



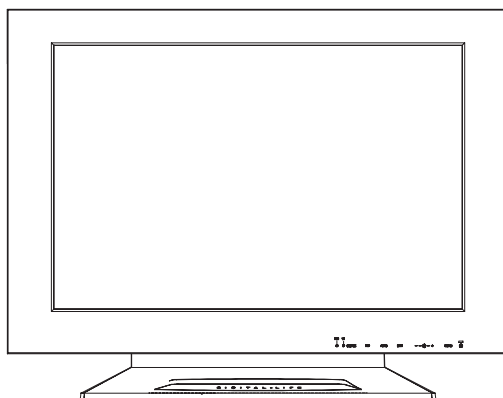
# TFT-LCD MONITOR

SyncMaster 210T

SyncMaster 240T

## *SERVICE* Manual

### TFT-LCD MONITOR



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# 1 Precautions

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

## 1-1 Safety Precautions

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### 1-1-1 Warnings

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

### 1-1-2 Servicing the LCD Monitor

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

### 1-1-3 Fire and Shock Hazard

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

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the monitor.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1): **WARNING: Do not use an isolation transformer during this test.** Use a leakage current tester or a metering system that complies with American National Standards Institute (*ANSI C101.1, Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

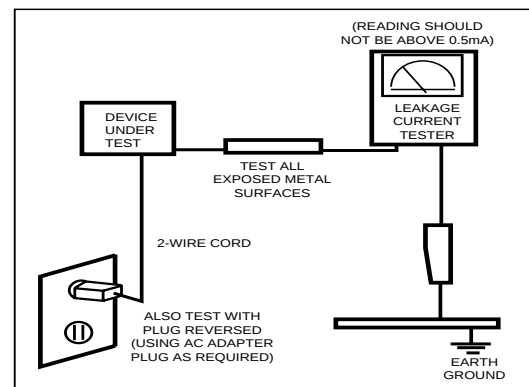


Figure 1-1. Leakage Current Test Circuit

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

### 1-1-4 Product Safety Notices

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

## 1-2 Servicing Precautions

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

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

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

### 1-2-1 General Servicing Precautions

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

## 1-3 Electrostatically Sensitive Devices (ESD) Precautions

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

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

## 2 Product Specifications

### 2-1 Specifications

| Item                                                                                                                                                                                                                                   | Description                                                                                                                                                          |                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                        | SyncMaster 210T                                                                                                                                                      | SyncMaster 240T                                                                                           |
| LCD Panel                                                                                                                                                                                                                              | TFT-LCD panel, RGB vertical stripe, normally black transmissive, 21.03-Inch (24.06-Inch) viewable, 0.27 (H) x 0.27 (V) mm pixel pitch                                |                                                                                                           |
| Scanning Frequency                                                                                                                                                                                                                     | Horizontal : 30 kHz to 93 kHz (Anolog)<br>Vertical : 56 Hz to 85 Hz                                                                                                  | 30 kHz to 81 kHz (Digital)<br>56 Hz to 85 Hz                                                              |
| Display Colors                                                                                                                                                                                                                         | 16,777,216 Million colors                                                                                                                                            |                                                                                                           |
| Maximum Resolution                                                                                                                                                                                                                     | Horizontal : 1600 Pixels<br>Vertical : 1200 Pixels                                                                                                                   | 1920 Pixels<br>1200 Pixels                                                                                |
| Input Video Signal                                                                                                                                                                                                                     | Analog, 0.7 Vp-p ± 5% positive at 75 Ω, internally terminated                                                                                                        |                                                                                                           |
| Input Sync Signal                                                                                                                                                                                                                      | Type : Seperate H/V sync, Composite H/V, Sync-on-Green<br>Level : TTL level                                                                                          |                                                                                                           |
| Maximum Pixel Clock rate                                                                                                                                                                                                               | 165 MHz                                                                                                                                                              | 193 MHz                                                                                                   |
| Active Display<br>Horizontal/Vertical                                                                                                                                                                                                  | 432 ± 3 mm/324 ± 3 mm                                                                                                                                                | 518.4 ± 3 mm/324 ± 3 mm                                                                                   |
| AC power voltage & Frequency                                                                                                                                                                                                           | AC 100 to 240 Volts, 60~50 Hz ± 3 Hz                                                                                                                                 |                                                                                                           |
| Power Consumption                                                                                                                                                                                                                      | 85 W (max.)                                                                                                                                                          | 95W (max.)                                                                                                |
| Dimensions<br>Unit (W x D x H)<br>Carton (W x D x H)                                                                                                                                                                                   | 21.61 x 8.97 x 19.02 Inches (549.1 x 228 x 483.4 mm)<br>26.16 x 23.64 x 14.16 Inches (665 x 601 x 360 mm)                                                            | 24.42 x 8.97 x 483.4 Inches (620.4 x 228 x 483.4 mm)<br>28.99 x 23.64 x 14.16 Inches (737 x 601 x 360 mm) |
| Weight<br>(Net/Gross)                                                                                                                                                                                                                  | 11.3 kg (24.91 lbs) / 19.3 kg ( 42.54 lbs)                                                                                                                           | 13.8 kg (30.42 lbs) / 22.7 kg ( 50.04 lbs)                                                                |
| Environmental Considerations                                                                                                                                                                                                           | Operating Temperature : 50°F to 104°F (10°C to 40°C)<br>Humidity : 10 % to 80 %<br><br>Storage Temperature : 13°F to 113°F (-25°C to 45°C)<br>Humidity : 5 % to 95 % |                                                                                                           |
| <ul style="list-style-type: none"><li>• SyncMaster 210T/240T comply with SWEDAC (MPRII) recommendations for reduced electromagnetic fields.</li><li>• Designs and specifications are subject to change without prior notice.</li></ul> |                                                                                                                                                                      |                                                                                                           |

## 2-2 Pin Assignments

| Pin No. | Sync Type | 15-Pin Signal Cable Connector |                     |                     |
|---------|-----------|-------------------------------|---------------------|---------------------|
|         |           | Separate                      | Composite           | Sync-on-green       |
| 1       |           | Red                           | Red                 | Red                 |
| 2       |           | Green                         | Green               | Green + H/V Sync.   |
| 3       |           | Blue                          | Blue                | Blue                |
| 4       |           | GND                           | GND                 | GND                 |
| 5       |           | GND (DDC Return)              | GND (DDC Return)    | GND (DDC Return)    |
| 6       |           | GND-Red                       | GND-Red             | GND-Red             |
| 7       |           | GND-Green                     | GND-Green           | GND-Green           |
| 8       |           | GND-Blue                      | GND-Blue            | GND-Blue            |
| 9       |           | No Connection                 | No Connection       | Not Used            |
| 10      |           | GND-Sync./Self Test           | GND-Sync./Self Test | GND-Sync./Self Test |
| 11      |           | GND                           | GND                 | GND                 |
| 12      |           | DDC Data                      | DDC Data            | DDC Data            |
| 13      |           | Horizontal sync.              | H/V-Sync.           | Not Used            |
| 14      |           | Vertical sync.                | Not Used            | Not Used            |
| 15      |           | DDC Clock                     | DDC Clock           | DDC Clock           |

## 2-3 DVI Signal Pin Assignments

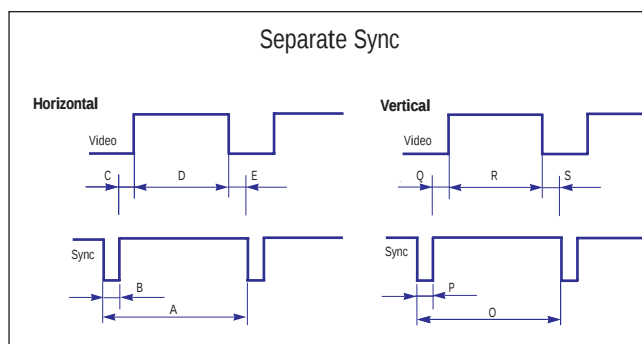
| Pin | Signal Assignment | Pin | Signal Assignment              | Pin | Signal Assignment |
|-----|-------------------|-----|--------------------------------|-----|-------------------|
| 1   | RX2-              | 9   | RX1-                           | 17  | RX0-              |
| 2   | RX2+              | 10  | RX1+                           | 18  | RX0+              |
| 3   | AGND              | 11  | AGND                           | 19  | AGND              |
| 4   | AGND              | 12  | AGND                           | 20  | AGND              |
| 5   | AGND              | 13  | AGND                           | 21  | AGND              |
| 6   | DDC_SCL           | 14  | DDC Power Input (+5V)          | 22  | AGND              |
| 7   | DDC_SDA           | 15  | Self-Raster_D                  | 23  | RXC+              |
| 8   | AGND              | 16  | Connection Signal Output (+5V) | 24  | RXC-              |

## 2-3 Timing Chart

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

Table 2-1. Timing Chart

| Mode<br>Timing          | VGA1/<br>70 Hz<br>640 x 350 | VGA2/<br>70 Hz<br>720 x 400 | VGA3/<br>60 Hz<br>640 x 480 | VGA/<br>72 Hz<br>640 x 480 | VGA/<br>75 Hz<br>640 x 480 | VGA/<br>85 Hz<br>640 x 480 | MAC/<br>60 Hz<br>640 x 480 | MAC/<br>66 Hz<br>640 x 480 | SVGA/<br>56 Hz<br>800 x 600 | SVGA/<br>60 Hz<br>800 x 600 | SVGA/<br>72 Hz<br>800 x 600 |
|-------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|
| fH (kHz)                | 31.5                        | 31.5                        | 31.5                        | 37.9                       | 37.5                       | 43.3                       | 31.5                       | 35.0                       | 35.2                        | 37.9                        | 48.1                        |
| A $\mu$ sec             | 800                         | 900                         | 800                         | 832                        | 840                        | 832                        | 800                        | 864                        | 1024                        | 1056                        | 1040                        |
| B $\mu$ sec             | 96                          | 108                         | 96                          | 40                         | 64                         | 56                         | 96                         | 64                         | 72                          | 128                         | 120                         |
| C $\mu$ sec             | 40                          | 45                          | 40                          | 120                        | 120                        | 80                         | 48                         | 96                         | 128                         | 88                          | 64                          |
| D $\mu$ sec             | 640                         | 720                         | 640                         | 640                        | 640                        | 640                        | 640                        | 640                        | 800                         | 800                         | 800                         |
| E $\mu$ sec             | 8                           | 9                           | 8                           | 16                         | 16                         | 56                         | 16                         | 64                         | 24                          | 40                          | 56                          |
| fV (Hz)                 | 70.1                        | 70.1                        | 60.0                        | 72.8                       | 75.0                       | 85.0                       | 60.0                       | 66.7                       | 56.3                        | 60.3                        | 72.2                        |
| O msec                  | 449                         | 449                         | 525                         | 520                        | 500                        | 509                        | 525                        | 525                        | 625                         | 628                         | 666                         |
| P msec                  | 2                           | 2                           | 2                           | 3                          | 3                          | 3                          | 2                          | 3                          | 2                           | 4                           | 6                           |
| Q msec                  | 54                          | 27                          | 25                          | 20                         | 16                         | 25                         | 33                         | 39                         | 22                          | 23                          | 23                          |
| R msec                  | 350                         | 400                         | 480                         | 480                        | 480                        | 480                        | 480                        | 480                        | 600                         | 600                         | 600                         |
| S msec                  | 31                          | 6                           | 2                           | 1                          | 1                          | 1                          | 10                         | 3                          | 1                           | 1                           | 37                          |
| Clock<br>Freq.<br>(MHz) | 25.175                      | 28.322                      | 25.175                      | 31.500                     | 31.500                     | 36.000                     | 25.175                     | 30.240                     | 36.000                      | 40.000                      | 50.000                      |
| Polarity<br>H.Sync      | Positive                    | Negative                    | Negative                    | Negative                   | Negative                   | Negative                   | Negative                   | Negative                   | —/+                         | Positive                    | Positive                    |
| V.Sync                  | Negative                    | Positive                    | Negative                    | Negative                   | Negative                   | Negative                   | Negative                   | Negative                   | —/+                         | Positive                    | Positive                    |
| Remark                  | Separate                    | Separate                    | Separate                    | Separate                   | Separate                   | Separate                   | Separate                   | Separate                   | Separate                    | Separate                    | Separate                    |



A : Line time total

B : Horizontal sync width

O : Frame time total

P : Vertical sync width

C : Back porch

D : Active time

Q : Back porch

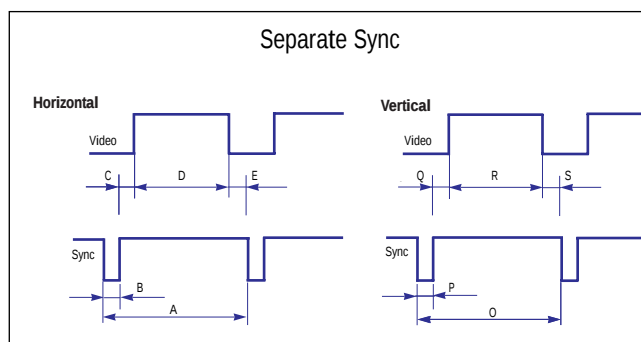
R : Active time

E : Front porch

S : Front porch

Table 2-1. Timing Chart (continued)

| <b>Mode</b>       | <b>SVGA/<br/>75 Hz</b> | <b>SVGA/<br/>85 Hz</b> | <b>MAC/<br/>74 Hz</b> | <b>XGA/<br/>60 Hz</b> | <b>XGA/<br/>70 Hz</b> | <b>XGA/<br/>75 Hz</b> | <b>XGA/<br/>85 Hz</b> | <b>MAC/<br/>60 Hz</b> | <b>MAC/<br/>74 Hz</b> | <b>VESA/<br/>75 Hz</b> | <b>MAC/<br/>75 Hz</b> |
|-------------------|------------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| <b>Timing</b>     | <b>800 x 600</b>       | <b>800 x 600</b>       | <b>832 x 624</b>      | <b>1024 x 768</b>     | <b>1024 x 768</b>     | <b>1024 x 768</b>     | <b>1024 x 768</b>     | <b>1024 x 768</b>     | <b>1024 x 768</b>     | <b>1152 x 864</b>      | <b>1152 x 870</b>     |
| fH (kHz)          | 46.9                   | 53.7                   | 49.7                  | 48.4                  | 56.5                  | 60.0                  | 68.7                  | 48.8                  | 60.2                  | 67.5                   | 68.7                  |
| A $\mu$ sec       | 1056                   | 1048                   | 1152                  | 1344                  | 1328                  | 1312                  | 1376                  | 1312                  | 1328                  | 1600                   | 1456                  |
| B $\mu$ sec       | 80                     | 64                     | 64                    | 136                   | 136                   | 96                    | 96                    | 96                    | 96                    | 128                    | 128                   |
| C $\mu$ sec       | 160                    | 152                    | 224                   | 160                   | 144                   | 176                   | 208                   | 128                   | 176                   | 256                    | 144                   |
| D $\mu$ sec       | 800                    | 800                    | 832                   | 1024                  | 1024                  | 1024                  | 1024                  | 1024                  | 1024                  | 1152                   | 1152                  |
| E $\mu$ sec       | 16                     | 32                     | 32                    | 24                    | 24                    | 16                    | 48                    | 64                    | 32                    | 64                     | 32                    |
| fV (Hz)           | 75.0                   | 85.1                   | 74.6                  | 60.0                  | 70.1                  | 75.0                  | 85.0                  | 60.0                  | 74.9                  | 75.0                   | 75.1                  |
| O msec            | 625                    | 631                    | 667                   | 806                   | 806                   | 800                   | 808                   | 813                   | 804                   | 900                    | 915                   |
| P msec            | 3                      | 3                      | 3                     | 6                     | 6                     | 3                     | 3                     | 6                     | 3                     | 3                      | 3                     |
| Q msec            | 21                     | 27                     | 39                    | 29                    | 29                    | 28                    | 36                    | 33                    | 30                    | 32                     | 39                    |
| R msec            | 600                    | 600                    | 624                   | 768                   | 768                   | 768                   | 768                   | 768                   | 768                   | 864                    | 870                   |
| S msec            | 1                      | 1                      | 1                     | 3                     | 3                     | 1                     | 1                     | 6                     | 3                     | 1                      | 3                     |
| Clock Freq. (MHz) | 49.500                 | 56.250                 | 57.284                | 65.000                | 75.000                | 78.750                | 94.500                | 64.000                | 80.000                | 108.000                | 100.000               |
| Polarity          |                        |                        |                       |                       |                       |                       |                       |                       |                       |                        |                       |
| H.Sync            | Positive               | Positive               | Negative              | Negative              | Negative              | Positive              | Positive              | Negative              | Negative              | Positive               | Negative              |
| V.Sync            | Positive               | Positive               | Negative              | Negative              | Negative              | Positive              | Positive              | Negative              | Negative              | Positive               | Negative              |
| Remark            | Separate               | Separate               | Separate              | Separate              | Separate              | Separate              | Separate              | Separate              | Separate              | Separate               | Separate              |



A : Line time total

B : Horizontal sync width

O : Frame time total

P : Vertical sync width

C : Back porch

D : Active time

Q : Back porch

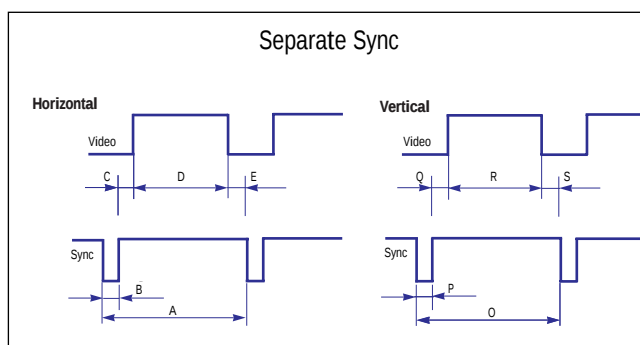
R : Active time

E : Front porch

S : Front porch

Table 2-1. Timing Chart (continued)

| <b>Mode</b><br><b>Timing</b> | <b>SUN/66 Hz</b><br><b>1152 x 900</b> | <b>SUN/76 Hz</b><br><b>1152 x 900</b> | <b>SXGA/60 Hz</b><br><b>1280 x 1024</b> | <b>NCD/70 Hz</b><br><b>1280 x 1024</b> | <b>HP/72 Hz</b><br><b>1280 x 1024</b> | <b>SXGA/75 Hz</b><br><b>1280 x 1024</b> | <b>SUN/76 Hz</b><br><b>1280 x 1024</b> |
|------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------|----------------------------------------|---------------------------------------|-----------------------------------------|----------------------------------------|
| fH (kHz)                     | 61.8                                  | 71.7                                  | 64.0                                    | 74.4                                   | 78.1                                  | 80.0                                    | 81.1                                   |
| A $\mu$ sec                  | 1528                                  | 1472                                  | 1688                                    | 1680                                   | 1728                                  | 1688                                    | 1664                                   |
| B $\mu$ sec                  | 128                                   | 96                                    | 112                                     | 160                                    | 192                                   | 144                                     | 64                                     |
| C $\mu$ sec                  | 208                                   | 208                                   | 248                                     | 208                                    | 192                                   | 248                                     | 288                                    |
| D $\mu$ sec                  | 1152                                  | 1152                                  | 1280                                    | 1280                                   | 1280                                  | 1280                                    | 1280                                   |
| E $\mu$ sec                  | 40                                    | 16                                    | 48                                      | 32                                     | 64                                    | 16                                      | 32                                     |
| fV (Hz)                      | 66.0                                  | 76.0                                  | 60.0                                    | 70.0                                   | 72.0                                  | 75.0                                    | 76.1                                   |
| O msec                       | 937                                   | 943                                   | 1066                                    | 1063                                   | 1085                                  | 1066                                    | 1066                                   |
| P msec                       | 4                                     | 8                                     | 3                                       | 3                                      | 3                                     | 3                                       | 8                                      |
| Q msec                       | 31                                    | 33                                    | 38                                      | 36                                     | 55                                    | 38                                      | 32                                     |
| R msec                       | 900                                   | 900                                   | 1024                                    | 1024                                   | 1024                                  | 1024                                    | 1024                                   |
| S msec                       | 2                                     | 2                                     | 1                                       | 0                                      | 3                                     | 1                                       | 2                                      |
| Clock Frequency (MHz)        | 94.500                                | 105.561                               | 108.000                                 | 125.000                                | 135.000                               | 135.000                                 | 135.000                                |
| Polarity H.Sync              | -/+                                   | Negative                              | Positive                                | Negative                               | Negative                              | Positive                                | Negative                               |
| V.Sync                       | -/+                                   | Negative                              | Positive                                | Negative                               | Negative                              | Positive                                | Negative                               |
| Remark                       | Separate                              | Separate                              | Separate                                | Separate                               | Separate                              | Separate                                | Separate                               |



A : Line time total

B : Horizontal sync width

O : Frame time total

P : Vertical sync width

C : Back porch

D : Active time

Q : Back porch

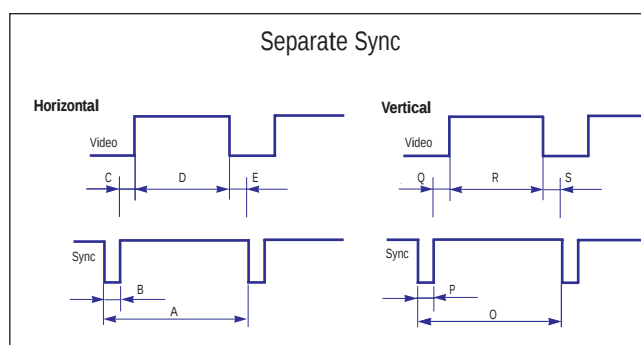
R : Active time

E : Front porch

S : Front porch

Table 2-1. Timing Chart (continued)

| Mode<br><br>Timing    | Analog                                        |                                               |                                               |                                              |                                               |                                                  | Digital                                         |                                                   |
|-----------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------------|-------------------------------------------------|---------------------------------------------------|
|                       | UXGA/60Hz<br>1600 x 1200<br>(only Analog 24") | UXGA/65Hz<br>1600 x 1200<br>(only Analog 24") | UXGA/70Hz<br>1600 x 1200<br>(only Analog 24") | NCD/64Hz<br>1600 x 1200<br>(only Analog 24") | SUN/66 Hz<br>1600 x 1200<br>(only Analog 24") | WUXGA2/60 Hz<br>1920 x 1200<br>(only Analog 24") | UXGA/60 Hz<br>1600 x 1200<br>(only Digital 24") | WUXGA2/60 Hz<br>1920 x 1200<br>(only Digital 24") |
| fH (kHz)              | 75                                            | 81.25                                         | 87.5                                          | 80.038                                       | 89.286                                        | 74.52                                            | 73.5                                            | 72.48                                             |
| A $\mu$ sec           | 2160                                          | 2160                                          | 2160                                          | 2124                                         | 2240                                          | 2592                                             | 1808                                            | 2086                                              |
| B $\mu$ sec           | 192                                           | 192                                           | 192                                           | 160                                          | 256                                           | 208                                              | 80                                              | 40                                                |
| C $\mu$ sec           | 304                                           | 304                                           | 304                                           | 308                                          | 368                                           | 336                                              | 100                                             | 100                                               |
| D $\mu$ sec           | 1600                                          | 1600                                          | 1600                                          | 1600                                         | 1600                                          | 1920                                             | 1600                                            | 1920                                              |
| E $\mu$ sec           | 64                                            | 64                                            | 64                                            | 56                                           | 16                                            | 128                                              | 28                                              | 26                                                |
| fV (Hz)               | 60                                            | 65                                            | 70                                            | 64.443                                       | 66.931                                        | 60                                               | 60                                              | 60                                                |
| O msec                | 1250                                          | 1250                                          | 1250                                          | 1242                                         | 1334                                          | 1242                                             | 1225                                            | 1208                                              |
| P msec                | 3                                             | 3                                             | 3                                             | 3                                            | 10                                            | 3                                                | 2                                               | 2                                                 |
| Q msec                | 46                                            | 46                                            | 46                                            | 38                                           | 44                                            | 38                                               | 22                                              | 5                                                 |
| R msec                | 1200                                          | 1200                                          | 1200                                          | 1200                                         | 1200                                          | 1200                                             | 1200                                            | 1200                                              |
| S msec                | 1                                             | 1                                             | 1                                             | 1                                            | 80                                            | 1                                                | 1                                               | 1                                                 |
| Clock Frequency (MHz) | 162.000                                       | 175.500                                       | 189.000                                       | 170.000                                      | 200.000                                       | 193.156                                          | 132.876                                         | 151.193                                           |
| Polarity<br>H.Sync    | -/+                                           | -/+                                           | -/+                                           | -/+                                          | -/+                                           | Negative                                         | -/+                                             | Negative                                          |
| V.Sync                | -/+                                           | -/+                                           | -/+                                           | -/+                                          | -/+                                           | Positive                                         | -/+                                             | Positive                                          |
| Remark                | Separate                                      | Separate                                      | Separate                                      | Separate                                     | Separate                                      | Separate                                         | Separate                                        | Separate                                          |



A : Line time total

B : Horizontal sync width

O : Frame time total

P : Vertical sync width

C : Back porch

D : Active time

Q : Back porch

R : Active time

E : Front porch

S : Front porch

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## 3 Disassembly and Reassembly

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This section of the service manual describes the disassembly and reassembly procedures for the SyncMaster 210T/240T monitor.

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

### 3-1 Disassembly

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**Cautions:** 1. Disconnect the monitor from the power source before disassembly.  
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.

#### 3-1-1 Removing the Stand

1. Disconnect Power Cord and Signal Cable.
2. Remove 6 screws on the Cover-Hinge.
3. Pry it off the back of the monitor.
4. Remove 4 screws in the Hinge Area.
3. Remove 6 screws from the Brkt Bottom.
4. Remove the Brkt Bottom from the Stand Frame.
5. Remove 6 screws on the Hinge Ass'y from the Stand Frame.
6. Remove Hinge Ass'y from the Stand Frame.

#### 3-1-2 Main Body Disassembly

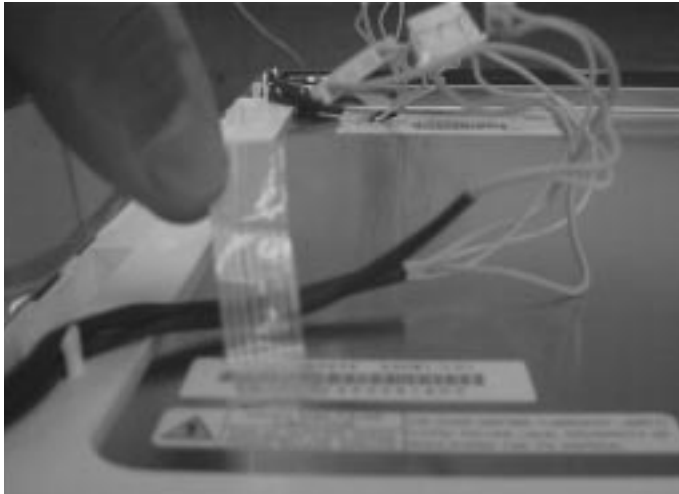
1. Remove the 4 screws on the four corner of the Rear Cover.
2. Remove Rear Cover from the Front Cover.
3. Remove 21(21":15) screws on the Shield and remove the shield.
4. Remove 1 screw from the Function wire.
5. Disconnect Inverter wire, Function PCB wire and Interface wire.  
Remove 5 screws on the Main PCB and remove 3 screws on the D sub shield.
6. Remove the Main PCB Assembly.
7. Remove 4 screws on the Inverter PCB Assembly and then remove it
8. Remove 4 screws on the DC-DC Converter.
9. Remove 9 screws on the Rear Panel Bracket.
10. Remove the Bracket Assembly from the Front Cover.
11. Remove 3 screws on the Function PCB from locking area of Function knob and remove Function PCB.
12. Remove 4 screws on the LCD panel.
13. Remove the Rear Bracket from the panel.
14. Remove the Interface wire on the Rear Side of Panel.

#### 3-1-3 Standard Stand Disassembly

1. Remove 6 screws from the Stand Bottom.
2. Remove Stand Base from the Stand assembly.

### 3-2 Replacement Order of Lamp Assemblies

---



1. Remove the lamp wire holding tape from the metal chassis on the bottom side.

1-1. Taking out the lamp wire from the lamp wire holder.



2. Unscrewing the screw.  
Unscrewing force : 0.8 ~ 1Kg - f.cm



3. Pulling out the lamp Assembly with stable Power and direction slowly.  
Be careful, do not twist the lamp reflector when pulling the lamp.



4. Dis-Assembled the lamp Ass'y from LCD completely.

- \* Replacement of lamp unit should be done at the power off state and recommended clean bench condition.

### **3-3 Reassembly**

---

Reassembly procedures are in the reverse order of Disassembly procedures.

## **Memo**

## 4 Alignments and Adjustments

This section of the service manual explains how to use the DDC JIG to adjust the black, red, green, and blue levels of the FPD when you replace the AD Board, and how to update the microprocessor when you change the Panel or Lamp(s).

### 4-1 Required Equipment

The following equipment is necessary for adjusting the monitor:

- Oscilloscope with probe tool
- Computer with Windows 95®, Windows 98®, or Windows NT®
- DDC Control JIG

### 4-2 Using the DDC Control JIG

After replacing the LCD Panel, Lamp(s), and / or AD Board, use the DDC Control JIG to complete your service. Attach the DDC Control JIG to the flat panel display (FPD) as shown in the diagrams, below.

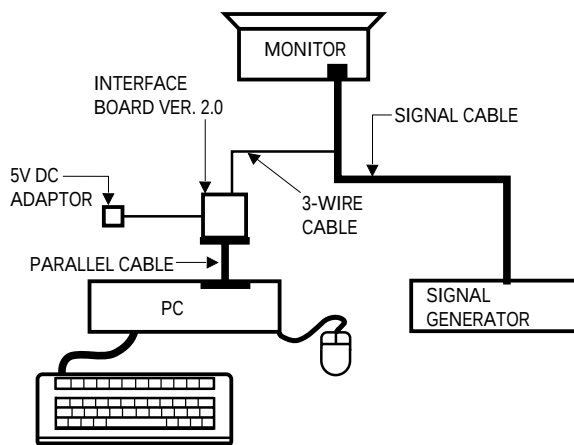


Figure 4-1. Setup 1, With Signal Generator

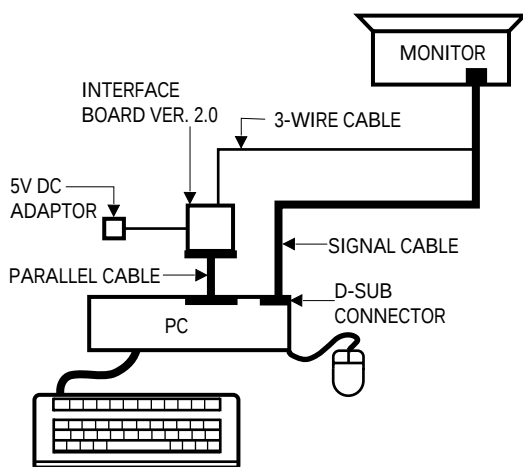


Figure 4-2. Setup 2, Without Signal Generator

#### 4-2-1 Adjustment Procedures

Use the following procedures whenever you replace the AD Board, Panel, or one or both of the Lamps.

##### 4-2-1 (a) When Replacing the AD Board

1. Remove the old AD Board and replace it with a new board.
2. Perform the procedures described in section 4-2-3 (b).
3. Perform other procedures using the DDC Control JIG, if necessary.

##### 4-2-1 (b) Color Auto Adjustment

1. After displaying 16-Gray pattern press “+”, “-”, and “source” buttons.
2. During normal execution of Auto Algorithm the screen image may change. If Auto Algorithm does not execute properly, try one more.
3. After normal execution of Auto Algorithm, confirm optimal settings by observing the contrast of several different patterns on the display.

##### 4-2-3 (c) White Balance Adjustment

1. After displaying white pattern (on the WUXAG mode), press “+”, “-”, and “PIP” buttons.
2. During normal execution of white balance the screen, image may change.

## **Memo**

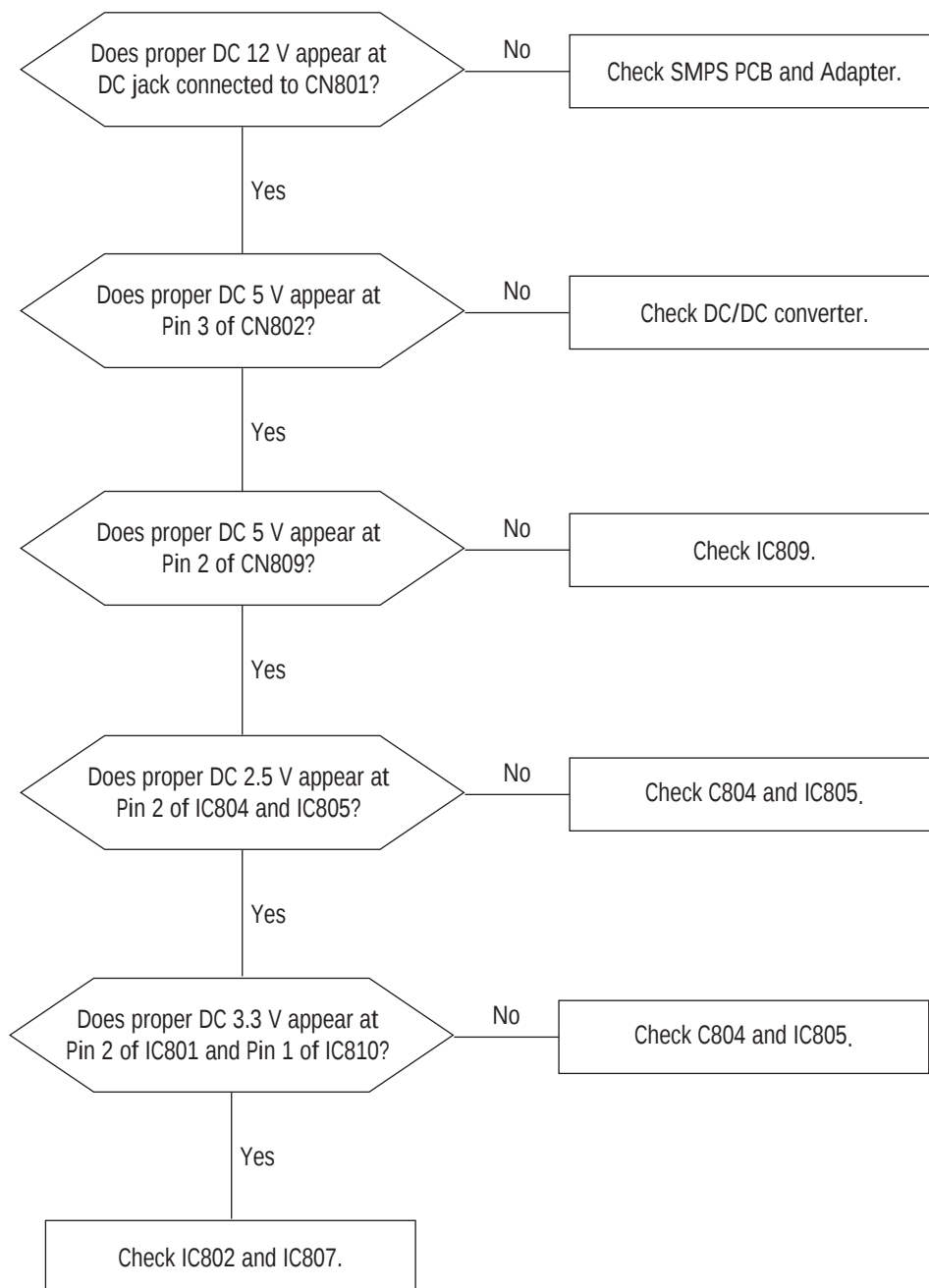
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## 5 Troubleshooting

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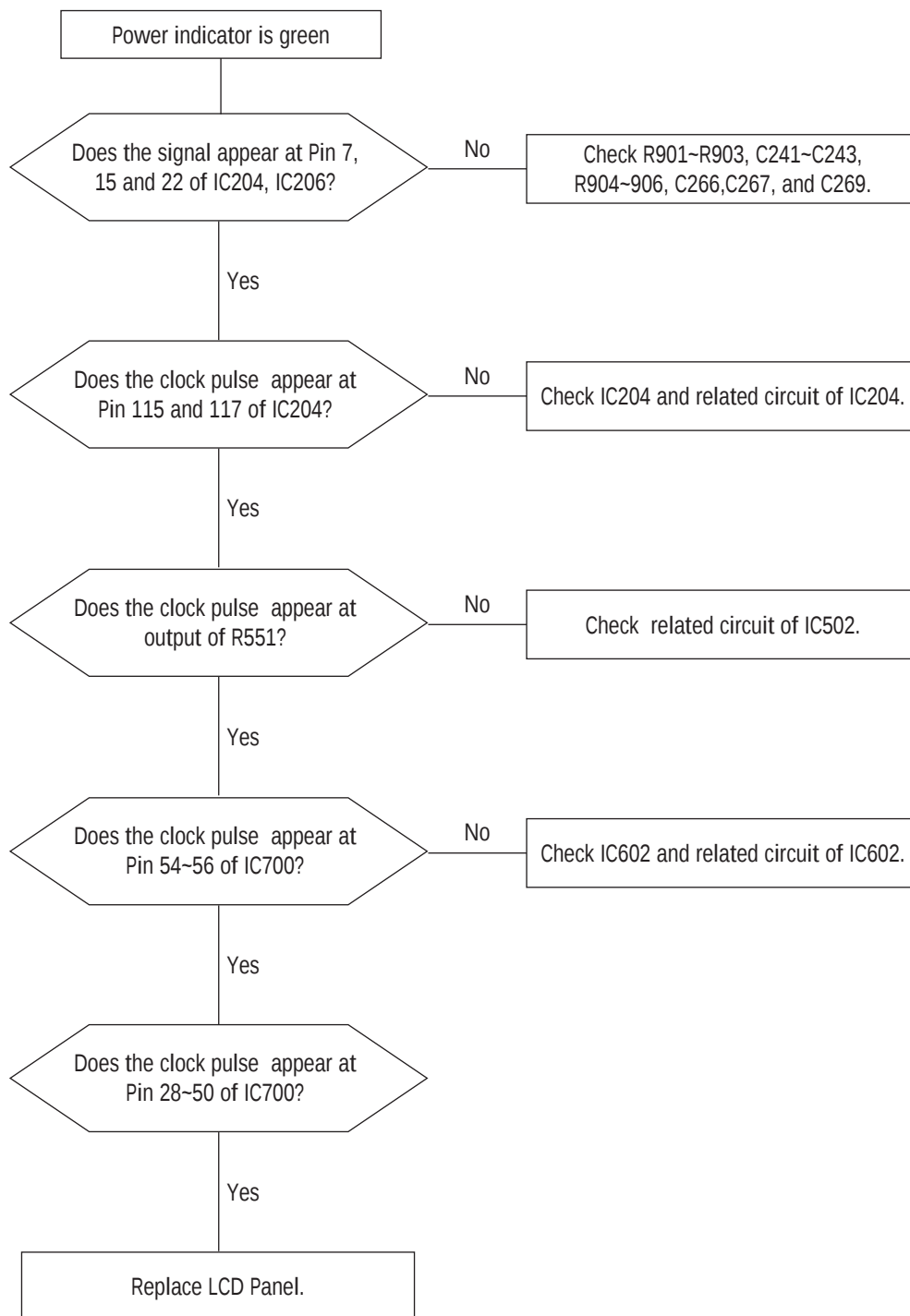
### 5-1 No Power

---



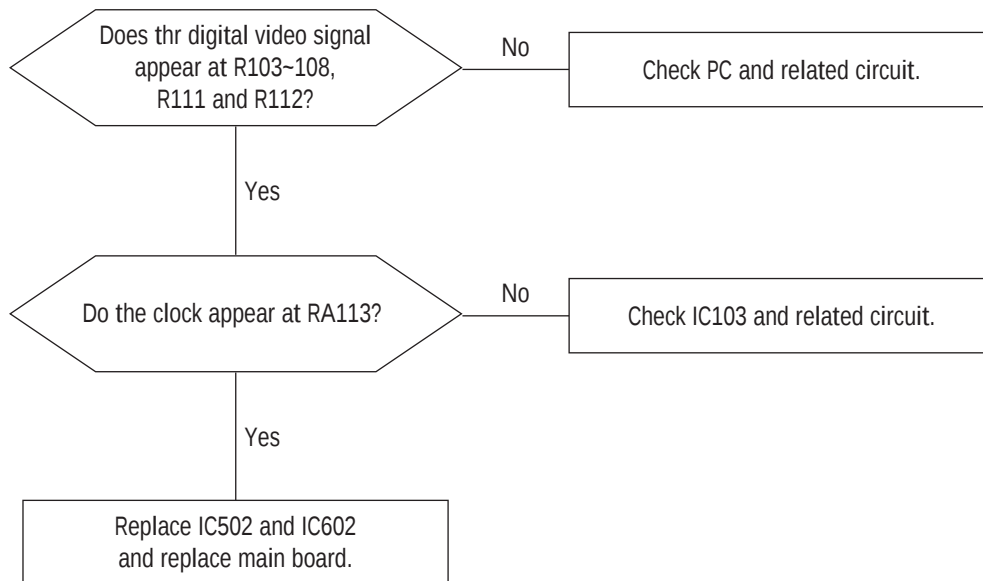
**5-2 No Video (PC Analog Signal)**

---



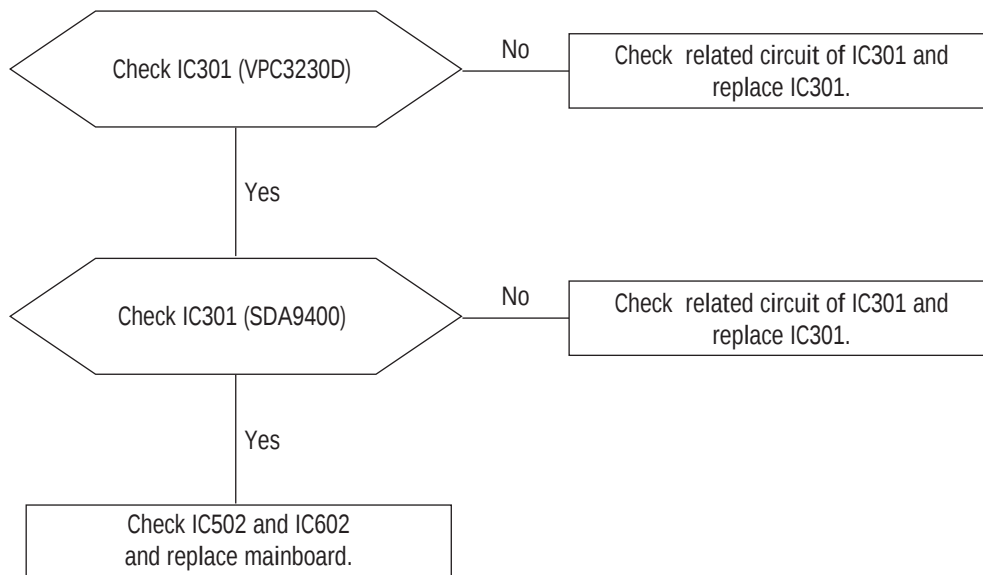
### 5-3 No Video (PC Digital Signal)

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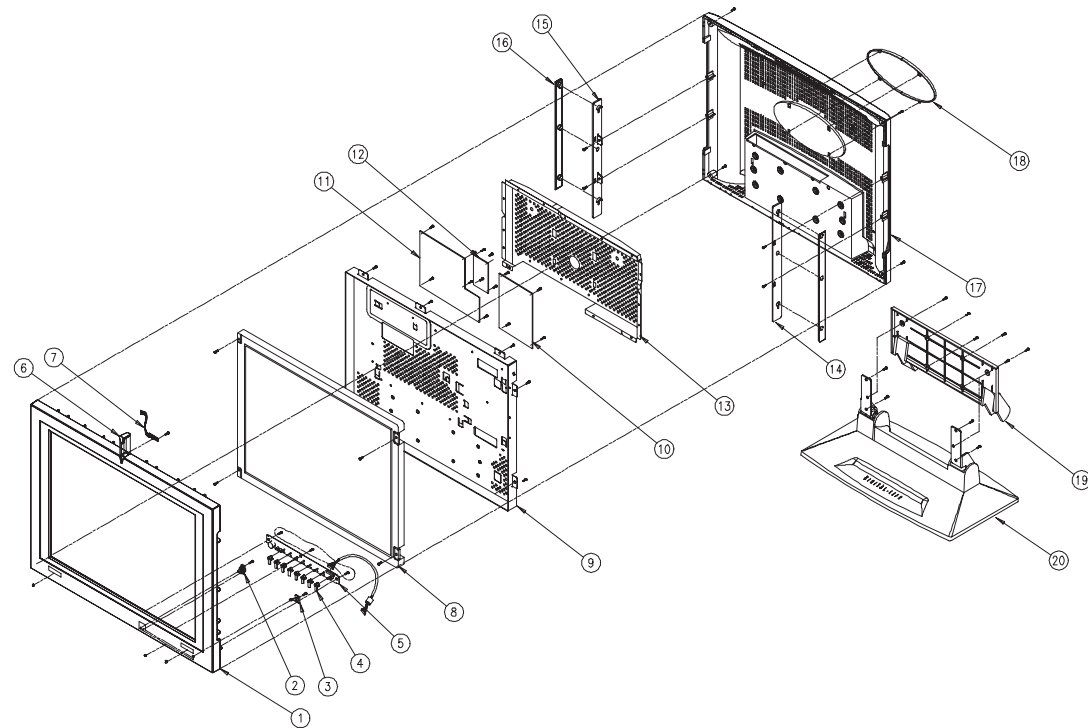
### 5-4 No Picture (CUBS, S-VHS)

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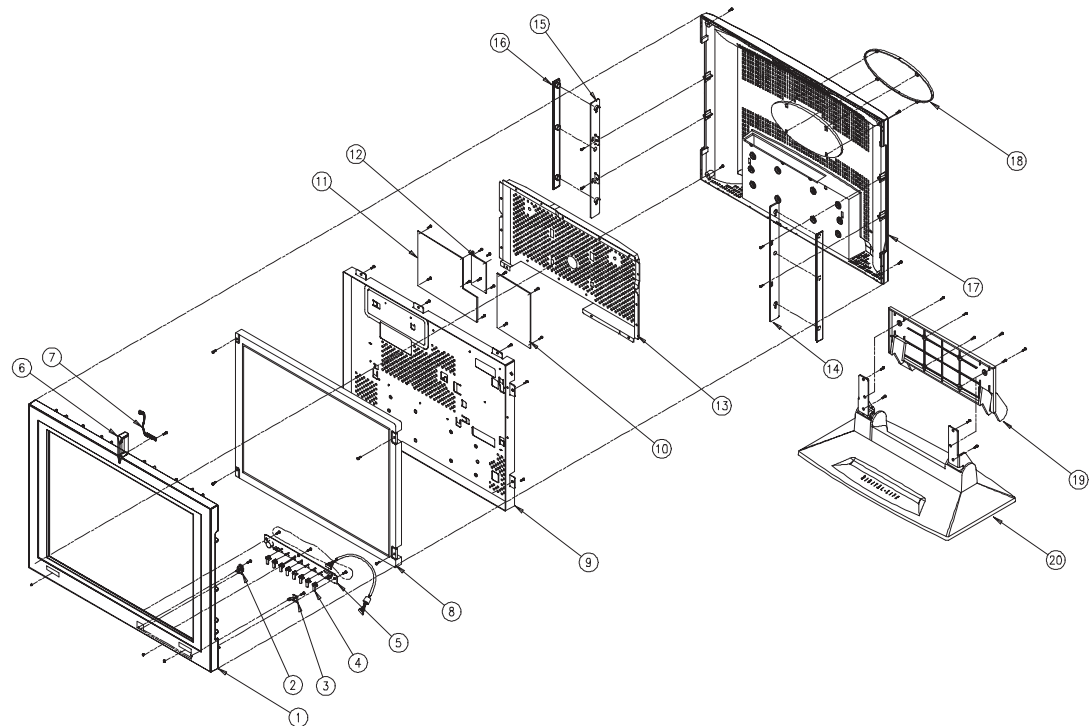


## Memo

## 6-1 SyncMaster 210T

[illegible]

## 6-2 SyncMaster 240T



|                             |    |                    |             |                              |      |                     |             |                                   |      |
|-----------------------------|----|--------------------|-------------|------------------------------|------|---------------------|-------------|-----------------------------------|------|
| UNIT-C/REAR<br>RN75-00098B  | ②0 | UNIT STAND         | RN75-00099B | ABS+PC 5Y GR30(PHOSPOROUS,1) | 1    |                     |             |                                   |      |
|                             | ①9 | COVER HINGE        | RN72-00129B | ABS+PC 5Y GR30(PHOSPOROUS,1) | 1    |                     |             |                                   |      |
|                             | ①8 | CAP-LOGO           | RN72-00122B | ABS+PC 5Y GR30(PHOSPOROUS,1) | 1    |                     |             |                                   |      |
|                             | ①7 | COVER REAR         | RN72-00121B | ABS+PC 5Y GR30(PHOSPOROUS,1) | 1    |                     |             |                                   |      |
|                             | ①6 | CAP-SPEAKER        | RN72-00162A | ABS+PC 5Y EL01(PHOSPOROUS,1) | 2    |                     |             |                                   |      |
| UNIT-C/FRONT<br>RN75-00097A | ①5 | HOLDER SPEAKER/L   | RN72-00123C | ABS+PC 5Y EL01(PHOSPOROUS,1) | 1    |                     |             |                                   |      |
|                             | ①4 | HOLDER SPEAKER/R   | RN72-00124C | ABS+PC 5Y EL01(PHOSPOROUS,1) | 1    |                     |             |                                   |      |
|                             | ①3 | SHIELD PCB         | RN70-00134A | SECC T0.8                    | 1    | BH,+,S,TAPTITE,4*10 | 6003-000129 | COVER HINGE + UNIT BRKT PANEL     | 6    |
|                             | ①2 | DC-DC CONVERTER    | RN44-00045A | —                            | 1    | BH,+,S,TAPTITE,4*10 | 6003-000129 | UNIT STAND + UNIT BRKT PANEL      | 4    |
|                             | ①1 | MAIN PCB           | RN94-00060C | —                            | 1    | BH,+,TAPTITE,3*6    | 6003-000117 | SHIELD PCB + UNIT BRKT PANEL      | 4    |
| UNIT-C/FRONT<br>RN75-00097A | ⑩  | INVERTER PCB       | RN44-00044A | —                            | 1    | BH,+,TAPTITE,3*6    | 6003-000117 | DC-DC CONVERTER + UNIT BRKT PANEL | 4    |
|                             | ⑨  | UNIT-BRKT PANEL    | RN75-00110A | SECC T1.2                    | 1    | BH,+,TAPTITE,3*6    | 6003-000117 | MAIN PCB + UNIT BRKT PANEL        | 8    |
|                             | ⑧  | 24" LCD PANEL      | RN07-00015A | 24" LCD PANEL                | 1    | BH,+,TAPTITE,3*10   | 6003-000117 | INVERTER PCB + UNIT BRKT PANEL    | 4    |
|                             | ⑦  | CAP-REMOCON        | RN72-00079A | PC VIOLET                    | 1    | BH,+,TAPTITE,4*6    | 6003-000122 | C/FRONT + C/REAR                  | 4    |
|                             | ⑥  | IR-SENSOR ASS'Y    | RN59-00118A | —                            | 2    | BH,+,TAPTITE,4*12   | 6003-000122 | C/FRONT + UNIT BRKT PANEL         | 9    |
|                             | ⑤  | FUNCTION PCB ASS'Y | RN59-00119A | —                            | 1    | BH,+,TAPTITE,4*12   | 6003-000122 | LCD PANEL + UNIT BRKT PANEL       | 4    |
|                             | ④  | KNOB-FUNCTION      | RN64-00018A | ABS+PC IV16, NI PLATING      | 8    | BH1,+,TAPTITE,3*10  | 6003-000010 | FUNCTION PCB ASS'Y + C/FRONT      | 1    |
|                             | ③  | LENS POWER         | RN67-00050A | ACRYL                        | 1    | BH1,+,TAPTITE,3*8   | 6003-000015 | IR SENSOR ASS'Y + C/FRONT         | 1    |
|                             | ②  | LENS-SIGNAL        | RN67-00009A | ACRYL                        | 1    | BH1,+,TAPTITE,3*8   | 6003-000015 | LENS POWER + C/FRONT              | 1    |
|                             | ①  | COVER-FRONT        | RN72-00120A | ABS+PC 5Y IV16(PHOSPOROUS,1) | 1    | BH,+,TAPTITE,3*8    | 6003-000015 | LENS SIGNAL + C/FRONT             | 1    |
| UNIT PART                   | NO | PART NAME          | CODE NO.    | MATERIAL                     | Q'TY | SCREW PART          | CODE NO.    | LOCATION                          | Q'TY |

## 7 Electrical Parts List

### 7-1 Main PCB Parts

| Loc. No.     | Code No.    | Description         | Specification                                                                    | Remarks |
|--------------|-------------|---------------------|----------------------------------------------------------------------------------|---------|
| C856         | 2409-001004 | C-ORGANIC           | "100uF,20%,16V,LL,BK,8x10.5mm,3"                                                 |         |
| C857         | 2409-001004 | C-ORGANIC           | "100uF,20%,16V,LL,BK,8x10.5mm,3"                                                 |         |
| C858         | 2409-001004 | C-ORGANIC           | "100uF,20%,16V,LL,BK,8x10.5mm,3"                                                 |         |
| CN100        | 3701-001173 | CONNECTOR-DSUB      | "24P,3R,FEMALE,ANGLE,AUF"                                                        |         |
| CN200        | 3701-001219 | CONNECTOR-DSUB      | "15P,3R,FEMALE,ANGLE,AUF"                                                        |         |
| CN300        | 3722-001178 | JACK-PIN            | "1P,3.4mm,SN,YEL,#16-22"                                                         |         |
| CN301        | 3722-001100 | JACK-DIN            | "4P/2C,6mm,AG,BLK,NO"                                                            |         |
| FT805        | 2901-000172 | FILTER-EMI ON BOARD | "50V,10A,-,-,12x11x13mm,BK,-"                                                    |         |
| FT821        | 2901-000172 | FILTER-EMI ON BOARD | "50V,10A,-,-,12x11x13mm,BK,-"                                                    |         |
| IC205        | 1204-001725 | IC-SIGNAL PROCESSOR | "BA7078AF,SOP,18P,210MIL,PLASTIC,5.25V,450mW,-25to+75C,TP,SYNC SIGNAL PROCESSOR" |         |
| IC403        | 1102-001015 | IC-EPROM            | "27C020,256Kx8BIT,DIP,32P,600MI"                                                 |         |
| IC403_SOCKET | 3704-000255 | SOCKET-IC           | "32P,DIP,SN,2.54mm"                                                              |         |
| BD205        | 2703-001334 | INDUCTOR-SMD        | "1.5uH,10%,2x1.25x0.85mm"                                                        |         |
| BD206        | 2703-001334 | INDUCTOR-SMD        | "1.5uH,10%,2x1.25x0.85mm"                                                        |         |
| BD207        | 2703-001334 | INDUCTOR-SMD        | "1.5uH,10%,2x1.25x0.85mm"                                                        |         |
| BD208        | 2703-001334 | INDUCTOR-SMD        | "1.5uH,10%,2x1.25x0.85mm"                                                        |         |
| BD410        | 2703-001334 | INDUCTOR-SMD        | "1.5uH,10%,2x1.25x0.85mm"                                                        |         |
| BD800        | 2007-000029 | R-CHIP              | "00HM,5%,1/10W,DA,TP,2012"                                                       |         |
| BD801        | 2007-000029 | R-CHIP              | "00HM,5%,1/10W,DA,TP,2012"                                                       |         |
| BD802        | 2007-000029 | R-CHIP              | "00HM,5%,1/10W,DA,TP,2012"                                                       |         |
| BD803        | 2007-000029 | R-CHIP              | "00HM,5%,1/10W,DA,TP,2012"                                                       |         |
| C101         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C102         | 2402-001086 | "C-AL,SMD"          | "100UF,20%,16V,WT,TP,6.6X6.6X5.3"                                                |         |
| C103         | 2402-001086 | "C-AL,SMD"          | "100UF,20%,16V,WT,TP,6.6X6.6X5.3"                                                |         |
| C104         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C105         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C107         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C108         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C11          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C113         | 2402-000176 | "C-AL,SMD"          | "10uF,20%,16V,GP,TP,4.3x4.3x5.4"                                                 |         |
| C114         | 2402-000176 | "C-AL,SMD"          | "10uF,20%,16V,GP,TP,4.3x4.3x5.4"                                                 |         |
| C115         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C116         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C117         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C118         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C119         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C12          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C120         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C121         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C122         | 2203-000189 | "C-CERAMIC,CHIP"    | "100nF,+80-20%,25V,Y5V,TP,1608,"                                                 |         |
| C13          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C14          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C15          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C16          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C17          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C18          | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C181         | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C182         | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |
| C183         | 2203-000440 | "C-CERAMIC,CHIP"    | "1nF,10%,50V,X7R,TP,1608,-"                                                      |         |

## 7 Electrical Parts List

| Loc. No. | Code No.    | Description      | Specification                        | Remarks |
|----------|-------------|------------------|--------------------------------------|---------|
| C184     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C185     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C19      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C198     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C20      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C201     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1" |         |
| C204     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1" |         |
| C205     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C206     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C207     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C208     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C209     | 2402-000108 | "C-AL,SMD"       | "10uF,20%,16V,WT,TP,4.3x4.3x5.4"     |         |
| C21      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C210     | 2402-000108 | "C-AL,SMD"       | "10uF,20%,16V,WT,TP,4.3x4.3x5.4"     |         |
| C211     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C212     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C213     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C214     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C215     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C216     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C217     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C218     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C219     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C22      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C220     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C221     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C222     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C223     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C224     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C225     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C226     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C227     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C228     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C229     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C23      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C230     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C231     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C232     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C233     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C234     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C236     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C237     | 2203-000843 | "C-CERAMIC,CHIP" | "39nF,10%,25V,X7R,TP,1608,-"         |         |
| C238     | 2203-000726 | "C-CERAMIC,CHIP" | "3.9nF,10%,50V,X7R,TP,1608,-"        |         |
| C24      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C241     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"           |         |
| C242     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"           |         |
| C243     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"           |         |
| C247     | 2203-000903 | "C-CERAMIC,CHIP" | "0.0047nF,0.25pF,50V,NP0,TP,1608"    |         |
| C248     | 2203-000903 | "C-CERAMIC,CHIP" | "0.0047nF,0.25pF,50V,NP0,TP,1608"    |         |
| C249     | 2203-000903 | "C-CERAMIC,CHIP" | "0.0047nF,0.25pF,50V,NP0,TP,1608"    |         |
| C25      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |

| Loc. No. | Code No.    | Description      | Specification                        | Remarks |
|----------|-------------|------------------|--------------------------------------|---------|
| C250     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C251     | 2203-000384 | "C-CERAMIC,CHIP" | "0.015nF,5%,50V,NP0,TP,1608"         |         |
| C252     | 2402-001006 | "C-AL,SMD"       | "4.7uF,20%,25V,GP,TP,3.6x6.3x3."     |         |
| C253     | 2203-005065 | "C-CERAMIC,CHIP" | "1000nF,+80-20%,10V,Y5V,TP,1608"     |         |
| C255     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C256     | 2203-000843 | "C-CERAMIC,CHIP" | "39nF,10%,25V,X7R,TP,1608,-"         |         |
| C257     | 2203-001652 | "C-CERAMIC,CHIP" | "470nF,+80-20%,16V,Y5V,TP,1608"      |         |
| C258     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C260     | 2203-000726 | "C-CERAMIC,CHIP" | "3.9nF,10%,50V,X7R,TP,1608,-"        |         |
| C261     | 2203-000236 | "C-CERAMIC,CHIP" | "0.1nF,5%,50V,NP0,TP,1608"           |         |
| C262     | 2203-005065 | "C-CERAMIC,CHIP" | "1000nF,+80-20%,10V,Y5V,TP,1608"     |         |
| C263     | 2402-001019 | "C-AL,SMD"       | "2.2uF,20%,35V,GP,TP,3.3x3.3x5."     |         |
| C264     | 2203-005065 | "C-CERAMIC,CHIP" | "1000nF,+80-20%,10V,Y5V,TP,1608"     |         |
| C266     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"           |         |
| C267     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"           |         |
| C268     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C269     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"           |         |
| C270     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C274     | 2203-000903 | "C-CERAMIC,CHIP" | "0.0047nF,0.25pF,50V,NP0,TP,1608"    |         |
| C275     | 2203-000903 | "C-CERAMIC,CHIP" | "0.0047nF,0.25pF,50V,NP0,TP,1608"    |         |
| C276     | 2203-000903 | "C-CERAMIC,CHIP" | "0.0047nF,0.25pF,50V,NP0,TP,1608"    |         |
| C277     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C281     | 2203-000280 | "C-CERAMIC,CHIP" | "0.01nF,0.5pF,50V,NP0,TP,1608"       |         |
| C282     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1" |         |
| C283     | 2402-000108 | "C-AL,SMD"       | "10uF,20%,16V,WT,TP,4.3x4.3x5.4"     |         |
| C284     | 2402-000108 | "C-AL,SMD"       | "10uF,20%,16V,WT,TP,4.3x4.3x5.4"     |         |
| C285     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C286     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C287     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C288     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C289     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C290     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C291     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C292     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C293     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C294     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C295     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C296     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C297     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C298     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C299     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C300     | 2203-000552 | "C-CERAMIC,CHIP" | "0.02nF,5%,50V,NP0,TP,1608"          |         |
| C301     | 2203-000491 | "C-CERAMIC,CHIP" | "2.2nF,10%,50V,X7R,TP,1608,-"        |         |
| C302     | 2203-000552 | "C-CERAMIC,CHIP" | "0.02nF,5%,50V,NP0,TP,1608"          |         |
| C306     | 2203-000140 | "C-CERAMIC,CHIP" | "1.5nF,10%,50V,X7R,TP,1608,-"        |         |
| C31      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"          |         |
| C314     | 2203-000552 | "C-CERAMIC,CHIP" | "0.02nF,5%,50V,NP0,TP,1608"          |         |
| C316     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C317     | 2402-000176 | "C-AL,SMD"       | "10uF,20%,16V,GP,TP,4.3x4.3x5.4"     |         |
| C318     | 2203-001652 | "C-CERAMIC,CHIP" | "470nF,+80-20%,16V,Y5V,TP,1608"      |         |
| C319     | 2203-001652 | "C-CERAMIC,CHIP" | "470nF,+80-20%,16V,Y5V,TP,1608"      |         |

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| Loc. No. | Code No.    | Description      | Specification                    | Remarks |
|----------|-------------|------------------|----------------------------------|---------|
| C32      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C320     | 2203-001652 | "C-CERAMIC,CHIP" | "470nF,+80-20%,16V,Y5V,TP,1608"  |         |
| C321     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C322     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C323     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C324     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C325     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C326     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C327     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C328     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C329     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C33      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C331     | 2203-001652 | "C-CERAMIC,CHIP" | "470nF,+80-20%,16V,Y5V,TP,1608"  |         |
| C332     | 2203-001652 | "C-CERAMIC,CHIP" | "470nF,+80-20%,16V,Y5V,TP,1608"  |         |
| C333     | 2203-000140 | "C-CERAMIC,CHIP" | "1.5nF,10%,50V,X7R,TP,1608,-"    |         |
| C334     | 2203-000838 | "C-CERAMIC,CHIP" | "0.39nF,5%,50V,NP0,TP,1608"      |         |
| C335     | 2203-001402 | "C-CERAMIC,CHIP" | "220nF,+80-20%,16V,Y5V,TP,1608"  |         |
| C336     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"       |         |
| C337     | 2402-000176 | "C-AL,SMD"       | "10uF,20%,16V,GP,TP,4.3x4.3x5.4" |         |
| C34      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C35      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C352     | 2203-001630 | "C-CERAMIC,CHIP" | "330nF,+80-20%,16V,Y5V,TP,1608"  |         |
| C353     | 2203-000838 | "C-CERAMIC,CHIP" | "0.39nF,5%,50V,NP0,TP,1608"      |         |
| C354     | 2203-000140 | "C-CERAMIC,CHIP" | "1.5nF,10%,50V,X7R,TP,1608,-"    |         |
| C355     | 2203-001402 | "C-CERAMIC,CHIP" | "220nF,+80-20%,16V,Y5V,TP,1608"  |         |
| C36      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C361     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C362     | 2203-000140 | "C-CERAMIC,CHIP" | "1.5nF,10%,50V,X7R,TP,1608,-"    |         |
| C363     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"       |         |
| C37      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C38      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C39      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C391     | 2402-000176 | "C-AL,SMD"       | "10uF,20%,16V,GP,TP,4.3x4.3x5.4" |         |
| C392     | 2203-001140 | "C-CERAMIC,CHIP" | "68nF,10%,16V,X7R,TP,1608,-"     |         |
| C393     | 2203-001140 | "C-CERAMIC,CHIP" | "68nF,10%,16V,X7R,TP,1608,-"     |         |
| C394     | 2203-001140 | "C-CERAMIC,CHIP" | "68nF,10%,16V,X7R,TP,1608,-"     |         |
| C395     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"       |         |
| C396     | 2402-000176 | "C-AL,SMD"       | "10uF,20%,16V,GP,TP,4.3x4.3x5.4" |         |
| C397     | 2203-000552 | "C-CERAMIC,CHIP" | "0.02nF,5%,50V,NP0,TP,1608"      |         |
| C399     | 2203-000972 | "C-CERAMIC,CHIP" | "47nF,10%,16V,X7R,TP,1608"       |         |
| C40      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C400     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C401     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C403     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C404     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C405     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C406     | 2203-000815 | "C-CERAMIC,CHIP" | "0.033nF,5%,50V,NP0,TP,1608"     |         |
| C407     | 2203-000815 | "C-CERAMIC,CHIP" | "0.033nF,5%,50V,NP0,TP,1608"     |         |
| C408     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C409     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C41      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |

| Loc. No. | Code No.    | Description      | Specification                    | Remarks |
|----------|-------------|------------------|----------------------------------|---------|
| C410     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C411     | 2203-000815 | "C-CERAMIC,CHIP" | "0.033nF,5%,50V,NP0,TP,1608"     |         |
| C412     | 2203-000815 | "C-CERAMIC,CHIP" | "0.033nF,5%,50V,NP0,TP,1608"     |         |
| C413     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C42      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C421     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C43      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C44      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C45      | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"      |         |
| C500     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C501     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C502     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C503     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C504     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C505     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C506     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C507     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C508     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C509     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C510     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C516     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4" |         |
| C518     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C519     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C520     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C521     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C522     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C523     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C524     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C525     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C526     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C527     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C528     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C529     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C548     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4" |         |
| C549     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4" |         |
| C550     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C551     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C552     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C553     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C554     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C555     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C556     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C557     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C558     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C559     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C560     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C561     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C562     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C563     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C564     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |
| C565     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608," |         |

## 7 Electrical Parts List

| Loc. No. | Code No.    | Description      | Specification                        | Remarks |
|----------|-------------|------------------|--------------------------------------|---------|
| C566     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C567     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C568     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C569     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C570     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C571     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C572     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C573     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C581     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C584     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C585     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C586     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C587     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C588     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C589     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C590     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C591     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"           |         |
| C592     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C595     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4"     |         |
| C596     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1" |         |
| C597     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C598     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C599     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C600     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C601     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C602     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C603     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C604     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C605     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C606     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C607     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C608     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C609     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C610     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C617     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4"     |         |
| C618     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C619     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C620     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C621     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C622     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C623     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C624     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C625     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C626     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C627     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C628     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C629     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C632     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4"     |         |
| C646     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4"     |         |
| C650     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |
| C651     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"     |         |

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|----------|-------------|------------------|-------------------------------------------|---------|
| C652     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C653     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C654     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C655     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C656     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C657     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C658     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C659     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C660     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C661     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C662     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C663     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C664     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C665     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C666     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C667     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C668     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C669     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C670     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C671     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C672     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C673     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C682     | 2203-000384 | "C-CERAMIC,CHIP" | "0.015nF,5%,50V,NP0,TP,1608"              |         |
| C691     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C692     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4"          |         |
| C693     | 2402-000135 | "C-AL,SMD"       | "22uF,20%,16V,GP,TP,5.3x5.3x5.4"          |         |
| C696     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1"      |         |
| C697     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C698     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C700     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C701     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C702     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C703     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C704     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C705     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C706     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"                |         |
| C708     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"                |         |
| C709     | 2402-000173 | "C-AL,SMD"       | "4.7uF,20%,35V,GP,TP,4.3x4.3x5."          |         |
| C710     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C711     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C712     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C713     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C714     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C715     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C716     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"                |         |
| C717     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C718     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C719     | 2402-001044 | "C-AL,SMD"       | "100uF,20%,25V,-,TP,8.3x8.3x6.3"          |         |
| C801     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C802     | 2402-001044 | "C-AL,SMD"       | "100uF,20%,25V,-,TP,8.3x8.3x6.3"          |         |
| C803     | 2409-001029 | C-ORGANIC        | "120uF,20%,6.3V,WT,TP,10.3x10.3x10.3mm,9" |         |

## 7 Electrical Parts List

| Loc. No. | Code No.    | Description      | Specification                             | Remarks |
|----------|-------------|------------------|-------------------------------------------|---------|
| C804     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C805     | 2402-001044 | "C-AL,SMD"       | "100uF,20%,25V,-,TP,8.3x8.3x6.3"          |         |
| C806     | 2409-001029 | C-ORGANIC        | "120uF,20%,6.3V,WT,TP,10.3x10.3x10.3mm,9" |         |
| C807     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"                |         |
| C808     | 2203-000257 | "C-CERAMIC,CHIP" | "10nF,10%,50V,X7R,TP,1608"                |         |
| C810     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1"      |         |
| C811     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1"      |         |
| C812     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C813     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C814     | 2409-001029 | C-ORGANIC        | "120uF,20%,6.3V,WT,TP,10.3x10.3x10.3mm,9" |         |
| C816     | 2402-000108 | "C-AL,SMD"       | "10uF,20%,16V,WT,TP,4.3x4.3x5.4"          |         |
| C817     | 2409-001029 | C-ORGANIC        | "120uF,20%,6.3V,WT,TP,10.3x10.3x10.3mm,9" |         |
| C841     | 2203-005065 | "C-CERAMIC,CHIP" | "1000nF,+80-20%,10V,Y5V,TP,1608"          |         |
| C851     | 2402-000108 | "C-AL,SMD"       | "10uF,20%,16V,WT,TP,4.3x4.3x5.4"          |         |
| C852     | 2409-001029 | C-ORGANIC        | "120uF,20%,6.3V,WT,TP,10.3x10.3x10.3mm,9" |         |
| C853     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1"      |         |
| C854     | 2402-000108 | "C-AL,SMD"       | "10uF,20%,16V,WT,TP,4.3x4.3x5.4"          |         |
| C855     | 2203-000440 | "C-CERAMIC,CHIP" | "1nF,10%,50V,X7R,TP,1608,-"               |         |
| C890     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C900     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C901     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C902     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C903     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C904     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C905     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C906     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C907     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C908     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C909     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C910     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C911     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C912     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C915     | 2203-000280 | "C-CERAMIC,CHIP" | "0.01nF,0.5pF,50V,NP0,TP,1608"            |         |
| C921     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C922     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C923     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C924     | 2203-000189 | "C-CERAMIC,CHIP" | "100nF,+80-20%,25V,Y5V,TP,1608,"          |         |
| C930     | 2203-000384 | "C-CERAMIC,CHIP" | "0.015nF,5%,50V,NP0,TP,1608"              |         |
| C931     | 2203-000280 | "C-CERAMIC,CHIP" | "0.01nF,0.5pF,50V,NP0,TP,1608"            |         |
| C932     | 2409-001035 | C-ORGANIC        | "10uF,20%,10V,LZ,TP,5.4x4.3x4.3mm,1"      |         |
| C935     | 2203-000384 | "C-CERAMIC,CHIP" | "0.015nF,5%,50V,NP0,TP,1608"              |         |
| CA701    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA702    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA703    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA704    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA705    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA706    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA707    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA708    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |
| CA709    | 2503-001018 | C-NETWORK        | "15PFX4,10%,50V,-"                        |         |

| Loc. No. | Code No.    | Description     | Specification                    | Remarks |
|----------|-------------|-----------------|----------------------------------|---------|
| CA710    | 2503-001018 | C-NETWORK       | "15PFX4,10%,50V,-"               |         |
| CA711    | 2503-001018 | C-NETWORK       | "15PFX4,10%,50V,-"               |         |
| CA712    | 2503-001018 | C-NETWORK       | "15PFX4,10%,50V,-"               |         |
| CL800    | BN27-20001A | COIL-CHOKE      |                                  |         |
| CL801    | BN27-20001A | COIL-CHOKE      |                                  |         |
| D101     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D102     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D103     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D104     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D105     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D106     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D107     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D108     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D109     | 0403-000579 | DIODE-ZENER     | "BZX84C5V1,5.1V,5%,200mW,SOT-23" |         |
| D110     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D111     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D200     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D201     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D202     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D203     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D204     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D205     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D206     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D207     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D300     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D301     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D302     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D303     | 0401-001056 | DIODE-SWITCHING | "MMBD4148SE,75V,600mA,SOT-23,TP" |         |
| D800     | 0402-000553 | DIODE-RECTIFIER | "SS24,40V,2.0A,DO-214AA"         |         |
| D801     | 0402-000553 | DIODE-RECTIFIER | "SS24,40V,2.0A,DO-214AA"         |         |
| FT100    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT101    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT102    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT104    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT105    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT201    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT202    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT203    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT204    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT205    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT208    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT209    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT301    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT302    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT303    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT304    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT305    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT306    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT307    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT310    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |
| FT400    | 2901-001114 | FILTER-EMI SMD  | "25VDC,2.0ADC,-,100nF,3.2x1.6x1" |         |

## 7 Electrical Parts List

| Loc. No. | Code No.    | Description          | Specification                                                                       | Remarks |
|----------|-------------|----------------------|-------------------------------------------------------------------------------------|---------|
| FT401    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT402    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT403    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT404    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT405    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT406    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT408    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT500    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT501    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT502    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT503    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT505    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT506    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT510    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT521    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT596    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT597    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT600    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT601    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT602    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT603    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT605    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT606    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT696    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT697    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT700    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT702    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT703    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT704    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| FT852    | 2901-001114 | FILTER-EMI SMD       | "25VDC,2.0ADC,-,100nF,3.2x1.6x1"                                                    |         |
| IC100    | 1103-000129 | IC-EEPROM            | "24C02,256x8BIT,SOP,8P,150MIL,1"                                                    |         |
| IC103    | 1205-001779 | IC-RECEIVER          | "SI1161ACT100,TQFP,100P,551MIL,PLASTIC,4V,1.0W,0to+70C,TR,Receiver"                 |         |
| IC201    | 1203-002067 | IC-POSI.FIXED REG.   | "3330,SOT-23,6P,65MIL,PLASTIC,3.284/3.316V,-,40to+125C,200mA,-,TP"                  |         |
| IC202    | 1203-002067 | IC-POSI.FIXED REG.   | "3330,SOT-23,6P,65MIL,PLASTIC,3.284/3.316V,-,40to+125C,200mA,-,TP"                  |         |
| IC203    | 1103-001164 | IC-EEPROM            | "24LC21A,128x8BIT,SOP,8P,150MIL,-,5V,10%,PLASTIC,0 TO +70C,100UA,CMOS,TP"           |         |
| IC204    | 1002-001204 | IC-A/D CONVERTER     | "AD9884AKS-140,8BIT,QFP,128P,-,±0.5LSB,TR,CMOS,PLASTIC,4V,0to+70C,570mW,Flat Pan"   |         |
| IC206    | 1002-001204 | IC-A/D CONVERTER     | "AD9884AKS-140,8BIT,QFP,128P,-,±0.5LSB,TR,CMOS,PLASTIC,4V,0to+70C,570mW,Flat Pan"   |         |
| IC207    | 0801-002171 | IC-CMOS LOGIC        | "74LCX125,BUS BUFFER,SOP,14P,15"                                                    |         |
| IC208    | 0801-002267 | IC-CMOS LOGIC        | "74LCX14,-,SOIC,14P,150MIL,-,TP,-,,-,3.6V,-40TO+85C,-,5.5V,-,24MA"                  |         |
| IC209    | 1203-002067 | IC-POSI.FIXED REG.   | "3330,SOT-23,6P,65MIL,PLASTIC,3.284/3.316V,-,40to+125C,200mA,-,TP"                  |         |
| IC210    | 1203-002067 | IC-POSI.FIXED REG.   | "3330,SOT-23,6P,65MIL,PLASTIC,3.284/3.316V,-,40to+125C,200mA,-,TP"                  |         |
| IC211    | 0801-002171 | IC-CMOS LOGIC        | "74LCX125,BUS BUFFER,SOP,14P,15"                                                    |         |
| IC301    | 1204-001598 | IC-VIDEO PROCESS     | "VPC3230D-B2,QFP,80P,-,PLASTIC,6V,1.4W,0to+65C,ST,-"                                |         |
| IC302    | 1204-001623 | IC-VERTICAL PROCESSO | "SDA9400,QFP,64P,-,PLASTIC,3.8V,1W,0 to +70C,TR,scan rate converter"                |         |
| IC303    | 1001-001146 | IC-ANALOG SWITCH     | "FST3257,BUS SWITCH & CMOS,SOP,16P,150MIL,QUAD,5.5V,-40to+85C,PLASTIC,-,15ohm,-,TP" |         |
| IC400    | 1103-001023 | IC-EEPROM            | "524C80D81,1028x8BIT,SOP,8P,150MIL,10mS,5V,10%,PLASTIC,0to+70C,110uA,CMOS,TP"       |         |
| IC401    | 1203-001559 | IC-RESET             | "DS1834,SOIC,8P,150MIL,-,1.2/5V"                                                    |         |
| IC404    | 0801-002574 | IC-CMOS LOGIC        | "74LVX04,INVERTER,SOP,14P,150MIL,HEX,TP,PLASTIC,-,0.36V,-40to+85C,180mW,2.4V,20"    |         |
| IC405    | 0801-002576 | IC-CMOS LOGIC        | "74LVX373,LATCH,SOP,20P,300MIL,OCTAL,TP,PLASTIC,3-STATE,-,0.36V,-40to+85C,180mW,2"  |         |
| IC406    | 0801-002268 | IC-CMOS LOGIC        | "74VHC139,DECODER,SOP,16P,150MI"                                                    |         |
| IC407    | 0801-002394 | IC-CMOS LOGIC        | "74LCX32,OR GATE,SOIC,14P,150MI"                                                    |         |

| Loc. No. | Code No.    | Description         | Specification                                                                      | Remarks |
|----------|-------------|---------------------|------------------------------------------------------------------------------------|---------|
| IC408    | 0801-002559 | IC-CMOS LOGIC       | "74LVX74,D,FLIP-FLOP,TSSOP,14P,173MIL,DUAL,TP,PLASTIC,-,-,0.36V,-40to+85C,180mW,2" |         |
| IC500    | 1105-001301 | IC-DRAM             | "45643232,512Kx32x4Bit,TSOP,86P,400MIL,7ns,3.3V,10%,PLASTIC,0to+70C,2mA,CMOS,TR"   |         |
| IC501    | 1105-001301 | IC-DRAM             | "45643232,512Kx32x4Bit,TSOP,86P,400MIL,7ns,3.3V,10%,PLASTIC,0to+70C,2mA,CMOS,TR"   |         |
| IC502    | 1205-001916 | IC-LCD CONTROLLER   | "JAG200MX,BGA,352P,1378MIL,-,3.45V,-,0to+70C,TR,Digital Display Proc"              |         |
| IC503    | 1001-001153 | IC-ANALOG SWITCH    | "FST3253M,CMOS,SOP,16P,150MIL,DUAL,7V,-40to+85C,PLASTIC,-,7ohm,5.8nS,-,TP,D"       |         |
| IC510    | 0801-002574 | IC-CMOS LOGIC       | "74LVX04,INVERTER,SOP,14P,150MIL,HEX,TP,PLASTIC,-,-,0.36V,-40to+85C,180mW,2.4V,20" |         |
| IC600    | 1105-001301 | IC-DRAM             | "45643232,512Kx32x4Bit,TSOP,86P,400MIL,7ns,3.3V,10%,PLASTIC,0to+70C,2mA,CMOS,TR"   |         |
| IC601    | 1105-001301 | IC-DRAM             | "45643232,512Kx32x4Bit,TSOP,86P,400MIL,7ns,3.3V,10%,PLASTIC,0to+70C,2mA,CMOS,TR"   |         |
| IC602    | 1205-001916 | IC-LCD CONTROLLER   | "JAG200MX,BGA,352P,1378MIL,-,3.45V,-,0to+70C,TR,Digital Display Proc"              |         |
| IC700    | 1205-001870 | IC-TRANSMITTER      | "DS90C387VJD,QFP,100P,550MIL,PLASTIC,3.6V,2.8W,-,10to+70C,TR,Dual Pixel LVDS"      |         |
| IC701    | 1002-001177 | IC-D/A CONVERTER    | "AD5301B,8BIT,SOT-23,6P,63MIL,+0.25LSB,TP,-,PLASTIC,7V,-40TO+105C,240MW,8-BIT DA"  |         |
| IC801    | 1203-001447 | IC-POSI.FIXED REG.  | "2596,TO-263,5P,-,PLASTIC,3.135"                                                   |         |
| IC802    | 1203-001447 | IC-POSI.FIXED REG.  | "2596,TO-263,5P,-,PLASTIC,3.135"                                                   |         |
| IC804    | 1203-001465 | IC-POSI.ADJUST REG. | "317,TO-263,3P,-,PLASTIC,1.2/37"                                                   |         |
| IC805    | 1203-001465 | IC-POSI.ADJUST REG. | "317,TO-263,3P,-,PLASTIC,1.2/37"                                                   |         |
| IC807    | 1203-001488 | IC-POSI.FIXED REG.  | "7805,TO-252,3P,-,PLASTIC,4.8/5"                                                   |         |
| IC808    | 0505-000275 | FET-SILICON         | "SI4435DY,P,-30V,+8.0A,0.02ohm"                                                    |         |
| IC809    | 1203-001488 | IC-POSI.FIXED REG.  | "7805,TO-252,3P,-,PLASTIC,4.8/5"                                                   |         |
| IC810    | 1203-002067 | IC-POSI.FIXED REG.  | "3330,SOT-23,6P,65MIL,PLASTIC,3.284/3.316V,-,40to+125C,200mA,-,TP"                 |         |
| L301     | 2703-001778 | INDUCTOR-SMD        | "3.3UH,20%,3.2X2.5X2.2MM"                                                          |         |
| L410     | 2703-001778 | INDUCTOR-SMD        | "3.3UH,20%,3.2X2.5X2.2MM"                                                          |         |
| Q400     | 0501-002080 | TR-SMALL SIGNAL     | "2SC2412K,NPN,200mW,SOT-23,TP,1"                                                   |         |
| Q800     | 0501-002080 | TR-SMALL SIGNAL     | "2SC2412K,NPN,200mW,SOT-23,TP,1"                                                   |         |
| Q802     | 0501-002080 | TR-SMALL SIGNAL     | "2SC2412K,NPN,200mW,SOT-23,TP,1"                                                   |         |
| Q804     | 0501-002080 | TR-SMALL SIGNAL     | "2SC2412K,NPN,200mW,SOT-23,TP,1"                                                   |         |
| Q841     | 0501-002080 | TR-SMALL SIGNAL     | "2SC2412K,NPN,200mW,SOT-23,TP,1"                                                   |         |
| R101     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R102     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R103     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R104     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R105     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R106     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R107     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R108     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R109     | 2007-000080 | R-CHIP              | "2Kohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R110     | 2007-001002 | R-CHIP              | "510ohm,5%,1/16W,DA,TP,1608"                                                       |         |
| R111     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R112     | 2007-000309 | R-CHIP              | "10ohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R113     | 2007-000074 | R-CHIP              | "100ohm,5%,1/16W,DA,TP,1608"                                                       |         |
| R114     | 2007-000074 | R-CHIP              | "100ohm,5%,1/16W,DA,TP,1608"                                                       |         |
| R119     | 2007-000078 | R-CHIP              | "1Kohm,5%,1/16W,DA,TP,1608"                                                        |         |
| R120     | 2007-000090 | R-CHIP              | "10Kohm,5%,1/16W,DA,TP,1608"                                                       |         |
| R121     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R122     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R123     | 2007-000070 | R-CHIP              | "0ohm,5%,1/16W,DA,TP,1608"                                                         |         |
| R124     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R125     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R126     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R127     | 2007-000084 | R-CHIP              | "4.7Kohm,5%,1/16W,DA,TP,1608"                                                      |         |
| R128     | 2007-000070 | R-CHIP              | "0ohm,5%,1/16W,DA,TP,1608"                                                         |         |
| R129     | 2007-000070 | R-CHIP              | "0ohm,5%,1/16W,DA,TP,1608"                                                         |         |

## 7 Electrical Parts List

| Loc. No. | Code No.    | Description | Specification                 | Remarks |
|----------|-------------|-------------|-------------------------------|---------|
| R130     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R151     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R201     | 2007-000102 | R-CHIP      | "100Kohm,5%,1/16W,DA,TP,1608" |         |
| R202     | 2007-000133 | R-CHIP      | "330Kohm,5%,1/16W,DA,TP,1608" |         |
| R203     | 2007-000102 | R-CHIP      | "100Kohm,5%,1/16W,DA,TP,1608" |         |
| R204     | 2007-000133 | R-CHIP      | "330Kohm,5%,1/16W,DA,TP,1608" |         |
| R205     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R206     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R207     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R208     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R209     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R210     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R211     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R212     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R214     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R215     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R216     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R217     | 2007-000082 | R-CHIP      | "3.3Kohm,5%,1/16W,DA,TP,1608" |         |
| R218     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R219     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R223     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R226     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R227     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R228     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R229     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R230     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R232     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R237     | 2007-000113 | R-CHIP      | "33ohm,5%,1/16W,DA,TP,1608"   |         |
| R239     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R241     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R248     | 2007-000109 | R-CHIP      | "1Mohm,5%,1/16W,DA,TP,1608"   |         |
| R249     | 2007-000125 | R-CHIP      | "3.9Kohm,5%,1/16W,DA,TP,1608" |         |
| R252     | 2007-000082 | R-CHIP      | "3.3Kohm,5%,1/16W,DA,TP,1608" |         |
| R255     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R256     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R258     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R260     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R261     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R265     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R270     | 2007-000102 | R-CHIP      | "100Kohm,5%,1/16W,DA,TP,1608" |         |
| R271     | 2007-000133 | R-CHIP      | "330Kohm,5%,1/16W,DA,TP,1608" |         |
| R272     | 2007-000113 | R-CHIP      | "33ohm,5%,1/16W,DA,TP,1608"   |         |
| R273     | 2007-000133 | R-CHIP      | "330Kohm,5%,1/16W,DA,TP,1608" |         |
| R274     | 2007-000102 | R-CHIP      | "100Kohm,5%,1/16W,DA,TP,1608" |         |
| R275     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R276     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R277     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R281     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R299     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R301     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R302     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |

| Loc. No. | Code No.    | Description | Specification                 | Remarks |
|----------|-------------|-------------|-------------------------------|---------|
| R303     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R304     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R305     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R306     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R307     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R308     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R309     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R310     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R311     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R312     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R313     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R319     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R324     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R325     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R326     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R327     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R329     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R330     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R331     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R332     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R333     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R336     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R337     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R338     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R339     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R340     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R341     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R342     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R343     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R344     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R345     | 2007-001167 | R-CHIP      | "75ohm,5%,1/16W,DA,TP,1608"   |         |
| R355     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R356     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R357     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R359     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R360     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R361     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R400     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R401     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R402     | 2007-000092 | R-CHIP      | "15Kohm,5%,1/16W,DA,TP,1608"  |         |
| R403     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R404     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R405     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R406     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R407     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R408     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R409     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R410     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R411     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R412     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R413     | 2007-000075 | R-CHIP      | "220ohm,5%,1/16W,DA,TP,1608"  |         |

## 7 Electrical Parts List

| Loc. No. | Code No.    | Description | Specification                 | Remarks |
|----------|-------------|-------------|-------------------------------|---------|
| R414     | 2007-000075 | R-CHIP      | "220ohm,5%,1/16W,DA,TP,1608"  |         |
| R415     | 2007-000075 | R-CHIP      | "220ohm,5%,1/16W,DA,TP,1608"  |         |
| R417     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R418     | 2007-000078 | R-CHIP      | "1Kohm,5%,1/16W,DA,TP,1608"   |         |
| R419     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R420     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R421     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R422     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R423     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R424     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R425     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R426     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R427     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R428     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R429     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R430     | 2007-000075 | R-CHIP      | "220ohm,5%,1/16W,DA,TP,1608"  |         |
| R433     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R501     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R502     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R503     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R504     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R505     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R506     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R507     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R512     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R513     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R515     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R517     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R518     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R519     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R520     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R521     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R522     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R523     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R524     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R525     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R526     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R527     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R528     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R529     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R530     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R531     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R532     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R533     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608"  |         |
| R534     | 2007-000076 | R-CHIP      | "330ohm,5%,1/16W,DA,TP,1608"  |         |
| R535     | 2007-000076 | R-CHIP      | "330ohm,5%,1/16W,DA,TP,1608"  |         |
| R536     | 2007-000076 | R-CHIP      | "330ohm,5%,1/16W,DA,TP,1608"  |         |
| R537     | 2007-000076 | R-CHIP      | "330ohm,5%,1/16W,DA,TP,1608"  |         |
| R538     | 2007-000076 | R-CHIP      | "330ohm,5%,1/16W,DA,TP,1608"  |         |
| R539     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R540     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |

| Loc. No. | Code No.    | Description | Specification                 | Remarks |
|----------|-------------|-------------|-------------------------------|---------|
| R541     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R542     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R543     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R544     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R545     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R547     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R551     | 2007-000072 | R-CHIP      | "47ohm,5%,1/16W,DA,TP,1608"   |         |
| R600     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R601     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R602     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R603     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R604     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R605     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R607     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R608     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R609     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R610     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R611     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R612     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R621     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R702     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R704     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R705     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R706     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R707     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R708     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R709     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R710     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R711     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R712     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R713     | 2007-000070 | R-CHIP      | "0ohm,5%,1/16W,DA,TP,1608"    |         |
| R714     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R795     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |
| R801     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R802     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R803     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R806     | 2007-000122 | R-CHIP      | "1.2Kohm,5%,1/16W,DA,TP,1608" |         |
| R808     | 2007-000077 | R-CHIP      | "470ohm,5%,1/16W,DA,TP,1608"  |         |
| R810     | 2007-000077 | R-CHIP      | "470ohm,5%,1/16W,DA,TP,1608"  |         |
| R811     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R813     | 2007-000122 | R-CHIP      | "1.2Kohm,5%,1/16W,DA,TP,1608" |         |
| R816     | 2007-000084 | R-CHIP      | "4.7Kohm,5%,1/16W,DA,TP,1608" |         |
| R818     | 2007-000122 | R-CHIP      | "1.2Kohm,5%,1/16W,DA,TP,1608" |         |
| R841     | 2007-000102 | R-CHIP      | "100Kohm,5%,1/16W,DA,TP,1608" |         |
| R842     | 2007-000090 | R-CHIP      | "10Kohm,5%,1/16W,DA,TP,1608"  |         |
| R843     | 2007-000102 | R-CHIP      | "100Kohm,5%,1/16W,DA,TP,1608" |         |
| R851     | 2007-000077 | R-CHIP      | "470ohm,5%,1/16W,DA,TP,1608"  |         |
| R852     | 2007-000077 | R-CHIP      | "470ohm,5%,1/16W,DA,TP,1608"  |         |
| R853     | 2007-000102 | R-CHIP      | "100Kohm,5%,1/16W,DA,TP,1608" |         |
| R854     | 2007-000133 | R-CHIP      | "330Kohm,5%,1/16W,DA,TP,1608" |         |
| R901     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"   |         |

## 7 Electrical Parts List

| Loc. No. | Code No.    | Description | Specification                | Remarks |
|----------|-------------|-------------|------------------------------|---------|
| R902     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"  |         |
| R903     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"  |         |
| R904     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"  |         |
| R905     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"  |         |
| R906     | 2007-000071 | R-CHIP      | "22ohm,5%,1/16W,DA,TP,1608"  |         |
| R967     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608" |         |
| R969     | 2007-000074 | R-CHIP      | "100ohm,5%,1/16W,DA,TP,1608" |         |
| RA101    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA102    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA103    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA104    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA105    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA106    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA107    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA108    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA109    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA110    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA111    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA112    | 2011-000585 | R-NETWORK   | "47ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA113    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA200    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA201    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA202    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA203    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA204    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA205    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA206    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA207    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA208    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA209    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA210    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA211    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA212    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA213    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA214    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA215    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA216    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA217    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA300    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA301    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA302    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA303    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA304    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA305    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA306    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA307    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA500    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA501    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA502    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA503    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |
| RA504    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP" |         |

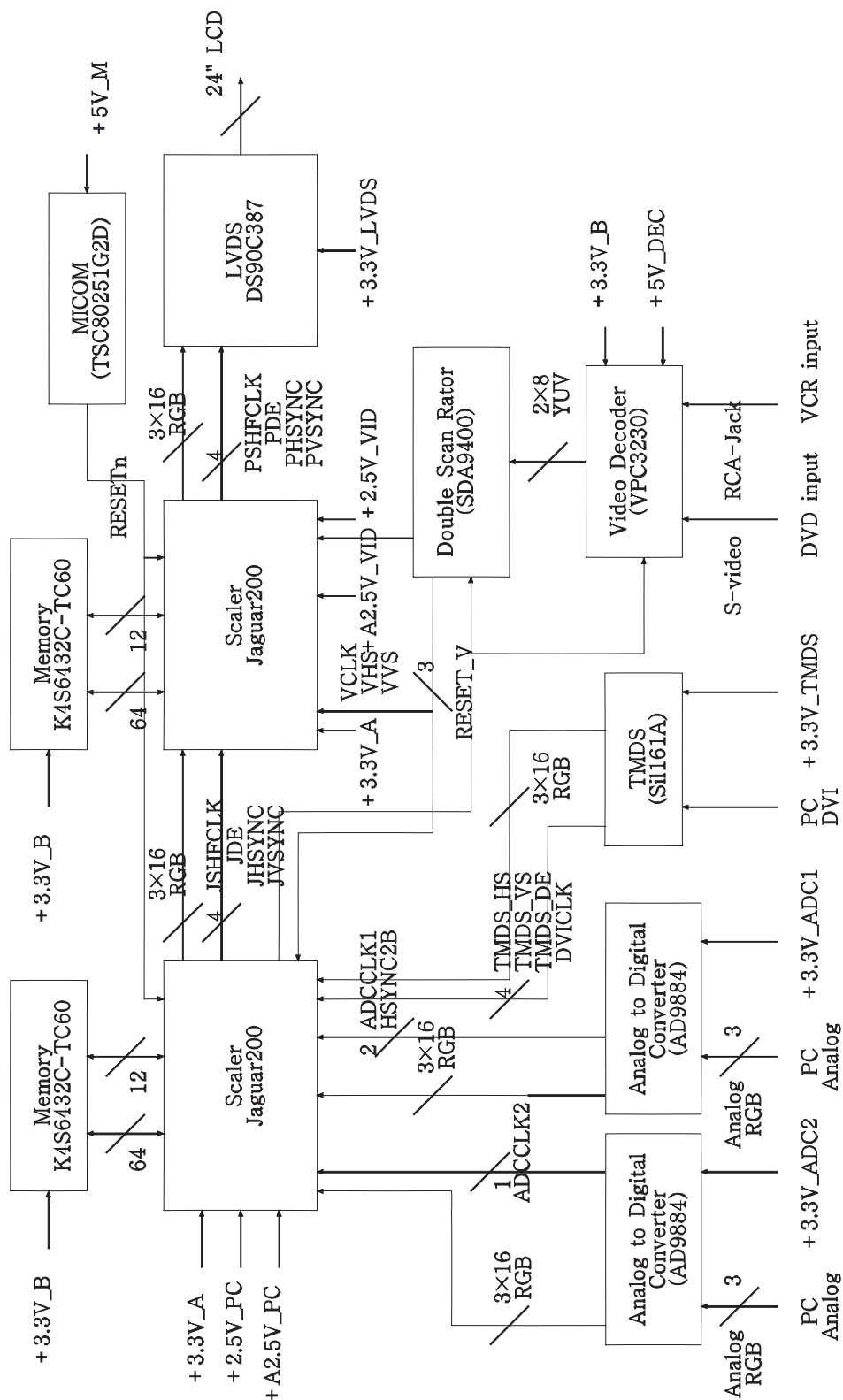
| Loc. No. | Code No.    | Description | Specification                         | Remarks |
|----------|-------------|-------------|---------------------------------------|---------|
| RA600    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA601    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA602    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA603    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA604    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA701    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA702    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA703    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA704    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA705    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA706    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA707    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA708    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA709    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA710    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA711    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| RA712    | 2011-000002 | R-NETWORK   | "22ohm,5%,63mW,L,CHIP,8P,TP"          |         |
| X301     | 2801-003846 | CRYSTAL-SMD | "20.25MHz,30ppm,28-AAN,20pF,50ohm,TP" |         |
| X302     | 2801-003954 | CRYSTAL-SMD | "27MHz,30ppm,28-AAN,16pF,50ohm,TP"    |         |
| X400     | 2801-003667 | CRYSTAL-SMD | "14.3182MHZ,50PPM,28-AAN,16,50OHM,TP" |         |
| ZD101    | 0403-000579 | DIODE-ZENER | "BZX84C5V1,5.1V,5%,200mW,SOT-23"      |         |
| ZD102    | 0403-000579 | DIODE-ZENER | "BZX84C5V1,5.1V,5%,200mW,SOT-23"      |         |
| ZD103    | 0403-000579 | DIODE-ZENER | "BZX84C5V1,5.1V,5%,200mW,SOT-23"      |         |
| ZD201    | 0403-000579 | DIODE-ZENER | "BZX84C5V1,5.1V,5%,200mW,SOT-23"      |         |
| ZD202    | 0403-000579 | DIODE-ZENER | "BZX84C5V1,5.1V,5%,200mW,SOT-23"      |         |
| ZD230    | 0403-000579 | DIODE-ZENER | "BZX84C5V1,5.1V,5%,200mW,SOT-23"      |         |
| ZD231    | 0403-000579 | DIODE-ZENER | "BZX84C5V1,5.1V,5%,200mW,SOT-23"      |         |

## 7-2 Others

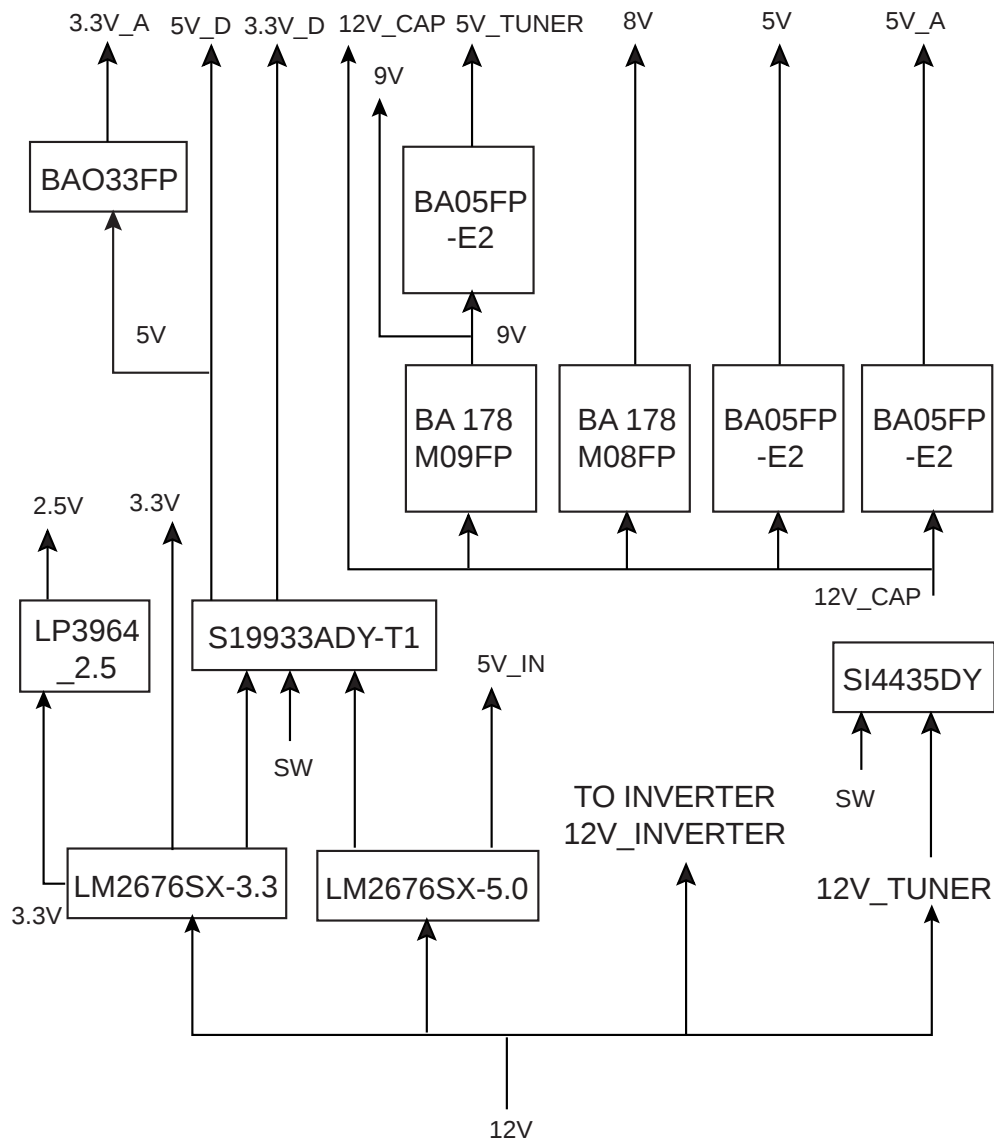
| Part Name                | Code No.    | Description      | Specification                                                                     | Remarks |
|--------------------------|-------------|------------------|-----------------------------------------------------------------------------------|---------|
| "LCD (21")"              | BN07-00016A | LCD              | "LTM213U3-L01,LSA,8BIT,483*373.2*29,16.7M,-,0.27*0.27,-,,-,AMLCD/2 LVDS,-"        |         |
| " (24")"                 | BN07-00015A | LCD              | "LTM240W1-L01,LSA,8BIT,569.1*368.4*32,16.7M,-,0.27*0.27,-,,-,AMLCD/2 LVDS,-"      |         |
| "PROCESS-PBA UNIT (21")" | BN94-00063B | ASSY PCB         | "PC21PB-UXA1/0000,SAMSUNG,WORLDWIDE,-"                                            |         |
| " (24")"                 | BN94-00060C | ASSY PCB-ST      | "PC24PS-WUA1/0000,-,-,-"                                                          |         |
| "B/D ASS'Y CODE (21")"   | BN98-00024B | ASSY PCB/MAIN    | "PC21PB-UXA1/0000,SAMSUNG,WORLDWIDE,-"                                            |         |
| " (24")"                 | BN98-00023C | ASSY PCB/MAIN-ST | "PC24PS-WUA1/0000,-,-,-"                                                          |         |
| "S/CABLE (21" 24")"      | BN39-00073A | CBF SIGNAL       | "DET,2000MM,24P/24P,BLACK,-,DVI-D(M) TO DVI-D(M)"                                 |         |
|                          | BN39-20001F | CBF-SIGNAL       | "DET,1830MM,15P/15P,STRELT H GRAY,UL 2990,D-SUB/MALE"                             |         |
| "P/CORD(21" 24")"        | BH39-10339X | CBF-P/CORD       | "DET,SVT,125V/7A,BLK,1830,WALL(ST),MSP-33,MSC-30"                                 |         |
| "INVERTER (21" 24")"     | BN44-00044A | INVERTER         | "24PS,SK2400H,48KHZ,14VDC,3.8mArms,6.8mArms,48KHZ,180.3*130.3*15,4LAMP,48KHz,-,-" |         |
| "ADAPTOR (21" 24")"      | BN44-00043A | ADAPTOR          | "PSCV840101A,PC24PS,100-240Vac,47-63HZ,+14Vdc,6A/14Vdc,-,84W,AC-DC,0 TO +40C,155" |         |

## 8 Block Diagram

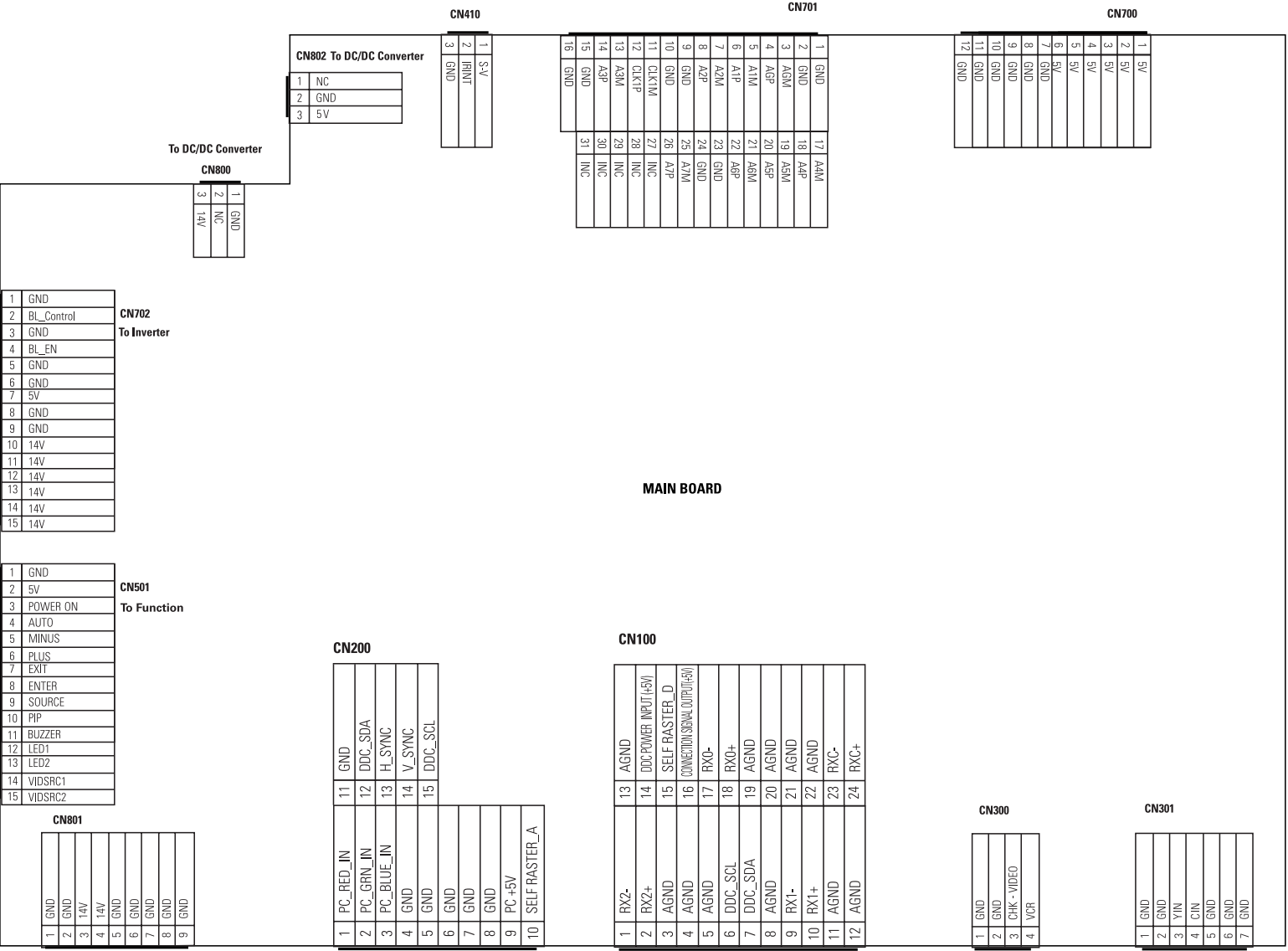
### 8-1 Main Board (A/D)



8-2 Power



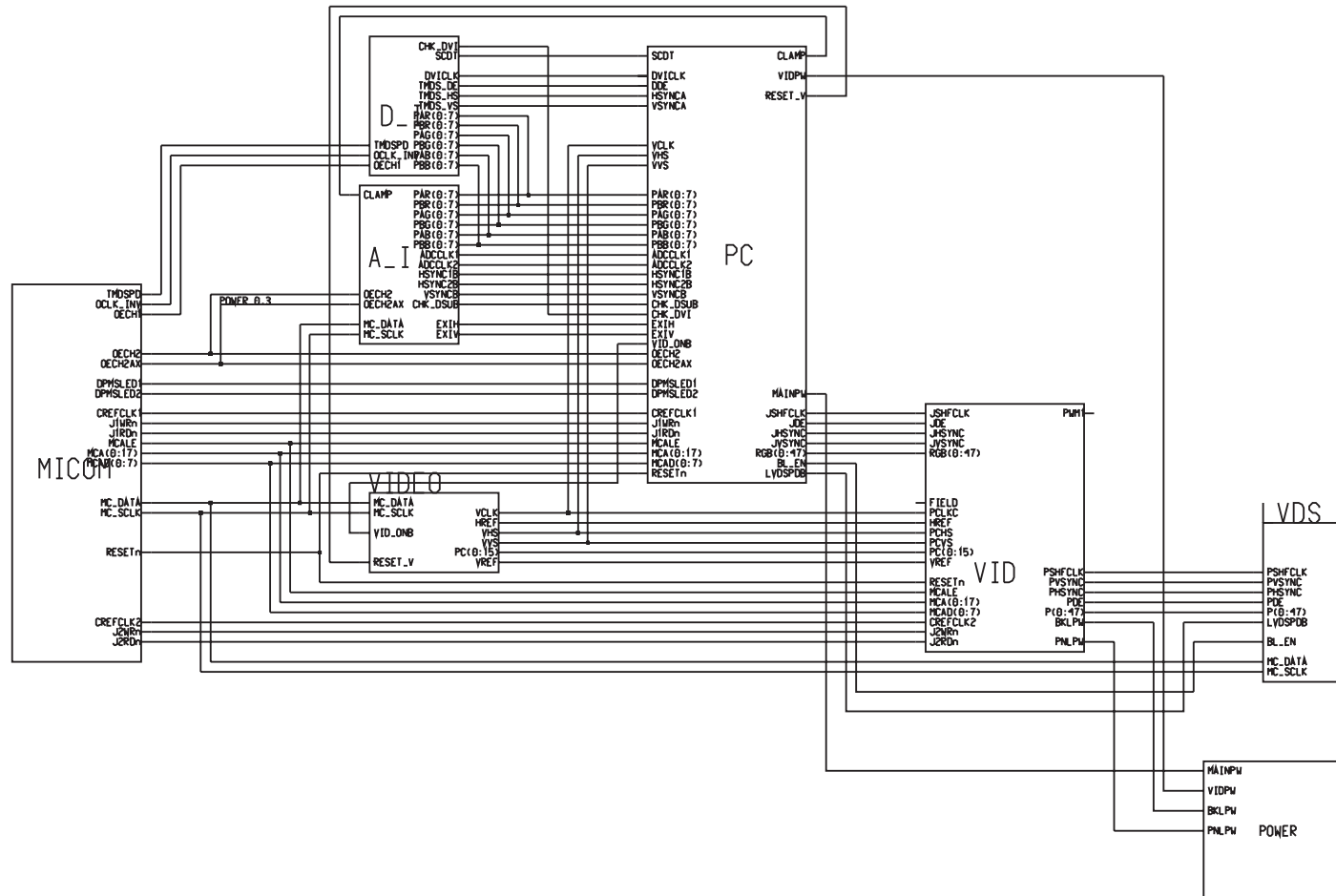
9 Wiring Diagram



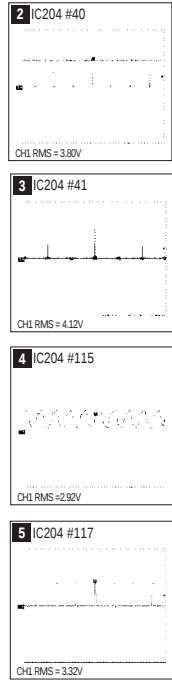
**Memo**

## 10 Schematic Diagrams

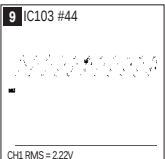
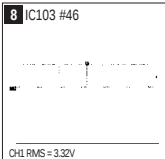
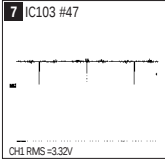
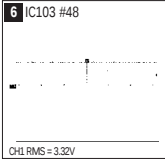
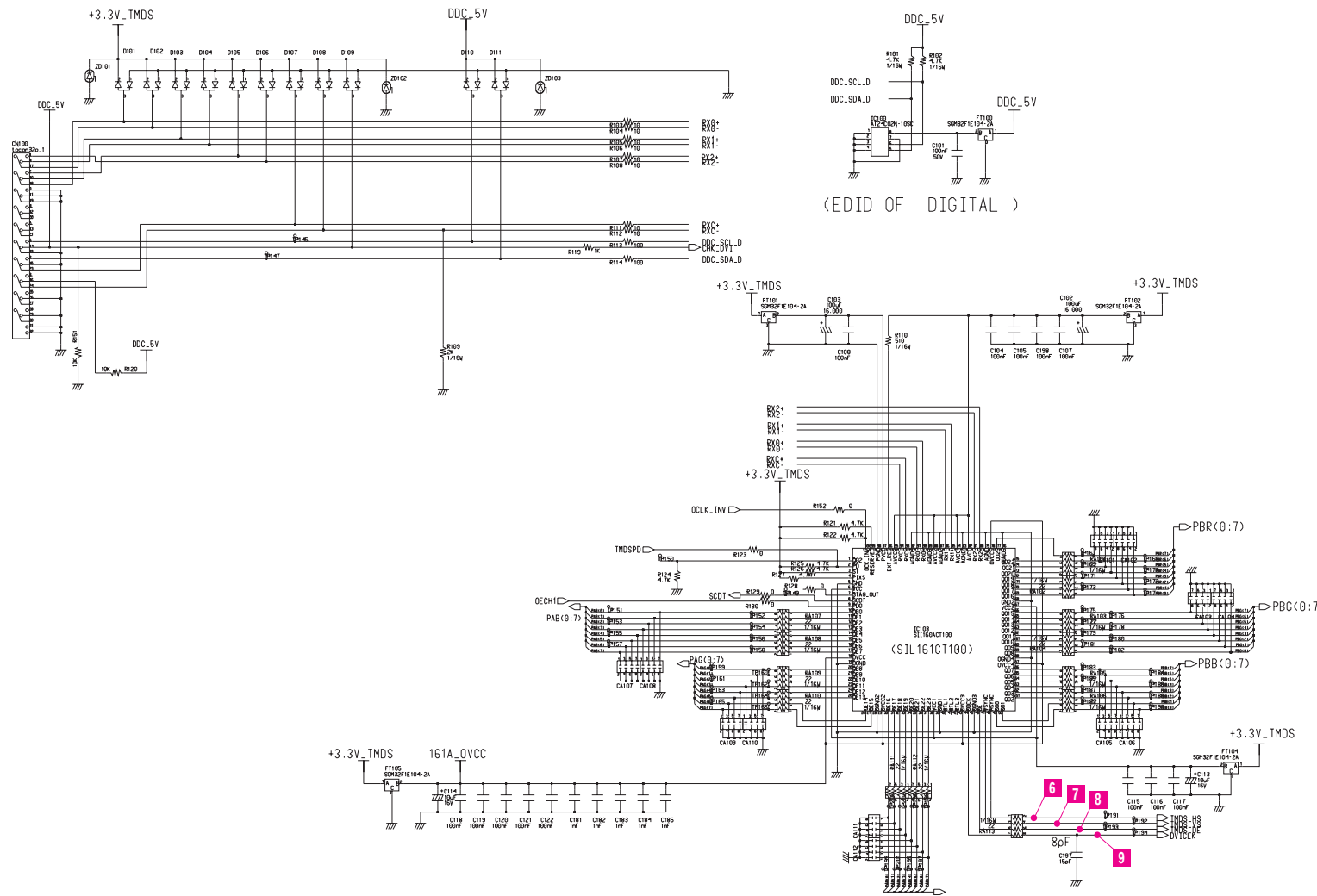
### 10-1 Top Parts Schematic Diagram



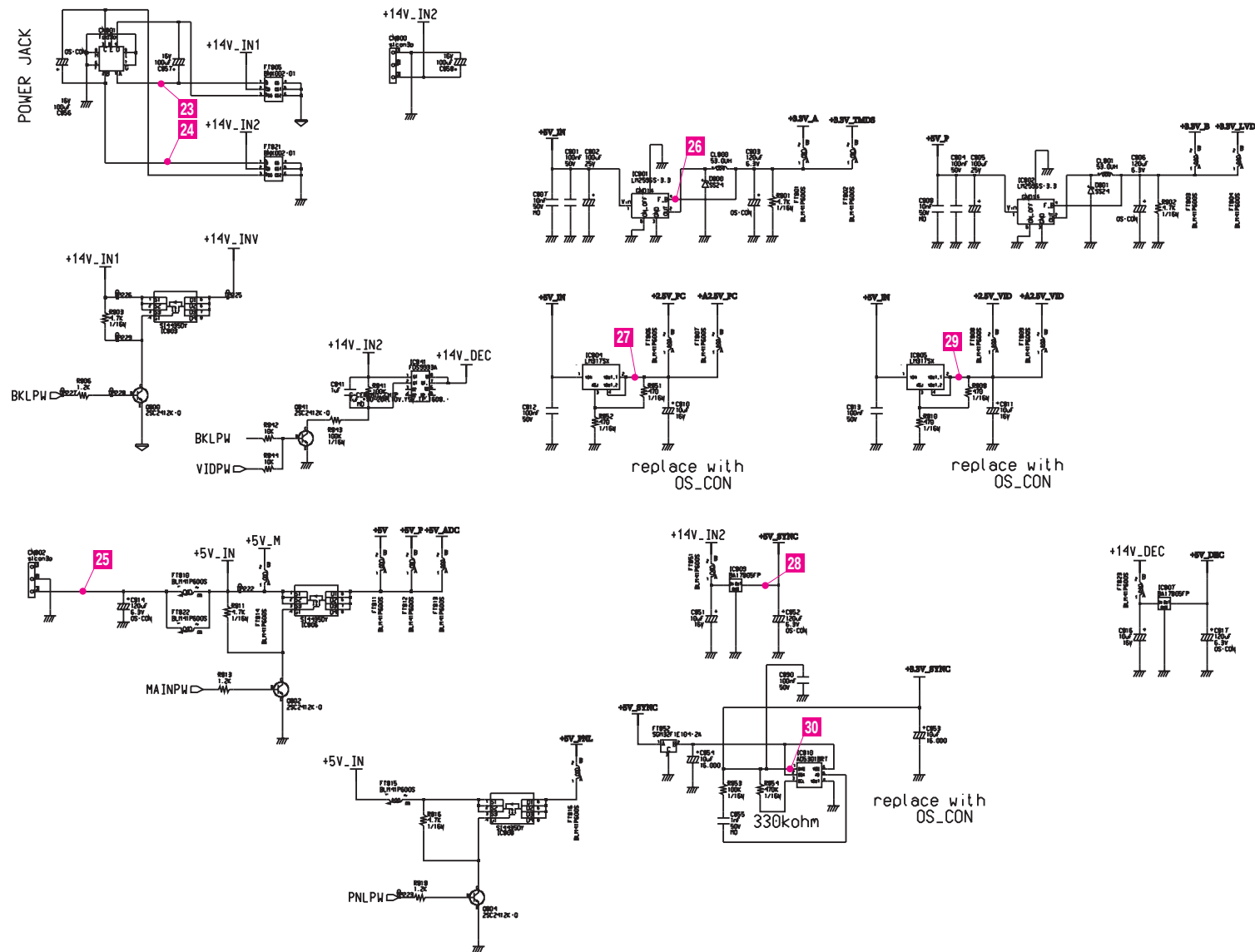
## SyncMaster 210T/240T



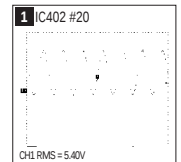
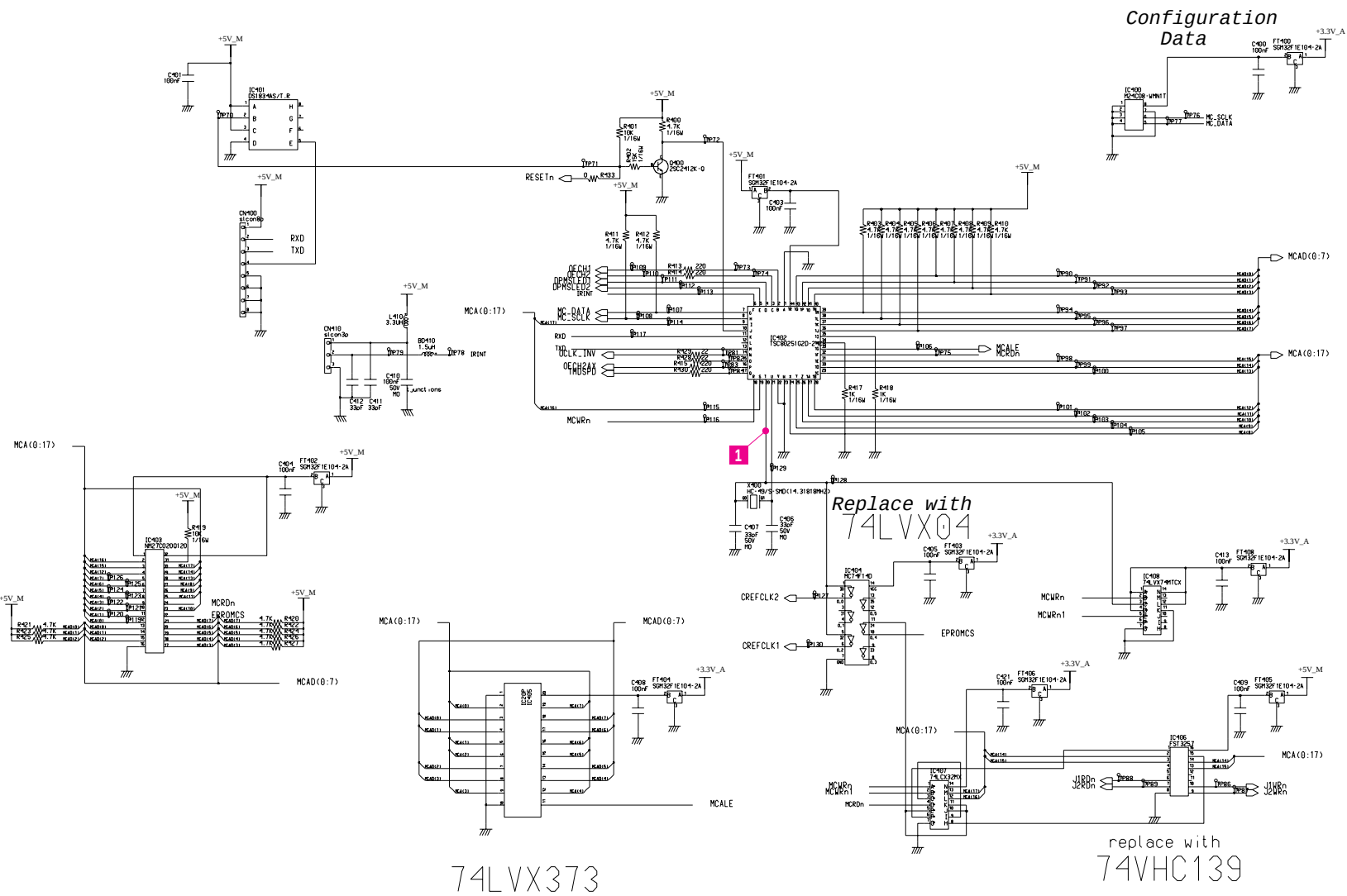
10-3 Digital Parts Schematic Diagram



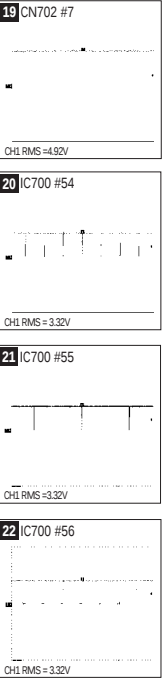
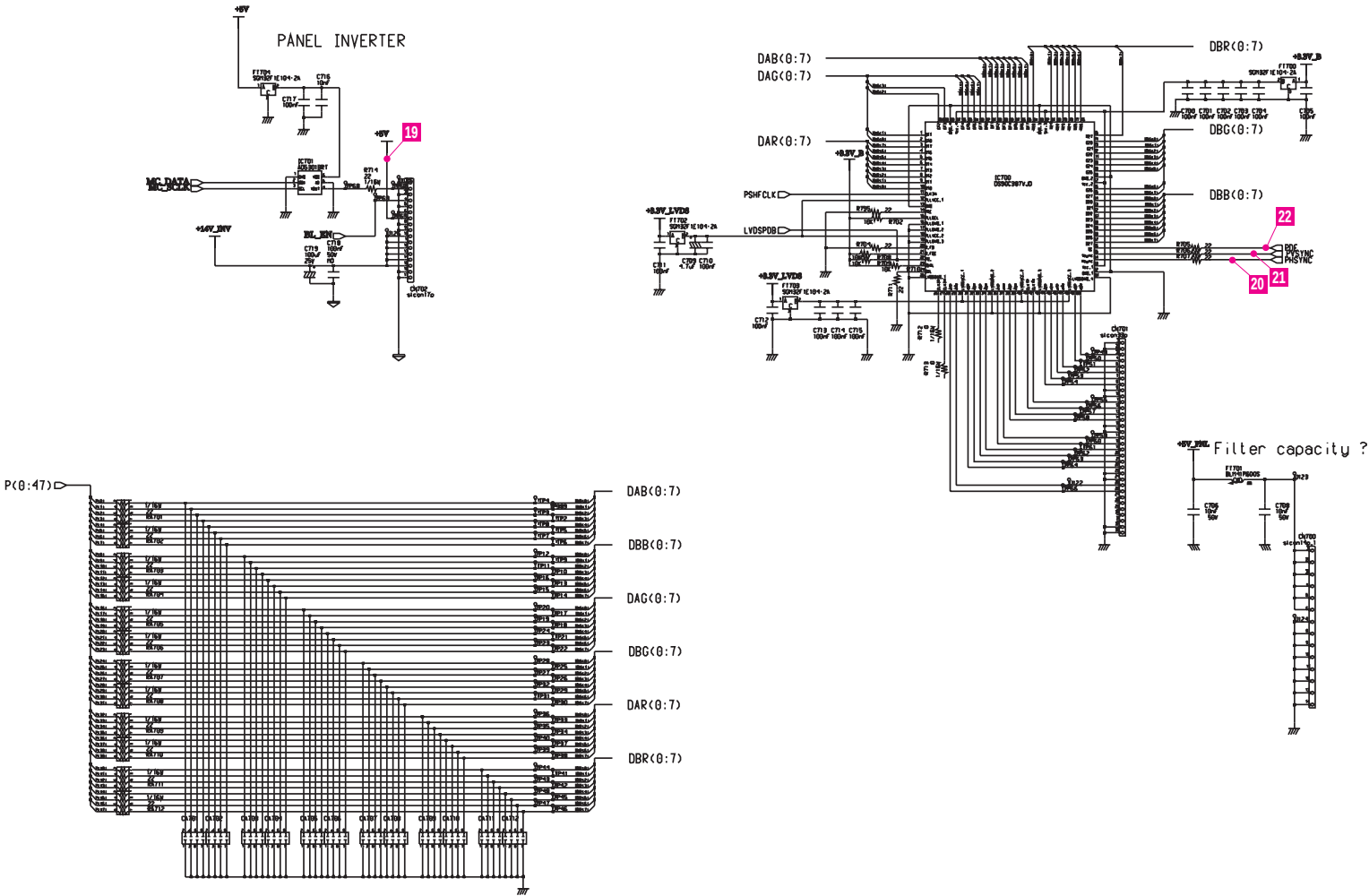
## 10-4 Power Parts Schematic Diagram



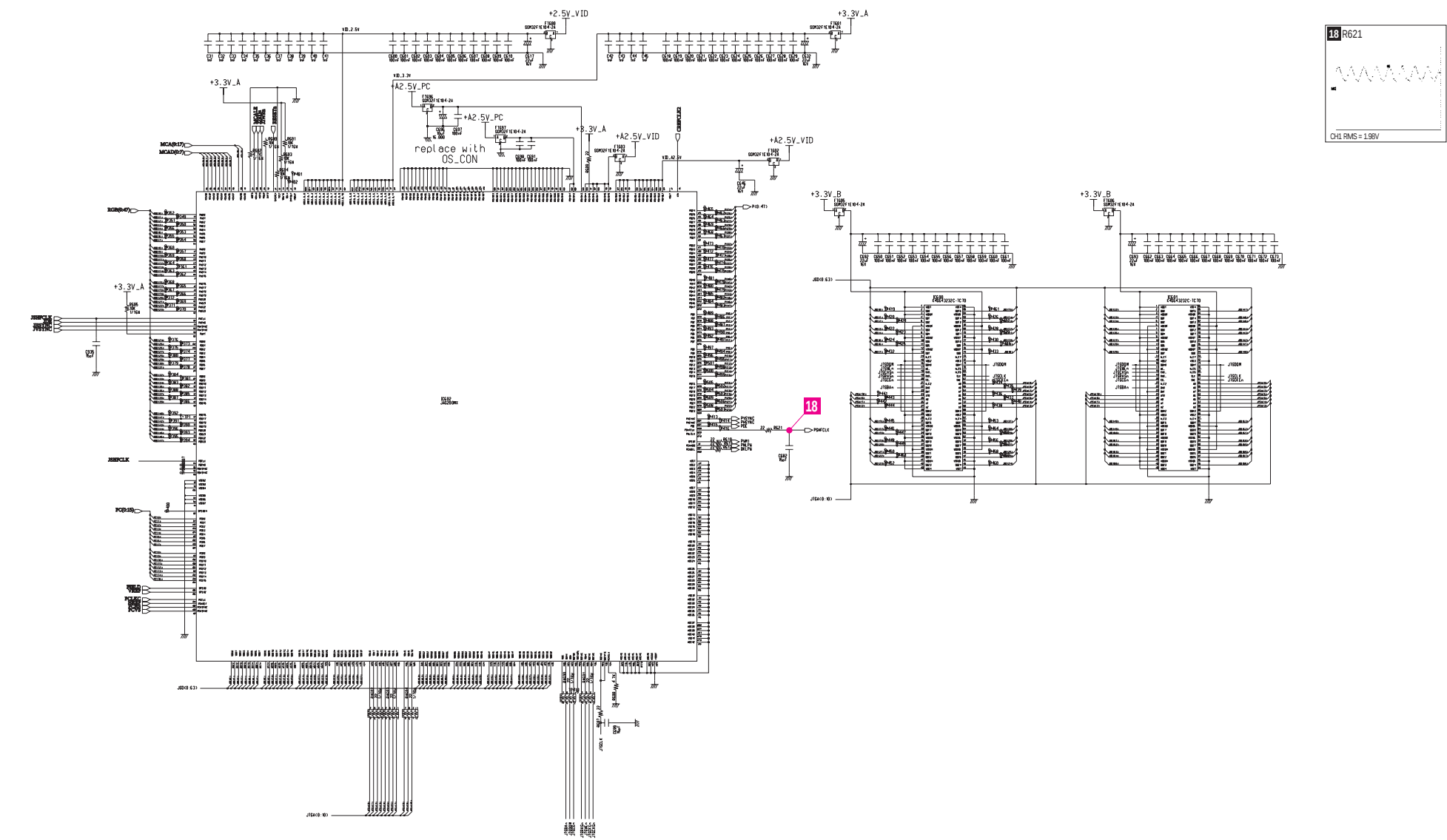
|                 |                 |
|-----------------|-----------------|
| 29 IC805 #2     | 23 FT805 #1     |
| CH1 RMS = 2.60V | CH1 RMS = 14.1V |
| 30 IC810 #1     | 24 FT821 #2     |
| CH1 RMS = 3.80V | CH1 RMS = 14.1V |
|                 | 25 CN802 #3     |
|                 | CH1 RMS = 5.00V |
|                 | 26 IC801 #4     |
|                 | CH1 RMS = 3.40V |
|                 | 27 IC804 #2     |
|                 | CH1 RMS = 2.60V |
|                 | 28 IC809 #3     |
|                 | CH1 RMS = 5.08V |

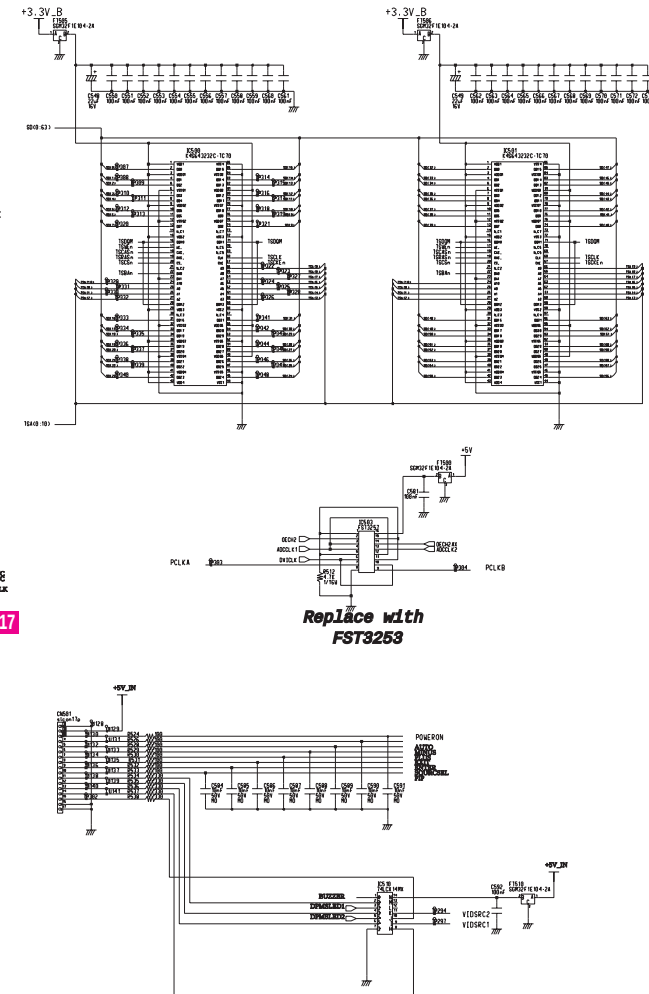


10-6 LVDS Part Schematic Diagram

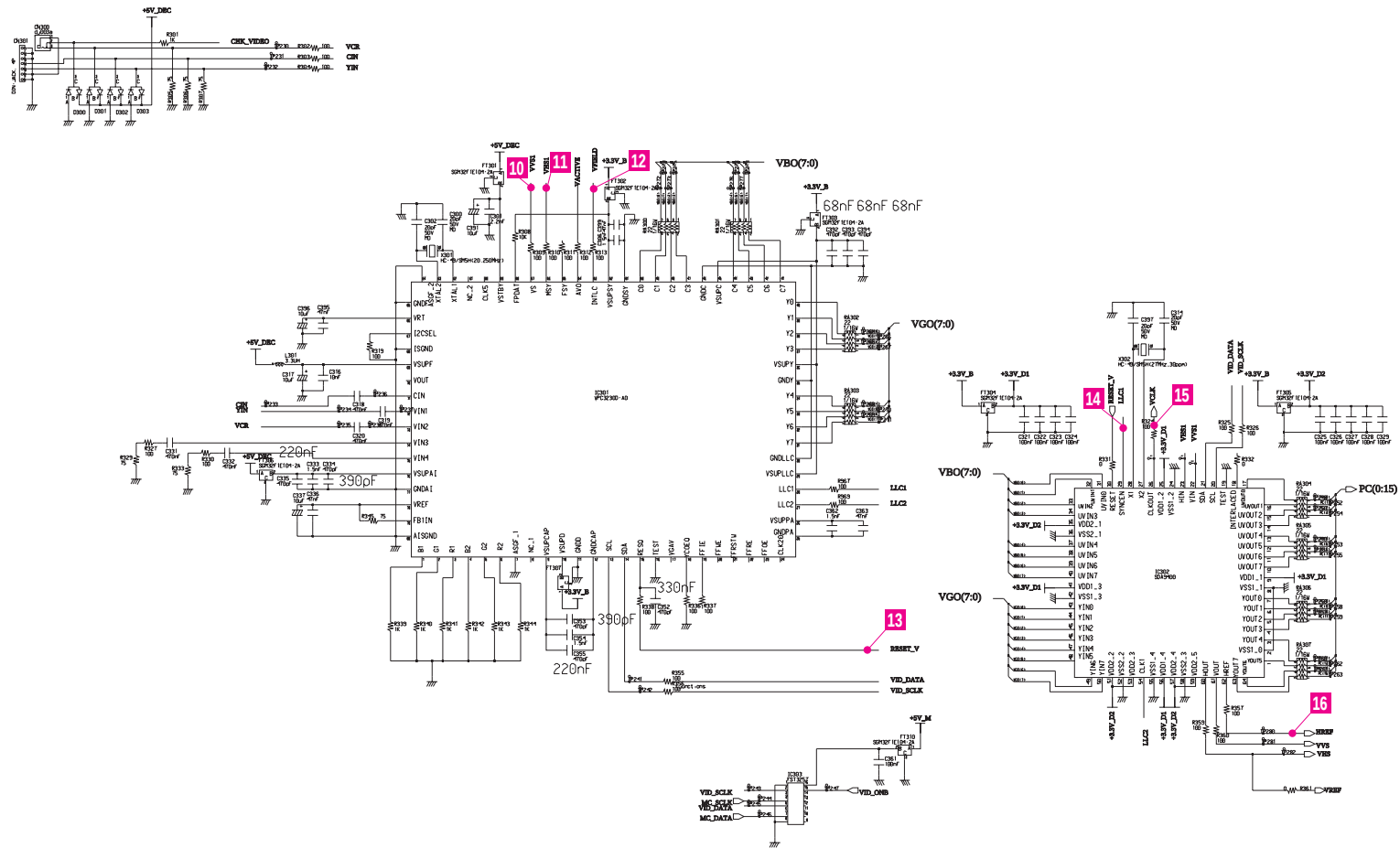


10-7 Scaler2 for Scaler1 and Video Signal Parts Schematic Diagram





## 10-9 Video Parts Schematic Diagram



10 IC301 #57

CH1 RMS = 3.32V

11 IC301 #56

CH1 RMS = 3.24V

12 IC301 #53

CH1 RMS = 3.32V

13 IC301 #15

CH1 RMS = 3.40V

14 IC302 #29

CH1 RMS = 3.48V

15 IC302 #26

CH1 RMS = 3.95V

16 IC302 #62

CH1 RMS = 3.32V

**Memo**