B 0.01UF K
CD01	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CD02	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CD03	76109152	CERAMIC CHIP 50V B 1500PF K
CD04	76105471	CERAMIC CHIP 50V CH 470PF J
CD05	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CD06	76092730	CERAMIC CHIP 16V B 0.1UF K
CD07	76206339	ELECTROLYTIC 50V 3.3UF M 7L 3A
CD08	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CD09	76085944	ELECTROLYTIC NP 50V 2.2UF M 11L
CD10	76085944	ELECTROLYTIC NP 50V 2.2UF M 11L
CD12	76105560	CERAMIC CHIP 50V CH 56PF J
CD13	76109152	CERAMIC CHIP 50V B 1500PF K
CD14	76105471	CERAMIC CHIP 50V CH 470PF J
CD15	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CD17	76109152	CERAMIC CHIP 50V B 1500PF K
CD18	76105471	CERAMIC CHIP 50V CH 470PF J
CD19	76105221	CERAMIC CHIP 50V CH 220PF J
CD21	76105220	CERAMIC CHIP 50V CH 22PF J
CD22	76105220	CERAMIC CHIP 50V CH 22PF J
CD23	76092730	CERAMIC CHIP 16V B 0.1UF K
CD24	76206100	ELECTROLYTIC 50V 10UF M
CD26	76105560	CERAMIC CHIP 50V CH 56PF J
CD27	76105560	CERAMIC CHIP 50V CH 56PF J
CD28	76109102	CERAMIC CHIP 50V B 1000PF K
CD29	76109102	CERAMIC CHIP 50V B 1000PF K
CD30	76109102	CERAMIC CHIP 50V B 1000PF K
CD31	76109102	CERAMIC CHIP 50V B 1000PF K
CD32	76109222	CERAMIC CHIP 50V B 2200PF K

Location No.	Parts No.	Description
CD33	76109222	CERAMIC CHIP 50V B 2200PF K
CD34	76092743	CERAMIC CHIP 10V F 0.47UF Z
CD35	76092743	CERAMIC CHIP 10V F 0.47UF Z
CD36	76109103	CERAMIC CHIP 50V B 0.01UF K
CD37	76105010	CERAMIC CHIP 50V CK 1PF C
CD38	76105050	CERAMIC CHIP 50V CH 5PF C
CP01	76092730	CERAMIC CHIP 16V B 0.1UF K
CP02	76092730	CERAMIC CHIP 16V B 0.1UF K
CP03	76092730	CERAMIC CHIP 16V B 0.1UF K
CP04	76092730	CERAMIC CHIP 16V B 0.1UF K
CP05	76092730	CERAMIC CHIP 16V B 0.1UF K
CP06	76092730	CERAMIC CHIP 16V B 0.1UF K
CP07	76092730	CERAMIC CHIP 16V B 0.1UF K
CP08	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CP09	76092730	CERAMIC CHIP 16V B 0.1UF K
CP10	76792101	ELECTROLYTIC 6.3V 100UF M
CP11	76792101	ELECTROLYTIC 6.3V 100UF M
CP12	76092730	CERAMIC CHIP 16V B 0.1UF K
CP13	76092730	CERAMIC CHIP 16V B 0.1UF K
CP14	76092730	CERAMIC CHIP 16V B 0.1UF K
CP15	76092730	CERAMIC CHIP 16V B 0.1UF K
CP16	76792101	ELECTROLYTIC 6.3V 100UF M
CP17	76792101	ELECTROLYTIC 6.3V 100UF M
CP18	76092730	CERAMIC CHIP 16V B 0.1UF K
CP19	76092730	CERAMIC CHIP 16V B 0.1UF K
CP20	76092730	CERAMIC CHIP 16V B 0.1UF K
CP21	76092730	CERAMIC CHIP 16V B 0.1UF K
CP22	76092730	CERAMIC CHIP 16V B 0.1UF K
CP23	76092730	CERAMIC CHIP 16V B 0.1UF K
CP24	76105050	CERAMIC CHIP 50V CH 5PF C
CP25	76105050	CERAMIC CHIP 50V CH 5PF C
CP26	76092730	CERAMIC CHIP 16V B 0.1UF K
CP28	76092730	CERAMIC CHIP 16V B 0.1UF K
CP29	76092730	CERAMIC CHIP 16V B 0.1UF K
CP30	76092730	CERAMIC CHIP 16V B 0.1UF K
CP31	76792101	ELECTROLYTIC 6.3V 100UF M
CP32	76092730	CERAMIC CHIP 16V B 0.1UF K
CP33	76105101	CERAMIC CHIP 50V CH 100PF J
CP34	76073001	ELECTROLYTIC 6.3V 100UF M 3A
CP35	76092730	CERAMIC CHIP 16V B 0.1UF K
CP36	76073001	ELECTROLYTIC 6.3V 100UF M 3A
CP37	76092730	CERAMIC CHIP 16V B 0.1UF K
CP38	76105101	CERAMIC CHIP 50V CH 100PF J
CP39	76092730	CERAMIC CHIP 16V B 0.1UF K
CP40	76092730	CERAMIC CHIP 16V B 0.1UF K
CP41	76092730	CERAMIC CHIP 16V B 0.1UF K
CP42	76092730	CERAMIC CHIP 16V B 0.1UF K
CP43	76092730	CERAMIC CHIP 16V B 0.1UF K
CP44	76092730	CERAMIC CHIP 16V B 0.1UF K
CP45	76092730	CERAMIC CHIP 16V B 0.1UF K
CP46	76792101	ELECTROLYTIC 6.3V 100UF M
CP47	76092730	CERAMIC CHIP 16V B 0.1UF K
CP48	76792101	ELECTROLYTIC 6.3V 100UF M
CP49	76092730	CERAMIC CHIP 16V B 0.1UF K
CP50	76092730	CERAMIC CHIP 16V B 0.1UF K
CP51	76792101	ELECTROLYTIC 6.3V 100UF M
CP52	76092730	CERAMIC CHIP 16V B 0.1UF K
CP53	76092730	CERAMIC CHIP 16V B 0.1UF K
CP54	76792101	ELECTROLYTIC 6.3V 100UF M
CP55	76092730	CERAMIC CHIP 16V B 0.1UF K
CP56	76665101	ELECTROLYTIC 10V 100UF M
CP57	76092730	CERAMIC CHIP 16V B 0.1UF K
CP58	76792101	ELECTROLYTIC 6.3V 100UF M
CP59	76092730	CERAMIC CHIP 16V B 0.1UF K
CP60	76092730	CERAMIC CHIP 16V B 0.1UF K
CP61	76792101	ELECTROLYTIC 6.3V 100UF M
CP62	76092730	CERAMIC CHIP 16V B 0.1UF K
CP63	76092730	CERAMIC CHIP 16V B 0.1UF K
CP64	76792101	ELECTROLYTIC 6.3V 100UF M
CP65	76092730	CERAMIC CHIP 16V B 0.1UF K
CP66	76762101	ELECTROLYTIC 10V 100UF
CP67	76092730	CERAMIC CHIP 16V B 0.1UF K
CP68	76792101	ELECTROLYTIC 6.3V 100UF M
CP69	76092730	CERAMIC CHIP 16V B 0.1UF K
CP70	76073001	ELECTROLYTIC 6.3V 100UF M 3A
CP71	76092730	CERAMIC CHIP 16V B 0.1UF K
CP72	76092730	CERAMIC CHIP 16V B 0.1UF K
CP73	76073001	ELECTROLYTIC 6.3V 100UF M 3A

Location No.	Parts No.	Description
CP74	76092730	CERAMIC CHIP 16V B 0.1UF K
CP75	76092730	CERAMIC CHIP 16V B 0.1UF K
CP76	76792101	ELECTROLYTIC 6.3V 100UF M
CP77	76092730	CERAMIC CHIP 16V B 0.1UF K
CP78	76762101	ELECTROLYTIC 10V 100UF
CP79	76762471	ELECTROLYTIC 10V 470UF M
CS02	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS03	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS04	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS05	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS06	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS07	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS10	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CS11	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CS12	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS13	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CS15	76109103	CERAMIC CHIP 50V B 0.01UF K
CS29	76203220	ELECTROLYTIC 16V 22UF M
CT01 #1	76092730	CERAMIC CHIP 16V B 0.1UF K
CT02 #1	76092730	CERAMIC CHIP 16V B 0.1UF K
CT03 #1	76092730	CERAMIC CHIP 16V B 0.1UF K
CT04 #1	76792101	ELECTROLYTIC 6.3V 100UF M
CT05 #1	76092730	CERAMIC CHIP 16V B 0.1UF K
CT06 #1	76092730	CERAMIC CHIP 16V B 0.1UF K
CT07 #1	76792101	ELECTROLYTIC 6.3V 100UF M
CT08 #1	76105560	CERAMIC CHIP 50V CH 56PF J
CT09 #1	76105560	CERAMIC CHIP 50V CH 56PF J
CV01	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
CV03	76206478	ELECTROLYTIC 50V 0.47UF M 7L 3A
CV04	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CV05	76203220	ELECTROLYTIC 16V 22UF M
CV06	76591473	PLASTIC FILM 50V 0.047UF J
CV07	76212102	CERAMIC DISC 50V B 1000PF K
CV08	76212102	CERAMIC DISC 50V B 1000PF K
CV11	76109103	CERAMIC CHIP 50V B 0.01UF K
CV19	76092730	CERAMIC CHIP 16V B 0.1UF K
CV20	76092730	CERAMIC CHIP 16V B 0.1UF K
CV22	76092730	CERAMIC CHIP 16V B 0.1UF K
CV33	76109103	CERAMIC CHIP 50V B 0.01UF K
CV34	76793471	ELECTROLYTIC 10V 470UF M
CV36	76763221	ELECTROLYTIC 16V 220UF M
CX02	76503047	PLASTIC FILM 63V 0.33UF J
CX03	76503053	PLASTIC FILM 63V 1UF J
CX05	76092733	CERAMIC CHIP 50V B 0.022UF K
CX06	76105101	CERAMIC CHIP 50V CH 100PF J
CX07	76503049	PLASTIC FILM 63V 0.47UF J
CX08	76109822	CERAMIC CHIP 50V B 8200PF K
CX09	76100103	CERAMIC CHIP 50V F 0.01UF Z
CX10	76591473	PLASTIC FILM 50V 0.047UF J
CX11	76763471	ELECTROLYTIC 16V 470UF M
CX12	76109332	CERAMIC CHIP 50V B 3300PF K
CX15	76503042	PLASTIC FILM 63V 0.12UF J
CX16	76109272	CERAMIC CHIP 50V B 2700PF K
CX17	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CX18	76763471	ELECTROLYTIC 16V 470UF M
CX19	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CX20	76203220	ELECTROLYTIC 16V 22UF M
CX51	76085958	ELECTROLYTIC NP 50V 1UF M
CX52	76092730	CERAMIC CHIP 16V B 0.1UF K
CX53	76203101	ELECTROLYTIC 16V 100UF M 7L 3A
CX54	76206010	ELECTROLYTIC 50V 1.0UF M 7L 3A
CX55	76092730	CERAMIC CHIP 16V B 0.1UF K
CY01	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY02	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY03	76092730	CERAMIC CHIP 16V B 0.1UF K
CY04	76792101	ELECTROLYTIC 6.3V 100UF M
CY05	76100152	CHIP CERA CK73F 50V 152Z CK73F1H152Z
CY08	76105220	CERAMIC CHIP 50V CH 22PF J
CY09	76100102	CERAMIC CHIP 50V F 1000PF Z
CY10	76105180	CERAMIC CHIP 50V CH 18PF J
CY11	76092730	CERAMIC CHIP 16V B 0.1UF K
CY12	76092730	CERAMIC CHIP 16V B 0.1UF K
CY13	76092730	CERAMIC CHIP 16V B 0.1UF K
CY15	76092730	CERAMIC CHIP 16V B 0.1UF K
CY16	76092730	CERAMIC CHIP 16V B 0.1UF K
CY17	76092730	CERAMIC CHIP 16V B 0.1UF K
CY18	76092730	CERAMIC CHIP 16V B 0.1UF K
CY19	76092730	CERAMIC CHIP 16V B 0.1UF K

Location No.	Parts No.	Description
CY20	76105101	CERAMIC CHIP 50V CH 100PF J
CY21	76105101	CERAMIC CHIP 50V CH 100PF J
CY22	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY23	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY24	76105101	CERAMIC CHIP 50V CH 100PF J
CY25	76105101	CERAMIC CHIP 50V CH 100PF J
CY26	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY27	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY28	76092730	CERAMIC CHIP 16V B 0.1UF K
CY29	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY30	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
CY31	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY32	76092730	CERAMIC CHIP 16V B 0.1UF K
CY33	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY34	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
CY35	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY36	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY37	76092730	CERAMIC CHIP 16V B 0.1UF K
CY38	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
CY39	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY40	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY41	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
CY42	76092730	CERAMIC CHIP 16V B 0.1UF K
CY44	76092743	CERAMIC CHIP 10V F 0.47UF Z
CY45	76092743	CERAMIC CHIP 10V F 0.47UF Z
CY46	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY47	76092743	CERAMIC CHIP 10V F 0.47UF Z
CY48	76092743	CERAMIC CHIP 10V F 0.47UF Z
CY49	76073001	ELECTROLYTIC 6.3V 100UF M 3A
CY50	76092730	CERAMIC CHIP 16V B 0.1UF K
CY51	76105101	CERAMIC CHIP 50V CH 100PF J
CY52	76073001	ELECTROLYTIC 6.3V 100UF M 3A
CY53	76092730	CERAMIC CHIP 16V B 0.1UF K
CY54	76105101	CERAMIC CHIP 50V CH 100PF J
CY58	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CY59	76092730	CERAMIC CHIP 16V B 0.1UF K
CY60	76105120	CERAMIC CHIP 50V CH 12PF J
CY61	76105150	CERAMIC CHIP 50V CH 15PF J
CY62	76105270	CERAMIC CHIP 50V CH 27PF J
CY63	76203100	ELECTORLYTIC 16V 10UF M 7L 3A
CY64	76092730	CERAMIC CHIP 16V B 0.1UF K
CY65	76105120	CERAMIC CHIP 50V CH 12PF J
CY66	76105150	CERAMIC CHIP 50V CH 15PF J
CY67	76105270	CERAMIC CHIP 50V CH 27PF J
CY68	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
CY69	76092730	CERAMIC CHIP 16V B 0.1UF K
CY70	76105120	CERAMIC CHIP 50V CH 12PF J
CY71	76105150	CERAMIC CHIP 50V CH 15PF J
CY72	76105270	CERAMIC CHIP 50V CH 27PF J
CY73	76100103	CERAMIC CHIP 50V F 0.01UF Z
CY74	76092730	CERAMIC CHIP 16V B 0.1UF K
CY75	76105120	CERAMIC CHIP 50V CH 12PF J
CY76	76105150	CERAMIC CHIP 50V CH 15PF J
CY77	76105270	CERAMIC CHIP 50V CH 27PF J
CY78	76203470	ELECTROLYTIC 16V 47UF M 7L 3A
CY79	76092730	CERAMIC CHIP 16V B 0.1UF K
CY80	76105120	CERAMIC CHIP 50V CH 12PF J
CY81	76105150	CERAMIC CHIP 50V CH 15PF J
CY82	76105270	CERAMIC CHIP 50V CH 27PF J
CY83	76073001	ELECTROLYTIC 6.3V 100UF M 3A
CY84	76092730	CERAMIC CHIP 16V B 0.1UF K
CY85	76792101	ELECTROLYTIC 6.3V 100UF M
CY86	76092730	CERAMIC CHIP 16V B 0.1UF K
CY87	76792101	ELECTROLYTIC 6.3V 100UF M
CY88	76092730	CERAMIC CHIP 16V B 0.1UF K
RESISTORS		
G472	76381131	OXIDE METAL FILM 1/2W 130 OHM J
GJ01	76000445	CHIP JUMPER 1608TYPE
GR470	76339518	OXIDE METAL FILM 2W 0.51 OHM J
GR48	76000445	CHIP JUMPER 1608TYPE
GR50	76000445	CHIP JUMPER 1608TYPE
GR51	76000445	CHIP JUMPER 1608TYPE
GRI01	76000445	CHIP JUMPER 1608TYPE
GRI02	76000445	CHIP JUMPER 1608TYPE
GRI04	76000445	CHIP JUMPER 1608TYPE
JR001	76000824	CHIP JUMPER 2125TYPE
JR002	76000576	CHIP JUMPER 3216TYPE

Location No.	Parts No.	Description
JR003	76000576	CHIP JUMPER 3216TYPE
JR004	76000824	CHIP JUMPER 2125TYPE
JR005	76000824	CHIP JUMPER 2125TYPE
JR006	76000445	CHIP JUMPER 1608TYPE
JR007	76000576	CHIP JUMPER 3216TYPE
JR008	76000824	CHIP JUMPER 2125TYPE
JR009	76000445	CHIP JUMPER 1608TYPE
JR010	76000445	CHIP JUMPER 1608TYPE
JR011	76000576	CHIP JUMPER 3216TYPE
JR012	76000824	CHIP JUMPER 2125TYPE
JR013	76000576	CHIP JUMPER 3216TYPE
JR014	76000824	CHIP JUMPER 2125TYPE
JR015	76000824	CHIP JUMPER 2125TYPE
JR017	76000824	CHIP JUMPER 2125TYPE
JR018	76000824	CHIP JUMPER 2125TYPE
JR019	76000824	CHIP JUMPER 2125TYPE
JR020	76000576	CHIP JUMPER 3216TYPE
JR021	76000824	CHIP JUMPER 2125TYPE
JR022	76000576	CHIP JUMPER 3216TYPE
JR023	76000576	CHIP JUMPER 3216TYPE
JR024	76000576	CHIP JUMPER 3216TYPE
JR025	76000445	CHIP JUMPER 1608TYPE
JR026	76000824	CHIP JUMPER 2125TYPE
JR027	76000576	CHIP JUMPER 3216TYPE
JR028	76000576	CHIP JUMPER 3216TYPE
JR029	76000576	CHIP JUMPER 3216TYPE
JR030	76000576	CHIP JUMPER 3216TYPE
JR031	76000824	CHIP JUMPER 2125TYPE
JR032	76000576	CHIP JUMPER 3216TYPE
JR033	76000576	CHIP JUMPER 3216TYPE
JR034	76000576	CHIP JUMPER 3216TYPE
JR035	76000576	CHIP JUMPER 3216TYPE
JR036	76000824	CHIP JUMPER 2125TYPE
JR037	76000445	CHIP JUMPER 1608TYPE
JR038	76000576	CHIP JUMPER 3216TYPE
JR039	76000824	CHIP JUMPER 2125TYPE
JR040	76000576	CHIP JUMPER 3216TYPE
JR041	76000824	CHIP JUMPER 2125TYPE
JR042	76000824	CHIP JUMPER 2125TYPE
JR043	76000824	CHIP JUMPER 2125TYPE
JR044	76000824	CHIP JUMPER 2125TYPE
JR045	76000576	CHIP JUMPER 3216TYPE
JR046	76000576	CHIP JUMPER 3216TYPE
JR047	76000576	CHIP JUMPER 3216TYPE
JR048	76000576	CHIP JUMPER 3216TYPE
JR049	76000576	CHIP JUMPER 3216TYPE
JR050	76000576	CHIP JUMPER 3216TYPE
JR051	76000576	CHIP JUMPER 3216TYPE
JR052	76000576	CHIP JUMPER 3216TYPE
JR053	76000824	CHIP JUMPER 2125TYPE
JR054	76000576	CHIP JUMPER 3216TYPE
JR055	76000445	CHIP JUMPER 1608TYPE
JR056	76000576	CHIP JUMPER 3216TYPE
JR060	76000576	CHIP JUMPER 3216TYPE
JR061	76000576	CHIP JUMPER 3216TYPE
JR062	76000576	CHIP JUMPER 3216TYPE
R156	76382183	OXIDE METAL FILM 1W 18K OHM J
R217	76367472	CARBON FILM 1/6W 4.7K OHM G
R228	76367392	CARBON FILM 1/6W 3.9K OHM G
R301	76011223	CHIP 1/20W 22K OHM J
R302	76011102	CHIP 1/20W 1K OHM J
R303	76382391	OXIDE METAL FILM 1W 390 OHM J
R304	76321129	OXIDE METAL FILM 1/2W 1.2 OHM J
R305	76322109	OXIDE METAL FILM 1W 1 OHM J
R306	76011102	CHIP 1/20W 1K OHM J
R308	76339229	OXIDE METAL FILM 2W 2.2 OHM J
R316	76011102	CHIP 1/20W 1K OHM J
R328	76339229	OXIDE METAL FILM 2W 2.2 OHM J
R336	76383331	OXIDE METAL FILM 2W 330 OHM J
R337	76000633	METAL FILM 1/4W 10K OHM F
R402	76011682	CHIP 1/20W 6.8K OHM J
R403	76366682	CARBON FILM 1/6W 6.8K OHM J
R404	76366101	CARBON FILM 1/6W 100 OHM J
R411	76366101	CARBON FILM 1/6W 100 OHM J
R4111	76019259	FUSIBLE 1/4W 27 OHM G
R415	76383271	OXIDE METAL FILM 2W 270 OHM J
R416	76554820	OXIDE FILM 2W 82 J
R417	76323228	OXIDE METAL FILM 2W 0.22 OHM J

Location No.		Parts No.	Description
R429		76552150	OXIDE METAL FILM 1/2W 15 OHM J
R430		76366103	CARBON FILM 1/6W 10K OHM J
R441		76554181	OXIDE METAL FILM 2W 180 OHM J
R447		76382472	OXIDE METAL FILM 1W 4.7K OHM J
R448		76338398	OXIDE METAL FILM 1W 0.39 OHM J
R460		76003898	METAL FILM 1/4W 3.3K OHM J
R461		76366331	CARBON FILM 1/6W 330 OHM J
R462		76000445	CHIP JUMPER 1608TYPE
R466		76383220	OXIDE METAL FILM 2W 22 OHM J
R467		76383220	OXIDE METAL FILM 2W 22 OHM J
R469		76366104	CARBON FILM 1/6W 100K OHM J
R471		76531271	FUSIBLE 1/2W 270 OHM J
R472		76011102	CHIP 1/20W 1K OHM J
R473		76011393	CHIP 1/20W 39K OHM J
R474		76000221	METAL FILM 1/4W 20K OHM F
R477		76011392	CHIP 1/20W 3.9K OHM J
R501		76011101	CHIP 1/20W 100 OHM J
R502		76011101	CHIP 1/20W 100 OHM J
R504		76381221	OXIDE METAL FILM 1/2W 220 OHM J
R505		76011332	CHIP 1/20W 3.3K OHM J
R506		76011471	CHIP 1/20W 470 OHM J
R510		76011101	CHIP 1/20W 100 OHM J
R518		76011101	CHIP 1/20W 100 OHM J
R519		76011101	CHIP 1/20W 100 OHM J
R520		23103828	INDUCTOR BEAD TEM2121M
R521		23103828	INDUCTOR BEAD TEM2121M
R522		23103828	INDUCTOR BEAD TEM2121M
R526		76011101	CHIP 1/20W 100 OHM J
R527		76011222	CHIP 1/20W 2.2K OHM J
R528		76011104	CHIP 1/20W 100K OHM J
R531		76011102	CHIP 1/20W 1K OHM J
R532		76011102	CHIP 1/20W 1K OHM J
R533		76011102	CHIP 1/20W 1K OHM J
R534	#2	76011101	CHIP 1/20W 100 OHM J
R535	#2	76000445	CHIP JUMPER 1608TYPE
R536	#2	76000445	CHIP JUMPER 1608TYPE
R537	#2	76000445	CHIP JUMPER 1608TYPE
R540		76011101	CHIP 1/20W 100 OHM J
R541		76011101	CHIP 1/20W 100 OHM J
R542		76011101	CHIP 1/20W 100 OHM J
R543		76011101	CHIP 1/20W 100 OHM J
R544		76011332	CHIP 1/20W 3.3K OHM J
R565		76011101	CHIP 1/20W 100 OHM J
R566		76011101	CHIP 1/20W 100 OHM J
R567		76011101	CHIP 1/20W 100 OHM J
R568		76011561	CHIP 1/20W 560 OHM J
R569		76011561	CHIP 1/20W 560 OHM J
R570		76011101	CHIP 1/20W 100 OHM J
R571	#1	76011101	CHIP 1/20W 100 OHM J
R573		76011224	CHIP 1/20W 220K OHM J
R575		76011102	CHIP 1/20W 1K OHM J
R583		76011273	CHIP 1/20W 27K OHM J
R584		76011561	CHIP 1/20W 560 OHM J
R587		76011222	CHIP 1/20W 2.2K OHM J
R588		76011472	CHIP 1/20W 4.7K OHM J
R589		76011332	CHIP 1/20W 3.3K OHM J
R590		76011101	CHIP 1/20W 100 OHM J
R591		76011102	CHIP 1/20W 1K OHM J
R592		76011471	CHIP 1/20W 470 OHM J
R596		76011102	CHIP 1/20W 1K OHM J
R597		76011102	CHIP 1/20W 1K OHM J
R598		76011102	CHIP 1/20W 1K OHM J
R620		76011103	CHIP 1/20W 10K OHM J
R621		76011822	CHIP 1/20W 8.2K OHM J
R623		76366103	CARBON FILM 1/6W 10K OHM J
R624		76011104	CHIP 1/20W 100K OHM J
R660		76011222	CHIP 1/20W 2.2K OHM J
R662		76011102	CHIP 1/20W 1K OHM J
R664		76011222	CHIP 1/20W 2.2K OHM J
R666		76011102	CHIP 1/20W 1K OHM J
R671		76011103	CHIP 1/20W 10K OHM J
R672		76011103	CHIP 1/20W 10K OHM J
R673		76011103	CHIP 1/20W 10K OHM J
R674		76011103	CHIP 1/20W 10K OHM J
R675		76011104	CHIP 1/20W 100K OHM J
R686		76011229	CHIP 1/16W 2.2 OHM J
R687		76011229	CHIP 1/16W 2.2 OHM J
R688		76323339	OXIDE METAL FILM 2W 3.3 OHM J

Location No.		Parts No.	Description
R702		76552221	OXIDE METAL FILM 1/2W 220 OHM J
R709		76366563	CARBON FILM 1/6W 56K OHM J
R713		76366393	CARBON FILM 1/6W 39K OHM J
R715		76366273	CARBON FILM 1/6W 27K OHM J
R716		76366273	CARBON FILM 1/6W 27K OHM J
R717		76366333	CARBON FILM 1/6W 33K OHM J
R718		76366222	CARBON FILM 1/6W 2.2K OHM J
R719		76366101	CARBON FILM 1/6W 100 OHM J
R720		76366102	CARBON FILM 1/6W 1K OHM J
R721		76366101	CARBON FILM 1/6W 100 OHM J
R722		76552471	OXIDE METAL FILM 1/2W 470 OHM J
R723		76366101	CARBON FILM 1/6W 100 OHM J
R724		76366151	CARBON FILM 1/6W 150 OHM J
R725		76366182	CARBON FILM 1/6W 1.8K OHM J
R730		76552100	OXIDE METAL FILM 1/2W 10 OHM J
R731		76552331	OXIDE METAL FILM 1/2W 330 OHM J
R732		76366330	CARBON FILM 1/6W 33 OHM J
R733		76366683	CARBON FILM 1/6W 68K OHM J
R734		76366330	CARBON FILM 1/6W 33 OHM J
R735		76366683	CARBON FILM 1/6W 68K OHM J
R736		76553470	OXIDE METAL FILM 1W 47 OHM J
R737		76366681	CARBON FILM 1/6W 680 OHM J
R738		76366102	CARBON FILM 1/6W 1K OHM J
R739		76366681	CARBON FILM 1/6W 680 OHM J
R740		76553470	OXIDE METAL FILM 1W 47 OHM J
R741		76322229	OXIDE METAL FILM 1W 2.2 OHM J
R742		76322229	OXIDE METAL FILM 1W 2.2 OHM J
R743		76554181	OXIDE METAL FILM 2W 180 OHM J
R744		76366122	CARBON FILM 1/6W 1.2K OHM J
R745		76366122	CARBON FILM 1/6W 1.2K OHM J
⚠ R801		76017010	METAL GLAZE 1/2W PRC92M02M20J
R803		76553683	OXIDE METAL FILM 1W 68K OHM J
R805		76552101	OXIDE METAL FILM 1/2W 100 OHM J
R806		76381223	OX1DE METAL FILM 1/2W 22K OHM J
⚠ R807		76366104	CARBON FILM 1/6W 100K OHM J
R808		76079005	THERMISTOR PTC DGC3D4R5M27
R811		76366225	CARBON FILM 1/6W 2.2M OHM J
R814		76366152	CARBON FILM 1/6W 1.5K OHM J
R815		76552102	OXIDE METAL FILM 1/2W 1K OHM J
R816		76019460	METAL PLATE 2W 0.1 OHM J
R817		76321338	OXIDE METAL FILM 1/2W 0.33 OHM J
R819		76310829	OXIDE METAL FILM 1/2W 8.2 OHM J
R820		76366101	CARBON FILM 1/6W 100 OHM J
R822		76552103	OXIDE METAL FILM 1/2W 10K OHM J
R823		76381123	OXIDE METAL FILM 1/2W 12K OHM J
R824		76569689	CERAMIC COVERED 10W 6.8 OHM J
R827		76011472	CHIP 1/20W 4.7K OHM J
R828		76011222	CHIP 1/20W 2.2K OHM J
R830		76366222	CARBON FILM 1/6W 2.2K OHM J
R841		76531120	FUSIBLE 1/2W 12 OHM J
R842		76552392	OXIDE METAL FILM 1/2W 3.9K OHM J
R844		76011332	CHIP 1/20W 3.3K OHM J
R845		76011472	CHIP 1/20W 4.7K OHM J
R847		76011472	CHIP 1/20W 4.7K OHM J
R880		76552471	OXIDE METAL FILM 1/2W 470 OHM J
R881		76552561	OXIDE METAL FILM 1/2W 560 OHM J
⚠ R899		76017012	METAL GLAZE 1/2W PRC92M08M20J
R901		76946561	CARBON COMPOSITION 1/2W 560 OHM K
R902		76946561	CARBON COMPOSITION 1/2W 560 OHM K
R903		76946561	CARBON COMPOSITION 1/2W 560 OHM K
R904		76366472	CARBON FILM 1/6W 4.7K OHM J
R905		76366150	CARBON FILM 1/6W 15 OHM J
R912		76366102	CARBON FILM 1/6W 1K OHM J
R914		76366151	CARBON FILM 1/6W 150 OHM J
R915		76366470	CARBON FILM 1/6W 47 OHM J
R916		76366150	CARBON FILM 1/6W 15 OHM J
R917		76366331	CARBON FILM 1/6W 330 OHM J
R918		76366330	CARBON FILM 1/6W 33 OHM J
R919		76366102	CARBON FILM 1/6W 1K OHM J
R920		76000880	FUSIBLE 1W 5.1 OHM J
R921		76366151	CARBON FILM 1/6W 150 OHM J
R922		76366470	CARBON FILM 1/6W 47 OHM J
R924		76366330	CARBON FILM 1/6W 33 OHM J
R925		76366331	CARBON FILM 1/6W 330 OHM J
R926		76366102	CARBON FILM 1/6W 1K OHM J
R928		76366151	CARBON FILM 1/6W 150 OHM J
R929		76366470	CARBON FILM 1/6W 47 OHM J
R930		76366390	CARBON FILM 1/6W 39 OHM J

Location No.	Parts No.	Description
R932	76366332	CARBON FILM 1/6W 3.3K OHM J
R934	76366391	CARBON FILM 1/6W 390 OHM J
R935	76366102	CARBON FILM 1/6W 1K OHM J
R937	76366331	CARBON FILM 1/6W 330 OHM J
R939	76366100	CARBON FILM 1/6W 10 OHM J
R942	76366392	CARBON FILM 1/6W 3.9K OHM J
R943	76366392	CARBON FILM 1/6W 3.9K OHM J
R944	76366392	CARBON FILM 1/6W 3.9K OHM J
R945	76366150	CARBON FILM 1/6W 15 OHM J
R946	76366150	CARBON FILM 1/6W 15 OHM J
R952	76366622	CARBON FILM 1/6W 6.2K OHM J
R953	76366622	CARBON FILM 1/6W 6.2K OHM J
R954	76366622	CARBON FILM 1/6W 6.2K OHM J
R960	76383153	OXIDE METAL FILM 2W 15K OHM J
R961	76383153	OXIDE METAL FILM 2W 15K OHM J
R962	76383153	OXIDE METAL FILM 2W 15K OHM J
R963	76383153	OXIDE METAL FILM 2W 15K OHM J
R964	76383153	OXIDE METAL FILM 2W 15K OHM J
R965	76383153	OXIDE METAL FILM 2W 15K OHM J
R977	76366561	CARBON FILM 1/6W 560 OHM J
R978	76383153	OXIDE METAL FILM 2W 15K OHM J
R979	76383153	OXIDE METAL FILM 2W 15K OHM J
R980	76366471	CARBON FILM 1/6W 470 OHM J
R981	76366471	CARBON FILM 1/6W 470 OHM J
R992	76366150	CARBON FILM 1/6W 15 OHM J
R993	76383153	OXIDE METAL FILM 2W 15K OHM J
R994	76383153	OXIDE METAL FILM 2W 15K OHM J
R995	76383153	OXIDE METAL FILM 2W 15K OHM J
R996	76383153	OXIDE METAL FILM 2W 15K OHM J
RA01	76366101	CARBON FILM 1/6W 100 OHM J
RA02	76011101	CHIP 1/20W 100 OHM J
RA03	76011102	CHIP 1/20W 1K OHM J
RA04	76366101	CARBON FILM 1/6W 100 OHM J
RA05	76366101	CARBON FILM 1/6W 100 OHM J
RA07	76011101	CHIP 1/20W 100 OHM J
RA08	76011472	CHIP 1/20W 4.7K OHM J
RA09	76011472	CHIP 1/20W 4.7K OHM J
RA13	76011273	CHIP 1/20W 27K OHM J
RA14	76011102	CHIP 1/20W 1K OHM J
RA17	76011101	CHIP 1/20W 100 OHM J
RA18	76011102	CHIP 1/20W 1K OHM J
RA21	76011511	CHIP 1/20W 510 OHM J
RA22	76011682	CHIP 1/20W 6.8K OHM J
RA23	76011682	CHIP 1/20W 6.8K OHM J
RA24	76011682	CHIP 1/20W 6.8K OHM J
RA25	76011221	CHIP 1/20W 220 OHM J
RA26	76366102	CARBON FILM 1/6W 1K OHM J
RA27	76366102	CARBON FILM 1/6W 1K OHM J
RA30	76011101	CHIP 1/20W 100 OHM J
RA31	76011101	CHIP 1/20W 100 OHM J
RA33	76011561	CHIP 1/20W 560 OHM J
RA34	76011101	CHIP 1/20W 100 OHM J
RA35	76011101	CHIP 1/20W 100 OHM J
RA37	76011101	CHIP 1/20W 100 OHM J
RA38	76011101	CHIP 1/20W 100 OHM J
RA39	76011101	CHIP 1/20W 100 OHM J
RA40	76011472	CHIP 1/20W 4.7K OHM J
RA41	76011472	CHIP 1/20W 4.7K OHM J
RA43	76366103	CARBON FILM 1/6W 10K OHM J
RA46	76366470	CARBON FILM 1/6W 47 OHM J
RA47	76011472	CHIP 1/20W 4.7K OHM J
RA48	76011472	CHIP 1/20W 4.7K OHM J
RA49	76011563	CHIP 1/20W 56K OHM J
RA51	76011122	CHIP 1/20W 1.2K OHM J
RA52	76011122	CHIP 1/20W 1.2K OHM J
RA53	76011122	CHIP 1/20W 1.2K OHM J
RA54	76366472	CARBON FILM 1/6W 4.7K OHM J
RA55	76366472	CARBON FILM 1/6W 4.7K OHM J
RA56	76011472	CHIP 1/20W 4.7K OHM J
RA57	76011472	CHIP 1/20W 4.7K OHM J
RA58	76011102	CHIP 1/20W 1K OHM J
RA65	76366471	CARBON FILM 1/6W 470 OHM J
RA66	76011222	CHIP 1/20W 2.2K OHM J
RA67	76011101	CHIP 1/20W 100 OHM J
RA68	76011564	CHIP 1/20W 560K OHM J
RA69	76011333	CHIP 1/20W 33K OHM J
RA70	76011123	CHIP 1/20W 12K OHM J
RA71	76011392	CHIP 1/20W 3.9K OHM J

Location No.	Parts No.	Description
RA72	76011392	CHIP 1/20W 3.9K OHM J
RA73	76011223	CHIP 1/20W 22K OHM J
RA75	76366561	CARBON FILM 1/6W 560 OHM J
RA76	76366561	CARBON FILM 1/6W 560 OHM J
RA77	76011102	CHIP 1/20W 1K OHM J
RA78	76011101	CHIP 1/20W 100 OHM J
RA79	76011101	CHIP 1/20W 100 OHM J
RA82	76366223	CARBON FILM 1/6W 22K OHM J
RA83	76366103	CARBON FILM 1/6W 10K OHM J
RA85	76366223	CARBON FILM 1/6W 22K OHM J
RA87	76011563	CHIP 1/20W 56K OHM J
RA90	76011102	CHIP 1/20W 1K OHM J
RA91	76011392	CHIP 1/20W 3.9K OHM J
RA92	76011102	CHIP 1/20W 1K OHM J
RA93	76011102	CHIP 1/20W 1K OHM J
RA94	76011101	CHIP 1/20W 100 OHM J
RA95	76011102	CHIP 1/20W 1K OHM J
RA98	76366472	CARBON FILM 1/6W 4.7K OHM J
RB01	76366271	CARBON FILM 1/6W 270 OHM J
RB02	76366221	CARBON FILM 1/6W 220 OHM J
RB03	76366103	CARBON FILM 1/6W 10K OHM J
RB04	76366102	CARBON FILM 1/6W 1K OHM J
RB06	76366102	CARBON FILM 1/6W 1K OHM J
RB09	76366470	CARBON FILM 1/6W 47 OHM J
RB27	76366103	CARBON FILM 1/6W 10K OHM J
RB28	76366104	CARBON FILM 1/6W 100K OHM J
RB30	76011682	CHIP 1/20W 6.8K OHM J
RC12	76011102	CHIP 1/20W 1K OHM J
RC13	76011102	CHIP 1/20W 1K OHM J
RC14	76011102	CHIP 1/20W 1K OHM J
RC15	76011102	CHIP 1/20W 1K OHM J
RC16	76011102	CHIP 1/20W 1K OHM J
RC17	76011102	CHIP 1/20W 1K OHM J
RD01	76011101	CHIP 1/20W 100 OHM J
RD02	76011472	CHIP 1/20W 4.7K OHM J
RD04	76011102	CHIP 1/20W 1K OHM J
RD05	76011102	CHIP 1/20W 1K OHM J
RD07	76000445	CHIP JUMPER 1608TYPE
RD08	76000445	CHIP JUMPER 1608TYPE
RD09	76011101	CHIP 1/20W 100 OHM J
RD10	76011101	CHIP 1/20W 100 OHM J
RD15	76011101	CHIP 1/20W 100 OHM J
RD16	76011101	CHIP 1/20W 100 OHM J
RD23	76011101	CHIP 1/20W 100 OHM J
RD24	76011101	CHIP 1/20W 100 OHM J
RD25	76011563	CHIP 1/20W 56K OHM J
RD26	76011823	CHIP 1/20W 82K OHM J
RD27	76011563	CHIP 1/20W 56K OHM J
RD28	76011823	CHIP 1/20W 82K OHM J
RD29	76000445	CHIP JUMPER 1608TYPE
RI84	76011472	CHIP 1/20W 4.7K OHM J
RI85	76011472	CHIP 1/20W 4.7K OHM J
RJ02	76000445	CHIP JUMPER 1608TYPE
RJ08	76000576	CHIP JUMPER 3216TYPE
RJ09	76000576	CHIP JUMPER 3216TYPE
RJ10	76000576	CHIP JUMPER 3216TYPE
RJ12	76000576	CHIP JUMPER 3216TYPE
RJ13	76000445	CHIP JUMPER 1608TYPE
RJ19	76000445	CHIP JUMPER 1608TYPE
RJ20	76000445	CHIP JUMPER 1608TYPE
RJ21	76000445	CHIP JUMPER 1608TYPE
RJ22	76000445	CHIP JUMPER 1608TYPE
RJ23	76000445	CHIP JUMPER 1608TYPE
RP01	76011750	CHIP 1/20W 75 OHM J
RP02	76011750	CHIP 1/20W 75 OHM J
RP03	76011750	CHIP 1/20W 75 OHM J
RP04	76011681	CHIP 1/20W 680 OHM J
RP05	76011750	CHIP 1/20W 75 OHM J
RP08	76011331	CHIP 1/20W 330 OHM J
RP10	76000445	CHIP JUMPER 1608TYPE
RP12	76000445	CHIP JUMPER 1608TYPE
RP13	76011225	CHIP 1/20W 2.2M OHM K
RP15	76011331	CHIP 1/20W 330 OHM J
RP16	76011331	CHIP 1/20W 330 OHM J
RP18	76011101	CHIP 1/20W 100 OHM J
RP19	76011101	CHIP 1/20W 100 OHM J
RP20	76011472	CHIP 1/20W 4.7K OHM J
RP21	76011101	CHIP 1/20W 100 OHM J

Location No.		Parts No.	Description
RP22		76011101	CHIP 1/20W 100 OHM J
RP23		76011101	CHIP 1/20W 100 OHM J
RP24		76011331	CHIP 1/20W 330 OHM J
RP25		76011331	CHIP 1/20W 330 OHM J
RP26		76011331	CHIP 1/20W 330 OHM J
RP27		76011331	CHIP 1/20W 330 OHM J
RP28		76011331	CHIP 1/20W 330 OHM J
RP29		76011331	CHIP 1/20W 330 OHM J
RP30		76011331	CHIP 1/20W 330 OHM J
RP31		76011331	CHIP 1/20W 330 OHM J
RP32		76011331	CHIP 1/20W 330 OHM J
RP33		76011331	CHIP 1/20W 330 OHM J
RP34		76011331	CHIP 1/20W 330 OHM J
RP35		76011331	CHIP 1/20W 330 OHM J
RP36		76011331	CHIP 1/20W 330 OHM J
RP37		76011331	CHIP 1/20W 330 OHM J
RP38		76011331	CHIP 1/20W 330 OHM J
RP39		76011331	CHIP 1/20W 330 OHM J
RP40		76000445	CHIP JUMPER 1608TYPE
RP43		76000445	CHIP JUMPER 1608TYPE
RP44		76011331	CHIP 1/20W 330 OHM J
RS01		76011103	CHIP 1/20W 10K OHM J
RS02		76011104	CHIP 1/20W 100K OHM J
RS03		76011103	CHIP 1/20W 10K OHM J
RS04		76011104	CHIP 1/20W 100K OHM J
RS10		76011562	CHIP 1/20W 5.6K OHM J
RS11		76011562	CHIP 1/20W 5.6K OHM J
RS12		76011222	CHIP 1/20W 2.2K OHM J
RS13		76011101	CHIP 1/20W 100 OHM J
RS14		76011562	CHIP 1/20W 5.6K OHM J
RS15		76011562	CHIP 1/20W 5.6K OHM J
RS17		76011562	CHIP 1/20W 5.6K OHM J
RS18		76011562	CHIP 1/20W 5.6K OHM J
RS19		76011101	CHIP 1/20W 100 OHM J
RS20		76011562	CHIP 1/20W 5.6K OHM J
RS22		76011222	CHIP 1/20W 2.2K OHM J
RS23		76011102	CHIP 1/20W 1K OHM J
RS24		76011102	CHIP 1/20W 1K OHM J
RS25		76011562	CHIP 1/20W 5.6K OHM J
RS27		76366561	CARBON FILM 1/6W 560 OHM J
RS61		76552331	OXIDE METAL FILM 1/2W 330 OHM J
RS62		76552331	OXIDE METAL FILM 1/2W 330 OHM J
RT01	#1	76011102	CHIP 1/20W 1K OHM J
RT02	#1	76011102	CHIP 1/20W 1K OHM J
RT03	#1	76011102	CHIP 1/20W 1K OHM J
RT04	#1	76011472	CHIP 1/20W 4.7K OHM J
RT05	#1	76011243	CHIP 1/20W 24K OHM J
RT06	#1	76011151	CHIP 1/20W 150 OHM J
RT07	#1	76011151	CHIP 1/20W 150 OHM J
RT08	#1	76011151	CHIP 1/20W 150 OHM J
RT09	#1	76011101	CHIP 1/20W 100 OHM J
RT11	#1	76011102	CHIP 1/20W 1K OHM J
RT12	#1	76011101	CHIP 1/20W 100 OHM J
RT14	#1	76011102	CHIP 1/20W 1K OHM J
RT15	#1	76011101	CHIP 1/20W 100 OHM J
RT17	#1	76011102	CHIP 1/20W 1K OHM J
RT18	#1	76011101	CHIP 1/20W 100 OHM J
RT19	#1	76011101	CHIP 1/20W 100 OHM J
RT23	#1	76011101	CHIP 1/20W 100 OHM J
RT24	#1	76011101	CHIP 1/20W 100 OHM J
RT25	#1	76011101	CHIP 1/20W 100 OHM J
RV03		76011750	CHIP 1/20W 75 OHM J
RV05		76366223	CARBON FILM 1/6W 22K OHM J
RV06		76011472	CHIP 1/20W 4.7K OHM J
RV07		76011103	CHIP 1/20W 10K OHM J
RV10		76011101	CHIP 1/20W 100 OHM J
RV12		76366101	CARBON FILM 1/6W 100 OHM J
RV14		76366101	CARBON FILM 1/6W 100 OHM J
RV15		76011101	CHIP 1/20W 100 OHM J
RV16		76366101	CARBON FILM 1/6W 100 OHM J
RV17		76011101	CHIP 1/20W 100 OHM J
RV20		76366102	CARBON FILM 1/6W 1K OHM J
RV21		76011151	CHIP 1/20W 150 OHM J
RV22		76366102	CARBON FILM 1/6W 1K OHM J
RV24		76552101	OXIDE METAL FILM 1/2W 100 OHM J
RV25		76011750	CHIP 1/20W 75 OHM J
RV26		76011101	CHIP 1/20W 100 OHM J
RV29		76011223	CHIP 1/20W 22K OHM J

Location No.	Parts No.	Description
RV30	76011750	CHIP 1/20W 75 OHM J
RV31	76011750	CHIP 1/20W 75 OHM J
RV33	76011331	CHIP 1/20W 330 OHM J
RV34	76011331	CHIP 1/20W 330 OHM J
RV90	76011101	CHIP 1/20W 100 OHM J
RV91	76011101	CHIP 1/20W 100 OHM J
RV92	76011103	CHIP 1/20W 10K OHM J
RX01	76872331	CHIP 1/16W 330 OHM J
RX02	76366472	CARBON FILM 1/6W 4.7K OHM J
RX04	76872472	CHIP 1/16W 4.7K OHM J
RX05	76872103	CHIP 1/16W 10K OHM J
RX06	76011220	CHIP 1/20W 22 OHM J
RX07	76011103	CHIP 1/20W 10K OHM J
RX08	76011684	CHIP 1/20W 680K OHM J
RX09	76011224	CHIP 1/20W 220K OHM J
RX12	76000445	CHIP JUMPER 1608TYPE
RX13	76011154	CHIP 1/20W 150K OHM J
RX14	76011823	CHIP 1/20W 82K OHM J
RX15	76000445	CHIP JUMPER 1608TYPE
RX16	76011823	CHIP 1/20W 82K OHM J
RX17	76011101	CHIP 1/20W 100 OHM J
RX18	76998103	CHIP 1/16W 10K OHM
RX21	76011103	CHIP 1/20W 10K OHM J
RX24	76872242	CHIP 1/16W 2.4K OHM J
RX25	76011473	CHIP 1/20W 47K OHM J
RX29	76552331	OXIDE METAL FILM 1/2W 330 OHM J
RX30	76872471	CHIP 1/16W 470 OHM J
RX31	76872103	CHIP 1/16W 10K OHM J
RX33	76011271	CHIP 1/20W 270 OHM J
RX34	76366103	CARBON FILM 1/6W 10K OHM J
RX35	76011101	CHIP 1/20W 100 OHM J
RX36	76011101	CHIP 1/20W 100 OHM J
RX37	76011153	CHIP 1/2OW 15K OHM J
RX38	76011124	CHIP 1/20W 120K OHM J
RX39	76011471	CHIP 1/20W 470 OHM J
RX40	76011101	CHIP 1/20W 100 OHM J
RX41	76011153	CHIP 1/2OW 15K OHM J
RX42	76872823	CHIP 1/16W 82K OHM J
RX43	76872222	CHIP 1/16W 2.2K OHM J
RX44	76872392	CHIP 1/16W 3.9K OHM J
RX46	76011472	CHIP 1/20W 4.7K OHM J
RX47	76011472	CHIP 1/20W 4.7K OHM J
RX48	76011124	CHIP 1/20W 120K OHM J
RX51	76011102	CHIP 1/20W 1K OHM J
RX53	76011101	CHIP 1/20W 100 OHM J
RX54	76011101	CHIP 1/20W 100 OHM J
RX55	76011361	CHIP 1/20W 360 OHM J
RX56	76011622	CHIP 1/20W 6.2K OHM J
RX57	76011102	CHIP 1/20W 1K OHM J
RX60	76011102	CHIP 1/20W 1K OHM J
RY01	76011274	CHIP 1/20W 270K OHM J
RY02	76011101	CHIP 1/20W 100 OHM J
RY04	76011102	CHIP 1/20W 1K OHM J
RY05	76011101	CHIP 1/20W 100 OHM J
RY07	76011470	CHIP 1/20W 47 OHM J
RY08	76011470	CHIP 1/20W 47 OHM J
RY09	76011100	CHIP 1/20W 10 OHM J
RY10	76011101	CHIP 1/20W 100 OHM J
RY11	76011101	CHIP 1/20W 100 OHM J
RY12	76011101	CHIP 1/20W 100 OHM J
RY13	76000445	CHIP JUMPER 1608TYPE
RY14	76000445	CHIP JUMPER 1608TYPE
RY15	76011183	CHIP 1/20W 18K OHM J
RY16	76011183	CHIP 1/20W 18K OHM J
RY17	76011152	CHIP 1/20W 1.5K OHM J
RY18	76011122	CHIP 1/20W 1.2K OHM J
RY33	76011272	CHIP 1/20W 2.7K OHM J
RY34	76011822	CHIP 1/20W 8.2K OHM J
RY35	76011102	CHIP 1/20W 1K OHM J
RY36	76011561	CHIP 1/20W 560 OHM J
RY37	76011102	CHIP 1/20W 1K OHM J
RY38	76011471	CHIP 1/20W 470 OHM J
RY39	76011272	CHIP 1/20W 2.7K OHM J
RY40	76011822	CHIP 1/20W 8.2K OHM J
RY41	76011102	CHIP 1/20W 1K OHM J
RY42	76011561	CHIP 1/20W 560 OHM J
RY43	76011102	CHIP 1/20W 1K OHM J
RY44	76011471	CHIP 1/20W 470 OHM J

Location No.	Parts No.	Description
RY45	76011272	CHIP 1/20W 2.7K OHM J
RY46	76011822	CHIP 1/20W 8.2K OHM J
RY47	76011102	CHIP 1/20W 1K OHM J
RY48	76011561	CHIP 1/20W 560 OHM J
RY49	76011102	CHIP 1/20W 1K OHM J
RY50	76011471	CHIP 1/20W 470 OHM J
RY51	76011272	CHIP 1/20W 2.7K OHM J
RY52	76011822	CHIP 1/20W 8.2K OHM J
RY53	76011102	CHIP 1/20W 1K OHM J
RY54	76011561	CHIP 1/20W 560 OHM J
RY55	76011102	CHIP 1/20W 1K OHM J
RY56	76011471	CHIP 1/20W 470 OHM J
RY57	76011272	CHIP 1/20W 2.7K OHM J
RY58	76011822	CHIP 1/20W 8.2K OHM J
RY59	76011102	CHIP 1/20W 1K OHM J
RY60	76011561	CHIP 1/20W 560 OHM J
RY61	76011102	CHIP 1/20W 1K OHM J
RY62	76011471	CHIP 1/20W 470 OHM J
RY63	76011102	CHIP 1/20W 1K OHM J
RY64	76011182	CHIP 1/20W 1.8K OHM J
RY65	76011102	CHIP 1/20W 1K OHM J
RY66	76011101	CHIP 1/20W 100 OHM J
RY67	76011101	CHIP 1/20W 100 OHM J
RY68	76011101	CHIP 1/20W 100 OHM J
COILS & TRANSFORMERS		
D444D	23103347	FERRITE CORE 3.5X5X1.3 HF70BB 3.5X5X1.3
G104	23248423	COIL CHOKE TLN3481AC
G105	23248423	COIL CHOKE TLN3481AC
G106	23103308	FERRITE CORE TEM2011AO 3.5X4.5
G107	23103308	FERRITE CORE TEM2011AO 3.5X4.5
G108	23103308	FERRITE CORE TEM2011AO 3.5X4.5
G109	23103308	FERRITE CORE TEM2011AO 3.5X4.5
G410	23357877	DIODE ZENER MTZJ18B
G460	23103320	COIL CHOKE TEM2011
G812	23103308	FERRITE CORE TEM2011AO 3.5X4.5
G894	23289043	COIL PEAKING TRF4100AU
GL101	23221161	COIL PEAKING TRF4220AJ
L102	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L103	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L104	23103311	FERRITR CHOKE TEM2014AO 3.5X5X2
L300	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L301	23103311	FERRITR CHOKE TEM2014AO 3.5X5X2
L302	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L303	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L401	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L402	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L441	23233110	COIL LINEARITY TLN2227AH
L442	23248418	COIL CHOKE TLN3459AH
L460	23103320	COIL CHOKE TEM2011
L461	23248433	COIL CHOKE TLN3500AH
L462	23231459	COIL DEFLECTION YOKE TDY829DT
L462A	23006010	FERRITE SHEET SPOILER POSI
L462B	23006011	FERRITE SHEET SPOILER NEGA
L462C	23199746	CONVER COMPENSATOR XH
L462D	23199746	CONVER COMPENSATOR XH
L464	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L491	23248413	COIL CHOKE TLN3351AD
L501	23246624	COIL CHIP TRF4100CC
L502	23246624	COIL CHIP TRF4100CC
L503	23246624	COIL CHIP TRF4100CC
L504	23103239	INDUCTOR BEAD TEM2143AD
L702	23103323	FERRITE CORE HC5-035
L704	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L705	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L706	23289043	COIL PEAKING TRF4100AU
⚠ L801	23248389	COIL CHOKE 11X17H 100MMHK 1.2A TLN3299AA
⚠ L802	23217687	TRANSFORMER CHOKE 24MH 2A TPW2064AL
L803	23217687	TRANSFORMER CHOKE 24MH 2A TPW2064AL
L805	23248423	COIL CHOKE TLN3481AC
L806	23248423	COIL CHOKE TLN3481AC
L811	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L815	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L817	23103309	FERRITE CORE TEM2004AO 3.5X10X0.9
L883	23221142	COIL CHOKE TRF9253D
L885	23248389	COIL CHOKE 11X17H 100MMHK 1.2A TLN3299AA
L886	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L889	23248389	COIL CHOKE 11X17H 100MMHK 1.2A TLN3299AA

Location No.	Parts No.	Description
L891	23103311	FERRITR CHOKE TEM2014AO 3.5X5X2
L892	23103311	FERRITR CHOKE TEM2014AO 3.5X5X2
L893	23248389	COIL CHOKE 11X17H 100MMHK 1.2A TLN3299AA
L896	23103308	FERRITE CORE TEM2011AO 3.5X4.5
L897	23248389	COIL CHOKE 11X17H 100MMHK 1.2A TLN3299AA
L898	23248389	COIL CHOKE 11X17H 100MMHK 1.2A TLN3299AA
⚠ L901	23200187	COIL DG ALU 48T-8TYPE TSB 2389EAG
L902	23289054	COIL PEAKING TRF4101AU
L903	23289054	COIL PEAKING TRF4101AU
L904	23289054	COIL PEAKING TRF4101AU
L905	23289045	COIL PEAKING TRF4150AU
L906	23289045	COIL PEAKING TRF4150AU
L907	23289045	COIL PEAKING TRF4150AU
L908	23289043	COIL PEAKING TRF4100AU
L911	23289043	COIL PEAKING TRF4100AU
LA01	23289043	COIL PEAKING TRF4100AU
LA02	23262307	COIL IF TRF1237AH
LA03	23289022	COIL PEAKING TRF4100AT
LC01	23221141	COIL CHOKE TRF9240AC
LC02	23221141	COIL CHOKE TRF9240AC
LC03	23221141	COIL CHOKE TRF9240AC
LC09	23103828	INDUCTOR BEAD TEM2121M
LC10	23103828	INDUCTOR BEAD TEM2121M
LC19	23103828	INDUCTOR BEAD TEM2121M
LC20	23103828	INDUCTOR BEAD TEM2121M
LC21	23103828	INDUCTOR BEAD TEM2121M
LC22	23103828	INDUCTOR BEAD TEM2121M
LC23	23103828	INDUCTOR BEAD TEM2121M
LC24	23103828	INDUCTOR BEAD TEM2121M
LD01	23103825	INDUCTOR BEAD TEM2118M
LD02	23103825	INDUCTOR BEAD TEM2118M
LP01	23246624	COIL CHIP TRF4100CC
LP02	23246624	COIL CHIP TRF4100CC
LP03	23246624	COIL CHIP TRF4100CC
LP04	23246624	COIL CHIP TRF4100CC
LP05	23246624	COIL CHIP TRF4100CC
LP06	23103239	INDUCTOR BEAD TEM2143AD
LP08	23246624	COIL CHIP TRF4100CC
LP09	23246624	COIL CHIP TRF4100CC
LP10	23246624	COIL CHIP TRF4100CC
LP17	23246624	COIL CHIP TRF4100CC
LP18	23246624	COIL CHIP TRF4100CC
LP19	23246624	COIL CHIP TRF4100CC
LT01 #1	23246624	COIL CHIP TRF4100CC
LT05 #1	23246624	COIL CHIP TRF4100CC
LV01	23289978	COIL PEAKING TRF4100AJ
LV02	23103310	FERRITE CORE TEM2028AC 7.5X6.4X8 0.5A
LX01	23289051	COIL PEAKING TRF4470AU
LX02	23289054	COIL PEAKING TRF4101AU
LY01	23103239	INDUCTOR BEAD TEM2143AD
LY02	23103828	INDUCTOR BEAD TEM2121M
LY03	23103239	INDUCTOR BEAD TEM2143AD
LY04	23103239	INDUCTOR BEAD TEM2143AD
LY05	23103239	INDUCTOR BEAD TEM2143AD
LY10	23246624	COIL CHIP TRF4100CC
LY11	23246624	COIL CHIP TRF4100CC
LY12	23246653	COIL CHIP TRF4150CG
LY13	23246653	COIL CHIP TRF4150CG
LY14	23246653	COIL CHIP TRF4150CG
LY15	23246653	COIL CHIP TRF4150CG
LY16	23246653	COIL CHIP TRF4150CG
LY17	23246645	COIL CHIP TRF41R5CG
LY18	23246624	COIL CHIP TRF4100CC
LY19	23246624	COIL CHIP TRF4100CC
LY22	23246624	COIL CHIP TRF4100CC
Q404E	23103347	CORE FERRITE CORE 3.5X5X1.3 HF70BB 3.5X5X1.3
T401	23224396	TRANSFORMER TLN1080AH
⚠ T461	23236954	TRANSFORMER FLY-BACK TFB4222AT
⚠ T802	23211842	COIL LINE FILTER TRF3229AR
⚠ T803	23211843	COIL LINE FILTER TRF3234AR
⚠ T862	23217813	TRANSFORMER CONVERTER TPW3509AW
Z801	23103778	FERRITE CORE TFE1008
SEMICONDUCTORS		
D101	23362103	DIODE ZENER DZ33 BS B
D301	23357372	DIODE EU2JGF-41U2
D302	23357372	DIODE EU2JGF-41U2
D303	23362228	DIODE VRM=200V 1N4003F

Location No.	Parts No.	Description
D304	23357917	DIODE SC570A
D306	23362228	DIODE VRM=200V 1N4003F
D308	23357372	DIODE EU2JGF-41U2
D406	23357372	DIODE EU2JGF-41U2
D408	23357372	DIODE EU2JGF-41U2
D441	23362081	DIODE ZENER DZ9.1 BS C
D444	23357701	DIODE FMQ-3GU
D445	23357372	DIODE EU2JGF-41U2
D462	23362094	DIODE ZENER DZ15 BS B
D465	23357372	DIODE EU2JGF-41U2
D470	23362107	DIODE ZENER DZ36 BS B
D501	23357811	DIODE ZENER MTZJ2.0A
D502	23362140	DIODE KDS160-RTK
D503	23362140	DIODE KDS160-RTK
D505	23362140	DIODE KDS160-RTK
D509	23362140	DIODE KDS160-RTK
D510	23362042	DIODE ZENER UDZS6.8B
D670	23362140	DIODE KDS160-RTK
D671	23362140	DIODE KDS160-RTK
D672	23362140	DIODE KDS160-RTK
D673	23362140	DIODE KDS160-RTK
D674	23362140	DIODE KDS160-RTK
D680	23362140	DIODE KDS160-RTK
D681	23362140	DIODE KDS160-RTK
D682	23362140	DIODE KDS160-RTK
D683	23362140	DIODE KDS160-RTK
D704	23362111	DIODE 1SS133
D705	23362111	DIODE 1SS133
D715	23362111	DIODE 1SS133
D721	23362111	DIODE 1SS133
D801	23362217	DIODE BRG. VRM600V IO6A GBU6J-T1
D803	23362070	DIODE ZENER DZ5.6 BS B
D804	23362094	DIODE ZENER DZ15 BS B
D805	23357104	DIODE 1SS244
D806	23357372	DIODE EU2JGF-41U2
D807	23362099	DIODE ZENER DZ27 BS B
D810	23362098	DIODE ZENER DZ22 BS B
D811	23362111	DIODE 1SS133
D815	23362103	DIODE ZENER DZ33 BS B
D818	23362098	DIODE ZENER DZ22 BS B
D828	23362111	DIODE 1SS133
D830	23357747	DIODE ZENER MA8062-L
D831	23357767	DIODE ZENER MA8110-L
D844	23357747	DIODE ZENER MA8062-L
D845	23362111	DIODE 1SS133
D849	23362078	DIODE ZENER DZ8.2 BS C
D882	23357364	DIODE RU4JGF- M2
D885	23357471	DIODE RU4DG-3AM2
D891	23357471	DIODE RU4DG-3AM2
D892	23357471	DIODE RU4DG-3AM2
D896	23357372	DIODE EU2JGF-41U2
D901	23362111	DIODE 1SS133
D904	23362111	DIODE 1SS133
D905	23362111	DIODE 1SS133
D906	23362111	DIODE 1SS133
D907	23362111	DIODE 1SS133
D908	23362111	DIODE 1SS133
D909	23362111	DIODE 1SS133
D911	23357372	DIODE EU2JGF-41U2
D921	23357372	DIODE EU2JGF-41U2
D931	23362111	DIODE 1SS133
D932	23362111	DIODE 1SS133
D933	23362111	DIODE 1SS133
D934	23362111	DIODE 1SS133
D941	23362111	DIODE 1SS133
D942	23362111	DIODE 1SS133
D943	23362111	DIODE 1SS133
D946	23362111	DIODE 1SS133
D963	23362111	DIODE 1SS133
D964	23362111	DIODE 1SS133
D965	23362111	DIODE 1SS133
D966	23362111	DIODE 1SS133
DA01	23362111	DIODE 1SS133
DA02	23362140	DIODE KDS160-RTK
DA30	23362111	DIODE 1SS133
DB01	23358577	DIODE LED RED/GREEN BT-H684W
DB03	23357818	DIODE ZENER MTZJ2.7B
DB30	23362111	DIODE 1SS133

Location No.	Parts No.	Description
DD01	23362138	DIODE KDS114-RTK
DX01	23362140	DIODE KDS160-RTK
DX02	23362140	DIODE KDS160-RTK
DX03	23362085	DIODE ZENER DZ11 BS A
DX04	23362102	DIODE ZENER DZ33 BS A
DX06	23362140	DIODE KDS160-RTK
DX07	23362140	DIODE KDS160-RTK
DX08	23357768	DIODE ZENER MA8110-M
DX09	23362042	DIODE ZENER UDZS6.8B
DX10	23362140	DIODE KDS160-RTK
KB01	23085842	IC REMOCON RECEIVER ROM-N338TB
Q301	23085526	IC LA7833-S-E
Q302	23205346	TRANSISTOR KTA2014Y/P
Q402	23205479	TRANSISTOR FET 2SK941(F)
Q4021	23205358	TRANSISTOR KTC3875S Y/P
Q4022	23205357	TRANSISTOR KTA1504S Y/P
Q404	23205405	TRANSISTOR 2SC5859 (FAQ)
Q404B	23850638	INSULATOR TRANSISTOR AC263
Q460	23205350	TRANSISTOR FET 2SK2920 (Q)
Q470	23205516	TRANSISTOR 2SA1320(F)
Q501	23009369	IC TA1360AFG
Q502	23205357	TRANSISTOR KTA1504S Y/P
Q503	23205357	TRANSISTOR KTA1504S Y/P
Q504	23205357	TRANSISTOR KTA1504S Y/P
Q505	23205357	TRANSISTOR KTA1504S Y/P
Q509	23205357	TRANSISTOR KTA1504S Y/P
Q510	23205357	TRANSISTOR KTA1504S Y/P
Q511	23205357	TRANSISTOR KTA1504S Y/P
Q512	23205357	TRANSISTOR KTA1504S Y/P
Q610	23085693	IC AN5277
Q623	23205222	TRANSISTOR PNP R1=R2=47KOHM SRA2204S (SOT-23)
Q670	23205346	TRANSISTOR KTA2014Y/P
Q671	23205424	TRANSISTOR KTC2875B/P
Q672	23205424	TRANSISTOR KTC2875B/P
Q705	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q706	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q707	23205314	TRANSISTOR 2SC752 (G) TM-Y (F)
Q709	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q710	23205372	TRANSISTOR 2SA1980-Y (BULK)
Q711	23205367	TRANSISTOR 2SA1930
Q712	23205368	TRANSISTOR 2SC5171(Q)
Q719	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q720	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q801	23135065	IC STRX6469
Q802	23205292	TRANSISTOR 2SD2396
Q803	23009844	IC REGULATOR +9V 4% S7809PI
Q805	23205229	TRANSISTOR SRC1205M
Q821	23009843	IC S7805PI
Q822	23009843	IC S7805PI
Q823	23009843	IC S7805PI
Q824	23009844	IC REGULATOR +9V 4% S7809PI
⚠ Q826	23000823	IC PHOTO COUPLER TLP421F (GR)
Q827	23085364	IC SE125N LF4
Q830	23205292	TRANSISTOR 2SD2396
Q831	23009844	IC REGULATOR +9V 4% S7809PI
Q840	23085506	IC L78MR05-FA-E
Q841	23205358	TRANSISTOR KTC3875S Y/P
Q842	23205358	TRANSISTOR KTC3875S Y/P
Q880	23205357	TRANSISTOR KTA1504S Y/P
Q901	23205475	TRANSISTOR 2SC4544 (F)
Q902	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q903	23205475	TRANSISTOR 2SC4544 (F)
Q904	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q905	23205475	TRANSISTOR 2SC4544 (F)
Q906	23205376	TRANSISTOR 2SC5343-Y (BULK)
Q907	23205340	TRANSISTOR 2SA1020-Y (F)
Q908	23205202	TRANSISTOR 2SC5344Y
Q910	23205376	TRANSISTOR 2SC5343-Y (BULK)
QA01	23085892	IC MCU 1CHIP 8BIT 8M 42P TMP88CS38BN-***2
QA02	23085765	IC AT24C16A-10PU2.7
QA11	23205358	TRANSISTOR KTC3875S Y/P
QA13	23205357	TRANSISTOR KTA1504S Y/P
QA14	23205358	TRANSISTOR KTC3875S Y/P
QA15	23205360	TRANSISTOR 2SA1980S-Y (BULK)
QA16	23085433	IC BD4742G
QA30	23089077	IC FLASH MCU 1CHIP QFP 64P TMP86FS49AFG
QA31	23205358	TRANSISTOR KTC3875S Y/P
QB02	23205376	TRANSISTOR 2SC5343-Y (BULK)

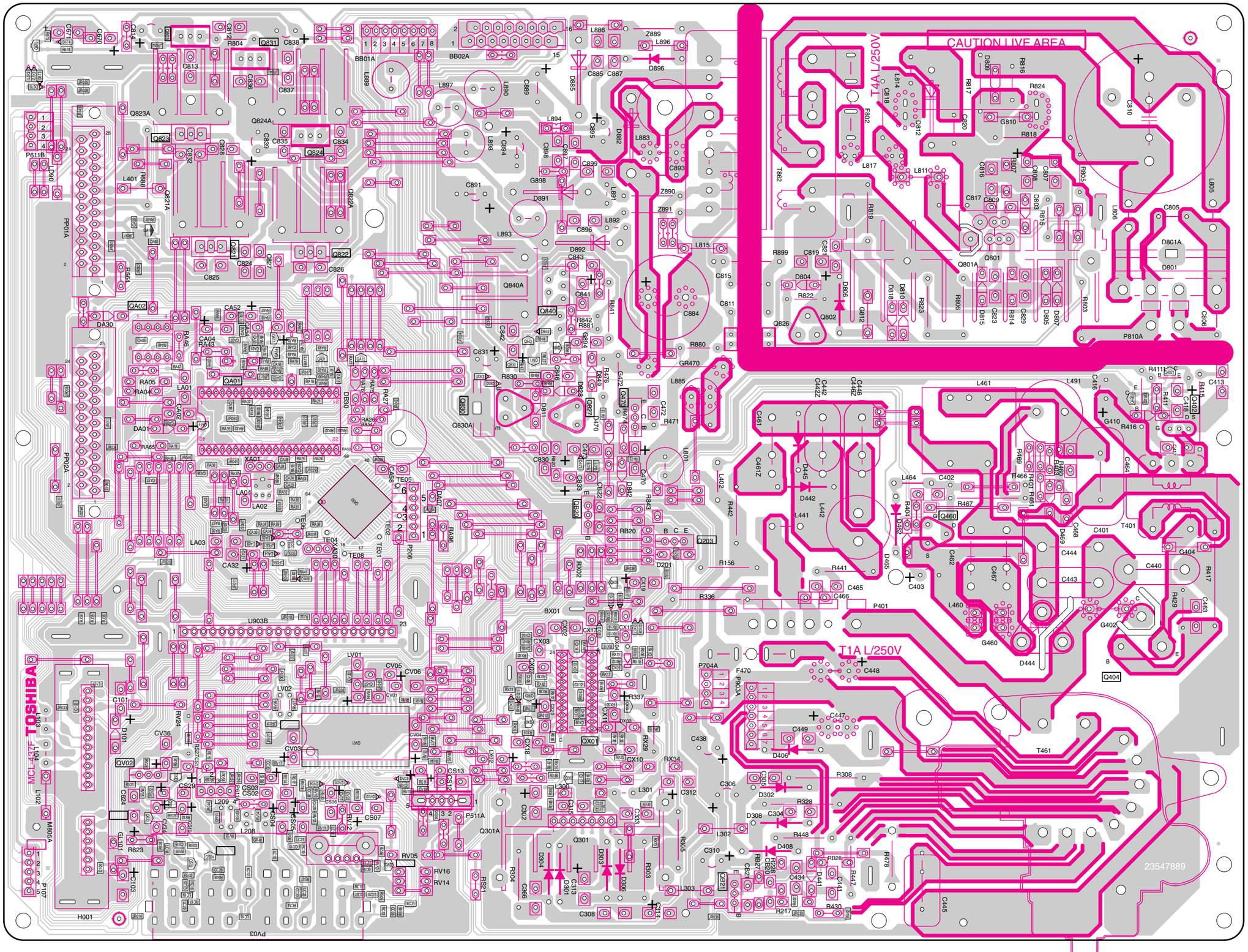
Location No.		Parts No.	Description
QB03		23205372	TRANSISTOR 2SA1980-Y (BULK)
QB20		23205320	TRANSISTOR RN1201(F)
QB21		23205376	TRANSISTOR 2SC5343-Y (BULK)
QB30		23205358	TRANSISTOR KTC3875S Y/P
QD01		23009522	IC MSP3410G
QD03		23205347	TRANSISTOR KTC4075Y/P
QD04		23205347	TRANSISTOR KTC4075Y/P
QI16		23205214	TRANSISTOR NPN R1=R2=10KOHM SRC1202U (SOT-323)
QI17		23205214	TRANSISTOR NPN R1=R2=10KOHM SRC1202U (SOT-323)
QP01		23085829	IC PIXCELWORKS SCALAR
QP02		23085029	IC BA15BC0FP-E2
QP03		23085026	IC BA33BC0FP-E2
QP04		23085026	IC BA33BC0FP-E2
QP05		23085030	IC BA18BC0FP
QP06		23000904	IC BA25BC0FP
QP07		23085030	IC BA18BC0FP
QP08		23085827	IC CMOS SDRAM
QS01		23205347	TRANSISTOR KTC4075Y/P
QS02		23205347	TRANSISTOR KTC4075Y/P
QS03		23205424	TRANSISTOR KTC2875B/P
QS04		23205424	TRANSISTOR KTC2875B/P
QT01	#1	23085828	IC TELETEXT DECOCER
QT02	#1	23205357	TRANSISTOR KTA1504S Y/P
QT03	#1	23205206	TRANSISTOR NPN R1=R2=10KOHM SRC1202S (SOT-23)
QT04	#1	23205357	TRANSISTOR KTA1504S Y/P
QT05	#1	23205357	TRANSISTOR KTA1504S Y/P
QT06	#1	23205357	TRANSISTOR KTA1504S Y/P
QV01		23085371	IC MM1495XF
QV02		23205376	TRANSISTOR 2SC5343-Y (BULK)
QV03		23205347	TRANSISTOR KTC4075Y/P
QX01		23085309	IC TA1317ANG
QX03		23205358	TRANSISTOR KTC3875S Y/P
QX04		23205358	TRANSISTOR KTC3875S Y/P
QX07		23205327	TRANSISTOR RN1406(F)
QX08		23205327	TRANSISTOR RN1406(F)
QX53		23205347	TRANSISTOR KTC4075Y/P
QY01		23085835	IC VIDEO DECORDER Y/C SEPA
QY02		23205358	TRANSISTOR KTC3875S Y/P
QY07		23205358	TRANSISTOR KTC3875S Y/P
QY08		23205357	TRANSISTOR KTA1504S Y/P
QY09		23205358	TRANSISTOR KTC3875S Y/P
QY10		23205357	TRANSISTOR KTA1504S Y/P
QY11		23205358	TRANSISTOR KTC3875S Y/P
QY12		23205357	TRANSISTOR KTA1504S Y/P
QY13		23205358	TRANSISTOR KTC3875S Y/P
QY14		23205357	TRANSISTOR KTA1504S Y/P
QY15		23205358	TRANSISTOR KTC3875S Y/P
QY16		23205357	TRANSISTOR KTA1504S Y/P
MISCELLANEOUS			
B102		23974994	BAND
B207		23738088	SCREW BTBW3X12 ECO
B211		23738086	SCREW BTB4X16 ECO
B212		23845859	HOLDER WIRE PVC-C0AT L=70MM
B214		23738088	SCREW BTBW3X12ECO
BB01A		23713729	SOCKET B-B 8P 2.5MM
BB02A		23713202	SOCKET B-B 16P
BB02B		23713201	PLUG B-B 16P
C822A		23960136	ADHESIVE SILICONE TSE3843-W
D444B		23717240	SCREW
D444E		23960136	ADHESIVE SILICONE TSE3843-W
D801B		23738136	SCREW 3X10MM
E947		23965900	TAPE GLASS-CLOTH W/ADHESIVE W=18 T=0.18
⚠ F470		23144210	FUSE 250V 1A
F470A		23165469	FUSE HOLDER 5.2 DFH-001
F470B		23165469	FUSE HOLDER 5.2 DFH-001
⚠ F801		23144330	FUSE CARTRIDGE 250V 5A 5.2X20
F801A		23165469	FUSE HOLDER 5.2 DFH-001
⚠ F801B		23165469	FUSE HOLDER 5.2 DFH-001
F802		23144302	FUSE CARTRIDGE 250V 4A 5.2X20
F802A		23165469	FUSE HOLDER 5.2 DFH-001
F802B		23165469	FUSE HOLDER 5.2 DFH-001
J03C		23171400	WIRE PVC SOLDER-PLATED 300V 7/16 BRN UL CSA
J05E		23171400	WIRE PVC SOLDER-PLATED 300V 7/16 BRN UL CSA
KB01A		23965241	TAPE CC #12 10MM L30M
M461A		23192244	CABLE ANODE CAP ASSY TCC5600BD
M461B		23507789	CABLE FOCUS
M461C		23507817	CABLE SCREEN

Location No.		Parts No.	Description
N01A		23960136	ADHESIVE SILICONE TSE3843-W
N02B		23960136	ADHESIVE SILICONE TSE3843-W
N03C		23965241	TAPE CC #12 10MM L30M
N04D		23965241	TAPE CC #12 10MM L30M
N05E		23965241	TAPE CC #12 10MM L30M
N07G		23960136	ADHESIVE SILICONE TSE3843-W
N724		23965900	TAPE GLASS-CLOTH W/ADHESIVE W=18 T=0.18
N728		23960101	SILICONE RUBBER TSE-382 RTV
P107		23713756	PLUG 5P 2.5MM G B5B-EH-F1-TV4
P206		23713757	PLUG 6P 2.5MM G B6B-EH-F1-TV4
P501B		23713758	PLUG 7P 2.5MM G B7B-EH-F1-TV4
P511B		23713756	PLUG 5P 2.5MM G B5B-EH-F1-TV4
P601		23713755	PLUG 4P 2.5MM G B4B-EH-F1-TV4
P661		23023116	PLUG HEAD PHONE JACK 3.5MM PJ3-14-7
P701A		23713776	PLUG 3P 2.5MM W S3B-EH
P701B		23713754	PLUG 3P 2.5MM G B3B-EH-F1-TV4
P704A		23713755	PLUG 4P 2.5MM G B4B-EH-F1-TV4
P704B		23713755	PLUG 4P 2.5MM G B4B-EH-F1-TV4
⚠ P801		23372344	POWER CORD CEE FL250V2.5A NT009AV - 2.5M
P810A		23164725	PLUG 2P
P810B		23164725	PLUG 2P
P903A		23713758	PLUG 7P 2.5MM G B7B-EH-F1-TV4
P903B		23713758	PLUG 7P 2.5MM G B7B-EH-F1-TV4
P910		23164725	PLUG 2P
PD01		23023448	PLUG PLUG 8P FULL B8PS-TB-2 (LF)(SN)
PD02		23023394	PLUG B15PS-TB-2
PP01A		23713731	SOCKET B-B 25P 1.5MM JDV-R25LB-10-1
PP01B		23713716	PLUG B-B 1.5MM 25P JDV-PS25LB-10-1
PP02A		23713731	SOCKET B-B 25P 1.5MM JDV-R25LB-10-1
PP02B		23713716	PLUG B-B 1.5MM 25P JDV-PS25LB-10-1
PV02		23023258	JACK 3P MTJ-032-39BBA-432
PV03		23023429	JACK 11P+1SV (4SW) -852V2-01 NI FE LF
Q301B		23717241	SCREW BITTB3X8 ECO
Q404C		23717240	SCREW
Q404F		23960136	ADHESIVE SILICONE TSE3843-W
Q610B		23717241	SCREW BITTB3X8 ECO
Q821B		23717240	SCREW
Q822B		23717240	SCREW
Q823B		23717240	SCREW
Q824B		23717240	SCREW
Q830B		23717240	SCREW
Q840B		23717240	SCREW
RA98A		23965241	TAPE CC #12 10MM L30M
⚠ S801		23344527	SWITCH POWER KDC-A11(E221)
SA01		23344516	SWITCH TACTING TSV TYP TSVB-1
SA02		23344516	SWITCH TACTING TSV TYP TSVB-1
SA03		23344516	SWITCH TACTING TSV TYP TSVB-1
SA04		23344516	SWITCH TACTING TSV TYP TSVB-1
SA06		23344516	SWITCH TACTING TSV TYP TSVB-1
SA07		23344516	SWITCH TACTING TSV TYP TSVB-1
⚠ SR83		23146585	RELAY DC12V 2M G5PA-2 DC12
⚠ V901A		23903174	SOCKET CRT ISH46S-EN ING
V901B		23102508	MAGNET MAG4009
V901D		23528016	RUBBER WEDGE MEDIUM W10H15L50 TRWMED01T
V901M		23102558	MAGNET PC MAG-1122
W661		23351292	SPEAKER SPK1410AM 60X120 8-OHM 10W
W662		23351292	SPEAKER SPK1410AM 60X120 8-OHM 10W
X501		23153721	CERAMIC RESONATOR 503KHZ
XA01		23153568	CERAMIC RESONATOR 16MHZ 50OHM TCR1084AM
XA30		23153568	CERAMIC RESONATOR 16MHZ 50OHM TCR1084AM
XD01		23153490	CRYSTAL 18.432 20PPM CL=13PF
XP01		23153606	CRYSTAL RESONATOR 10MHZ
XT01	#1	23153930	CRYSTAL
XX51		23153721	CERAMIC RESONATOR 503KHZ
XY01		23153841	CRYSTAL 42.0 25PPM 60OHM 7PF
Z889		23144263	PROTECTOR 491SERIES 125V 4A
Z890		23144264	PROTECTOR 491SERIES 125V 5A
Z891		23144264	PROTECTOR 491SERIES 125V 5A
PC BOARD ASSEMBLIES			
★ U901		23764381	PC BOARD ASSY CRT/D PD2211
★ U902		23764554	PC BOARD ASSY MAIN PD2252
★ U903A	#1	23764749	PC BOARD ASSY DIGITAL PD2215B-1
★	#2	23764746	PC BOARD ASSY DIGITAL PD2215A-1
★ U903B		23764384	PC BOARD ASSY MTS PD2215-2
★ U904		23764555	PC BOARD ASSY FRONT PD2216D

Location No.		Parts No.	Description
PICTURE TUBE			
⚠ V901		23324093	PICTURE TUBE A68LZU185X
TUNER			
H001		23321544	TUNER ENG39A18GF
ACCESSORIES			
A701		23015086	CARTON BOX
K902		23306635	REMOCON HAND UNIT IR CT-90239
Y101A		23566755	OWNERS MANUAL ENGLISH
Y101B		23566665	OWNERS MANUAL RUSSIAN
Y120		23943846	BAG POLY
CABINET PARTS			
A201	#1	23533892	COVER FRONT ASSY 29CZ8UR
	#2	23533919	COVER FRONT ASSY 29CZ8LR
A401		23532083	COVER BACK COVER PROPER
A423		23929522	WASHER T=1.0
A504		23738086	SCREW BTB4X16 ECO
A508		23738086	SCREW BTB4X16 ECO
A522		23738086	SCREW BTB4X16 ECO
A702A		23946119	PACKING TOP
A702B		23946120	PACKING BOTTOM
A902		23428371	DOOR FRONT
A905		23445914	BUTTON POWER
A911		23436893	HANDLE
A914		23738088	SCREW BTBW3X12 ECO
A915		23738085	SCREW BTB4X12 ECO
E922		23845564	CLAMPER

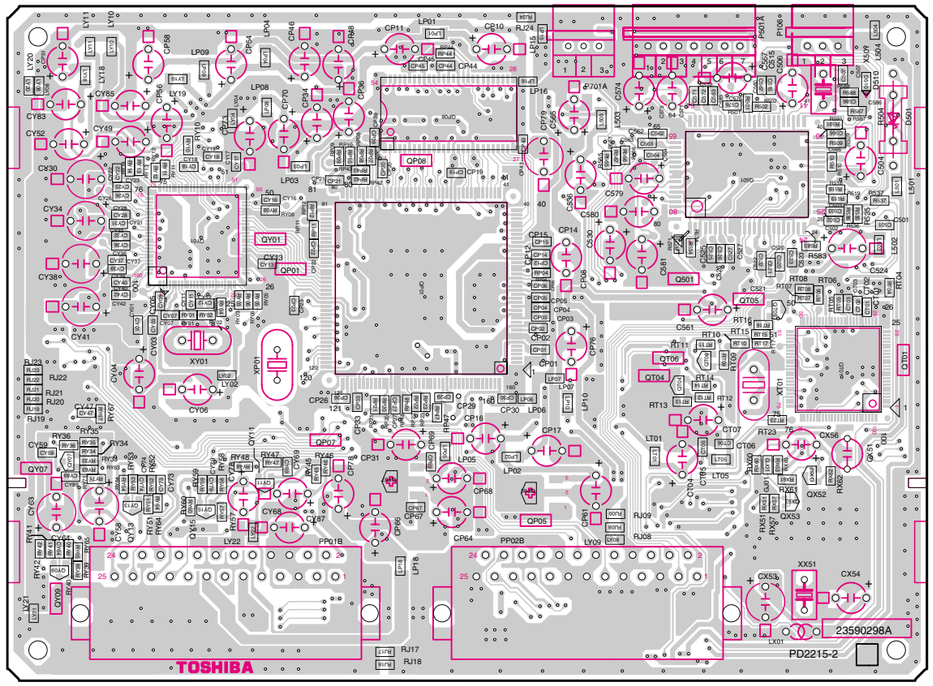
MAIN BOARD PD2252

BOTTOM (FOIL) SIDE



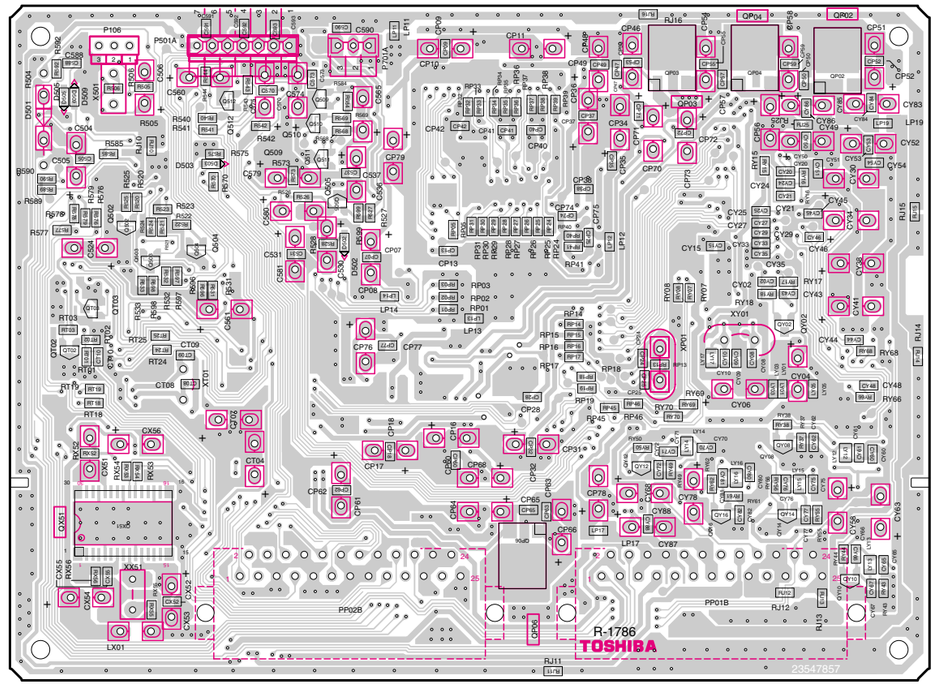
DIGITAL BOARD PD2215-1

TOP (COMPONENT) SIDE



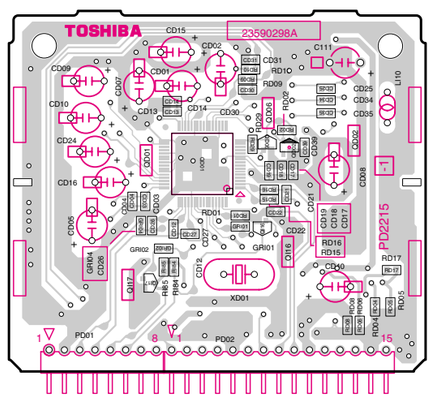
DIGITAL BOARD PD2215-1

BOTTOM (FOIL) SIDE



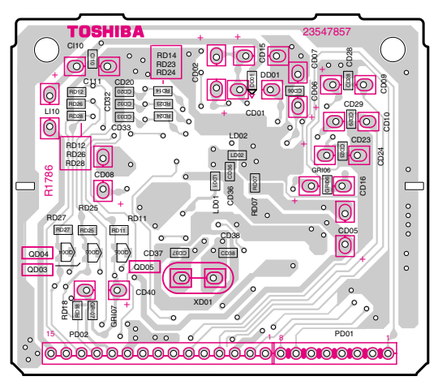
MTS BOARD PD2215-2

TOP (COMPONENT) SIDE



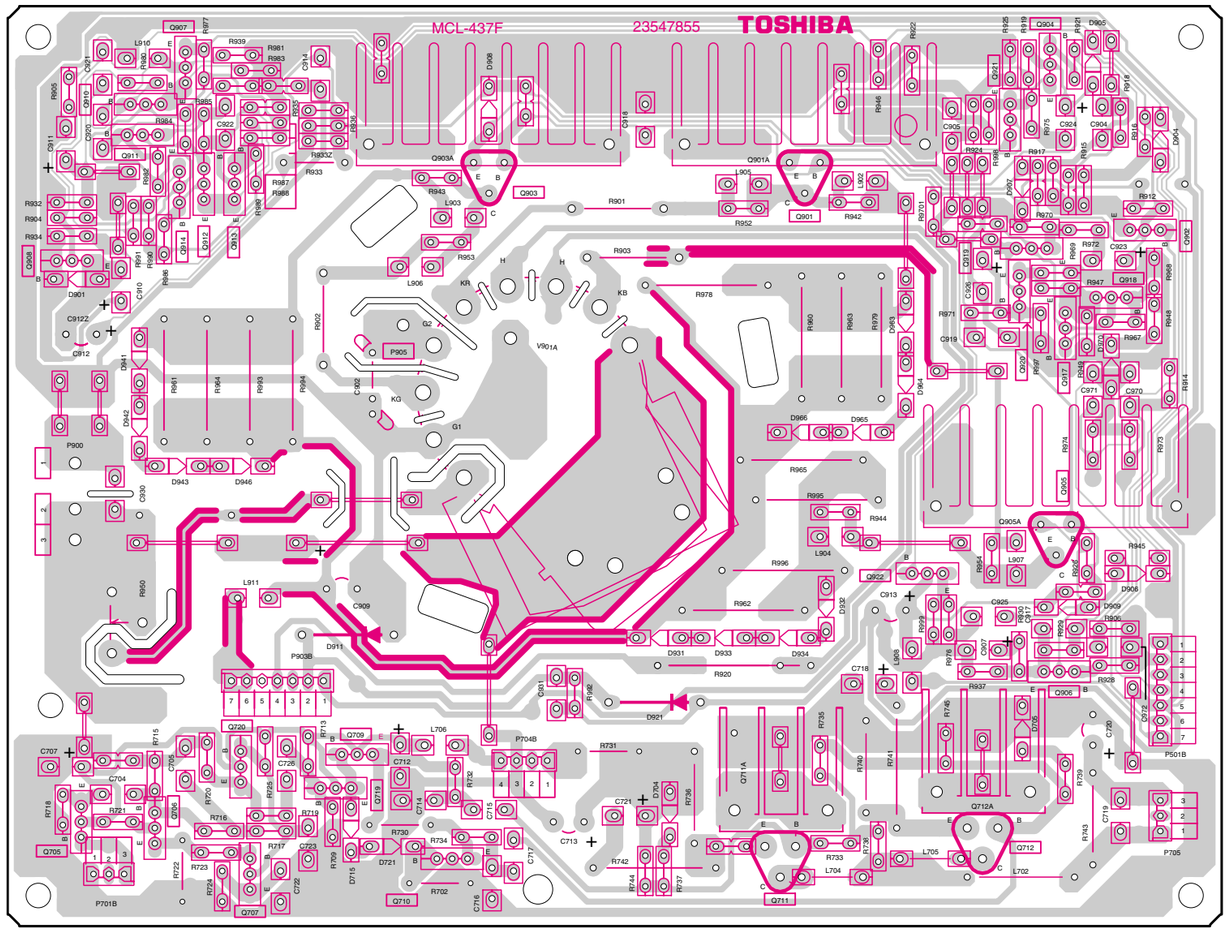
MTS BOARD PD2215-2

BOTTOM (FOIL) SIDE



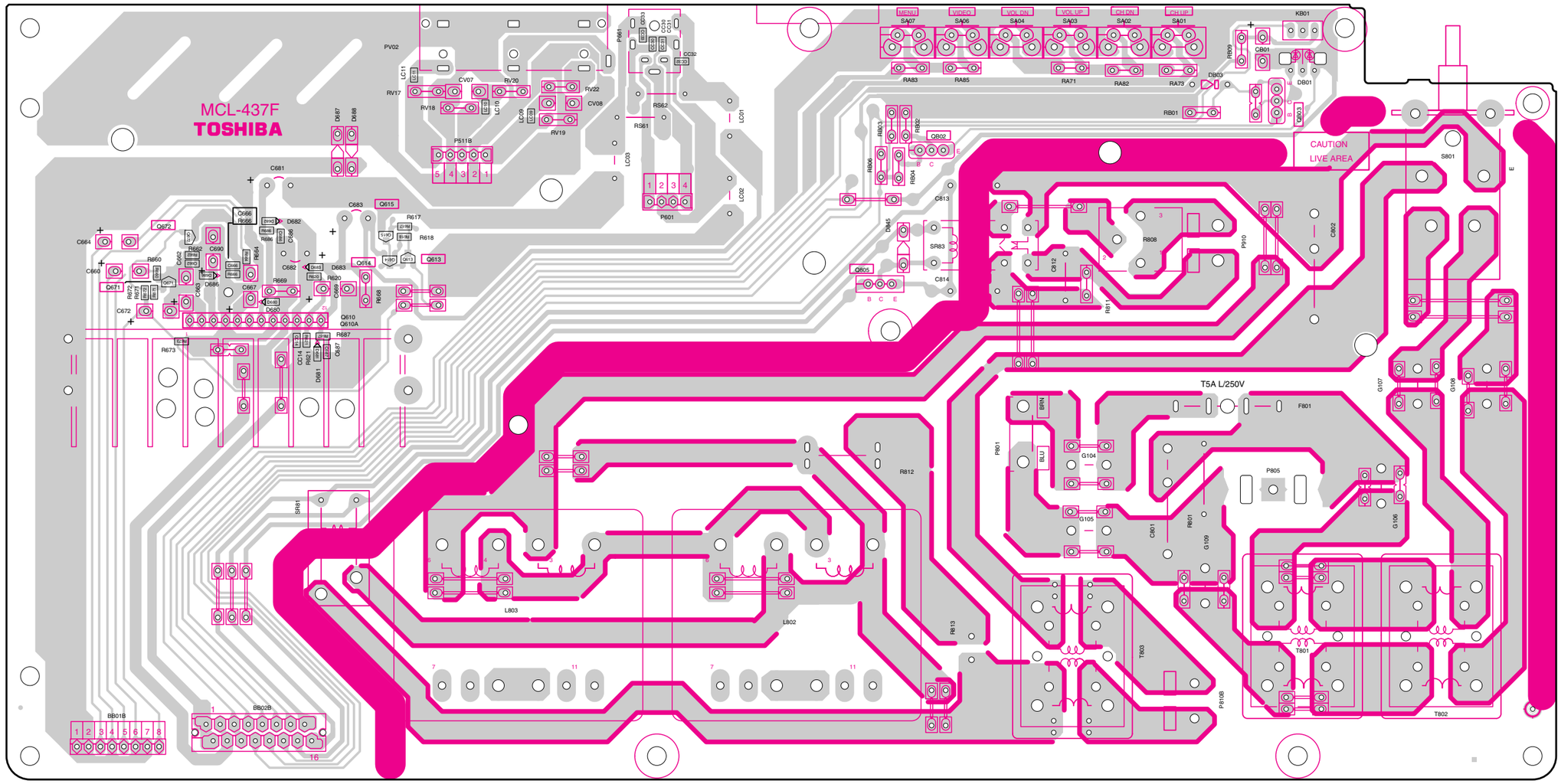
CRT/D BOARD PD2211

BOTTOM (FOIL) SIDE



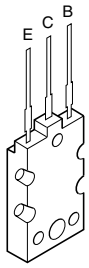
FRONT BOARD PD2216D

BOTTOM (FOIL) SIDE

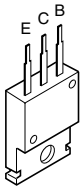


TERMINAL VIEW OF TRANSISTORS

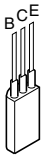
① 2SD2253
(old)
2SC5243
2SC5859



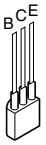
② 2SA1186A
2SA1306
2SA1788
2SA1837
2SA1930
2SC1569
2SC3852
2SC4544
2SC4793
2SC5171
2SD1763A
2SD2396



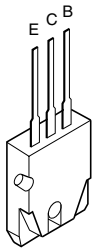
③ 2SA1020
2SC2482
2SC2655
2SC4721P
2SC5343
2SC5344
2SC752GTM



④ 2SA1015
2SA1320 (F)
2SA2980
2SA562TM
2SA9335
2SC1740S
2SC1815
2SC2120
2SC2878
2SC752
KTA1266
KTC3198



⑥ 2SA1788



⑥ KRC105M
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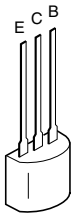
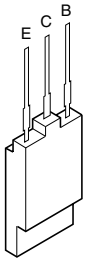
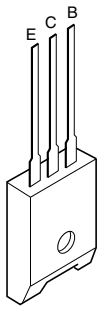
RN1202
RN1203
RN1204
RN1205
RN2201
RN2203
RN2204



⑦ 2SD1554
2SD1556
2SD2253
2SD2396
2SD2553
2SD5143



⑧ ON4409



SCHEMATIC DIAGRAM

MODEL : 29CZ8URB/29CZ8URS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE “X-RAY radiation precaution”, “SAFETY PRECAUSTION” and “PRODUCT SAFETY NOTICE” ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols “⚠” in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

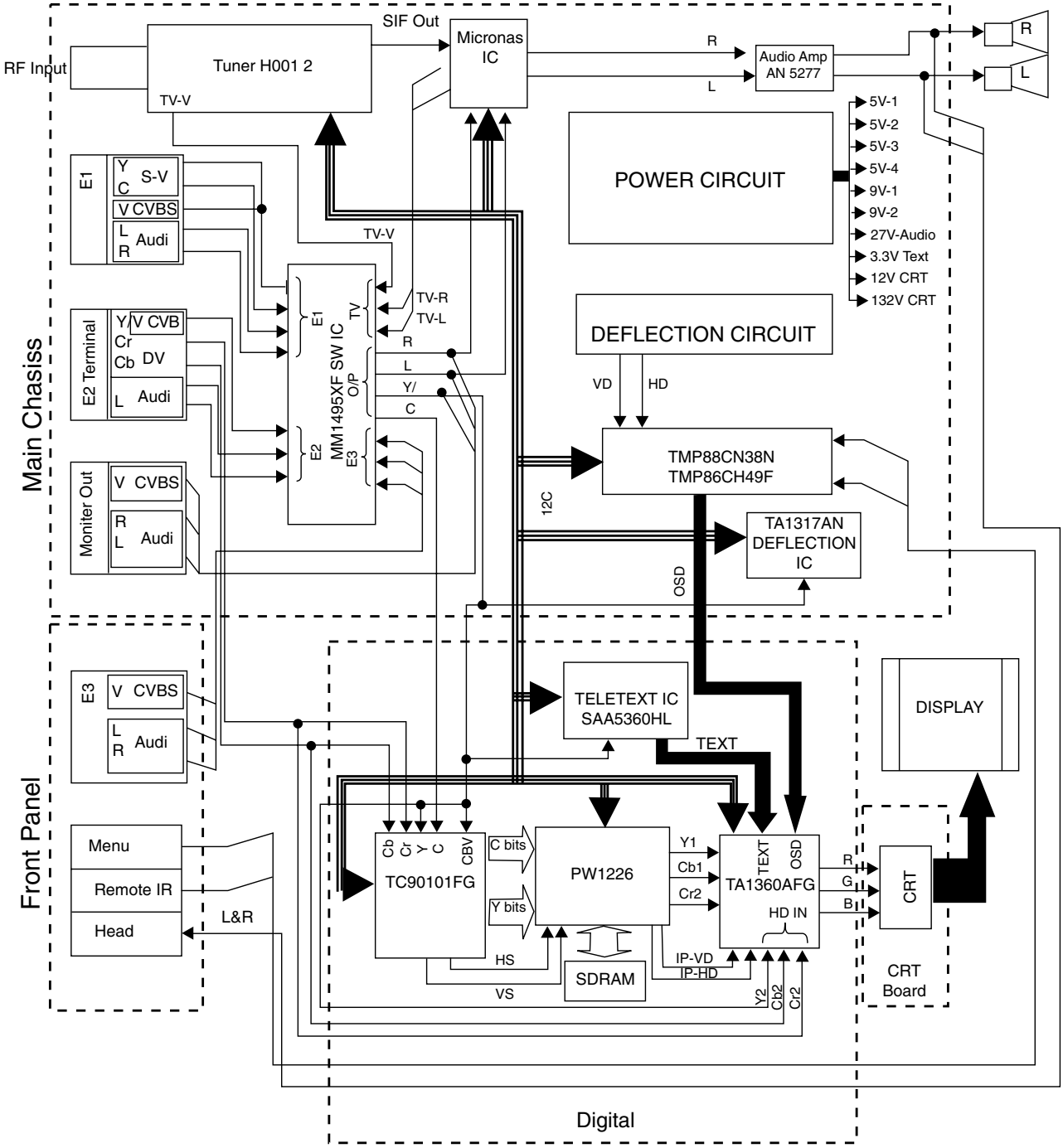
1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   ⊣(+ Electolytic capacitor ⊣(M Mylar capacitor

3. The parts indicated with “⚠” have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ **SCHEMATIC DIAGRAM STRUCTURE:**

- MAIN Circuit 1/6
- DIGITAL Circuit 2/6
- MTS Circuit 3/6
- CRT/D Circuit 4/6
- FRONT AV-1 Circuit 5/6
- FRONT AV-2 Circuit 6/6

CIRCUIT BLOCK DIAGRAM



SPECIFICATIONS

MODEL		29CZ8URB/29CZ8URS
Rated voltage		∼ 220 V – 240 V, 50 Hz
Power consumption (at ∼ 220 V, 50 Hz)		170 W
Dimensions (Width × Depth × Height)		782.1(W) × 492.5(D) × 585.1(H) mm
Mass		44 kg
Picture tube		Type 29 Flat super crystal picture tube (727.4mm) Overall picture tube measured diagonally (676mm) Viewable picture tube measured diagonally 104° deflection
Television system (Aerial input)	Channel coverage	**System** **Channel** **VHF** **UHF** **CATV (Channels)** PAL B/G CCIR 2 – 12 21 – 69 X ~ Z+2, S1 ~ S41 PAL I UK — 21 – 69 — PAL D/K CHINA 1 – 12 13 – 57 Z–1 ~ Z–38 SECAM B/G CCIR 2 – 12 21 – 69 X ~ Z+2, S1 ~ S41 SECAM D/K OIRT 1 – 12 21 – 69 X1 ~ X19 NTSC M US 2 – 13 14 – 69 A–6 ~ A–1, A ~ W, AA ~ ZZ, AAA, BBB NTSC M JAPAN 1 – 12 13 – 62 M1 ~ M10, S1 ~ S41
	Special RF signal	**Color system** NTSC4.43, PAL 60Hz **Sound system** 5.5/6.0/6.5 MHz
COMPONENT VIDEO INPUT terminals (signal format)		480i, 480p, 576i, 576p (These signal formats are converted to match the peculiar scanning system)
Color system		PAL/SECAM/NTSC4.43/NTSC3.58
Sound output		10 W × 2
Speaker		6 × 12cm (2)
Terminals		Input [⊖(1)] : S-Video/Video, Audio L/MONO, Audio R Input [⊖(2)/DVD] : Video/Y, P_B/C_B/,P_R/C_R, Audio L/MONO, Audio R Input [⊖(3)] : Video, Audio L/MONO, Audio R Output [⊖(MONITOR)] : Video, Audio L/MONO, Audio R Headphone output : ø 3.5mm (mini jack stereo type)

* Please refer to owner's manual in details.

– END –

TOSHIBA SINGAPORE PTE LTD

SCHEMATIC DIAGRAM

MODEL : 29CZ8URB/29CZ8URS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE “X-RAY radiation precaution”, “SAFETY PRECAUSTION” and “PRODUCT SAFETY NOTICE” ON THE MANUAL FOR THIS MODEL.

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1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
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   K = ±10% G = ±2% F = ±1%
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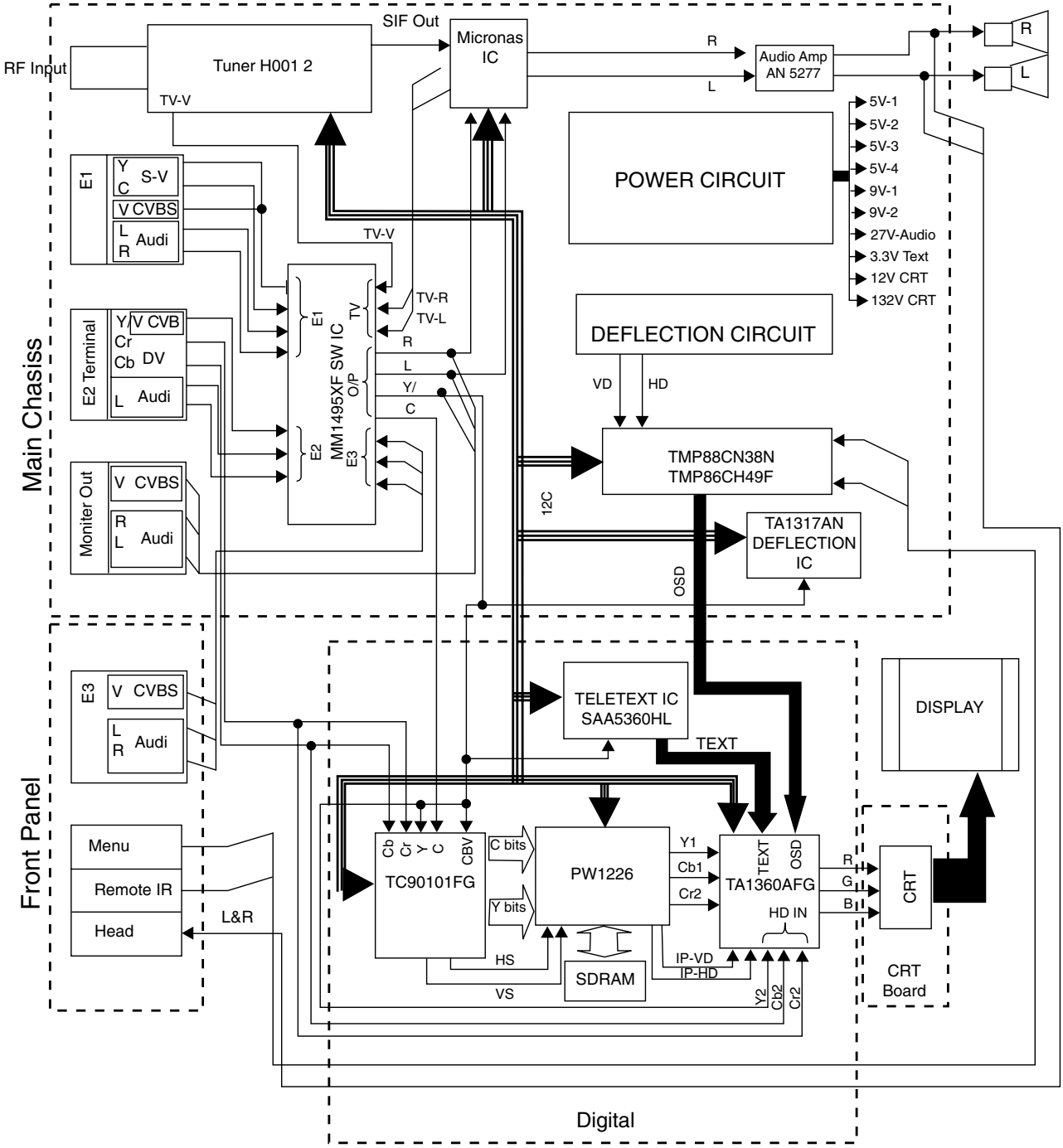
- MAIN Circuit 1/6
- DIGITAL Circuit 2/6
- MTS Circuit 3/6
- CRT/D Circuit 4/6
- FRONT AV-1 Circuit 5/6
- FRONT AV-2 Circuit 6/6

CIRCUIT BLOCK DIAGRAM



SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS

MAIN PD2214ZA (SINGLE SIDE) & PD2252ZA (DOUBLE SIDE)

TO DIGITAL BOARD

TO DIGITAL BOARD

TO FRONT

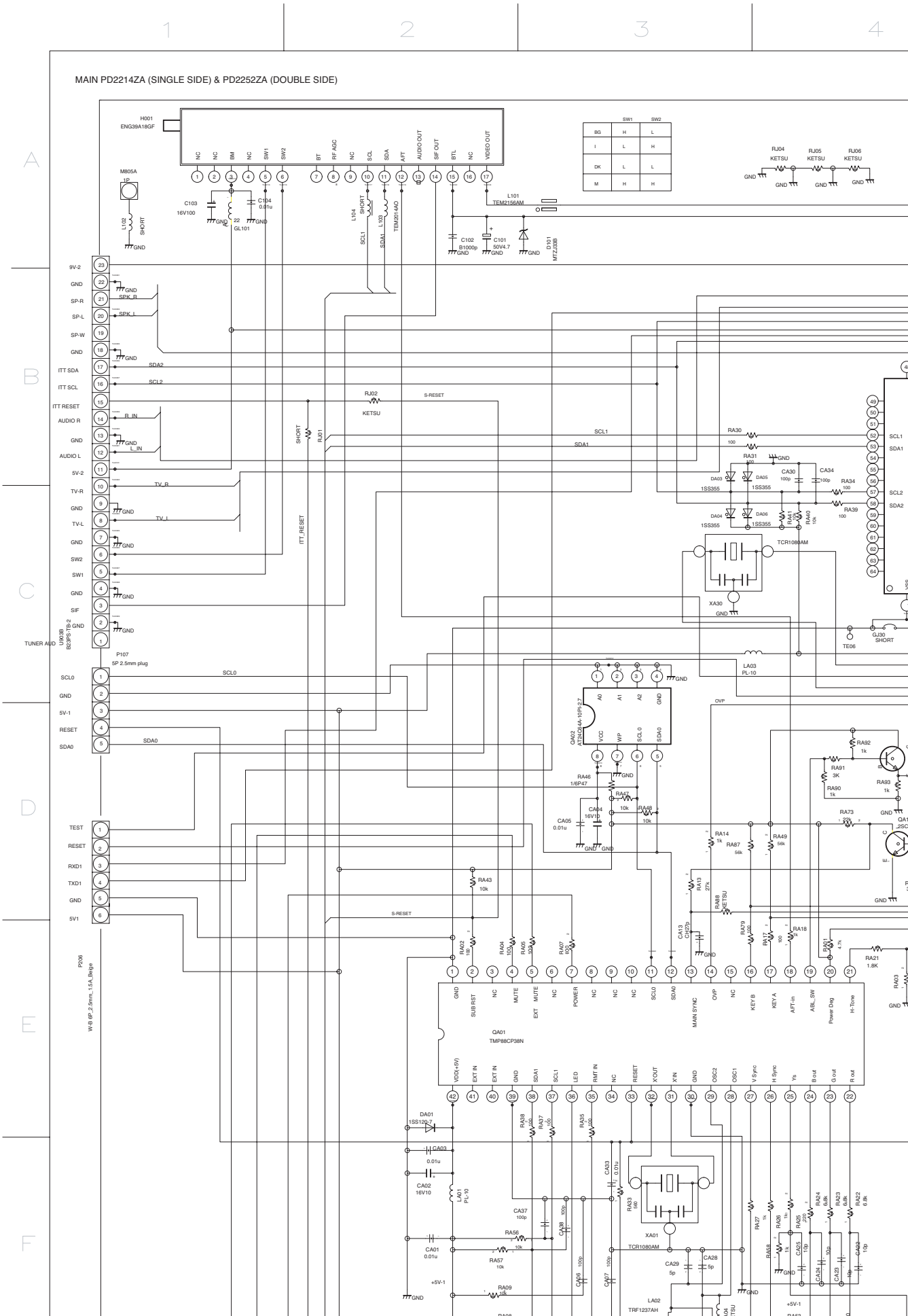
TO FRONT

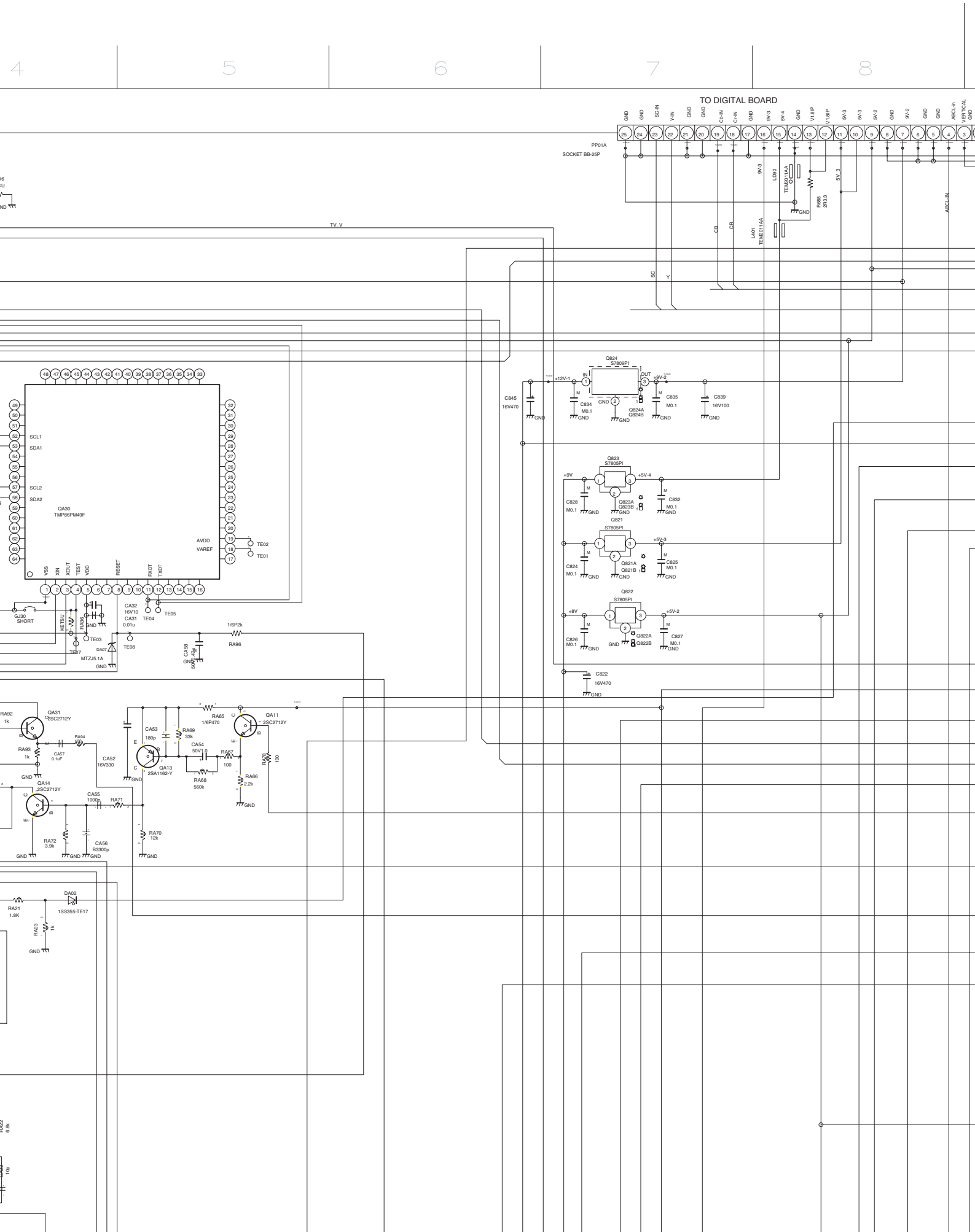
TO P903B CRT/D BOARD

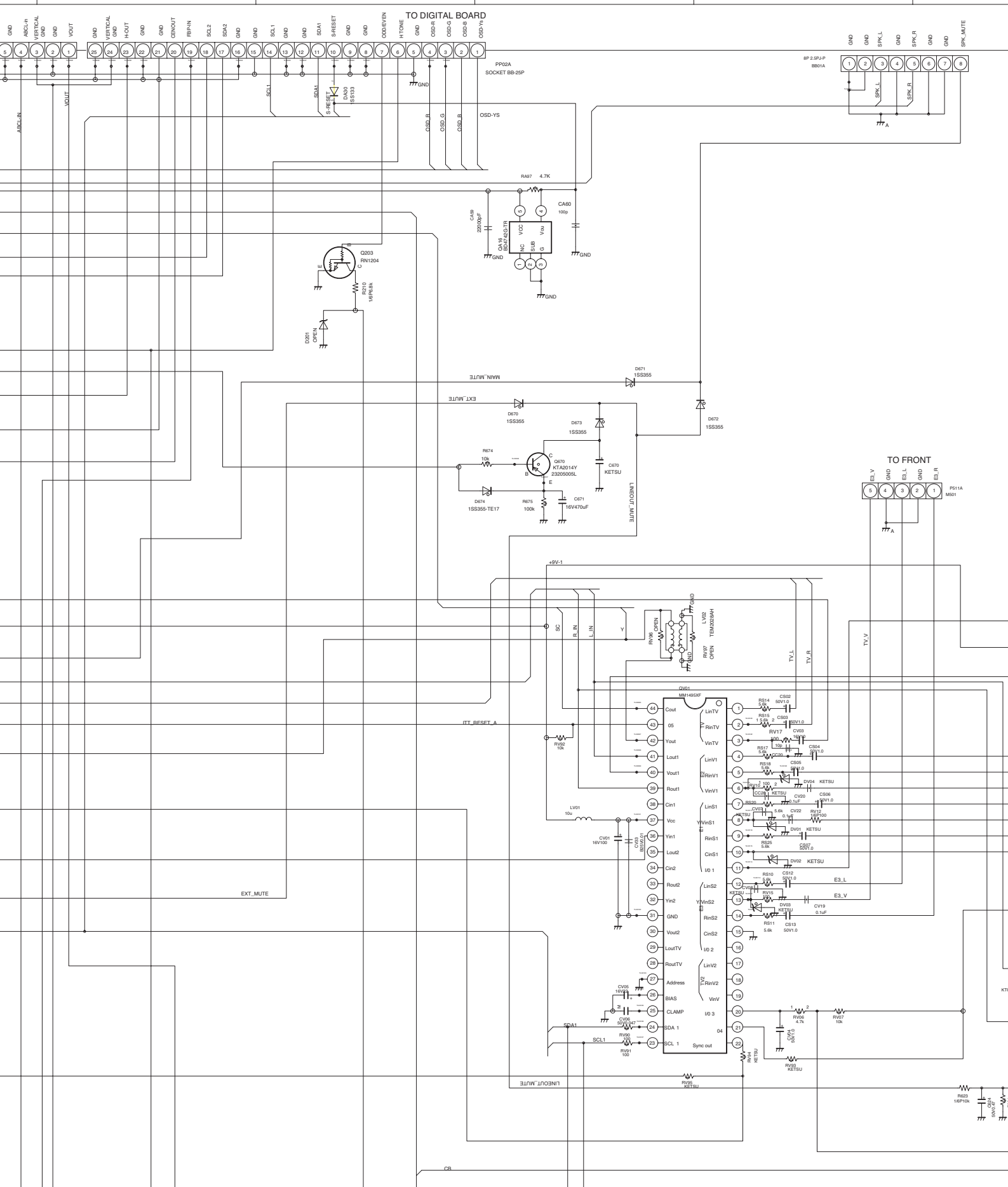
TO P704A

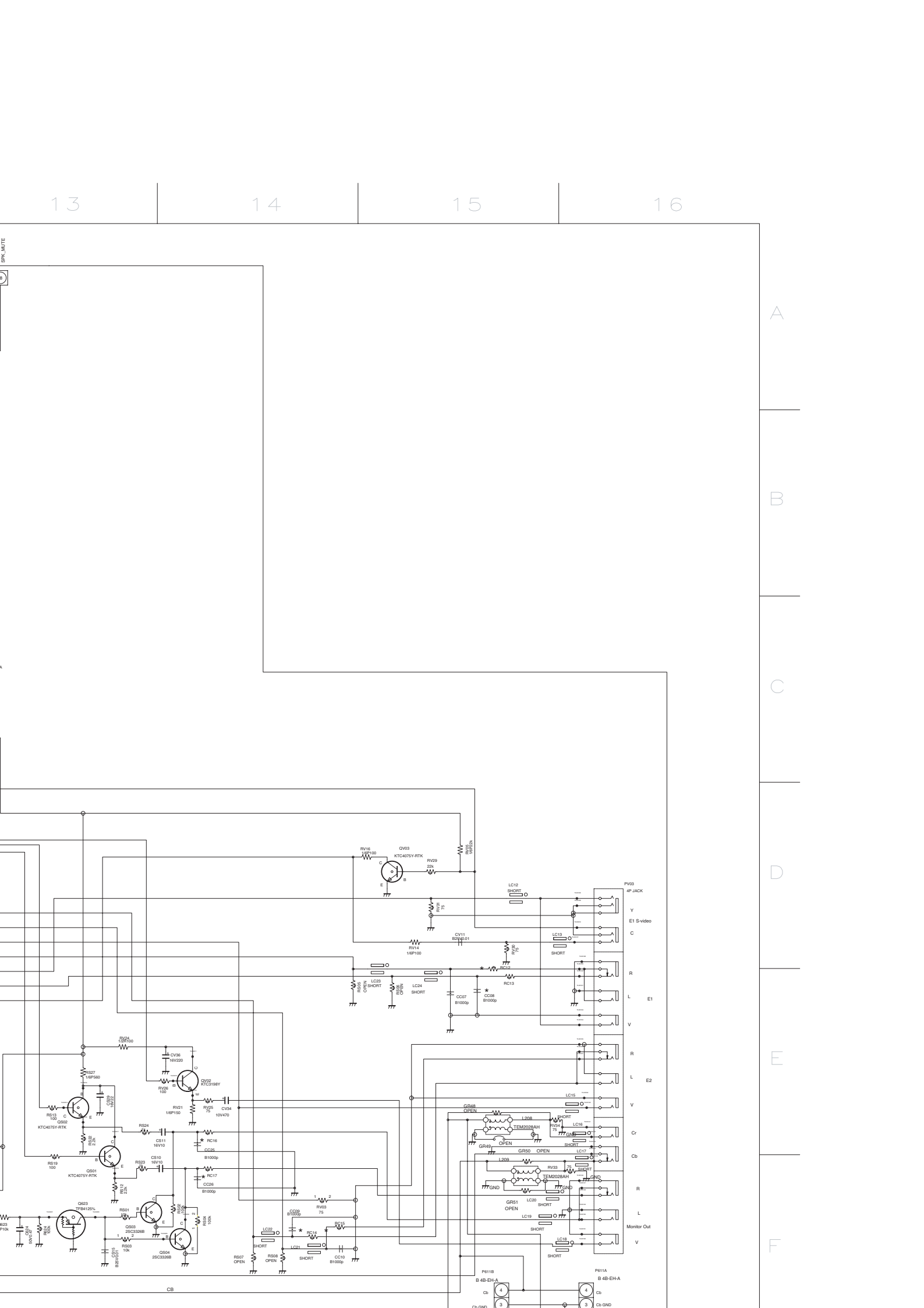
MAIN
(1 / 6)

SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS




TO DIGITAL BOARD
PP01A
SOCKET BB-25P
TV_V
QA30
TMP86PM49F
SCL1
SDA1
SCL2
SDA2
AVDD
VAREF
VSS
XIN
XOUT
TEST
VDD
RESET
RXOT
TXOT
TE01
TE02
TE03
TE04
TE05
TE08
TE17
GJ30
SHORT
KEITSU
RA96
1/6P2k
DA07
MTZJ5.1A
CA32
16V10
CA31
0.01u
CA58
50V0.47u
Q824
S7809PI
+12V-1
+9V-2
C845
16V470
C834
M0.1
Q824A
Q824B
C835
M0.1
C839
16V100
Q823
S7805PI
+9V
+5V-4
C828
M0.1
Q823A
Q823B
C832
M0.1
Q821
S7805PI
+5V-3
C824
M0.1
Q821A
Q821B
C825
M0.1
Q822
S7805PI
+8V
+5V-2
C826
M0.1
Q822A
Q822B
C827
M0.1
C822
16V470
QA31
2SC2712Y
RA92
1k
RA94
RA93
1k
CA57
0.1uF
CA52
16V330
QA14
2SC2712Y
CA55
1000p
RA71
RA72
3.9k
CA56
B3300p
RA70
12k
CA53
180p
RA69
33k
CA54
50V1.0
RA68
560k
QA13
2SA1162-Y
RA67
100
RA65
1/6P470
QA11
2SC2712Y
RA66
2.2k
RA73
100
DA02
1SS355-TE17
RA21
1.8K
RA03
1K
RA82
6.8k
C852
10p
SC
Y
CB
CR
L401
TEM0011AA
L400
TEM0011AA
9V-3
LDO
5V_3
R888
2R/0.3
ABCL-IN
VERTICAL


TO DIGITAL BOARD
PP02A
SOCKET BB-25P
8P 2.5PJ-P
BB01A
TO FRONT
P511A
M501
Q203
RN1204
D201
OPEN
RA97 4.7K
CA60
100p
D670
1SS355
D671
1SS355
D672
1SS355
D673
1SS355
C670
KETSU
Q670
KTA2014Y
23205005L
R674
10k
D674
1SS355-TE17
R675
100k
C671
16V470uF
MAIN_MUTE
EXT_MUTE
LINEOUT_MUTE
+9V-1
OSD-YS
OSD_R
OSD_G
OSD_B
SCL1
SDA1
S-RESET
ITT_RESET_A
TV_V
TV_L
TV_R
E3_V
E3_L
E3_R
GND
VOUT
ABCL-IN
LV01
10u
RV92
10k
RV96
OPEN
RV97
OPEN
LV02
TEMX0B04H
QV01
MM1495XF
RV17
RV10
RV15
RV06
4.7k
RV07
10k
RV93
KETSU
RV94
KETSU
RV95
KETSU
R623
16P10k
CB


13
14
15
16
A
B
C
D
E
F
SPK_MUTE
RV16 1/8P100
QV03 KTC4075Y-RTK
RV29 22k
RV30 1/8P5.6k
LC12 SHORT
PV03 4P JACK
RV31 75
Y
E1 S-video
C
CV11 B2500001
RV14 1/8P100
RV32 75
LC13 SHORT
RC12
RC13
RV23 OPEN
LC23 SHORT
RV27 OPEN
LC24 SHORT
CC07 B1000p
CC08 B1000p
R
L
E1
V
RV24 1/8R100
CV36 16V220
RS27 1/6P560
QV02 KTC3198Y
RV26 100
CV33 16V22
RS13 100
QS02 KTC4075Y-RTK
RV21 1/6P150
RV25 75
CV34 10V470
RS24
CS11 16V10
RC16
CC25 B1000p
RS19 100
QS01 KTC4075Y-RTK
RS23
CS10 16V10
RC17
CC26 B1000p
RV27 2.2k
RS28 2.2k
R
E2
V
GR48 OPEN
L208
TEM2028AH
RV34 75
LC15 SHORT
LC16 SHORT
GND
Cr
GR49 OPEN
GR50 OPEN
LC17 SHORT
Cb
L209
RV33 75
TEM2028AH
GND
GND
GR51 OPEN
LC20 SHORT
LC19 SHORT
R
L
Monitor Out
V
LC18 SHORT
Q623 TFB4125%
RS01 10k
QS03 2SC3326B
RS04 100k
RS03 10k
QS04 2SC3326B
CS15 B2V/D01
RS05 100k
RS06 10k
CC29 B1000p
RV03 75
RC15
RC14
LC22 SHORT
LC21 SHORT
CC10 B1000p
RS07 OPEN
RS08 OPEN
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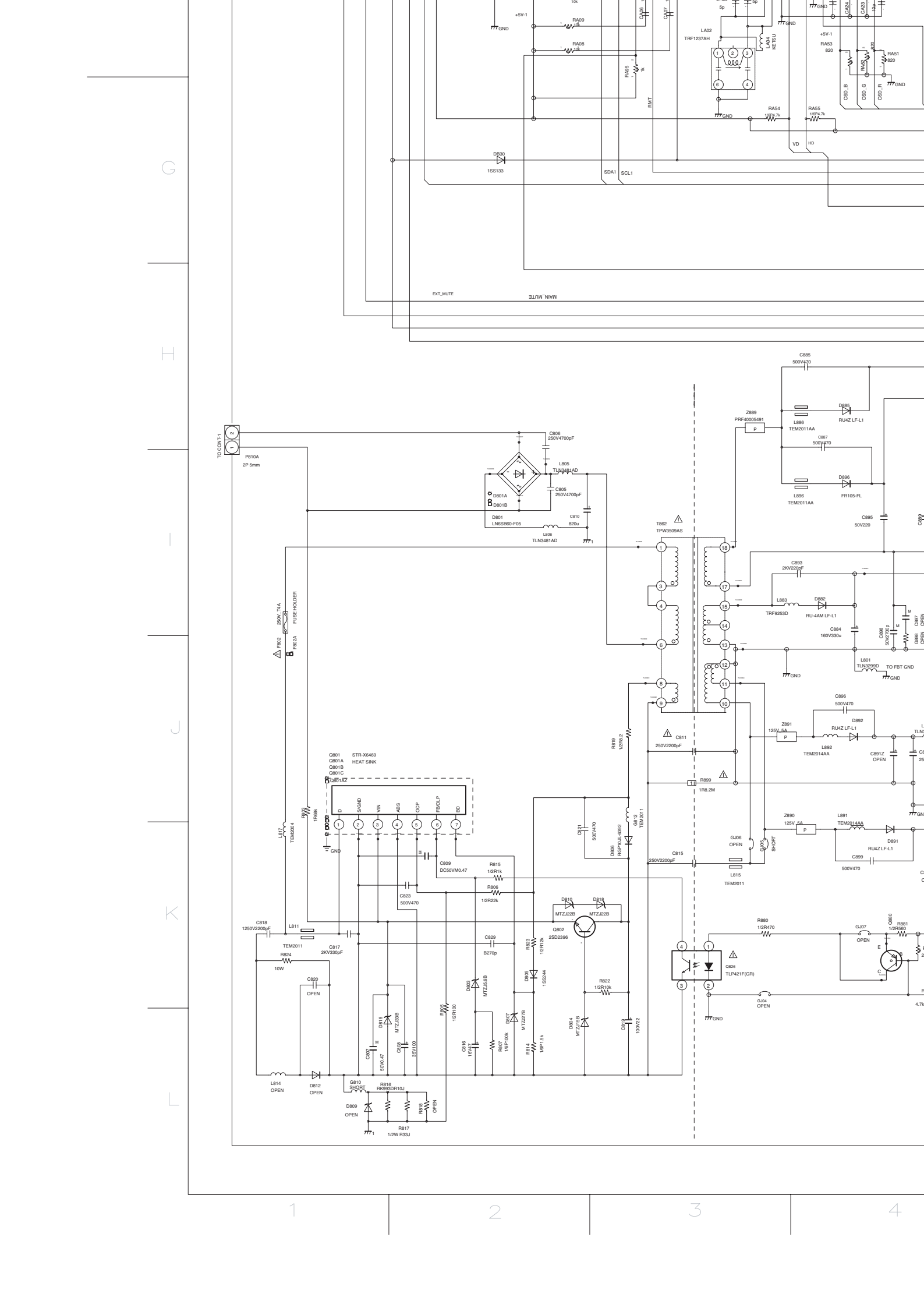
P611A B 4B-EH-A
Cb
Cb GND
CB


TO CONT-1
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2P 5mm
F802
F802A
250V_T4A
FUSE HOLDER
D801
LN6SB60-F05
D801A
D801B
C806
250V4700pF
C805
250V4700pF
L805
TLN3481AD
C810
820u
L806
TLN3481AD
T862
TPW3509AS
C885
500V470
D885
RU4Z LF-L1
L886
TEM2011AA
Z889
PRF40005491
C887
500V470
D896
FR105-FL
L896
TEM2011AA
C895
50V220
C893
2KV220pF
L883
TRF9253D
D882
RU-4AM LF-L1
C884
160V330u
C888
50V2700p
C887
OPEN
C898
OPEN
L801
TLN3299D
TO FBT GND
C896
500V470
D892
RU4Z LF-L1
L892
TEM2014AA
Z891
125V_5A
C891Z
OPEN
C811
250V2200pF
R819
1/2R6.2
R899
1R8.2M
Q801
Q801A
Q801B
Q801C
Q801AZ
STR-X6469
HEAT SINK
D
S/GND
VIN
ABS
OCP
FB/OLP
BD
R816
1R68k
L817
TEM2014
C809
DC50VM0.47
R815
1/2R91k
R806
1/2R22k
C823
500V470
C821
500V470
D806
RGP10J-E3/52
GJ12
TEM2011
C815
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Z890
125V_5A
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TEM2014AA
D891
RU4Z LF-L1
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GJ05
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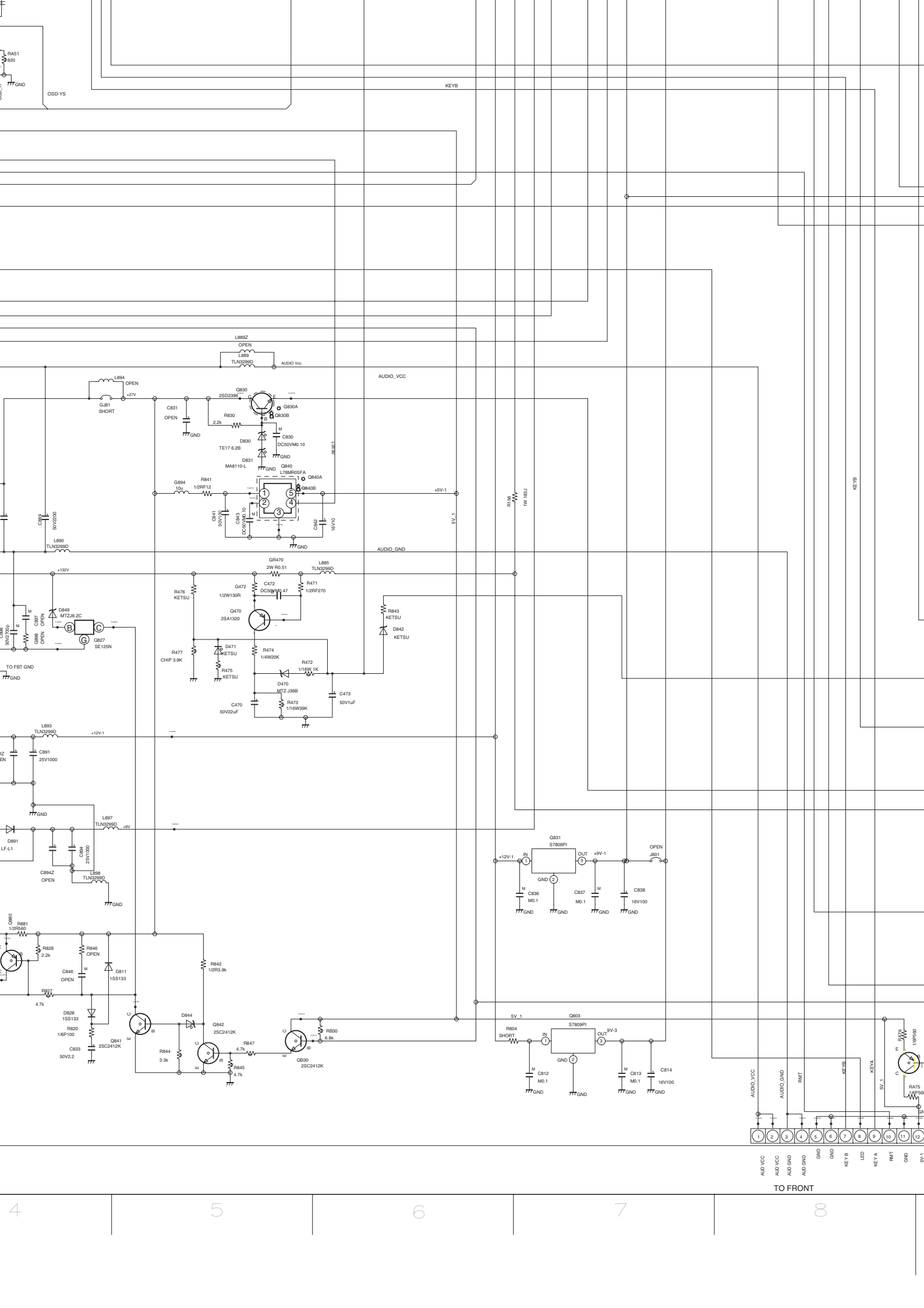
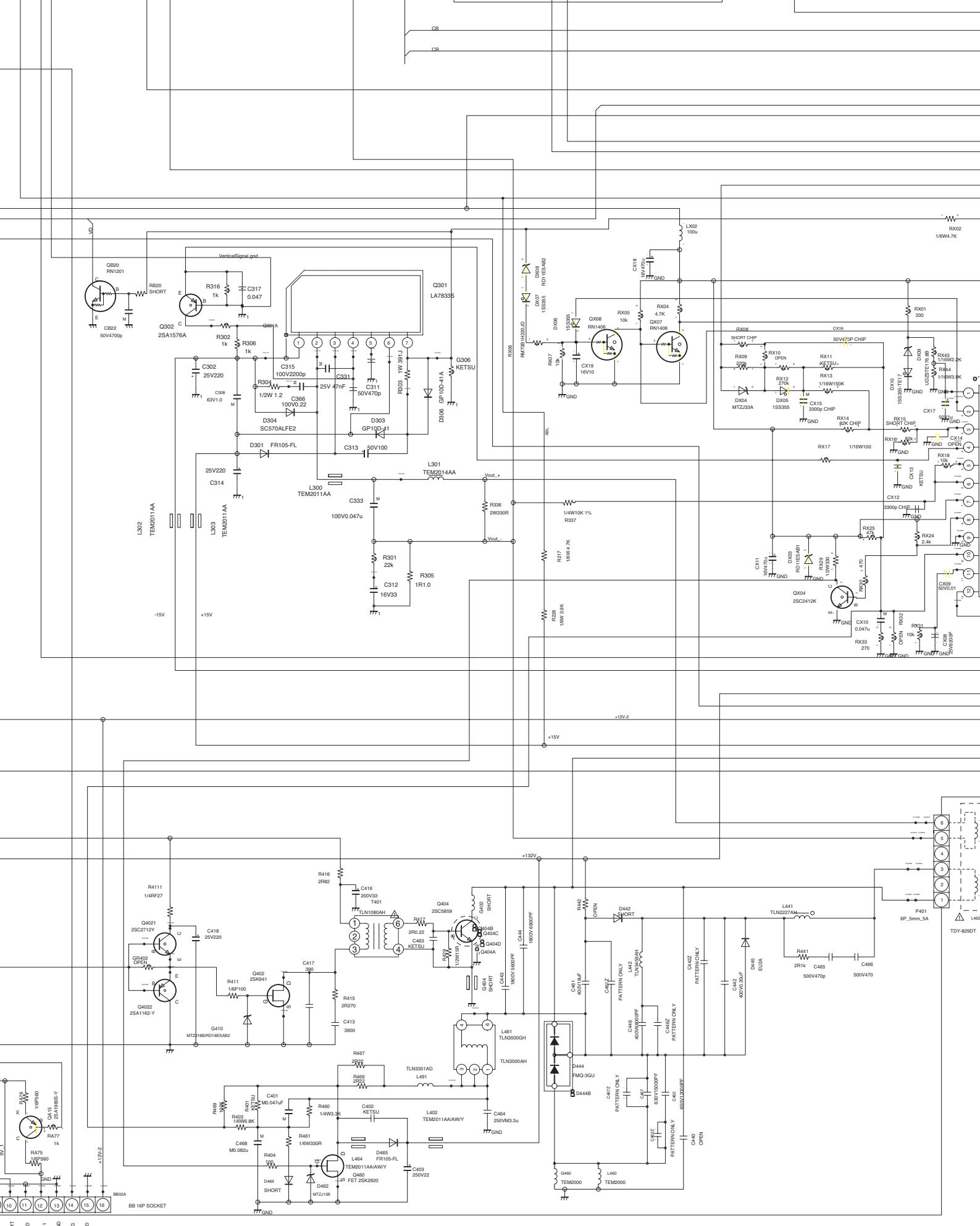
C818
1250V2200pF
L811
TEM2011
C817
2KV330pF
R824
10W
C820
OPEN
L814
OPEN
D812
OPEN
G810
SHORT
R816
RK993DR10J
D809
OPEN
R818
OPEN
R817
1/2W R33J
C829
B270p
R823
1/2R1.2k
D810
MTZJ22B
D818
MTZJ22B
Q802
2SD2396
D803
MTZJ5.6B
D805
1SS244
R822
1/2R10k
R808
1/2R100
D815
MTZJ33B
C817
50V0.47
C808
350V100
C816
16V47
R807
1/6PT-100k
D807
MTZJ27B
R814
1/6P1.5k
D804
MTZJ15B
C813
100V22
Q826
TLP421F(GR)
R880
1/2R470
GJ07
OPEN
R881
1/2R560
GJ04
OPEN
4.7k
GND
+5V-1
RA09
10k
RA08
10k
RA05
1k
RMT
LA02
TRF1237AH
LA04
KETSU
CA24
5p
CA23
5p
CA06
CA07
RA53
820
RA52
820
RA51
820
OSD_B
OSD_G
OSD_R
RA54
VOL7k
RA55
1/6P4.7k
VD
HD
DB30
1SS133
SDA1
SCL1
EXT_MUTE
MAIN_MUTE


RA51
820
GND
OSD-YS
KEYB
L889Z
OPEN
L889
TLN3299D
AUDIO Vcc
AUDIO_VCC
L894
OPEN
+27V
GJ81
SHORT
C831
OPEN
GND
Q830
2SD2396
Q830A
Q830B
R830
2.2k
D830
TE17 6.2B
C830
DC50VM0.10
D831
MA8110-L
Q840
L78MR05FA
Q840A
Q840B
G894
10u
R841
1/2RF12
+5V-1
C841
50V220
C843
DC50VM0.10
C842
16V10
5V_1
RESET
R1K6
1W 183J
C889
50V2200
L890
TLN3299D
AUDIO_GND
+132V
GR470
2W R0.51
L895
TLN3299D
R476
KETSU
G472
1/2W130R
C472
DC50VM0.47
R471
1/2RF270
Q470
2SA1320
R843
KETSU
D842
KETSU
D849
MTZJ8.2C
C887
OPEN
C886
50V2200
G898
OPEN
Q827
SE125N
TO FBT GND
GND
R477
CHIP 3.9K
D471
KETSU
R475
KETSU
R474
1/4W20K
R472
1/16W 1K
D470
MTZJ36B
R473
1/16W39K
C470
50V22uF
C473
50V1uF
L893
TLN3299D
+12V-1
C891
25V1000
GND
L897
TLN3299D
+8V
D891
LF-L1
C894
25V1000
C894Z
OPEN
L898
TLN3299D
GND
Q831
S7809PI
+12V-1
IN
OUT
+9V-1
GND
OPEN
J801
C836
M0.1
C837
M0.1
C838
16V100
Q860
R881
1/2R560
R828
2.2k
R846
OPEN
C846
OPEN
D811
1SS133
R842
1/2R3.9k
R827
4.7k
D828
1SS133
R820
1/6P100
C833
50V2.2
Q841
2SC2412K
D844
Q842
2SC2412K
R844
3.3k
R847
4.7k
R845
4.7k
RB30
6.8k
Q830
2SC2412K
5V_1
Q803
S7809PI
R804
SHORT
IN
OUT
9V-3
GND
C812
M0.1
C813
M0.1
C814
16V100
RA76
1/6P560
RA75
1/6P560
AUDIO_VCC
AUDIO_GND
RMT
KEYB
KEYA
5V_1
LED
GND
TO FRONT
1 AUD VCC
2 AUD VCC
3 AUD GND
4 AUD GND
5 GND
6 GND
7 KEY B
8 LED
9 KEY A
10 RMT
11 GND
12 5V-1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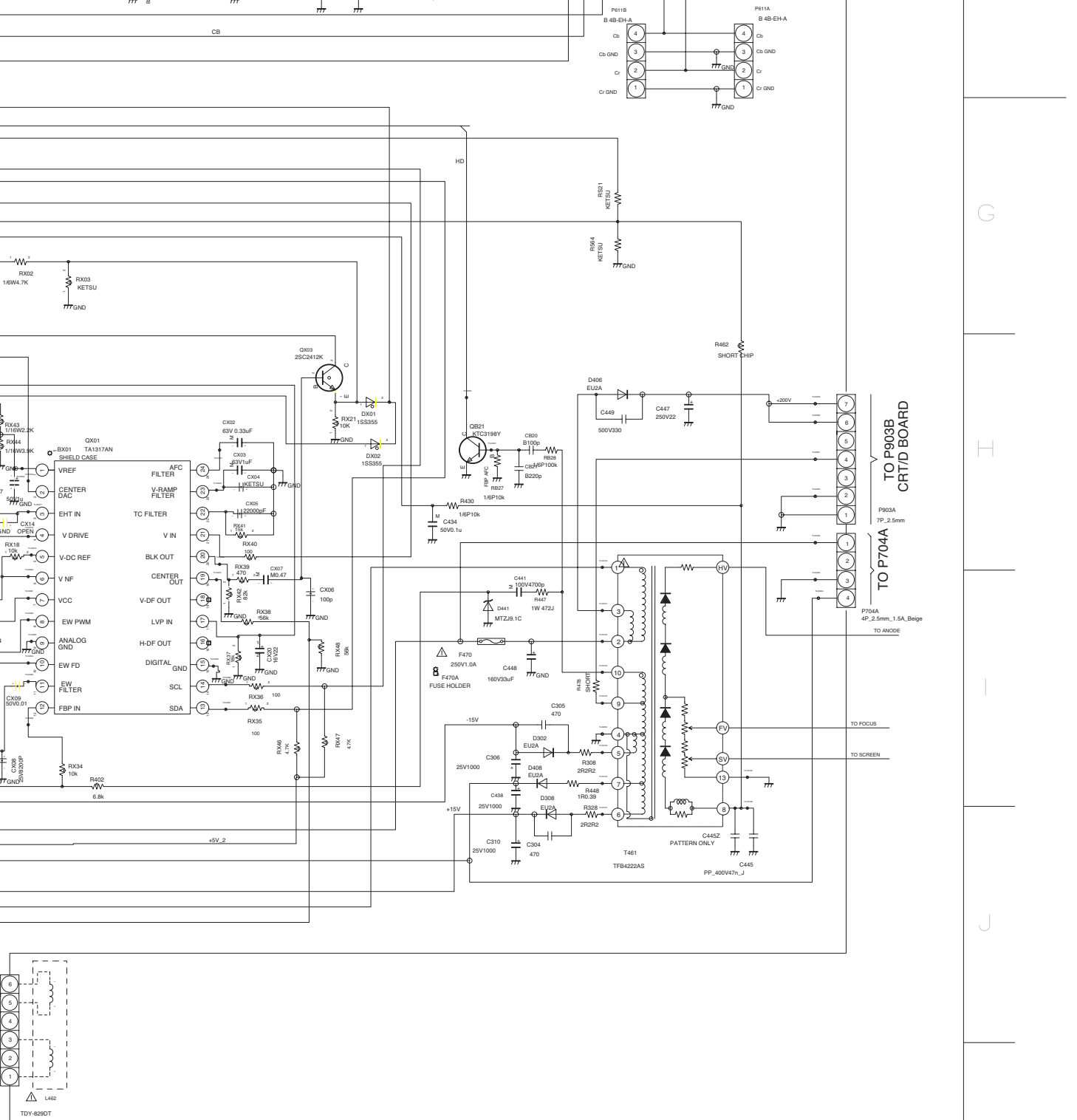
VerticalSignal gnd
QB20
RN1201
RB20
SHORT
CB22
50V4700p
R316
1k
C317
0.047
Q302
2SA1576A
R302
1k
R306
1k
Q301
LA7833S
G306
KETSU
C315
100V2200p
C331
25V 47nF
C311
50V470p
R303
1W 391J
GP10D-41A
D306
C302
25V220
C308
63V1.0
R304
1/2W 1.2
C366
100V0.22
D304
SC570ALFE2
D303
GP10D-41
D301
FR105-FL
C313
50V100
C314
25V220
L301
TEM2014AA
L300
TEM2011AA
C333
100V0.047u
Vout_+
Vout_-
R336
2W330R
1/4W10K 1%
R337
R301
22k
R305
1R1.0
C312
16V33
L302
TEM2011AA
L303
TEM2011AA
-15V
+15V
ABL
LX02
100u
CX18
16V470u
GND
RX04
4.7K
QX07
RN1406
QX08
RN1406
RX05
10k
DX06
1SS355
DX07
1SS355
DX08
RD11ES-AB2
RM736
H220JD
RX06
RX07
10k
CX19
16V10
RX02
1/6W4.7K
RX01
330
RX08
SHORT CHIP
CX16
50V470P CHIP
RX09
220k
RX10
OPEN
RX11
4KETSU
RX12
270k
RX13
1/16W150K
DX04
MTZJ33A
DX05
1SS355
CX15
3300p CHIP
RX14
82K CHIP
DX09
UDZST(76.8B)
RX43
1/16W2.2K
RX44
1/16W3.9K
DX10
1SS355-TE-17
CX17
50V10
RX15
SHORT CHIP
RX16
82k
CX14
OPEN
RX17
1/16W100
RX18
10k
CX13
KETSU
CX12
3300p CHIP
RX25
47k
RX24
2.4k
CX11
16V470u
DX03
RD11ES-AB1
RX29
1/2W300
RX30
470
QX04
2SC2412K
CX09
50V0.01
CX10
0.047u
RX32
OPEN
RX31
10k
RX33
270
CX08
25V0.33P
R217
1/6W 4.7K
R228
1/6W 3.9K
+12V-2
+15V
+132V
R4111
1/4RF27
Q4021
2SC2712Y
C418
25V220
GR402
OPEN
Q4022
2SA1162-Y
R411
1/6P100
Q402
2SK941
C417
390
R415
2R270
C413
3900
G410
MTZ218B/RD18ESAB2
R416
2R82
C416
200V33
T401
TLN1080AH
Q404
2SC5859
R417
2R0.22
C463
KETSU
R418
1/2W10R
G402
SHORT
Q404B
Q404C
Q404D
Q404A
C444
1800V 6800PF
C443
1800V 6800PF
G404
SHORT
L461
TLN3500GH
TLN3500AH
TLN3351AD
L491
R467
2R22
R466
2R22
R440
OPEN
D442
SHORT
L441
TLN2227AH
P401
6P_5mm_5A
TDY-829DT
R441
2R1k
C465
500V470p
C466
500V470
C461
400V6800PF
C447
PATTERN ONLY
L442
TLN3459AH
C442Z
PATTERN ONLY
C446
400V6800PF
C446Z
PATTERN ONLY
C442
400V6.2UF
D445
EU3A
D444
FMQ-3GU
D444B
C447Z
PATTERN ONLY
C447
630V1500PF
C445
630V1200PF
C445Z
PATTERN ONLY
C440
OPEN
G460
TEM2000
L460
TEM2000
R469
1K
R401
KETSU
C401
M0.047uF
R403
1/6W6.8K
C468
M0.082u
R460
1/4W3.3K
C402
KETSU
L402
TEM2011AA/AW/Y
C464
250VM3.3u
R461
1/6W330R
R404
100
D469
SHORT
D462
MTZJ15B
L464
TEM2011AA/AW/Y
D465
FR105-FL
C403
250V22
Q460
FET 2SK2920
GND
RA76
1/6P560
QA15
2SA1930S-Y
RA77
1k
RA75
1/6P560
5V_1
+12V-2
BB02A
BB 16P SOCKET
RMT
GND
5V-1
GND
POW DEG
POW GND
+12V-2


P611B
B 4B-EH-A
P611A
B 4B-EH-A
Cb
Cb GND
Cr
Cr GND
GND
CB
HD
RSD1
KETSU
R564
KETSU
RX02
1/6W4.7K
RX03
KETSU
QX03
2SC2412K
DX01
1SS355
RX21
10K
DX02
1SS355
R462
SHORT CHIP
D406
EU2A
C449
500V330
C447
250V22
+200V
TO P903B
CRT/D BOARD
P903A
7P_2.5mm
TO P704A
4P_2.5mm_1.5A_Beige
TO ANODE
QB21
KTC3198Y
CB20
B100p
RB28
4V6P100k
CB21
B220p
RBP_APC
RB27
1/6P10k
R430
1/6P10k
C434
50V0.1u
QX01
TA1317AN
SHIELD CASE
BX01
VREF
CENTER DAC
EHT IN
V DRIVE
V-DC REF
V NF
VCC
EW PWM
ANALOG GND
EW FD
EW FILTER
FBP IN
AFC FILTER
V-RAMP FILTER
TC FILTER
V IN
BLK OUT
CENTER OUT
V-DF OUT
LVP IN
H-DF OUT
DIGITAL GND
SCL
SDA
CX02
63V 0.33uF
CX03
63V1uF
CX04
1KETSU
CX05
22000pF
RX41
1M
RX40
100
RX39
470
CX07
M0.47
RX38
56k
CX06
100p
RX36
100
RX35
100
RX46
4.7K
RX47
4.7K
RX48
56k
CX09
50V0.01
CX08
25V330UF
RX34
10k
R402
6.8k
RX43
1/16W2.2K
RX44
1/16W3.9K
RX18
10k
CX14
OPEN
5P1U
C441
100V4700p
R447
1W 472J
D441
MTZJ9.1C
F470
250V1.0A
F470A
FUSE HOLDER
C448
160V33uF
R479
SHORT
C305
470
-15V
D302
EU2A
C306
25V1000
D408
EU2A
R308
2R2R2
C438
25V1000
D308
EU2A
R448
1R0.39
R308
2R2R2
+15V
C310
25V1000
C304
470
T461
TFB4222AS
C445Z
PATTERN ONLY
C445
PP_400V47n_J
TO FOCUS
TO SCREEN
+5V_2
L462
TDY-829DT

MAIN
(1 / 6)

SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS

PD2215 DIGITAL BOARD

★ GROUND LEGEND

	GND
	ANALOG GND
	DIGITAL GND
	DEFLECTION GND

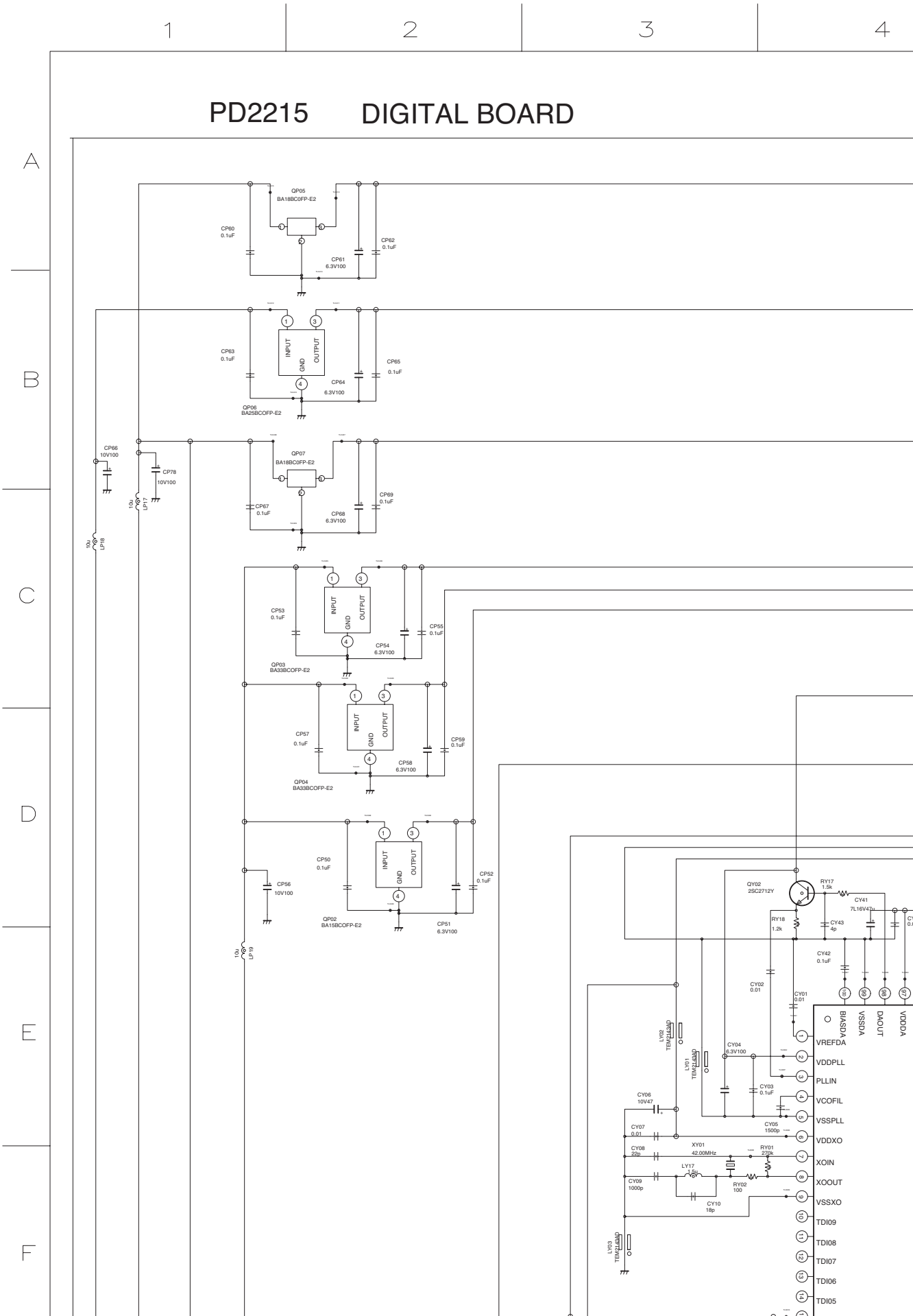
QY01
TC90101FG

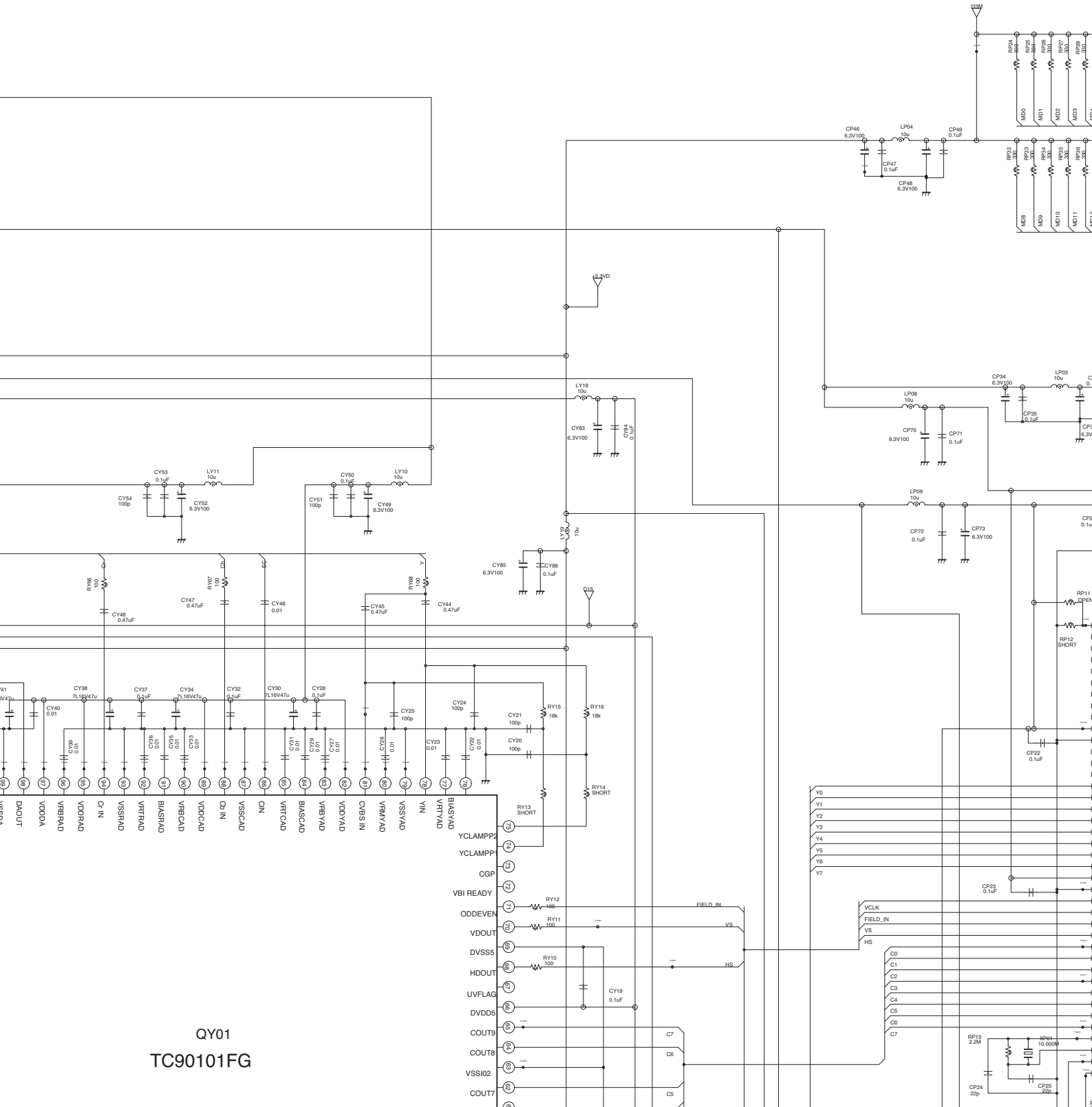
QP01
PW1226

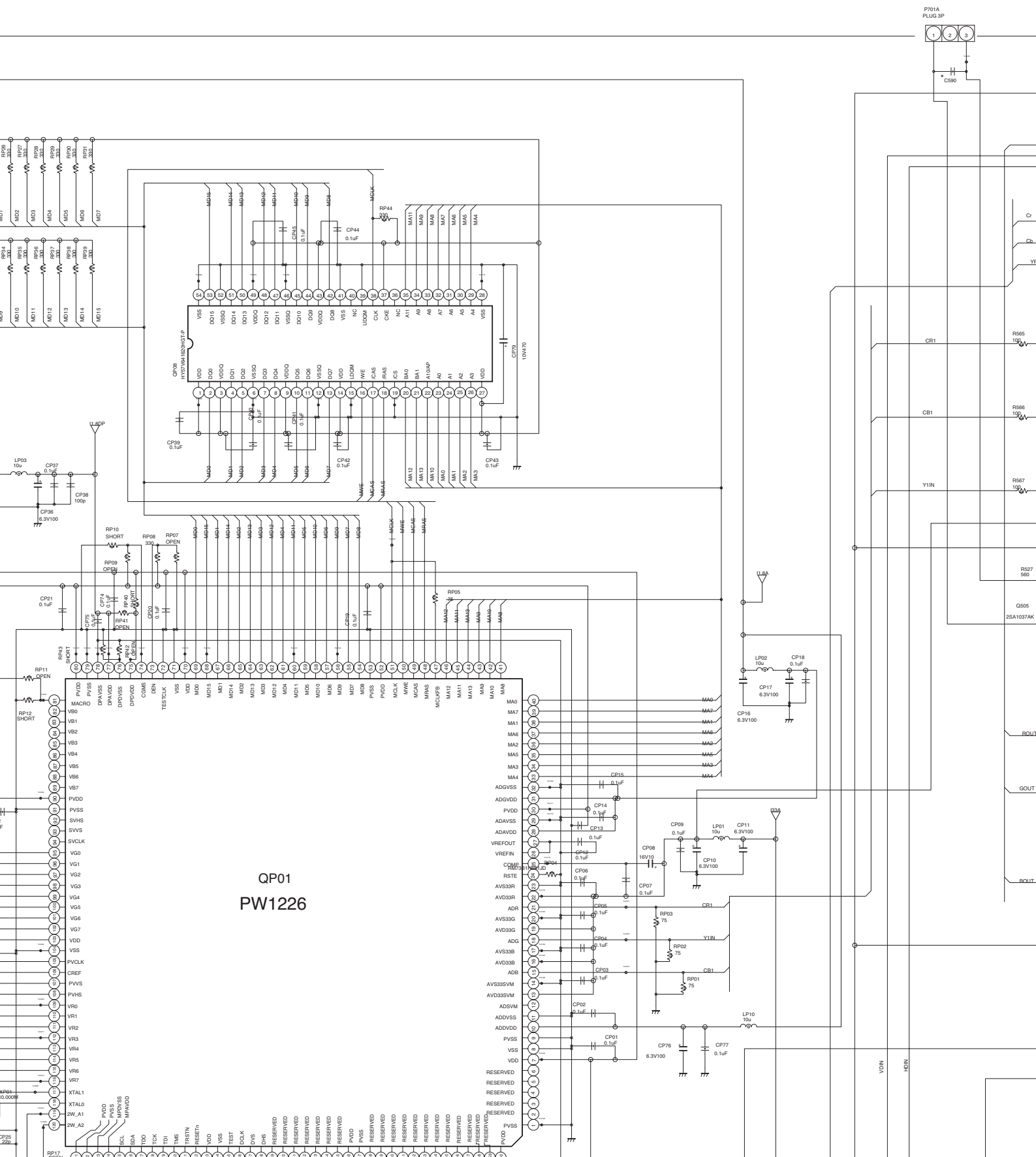
QT01
SAA5667M/045A8888

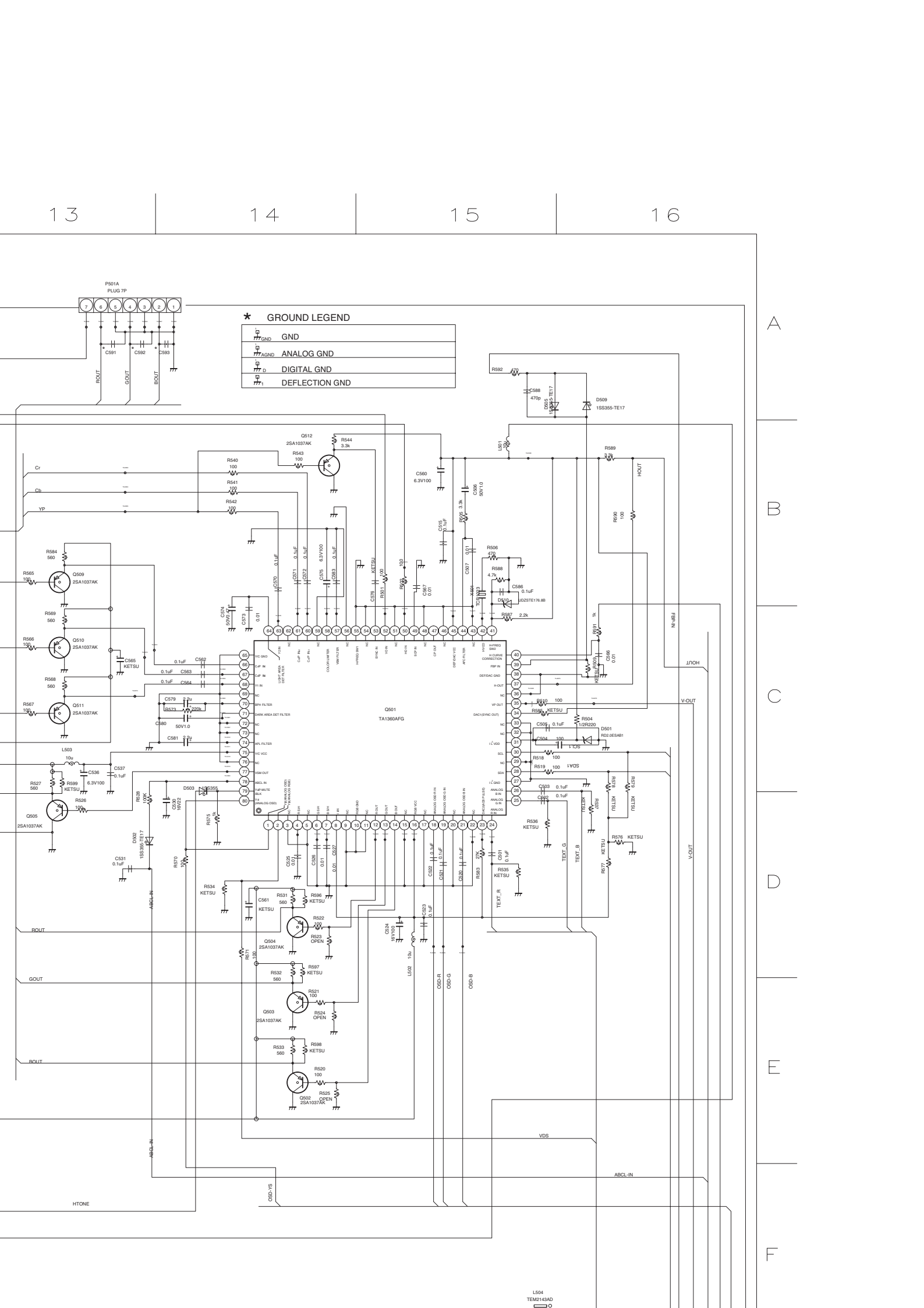
DIGITAL
(2 / 6)

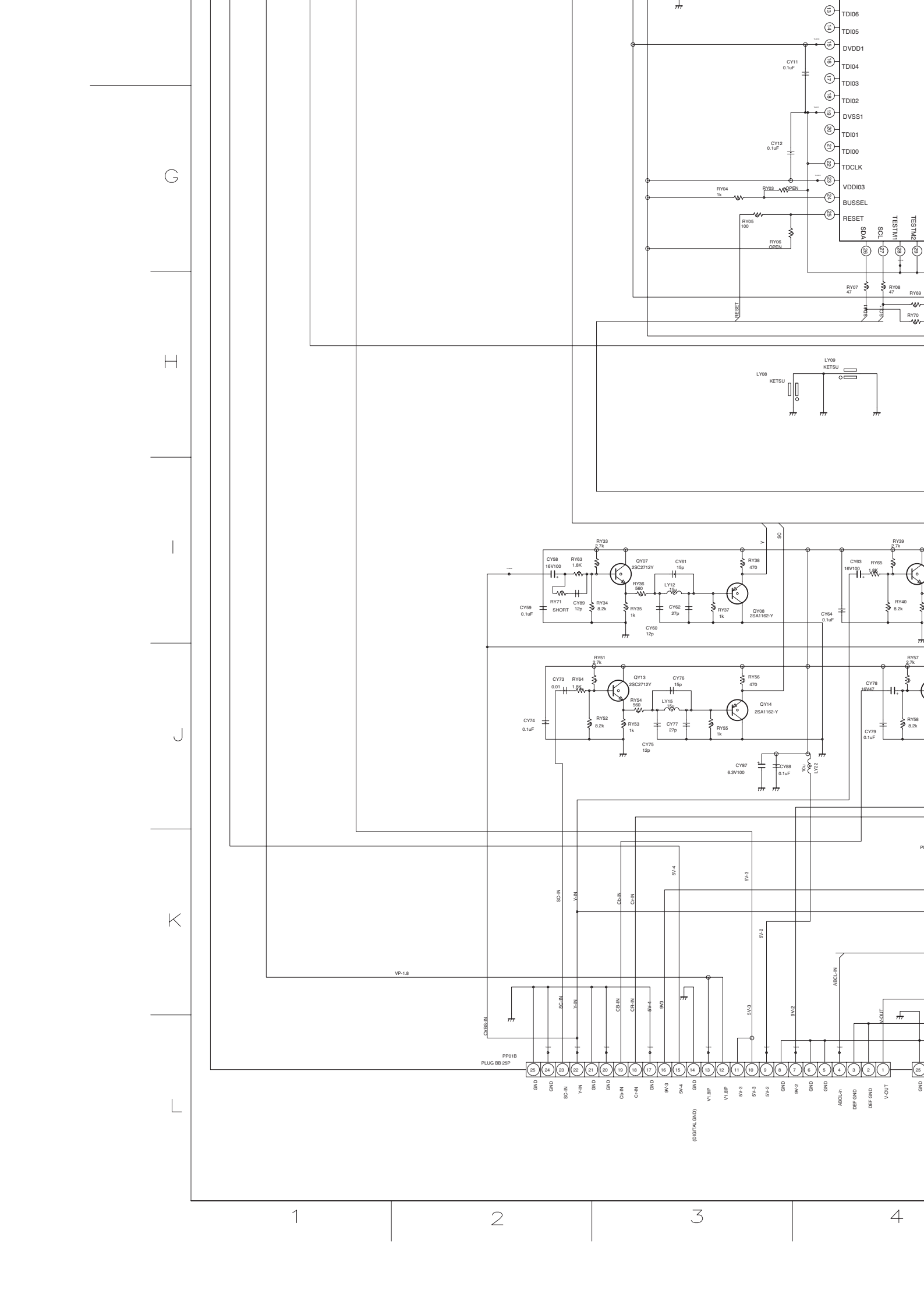
SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS



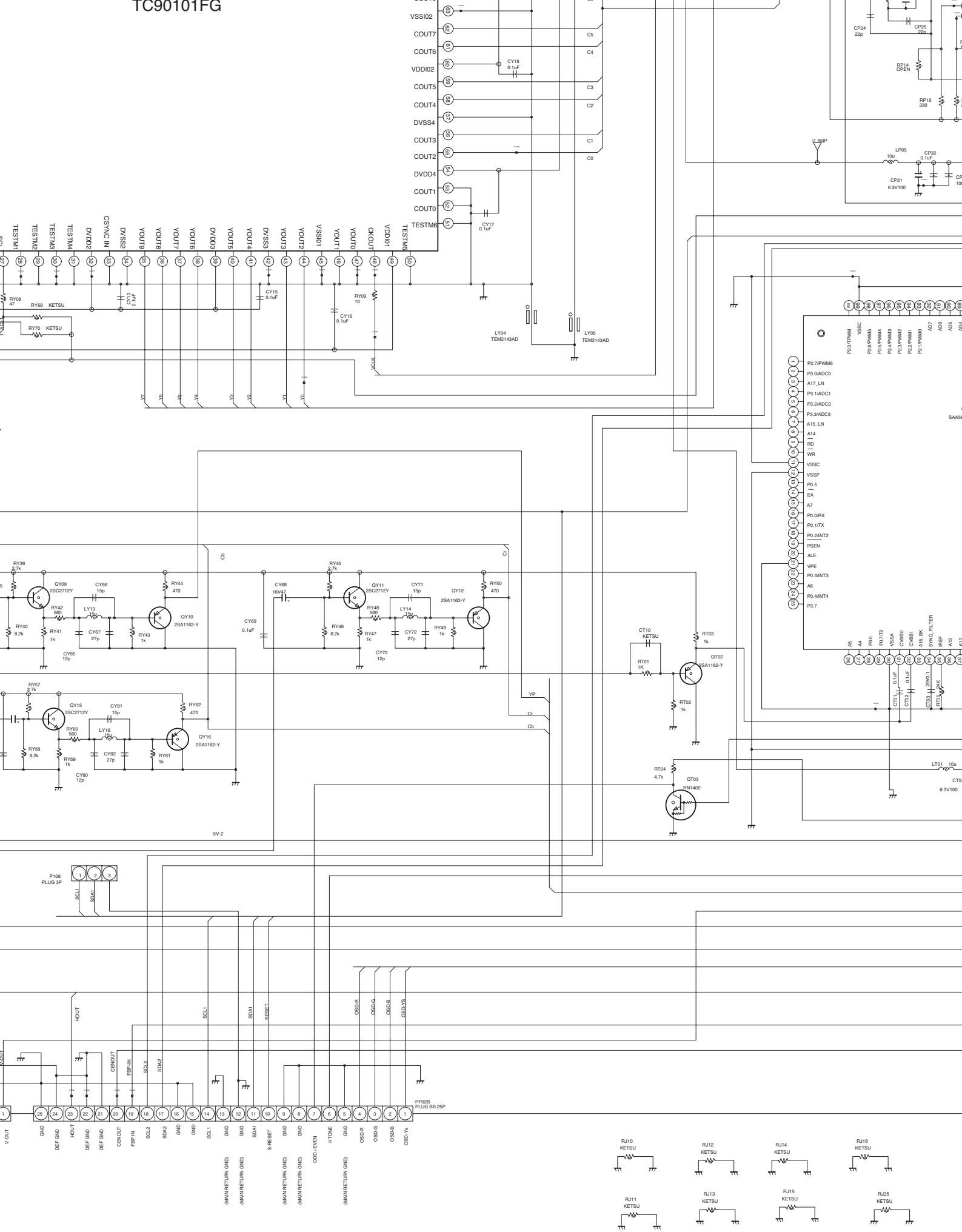

QY01
TC90101FG
3.3VD
CP46 6.3V100
LP04 10u
CP49 0.1uF
CP47 0.1uF
CP48 6.3V100
LP03 10u
CP34 6.3V100
CP35 0.1uF
LP08 10u
CP70 6.3V100
CP71 0.1uF
LP09 10u
CP72 0.1uF
CP73 6.3V100
LY18 10u
CY83 6.3V100
CY84 0.1uF
LY19 10u
CY85 6.3V100
CY86 0.1uF
D15
CY53 0.1uF
LY11 10u
CY54 100p
CY52 6.3V100
CY50 0.1uF
LY10 10u
CY51 100p
CY49 6.3V100
RY66 100
RY67 100
RY68 100
CY47 0.47uF
CY46 0.01
CY45 0.47uF
CY44 0.47uF
CY48 0.47uF
CY38 7L16V47u
CY37 0.1uF
CY34 7L16V47u
CY32 0.1uF
CY30 7L16V47u
CY28 0.1uF
CY40 0.01
CY39 0.01
CY36 0.01
CY35 0.01
CY33 0.01
CY31 0.01
CY29 0.01
CY27 0.01
CY26 0.01
CY25 100p
CY24 100p
CY23 0.01
CY22 0.01
CY21 100p
CY20 100p
RY15 18k
RY16 18k
RY14 SHORT
RY13 SHORT
RY12 100
RY11 100
RY10 100
CY19 0.1uF
RP11 OPEN
RP12 SHORT
CP22 0.1uF
CP23 0.1uF
RP13 2.2M
XP01 10.000M
CP24 22p
CP25 22p
DACOUT
VDDDA
VRBRAD
VDDRAD
Cr IN
VSSRAD
VRTRAD
BIASRAD
VRBCAD
VDDCAD
Cb IN
VSSCAD
CIN
VRTCAD
BIASCAD
VRBYAD
VDDYAD
CVBS IN
VRMYAD
VSSYAD
YIN
VRTYAD
BIASYAD
YCLAMPP2
YCLAMPP
CGP
VBI READY
ODDEVEN
VDOUT
DVSS5
HDOUT
UVFLAG
DVDD5
COUT9
COUT8
VSSI02
COUT7
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
VCLK
FIELD_IN
VS
HS
C0
C1
C2
C3
C4
C5
C6
C7

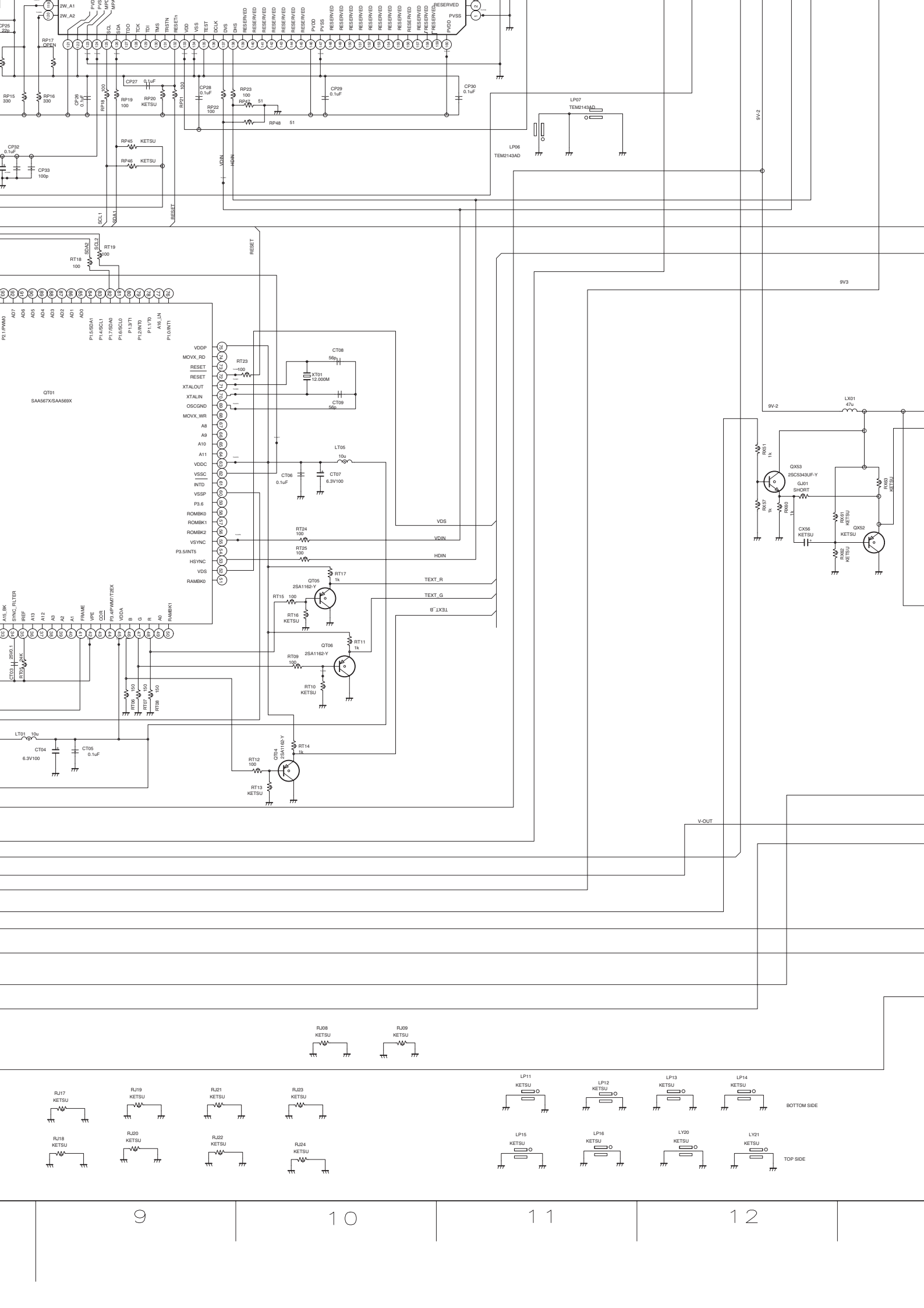

P701A
PLUG 3P
C590
QP01
PW1226
HY57V644162HCT-P
U.8DP
U.8A
CP08
CP44
0.1uF
CP79
10V470
CP39
0.1uF
CP42
0.1uF
CP43
0.1uF
LP03
10u
CP37
0.1uF
CP38
100p
CP36
6.3V100
RP10
SHORT
RP08
330
RP07
OPEN
RP09
OPEN
RP05
75
RP11
OPEN
RP12
SHORT
RP43
SHORT
RP41
OPEN
CP21
0.1uF
CP20
0.1uF
CP19
0.1uF
LP02
10u
CP18
0.1uF
CP17
6.3V100
CP16
6.3V100
CP15
0.1uF
CP14
0.1uF
CP13
0.1uF
CP12
0.1uF
CP06
0.1uF
CP07
0.1uF
CP08
16V10
CP09
0.1uF
LP01
10u
CP11
6.3V100
CP10
6.3V100
CP05
0.1uF
CP04
0.1uF
CP03
0.1uF
CP02
0.1uF
CP01
0.1uF
RP03
75
RP02
75
RP01
75
CR1
Y1IN
CB1
LP10
10u
CP76
6.3V100
CP77
0.1uF
R565
150
R566
150
R567
150
R527
560
Q505
2SA1037AK
Cr
Cb
Y
ROUT
GOUT
BOUT
VDIN
HDIN


13
14
15
16
A
B
C
D
E
F
P501A
PLUG 7P
* GROUND LEGEND
GND
ANALOG GND
DIGITAL GND
DEFLECTION GND
Q501
TA1360AFG
Q512
2SA1037AK
Q509
2SA1037AK
Q510
2SA1037AK
Q511
2SA1037AK
Q505
2SA1037AK
Q504
2SA1037AK
Q503
2SA1037AK
Q502
2SA1037AK
D509
1SS355-TE17
D501
RD2.0ESAB1
D503
1SS355
D502
1SS355-TE17
D510
UDZSTE176.8B
L001
L502
L503
L504
TEM2143AD
HOUT
V-OUT
FBP-IN
ROUT
GOUT
BOUT
Cr
Cb
YP
ABCL-IN
VDS
HTONE
OSD-YS
OSD-R
OSD-G
OSD-B
TEXT_R
TEXT_G
TEXT_B
SCL1
SDA1

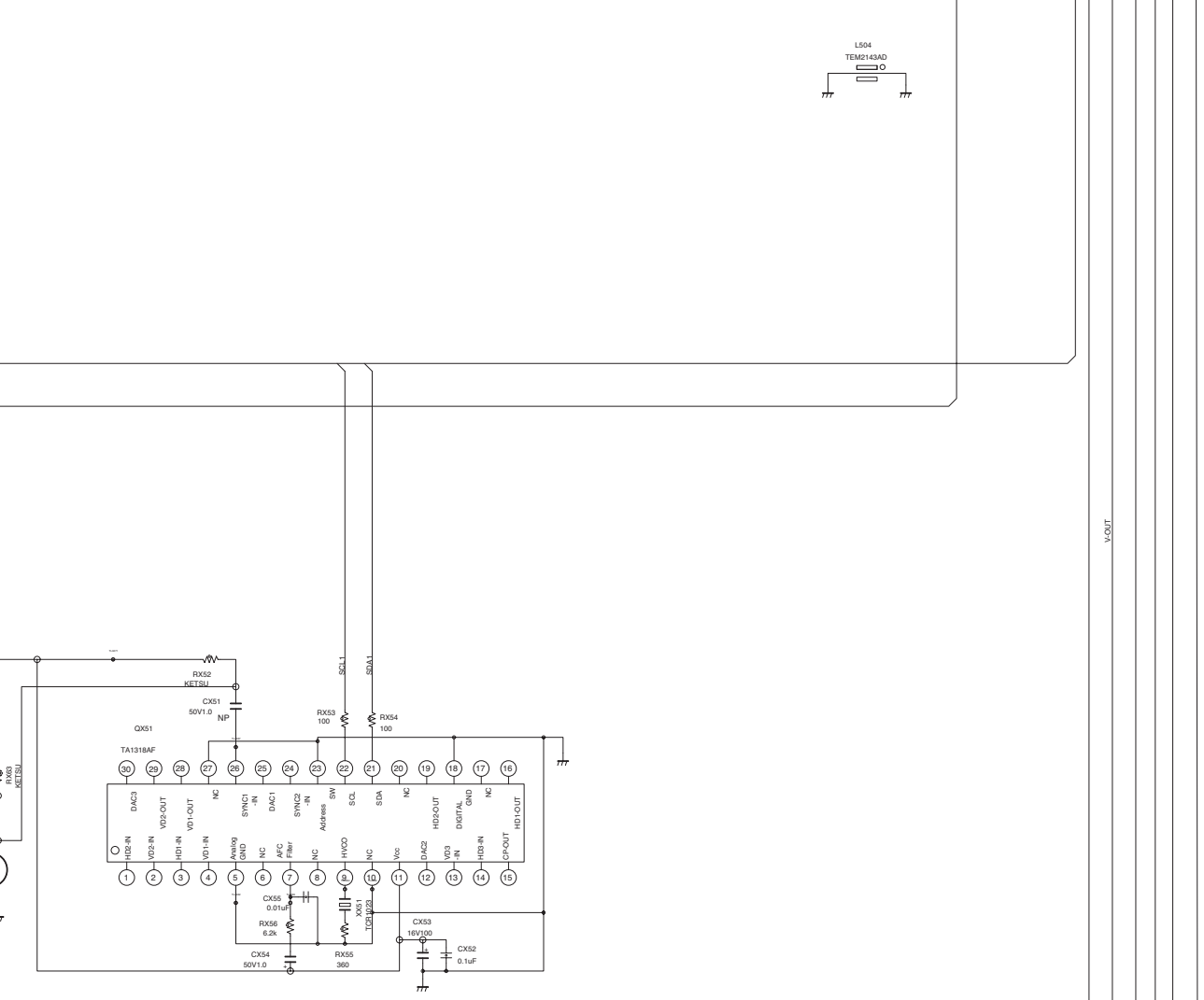

TDI06
TDI05
DVDD1
TDI04
TDI03
TDI02
DVSS1
TDI01
TDI00
TDCLK
VDDI03
BUSSEL
RESET
SDA
SCL
TESTM1
TESTM2
CY11 0.1uF
CY12 0.1uF
RY04 1k
RY03 OPEN
RY05 100
RY06 OPEN
RY07 47
RY08 47
RY69
RY70
RESET
LY09 KETSU
LY08 KETSU
RY33 2.7k
CY58 16V100
RY63 1.8K
QY07 2SC2712Y
CY61 15p
RY38 470
RY36 560
LY12 10u
CY59 0.1uF
RY71 SHORT
CY89 12p
RY34 8.2k
RY35 1k
CY62 27p
RY37 1k
QY08 2SA1162-Y
CY60 12p
RY39 2.7k
CY63 16V100
RY65 1.8K
RY40 8.2k
CY64 0.1uF
RY51 2.7k
CY73 0.01
RY64 1.8K
QY13 2SC2712Y
CY76 15p
RY56 470
RY54 560
LY15 10u
CY74 0.1uF
RY52 8.2k
RY53 1k
CY77 27p
RY55 1k
QY14 2SA1162-Y
CY75 12p
RY57 2.7k
CY78 16V47
RY58 8.2k
CY79 0.1uF
CY87 6.3V100
CY88 0.1uF
10u LY22
VP-1.8
PP01B
PLUG BB 25P
SC-IN
Y-IN
Cb-IN
Cr-IN
5V-4
5V-3
5V-2
9V-3
9V-2
ABCL-IN
V-OUT
CVBS-IN
GND
V1.8IP
V1.8IP
DEF GND
(DIGITAL GND)

TC90101FG


VSSI02
COUT7
COUT6
VDDI02
COUT5
COUT4
DVSS4
COUT3
COUT2
DVDD4
COUT1
COUT0
TESTM6
CY18 0.1uF
CY17 0.1uF
C5
C4
C3
C2
C1
C0
TESTM1
TESTM2
TESTM3
TESTM4
DVDD2
CSYNC IN
DVSS2
YOUT9
YOUT8
YOUT7
YOUT6
DVDD3
YOUT5
YOUT4
DVSS3
YOUT3
YOUT2
VSSI01
YOUT1
YOUT0
CKOUT
VDDI01
TESTM5
RY08 47
RY69 KETSU
RY70 KETSU
CY13 0.1uF
CY15 0.1uF
CY16 0.1uF
RY09 10
LY04 TEM2143AD
LY05 TEM2143AD
XCLK
CP24 22p
CP25 22p
RP14 OPEN
RP15 330
LP05 10u
CP32 0.1uF
CP31 6.3V100
P2.7/PWM6
P3.0/ADC0
A17_LN
P3.1/ADC1
P3.2/ADC2
P3.3/ADC3
A15_LN
A14
RD
WR
VSSC
VSSP
P0.5
EA
A7
P0.0/RX
P0.1/TX
P0.2/INT2
PSEN
ALE
VPE
P0.3/INT3
A6
P0.4/INT4
P3.7
RY39 2.7k
QY09 2SC2712Y
CY66 15p
RY44 470
RY42 560
LY13 12M
QY10 2SA1162-Y
RY40 8.2k
RY41 1k
CY67 27p
RY43 1k
CY65 12p
RY45 2.7k
CY68 16V47
QY11 2SC2712Y
CY71 15p
QY12 2SA1162-Y
RY50 470
RY48 560
LY14 12M
CY69 0.1uF
RY46 8.2k
RY47 1k
CY72 27p
RY49 1k
CY70 12p
RY57 2.7k
QY15 2SC2712Y
CY81 15p
RY62 470
RY60 560
LY16 12M
QY16 2SA1162-Y
RY58 8.2k
RY59 1k
CY82 27p
RY61 1k
CY80 12p
CT10 KETSU
RT03 1k
RT01 1K
QT02 2SA1162-Y
RT02 1k
RT04 4.7k
QT03 RN1402
YP
Cr
Cb
9V-2
P106 PLUG 3P
SCL1
SDA1
HOUT
V-OUT
CENOUT
FBP-IN
SCL2
SDA2
RESET
OSD-R
OSD-G
OSD-B
OSD-Ys
PP02B PLUG BB 25P
GND
DEF GND
S-RESET
(MAIN RETURN GND)
ODD / EVEN
HTONE
RJ10 KETSU
RJ11 KETSU
RJ12 KETSU
RJ13 KETSU
RJ14 KETSU
RJ15 KETSU
RJ16 KETSU
RJ25 KETSU

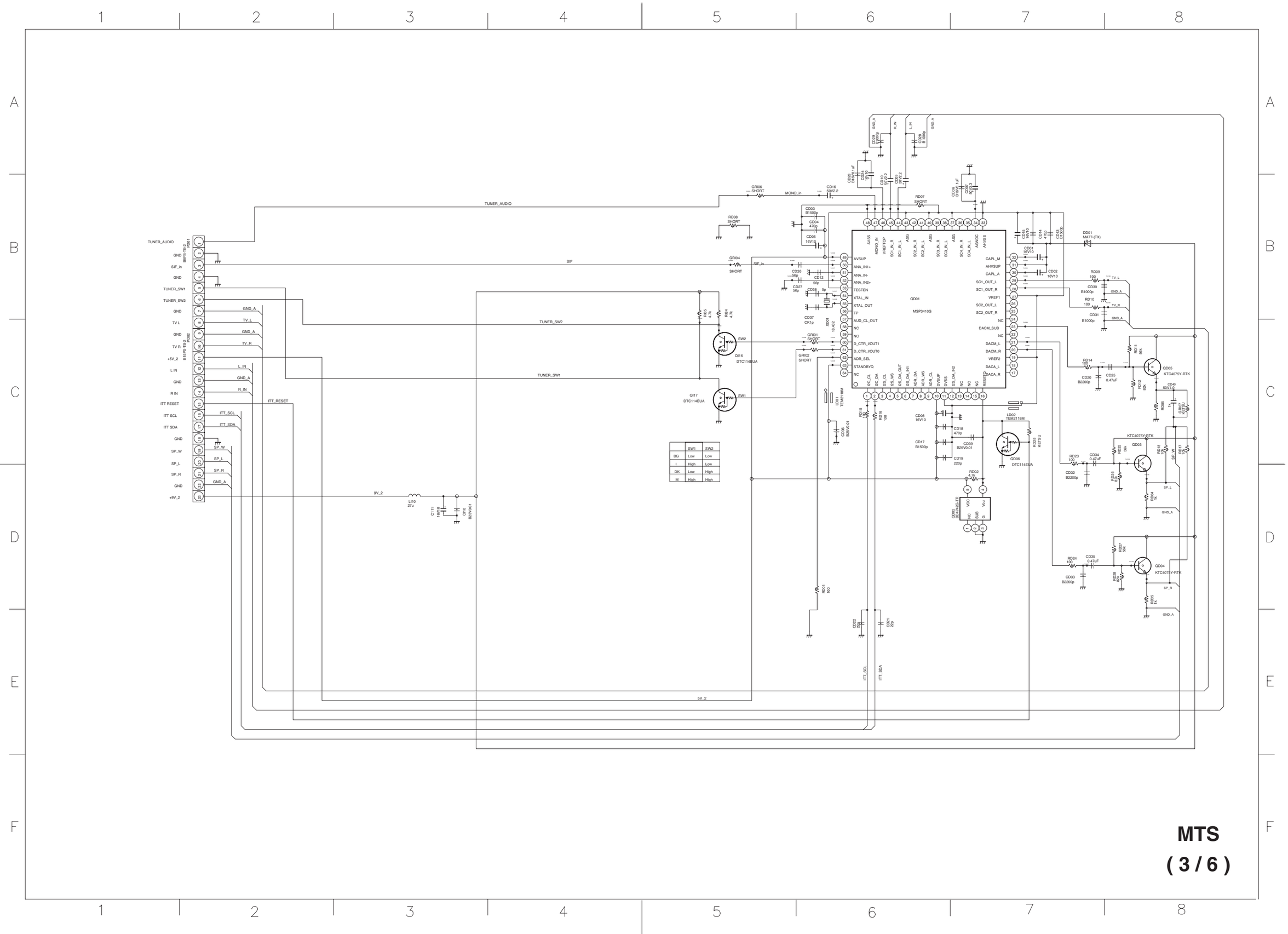

QT01
SAA567X/SAA569X
2SA1162-Y
2SC5343UF-Y
TEM2143AD
XT01
12.000M
LX01
47u
9V3
9V-2
V-OUT
VDS
VDIN
HDIN
TEXT_R
TEXT_G
TEXT_B
SCL1
SDA1
RESET
TOP SIDE
BOTTOM SIDE

9	10	11	12


L504
TEM2143AD
SCL1
SDA1
RX52
KETSU
CX51
50V1.0
NP
RX53
100
RX54
100
QX51
TA1318AF
30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
DAC3
VD2-OUT
VD1-OUT
NC
SYNC1 -IN
DAC1
SYNC2 -IN
SW
SCL
SDA
NC
HD2-OUT
DIGITAL GND
NC
HD1-OUT
HD2-IN
VD2-IN
HD1-IN
VD1-IN
Analog GND
NC
AFC Filter
NC
HVCO
NC
Vcc
DAC2
VD3 -IN
HD3-IN
CP-OUT
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
CX55
0.01uF
RX56
6.2k
CX54
50V1.0
X051
TCP-1P23
RX55
360
CX53
16V100
CX52
0.1uF
V-OUT
FBP-IN
V-OUT
CENOUT

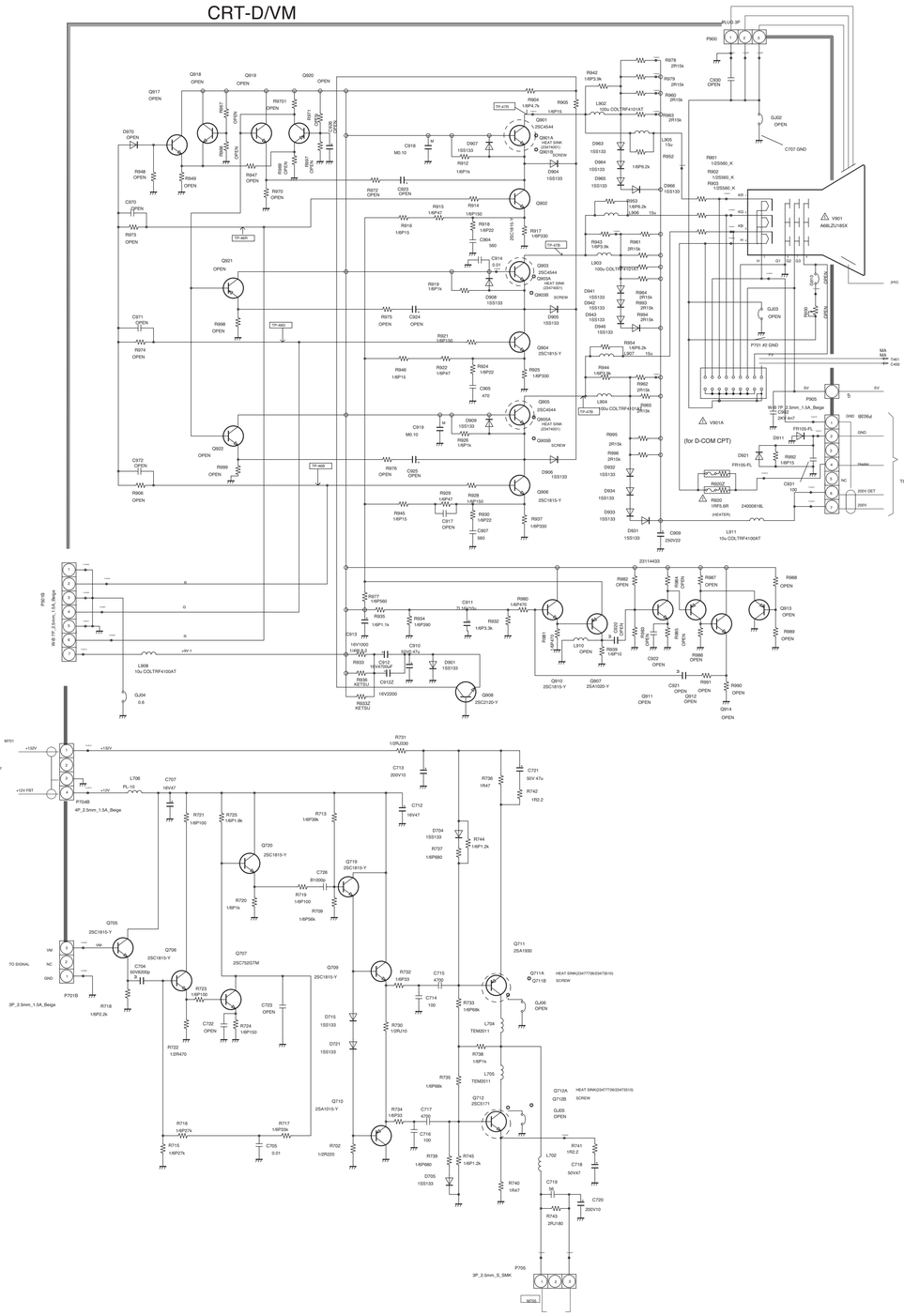
DIGITAL
(2 / 6)

SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS



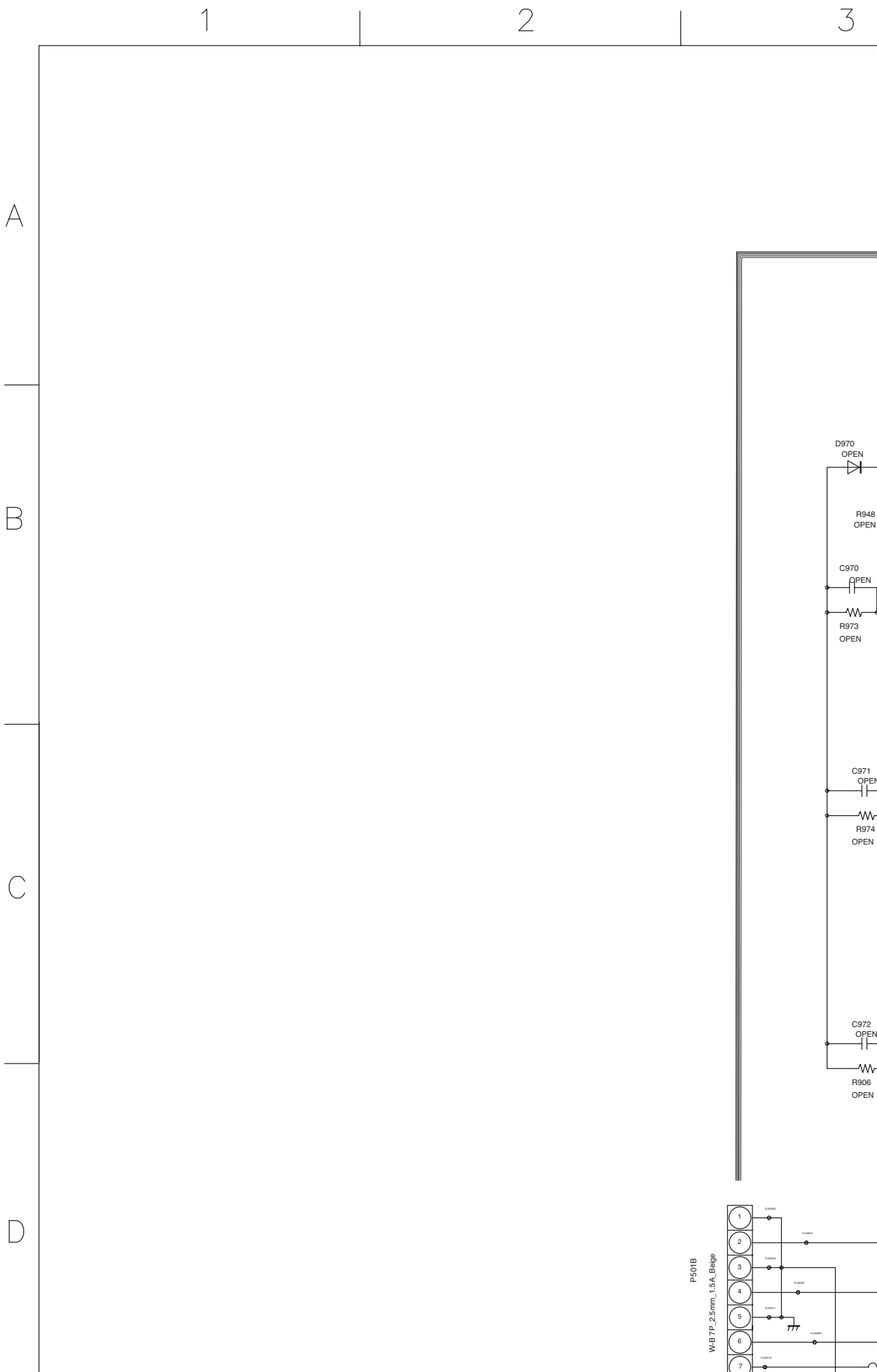
MTS

(3 / 6)

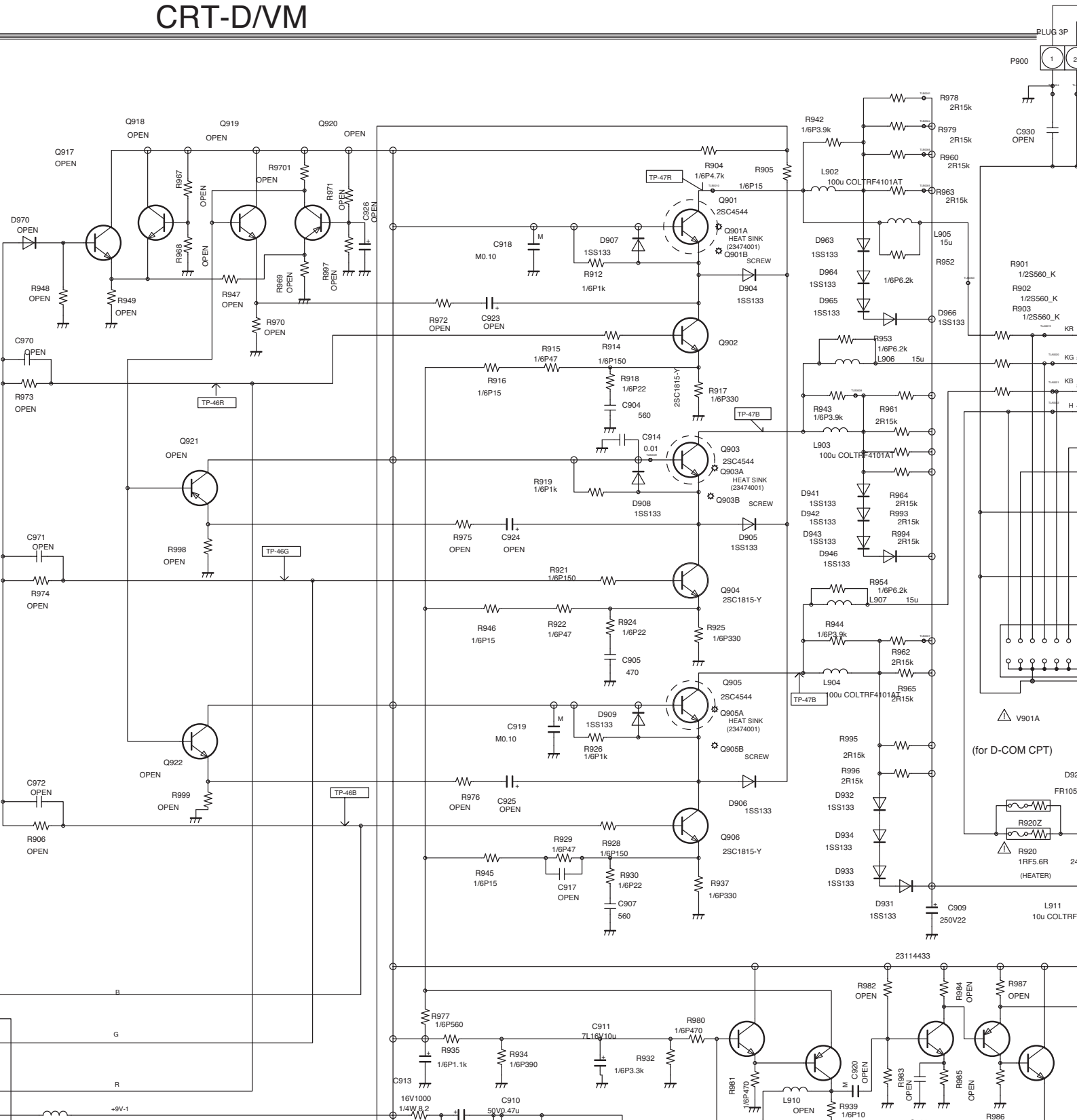

CRT-D/VM
P900
PLUG 3P
C707 GND
V901
A68LZU185X
(HV)
(FV)
P701 #2 GND
P905
3P_2.5mm_1.5A_Beige
(for D-COM CPT)
V901A
(HEATER)
2400681BL
TO PWR/DEF
P903B
8P_2.5mm_1.5A_Beige
L908
10u COILTRF4100AT
GJ04
0.6
23114433
L910
L911
10u COILTRF4100AT
M701
P704B
4P_2.5mm_1.5A_Beige
L706
PL-10
P701B
3P_2.5mm_1.5A_Beige
TO SIGNAL
L704
TEM2011
L705
TEM2011
L702
P705
3P_2.5mm_S_SMK
M705
Q711
2SA1930
Q712
2SC3171
HEAT SINK(23477726(23473510)
SCREW

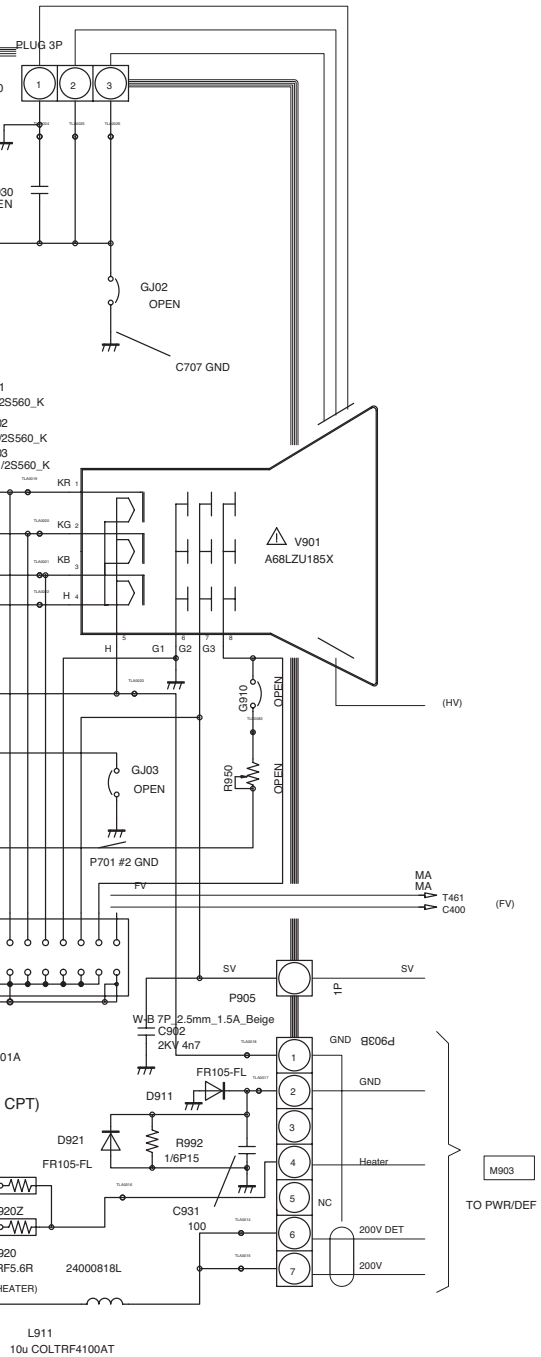
CRT/D
(4 / 6)

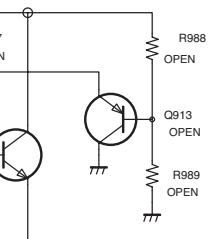
SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS

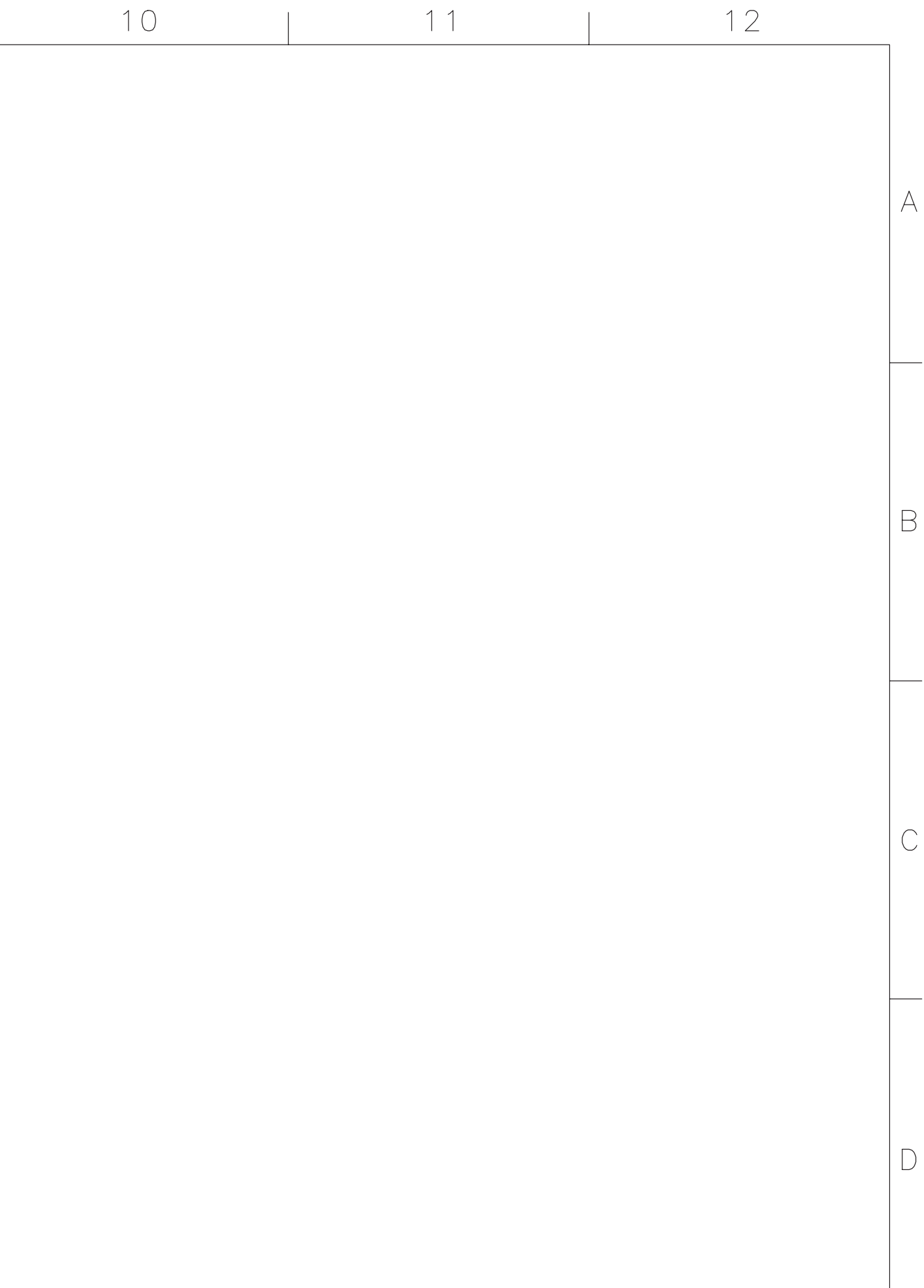


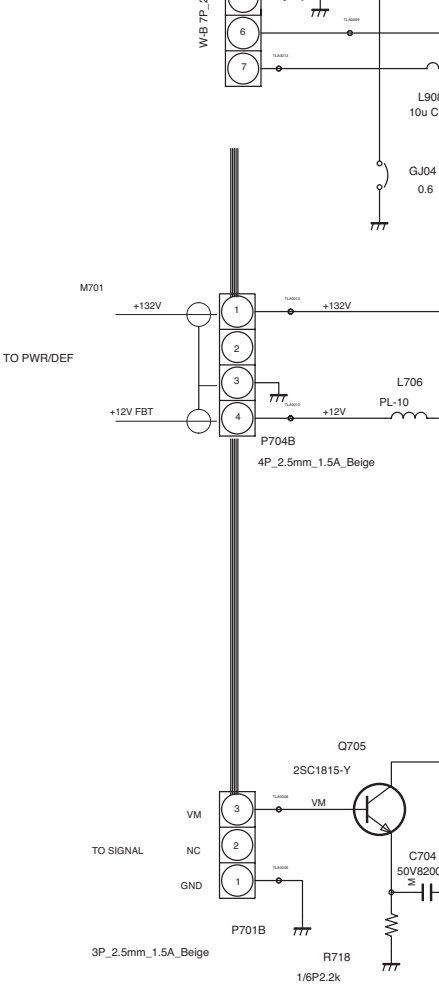
CRT-D/VM


PLUG 3P
P900
Q918 OPEN
Q919 OPEN
Q920 OPEN
Q917 OPEN
R9701 OPEN
R967 OPEN
R968 OPEN
R971 OPEN
C926 OPEN
D970 OPEN
R948 OPEN
R949 OPEN
R947 OPEN
R969 OPEN
R997 OPEN
R970 OPEN
C970 OPEN
R973 OPEN
TP-46R
Q921 OPEN
R998 OPEN
TP-46G
C971 OPEN
R974 OPEN
Q922 OPEN
R999 OPEN
C972 OPEN
R906 OPEN
TP-46B
R904 1/6P4.7k
R905 1/6P15
TP-47R
Q901 2SC4544
Q901A HEAT SINK (23474001)
Q901B SCREW
C918 M0.10
D907 1SS133
R912 1/6P1k
D904 1SS133
R972 OPEN
C923 OPEN
Q902
R915 1/6P47
R914 1/6P150
R916 1/6P15
R918 1/6P22
C904 560
2SC1815-Y
R917 1/6P330
TP-47B
C914 0.01
Q903 2SC4544
Q903A HEAT SINK (23474001)
Q903B SCREW
R919 1/6P1k
D908 1SS133
R975 OPEN
C924 OPEN
D905 1SS133
R921 1/6P150
Q904 2SC1815-Y
R946 1/6P15
R922 1/6P47
R924 1/6P22
R925 1/6P330
C905 470
Q905 2SC4544
Q905A HEAT SINK (23474001)
Q905B SCREW
C919 M0.10
D909 1SS133
R926 1/6P1k
R976 OPEN
C925 OPEN
D906 1SS133
Q906 2SC1815-Y
R929 1/6P47
R928 1/6P150
R945 1/6P15
C917 OPEN
R930 1/6P22
C907 560
R937 1/6P330
R942 1/6P3.9k
L902 100u COLTRF4101AT
R978 2R15k
R979 2R15k
R960 2R15k
R963 2R15k
C930 OPEN
L905 15u
R952
D963 1SS133
D964 1SS133
D965 1SS133
1/6P6.2k
D966 1SS133
R901 1/2S560_K
R902 1/2S560_K
R903 1/2S560_K
R953 1/6P6.2k
L906 15u
R943 1/6P3.9k
R961 2R15k
L903 100u COLTRF4101AT
D941 1SS133
D942 1SS133
D943 1SS133
D946 1SS133
R964 2R15k
R993 2R15k
R994 2R15k
R954 1/6P6.2k
L907 15u
R944 1/6P3.9k
R962 2R15k
L904 100u COLTRF4101AT
R965 2R15k
R995 2R15k
R996 2R15k
D932 1SS133
D934 1SS133
D933 1SS133
D931 1SS133
C909 250V22
V901A
(for D-COM CPT)
R920Z
R920 1RF5.6R
(HEATER)
L911 10u COLTRF
23114433
R977 1/6P560
R935 1/6P1.1k
R934 1/6P390
C913 16V1000
1/4W 8.2
C910 50V0.47u
C911 7L16V10u
R932 1/6P3.3k
R980 1/6P470
R981 1/6P470
L910 OPEN
C920 OPEN
R939 1/6P10
R982 OPEN
R984 OPEN
R987 OPEN
R983 OPEN
R985 OPEN
R986
B
G
R
+9V-1


PLUG 3P
GJ02
OPEN
C707 GND
V901
A68LZU185X
KR
KG
KB
H
G1
G2
G3
G910
OPEN
R950
OPEN
GJ03
OPEN
P701 #2 GND
(HV)
FV
MA
MA
T461
C400
(FV)
SV
SV
P905
1P
W-B 7P 2.5mm_1.5A_Beige
C902
2KV 4n7
FR105-FL
D911
D921
FR105-FL
R992
1/6P15
C931
100
24000818L
L911
10u COLTRF4100AT
GND
GND
Heater
NC
200V DET
200V
M903
TO PWR/DEF


R988
OPEN
Q913
OPEN
R989
OPEN


10
11
12
A
B
C
D


W-B 7P_2.5mm_1.5A_Beige
6
7
L90
10u C
GJ04
0.6
M701
+132V
+132V
TO PWR/DEF
L706
PL-10
+12V FBT
+12V
P704B
4P_2.5mm_1.5A_Beige
Q705
2SC1815-Y
VM
VM
TO SIGNAL
NC
GND
C704
50V8200
P701B
3P_2.5mm_1.5A_Beige
R718
1/6P2.2k

E

F

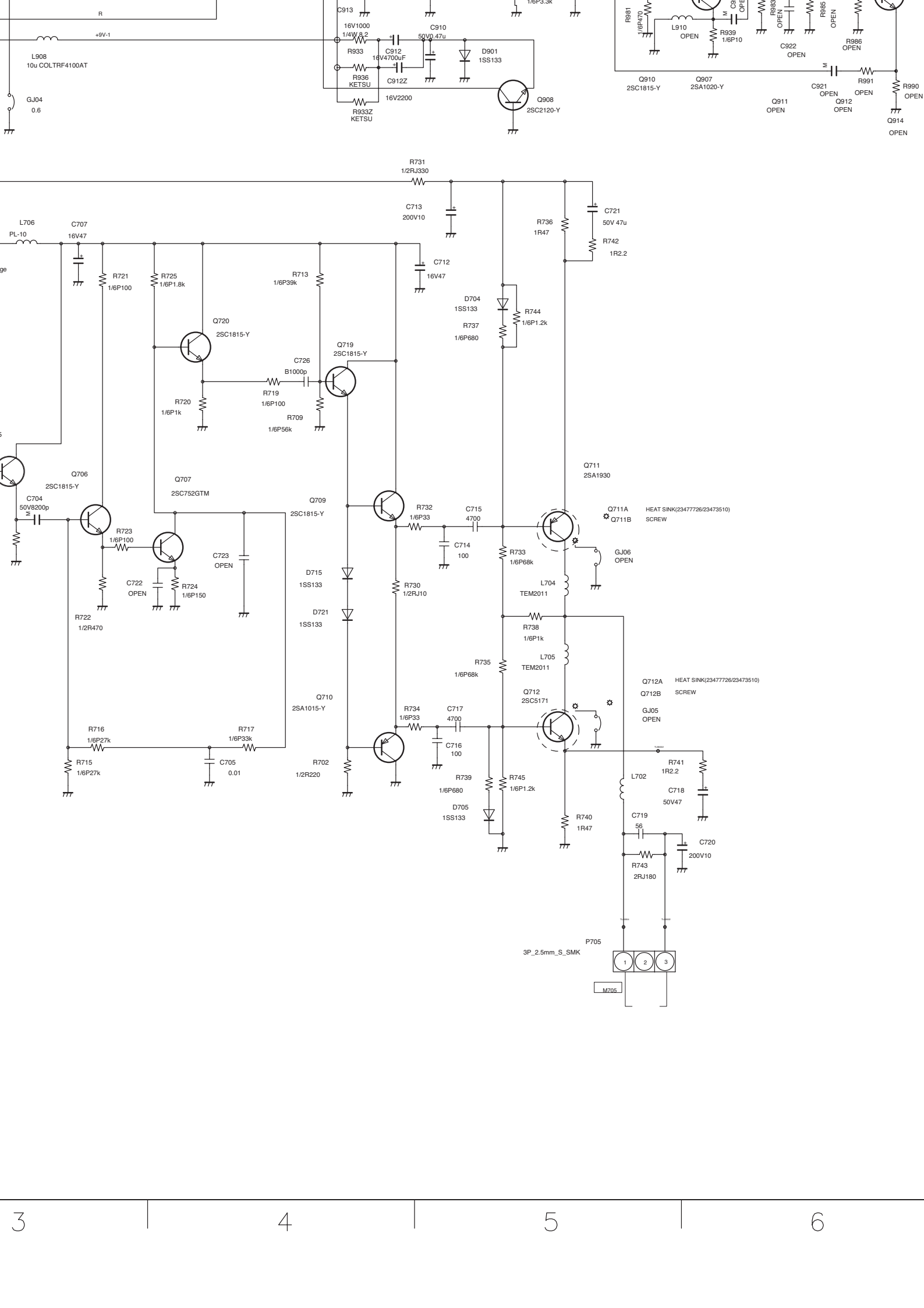
G

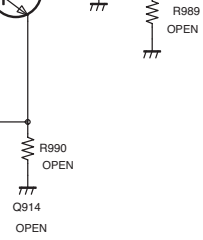
H

1

2

3


R
+9V-1
L908
10u COLTRF4100AT
GJ04
0.6
C913
16V1000
1/4W 8.2
R933
C912
16V4700uF
R936
KETSU
C912Z
16V2200
R933Z
KETSU
C910
50V0.47u
D901
1SS133
Q908
2SC2120-Y
1/6P3.3k
R981
1/6P470
L910
OPEN
R939
1/6P10
C922
OPEN
R983
OPEN
R985
OPEN
R986
OPEN
Q910
2SC1815-Y
Q907
2SA1020-Y
C921
OPEN
R991
OPEN
R990
OPEN
Q911
OPEN
Q912
OPEN
Q914
OPEN
R731
1/2RJ330
C713
200V10
C721
50V 47u
R736
1R47
R742
1R2.2
L706
PL-10
C707
16V47
C712
16V47
R721
1/6P100
R725
1/6P1.8k
R713
1/6P39k
D704
1SS133
R744
1/6P1.2k
R737
1/6P680
Q720
2SC1815-Y
Q719
2SC1815-Y
C726
B1000p
R719
1/6P100
R720
1/6P1k
R709
1/6P56k
Q706
2SC1815-Y
C704
50V8200p
Q707
2SC752GTM
Q709
2SC1815-Y
R732
1/6P33
C715
4700
Q711
2SA1930
Q711A
Q711B
HEAT SINK(23477726/23473510)
SCREW
C714
100
R733
1/6P68k
GJ06
OPEN
R723
1/6P100
C723
OPEN
C722
OPEN
R724
1/6P150
R722
1/2R470
D715
1SS133
D721
1SS133
R730
1/2RJ10
L704
TEM2011
R738
1/6P1k
L705
TEM2011
R735
1/6P68k
Q712A
Q712B
HEAT SINK(23477726/23473510)
SCREW
Q712
2SC5171
GJ05
OPEN
Q710
2SA1015-Y
R734
1/6P33
C717
4700
C716
100
R716
1/6P27k
R717
1/6P33k
R715
1/6P27k
C705
0.01
R702
1/2R220
R739
1/6P680
R745
1/6P1.2k
D705
1SS133
R740
1R47
L702
R741
1R2.2
C718
50V47
C719
56
C720
200V10
R743
2RJ180
P705
3P_2.5mm_S_SMK
M705


R989
OPEN
R990
OPEN
Q914
OPEN

CRT/D
(4 / 6)

E
F
G
H
10
11
12

SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS

*	W661	W662
	8X12 4OHM 10W/15W	8X12 4OHM 10W/15W
	6X12 4OHM 10W/15W	6X12 4OHM 10W/15W

*	L801	L802
29CZ8	KETSU	KETSU
RUSSIA	USED	USED

FRONT AV-1

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SCHEMATIC DIAGRAM MODEL : 29CZ8URB/29CZ8URS

*	W661	W662
	8X12 4OHM 10W/15W	8X12 4OHM 10W/15W
	6X12 4OHM 10W/15W	6X12 4OHM 10W/15W

Q610
AN5277

23478145 HEAT SINK

NC R IN RF GND L IN NC L OUT MUTE GND VCC STD BY R OUT

Q610B
Q610A

Connected To pin4 GND

C663 50V2.2
C660 50V100
C667 50V2.2
D686 KETSU
C662 B1000p
C666 B1000p
GJ13 SHORT
CC14 25V0.01
R620 10K
R621 10k
C669 KETSU
C682 35V470
R668 KETSU
R669 KETSU
C683 35V1000
C681 35V1000

SHORT LC01
LC03
LC02
RS62 1/2R270
RS61 1/2R270
CC32 KETSU
CC33 KETSU
CC31 OPEN
CC30 OPEN
P901
L/R PHONO JACK

GND
GND
SPK_L
GND
SPK_R
GND
GND
SPK_MUTE

BB01B 8P B-B

SPK_R
C660 50V1.0
R660 2.2k
R666 2.7K

SPK_L
C664 50V1.0
R664 2.2k
R666 2.7K

D680 1SS355
D682 1SS355
D681 1SS355
D683 1SS355
R686 2.2
R687 2.2
C686 50V0.1
C687 50V0.1

KETSU Q613
Q614 KETSU
R618 KETSU
R617 KETSU
Q615 KETSU
AUDIO GND

SPK_MUTE

Q671 KTC2875B-RTK
R671 10k
R672 10k
Q672 KTC2875B-RTK 23205204L
R673 100k
C672 16V47

AUDIO_GND
AUDIO_+VCC

M611
M601 NEW 16OHM
M602 NEW 20OHM*
P601 B 4B-EH-A

FRONT AV-2
(6 / 6)