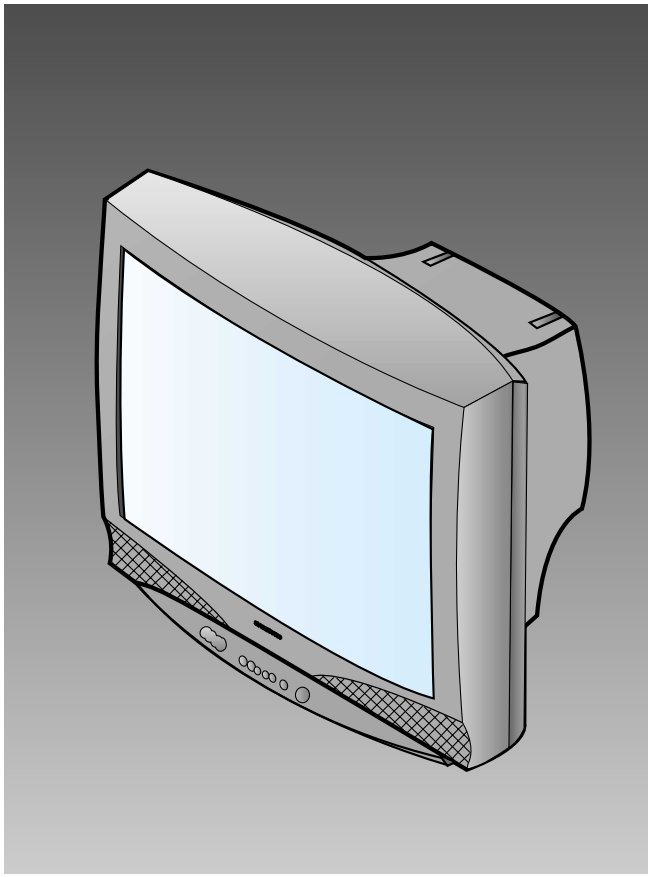
SAMSUNG

COLOR TELEVISION RECEIVER

Chassis : KS3A(N)
Model : TXK3279C/XAA TXK3279C/XAC

SERVICE Manual

COLOR TELEVISION RECEIVER



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ELECTRONICS

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1. Precautions

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

1-1 Safety Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people—particularly children—might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (Figure 1-1):
   Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANIS C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

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

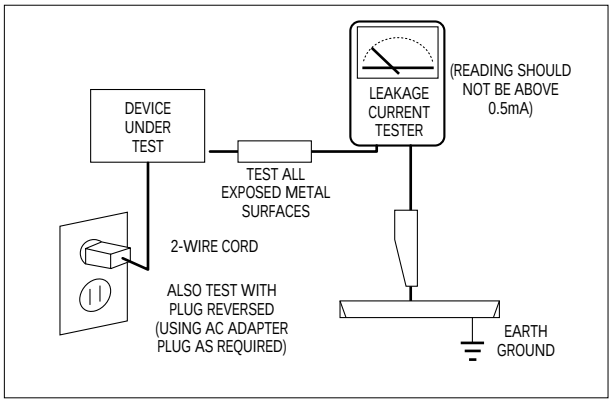

Fig. 1-1 AC Leakage Test

6. Antenna Cold Check:
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.

7. X-ray Limits:
   The picture tube is especially designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.

8. High Voltage Limits:
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits.
   Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced.
   (X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

   Heed the high voltage limits. These include the X–ray Protection Specifications Label, and the Product Safety and X-ray Warning Note on the service data schematic.

1-1 Safety Precautions (Continued)

9. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

10. Design Alteration Warning:
    Never alter or add to the mechanical or electrical design of this unit. Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

11. Hot Chassis Warning:
    Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

    To confirm that the AC power plug is inserted correctly, do the following: Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

12. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.

13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.

15. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

16. Picture Tube Implosion Warning:
    The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

17. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

18. Product Safety Notice:
    Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

    Components that are critical for safety are indicated in the circuit diagram by shading, (⚡) or (⚠).
    Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications.
    A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

1-2 Servicing Precautions

Warning1: First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.
Warning2: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.

2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.

3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.

4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.

5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).

6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.

7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor (“solid state”) devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.

2. Immediately before handling any semicon ductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power—this is an electric shock precaution.)

3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.

4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.

5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.

6. Use only an anti-static solder removal device. Many solder removal devices are not rated as “anti-static”; these can accumulate sufficient electrical charge to damage ESDs.

7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.

8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

2. Reference Information

2-1 Tables of Abbreviations and Acronyms

Table 2-1 Abbreviations

A	Ampere	MV	Megavolt
Ah	Ampere-hour	MW	Megawatt
Å	Angstrom	MΩ	Megohm
dB	Decibel	m	Meter
dBm	Decibel Referenced to One Milliwatt	µA	Microampere
		µF	Microfarad
°C	Degree Celsius	µH	Microhenry
°F	Degree Fahrenheit	µm	Micrometer
°K	degree Kelvin	µs	Microsecond
F	Farad	µW	Microwatt
G	Gauss	mA	Milliampere
GHz	Gigahertz	mg	Milligram
g	Gram	mH	Millihenry
H	Henry	ml	Milliliter
Hz	Hertz	mm	Millimeter
h	Hour	ms	Millisecond
ips	Inches Per Second	mV	Millivolt
kWh	Kilowatt-hour	nF	Nanofarad
kg	Kilogram	Ω	Ohm
kHz	Kilohertz	pF	Picofarad
kΩ	Kilohm	lb	Pound
km	Kilometer	rpm	Revolutions Per Minute
km/h	Kilometer Per Hour	rps	Revolutions Per Second
kV	Kilovolt	s	Second (Time)
kVA	Kilovolt-ampere	V	Volt
kW	Kilowatt	VA	Volt-ampere
l	Liter	W	Watt
MHz	Megahertz	Wh	Watt-hour

Table 2-2 Table of Acronyms

ABL	Automatic Brightness Limiter
AC	Alternating Current
ACC	Automatic Chroma Control
AF	Audio Frequency
AFC	Automatic Frequency Control
AFT	Automatic Fine Tuning
AGC	Automatic Gain Control
AM	Amplitude Modulation
ANSI	American National Standards Institute
APC	Automatic Phase Control
APC	Automatic Picture Control
A/V	Audio-Video
AVC	Automatic Volume Control
BAL	Balance
BPF	Bandpass Filter
B-Y	Blue-Y
CATV	Community Antenna Television (Cable TV)
CB	Citizens Band
CCD	Charge Coupled Device
CCTV	Closed Circuit Television
Ch	Channel
CRT	Cathode Ray Tube
CW	Continuous Wave
DC	Direct Current
DVM	Digital Volt Meter
EIA	Electronics Industries Association
ESD	Electrostatic Discharge
ESD	Electrostatically Sensitive Device
FBP	Feedback Pulse
FBT	Flyback Transformer
FF	Flip-Flop
FM	Frequency Modulation
FS	Fail Safe
GND	Ground
G-Y	Green-Y
H	High
HF	High-Frequency
HI-FI	High Fidelity
IC	Inductance-Capacitance
IC	Integrated Circuit
IF	Intermediate Frequency
I/O	Input/output
L	Left
L	Low
LED	Light Emitting Diode
LF	Low Frequency
MOSFET	Metal-Oxide-Semiconductor-Field-Effect-Tr
MTS	Multi-channel Television Sound
NAB	National Association of Broadcasters
NEC	National Electric Code
NTSC	National Television Systems Committee
OSD	On Screen Display
PCB	Printed Circuit Board
PLL	Phase-Locked Loop
PWM	Pulse Width Modulation
QIF	Quadrature Intermediate Frequency
R	Right
RC	Resistor & Capacitor
RF	Radio Frequency
R-Y	Red-Y
SAP	Second Audio Program
SAW	Surface Acoustic Wave(Filter)
SIF	Sound Intermediate Frequency
SMPS	Switching Mode Power Supply
S/N	Signal/Noise
SW	Switch
TP	Test Point
TTL	Transistor Transistor Logic
TV	Television
UHF	Ultra High Frequency
UL	Underwriters Laboratories
UV	Ultraviolet
VCD	Variable-Capacitance Diode
VCO	Voltage Controlled Oscillator
VCXO	Voltage Controlled Crystal Oscillator
VHF	Very High Frequency
VIF	Video Intermediate Frequency
VR	Variable Resistor
VTR	Video Tape Recorder
VTVM	Vacuum Tube Voltmeter
TR	Transistor

2-2 IC Line Up

Table 2 - 3 IC Line - Up

NO	BOARD	LOC. NO	SPEC	DESCRIPTION	REMARK
1	MAIN	IC201S	VDP3130Y	Video Processor	Refer to Table 2-3-1
		IC601	MSP3451G	Multistandard Sound Processor	Refer to Table 2-3-2
		IC901	SIM408AY	MICOM, TTX(MTP)	
		IC902	KS24L161	EEPROM	
		IC602	TDA7297	Audio AMP	Refer to Table 2-3-3
		HIC201	DRGB001	RGB Drive AMP Hybrid IC	VM Option
		HIC202			
		HIC203			
		HIC204			
		HIC401	DDRI001	100Hz Horizontal Pulse AMP	Option
		IC301	LA7845	Vertical IC	
		Q402	KSC2073-H2	Horizontal Drive IC	
		Q401	KSD5703		HC401
		D414	FMP-3FU		
		IC401	KA393	E/W Drive IC	
		Q404	IRF620		
		IC801S	3S1265R	SPS Controllor	
		D801S	RBV606	Bridge Diode	
		PC801S	PC123Y	Photo Coupler	
		IC802	KA78R05	5V Controlled Regulator	HC801
		D805	FML-G12S	Rectifier Diode	
		D806			
		D807			
		D802	FMG-G2CS		
		IC201	KA78RM33	3.3V Regulator	VDPY
		IC804	KA7806	6V Regulator	
		IC803	KA78R08	8V Controlled Regulator	
		IC903	KA78RM33	3.3V Regulator	
		IC904	KIA7025AP	MICOM Reset IC	
		Q909	2N7000	IIC Level Shifter	
		Q910			
		TU01S	TCLN3181PA09A	Main Tuner with IF Block	Refer to Table 2-3-4
		TU02S	TCPN3081PD09A	Sub Tuner with IF Block	Refer to Table 2-3-5

Table 2 - 3 IC Line - Up					
NO	**BOARD**	**LOC. NO**	**SPEC**	**DESCRIPTION**	**REMARK**
2	**CRT**	IC501	TDA6111Q	Video Output AMP R.G.B Drive	
		IC502			
		IC503			
		QF04	2SC2344	Push-Pull (VM)	Option
		QF05	2SA1011		
		QG02	KSA940	TR-Power (TILT)	
		QG03	KSD2073-H2		
		ICG01	KA4558	OP-AMP (TILT)	
3	**DOUBLE FOCUS**	ICH01	KA4558	OP-AMP	Option
		QH01	2SC4636RB	TR-Power	
4	**V-S/W**	ICS01	TEA6425	Video Switching IC with Adder Output	Option
5	**PIP**	ICP01	SDA9388X	High-end Picture-In Picture IC	Option
		ICP02	EZ1086CM	3.3V Regulator	

Table 2-3-1 VIDEO IC (IC201S)

SPEC	FUNCTION	REMARK
VDP3108B	50Hz Basic	
VDP3112B	50Hz, 2H Comb Filtr	
VDP3120B	50Hz, 2H Comb Filter, Horizontal Scaler	
VDP3130Y	50Hz, 2H Comb Filter, DVD Input	
VDP3140D	100Hz	

Table 2-3-2 SOUND IC (IC601)

SPEC	FUNCTION	REMARK
MSP3400D	Multistandard, A2 Stereo	
MSP3410D	Multistandard, A2 Stereo, Nicam	
MSP3411G	Multistandard, A2 Stereo, Vitual Dolby	
MSP3440G	Multistandard, A2 Stereo, Vitual Dolby	
MSP3451G	Multistandard, A2 Stereo, Vitual Dolby	

Table 2-3-3 SOUND AMP (IC602)

SPEC	FUNCTION	REMARK
TDA7297	15W x 2CH, 10W x 2CH	

Table 2-3-4 1'st TUNER (TU01S)

SPEC	FUNCTION	REMARK
TCLN3181PA09A	NTSC, PAL N.M, LNA Function	Main, F-Jack
TCPN3081PC09A	PAL N.M, NTSC, LNA Function	Main, Thin Jack
TCPN3081PA09A	PAL N.M, NTSC, LNA Function	Main 1Tuner

Note **TCPS3001PD09A(S) is out-of-date, TCPS3001PD09D(S) which is up-to-date has the same function.**

Table 2-3-5 2'nd TUNER (TU02S)

SPEC	FUNCTION	REMARK
TCLN3181PD09A	NTSC, PAL N.M LNA Function	Sub
TCPN3081PD09A	NTSC	Sub

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3. Specifications

Television System	**Multi**	NTSC-M, PAL N.M	
Antena Input		75ohms, Coaxial Cable	
Power	**Consumption**	160W (Applied When 29” Flat)	
	Requirements	Free Volts(100V-240Volts)	
		Free Voltage	Not Present R815
	Frequency	50/60Hz	
Sound	**Output**	15W x 2CH	
		10W x 2CH	
		5W x 2CH	
	Effect	Vitual Dolby	Option
		Turbo Sound	
		Pseudo Stereo	
Jacks	**Front (AV2)**	RCA Input	
		S-VHS	Option
		Head-Phone	
	Back	2 AV Input	
		DVD Input(YPbPr)	Option
		AV2 Monitor Audio Output	Option
		S-VHS	Option

Specifications are subject to change.

Specifications for Model Name

	Function	NOTE
P	2 TUNER PIP	

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4. Alignment and Adjustments

4-1 General Alignment Instructions

1. Usually, a color TV-VCR needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync and focus.

2. Observe the picture for good black and white details. There should be objectionable color shading; if color shading is present, demagnetize, perform purity and convergence adjustments described below.

3. Use the specified test equipment or its equivalent.

4. Correct impedance matching is essential.

5. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test results.

6. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.

7. Do not attempt to connect or disconnect any wires while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.

8. To protect against shock hazard, use an isolation transformer.

4-2 Automatic Degaussing

A degaussing coil is mounted around the picture tube, so that external degaussing after moving the TV should be unnecessary. But the receiver must be properly degaussed upon installation.

The degaussing coil operates for about 1 second after the power is switched ON. If the set is moved or turned in a different direction, the power should be OFF for at least 10 minutes.

If the chassis or parts of the cabinet become magnetized, poor color purity will result. If this happens, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube and the sides and front of the receiver. Slowly withdraw the coil to a distance of about 6 feet before turning power OFF.

If color shading persists, perform the following Color purity and Convergence adjustments.

4-3 High voltage Check

CAUTION : There is no high voltage adjustment on this chassis. The B+ power supply should be +135 volts (with full color- bar input and normal picture level).

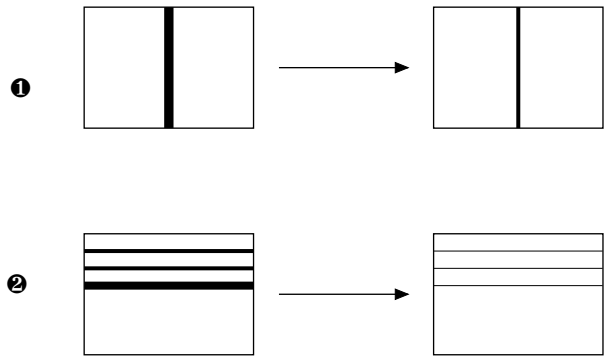
1. Connect a digital voltmeter to the second anode of the picture tube.

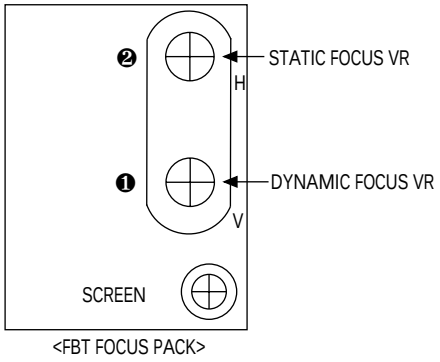
2. Turn on the TV. Set the Brightness and Contrast controls to minimum (zero beam current).

3. Adjust the Brightness and contrast controls to both extremes. Ensure that the high voltage does not exceed 32 KV under any conditions.

4-4 Dynamic Focus Adjustment

1. A dynamic focus adjustment should be done after replacing the CRT PCB, FBT or CRT.
2. Input a crosshatch pattern.
3. Enter " STANDARD " in video mode.
4. Turn the Dynamic focus VR fully clockwise (maximum).(❶)
5. Turn the Static focus VR fully counterclockwise (maximum).(❷)
6. Slowly turn the static focus VR counterclockwise. Adjust until the vertical line in the middle of the screen has maximum clarity.(❶)
7. Slowly turn the dynamic focus VR (clockwise) and adjust the 3rd horizontal line for maximum clarity.(❷)
8. Repeat 4-7, if necessary.





<FBT FOCUS PACK>

4-5 SCREEN Adjustment

1. Input Toshiba Pattern
2. Enter "Service Mode".(Refer to "Service Mode")
3. Select "G2-Adjust".
4. Set the values as below.

IBRM = 200
WDRV = 35
CDL = 200
COLR G B = 120 120 120

5. Turn the SCREEN VR until “MRCR G B” and “MRWDG” are green and those value are about 100. (The incorrect SCREEN Voltage may result that “MRCR G B” and “MRWDG” should be red)

Note 1. **When you do not have Toshiba Pattern, follow this method.**

1. Set the TV on the condition that AV mode no signal(black)
2. Enter the “Menu” and set the mode to blue screen off.
3. Enter the “Service Mode”.
4. Select “ G2-Adjust”.
5. Set the values as below.

IBRM = 200
WDRV = 35
CDL = 200
COLR G B = 120 120 120

6. Turn the SCREEN VR until the value of “ MRCR G B” is about 120. Do not mind that the “OSD” Color is red.

■ After completing G2-Adjust, follow this procedure.

① Enter the “Video Adjust 1”.
② Choose any item in menu. (ex. Select “Red Cutoff”)
③ Change the value of item you select, and recover the value.

For example, when the value of “Red Cutoff” is 127, change the value to 128 and restore the value to 127.

If you do not follow this procedure, the picture may be abnormal.
For example, when the TV set is on, the picture becames brighter gradually.

4-6 E²PROM (IC902) Replacement

1. When IC902 is replaced, all adjustment data revert to the initial values.
   So, all adjustment values when servicing should be readjusted.
2. After IC902 is replaced, connect the AC power supply cord.
3. Turn the power switch ON.
4. In stand-by, warm up the TV for at least 10 seconds.
5. Power on the TV.

4-7 White Balance Adjustment

■ Equipment : Color-Analyzer (CA-100)
■ Input Signal : Pattern signal (Toshiba pattern)

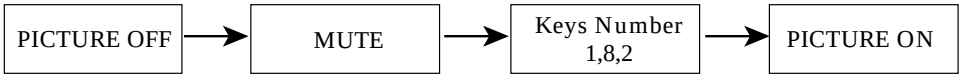
1. Select STANDARD from the menu.
2. Input an 100% White pattern.
3. Enter the “Service Mode”. (Refer to “4-8 Service Mode”)
4. Warm up the TV set at least for 30 minutes.
5. Input a Toshiba pattern signal.
6. Enter the “Video Adjust1”.
   - Adjust “Sub Contrast” so that Y (luminance) becomes 50 ft ± 3.
   - Use “Red Drive” and “ Blue Drive” to adjust High-Light (x : 275, y : 295)
   - Adjust “Sub Bright” so that Y (luminance) becomes 1.5ft ± 0.3.
   - Use “Red Cutoff” and “Blue Cutoff” to adjust Low-Light (x : 275, y : 295).
7. Adjust CA-100 so that the final adjustment value can be fixed.
8. Use the Channel Up / Down (▲ / ▼) buttons to move the cursor on the adjustment modes.
9. Use the Volume + / - buttons to change the adjustment value.

4-8 Factory Adjustment

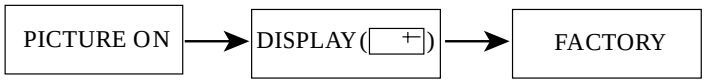
4-8-1 Service Mode

1. To enter the "Service Mode", Press the remote-control keys in this sequence :

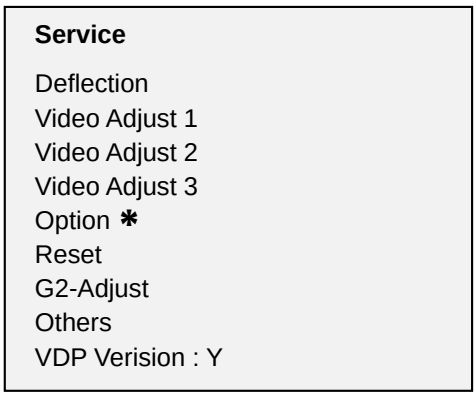
   - If you do not have Factory remote-control



   - If you have Factory remote-control



2. After the Service Mode is entered, the initial screen is as shown in the figure below.



✱ These hexa digits are check sum value which depends on the MICOM.
If check sum value is changed, the value of E^2PROM Data newly initialed.

3. Use the Channel Up / Down buttons to move the cursor in the adjustment parameters.

Note 2.

- When CRT, CRT PCB, FBT, E^2PROM (sometimes MICOM) is replaced, the adjustment values should be controlled.

- After the Service adjustment is completed, Do not select "Reset" in the service mode menu. (After above procedure is done, power is on initially and the "Plug and Play" will be operated.)

Note 3.

- When E^2PROM (IC902) and Micom are replaced at the same time :
  1. After the Factory Mode is entered, check the VDP version in the service list.
  2. Set the version so that the VDP version is identical with the video chip (IC201S)
  3. After all settings are completed, adjust the service value of each mode to its default.
  4. Refer to "Service Manual" for factory value.
  5. Check the version
     a. Check the VDP version "Y" in the Factory Mode.
     b. Version Mode : "Y", "B" from IC201S(Video Chip) VDD3130"Y"
        VDD3112"B", VDD3108"B"

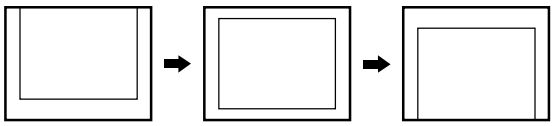
4-8-2 Memory Data

4-8-2(A) DEFLECTION (GEOMETRIC ADJUSTMENT VALUE)

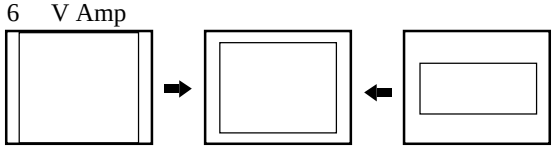
DEFLECTION	Initial Value	Adjustment Value	SAM2540 SAM2740	TXK3276	CL29A6	TXK3279	TXK3676	TXK3679
H Bow	0	Fixed	0	0	0	0	0	0
H Angle	0	Adjustment	0	0	10	0	0	0
H DSCC	1	Fixed	1	1	3	3	1	3
V SHIFT	-40	Adjustment	-18	-27	-55	-51	-27	-51
V AMP	5	Adjustment	18	-17	0	-35	-17	-35
V SLOPE	-2	Adjustment	-4	-3	0	-2	-3	-2
V SC	-7	Fixed	-13	-13	-17	0	-13	0
H EW	64	Adjustment	24	71	45	49	71	49
H TRAPEZIUM	-20	Adjustment	20	-50	-50	-30	-50	-30
H PARABOLA	-13	Adjustment	17	10	-5	18	10	18
H SYMMETRY	13	Fixed	13	13	13	13	13	13
H CORNER	15	Adjustment	69	-13	25	-34	-13	-34
H SHIFT	4		13	20	-20	-6	20	-6
PIP CONTRAST	15	Fixed	-	-	15	10	-	10
PIP TINT	0	Fixed	-	-	0	0	-	0
PIP PAL V.POS	12	Fixed	-	-	12	12	-	12
PIP NTSC V.POS	10	Fixed	-	-	10	10	-	10
PIP H.POS	15	Fixed	-	-	15	15	-	15

4-8-2(B) SCREEN CHANGE (I2C BUS GEOMETRIC ADJUSTMENT)

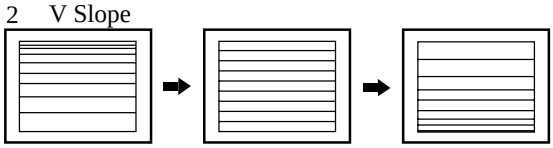
1 V Shift



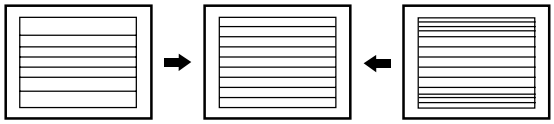
6 V Amp



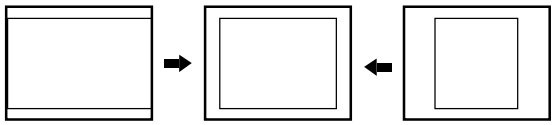
2 V Slope



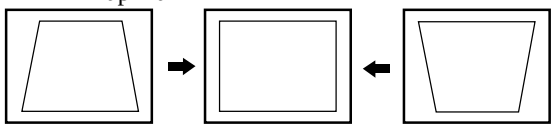
7 V SC



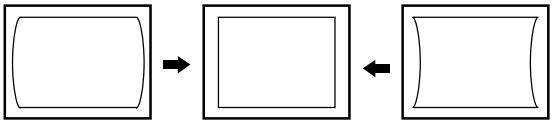
3 H EW



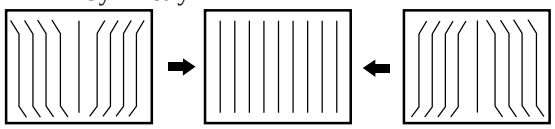
8 H Trapizium



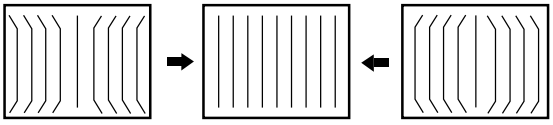
4 H Parabola



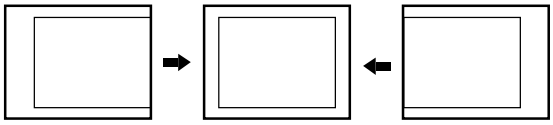
9 H Symmetry



5 H Corner



10 H Shift



4-8-2(C) VIDEO ADJUST 1

VIDEO ADJUST1	Initial Value	Adjustment Value	SAM2540 SAM2740	TXK3276	CL29A6	TXK3279	TXK3676	TXK3679
RED CUT OFF	127	Adjustment	127	127	127	127	127	127
GREEN CUT OFF	127	Fixed	127	127	127	127	127	127
BLUE CUT OFF	127	Adjustment	127	127	127	127	127	127
RED DRIVE	127	Adjustment	127	127	127	127	127	127
GREEN DRIVE	127	Fixed	127	127	127	127	127	127
BLUE DRIVE	127	Adjustment	127	127	127	127	127	127
SUB BRIGHT	110	Adjustment	100	100	100	100	100	100
SUB CONTRAST	52	Adjustment	52	52	52	52	52	52
SUB COLOR	27	Fixed	50	50	50	50	50	50
SUB TINT	30	Fixed	70	70	40	70	70	70
BCL THRESHOLD	62	Fixed	58	58	65	60	58	60
BCLGAIN	8	Fixed	8	8	8	9	8	9
BCL TIME	13	Fixed	10	10	6	5	10	5
DVD SUBTint		Fixed			25	25		25
N. YC DELAY	0		3	3	3	3	3	3

Note 3. **Beam Control Limit Characteristic**

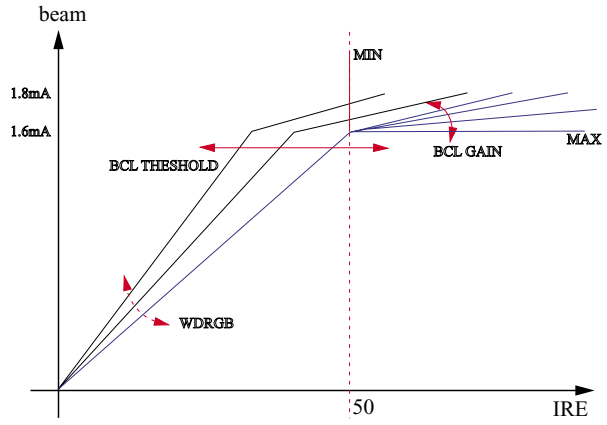


Table 1. YC Delay Adjustment Table

N.YC Delay	NTSC	
	Def.	M
Value	4	3

✎ The “Def.” means that TV is in AV mode.

4-8-2(D) VIDEO 2 ADJUST

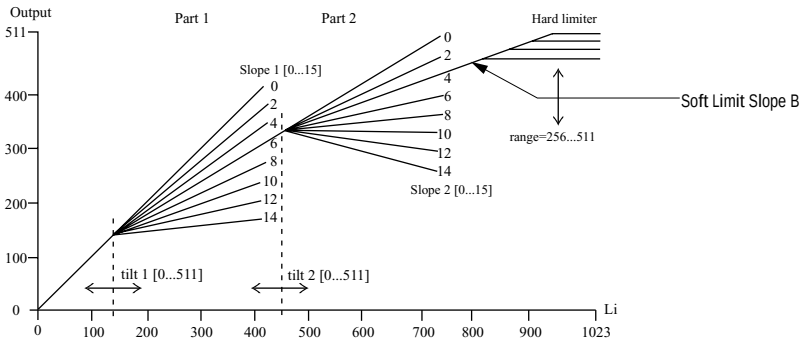
VIDEO ADJUST2	Initial Value	Adjustment Value	SAM2540 SAM2740	TXK3276	CL29A6	TXK3279	TXK3676	TXK3679
B STRETCH-BTHR	50	Fixed	50	50	50	50	50	50
B DTRETCH-BTLT	8	Fixed	8	8	8	8	8	8
B STERTCH-BAM	4	Fixed	4	4	4	4	4	4
CORING	31	Fixed	31	31	31	31	31	31
NTSC COMB FILTER	1		1	1	3	3	1	3
RGB BRIGHT	0	Fixed	0	45	0	45	45	45
RG B CONTRAST	0	Fixed	0	15	0	15	15	15
EHT TIME	0	Fixed	0	0	3	8	0	8
EHT COMPENSATION	60	Fixed	60	60	60	60	60	60
DTI CORING		Fixed	0	0	0	0	0	0
DTI GAIN		Fixed	1	1	1	1	1	1
DTI BAND		Fixed	1	1	1	1	1	1
EHT Offset	0	Fixed	-	-	0	0	-	0
EHT Horizontal	0	Fixed	-	-	0	0	-	0

✐ Coring : The Value of Center Frequency for the active bandwidth.

4-8-2(E) VIDEO 3 ADJUST

VIDEO ADJUST3	Initial Value	Adjustment Value	SAM2540 SAM2740	TXK3276	CL29A6	TXK3279	TXK3676	TXK3679
PEAK Threshold	255	Fixed	255	255	255	255	255	255
SOFT LIMIT SLOPE B	4	Fixed	4	4	4	4	4	4
HARD LIMIT	255	Fixed	255	255	255	255	255	255
MODULATION ON/OFF	0	Fixed	0	0	0	0	0	0
A TILT POINT	0	Fixed	0	0	0	0	0	0
B TILT POINT	0	Fixed	114	114	114	114	114	114
GAIN 1 (VIDEO)		Fixed	11	31	31	31	31	31
DELAY 1 (VIDEO)		Fixed	3	3	3	3	3	3
PEAK VIDEO REF		Fixed	0	0	0	0	0	0
PEAK VIDEO GAIN		Fixed	0	0	0	0	0	0
LIMIT VALUE		Fixed	74	74	127	74	74	74
VELOCITY DELAY		Fixed	7	7	7	7	7	7
VELOCITY CORING		Fixed	10	10	2	10	10	10
ACC-REF	20	Fixed	20	20	20	20	20	20
ACCR	21	Fixed	21	21	21	21	21	21

Note 5. **Soft Limit & Hard Limit**



"Soft Limit" is that Limitting the peak white without feed-back, but "Peak Limit" is that with feed-back for white peak level

4-8-2(F) OPTION

	Model	CL29A6	SAM2540 SAM2740	TXK3276 TXK3676	TXK3279 TXK3679	TXK3279 TXK3679
No.	Description	Initial Value	Initial Value	Initial Value	Initial Value	Initial Value
1	SYSTEM	CN(EN+SP+PO)	CT(EN+SP+FR)	CT(EN+SP+FR)	CT(EN+SP+FR)	CT(EN+SP+FR)
2	ACS(CT, CTA)	OFF	ON	ON	ON	OFF
3	SOUND	VIRTUAL DOLBY	STEREO	STEREO	VIRTUAL DOLBY	VIRTUAL DOLBY
4	CRT	4:3	4:3	4:3	4:3	4:3
5	AV MODE(V,Y)	2RCA + S + D	1RCA	2RCA +S	2RCA +S+D	2RCA +S+D
6	AUDIO MUTE	ON	ON	ON	ON	ON
7	X-RAY	OFF	ON	ON	ON	ON
8	VIDEO-MUTE	ON	OFF	OFF	OFF	ON
9	TILT CONTROL	ON	OFF	OFF	OFF	ON
10	GAME+DEMO(CN)	ON	OFF	OFF	OFF	OFF
11	LNA	ON	OFF	OFF	OFF	ON
12	PIP	2-TUNER	OFF	OFF	2-TUNER	2-TUNER
13	VCHIP(CT,CTA)	OFF	ON	ON	ON	OFF
14	BLUE SCREEN	ON	OFF	OFF	OFF	ON
15	AKB	ON	OFF	OFF	OFF	ON
16	AUTO POWER ON	OFF	OFF	OFF	OFF	OFF
17	HOTEL	OFF	-	-	-	OFF
	Option Byte	04 DE 12 1C	01 01 80 09	01 01 88 09	04 01 92 09	

Note 6.

V-DOLBY	MSP3451G, MSP3440GB6

4-8-2(G) OTHERS

OTHERS	Initial Value	Adjustment Value	SAM2540 SAM2740	TXK3276	CL29A6	TXK3279	TXK3676	TXK3679
VSU	108	Fixed	105	105	98	108	105	108
VSU2			0	0	0	0	0	0
H QEW	0	Fixed	0	0	0	0	0	0
H ZOOM Parabola	8	Fixed	8	8	12	12	0	0
H 16:9 Parabola	-10	Fixed	-18	-18	-19	-19	0	0
DVD Tint Control	0	Fixed	0	0	1	1	0	0
PAL V SHIFT		Fixed	-29	-29	-66	-62	-29	-20
PAL H SHIFT		Fixed	18	18	-15	-1	18	-3
Melidy Volume	5	Fixed	7	7	7	7	7	7
PIP BRIGHT		Fixed			3	5		5
PIP COLOR		Fixed			7	7		7

4-8-2(G) G2 ADJUST

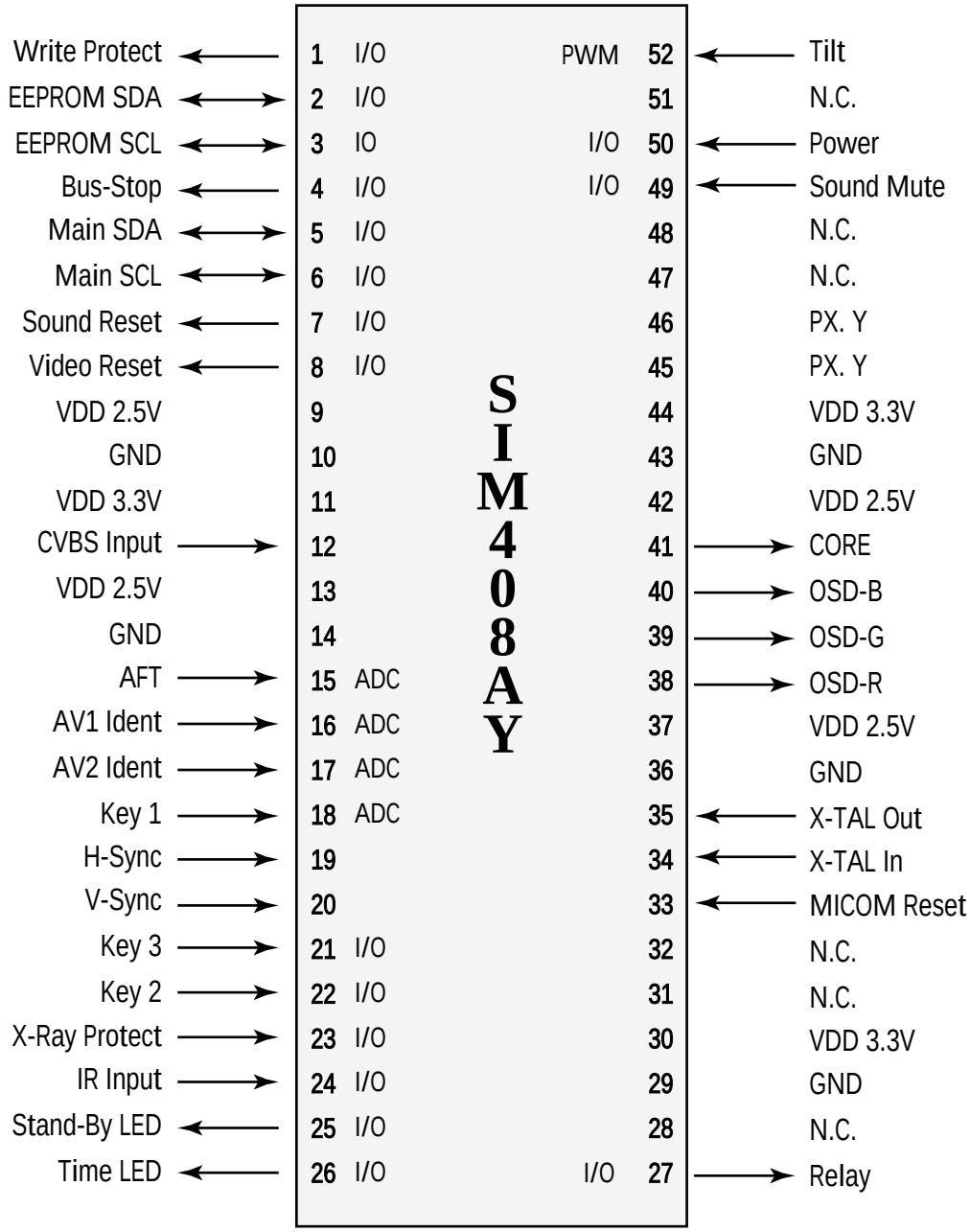
G2 Adjust	Initial Value	Adjustment Value	SAM2540 SAM2740	TXK3276	CL29A6	TXK3279	TXK3676	TXK3679
MRC R G B								
MRWDG								
IBRM	-10	FIX	200	195	200	195	195	195
WDRV	0	FIX	35	35	35	35	35	35
CDL		FIX	150	170	200	170	170	170
COL		FIX	130	130	120	130	130	130

VDP Version			B	B	Y	Y	B	Y

WHITE BALANCE	H	275,295,35	275,295,28	275,295,50	275,295,28	275,295,28	275,295,28
	L	275,295,1.2	275,295,1.0	275,295,1.5	275,295,1.0	275,295,1.0	275,295,1.0

4-9 MICOM

4-9-1 Pin Layout



4-9-2 Pin Assignment Specification

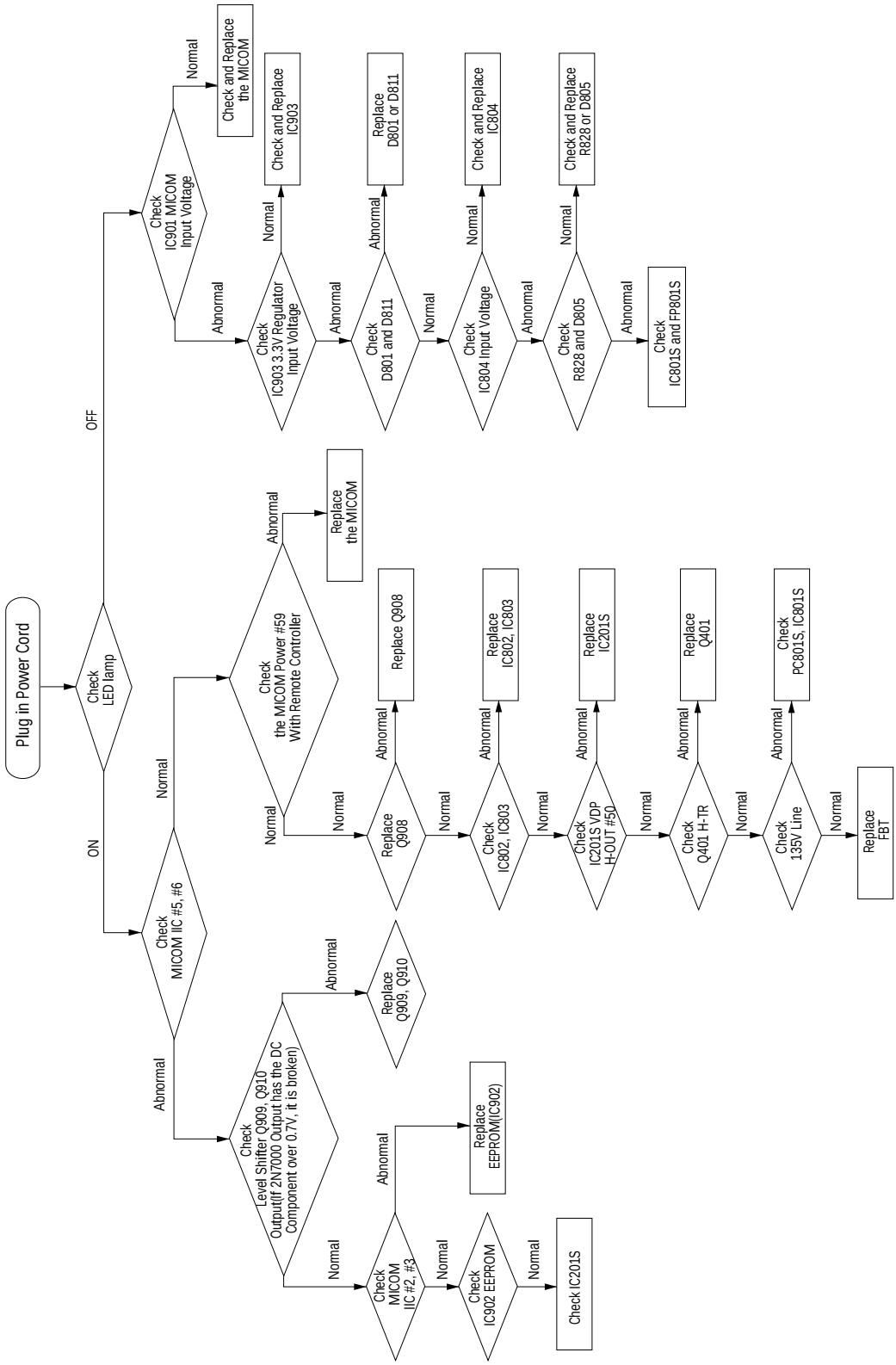
PIN NO	FUNCTION	ASSIGN	IN/OUT	ACTIVE H/L	DESCRIPTION
1	I/O	Write Protect	Out	Low	EEPROM Write Protection
2	I/O	ROM SDA	I/O		EEPROM Serial Data Line
3	I/O	ROM SCL	I/O		EEPROM Serial Clock Line
4	I/O	Bus Stop	In	Low	Disable Micom IIC
5	I/O	Main SDA	I/O		Peripheral IC Serial Data Line
6	I/O	Main SCL	I/O	Low	Peripheral IC Serial Clock Line
7	I/O	Sound Reset	Out	Low	MSP IC Initial Control
8	I/O	Video Reset	Out		VDP IC Initial Control
9	Vdd	VDD 2.5V			
10	GND				
11	Vdd	VDD 3.3V			
12	CVBS	CVBS Input	In		TTX CVBS Input
13	Vdd	VDD 2.5V			Analog B+
14	GND				Analog Ground
15	ADC	AFT	In		Auto Fine Tuning Control
16	ADC	AV1-ID	In		AV1 Ident
17	ADC	AV2-ID	In		AV2 Ident
18	ADC	Key1	In		Key1 Input
19	HS	H-Sync	In		Horizontal Sync Input
20	VS	V-Sync	In		Vertical Sync Input
21	I/O	Key3	In		Key3 Input
22	I/O	Key2	In		Key2 Input
23	I/O	X-Ray	In		X-Ray Protection
24	I/O	IR-In	In		Remocon Signal Input
25	I/O	STD-LED	Out		LED Drive Output(Red)
26	I/O	TIM-LED	Out		LED Drive Output(Green)

4-9-2 Pin Assignment Specification (Continued)

PIN NO	FUNCTION	ASSIGN	IN/OUT	ACTIVE H/L	DESCRIPTION
27	I/O	Relay	Out	Low	Activate Degausssing Coil
28	N.C.				Not Used (Programmed Gound Level)
29	GND				Analog Ground
30	Vdd	VDD 3.3V			Not Used (Programmed Gound Level)
31	N.C.				Not Used (Programmed Gound Level)
32	N.C.				Micom Hardware Reset
33	Reset	Reset	In	Low	Crystal Oscillation Input
34	X-In	X-TAL In	In	6MHz	Crystal Oscillation Output
35	X-Out	X-TAL Out	Out	6MHz	Analog Ground
36	GND				Analog B+
37	Vdd	VDD 2.5V			OSD/Caption Output (Red)
38	R	OSD-R	Out		OSD/Caption Output (Green)
39	G	OSD-G	Out		OSD/Caption Output (Blue)
40	B	OSD-B	Out		Fast Blank/Half Contrast Output
41	COR	CORE	Out		
42	Vdd	VDD 2.5V			
43	GND				
44	Vdd	VDD 3.3V			
45	I/O	PX.Y	In		When The Caption Function Adopted, Used.
46	I/O	PX.Y	Out		
47	N.C.				Not Used (Programmed Gound Level)
48	N.C.				
49	I/O	S-Mute	Out	High	Sound Amp Mute
50	I/O	Power	Out	Low	Picture On/Off Control
51	N.C.				Not Used (Programmed Gound Level)
52	I/O	Tilt	Out	PWM	Tilt Control Output

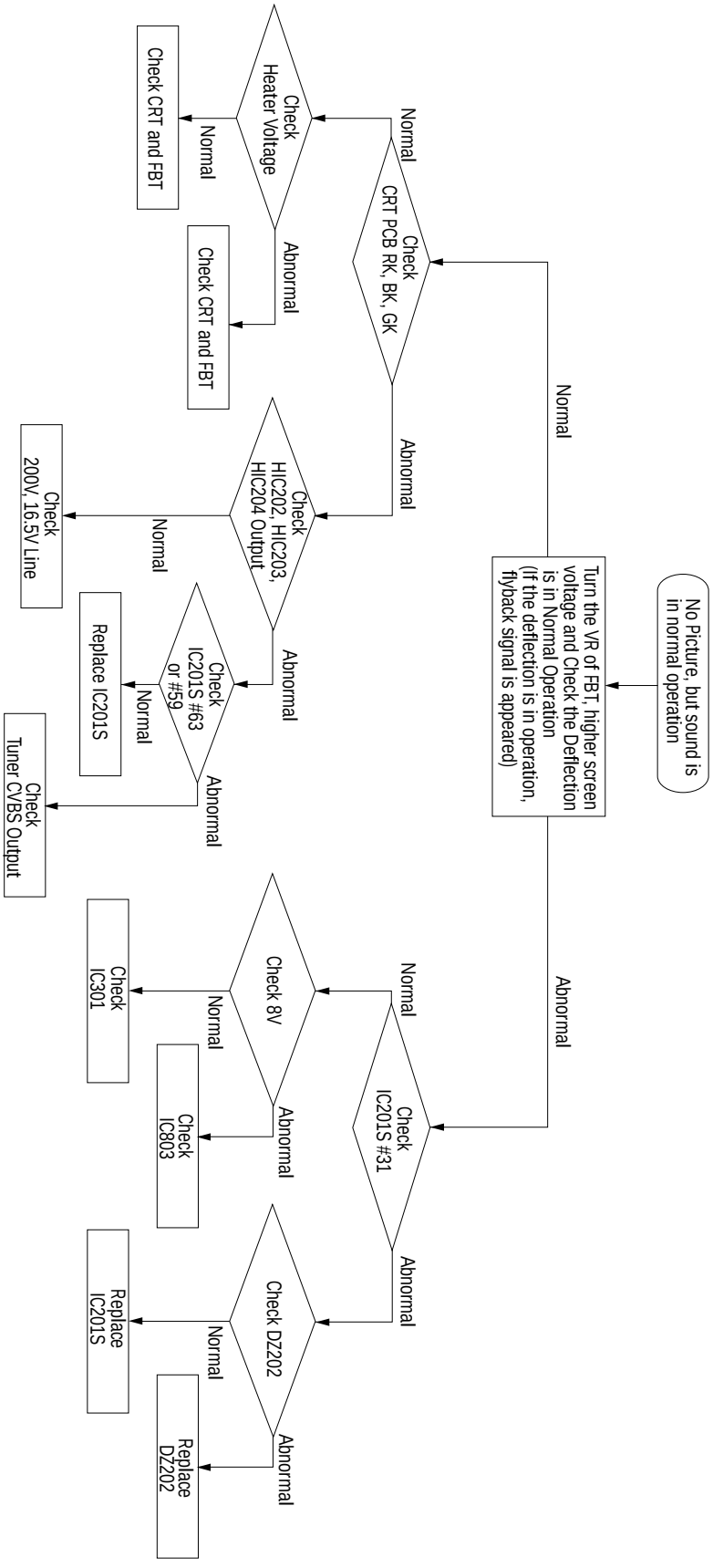
5. Troubleshooting

5-1 No Power

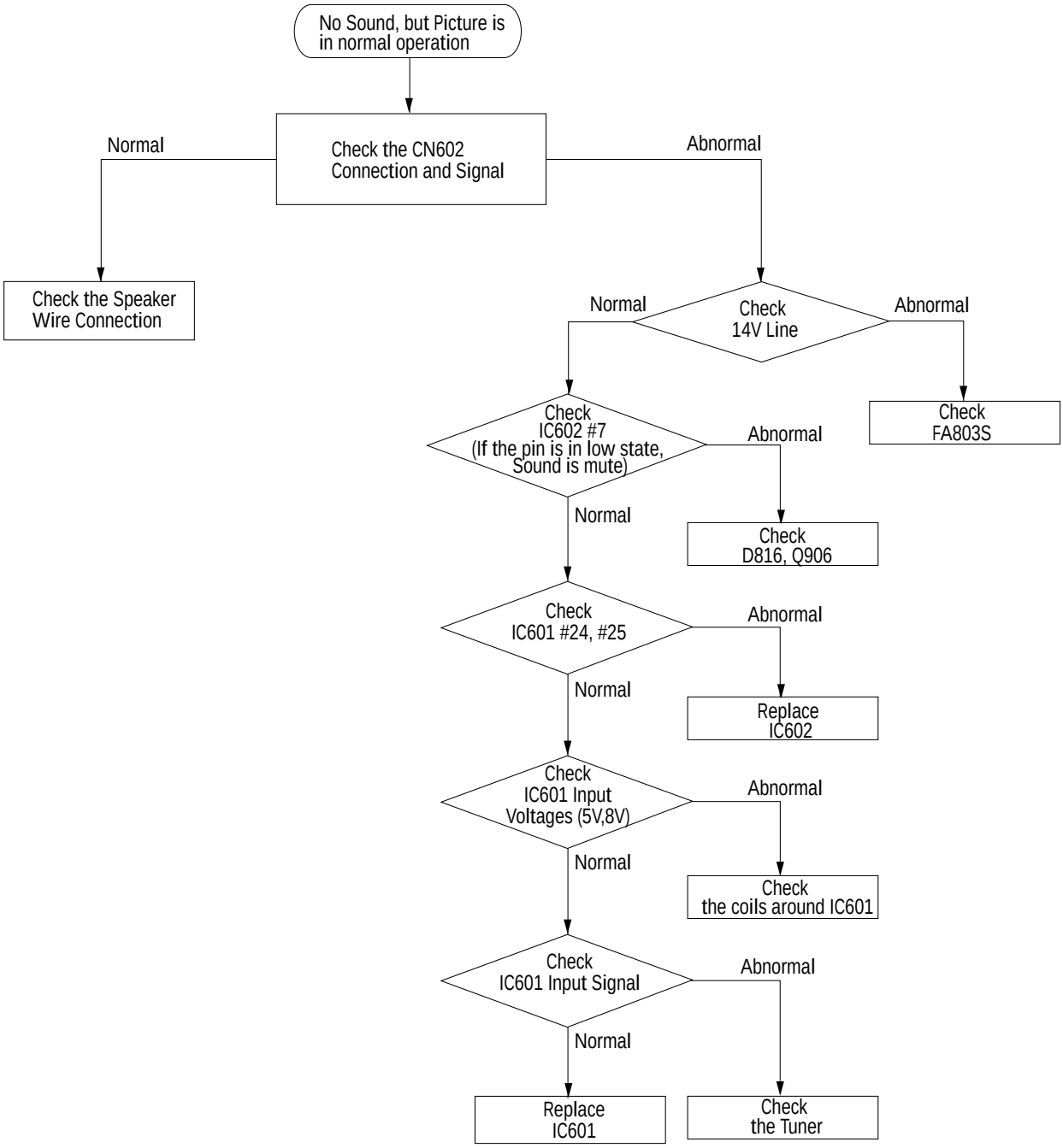


Note : When you check whether any component is normal, you must let the output pin be open in order not to be affected by the side of output.

5-2 No Picture



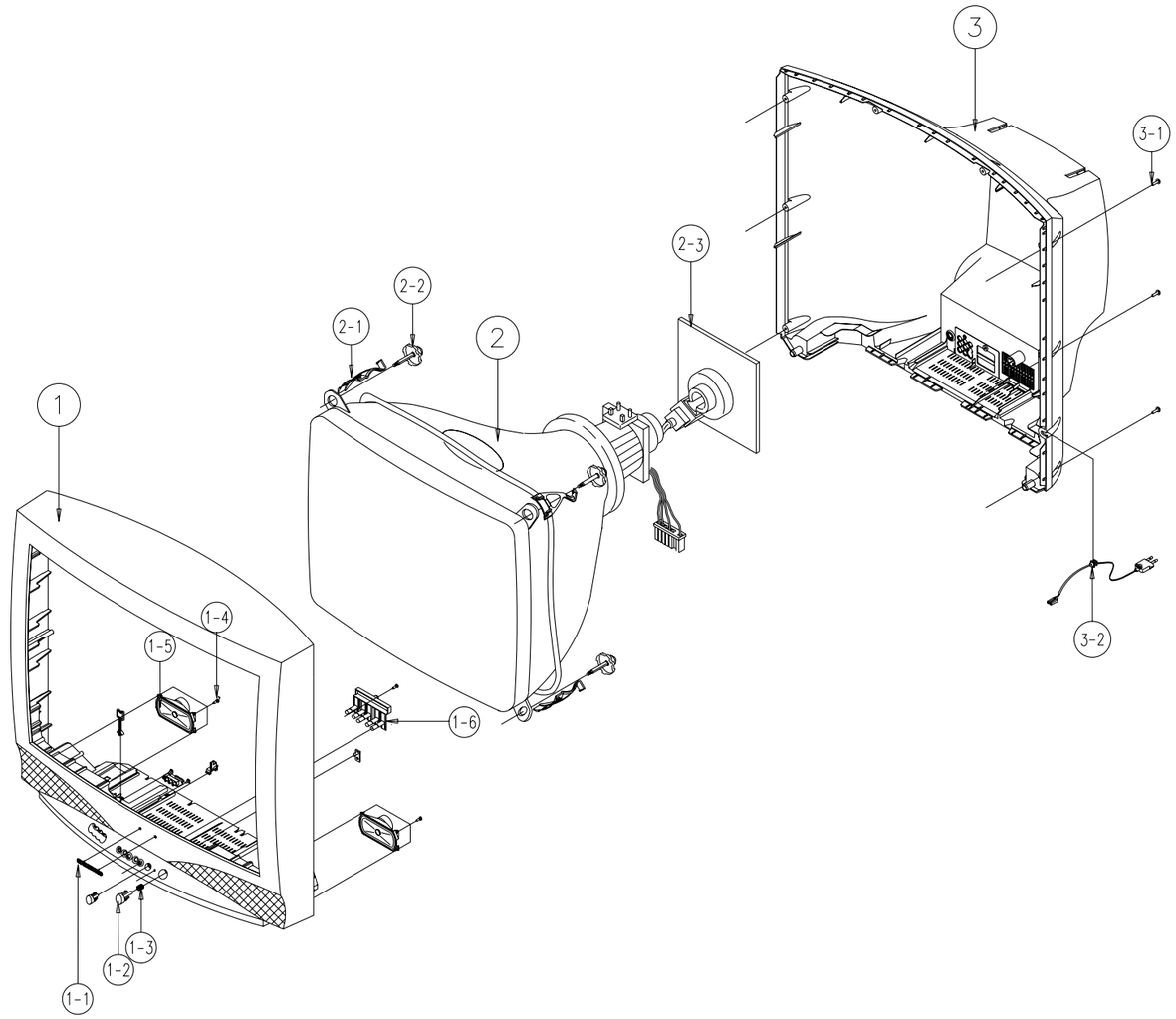
5-3 No Sound


No Sound, but Picture is in normal operation
Check the CN602 Connection and Signal
Normal
Abnormal
Check the Speaker Wire Connection
Check 14V Line
Normal
Abnormal
Check FA803S
Check IC602 #7 (If the pin is in low state, Sound is mute)
Abnormal
Check D816, Q906
Normal
Check IC601 #24, #25
Abnormal
Replace IC602
Normal
Check IC601 Input Voltages (5V,8V)
Abnormal
Check the coils around IC601
Normal
Check IC601 Input Signal
Abnormal
Check the Tuner
Normal
Replace IC601

MEMO

6. Exploded View & Parts List

6-1 TXK3279C



No	Code No	Description	Specification	Q'ty	Remark
1	AA64-00885A	CABINET FRONT	;TOOL,34D3-1,MOLD,-,-,-,-,-	1	
1-1	AA64-70124C	BADGE-BRAND	;AL,R2500,SILVER,L=70,SAMSUNG	1	
1-2	AA64-00352A	KNOB-POWER	;TOOL,37D3,MOLD,-,-,-	1	
1-3	AA61-60003J	SPRING-CS	;-,SUS304,0.5,OD6,H12,N7,-,-,-	1	
1-4	6003-001019	SCREW-TAPTITE	;RH,+,B,M4,L12,ZPC(BLK),SWR	8	
1-5	3001-001115	SPEAKER	;15W,8ohm,93dB,110	2	
1-6	AA64-00353A	KNOB-CONTROL	;TOOL,37D3,MOLD,-,-,-	1	
2	AA03-00131A	CRT COLOR	;A81AGZ50X07,-,34INCH,-,-,-,1.2	1	
2-1	AA65-30113A	CLAMP-D,COIL	;NYLON 66,V2,BLK,TVI 25~29,-	4	
2-2	AA60-10050V	SCREW-ASSY	;WC,HH,+,M6,L30,SWRCH18A,ZPC(S	4	
2-3	3704-000114	SOCKET-CRT	;14P,29.1,35.5,SN,ISH09S/BK	1	
3	AA64-00886A	CABINET BACK	;TOOL,34D3-1,MOLD,-,-,-,-,-	1	
3-1	AA60-10050T	SCREW-TAPPING	;RH,+,2S,M4,L20,ZPC(BLK),SW	8	
3-2	AA39-10007Y	POWER-CORD	;-,EP2/YES,SPT-2 18AWGx2C,2.4m	1	

7. Electrical Parts List

7-1 TXK3279C/XAA

Level	Loc. No.	Code No.	Description ; Specification	Remark
			ASSY PCB CHASSISPACK	
1		* AA93-00058B	ASSY PCB CHASSISPACK;-,KS3A,TXK3279C/XAA	
..2		AA94-02674B	ASSY PCB MAIN(OPT);TXK3279C/XAA,KS3A,USA	
		AA94-02674F	ASSY PCB MAIN(OPT);TXK3279C/XAC,KS3A,CANADA,-	
...3	C407	2301-001338	C-FILM,MPE-PPF;0.68nF,5%,1.6kV,TP,28x7x1	
...3	C803	2401-001652	C-AL;680uF,20%,250V,GP,BK,25x50mm,1	
...3	C820	2401-003076	C-AL;3300uF,20%,50V,WP,BK,18x35.5mm	
...3	CABLE	AA39-30007B	IF-CABLE;-,T,150mm,1365#26	
⚠ ...3	D801S	AA96-00276A	ASSY H/S;-,BRIDGE,AA62-00052A,RBV606,WA	
....4		6003-000335	SCREW-TAPTITE;RH,+,2S,M3,L8,ZPC(YEL),SWR	S.N.A
....4		AA62-00052A	HEAT SINK-PS;-,-,-,SILVER,HOLE 18.5mm, 2	S.N.A
....4		AA60-30003A	WASHER;-,-,-,T1.5,-,SBHG-1,-	S.N.A
....4		0402-000549	DIODE-BRIDGE;RBV606,600V,6A,-,BK	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	S.N.A
⚠ ...3	HC401	AA96-00275A	ASSY H/S;-,COMPLEX,AA62-00051A,KSD5703,	
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	S.N.A
....4		AA60-30001A	WASHER-PLATE;M3,ID3.5,15X8.5,T1.0,-,SBHG	S.N.A
....4		AA62-00051A	HEAT SINK-PS;-,-,-,SILVER,HOLE 31mm,ALL,	S.N.A
....4		0502-001136	TR-POWER;KSD5703,NPN,70W,TO-3PF,ST,8-	
....4		0402-001296	DIODE-RECTIFIER;FMP-3FU,1.5KV,5A,TO-3PF,	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	S.N.A
⚠ ...3	HC801	AA96-00353A	ASSY H/S;-,POWER,AA62-00066A,FML-G12S +	
....4		AA62-00066A	HEAT SINK-PS;-,AL,T1.0,SILVER,-,-,NATURA	S.N.A
....4		6003-000334	SCREW-TAPTITE;RH,+,2S,M3,L6,ZPC(YEL),SWR	S.N.A
....4		1203-001006	IC-VOLTAGE REGULATOR;78R05,TO-220F,4P,-,	
....4		0402-001230	DIODE-RECTIFIER;FMG-G2CS,1000V,3A,TO-220	
....4		0402-000233	DIODE-RECTIFIER;FML-G12S,200V,5A,-,-	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	S.N.A
⚠ ...3	IC202	1203-001944	IC-POSI.FIXED REG.;78RM33,TO-220,3P,-,PL	
⚠ ...3	IC301	AA96-50381A	ASSY-H/S;-,-,AA62-30180B,LA7845,-	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	S.N.A
....4		1204-000517	IC-VERTIVAL DEF.;LA7845,SIP,7P,-,PLASTIC	
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	S.N.A
....4		AA62-30180B	HEAT SINK-ES;-,A6063 EXTR.,2,WHT,70MM,-,	
⚠ ...3	IC601	1204-001737	IC-SOUND PROCESSOR;MSP3451G-A1,DIP,52P,6	
⚠ ...3	IC602	AA96-50369B	ASSY-H/S;-,-,AA62-30181F,TDA7297,-	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	S.N.A
....4		1201-001064	IC-POWER AMP;7297,ZIP,15P,-,DUAL,32DB,PL	
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	S.N.A
....4		AA62-30181F	HEAT SINK-ES;-,AL6063 EXTR.,2,WHT,50MM,-	S.N.A
⚠ ...3	IC801S	AA96-50371C	ASSY-H/S;-,-,AA62-30181H,KA3S1265R,-	
....4		AA62-30181H	HEAT SINK-ES;-,AL6063 EXTR.,2,WHT,50MM,-	S.N.A
....4		AA61-10386A	BRACKET-IC;-,-,SECC 100,T1.0,-,KA2S0680,	S.N.A
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	S.N.A
....4		1203-001482	IC-PWM CONTROLLER;3S1265R,TO-3P,5P,210,P	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	S.N.A
⚠ ...3	IC804	AA96-00243C	ASSY H/S;-,REGULATOR,AA62-00045A,KA7806	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	S.N.A
....4		1203-000284	IC-POSI.FIXED REG.;7806,TO-220,3P,-,PLAS	
....4		6003-000335	SCREW-TAPTITE;RH,+,2S,M3,L8,ZPC(YEL),SWR	S.N.A
....4		AA62-00045A	HEAT SINK-PS;-,-,T1.0,-,-,DREAM,-,-,-,-	S.N.A
⚠ ...3	IC901	AA09-00041A	IC-MCU;SDA555X-OTP,SDA555X-OTP,-,-,52	
⚠ ...3	IC903	1203-001944	IC-POSI.FIXED REG.;78RM33,TO-220,3P,-,PL	
...3	J202	2401-000471	C-AL;10uF,20%,50V,BP,TP,5x11,5mm	
...3	JA701	3722-001333	JACK-RCA;9P,3.2mm,NI,BLK,-	
...3	JA702	3722-001423	JACK-RCA;3P+S1P,3.4mm,NI,BLK,-	
...3	L402	AA27-00067A	COIL HORIZ. WIDTH;-,240uH,YL9N 12x20 C:6	
⚠ ...3	T444S	AA26-00059A	TRANS-FBT;-,FUH-34A001B(S),34/37,130V	
⚠ ...3	T801S	AA26-00044C	TRANS SWITCHING;CODE-NO,CT-21A8,-,AC90~2	
...3	TUBE	AA39-00108A	LEAD CONNECTOR-ASSY;-,-,-,-,-,-,-,-,-,GR	
...3	WIRE	AA39-00046E	LEAD CONNECTOR-ASSY;-,-,-,-,-,-,-,-,-,JU	
...3		AA65-30104B	CLAMP-WIRE;NYLON 66,V2,BLK,W2 Z5,ALL MOD	
...3		AA95-00828A	ASSY-PCB PIP;DP,TXK3279C,KS3A,NTSC,-,-	
....4	CNP01	3711-002709	CONNECTOR-HEADER;NOWALL,12P,1R,2.5MM,ANG	
....4	CNP02	3711-002706	CONNECTOR-HEADER;NOWALL,8P,1R,2.5mm,ANGL	
....4	CP01	2203-000802	C-CERAMIC,CHIP;33nF,10%,50V,X7R,TP,2012	
....4	CP02	2203-000818	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,201	
....4	CP03	2203-000818	C-CERAMIC,CHIP;0.033nF,5%,50V,NP0,TP,201	
....4	CP04	2203-000218	C-CERAMIC,CHIP;100nF,20%,50V,Y5V,TP,2012	
....4	CP05	2404-000123	C-TA,CHIP;10uF,20%,16V,-,TP,6032,2.9mm	
....4	CP06	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP07	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP08	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP09	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP10	2404-000123	C-TA,CHIP;10uF,20%,16V,-,TP,6032,2.9mm	
....4	CP11	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP12	2404-000151	C-TA,CHIP;1uF,20%,16V,-,TP,3216,-	
....4	CP13	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP14	2404-000123	C-TA,CHIP;10uF,20%,16V,-,TP,6032,2.9mm	
....4	CP15	2203-000218	C-CERAMIC,CHIP;100nF,20%,50V,Y5V,TP,2012	
....4	CP16	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP17	2404-000167	C-TA,CHIP;2.2uF,20%,16V,-,TP,3216,-	
....4	CP18	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
....4	CP19	2404-000167	C-TA,CHIP;2.2uF,20%,16V,-,TP,3216,-	
....4	CP20	2404-000160	C-TA,CHIP;1UF,20%,50V,GP,TP,6032	
....4	CP21	2404-000160	C-TA,CHIP;1UF,20%,50V,GP,TP,6032	
....4	CP23	2404-000275	C-TA,CHIP;100UF,10%,10V,GP,TP,7343	
....4	CP24	2203-000218	C-CERAMIC,CHIP;100nF,20%,50V,Y5V,TP,2012	
....4	CP25	2404-000275	C-TA,CHIP;100UF,10%,10V,GP,TP,7343	
....4	DP01	0401-000133	DIODE-SWITCHING;RLS4148,100V,200mA,SOD-8	
....4	DP02	0401-000133	DIODE-SWITCHING;RLS4148,100V,200mA,SOD-8	
....4	DP03	0401-000133	DIODE-SWITCHING;RLS4148,100V,200mA,SOD-8	
....4	DP04	0401-000133	DIODE-SWITCHING;RLS4148,100V,200mA,SOD-8	
....4	DZP01	0403-000620	DIODE-ZENER;RLZ5.6B,5.6V,5.45-5.73V,400m	
....4	DZP02	0403-000620	DIODE-ZENER;RLZ5.6B,5.6V,5.45-5.73V,400m	
....4	DZP03	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m	
....4	HCP01	AA61-10068A	BRACKET-PCB;-,M2160,SPTE,T0.3,-,-,-	S.N.A
⚠ 4	ICP01	1204-001396	IC-PICTURE PROCESS;SDA9388X,SOP,28P,-,PL	
....4	LP01	2701-000197	INDUCTOR-AXIAL;5.6uH,10%,2.5x3.4mm	
....4	LP02	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm	
....4	LP03	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm	
....4	PCB	AA41-00221B	PCB-HAC;CS29A6PF8X,FR-4,2L,B,1.6,180x2	S.N.A
....4	QP01	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
....4	QP02	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
....4	QP03	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
....4	QP04	0501-000344	TR-SMALL SIGNAL;KSC1623-G,NPN,200mW,SOT-	
....4	QP05	0501-000344	TR-SMALL SIGNAL;KSC1623-G,NPN,200mW,SOT-	
....4	QP06	0501-000344	TR-SMALL SIGNAL;KSC1623-G,NPN,200mW,SOT-	
....4	QP07	0501-000344	TR-SMALL SIGNAL;KSC1623-G,NPN,200mW,SOT-	
....4	RP01	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
....4	RP02	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
....4	RP03	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP04	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP05	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP06	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP,2012	
....4	RP07	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP12	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
....4	RP13	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
....4	RP14	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
....4	RP15	2007-000034	R-CHIP;1OHM,5%,1/8W,DA,TP,3216	
....4	RP20	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
....4	RP21	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP,2012	
....4	RP22	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP,2012	
....4	RP23	2007-000030	R-CHIP;560OHM,5%,1/10W,DA,TP,2012	
....4	RP24	2007-000030	R-CHIP;560OHM,5%,1/10W,DA,TP,2012	
....4	RP25	2007-000938	R-CHIP;47KOHM,1%,1/10W,DA,TP,2012	
....4	RP26	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
....4	RP27	2007-000030	R-CHIP;560OHM,5%,1/10W,DA,TP,2012	
....4	RP28	2007-000030	R-CHIP;560OHM,5%,1/10W,DA,TP,2012	
....4	RP29	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
....4	RP30	2007-000941	R-CHIP;47KOHM,5%,1/10W,DA,TP,2012	
....4	RP31	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	

Level	Loc. No.	Code No.	Description ; Specification	Remark
....4	RP32	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP33	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP34	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP35	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP36	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
....4	RP40	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
....4	RP41	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
....4	RP50	2007-001201	R-CHIP;820OHM,5%,1/10W,DA,TP,2012	
....4	XP01	2801-000214	CRYSTAL-UNIT;27MHz,40ppm,28-AAM,S,40ohm,	
....4		0202-001004	SOLDER-CREAM;SQ-2030M SZH-1,S63A,D0.04,6	S.N.A
....4		0202-000187	SOLDER-WIRE FLUX;-,RS60S,D1.2,63Sn/37Pb	S.N.A
...3		AA39-00046E	LEAD CONNECTOR-ASSY;-,-,-,-,-,-,-,-,JU	
...3		AA98-00053A	ASSY SUB PART;KS3A,MAIN(OPT),PAL,-	S.N.A
....4		0202-000187	SOLDER-WIRE FLUX;-,RS60S,D1.2,63Sn/37Pb	S.N.A
...3		AA99-30182R	ASSY-PCB ROBOT; AA94-02674B ,ER	S.N.A
....4	C405	2306-000330	C-FILM,MPPF;7.7nF,3%,1.6KV,TP,28.5x18.5x	
....4	C406	2306-000322	C-FILM,MPPF;12nF,5%,1.6KV,TP,29x20.5x13,	
....4	C423	2301-001193	C-FILM,MPPF;1uF,5%,400V,TP,31x17x25,20	
....4	C426	2301-001192	C-FILM,MPPF;820nF,5%,400V,TP,29x18.5x25.	
....4	C815	2401-003026	C-AL;330uF,20%,200V,GP,ST,22x35,10	
....4	CN501	3711-002641	CONNECTOR-HEADER;BOX,10P,1R,2.54mm,STRAI	
⚠ 4	CX801S	2306-000318	C-FILM,MPPF;220nF,20%,250V,TP,-,22.5mm	
⚠ 4	CX802S	2306-000318	C-FILM,MPPF;220nF,20%,250V,TP,-,22.5mm	
⚠ 4	CY802S	2201-000446	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,15x	
⚠ 4	FP801S	3601-001012	FUSE;250V,4A,SLOW-BLOW,GLASS,5.2x20	
⚠ 4	IC201S	1204-001735	IC-VIDEO PROCESS;VDP3130Y-B1,DIP,64P,760	
⚠ 4	IC401	1202-000103	IC-VOLTAGE COMP;393,DIP,8P,300MIL,DUAL,	
⚠ 4	IC803	1203-001697	IC-VOLTAGE REGULATOR;78R08,TO-220,4P,-,P	
⚠ 4	IC902	1103-001171	IC-EEPROM;24L161,16KBIT,DIP,8P,300MIL,10	
....4	L403	AA27-00101A	COIL LINEARITY;58uH,58uH,DR14x15 C:6.0,1	
....4	L405	AA27-00096A	COIL HORIZ. WIDTH;-,10.0mH,DR15 X 27.5,U	
....4	L408	AA27-00095A	COIL HORIZ. WIDTH;-,600uH,YL9N 15x27.5 C	
....4	L808	AA27-00098A	COIL CHOKE;-,-,24uH,10%,-,0.1,3.0A,DR10X	
....4	LD901	AA96-00461A	ASSY LED GUIDE;-,-,SL-255D,RED/GRN	
⚠ 4	LX801S	AA29-00012A	FILTER LINE NOISE;CS29A6PF8X/HAC,-,0.1MA	
⚠ 4	LX802S	AA29-00012A	FILTER LINE NOISE;CS29A6PF8X/HAC,-,0.1MA	
⚠ 4	NT802S	1404-001045	THERMISTOR-NTC;4.7OHM,15%,2900K,35.0MW,T	
⚠ 4	PC801S	0604-001038	PHOTO-COUPLER;TR,130-260%,200mW,DIP-4,ST	
⚠ 4	PT801S	1404-000002	THERMISTOR-PTC;9ohm,20%,-,-,TR,RECT,-	
⚠ 4	RL801S	3501-001040	RELAY-POWER;12VDC,500mW,10A,1FormA,15mS,	
....4	RM901	AA59-60001U	MODULE-REMOCON;-,ORC-50VF/SR-12V,38KHz,9	
....4	SW906	3404-001004	SWITCH-TACT;12V,50MA,160GF,8.4X22.7MM,SP	
⚠ 4	T401	AA26-50001L	TRANS-HORIZ.DRIVE;-,29mH,133uH,4.5uH,EI2	
⚠ 4	TU01S	AA40-00020A	TUNER-F/S;TCLN3181PA09A(S),NTSC,TR,181CH	
⚠ 4	TU02S	AA40-00032A	TUNER-F/S;TCPN3081PC09A(S),NTSC,TR,181CH	
....4		AA99-10178D	ASSY-PCB MAIN,AUTO; AA99-30182R ,V	S.N.A
.....5	C101	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
.....5	C102	2401-001513	C-AL;47uF,20%,16V,WT,TP,5x11,5	
.....5	C103	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
.....5	C104	2401-003578	C-AL;1000uF,20%,10V,GP,TP,8x20mm,5	
.....5	C105	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
.....5	C106	2401-000611	C-AL;1uF,20%,50V,WT,TP,5x11,5	
.....5	C107	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
.....5	C108	2401-001363	C-AL;470uF,20%,16V,GP,TP,10x12.5,5	
.....5	C111	2401-000603	C-AL;1uF,20%,50V,GP,TP,5x11,5	
.....5	C112	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
.....5	C113	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
.....5	C115	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C116	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C201	2401-000603	C-AL;1uF,20%,50V,GP,TP,5x11,5	
.....5	C202	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C203	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C204	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C205	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C206	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C207	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C208	2401-001026	C-AL;3.3UF,20%,50V,GP,TP,5X11,5	
.....5	C210	2401-000287	C-AL;100uF,20%,16V,WT,TP,6.3x11,5	
.....5	C211	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3	
.....5	C212	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
.....5	C213	2301-000310	C-FILM,PEF;68nF,5%,50V,TP,8.0X8.5X4.0X5,	
.....5	C214	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C215	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C216	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C217	2401-001026	C-AL;3.3UF,20%,50V,GP,TP,5X11,5	
.....5	C218	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C219	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C220	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C221	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C222	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C223	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C224	2201-002031	C-CERAMIC,DISC;0.005nF,0.5pF,50V,NP0,TP,	
.....5	C225	2201-002031	C-CERAMIC,DISC;0.005nF,0.5pF,50V,NP0,TP,	
.....5	C228	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
.....5	C229	2401-002619	C-AL;47uF,20%,25V,GP,TP,5x11,5	
.....5	C230	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
.....5	C231	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C232	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C233	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	C234	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	C235	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	C236	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	C237	2401-000914	C-AL;22uF,20%,16V,GP,TP,5x11,5	
.....5	C238	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C239	2401-000444	C-AL;10uF,20%,25V,GP,TP,5x5mm,5mm	
.....5	C240	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C241	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C244	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C245	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C248	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C250	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C251	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C252	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C253	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
.....5	C254	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C301	2401-000603	C-AL;1uF,20%,50V,GP,TP,5x11,5	
.....5	C302	2401-000360	C-AL;100uF,20%,50V,GP,TP,8x11.5,5	
.....5	C303	2201-002103	C-CERAMIC,DISC;0.015nF,5%,500V,NP0,TP,6.	
.....5	C304	2305-000285	C-FILM,MPEF;220NF,5%,100V,TP,10.5X5.5X15	
.....5	C305	2305-000149	C-FILM,MPEF;100nF,5%,100V,TP,12x12.5x6.5	
.....5	C306	2301-000342	C-FILM,PEF;2.2nF,5%,50V,TP,7.4x3.9x13mm,	
.....5	C307	2401-000360	C-AL;100uF,20%,50V,GP,TP,8x11.5,5	
.....5	C308	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	C401	2201-000556	C-CERAMIC,DISC;0.47nF,10%,500V,Y5P,TP,5.	
.....5	C402	2401-001397	C-AL;470uF,20%,25V,GP,TP,10x16,5	
.....5	C403	2201-000556	C-CERAMIC,DISC;0.47nF,10%,500V,Y5P,TP,5.	
.....5	C404	2401-001397	C-AL;470uF,20%,25V,GP,TP,10x16,5	
.....5	C408	2305-000382	C-FILM,MPEF;4.7nF,5%,400V,TP,-,5mm	
.....5	C409	2301-001268	C-FILM,PPF;33nF,5%,630V,TP,20x11x17,7.5	
.....5	C410	2301-000213	C-FILM,PEF;220nF,5%,250V,TP,21.5x11,7.5	
.....5	C411	2301-000104	C-FILM,PEF;1.2nF,5%,50V,TP,6.5x3.0x5.5mm	
.....5	C412	2301-000313	C-FILM,PEF;8.2nF,5%,100V,TP,7x3.2x7mm,5m	
.....5	C413	2401-000493	C-AL;10uF,20%,50V,LZ,TP,5x11mm,5mm	
.....5	C414	2401-002597	C-AL;220uF,20%,35V,GP,TP,10x12.5,5	
.....5	C415	2301-000445	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
.....5	C416	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
.....5	C418	2401-002597	C-AL;220uF,20%,35V,GP,TP,10x12.5,5	
.....5	C419	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
.....5	C420	2301-001065	C-FILM,MPPF;47nF,5%,630V,TP,19x15.5x7,7.	
.....5	C421	2201-000556	C-CERAMIC,DISC;0.47nF,10%,500V,Y5P,TP,5.	
.....5	C422	2401-001527	C-AL;47uF,20%,250V,HR,TP,13x25mm,5m	
.....5	C424	2201-000132	C-CERAMIC,DISC;0.1nF,10%,500V,Y5P,TP,6.5	
.....5	C425	2301-001259	C-FILM,MPPF;100nF,5%,400V,TP,19x8x16,7.5	
.....5	C427	2401-002268	C-AL;2.2uF,20%,250V,LZ,TP,8X11,5	
.....5	C601	2201-000558	C-CERAMIC,DISC;0.47nF,10%,50V,Y5P,TP,5x3	
.....5	C603	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C604	2401-000603	C-AL;1uF,20%,50V,GP,TP,5x11,5	
.....5	C605	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C607	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3	
.....5	C608	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3	
.....5	C610	2301-000445	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
.....5	C611	2301-000445	C-FILM,PEF;4.7nF,5%,50V,TP,5.5x7x3mm,5mm	
.....5	C612	2401-001914	C-AL;1uF,20%,50V,BP,TP,5x11,5	
.....5	C613	2401-001914	C-AL;1uF,20%,50V,BP,TP,5x11,5	
.....5	C617	2401-000493	C-AL;10uF,20%,50V,LZ,TP,5x11mm,5mm	
.....5	C620	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C621	2401-002458	C-AL;1000uF,20%,35V,GP,TP,16x25,7.5	
.....5	C622	2401-001989	C-AL;4.7uF,20%,50V,BP,TP,5x11,5	
.....5	C623	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C624	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C625	2401-001989	C-AL;4.7uF,20%,50V,BP,TP,5x11,5	
.....5	C626	2401-001989	C-AL;4.7uF,20%,50V,BP,TP,5x11,5	

Level	Loc. No.	Code No.	Description ; Specification	Remark
.....5	C627	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C628	2401-001989	C-AL;4.7uF,20%,50V,BP,TP,5x11,5	
.....5	C629	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C630	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C631	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C632	2202-000806	C-CERAMIC,MLC-AXIAL;220pF,10%,50V,Y5P,TP	
.....5	C634	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
.....5	C635	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C636	2401-001026	C-AL;3.3UF,20%,50V,GP,TP,5X11,5	
.....5	C637	2401-000027	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
.....5	C638	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C639	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C640	2401-000027	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
.....5	C641	2401-000027	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
.....5	C642	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C643	2401-000027	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
.....5	C644	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C645	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C646	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C647	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.	
.....5	C649	2301-000108	C-FILM,PEF;1.5nF,5%,50V,TP,6.5x3.0x5.5mm	
.....5	C652	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C654	2201-000611	C-CERAMIC,DISC;0.056nF,5%,50V,NP0,TP,7x3	
.....5	C656	2201-000304	C-CERAMIC,DISC;0.001nF,0.25pF,50V,NP0,TP	
.....5	C657	2201-000304	C-CERAMIC,DISC;0.001nF,0.25pF,50V,NP0,TP	
.....5	C701	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C702	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C703	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C707	2401-001989	C-AL;4.7uF,20%,50V,BP,TP,5x11,5	
.....5	C708	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C709	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C710	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C711	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
.....5	C804	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250V,Y5U,TP,9x4	
.....5	C805	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250V,Y5U,TP,9x4	
.....5	C807	2303-000163	C-FILM,PPF;2.2nF,5%,800V,TP,15x13x8.5,7.	
.....5	C808	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
.....5	C809	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
.....5	C810	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
.....5	C811	2301-000310	C-FILM,PEF;68nF,5%,50V,TP,8.0X8.5X4.0X5,	
.....5	C814	2201-000406	C-CERAMIC,DISC;0.27nF,10%,2kV,Y5P,TP,6.3	
.....5	C816	2401-000293	C-AL;100uF,+30-10%,200V,GP,TP,16x25	
.....5	C817	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
.....5	C818	2401-000722	C-AL;2200uF,20%,25V,WT,TP,16x25,7.5	
.....5	C819	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
.....5	C821	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
.....5	C822	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
.....5	C823	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
.....5	C824	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
.....5	C825	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C826	2401-000287	C-AL;100uF,20%,16V,WT,TP,6.3x11,5	
.....5	C827	2401-002212	C-AL;10uF,20%,25V,WT,TP,5x11,5	
.....5	C829	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C831	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C832	2401-000287	C-AL;100uF,20%,16V,WT,TP,6.3x11,5	
.....5	C833	2401-002619	C-AL;47uF,20%,25V,GP,TP,5x11,5	
.....5	C835	2401-002289	C-AL;470uF,20%,35V,WT,TP,10x20,5	
.....5	C837	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C838	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
.....5	C839	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C840	2401-002212	C-AL;10uF,20%,25V,WT,TP,5x11,5	
.....5	C841	2401-000611	C-AL;1uF,20%,50V,WT,TP,5x11,5	
.....5	C901	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C902	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
.....5	C903	2202-000719	C-CERAMIC,MLC-AXIAL;6.8NF,20%,16V,Y5R,3.	
.....5	C904	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
.....5	C905	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3	
.....5	C907	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	C908	2202-000863	C-CERAMIC,MLC-AXIAL;560pF,10%,50V,Y5P,TP	
.....5	C909	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm	
.....5	C910	2201-000980	C-CERAMIC,DISC;0.03nF,5%,50V,NP0,TP,5x3,	
.....5	C911	2201-000980	C-CERAMIC,DISC;0.03nF,5%,50V,NP0,TP,5x3,	
.....5	C912	2401-000027	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
.....5	C913	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
.....5	C914	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C915	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
.....5	C916	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	C917	2401-000493	C-AL;10uF,20%,50V,LZ,TP,5x11mm,5mm	
.....5	C918	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
.....5	C919	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C920	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
.....5	C921	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	C922	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
.....5	CN502	3711-002646	CONNECTOR-HEADER;BOX,7P,1R,2.5mm,STRAIGH	
.....5	CN602	3711-002644	CONNECTOR-HEADER;BOX,5P,1R,2.5mm,STRAIGH	
.....5	CN702	3711-002647	CONNECTOR-HEADER;BOX,8P,1R,2.5mm,STRAIGH	
⚠ 5	CR01S	2201-000556	C-CERAMIC,DISC;0.47nF,10%,500V,Y5P,TP,5.	
⚠ 5	CR02S	2401-002212	C-AL;10uF,20%,25V,WT,TP,5x11,5	
⚠ 5	CR03S	2401-002235	C-AL;10uF,20%,16V,GP,TP,5x11mm,5mm	
⚠ 5	CR04S	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	CW901	2503-000156	C-NETWORK;100pFx4,20%,50V	
.....5	D201	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D202	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D203	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D204	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D205	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D206	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D207	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D208	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D209	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D210	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D211	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D301	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
.....5	D401	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5A,-,TP	
.....5	D402	0402-000534	DIODE-RECTIFIER;RG10V,400V,1.2A,DO-201,T	
.....5	D403	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
.....5	D404	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5A,-,TP	
.....5	D405	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
.....5	D406	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
.....5	D407	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
.....5	D408	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
.....5	D409	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5A,-,TP	
.....5	D411	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
.....5	D412	0402-000010	DIODE-RECTIFIER;RGP15G,400V,1.5A,DO-204A	
.....5	D413	0402-000537	DIODE-RECTIFIER;RH1A,600V,0.6A,DO-204AC	
.....5	D601	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D602	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D801	0402-001111	DIODE-RECTIFIER;1N5397GP,600V,1.5A,DO-20	
.....5	D803	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
.....5	D804	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D808	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
.....5	D810	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
.....5	D811	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
.....5	D816	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
.....5	D901	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D902	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D903	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D904	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D905	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
.....5	D906	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	D907	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
⚠ 5	DR01S	0402-000534	DIODE-RECTIFIER;RG10V,400V,1.2A,DO-201,T	
.....5	DZ201	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ202	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ203	0403-001321	DIODE-ZENER;MTZJ6.8C,6.66-7.01V,500mW,DO	
.....5	DZ302	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,D	
.....5	DZ303	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,D	
.....5	DZ304	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,D	
.....5	DZ305	0403-001221	DIODE-ZENER;UZ39BSB,35.36-37.19V,500MW,D	
.....5	DZ306	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,1W,DO-41,T	
.....5	DZ401	0403-001325	DIODE-ZENER;MTZJ15C,14.35-15.09V,500mW,D	
.....5	DZ402	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
.....5	DZ601	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ602	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	
.....5	DZ603	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ801	0403-001322	DIODE-ZENER;MTZJ8.2B,7.78-8.19V,500mW,DO	
.....5	DZ802	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ803	0403-001167	DIODE-ZENER;MTZJ30D,30V,29.02-30.51V,500	
.....5	DZ804	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,1W,DO-41,T	
.....5	DZ805	1203-001217	IC-POSI.ADJUST REG.;431,TO-92,3P,4.58MIL	
.....5	DZ806	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ808	0403-000719	DIODE-ZENER;MTZJ7.5B,7.5V,7.07-7.45V,500	
.....5	DZ901	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ902	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	

Level	Loc. No.	Code No.	Description ; Specification	Remark
.....5	DZ903	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ904	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ905	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ906	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZ907	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
.....5	DZR01S	0403-001321	DIODE-ZENER;MTZJ6.8C,6.66-7.01V,500mW,DO	
.....5	F801A	3602-000114	FUSE-HOLDER;-,-,30mohm	S.N.A
.....5	F801B	3602-000114	FUSE-HOLDER;-,-,30mohm	S.N.A
.....5	FA802S	3601-001086	FUSE-AXIAL LEAD;125V,5A,FAST-ACTING,GLAS	
.....5	FA803S	3601-001086	FUSE-AXIAL LEAD;125V,5A,FAST-ACTING,GLAS	
⚠ 5	HIC201	AA13-00093A	IC HYBRID;-,DRGB001A,SIP,5P,-,TP	
⚠ 5	HIC202	AA13-00093A	IC HYBRID;-,DRGB001A,SIP,5P,-,TP	
⚠ 5	HIC203	AA13-00093A	IC HYBRID;-,DRGB001A,SIP,5P,-,TP	
⚠ 5	HIC204	AA13-00093A	IC HYBRID;-,DRGB001A,SIP,5P,-,TP	
⚠ 5	IC904	1203-001943	IC-VOL. DETECTOR;7025,TO-92,3P,-,PLASTIC	
.....5	J412	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	J706	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	J718	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	J901	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	J904	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	L101	2701-000115	INDUCTOR-AXIAL;10uH,10%,3x7mm	
.....5	L102	2701-000159	INDUCTOR-AXIAL;22uH,10%,4.2x9.8mm	
.....5	L103	2701-000115	INDUCTOR-AXIAL;10uH,10%,3x7mm	
.....5	L104	2701-000106	INDUCTOR-AXIAL;1.5uH,10%,3x7mm	
.....5	L106	2701-000115	INDUCTOR-AXIAL;10uH,10%,3x7mm	
.....5	L202	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	L203	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	L204	2701-000184	INDUCTOR-AXIAL;4.7uH,10%,2.5x3.4mm	
.....5	L205	2701-000142	INDUCTOR-AXIAL;1uH,10%,2.5x3.4mm	
.....5	L206	2701-000184	INDUCTOR-AXIAL;4.7uH,10%,2.5x3.4mm	
.....5	L207	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L208	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L209	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L210	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L212	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L213	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L214	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L301	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	L302	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L303	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L401	2001-001037	R-CARBON(S);0.39OHM,5%,1/2W,AA,TP,2.4X6.	
.....5	L406	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	L407	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
.....5	L410	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L412	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L601	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
.....5	L604	2701-000169	INDUCTOR-AXIAL;3.9uH,10%,2.5x3.4mm	
.....5	L605	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L606	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L607	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L608	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L609	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
.....5	L701	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L702	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L705	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L706	2701-000177	INDUCTOR-AXIAL;33uH,10%,2.5x3.4mm	
.....5	L709	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L710	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L711	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	L712	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L713	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L714	2701-000168	INDUCTOR-AXIAL;3.3uH,5%,2.5x3.4mm	
.....5	L801	3301-001223	CORE-FERRITE BEAD;AA,62ohm,3.5x0.8x5mm,-	
.....5	L802	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L803	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L804	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L806	3301-001223	CORE-FERRITE BEAD;AA,62ohm,3.5x0.8x5mm,-	
.....5	L807	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
.....5	L809	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
.....5	L901	2702-001094	INDUCTOR-RADIAL;10uH,10%,6x4mm	
.....5	L902	2701-000184	INDUCTOR-AXIAL;4.7uH,10%,2.5x3.4mm	
.....5	L903	2702-001094	INDUCTOR-RADIAL;10uH,10%,6x4mm	
.....5	L904	2702-001094	INDUCTOR-RADIAL;10uH,10%,6x4mm	
.....5	L905	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	L907	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	L908	2701-000191	INDUCTOR-AXIAL;47uH,10%,2.5x3.4mm	
.....5	L909	2701-000191	INDUCTOR-AXIAL;47uH,10%,2.5x3.4mm	
.....5	PCB	AA41-00168C	PCB-MAIN;KS3A,FR-1,1L,C,1.6T,330x245,-,	S.N.A
.....5	Q201	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q202	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q203	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q204	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q402	0502-001007	TR-POWER;KSC2073-H2,NPN,25W,TO-220,ST,6	
.....5	Q404	0505-000156	FET-SILICON;IRF620,N,200V,5A,0.8ohm,50W,	
.....5	Q601	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q701	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q802	0501-000369	TR-SMALL SIGNAL;KSC2331-Y,NPN,1W,TO-92L,	
.....5	Q901	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q902	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q903	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q904	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q905	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q906	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q908	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	Q909	0505-000109	FET-SILICON;2N7000,N,60V,200mA,5ohm,400m	
.....5	Q910	0505-000109	FET-SILICON;2N7000,N,60V,200mA,5ohm,400m	
.....5	Q911	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
⚠ 5	QR01S	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
⚠ 5	QR02S	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	R102	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R103	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R104	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R105	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R106	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R107	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R202	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R203	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R204	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R205	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R206	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R207	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R208	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R209	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R210	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R212	2004-000218	R-METAL;10Kohm,1%,1/8W,AA,TP,1.8x3.2mm	
.....5	R213	2001-000232	R-CARBON;1.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R214	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R215	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R216	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R217	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R218	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R219	2001-000628	R-CARBON;300OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R220	2001-000628	R-CARBON;300OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R221	2001-000628	R-CARBON;300OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R222	2001-000628	R-CARBON;300OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R228	2001-000117	R-CARBON(S);68OHM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	R229	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R230	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R231	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R232	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R233	2003-000592	R-METAL OXIDE(S);22ohm,5%,2W,AF,TP,4x12m	
.....5	R234	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R235	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R236	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R237	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R238	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R240	2001-000739	R-CARBON;4.7MOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R241	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R242	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R243	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R244	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R245	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R246	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R247	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R248	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R249	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R250	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R251	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R252	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R301	2004-004048	R-METAL(S);3.9Kohm,1%,1/2W,AA,TP,2.5x6.5	
.....5	R302	2004-000531	R-METAL;20Kohm,1%,1/2W,AA,TP,3.3x9mm	
.....5	R303	2001-000016	R-CARBON(S);1OHM,5%,1/2W,AA,TP,2.4X6.4MM	

Level	Loc. No.	Code No.	Description ; Specification	Remark
.....5	R304	2008-001018	R-FUSIBLE(S);0.47ohm,10%,2W,AF,TP,3.9x10	
.....5	R305	2003-002157	R-METAL OXIDE;220OHM,5%,2W,AG,TP,6X16MM	
.....5	R306	2003-002157	R-METAL OXIDE;220OHM,5%,2W,AG,TP,6X16MM	
.....5	R309	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R310	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R313	2004-001137	R-METAL;6.8Kohm,1%,1/8W,AA,TP,1.8x3.2m	
.....5	R314	2004-001986	R-METAL(S);35.7Kohm,1%,1/2W,AA,TP,2.4x6.	
.....5	R315	2004-004970	R-METAL(S);62Kohm,1%,1/8W,AA,TP,1.8x3.2m	
.....5	R401	2003-002008	R-METAL OXIDE(S);18Kohm,5%,2W,AF,TP,3.9x	
.....5	R402	2003-002008	R-METAL OXIDE(S);18Kohm,5%,2W,AF,TP,3.9x	
.....5	R403	2008-001033	R-FUSIBLE(S);10ohm,5%,2W,AF,TP,3.9x10mm	
.....5	R404	2001-001037	R-CARBON(S);0.39OHM,5%,1/2W,AA,TP,2.4X6.	
.....5	R405	2008-000254	R-FUSIBLE(S);0.68ohm,5%,2W,AF,TP,3.9x10m	
.....5	R409	2003-002009	R-METAL OXIDE(S);390ohm,5%,2W,AF,TP,3.9x	
.....5	R410	2003-002009	R-METAL OXIDE(S);390ohm,5%,2W,AF,TP,3.9x	
.....5	R411	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
.....5	R412	2001-000020	R-CARBON(S);22OHM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	R413	2008-001018	R-FUSIBLE(S);0.47ohm,10%,2W,AF,TP,3.9x10	
.....5	R414	2008-000253	R-FUSIBLE(S);0.47ohm,5%,1W,AF,TP,3.9x10m	
.....5	R415	2004-001402	R-METAL(S);6.8Kohm,1%,1/2W,AA,TP,2.4x6.4	
.....5	R417	2004-001382	R-METAL(S);13Kohm,1%,1/2W,AA,TP,2.4x6.4m	
.....5	R418	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	R420	2004-001402	R-METAL(S);6.8Kohm,1%,1/2W,AA,TP,2.4x6.4	
.....5	R421	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
.....5	R422	2003-000649	R-METAL OXIDE(S);330ohm,5%,1W,AF,TP,3.3x	
.....5	R423	2003-001042	R-METAL OXIDE(S);5.6Kohm,5%,2W,AF,TP,3.9	
.....5	R424	2008-001018	R-FUSIBLE(S);0.47ohm,10%,2W,AF,TP,3.9x10	
.....5	R425	2008-001018	R-FUSIBLE(S);0.47ohm,10%,2W,AF,TP,3.9x10	
.....5	R426	2003-000540	R-METAL OXIDE(S);1Kohm,5%,2W,AF,TP,4x12m	
.....5	R428	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA,TP,2.4X6.	
.....5	R429	2001-001139	R-CARBON(S);39KOHM,5%,1/2W,AA,TP,2.4X6.4	
.....5	R432	2001-001122	R-CARBON(S);3.9KOHM,5%,1/2W,AA,TP,2.4X6.	
.....5	R433	2003-001042	R-METAL OXIDE(S);5.6Kohm,5%,2W,AF,TP,3.9	
.....5	R434	2003-000664	R-METAL OXIDE(S);33ohm,5%,2W,AF,TP,4x12m	
.....5	R436	2003-002008	R-METAL OXIDE(S);18Kohm,5%,2W,AF,TP,3.9x	
.....5	R601	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R602	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R603	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R604	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R605	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R606	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R607	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R608	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R610	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R611	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R612	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R613	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R614	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R615	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R616	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R617	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R620	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R621	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R622	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R627	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R628	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R629	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R701	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R702	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R703	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R704	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R705	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R706	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R707	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R708	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R709	2001-000938	R-CARBON;68OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R710	2001-000938	R-CARBON;68OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R711	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R712	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R715	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R716	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R717	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R718	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R719	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R720	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R721	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R722	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R723	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R724	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R725	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R726	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R802	2003-001025	R-METAL OXIDE(S);15Kohm,5%,2W,AF,TP,3.9x	
.....5	R803	2003-001025	R-METAL OXIDE(S);15Kohm,5%,2W,AF,TP,3.9x	
.....5	R804	2003-001025	R-METAL OXIDE(S);15Kohm,5%,2W,AF,TP,3.9x	
.....5	R805	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA,TP,2.4X6.	
.....5	R806	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA,TP,2.4X6.	
.....5	R807	2006-001083	R-CEMENT;120ohm,5%,5W,CJ,TP,14x10x27mm	
.....5	R808	2001-001079	R-CARBON(S);15OHM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	R809	2001-000022	R-CARBON(S);33OHM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	R810	2001-001178	R-CARBON(S);680OHM,5%,1/2W,AA,TP,2.4X6.4	
.....5	R811	2004-001408	R-METAL(S);91Kohm,1%,1/2W,AA,TP,2.4x6.4m	
.....5	R812	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R813	2001-001153	R-CARBON(S);470HM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	R816	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R817	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R818	2001-001113	R-CARBON(S);270KOHM,5%,1/2W,AA,TP,2.4X6.	
.....5	R819	2004-001983	R-METAL(S);2.49Kohm,1%,1/2W,AA,TP,2.4x6.	
.....5	R820	2001-001096	R-CARBON(S);2.2OHM,5%,1/2W,AA,TP,2.4X6.4	
.....5	R821	2004-001891	R-METAL(S);133Kohm,1%,1/2W,AA,TP,2.5x6.5	
.....5	R822	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R823	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R824	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R825	2001-000066	R-CARBON(S);10KOHM,5%,1/2W,AA,TP,2.4X6.4	
.....5	R827	2008-000284	R-FUSIBLE(S);0.1OHM,10%,2W,AF,TP,3.9X10M	
.....5	R828	2008-000266	R-FUSIBLE(S);1ohm,5%,2W,AF,TP,3.9x10mm	
.....5	R829	2008-001029	R-FUSIBLE(S);5.6OHM,5%,2W,AF,TP,3.9X10MM	
.....5	R831	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R832	2001-001153	R-CARBON(S);470HM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	R833	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R835	2003-002181	R-METAL OXIDE(S);68Kohm,5%,2W,AG,TP,3.9x	
.....5	R836	2003-002181	R-METAL OXIDE(S);68Kohm,5%,2W,AG,TP,3.9x	
.....5	R901	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R903	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R904	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R905	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R906	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R907	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R908	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R909	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R910	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R911	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R912	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R913	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R914	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R915	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R916	2001-000007	R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R917	2001-000878	R-CARBON;6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R918	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R919	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R920	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R921	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R923	2001-000924	R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R924	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R925	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R927	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R928	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R929	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R930	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R931	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R932	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R933	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R934	2001-000003	R-CARBON;330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
.....5	R935	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R936	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R937	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R938	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R939	2001-000793	R-CARBON;47OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R940	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R941	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R942	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R943	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	R945	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R946	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	R947	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	

Level	Loc. No.	Code No.	Description ; Specification	Remark
.....5	R949	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RP802S	2002-001010	R-COMPOSITION;1.8Mohm,5%,1/2W,AA,TP,3.7x	
.....5	RR01S	2008-000264	R-FUSIBLE(S);1ohm,5%,1W,AF,TP,3.9x10mm	
.....5	RR02S	2001-000766	R-CARBON;43KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RR03S	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RR04S	2001-000908	R-CARBON;62KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RR05S	2001-001015	R-CARBON;9.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	RR06S	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	RR07S	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RR08S	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RR09S	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RR10S	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RR430S	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
.....5	RY802S	2002-001013	R-COMPOSITION;4.7Mohm,5%,1/2W,AA,TP,3.7x	
.....5	SW901	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
.....5	SW902	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
.....5	SW903	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
.....5	SW904	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
.....5	SW905	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
⚠ 5	VP801S	1405-000152	VARISTOR;560V,2500A,14x8.5mm,TP	
⚠ 5	VX801S	1405-000152	VARISTOR;560V,2500A,14x8.5mm,TP	
.....5	X201	2801-003432	CRYSTAL-UNIT;20.25MHZ,30PPM,28-AAM,13PF,	
.....5	X601	2801-003903	CRYSTAL-UNIT;18.432MHz,25ppm,28-AAM,12pF	
.....5	X901	2801-003728	CRYSTAL-UNIT;6MHz,30ppm,28-AAM,20pF,40oh	
...3		AA95-00683A	ASSY-PCB,VIDEO S/W;-,29A6,KS3A,PAL,-,-	
....4	CNS01	3711-002704	CONNECTOR-HEADER;NOWALL,6P,1R,2.5mm,ANGL	
....4	CNS02	3711-002706	CONNECTOR-HEADER;NOWALL,8P,1R,2.5mm,ANGL	
⚠ 4	ICS01	1001-001114	IC-VIDEO SWITCH;TEA6425,VIDEO SWITCH ,DI	
....4	PCB	AA41-00153D	PCB-VIDEO SWITCH;CS29A6,FR-1,1L,D,1.6T,2	S.N.A
....4		AA99-20075B	ASSY-PCB SUB,AUTO; AA95-00683A ,V	S.N.A
.....5	CS01	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	CS02	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	CS03	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	CS04	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	CS05	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	CS06	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
.....5	CS07	2401-002009	C-AL;100uF,20%,16V,GP,TP,6.3x7,5	
.....5	CS08	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
.....5	LS01	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
.....5	QS01	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	QS02	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	QS03	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
.....5	RS01	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RS02	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	RS03	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RS04	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	RS05	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RS06	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
.....5	RS07	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RS10	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
.....5	RS11	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4		0202-000187	SOLDER-WIRE FLUX;-,RS60S,D1.2,63Sn/37Pb	S.N.A
...3		AA39-20010B	LEAD CONNECTOR-ASSY;-,YFH800-01,S,1P,500	
...3		2201-000374	C-CERAMIC,DISC;0.22nF,5%,50V,NP0,TP,10.5	
...3		AA64-01230B	INLAY-COVER;D2,D3,PVC-SHEET,T0.4,94V0,-,	S.N.A
..2		AA90-00136G	ASSY-PACKING,PCB;CHASIS 24.6/131.2kg,K51	S.N.A
...3	CHASIS	AA61-30009A	LOCKER-BAND,CLIP;-,SPC-1,-,-,18MM T0.5,-	S.N.A
...3	CHASIS	AA63-10007C	BAND-PP;-,-,-,W18,-,CLEAR,1G,-	S.N.A
..2		AA95-00726C	ASSY PCB CRT;-,KS3A,32,-,TXK3279	
...3	CN501A	3711-002641	CONNECTOR-HEADER;BOX,10P,1R,2.54mm,STRAI	
...3	CN501E	AA39-20025H	LEAD CONNECTOR-ASSY;-,67096-010,S,10P,70	
...3	CN502E	AA39-20029D	LEAD CONNECTOR-ASSY;-,67096-007,S,7P,500	
⚠ ...3	IC501	AA96-50151B	ASSY-H/S;-,AMP,AA61-10060A,TDA6111Q,-	
....4		1201-001131	IC-VIDEO AMP;6111,SIP,9P,-,SINGLE,-,PLAS	
....4		6001-000057	SCREW-MACHINE;RH,+,M3,L6,ZPC(BLK),SWRCH1	S.N.A
....4		6021-000222	NUT-HEXAGON;2C,M3,ZPC(YEL),SM20C 1	S.N.A
....4		AA61-10060A	BRACKET-TR;-,-,CUS-1 1/2H,T0.5,-,-,-	S.N.A
⚠ ...3	IC502	AA96-50151B	ASSY-H/S;-,AMP,AA61-10060A,TDA6111Q,-	
⚠ ...3	IC503	AA96-50151B	ASSY-H/S;-,AMP,AA61-10060A,TDA6111Q,-	
...3	JA501	3722-001503	JACK-PIN;1P,1PI,NI,RED,SCR-JACK	
...3	PCB	AA41-00210C	PCB-CRT;CS29A6,FR-1,1L,C,1.6T,330x245,	S.N.A
...3	QF04	AA96-00111A	ASSY-H/S;-,-,AA62-30013L,2SC2344,-	
....4		0502-000153	TR-POWER;2SC2344-D,NPN,1.2W,TO-220,-,60	
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	S.N.A
....4		AA62-30013L	HEATSINK-ES;-,-,-,-,44/22,-,WHT,-,-,-	S.N.A
...3	QF05	AA96-00111B	ASSY-H/S;-,-,AA62-30013L,2SA1011,-	

Level	Loc. No.	Code No.	Description ; Specification	Remark
....4		0502-000131	TR-POWER;2SA1011-D,PNP,1.2W,TO-220,-,60	
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	S.N.A
....4		AA62-30013L	HEATSINK-ES;-,-,-,-,44/22,-,WHT,-,-,-	S.N.A
...3	R523	2008-000267	R-FUSIBLE(S);2.4ohm,5%,2W,AA,TP,3.9x10mm	
...3	R526	2008-001057	R-FUSIBLE;750ohm,5%,1/2W,AF,TP,2.5x6.5mm	
...3	VA999	3704-000114	SOCKET-CRT;14P,29.1,35.5,SN,ISH09S/BK	
...3		AA99-20080R	ASSY-PCB SUB,AUTO; AA95-00726C ,V	S.N.A
....4	C501	2201-000247	C-CERAMIC,DISC;0.015nF,5%,50V,NP0,TP,5x3	
....4	C502	2305-000704	C-FILM,MPEF;100nF,5%,250V,TP,16.5x10.3x5	
....4	C503	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
....4	C505	2305-000704	C-FILM,MPEF;100nF,5%,250V,TP,16.5x10.3x5	
....4	C506	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
....4	C507	2201-000247	C-CERAMIC,DISC;0.015nF,5%,50V,NP0,TP,5x3	
....4	C508	2305-000704	C-FILM,MPEF;100nF,5%,250V,TP,16.5x10.3x5	
....4	C509	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
....4	C510	2401-001563	C-AL;47uF,20%,400V,GP,TP,16x25,7.5	
....4	C511	2401-001232	C-AL;4.7uF,20%,250V,GP,TP,10x12.5,5	
....4	C512	2401-000914	C-AL;22uF,20%,16V,GP,TP,5x11,5	
....4	C513	2201-002063	C-CERAMIC,DISC;10nF,+80-20%,3KV,Y5V,TP,1	
....4	C514	2401-000430	C-AL;10uF,20%,250V,GP,TP,10x16mm,5m	
....4	C515	2401-000914	C-AL;22uF,20%,16V,GP,TP,5x11,5	
....4	C516	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
....4	C518	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4	C519	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4	C520	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4	C521	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4	C522	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4	C523	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4	C526	2401-000914	C-AL;22uF,20%,16V,GP,TP,5x11,5	
....4	CF01	2201-000180	C-CERAMIC,DISC;10nF,10%,50V,Y5V,TP,7x3,5	
....4	CF02	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
....4	CF03	2201-000376	C-CERAMIC,DISC;0.22nF,5%,50V,SL,TP,6.3x3	
....4	CF04	2201-000653	C-CERAMIC,DISC;0.068nF,5%,50V,SL,TP,5x3,	
....4	CF05	2301-000261	C-FILM,PEF;4.7nF,5%,100V,TP,10.5x12.5x6.	
....4	CF06	2201-000516	C-CERAMIC,DISC;4.7nF,+100-0%,500V,Y5U,TP	
....4	CF07	2305-000704	C-FILM,MPEF;100nF,5%,250V,TP,16.5x10.3x5	
....4	CF08	2201-000604	C-CERAMIC,DISC;0.056nF,+100-0%,500V,SL,T	
....4	CF10	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4	CF11	2401-000927	C-AL;22uF,20%,250V,GP,TP,13x20,5	
....4	CF12	2401-001840	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4	CF14	2401-000832	C-AL;220uF,20%,25V,GP,TP,8x11.5,5	
....4	CN502A	3711-002646	CONNECTOR-HEADER;BOX,7P,1R,2.5mm,STRAIGH	
....4	CNF01	3711-002642	CONNECTOR-HEADER;BOX,3P,1R,2.5MM,STRAIGH	
....4	D502	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
....4	D507	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	D508	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	D509	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	D510	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	D511	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	D512	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	DF01	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
....4	DF02	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	DF03	0402-001105	DIODE-RECTIFIER;ERB43-04SV1,400V,1.0A,-,	
....4	DF04	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,	
....4	DZ503	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
....4	DZ504	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
....4	DZ505	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
....4	DZF01	0403-001039	DIODE-ZENER;MA2560,56V,52-60V,1W,DO-41,T	
....4	DZF02	0403-001039	DIODE-ZENER;MA2560,56V,52-60V,1W,DO-41,T	
....4	L501	2701-000178	INDUCTOR-AXIAL;33uH,10%,3x7mm	
....4	L503	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
....4	L504	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
....4	L505	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4	LF01	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4	LF02	2701-000112	INDUCTOR-AXIAL;100uH,10%,3x7mm	
....4	LF04	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
....4	LF05	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
....4	Q502	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4	Q503	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4	Q504	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4	QF01	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
....4	QF02	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
....4	QF03	0501-000369	TR-SMALL SIGNAL;KSC2331-Y,NPN,1W,TO-92L,	
....4	R501	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R502	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
....4	R503	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA,TP,2.4X6.	

Level	Loc. No.	Code No.	Description ; Specification	Remark
....4	R504	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R505	2002-001008	R-COMPOSITION;1.8Kohm,10%,1/2W,AA,TP,3.7	
....4	R506	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R507	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
....4	R508	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA,TP,2.4X6.	
....4	R509	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R510	2002-001008	R-COMPOSITION;1.8Kohm,10%,1/2W,AA,TP,3.7	
....4	R511	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R512	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
....4	R513	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA,TP,2.4X6.	
....4	R515	2002-001008	R-COMPOSITION;1.8Kohm,10%,1/2W,AA,TP,3.7	
....4	R517	2001-001062	R-CARBON(S);10MOHM,5%,1/2W,AA,TP,2.4X6.4	
....4	R518	2003-001023	R-METAL OXIDE(S);120ohm,5%,2W,AF,TP,3.9x	
....4	R519	2002-001009	R-COMPOSITION;2.7Kohm,10%,1/2W,AA,TP,3.7	
....4	R521	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R522	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	R527	0403-001316	DIODE-ZENER;MTZJ3.0A,2.85-3.07V,500mW,DO	
....4	R538	2002-001048	R-COMPOSITION;24Mohm,5%,1/2W,AA,TP,3.9x9	
....4	R539	2001-000515	R-CARBON;2200HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R542	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R543	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R544	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	R546	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RF02	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	RF03	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RF04	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	RF05	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RF06	2001-000989	R-CARBON;820KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	RF07	2001-000904	R-CARBON;6200HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RF08	2001-000313	R-CARBON;11KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RF09	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	RF10	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	RF11	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	RF12	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
....4	RF13	2001-001179	R-CARBON(S);68KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4	RF14	2001-001071	R-CARBON(S);12KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4	RF15	2001-001100	R-CARBON(S);2.7OHM,5%,1/2W,AA,TP,2.4X6.4	
....4	RF16	2001-001179	R-CARBON(S);68KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4	RF17	2001-001100	R-CARBON(S);2.7OHM,5%,1/2W,AA,TP,2.4X6.4	
....4	RF18	2003-000458	R-METAL OXIDE(S);100ohm,5%,2W,AF,TP,4x12	
....4	RF19	2003-001023	R-METAL OXIDE(S);120ohm,5%,2W,AF,TP,3.9x	
....4	RF20	2003-002214	R-METAL OXIDE(S);680ohm,5%,2W,AG,TP,3.9x	
....4	RF21	2003-002214	R-METAL OXIDE(S);680ohm,5%,2W,AG,TP,3.9x	
....4	RF22	2003-002214	R-METAL OXIDE(S);680ohm,5%,2W,AG,TP,3.9x	
....4	RF23	2003-000746	R-METAL OXIDE(S);56ohm,5%,2W,AF,TP,4x12m	
....4	RF24	2003-000746	R-METAL OXIDE(S);56ohm,5%,2W,AF,TP,4x12m	
....4	RF25	2003-002009	R-METAL OXIDE(S);390ohm,5%,2W,AF,TP,3.9x	
....4	SG501	AA27-00084A	COIL;S-23,-,-,-,-,-,-,S-23,5000Mohm	
....4	SG502	AA27-00084A	COIL;S-23,-,-,-,-,-,-,S-23,5000Mohm	
....4	SG503	AA27-00084A	COIL;S-23,-,-,-,-,-,-,S-23,5000Mohm	
....4	SG504	AA27-00084A	COIL;S-23,-,-,-,-,-,-,S-23,5000Mohm	
...3		0202-000187	SOLDER-WIRE FLUX;-,RS60S,D1.2,63Sn/37Pb	S.N.A
...3		AA63-10002A	BAND-TIE;-,NYLON66 V2,-,-,L100,NTR,-,-	S.N.A

ASSY-PCB,A/V FRONT

1		* AA95-00647A	ASSY-PCB,A/V FRONT;DP,TXK3276C/XAA,KS3A,	
..2	CA02	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
..2	CA03	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP	
..2	CA04	2202-000720	C-CERAMIC,MLC-AXIAL;8.2nF,20%,16V,Y5R,TP	
..2	CA05	2202-000720	C-CERAMIC,MLC-AXIAL;8.2nF,20%,16V,Y5R,TP	
..2	CA06	2401-003102	C-AL;100uF,20%,10V,GP,TP,5x11,5	
..2	CA07	2401-003102	C-AL;100uF,20%,10V,GP,TP,5x11,5	
..2	CN01A	AA39-20068E	LEAD CONNECTOR-ASSY;-,YBNH025-08,67096-0	
..2	CN05A	AA39-20069D	LEAD CONNECTOR-ASSY;-,YBNH025-05,67096-0	
..2	CN06A	AA39-00070A	LEAD CONNECTOR-ASSY;-,-,-,-,-,-,-,-,-,YB	
..2	JE01	3722-000143	JACK-PHONE;1P(VER),3.4mm,AG,BLK,NO	
..2	JR01	3722-001031	JACK-RCA;3P,3.6MM,#18,AU	
..2	LA04	2701-000180	INDUCTOR-AXIAL;33uH,5%,2.5x3.4mm	
..2	LA05	2701-000180	INDUCTOR-AXIAL;33uH,5%,2.5x3.4mm	
..2	PCB	AA41-10358C	PCB-FRONT AV;CHASSIS-ALL,FR-1,1L,C,1.6T,	S.N.A
..2	RA01	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
..2	RA02	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
..2		3301-001201	CORE-FERRITE;AE,230.5x10.25x36mm,1500,28	
..2		0202-000187	SOLDER-WIRE FLUX;-,RS60S,D1.2,63Sn/37Pb	S.N.A
..2		AA63-10002A	BAND-TIE;-,NYLON66 V2,-,-,L100,NTR,-,-	S.N.A

ASSY CRT

1		*AA97-00721A	ASSY CRT;-,-,32,-,TXK3276C/XAA,-	
..2		AA03-00131A	CRT COLOR;A81AGZ50X07,-,34INCH,-,-,-,1.2	

ASSY SPEAKER

1		* AA96-00459A	ASSY SPEAKER;-,8ohm,15W,-,AA39-00102M,-	
..2		3001-001115	SPEAKER;15W,8ohm,93dB,110	
..2		AA39-00102M	LEAD CONNECTOR-ASSY;-,-,-,-,-,-,-,-,-,35	

ASSY-POWER,CORD

1		* AA96-20129B	ASSY-POWER,CORD;-,EP2/YES,H/C400,ME301P,	
..2		AA61-20284A	HOLDER;-,P-CORD,PP,VO,BLK,KE-002	S.N.A
..2		AA39-10007Y	POWER-CORD;-,EP2/YES,SPT-2 18AWGx2C,2.4m	

REMOCON

1		* AA59-00153A	REMOCON;DP,TM58,AA59-00141A,-,-,-,-,-,	
..2		AA59-00141A	REMOCON;-,TM58,SSM174PT,41,SS,L/GRAY,M	
...3		2802-000194	RESONATOR-CERAMIC;8MHz,1.0%,TP,8.5x4.5x5	S.N.A
...3		AA09-00052A	IC-MCU;Z86L8808SSC-R5019,-,STICK,-,28	S.N.A

ASSY-SKD

1		* AA97-00722B	ASSY-SKD;-,TXK3279C/XAA,KS3A,NTSC,-,-	
..2	CLAMP	AA65-30104C	CLAMP-WIRE;NYLON 66,V2,NTR,W1 Z4,ALL MOD	S.N.A
..2	CLAMP	AA65-30018A	CLAMP-WIRE;NYLON-66,-,-,DATL-600,DONG-A,	S.N.A
..2	CLAMP	AA65-30109A	CLAMP-FBT;NYLON-66,V2,BLK,-,-,-	S.N.A
..2		AA65-30009A	CLAMP-FBT;ABS,V0,BLK,-,-,-	S.N.A
..2		AA39-20015B	LEAD CONNECTOR-ASSY;-,67096-003,-,3(2)P,	
..2		AA27-00018A	COIL-DEGAUSSING;-,34,10ohm,60T,L3600,E	

ASSY CABINET(COM)

1		* AA92-00388B	ASSY CABINET(COM);TXK3279C/XAA	
..2	CB+CF	AA60-10050T	SCREW-TAPPING;RH,+,2S,M4,L20,ZPC(BLK),SW	S.N.A
..2	CB+RCA	AA60-10050T	SCREW-TAPPING;RH,+,2S,M4,L20,ZPC(BLK),SW	S.N.A
..2	CRT+CF	AA60-10050V	SCREW-ASSY;WC,HH,+,M6,L30,SWRCH18A,ZPC(S	S.N.A
..2	D-COIL	AA65-30113A	CLAMP-D,COIL;NYLON 66,V2,BLK,TVI 25~29,-	S.N.A
..2	PA+CF	6006-001095	SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	S.N.A
..2		AA65-30008A	CLAMP-CORD;PE,HB,BLK,-,-,-	S.N.A
..2		AA64-00892G	INLAY BACK;D2,D3,RCA9P+S-VHS+DVD,PS SHEE	S.N.A
..2		AA64-00886A	CABINET BACK;TOOL,34D3-1,MOLD,-,-,-,-,-	

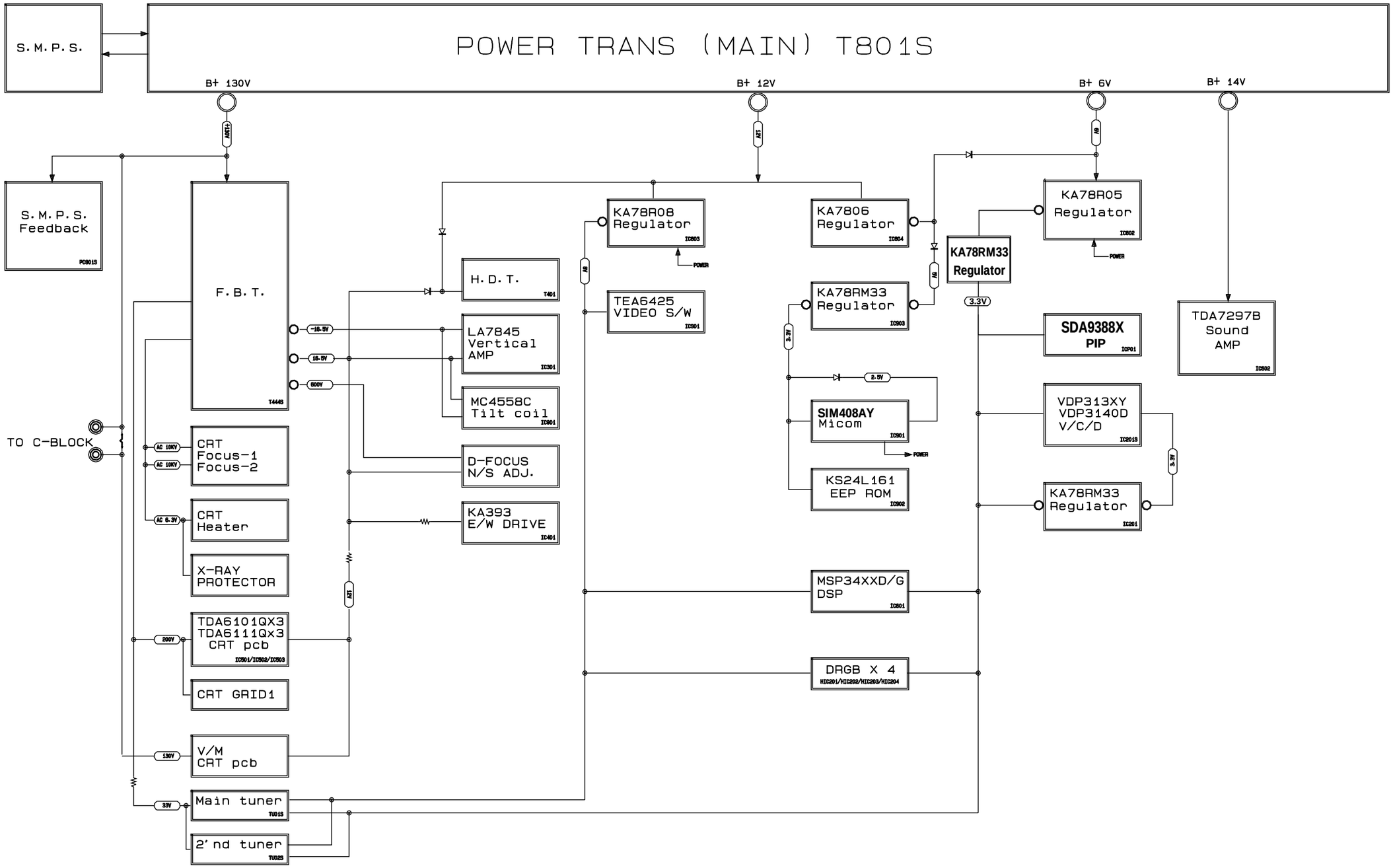
ASSY CABINET FRONT

1		* AA92-00390B	ASSY CABINET FRONT;TXK3279C/XAA	
..2	IND+CF	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	S.N.A
..2	KC+CF	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	S.N.A
..2	KNOPOW	AA61-60003J	SPRING-CS;-,SUS304,0.5,OD6,H12,N7,-,-,-	S.N.A
..2	SPK+CF	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	S.N.A
..2		AA64-00355A	INDICATOR-LED;DP,37D3,MOLD,-,-,-,-	
..2		AA64-00885A	CABINET FRONT;TOOL,34D3-1,MOLD,-,-,-,-,-	
..2		AA64-70124C	BADGE-BRAND;AL,R2500,SILVER,L=70,SAMSUNG	

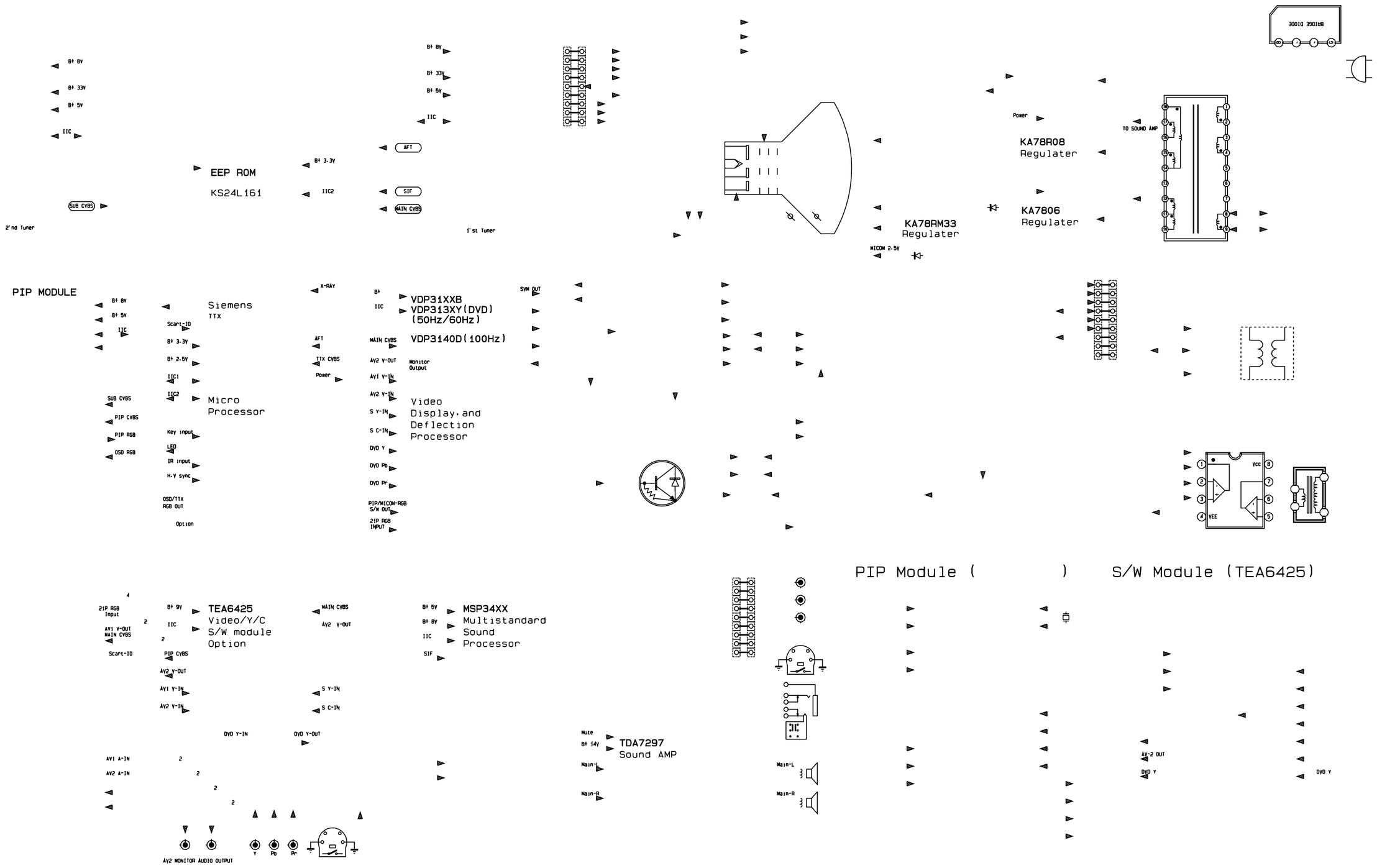
Level	Loc. No.	Code No.	Description ; Specification	Remark
..2		AA65-00011C	CLAMP-WIRE;ALL MODEL,NYLON 66,V2,NTR,25M	S.N.A
..2		AA61-40113A	STOPPER-PCB;501H,HIPS,NTR,HB,-,-	S.N.A
..2		AA64-00352A	KNOB-POWER;TOOL,37D3,MOLD,-,-,-	
..2		AA64-00353A	KNOB-CONTROL;TOOL,37D3,MOLD,-,-,-	
..2		AA64-00354A	WINDOW-REMOCON;MOLD,37D3,MOLD,-,-,-,-	

8. Block Diagrams

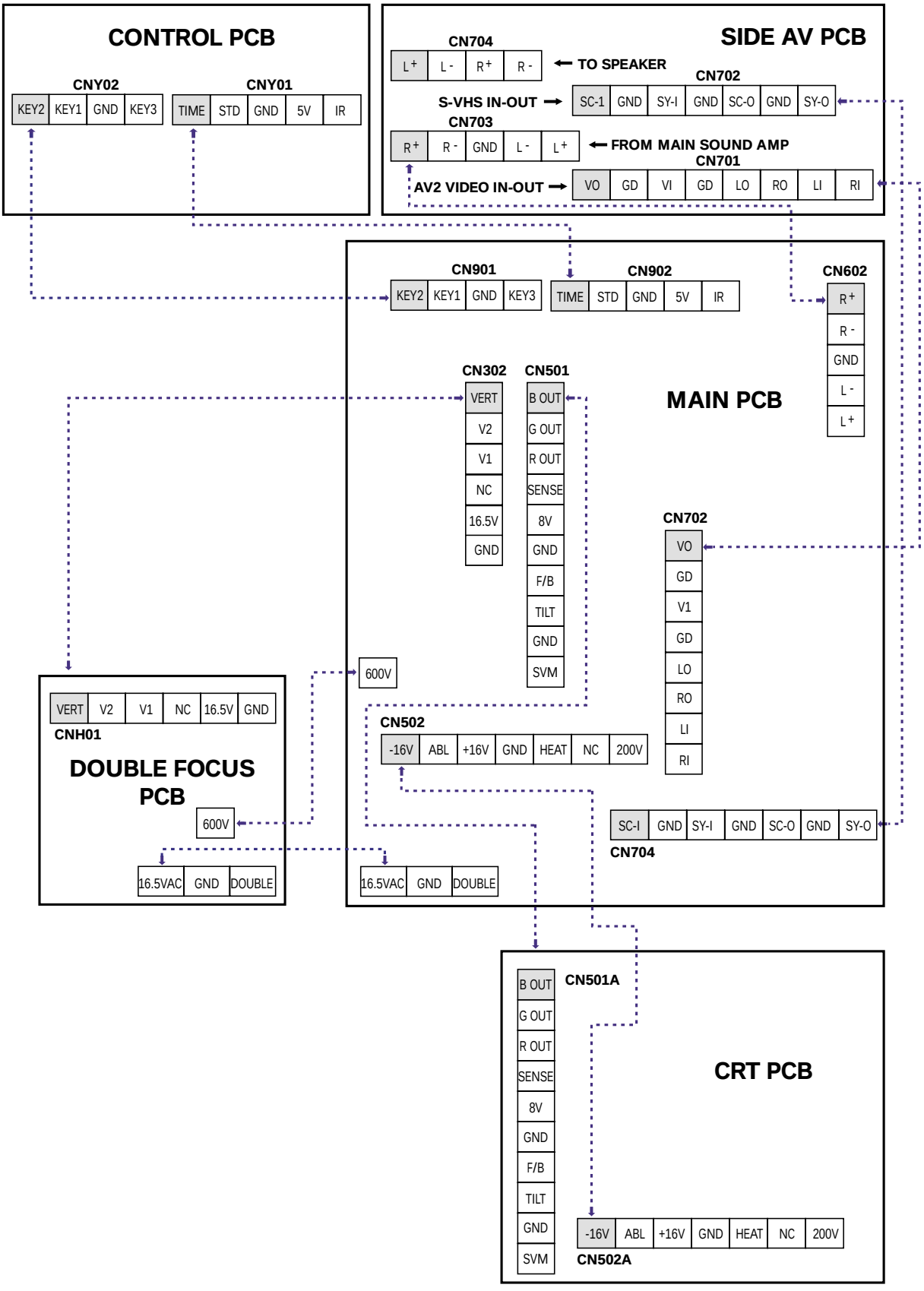
8-1 Power Diagram



8-2 Block Diagram



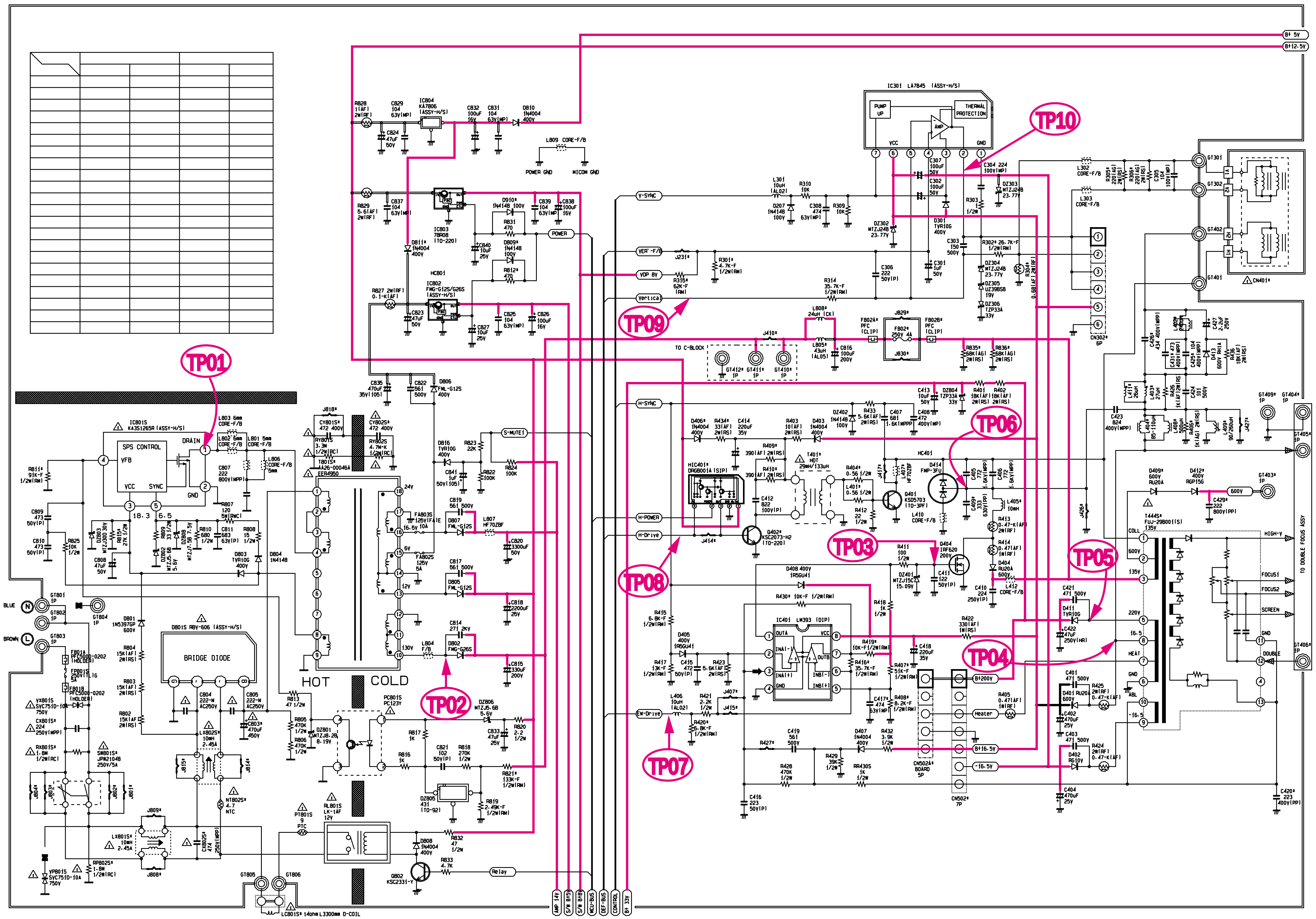
9. Wiring Diagram

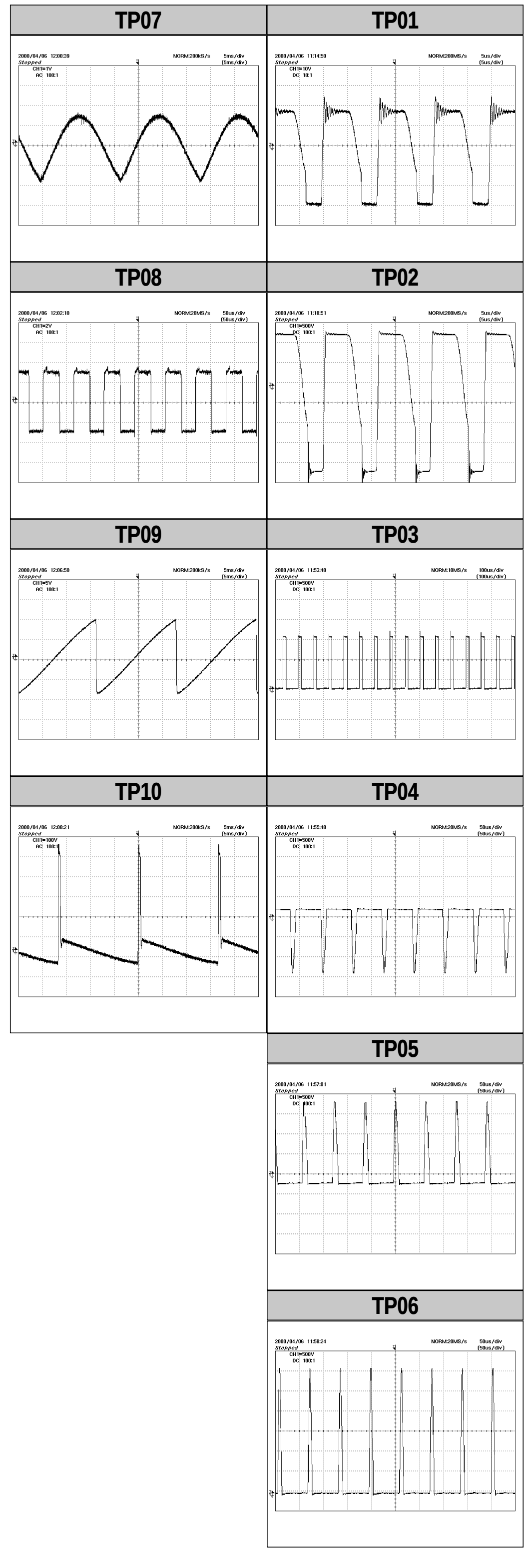


MEMO

10. Schematic Diagrams

10-1 MAIN 1

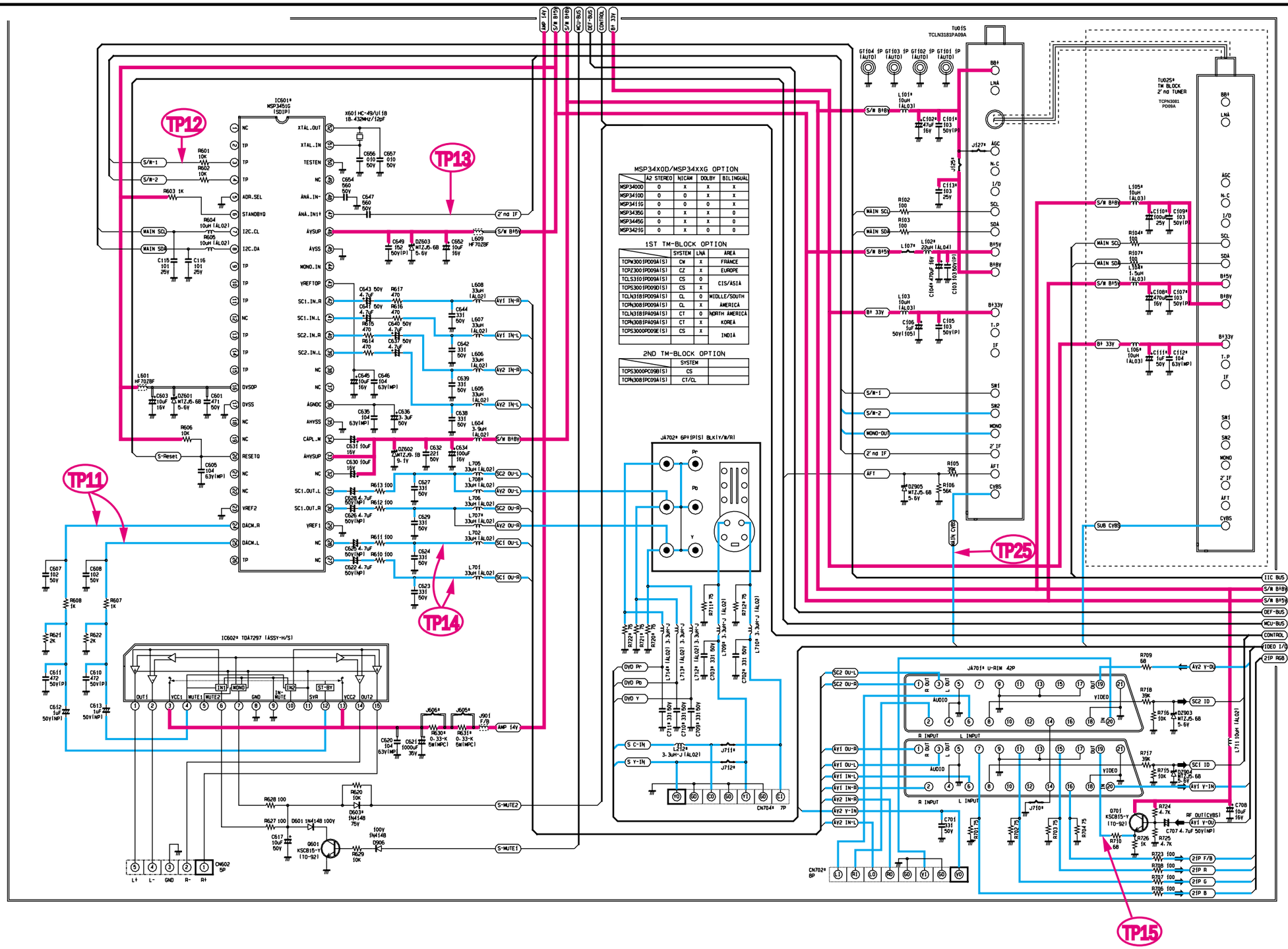




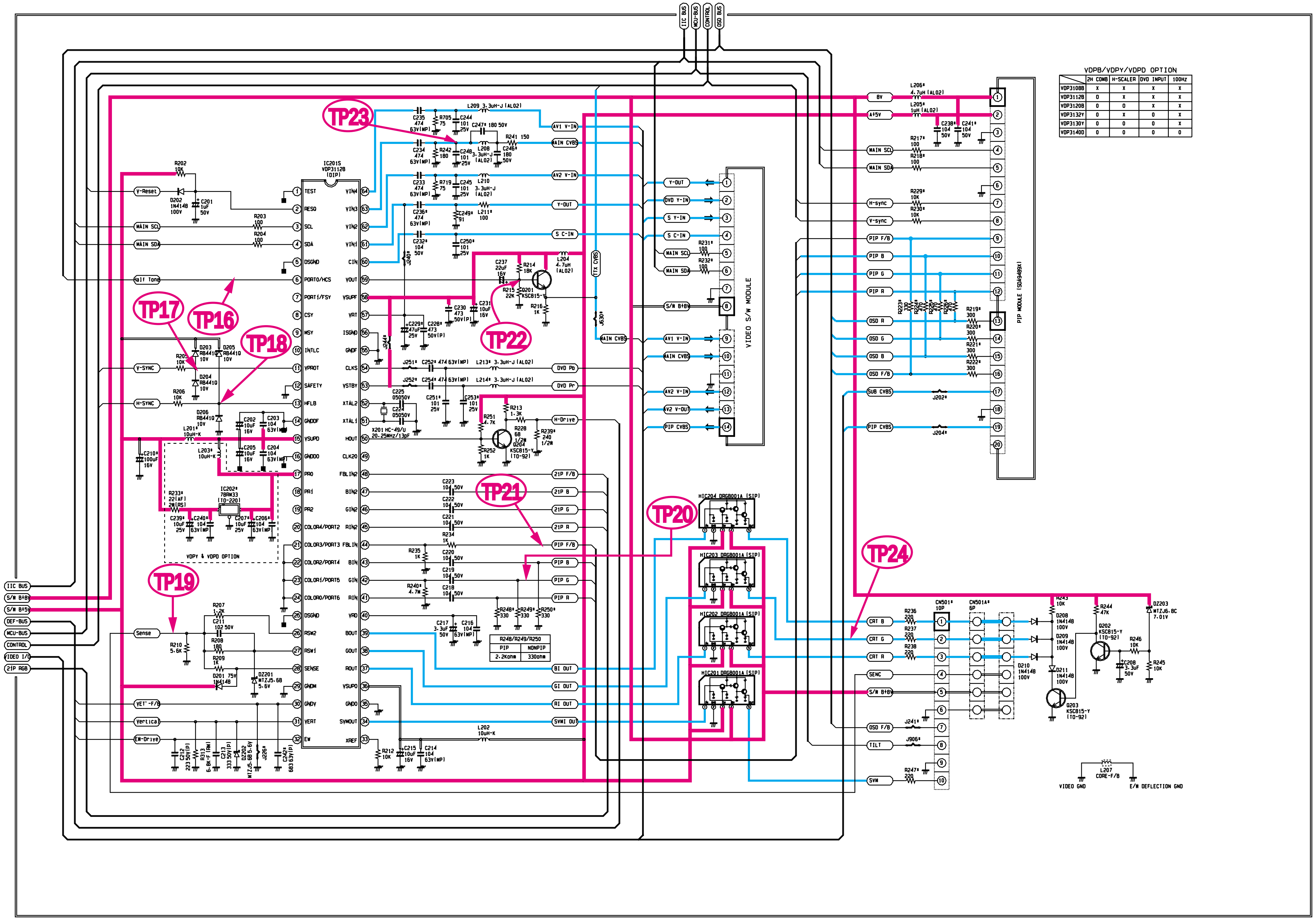
: Power Line

: Signal Line

10-2 MAIN 2

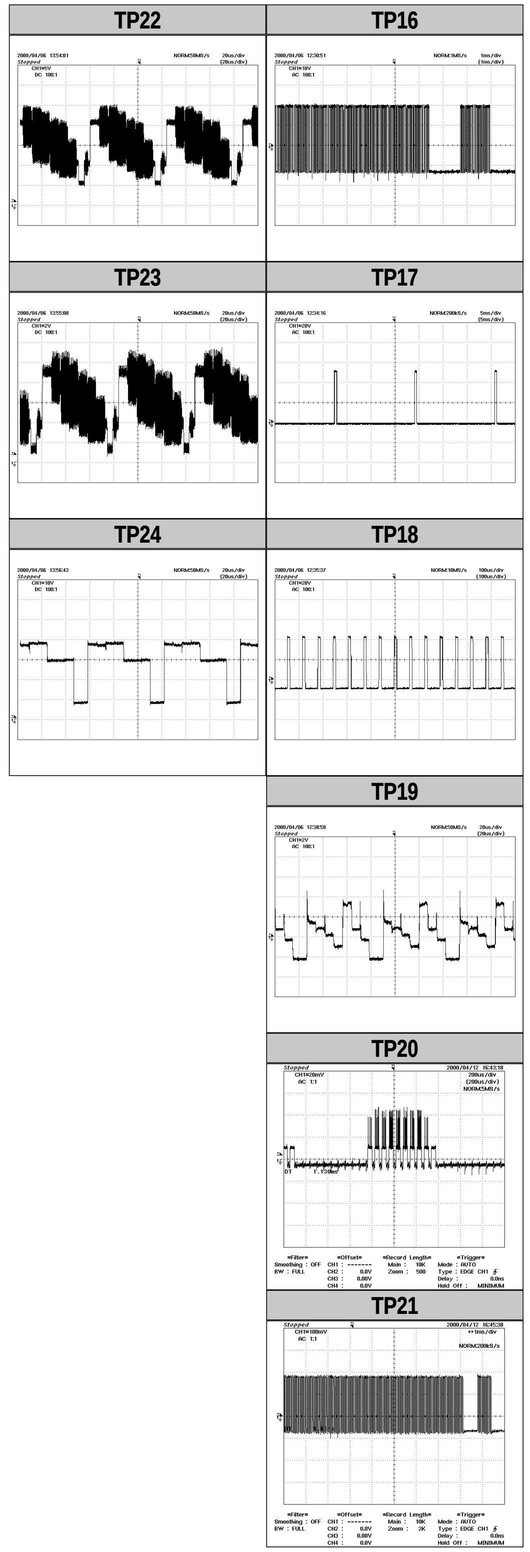

AMP 14V
S/W B+5V
S/W B+8V
MCU-BUS
DEF-BUS
CONTROL
B+ 33V
TU01S
TCLN3181PA09A
TU02S*
TM BLOCK
2'nd TUNER
TCPN3081
PD09A
IC601*
MSP3451G
(SDIP)
X601 HC-49/U(18
18.432MHz/18pF
TP12
TP13
TP11
TP14
TP25
TP15
MSP34X0D/MSP34XXG OPTION
A2 STEREO
NICAM
DOLBY
BILINGUAL
MSP3400D
MSP3410D
MSP3411G
MSP3435G
MSP3445G
MSP3421G
1ST TM-BLOCK OPTION
SYSTEM
LNA
AREA
TCPW300(PD09A1S)
TCPZ300(PD09A1S)
TCLS310(PD09A1S)
TCPS300(PD09D1S)
TCLN318(PD09A1S)
TCPN308(PD09A1S)
TCPN308(PD09A1S)
TCPS3000PD09E1S)
FRANCE
EUROPE
CIS/ASIA
MIDDLE/SOUTH AMERICA
NORTH AMERICA
KOREA
INDIA
2ND TM-BLOCK OPTION
TCPS3000PC09B1S)
TCPN308(PC09A1S)
CS
CT/CL
JA702* 6P(PIS) BLK(Y/B/R)
IC602* TDA7297 (ASSY-H/S)
JA701* U-RIM 42P
CN602 5P
CN704* 7P
CN702* 8P
: Power Line
: Signal Line

10-3 MAIN3



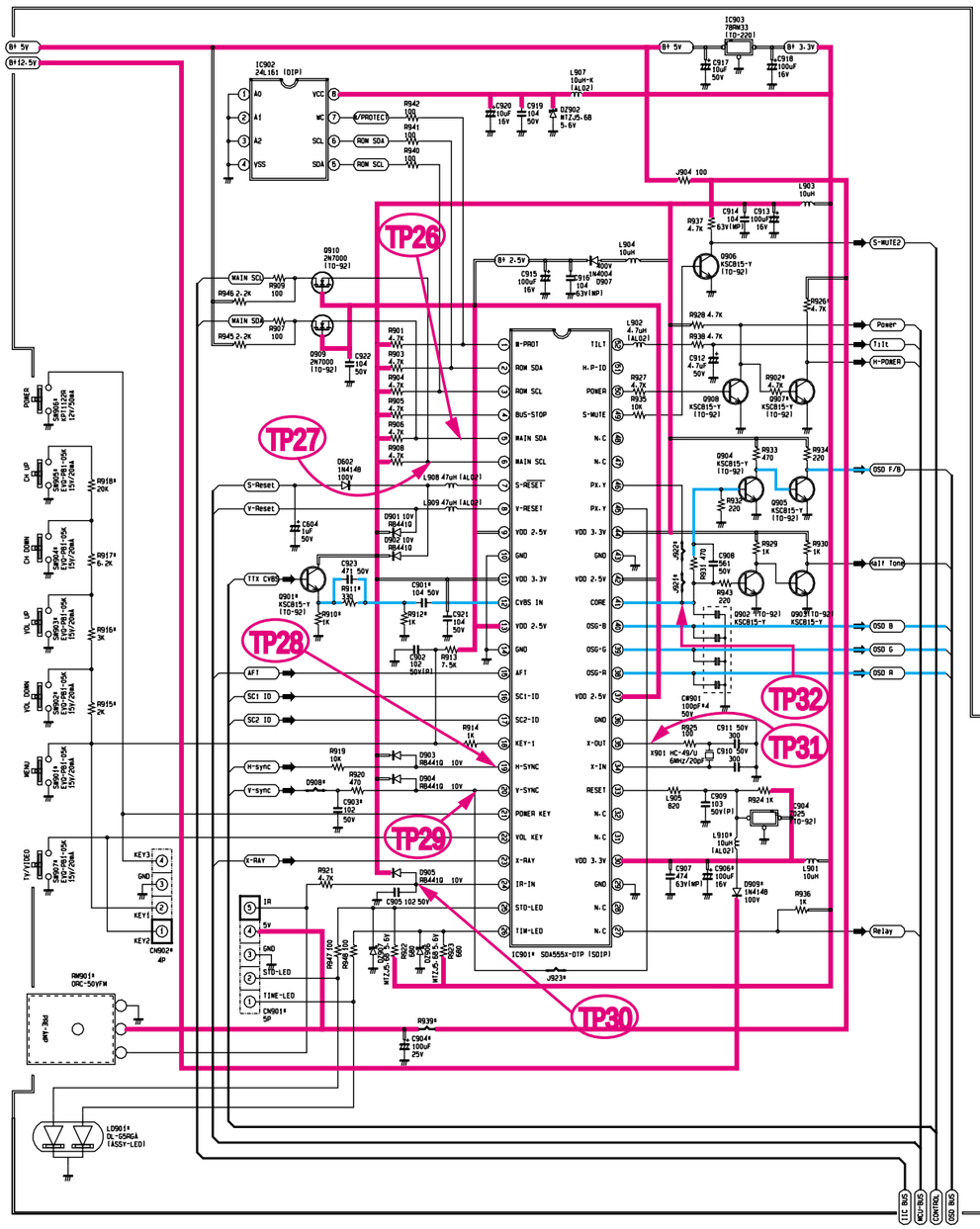
VDPB/VDPY/VDPD OPTION

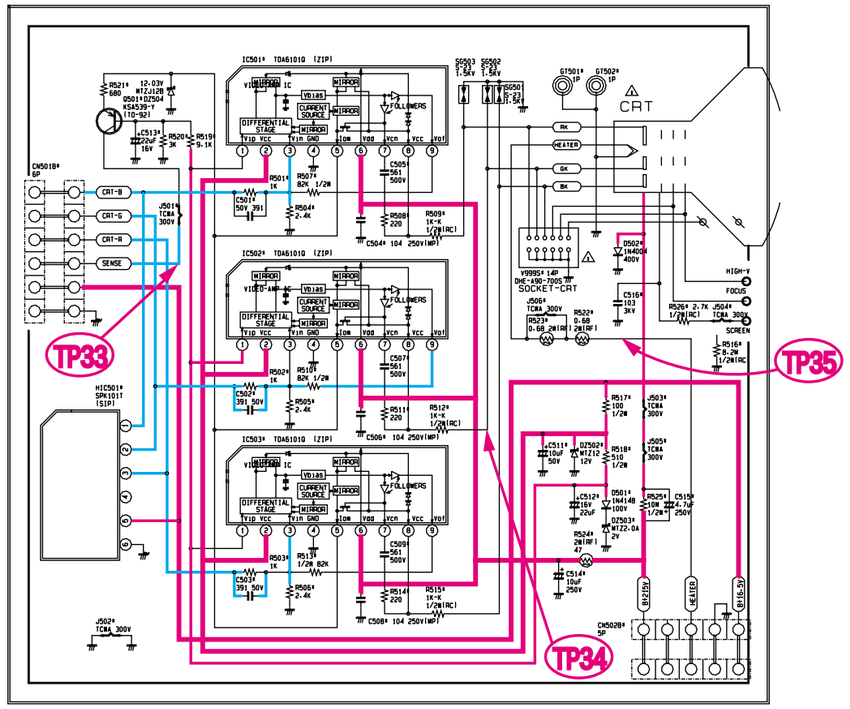
	2H COMB	H-SCALER	DVD INPUT	100Hz
VDP3108B	X	X	X	X
VDP3112B	O	X	X	X
VDP3120B	O	O	X	X
VDP3132Y	O	X	O	X
VDP3130Y	O	O	O	X
VDP3140D	O	O	O	O



: Power Line
: Signal Line

10-4 MAIN 4





KS3A MAIN SCHEMAIC DIAGRAM

CAPACITOR	
Ceramic - SL	No Mark
Ceramic - RH	(RH)
Ceramic - CH	(CH)
Polyester(Induct)	(P)
Polyester(Noninduct)	(PNU)
Polypropylene	(PP)
Metal Polyester	(MP)
M.P.Polypropylene	(MPP)
Tantalium	(T)
Non Polar	(NP)

RESISTOR	
Carbon	No Mark
Composition	(RC)
Metal Oxide	(RS)
Metal Film	(RN)
Fusible	(RF)
Cement-Wire	(RW)
Network	(RN)

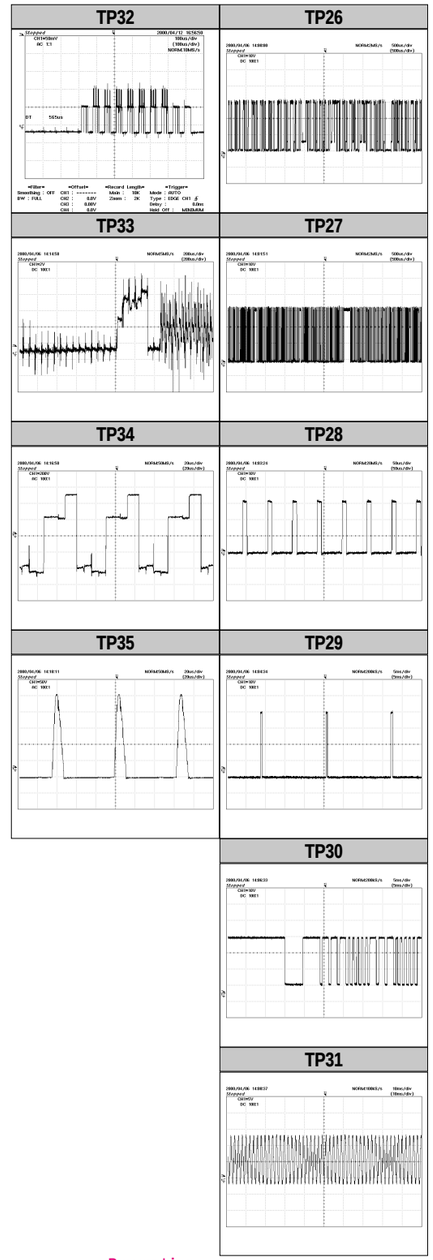
NOTE
1. Resistance is shown in ohm K=1,000 M=1,000,000
2. Unless otherwise noted in schematic all capacitor values less than 1 are expressed in uF. and the values more than 1 in pF.
3. Unless otherwise noted in schematic all inductor values more than 1 are expressed in uH.
4. Voltage read with V.T.V.M (input impedance 2M Ma/all range) from point indicated to chassis ground using a color bar signal with all control at normal line voltage 120 volts.
5. Waveforms in chrominance circuit are taken receiving a color bar signal with enough sensitivity.
6. Waveforms in other circuit are taken using an signal under normal receiving conditions.
7. Voltage readings shown are normal values and may vary 20% except H.V.
8. This is fundamental circuit diagram some production changes may be made without revision of the diagram.
9. The circuits enclose in dotted lines are optional parts. (*)

WARNING : BEFORE SERVICING THIS CHASSIS READ THE 'X-RAY RADIATION PRECAUTION' 'SAFETY PRECAUTION' AND PRODUCT SAFETY NOTICE' IN MANUAL.

CAUTION The shaded Area in the schematic diagram and the parts list designate components which have special character istics important for safety and should be replaced only with types indentical to those in the orignal circuit of specified in the parts list. Before replancing and of these components. Read carefully the PRODUCT SAFETY NOTICE. In this manual. Do not degrade the safety of the receiver through improper servicing.

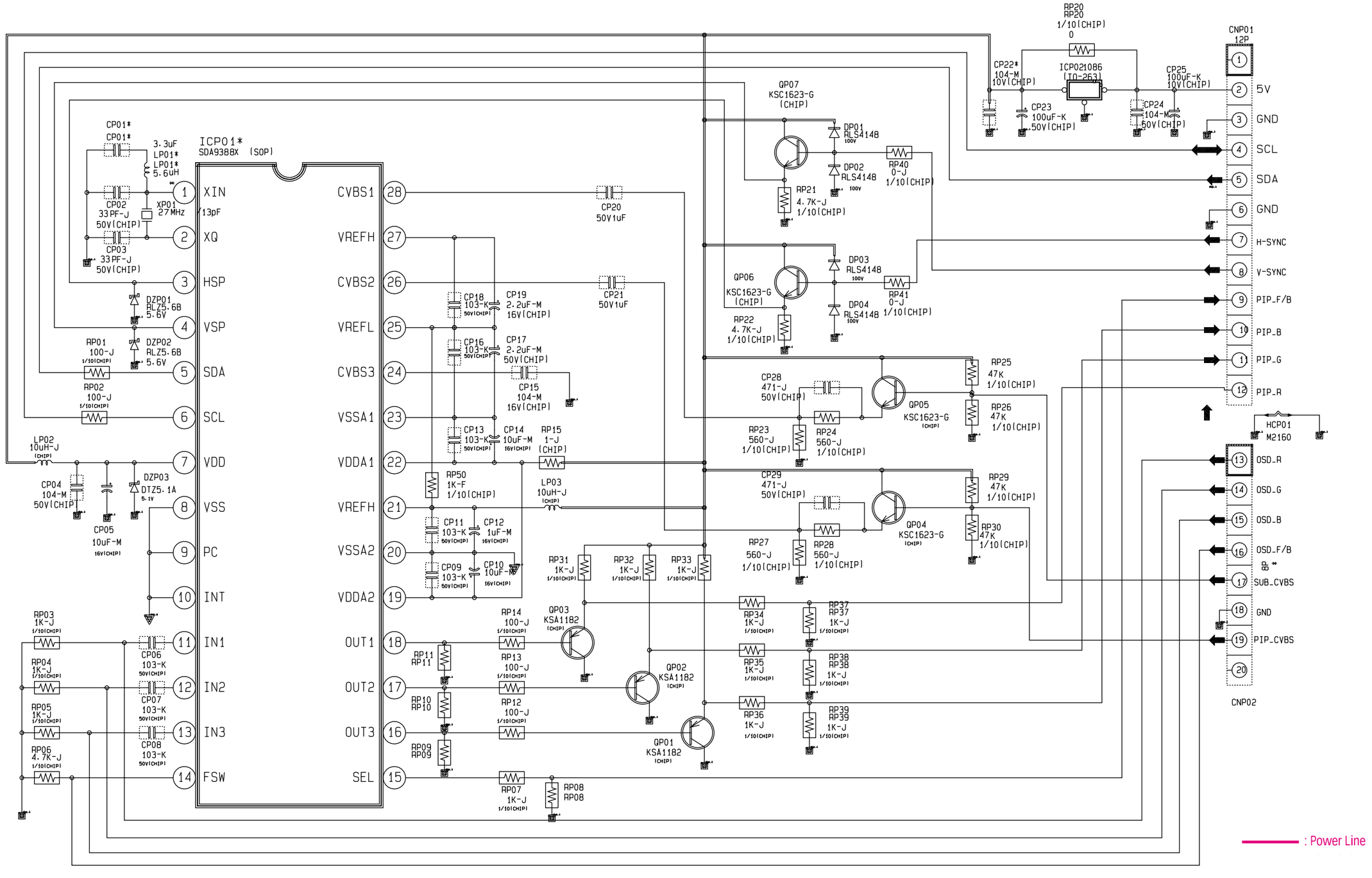
FILE NAME = MAIN

JOB-NO	TEAM	NODE	DESIGN	OPE	EDIT
Dream	KS3A	NC7	Y-K KIM		2000/06/22



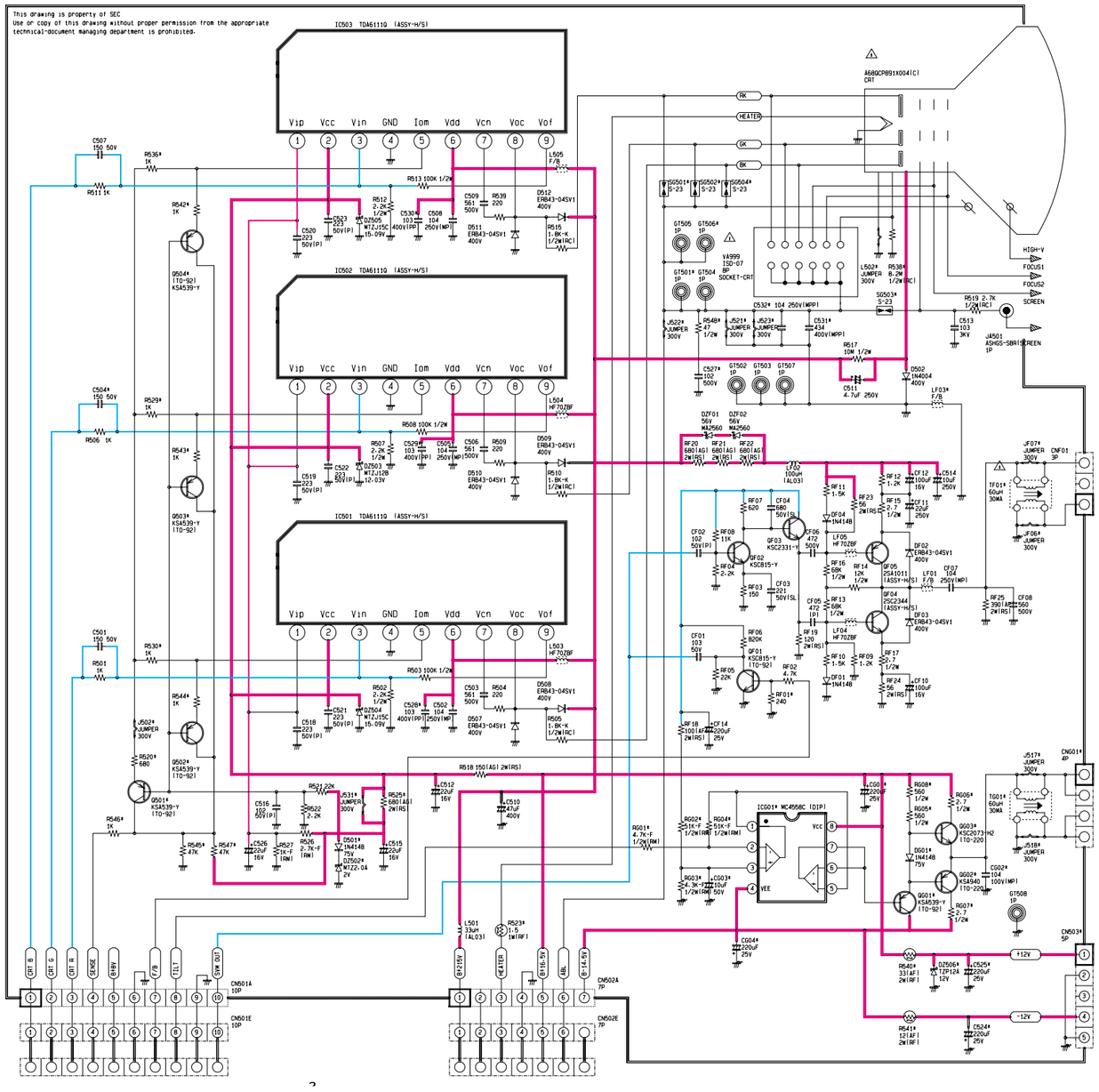
: Power Line
: Signal Line

10-5 PIP

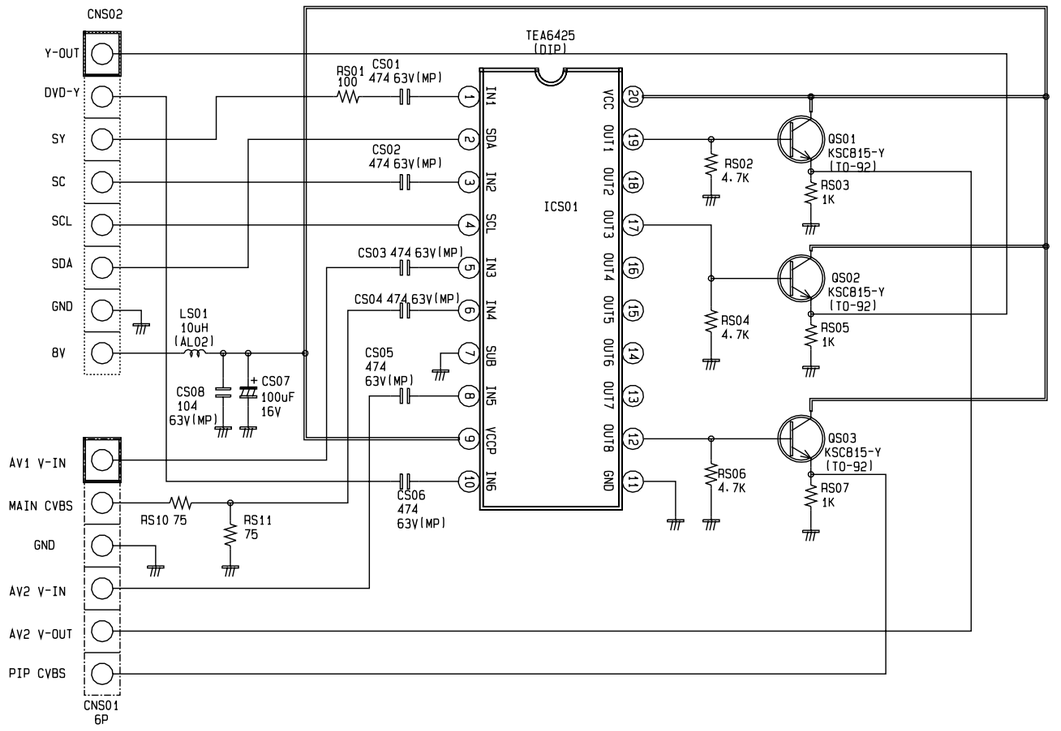

ICP01*
SDA9388X (SOP)
XIN
XQ
HSP
VSP
SDA
SCL
VDD
VSS
PC
INT
IN1
IN2
IN3
FSW
CVBS1
VREFH
CVBS2
VREFL
CVBS3
VSSA1
VDDA1
VREFH
VSSA2
VDDA2
OUT1
OUT2
OUT3
SEL
CP01*
3.3uF
LP01*
5.6uH
CP02
33PF-J
50V(CHIP)
XP01
27MHz
13pF
CP03
33PF-J
50V(CHIP)
DZP01
RLZ5.6B
5.6V
DZP02
RLZ5.6B
5.6V
RP01
100-J
RP02
100-J
LP02
10uH-J
CP04
104-M
50V(CHIP)
CP05
10uF-M
16V(CHIP)
DZP03
DTZ5.1A
5.1V
RP03
1K-J
RP04
1K-J
RP05
1K-J
RP06
4.7K-J
CP06
103-K
50V(CHIP)
CP07
103-K
50V(CHIP)
CP08
103-K
50V(CHIP)
CP20
50V1uF
CP21
50V1uF
CP18
103-K
CP19
2.2uF-M
16V(CHIP)
CP16
103-K
CP17
2.2uF-M
50V(CHIP)
CP15
104-M
16V(CHIP)
CP13
103-K
CP14
10uF-M
RP15
1-J
RP50
1K-F
LP03
10uH-J
CP11
103-K
CP12
1uF-M
CP09
103-K
CP10
10uF-M
RP11
RP10
RP09
RP14
100-J
RP13
100-J
RP12
100-J
RP07
1K-J
RP08
QP03
KSA1182
QP02
KSA1182
QP01
KSA1182
RP31
1K-J
RP32
1K-J
RP33
1K-J
QP07
KSC1623-G
DP01
RLS4148
DP02
RLS4148
RP21
4.7K-J
RP40
0-J
QP06
KSC1623-G
DP03
RLS4148
DP04
RLS4148
RP22
4.7K-J
RP41
0-J
CP28
471-J
50V(CHIP)
QP05
KSC1623-G
RP23
560-J
RP24
560-J
RP25
47K
RP26
47K
CP29
471-J
50V(CHIP)
QP04
KSC1623-G
RP27
560-J
RP28
560-J
RP29
47K
RP30
47K
RP34
1K-J
RP35
1K-J
RP36
1K-J
RP37
1K-J
RP38
1K-J
RP39
1K-J
RP20
0
ICP021086
(TO-263)
CP22*
104-M
10V(CHIP)
CP23
100uF-K
50V(CHIP)
CP25
100uF-K
10V(CHIP)
CP24
104-M
50V(CHIP)
CNP01
12P
5V
GND
SCL
SDA
GND
H-SYNC
V-SYNC
PIP_F/B
PIP_B
PIP_G
PIP_R
HCP01
M2160
OSD_R
OSD_G
OSD_B
OSD_F/B
BP **
SUB_CVBS
GND
PIP_CVBS
CNP02
: Power Line

10-6 CRT, SWITCH

CRT



SWITCH



: Power Line
: Signal Line