

Service  
Service  
Service



# Service Manual

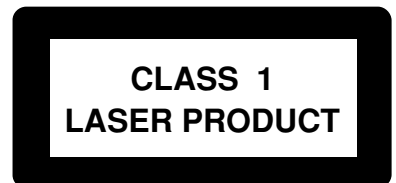


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3139 785 30651

Version 1.1



# PHILIPS



## SPECIFICATIONS

### GENERAL:

Mains voltage : 120V for /17  
 220-240V for /00/02/05  
 110-127V/220-240V for /69/75

Mains frequency : 50/60Hz

Power consumption : < 14W  
 < 0.3W at Standby mode /00/02/05  
 < 1W at Standby mode /69/75

Dimension centre unit : 435 x 46 x 310mm

### AUDIO PERFORMANCE:

#### Normal Mode Stereo L/R

Output Voltage : 2Vrms  $\pm$  1.5dB

Channel Unbalance (1kHz) : < 0.85dB

Crosstalk : > 100dB (1kHz)  
 > 95dB (20Hz-20kHz)

Freq. Response (20Hz-20kHz) :  $\pm$  0.2dB max

Signal to Noise Ratio : > 90dB (A-weighted)

Distortion and Noise : > 85dB (1kHz)  
 > 80dB (20Hz-2kHz)  
 > 75dB (4kHz-20kHz)

#### 6 Channel

THD + Noise : > 80dB (20Hz-2kHz)  
 > 75dB (4kHz-20kHz)

Crosstalk (20Hz-20kHz) : > 75dB

S/N (1kHz) : > 90dB

Frequency Response :  $\pm$  0.5dB

Output Level, 1kHz (0dB) : 2Vrms

### AUDIO FORMAT:

MPEG/AC-3/PCM : Compressed Digital  
 16, 20, 24 bits  
 fs, 44.1, 48, 96 kHz

MP3 (ISO 9660) : 96, 112, 128, 256 kbps & variable  
 bit rate fs, 32, 44.1, 48 kHz

### VIDEO FORMAT:

Digital Compression : MPEG-2 for DVD, SVCD  
 MPEG-1 for VCD  
 MPEG-4

### VIDEO PERFORMANCE:

CVBS <sup>1)</sup> : 1.0V<sub>p-p</sub>

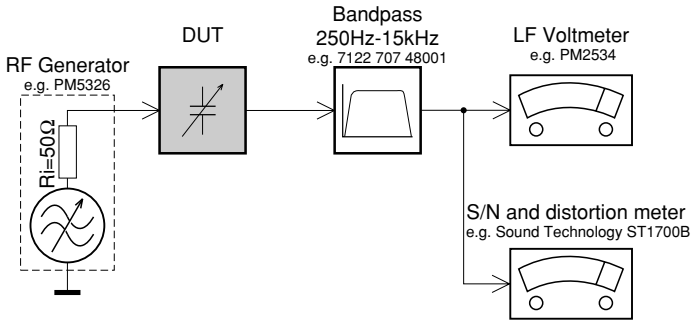
YPbPr <sup>1)</sup> : 0.7V<sub>p-p</sub>

RGB (Scart) <sup>1)</sup> : 0.7V<sub>p-p</sub>

<sup>1)</sup> Output terminals to be terminated with 75 $\Omega$

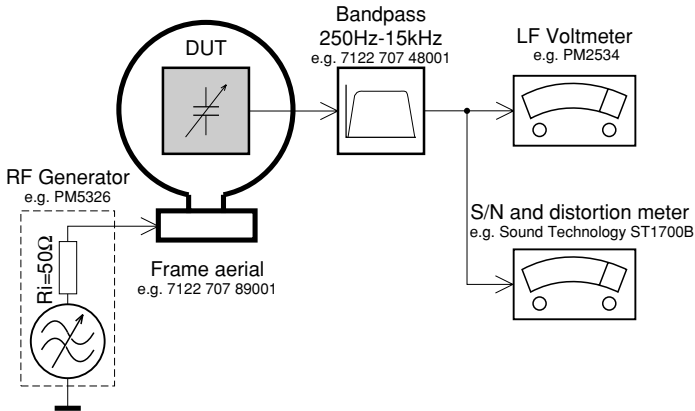
# MEASUREMENT SETUP

## Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

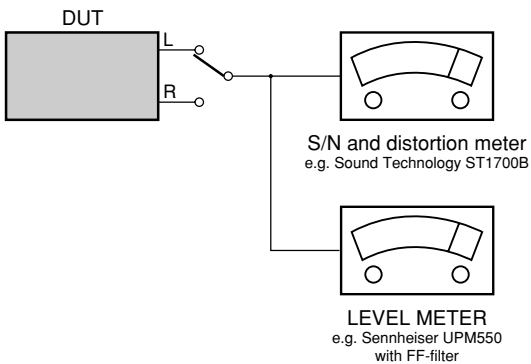
## Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

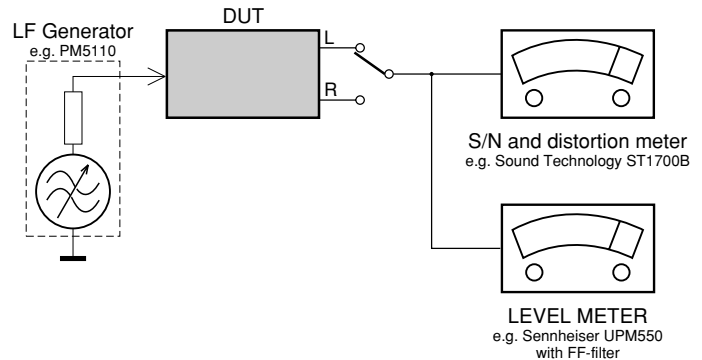
## CD

Use Audio Signal Disc SBC429 4822 397 30184 (replaces test disc 3)



## Recorder

Use Universal Test Cassette **CrO2** SBC419 4822 397 30069 or Universal Test Cassette **Fe** SBC420 4822 397 30071



## SERVICE AIDS

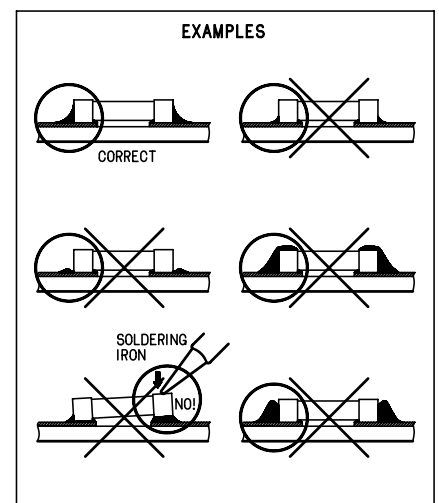
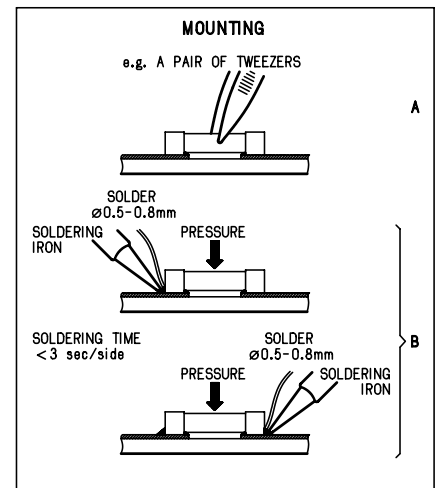
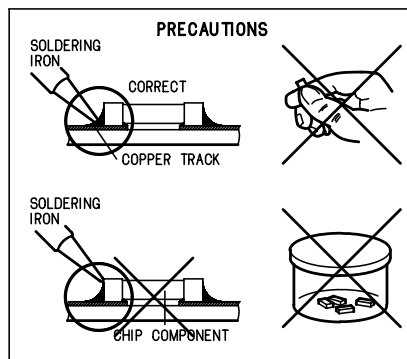
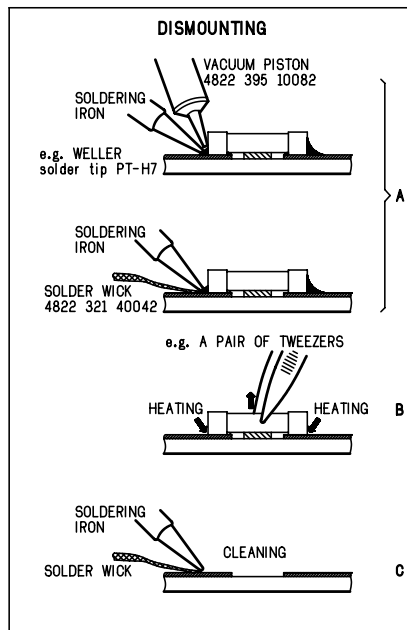
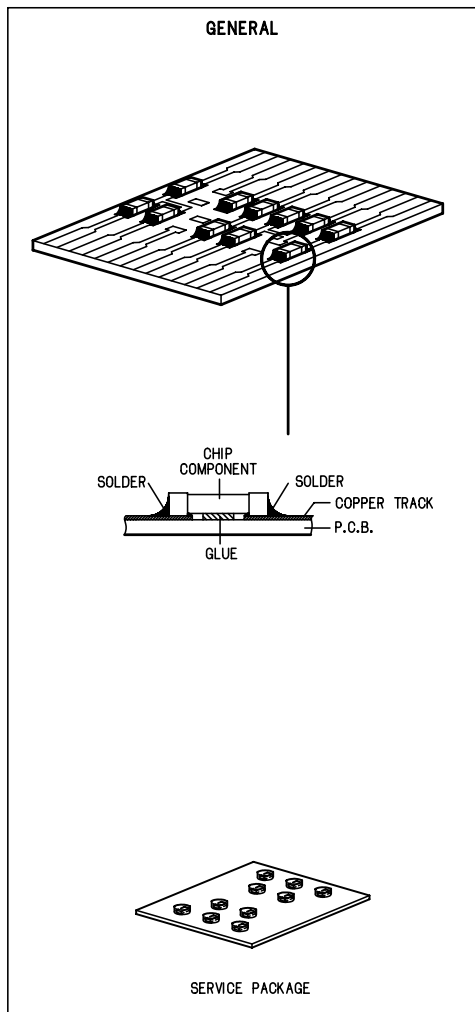
### Service Tools:

Universal Torx driver holder .....	4822 395 91019
Torx bit T10 150mm .....	4822 395 50456
Torx driver set T6 - T20 .....	4822 395 50145
Torx driver T10 extended .....	4822 395 50423

### Compact Disc:

SBC426/426A Test disc 5 + 5A .....	4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz .....	4822 397 30155
SBC429 Audio Signals disc .....	4822 397 30184
Dolby Pro-logic Test Disc .....	4822 395 10216

## HANDLING CHIP COMPONENTS



**(GB) WARNING**

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

**(F) ATTENTION**

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilez le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

**(D) WARNUNG**

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

**(NL) WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.

Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

**(I) AVVERTIMENTO**

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione.

Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

**(GB) ESD PROTECTION EQUIPMENT:**

Complete Kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) ..... 4822 310 10671  
Wristband tester ..... 4822 344 13999

**(GB)**

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol  $\triangle$ .

**(NL)**

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

De Veiligheidsonderdelen zijn aangeduid met het symbool  $\triangle$ .

**(F)**

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisés les pièces de rechange identiques à celles spécifiées.

Less composants de sécurité sont marqués  $\triangle$ .

**(D)**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol  $\triangle$  markiert.

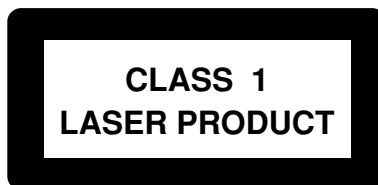
**(I)**

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenti di sicurezza sono marcati con  $\triangle$ .

**(GB)**

After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA.

**ESD****(GB) Warning !**

Invisible laser radiation when open.  
Avoid direct exposure to beam.

**(S) Varning !**

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

**(SF) Varoitus !**

Avatussa laitteessa ja suoalukituksen ohitettaessa olet alltiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

**(DK) Advarse !**

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for strålning.

**(F)**

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

## DISMANTLING INSTRUCTIONS

### Dismantling of the DVD Loader

- 1) The tray can be manually open by inserting a minus screw driver and push the lever in the direction as shown in Figure 1 to unlock the tray before sliding it out.
- 2) Slide out the tray and remove the Tray Front assembly (pos 110 + pos 111) as shown in Figure 2.
- 3) Loosen 5 screws to remove the Cover Top (pos 240).
  - 1 screw each on the left & right side
  - 3 screws on the rear
- 4) Loosen 4 screws B (see Figure 4) to remove the DVD Loader.

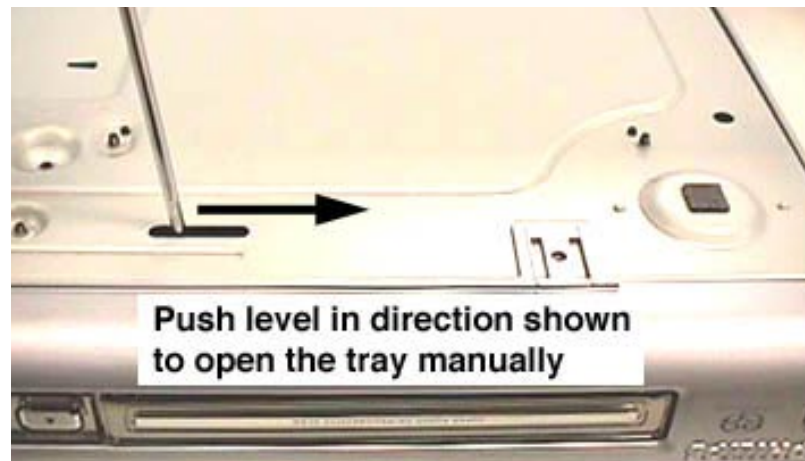


Figure 1

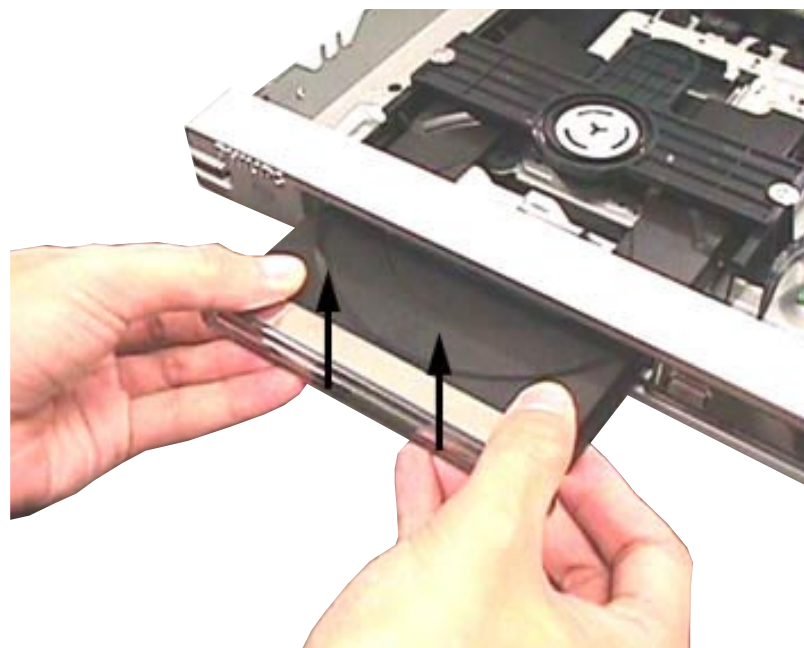


Figure 2

### Dismantling of the AV Board, SD6.1 PL 6CH Board and PSU Board

- 1) Loosen 7 screws A (see Figure 3) and uncatch 2 catches C1 (see Figure 4) to remove the AV Board (pos 1001).
- 2) Loosen 4 screws D (see Figure 4) to remove the SD6.1 PL 6CH Board.
- 3) Loosen 2 screws E and uncatch C2 (see Figure 4) to remove the PSU Board (pos 1004).



Figure 3

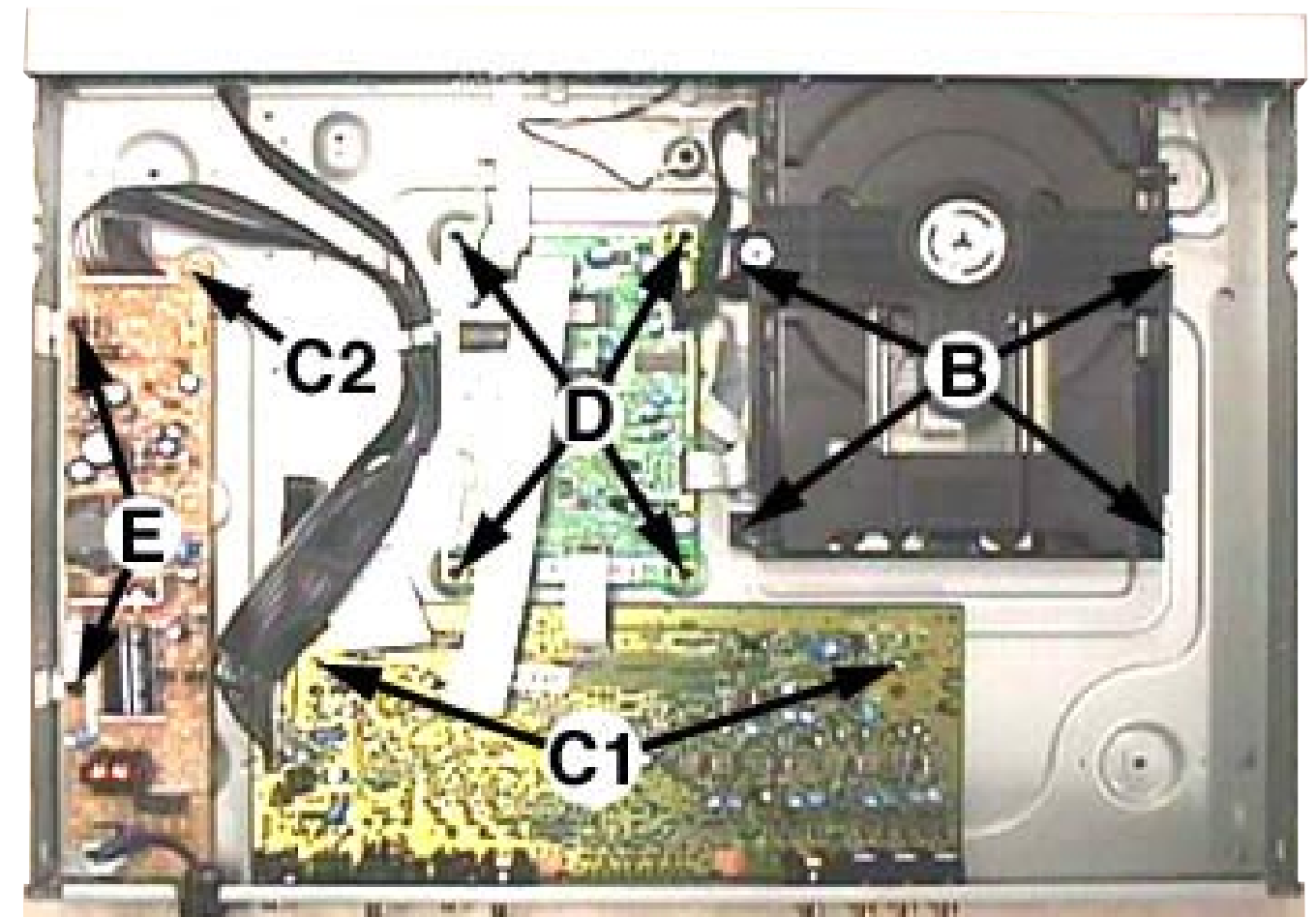
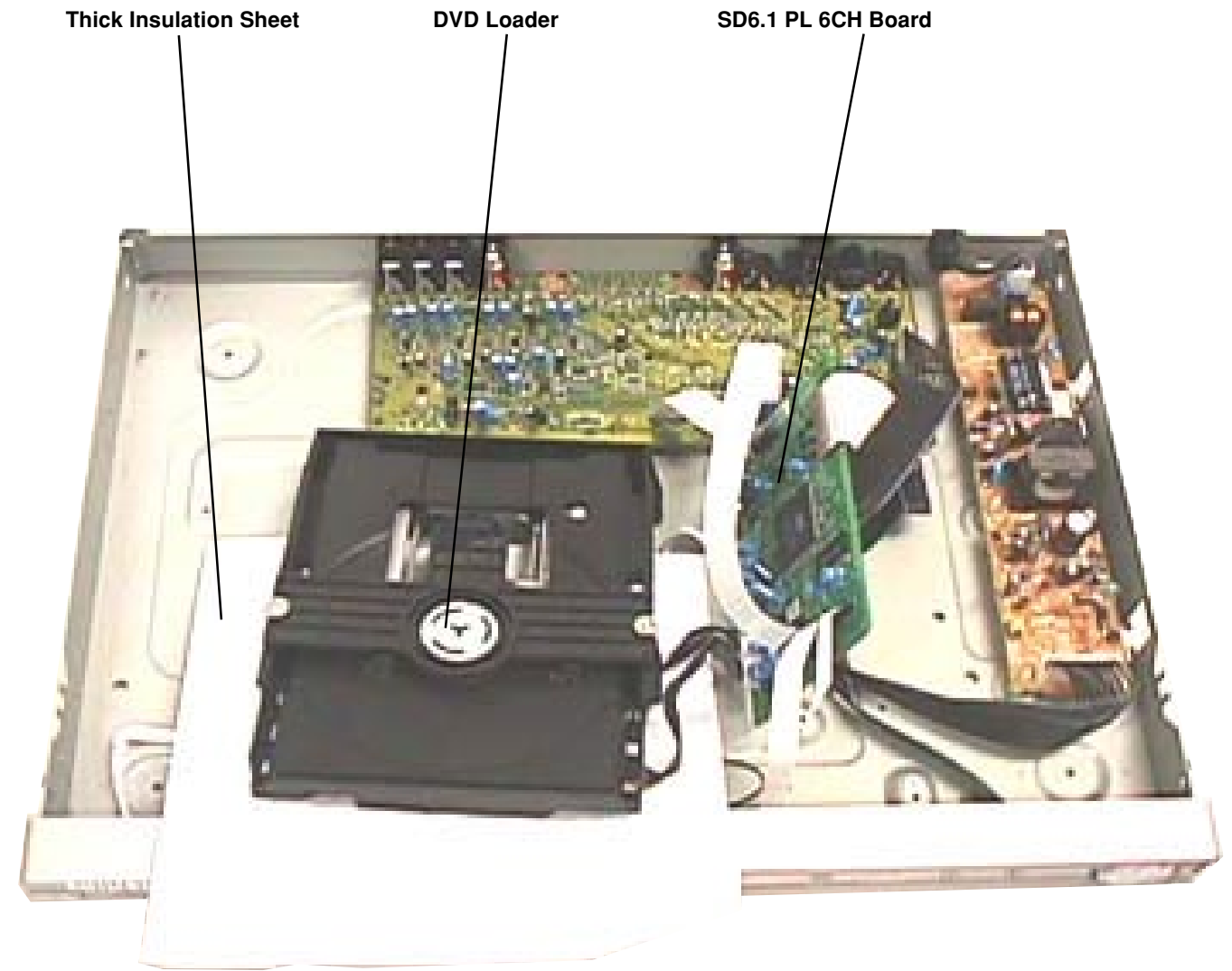
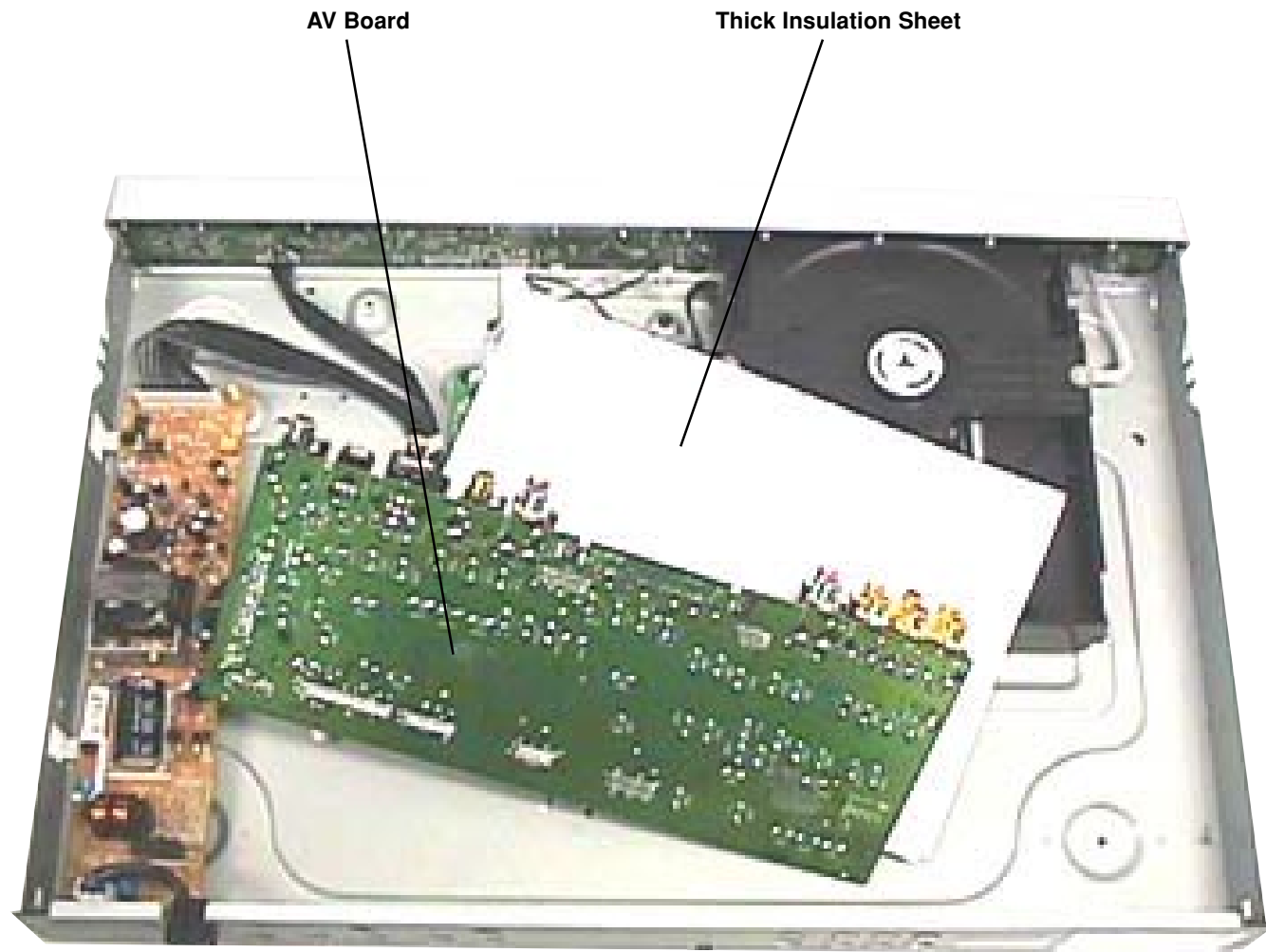


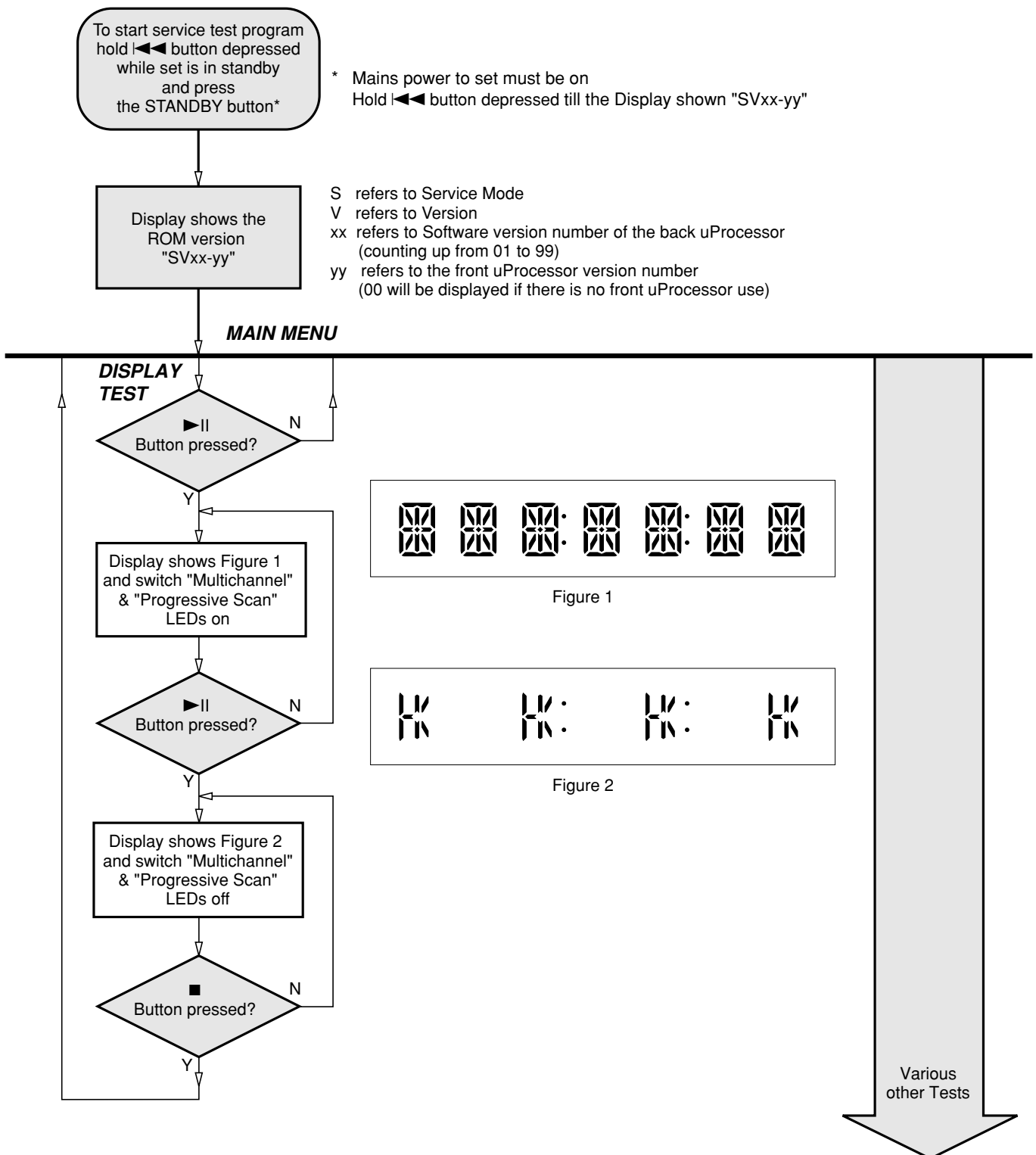
Figure 4

# SERVICE POSITIONS





# SERVICE TEST PROGRAM



TEST	Activated with	ACTION
EEPROM FORMAT TEST	◀◀ ◀◀ to Exit	Load default data. Display shows "NEW". <b>Caution!</b> <b>All presets from the customer will be lost!!</b>
LEAVE SERVICE TEST PROGRAM	Disconnect mains cord	

### Reprogramming of DVD version Matrix

---

After repair, the customer setting and region code may be lost. Reprogramming will put the set back in the state in which it has left the factory, ie. with the default setting and the allowed region code.

To reprogram do as follows:

- 1) Power up the set.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Press the following buttons on the Remote Control:
  - <9> <9> <9> <9> <AUDIO> <1> ..... for DVP720SA/00
  - <9> <9> <9> <9> <AUDIO> <2> ..... for DVP720SA/17
  - <9> <9> <9> <9> <AUDIO> <3> ..... for DVP720SA/02
  - <9> <9> <9> <9> <AUDIO> <4> ..... for DVP720SA/05
  - <9> <9> <9> <9> <AUDIO> <5> ..... for DVP720SA/69
  - <9> <9> <9> <9> <AUDIO> <6> ..... for DVP720SA/75
  - <9> <9> <9> <9> <AUDIO> <7> ..... for DVP720SA/78
- 4) The display shows 'YYYY-ZZ' and the tray will close.
  - YYYY = model number (eg. 0720, 3900, etc.)
  - ZZ = stroke version (eg. 00, 02, 05, etc.)

### Procedure for check Software version

---

- 1) Power up the set.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Press "DISPLAY" button on the Remote control.
- 4) The TV screen will shows:
  - SD6.1 Vxx YYYY-ZZ P QQ**
  - SERVO: GGGGGGGG REG:D**
  - xx = version number
  - YYYY = model number (eg. 0720, 3900, etc.)
  - ZZ = stroke version (eg. 00, 02, 05, etc.)
  - P / D = region code
  - QQ = version number of front uProcessor
  - GGGGGGGG = version for servo code

### Procedure to upgrade software

---

- 1) Power up the set.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Place upgrade CD-ROM onto tray and close.
- 4) The set will response and display the following:
  - **LOAD** [After the disc is read, the tray will open for you to remove the disc]
  - **ERASE**
  - **WRITE**
  - **ERROR** [if upgrade is unsuccessful]
  - **UPG END -> PHILIPS** [if upgrade is successful]
  - **DISC->CLOSE->LOAD** [Tray will close indicating that the upgrade process is completed]
- 5) The whole process should not take more than 5 minutes.

*Caution: Do not unplug the set until upgrade is completed.*

### Trade Mode

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Trade mode is a feature that will block all set keys when enabled. It is for dealers to prevent customers from removing disc, changing source etc using the set keys. Rotary and Remote Control (RC) keys are still allowed in Trade mode.

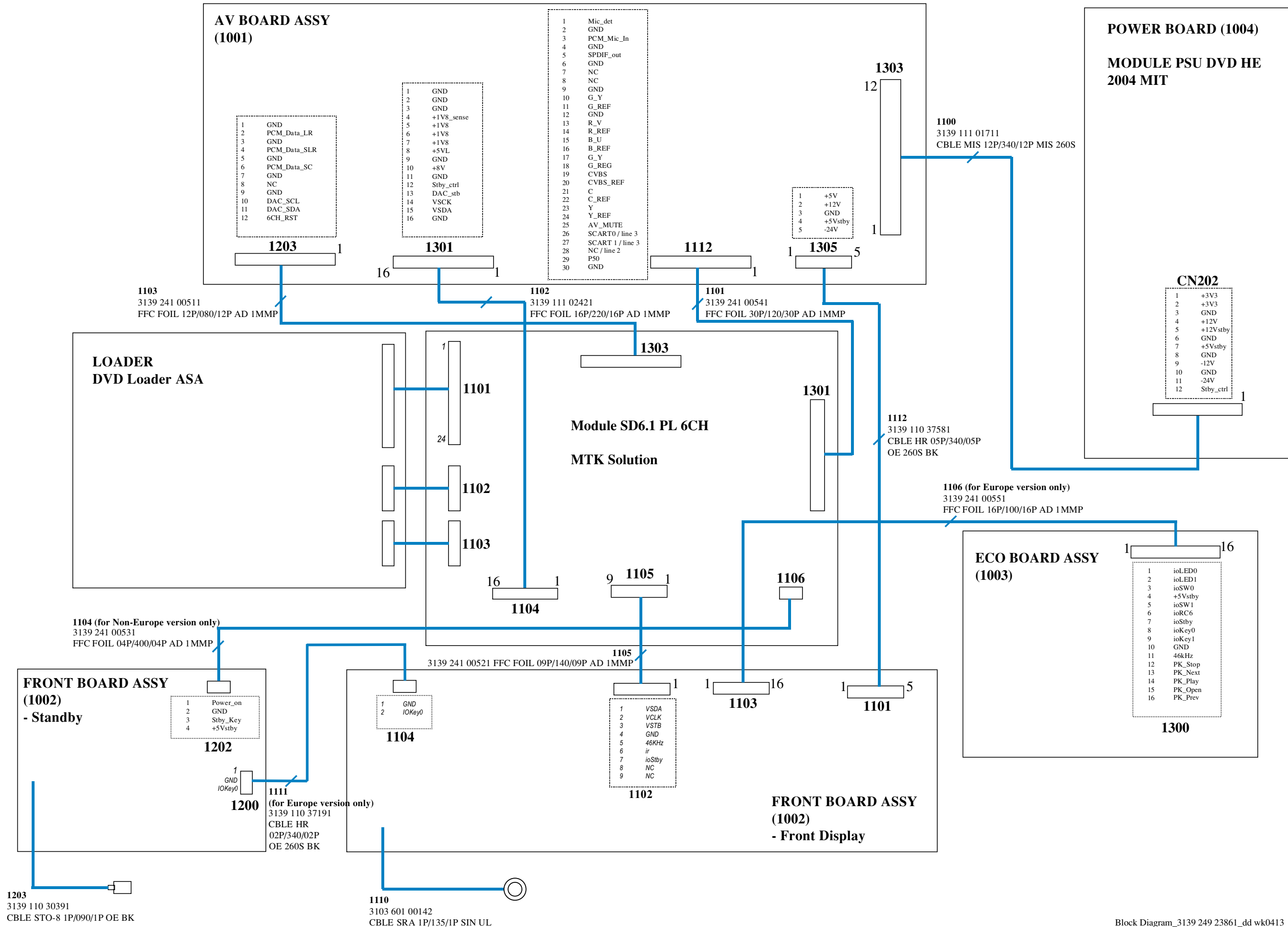
#### To activate Trade Mode:

- 1) Power up the set.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Then press buttons <2> <5> <9> on the RC.
- 4) The display shows '**TRA ON**' and the tray will close. Trade Mode is now enabled.

#### To deactivate Trade Mode:

- 1) Power up the set.
- 2) Open tray by press and hold "STOP" button on the RC.
- 3) Then press buttons <2> <5> <9> on the RC.
- 4) The display shows '**TRA OFF**' and the tray will close. Trade Mode is now disabled.

# SET BLOCK DIAGRAM



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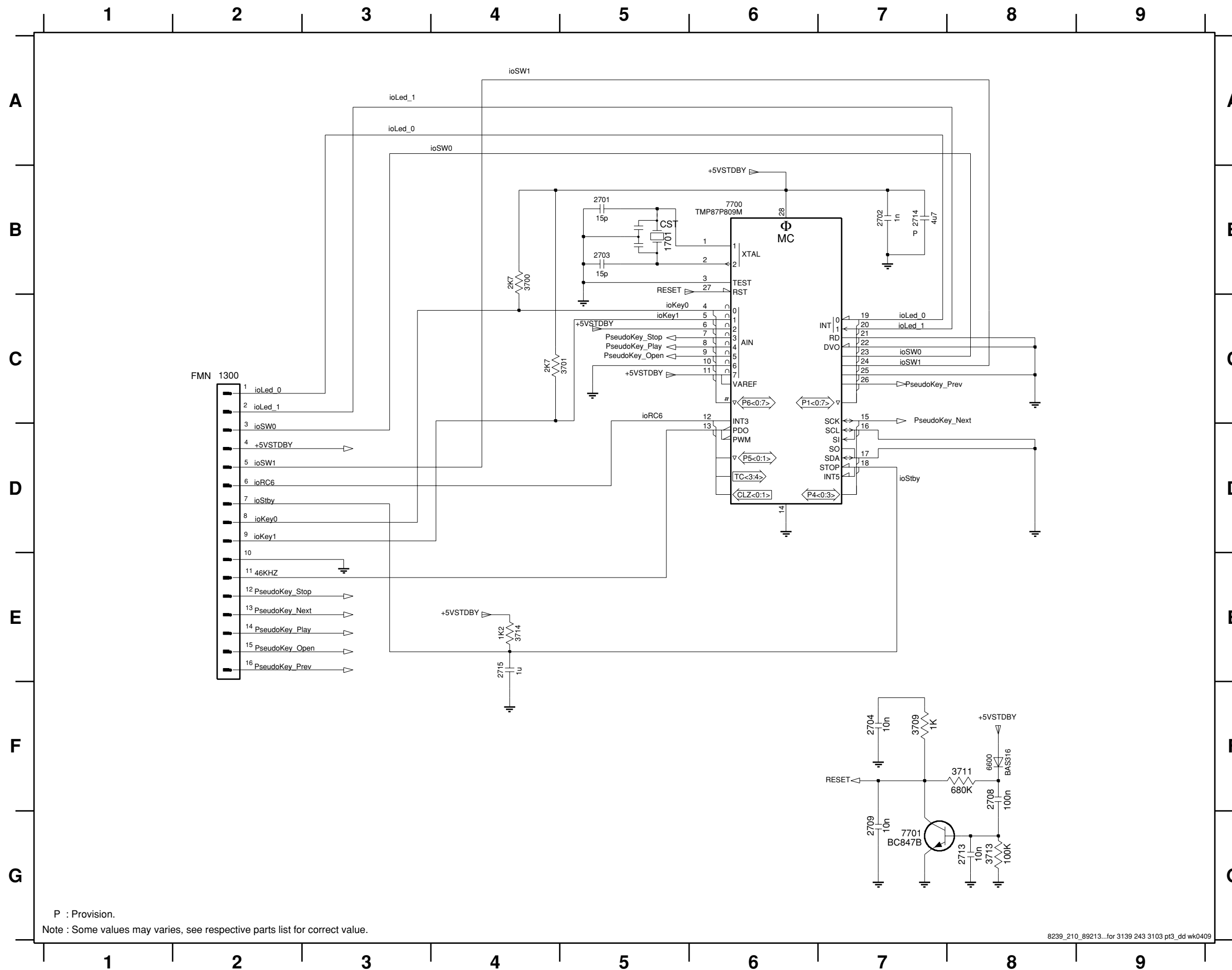
# ECO BOARD

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# ECO BOARD - CIRCUIT DIAGRAM

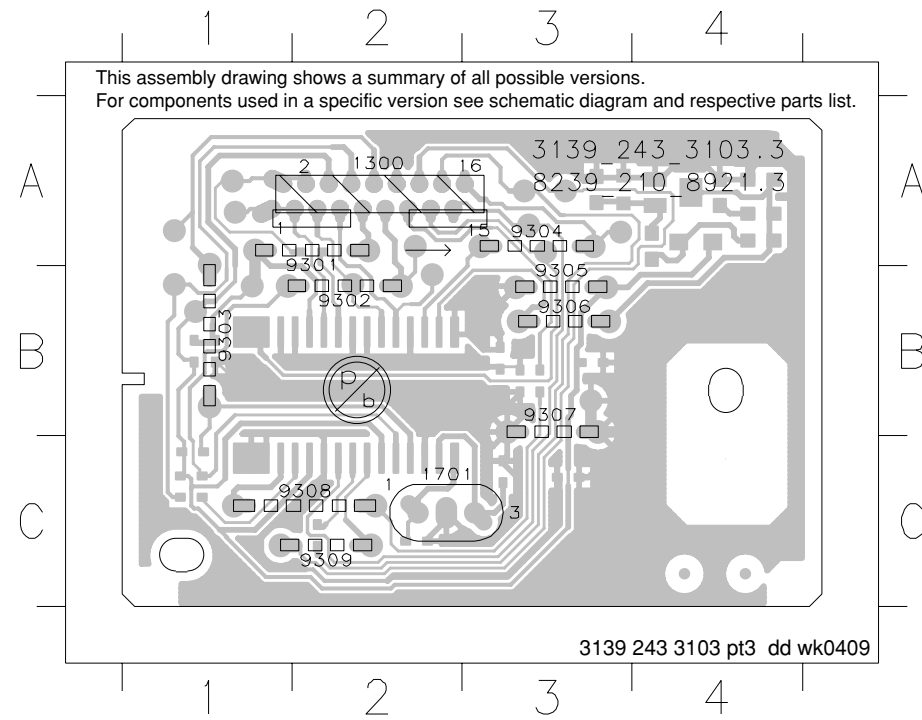


- 1300 C2
- 1701 B5
- 2701 B5
- 2702 B7
- 2703 B5
- 2704 F7
- 2708 F8
- 2709 G7
- 2713 G8
- 2714 B7
- 2715 E4
- 3700 B4
- 3701 C5
- 3709 F7
- 3711 F8
- 3713 G8
- 3714 E4
- 6600 F8
- 7700 B6
- 7701 G7

P : Provision.  
 Note : Some values may varies, see respective parts list for correct value.

**ECO BOARD - COMPONENT LAYOUT**

1300 A2	9302 B2	9305 B3	9308 C2
1701 C2	9303 B1	9306 B3	9309 C2
9301 A2	9304 A3	9307 B3	



**ELECTRICAL PARTS LIST - ECO BOARD**

**MISCELLANEOUS**

1300	2422 025 18364	Flex Connector 16P
1701	2422 540 98518	RES CER 8MHz

**DIODES**

6600	4822 130 11397	BAS316
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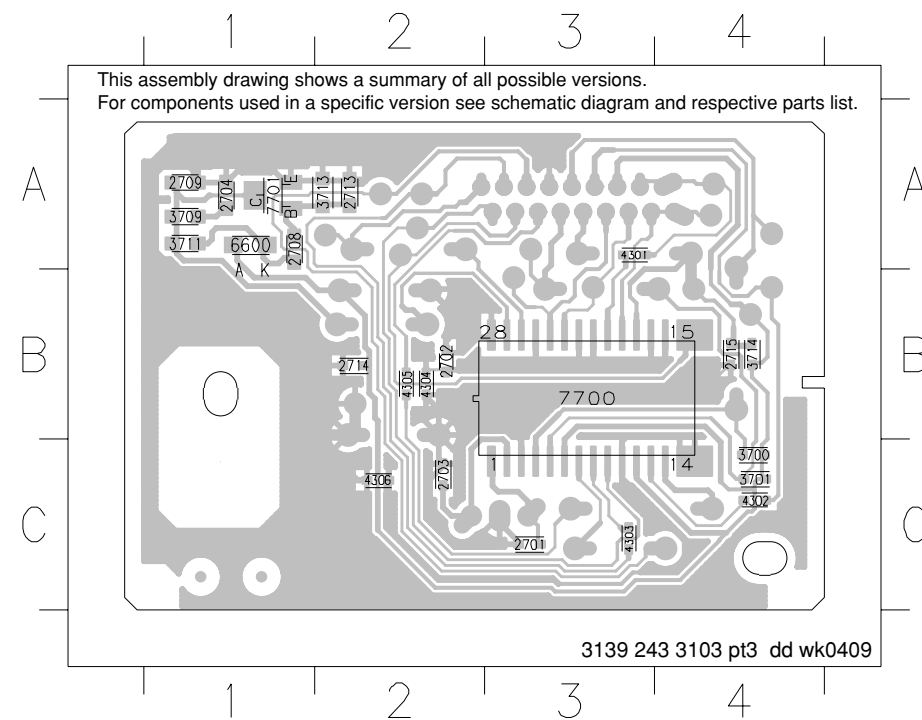
**TRANSISTORS & INTEGRATED CIRCUITS**

7700	3139 240 50831	TMP87C809BM - 'LX3950S50831'
7701	5322 130 60159	BC847B

Note : Only the parts mentioned in this list are normal service spare parts.

**ECO BOARD - CHIP LAYOUT**

2701 C3	2709 A1	3701 C4	4301 A3	4306 C2
2702 B2	2713 A2	3709 A1	4302 C4	6600 A1
2703 C2	2714 B2	3711 A1	4303 C3	7700 B3
2704 A1	2715 B4	3713 A2	4304 B2	7701 A1
2708 A1	3700 C4	3714 B4	4305 B2	

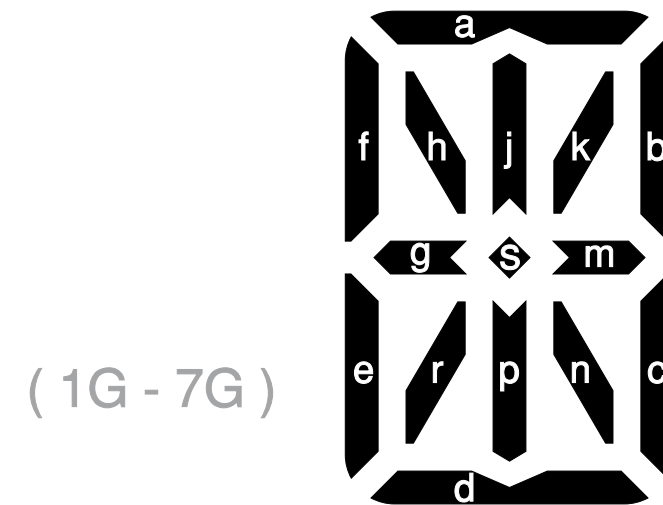
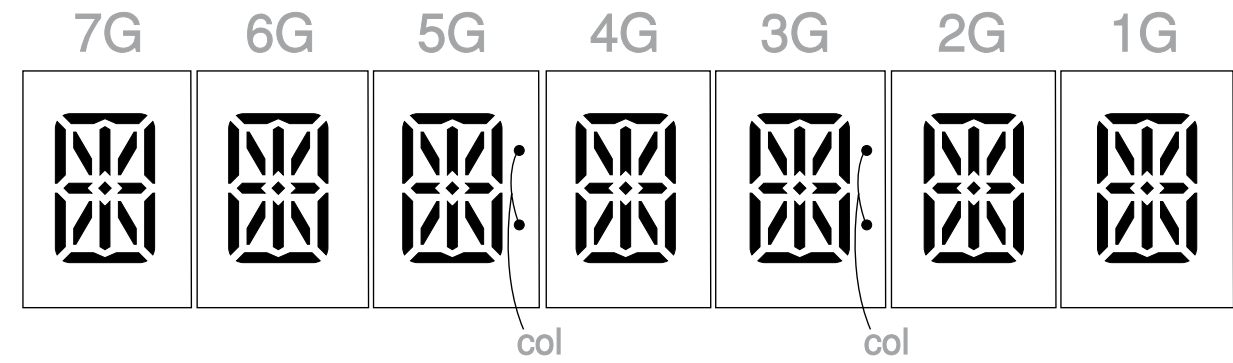


# FRONT BOARD

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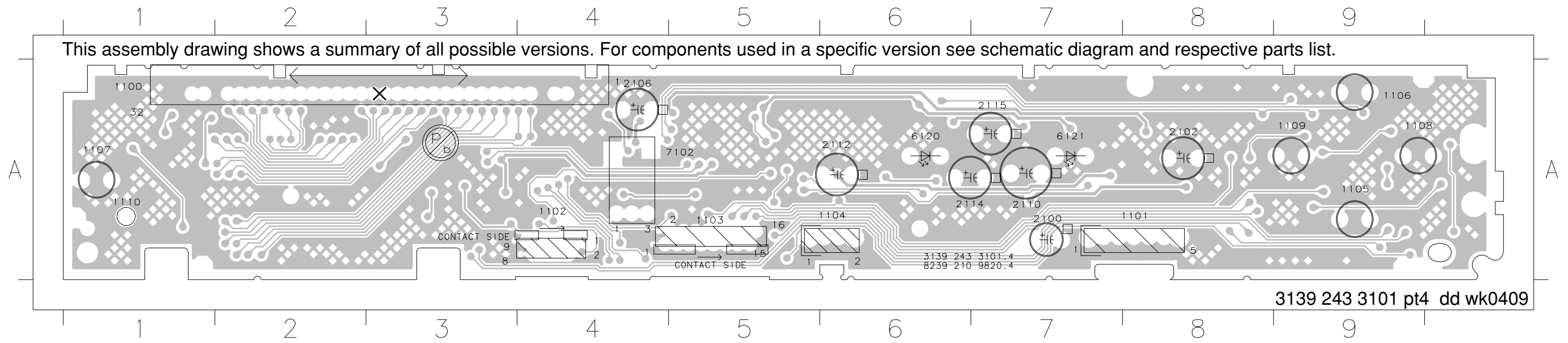
## FTD DISPLAY PIN CONNECTION



	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	a	a	a
P2	j, p	j, p	j, p	j, p	j, p	j, p	j, p
P3	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d
P14	-	-	col	-	col	-	-
P15	s	s	s	s	s	s	s

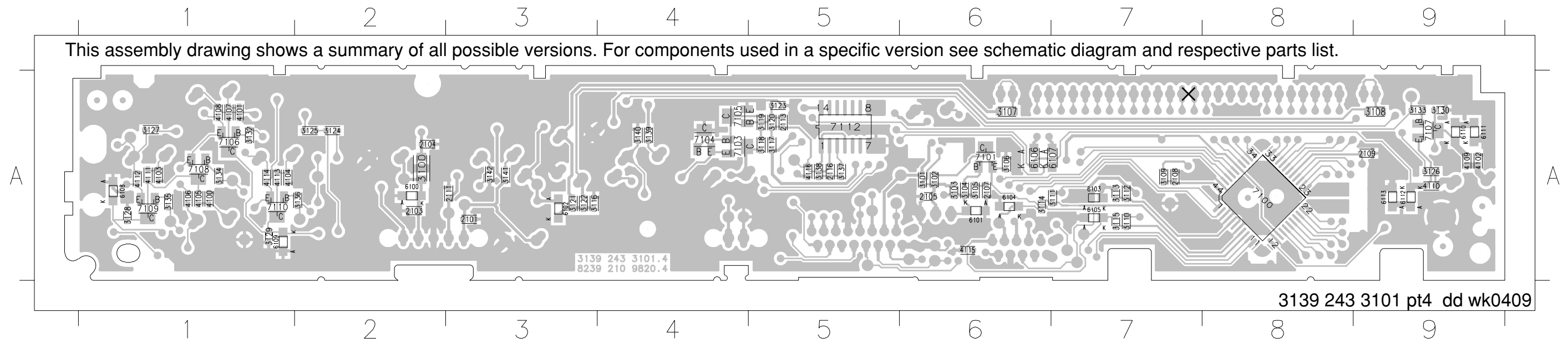
**FRONT DISPLAY BOARD - TOP VIEW LAYOUT**

1100 A1 1102 A4 1104 A6 1106 A9 1108 A9 1110 A1 2102 A8 2110 A7 2114 A7 6120 A6 7102 A5  
 1101 A8 1103 A5 1105 A9 1107 A1 1109 A9 2100 A7 2106 A4 2112 A6 2115 A7 6121 A7



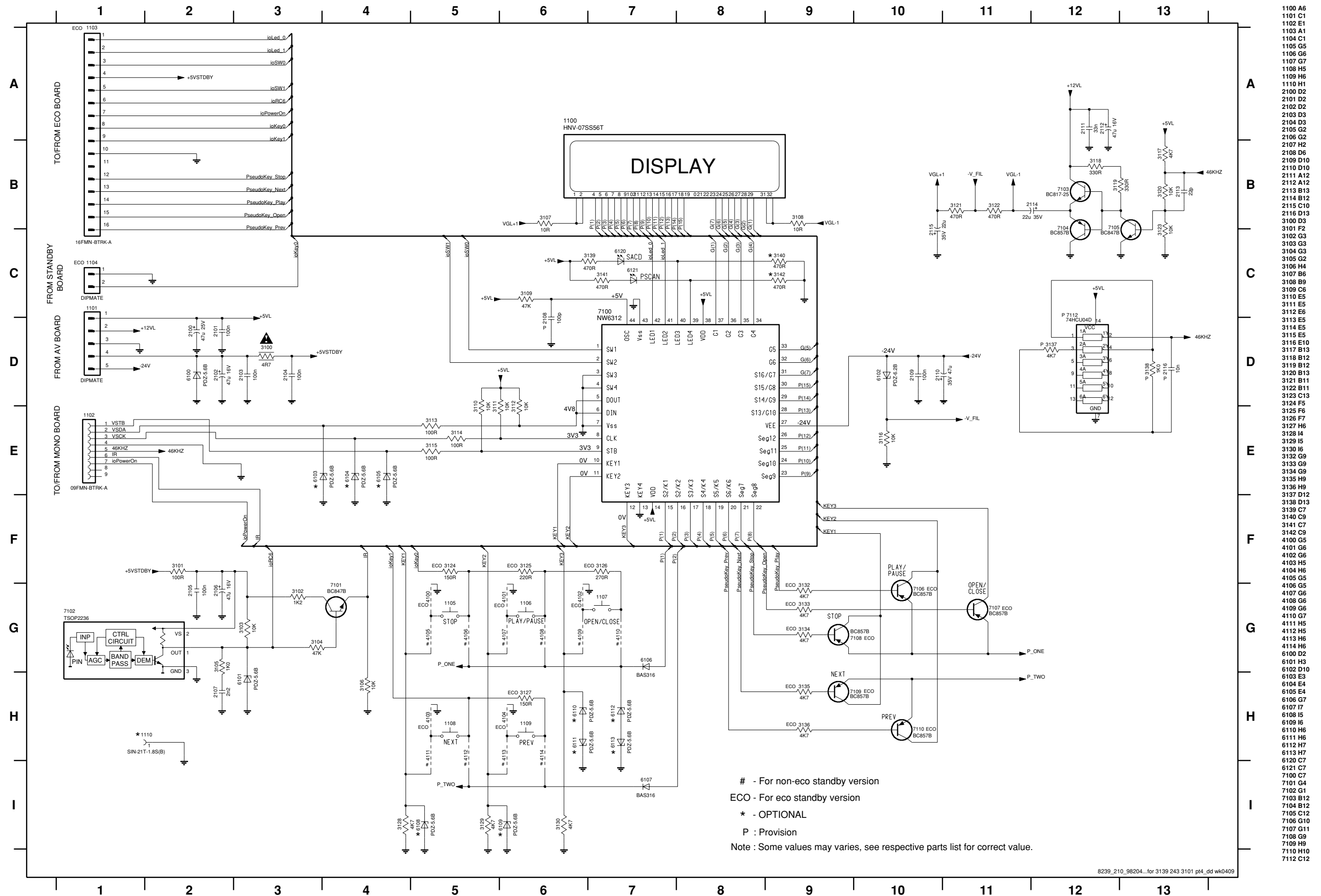
**FRONT DISPLAY BOARD - BOTTOM VIEW LAYOUT**

2101 A3 2109 A9 3102 A6 3108 A9 3114 A6 3120 A5 3126 A9 3133 A9 3139 A4 4102 A9 4108 A1 4114 A1 6103 A7 6109 A1 7101 A6 7108 A1  
 2103 A2 2111 A3 3103 A6 3109 A7 3115 A7 3121 A3 3127 A1 3134 A1 3140 A4 4103 A1 4109 A9 4115 A6 6104 A6 6110 A9 7103 A4 7109 A1  
 2104 A2 2113 A5 3104 A6 3110 A7 3116 A3 3122 A3 3128 A1 3135 A1 3141 A3 4104 A1 4110 A9 4116 A5 6105 A7 6111 A9 7104 A4 7110 A1  
 2105 A6 2116 A5 3105 A6 3111 A7 3117 A5 3123 A5 3129 A1 3136 A2 3142 A3 4105 A1 4111 A1 6100 A2 6106 A6 6112 A9 7105 A4 7112 A5  
 2107 A6 3100 A2 3106 A6 3112 A7 3118 A5 3124 A2 3130 A9 3137 A5 4100 A1 4106 A1 4112 A1 6101 A6 6107 A7 6113 A9 7106 A1  
 2108 A7 3101 A6 3107 A6 3113 A7 3119 A5 3125 A2 3132 A1 3138 A5 4101 A1 4107 A1 4113 A1 6102 A3 6108 A1 7100 A8 7107 A9





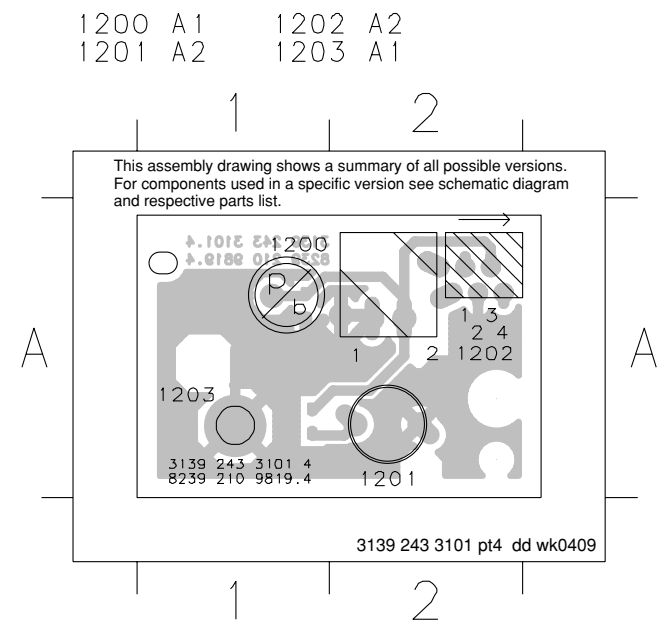
FRONT DISPLAY BOARD - CIRCUIT DIAGRAM



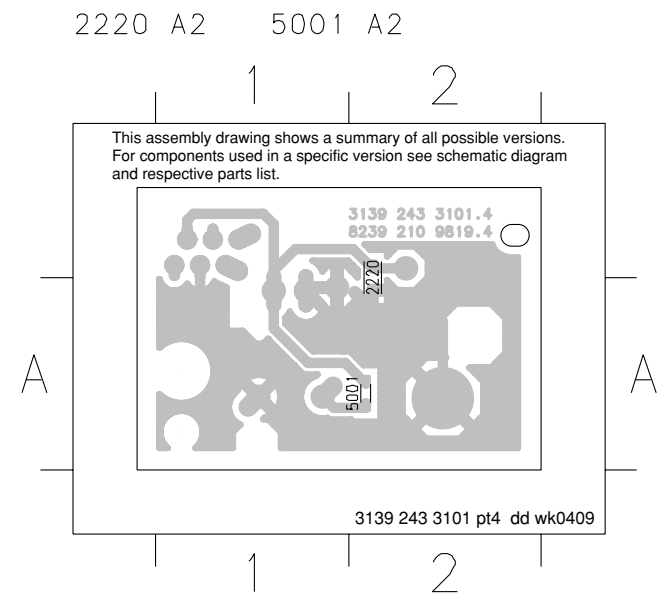
- 1100 A6
- 1101 C1
- 1102 E1
- 1103 A1
- 1104 C1
- 1105 G5
- 1106 G6
- 1107 G7
- 1108 H5
- 1109 H6
- 1110 H1
- 2100 D2
- 2101 D2
- 2102 D2
- 2103 D3
- 2104 D3
- 2105 G2
- 2106 G2
- 2107 H2
- 2108 D6
- 2109 D10
- 2110 D10
- 2111 A12
- 2112 A12
- 2113 B13
- 2114 B12
- 2115 C10
- 2116 D13
- 3100 D3
- 3101 F2
- 3102 G3
- 3103 G3
- 3104 G3
- 3105 G2
- 3106 H4
- 3107 B6
- 3108 B9
- 3109 C6
- 3110 E5
- 3111 E5
- 3112 E6
- 3113 E5
- 3114 E5
- 3115 E5
- 3116 E10
- 3117 B13
- 3118 B12
- 3119 B12
- 3120 B13
- 3121 B11
- 3122 B11
- 3123 C13
- 3124 F5
- 3125 F6
- 3126 F7
- 3127 H6
- 3128 I4
- 3129 I5
- 3130 I6
- 3132 G9
- 3133 G9
- 3134 G9
- 3135 H9
- 3136 H9
- 3137 D12
- 3138 D13
- 3139 C7
- 3140 C9
- 3141 C7
- 3142 C9
- 4100 G5
- 4101 G6
- 4102 G6
- 4103 H5
- 4104 H6
- 4105 G5
- 4106 G5
- 4107 G6
- 4108 G6
- 4109 G6
- 4110 G7
- 4111 H5
- 4112 H5
- 4113 H6
- 4114 H6
- 6100 D2
- 6101 H3
- 6102 D10
- 6103 E3
- 6104 E4
- 6105 E4
- 6106 G7
- 6107 I7
- 6108 I5
- 6109 I6
- 6110 H6
- 6111 H6
- 6112 H7
- 6113 H7
- 6120 C7
- 6121 C7
- 7100 C7
- 7101 G4
- 7102 G1
- 7103 B12
- 7104 B12
- 7105 C12
- 7106 G10
- 7107 G11
- 7108 G9
- 7109 H9
- 7110 H10
- 7112 C12

# - For non-eco standby version  
 ECO - For eco standby version  
 \* - OPTIONAL  
 P : Provision  
 Note : Some values may varies, see respective parts list for correct value.

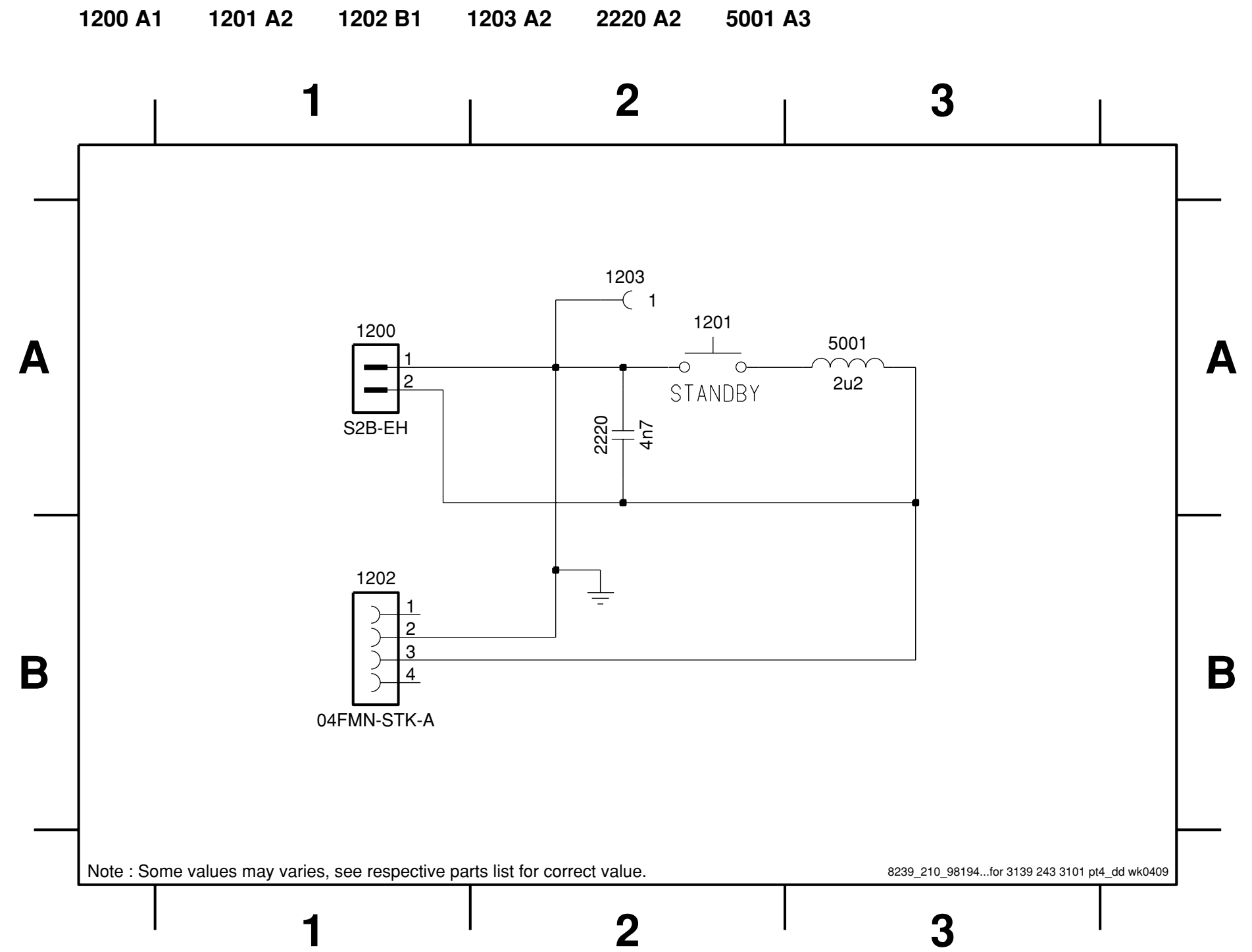
**STANDBY BOARD - COMPONENT LAYOUT**



**STANDBY BOARD - CHIP LAYOUT**



**STANDBY BOARD - CIRCUIT DIAGRAM**



**ELECTRICAL PARTS LIST - FRONT BOARD****MISCELLANEOUS**

1100	3139 240 50661	FTD HNV-07SS56T
1102	2422 025 16586	Flex Connector 9P
1103	2422 025 18364	Flex Connector 16P/00/02/05
1105	4822 276 13775	Tact Switch
1106	4822 276 13775	Tact Switch
1107	4822 276 13775	Tact Switch
1108	4822 276 13775	Tact Switch
1109	4822 276 13775	Tact Switch
1201	4822 276 13775	Tact Switch
1202	2422 025 16979	Flex Connector 4P /69/75

**CAPACITORS**

2100	4822 124 81286	47uF 20% 16V
2101	2238 586 59812	100nF +80/-20% 50V
2102	4822 124 81286	47uF 20% 16V
2103	2238 586 59812	100nF +80/-20% 50V
2104	2238 586 59812	100nF +80/-20% 50V
2105	2238 586 59812	100nF +80/-20% 50V
2106	4822 124 81286	47uF 20% 16V
2107	4822 126 14238	2,2nF 50V
2109	2238 586 59812	100nF +80/-20% 50V
2110	3198 028 44790	47uF 20% 35V
2111	4822 126 14549	33nF 16V
2112	4822 124 81286	47uF 20% 16V
2113	4822 122 33761	22pF 5% 50V
2114	3198 028 42290	22uF 20% 35V
2115	3198 028 42290	22uF 20% 35V
2220	4822 126 13193	4,7nF 10% 63V

**RESISTORS**

3100	4822 117 11152	△ 4R7 5%
3101	4822 051 30101	100R 5% 0,062W
3102	4822 117 11817	1k2 1% 1/16W
3103	4822 051 30103	10k 5% 0,062W
3104	4822 117 12925	47k 1% 0,063W
3105	4822 051 30102	1k 5% 0,062W
3106	4822 051 30103	10k 5% 0,062W
3107	4822 051 20109	10R 5% 0,1W
3108	4822 051 20109	10R 5% 0,1W
3109	4822 117 12925	47k 1% 0,063W
3110	4822 051 30103	10k 5% 0,062W
3111	4822 051 30103	10k 5% 0,062W
3112	4822 051 30103	10k 5% 0,062W
3113	4822 051 30101	100R 5% 0,062W
3114	4822 051 30101	100R 5% 0,062W
3115	4822 051 30101	100R 5% 0,062W
3116	4822 051 30103	10k 5% 0,062W
3117	4822 051 30472	4k7 5% 0,062W
3118	4822 051 30331	330R 5% 0,062W
3119	4822 051 30331	330R 5% 0,062W
3120	4822 051 30103	10k 5% 0,062W
3121	4822 051 30471	470R 5% 0,062W

3122	4822 051 30471	470R 5% 0,062W
3123	4822 051 30103	10k 5% 0,062W
3124	4822 051 30151	150R 5% 0,062W /00/02/05
3125	4822 051 30221	220R 5% 0,062W /00/02/05
3126	4822 051 30271	270R 5% 0,062W /00/02/05
3127	4822 051 30151	150R 5% 0,062W /00/02/05
3128	4822 051 30472	4k7 5% 0,062W
3129	4822 051 30472	4k7 5% 0,062W
3130	4822 051 30472	4k7 5% 0,062W
3132	4822 051 30472	4k7 5% 0,062W /00/02/05
3133	4822 051 30472	4k7 5% 0,062W /00/02/05
3134	4822 051 30472	4k7 5% 0,062W /00/02/05
3135	4822 051 30472	4k7 5% 0,062W /00/02/05
3136	4822 051 30472	4k7 5% 0,062W /00/02/05
3139	4822 051 30471	470R 5% 0,062W
3140	4822 051 30471	470R 5% 0,062W
3141	4822 051 30471	470R 5% 0,062W
3142	4822 051 30471	470R 5% 0,062W
4100	4822 051 30008	0R Jumper 0603 /00/02/05
4101	4822 051 30008	0R Jumper 0603 /00/02/05
4102	4822 051 30008	0R Jumper 0603 /00/02/05
4103	4822 051 30008	0R Jumper 0603 /00/02/05
4104	4822 051 30008	0R Jumper 0603 /00/02/05
4105	4822 051 30008	0R Jumper 0603 /69/75
4106	4822 051 30008	0R Jumper 0603 /69/75
4107	4822 051 30008	0R Jumper 0603 /69/75
4108	4822 051 30008	0R Jumper 0603 /69/75
4109	4822 051 30008	0R Jumper 0603 /69/75
4110	4822 051 30008	0R Jumper 0603 /69/75
4111	4822 051 30008	0R Jumper 0603 /69/75
4112	4822 051 30008	0R Jumper 0603 /69/75
4113	4822 051 30008	0R Jumper 0603 /69/75
4114	4822 051 30008	0R Jumper 0603 /69/75
4115	4822 051 30008	0R Jumper 0603
4116	4822 051 30008	0R Jumper 0603

**COILS & FILTERS**

5001	3198 018 52280	FXD IND SM 0603 2U2 PM10
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**DIODES**

6100	3198 020 55680	DIO REG SM PDZ5.6B
6101	3198 020 55680	DIO REG SM PDZ5.6B
6102	9340 548 54115	DIO REG SM PDZ6.2B
6103	3198 020 55680	DIO REG SM PDZ5.6B
6104	3198 020 55680	DIO REG SM PDZ5.6B
6105	3198 020 55680	DIO REG SM PDZ5.6B
6106	4822 130 11397	BAS316
6107	4822 130 11397	BAS316
6108	3198 020 55680	DIO REG SM PDZ5.6B
6109	3198 020 55680	DIO REG SM PDZ5.6B
6110	3198 020 55680	DIO REG SM PDZ5.6B
6111	3198 020 55680	DIO REG SM PDZ5.6B

**ELECTRICAL PARTS LIST - FRONT BOARD**

6112	3198 020 55680	DIO REG SM PDZ5.6B
6113	3198 020 55680	DIO REG SM PDZ5.6B
6120	9322 190 55676	LED VS LTL-816TDK3
6121	9322 190 55676	LED VS LTL-816TDK3

**TRANSISTORS & INTEGRATED CIRCUITS**

7100	9322 186 03671	IC SM UPD16312GB-3B4
7101	5322 130 60159	BC847B
7102	9322 155 82667	IR Receiver TSOP2236LL1
7103	4822 130 42804	BC817-25
7104	4822 130 60373	BC857B
7105	5322 130 60159	BC847B
7106	4822 130 60373	BC857B /00/02/05
7107	4822 130 60373	BC857B /00/02/05
7108	4822 130 60373	BC857B /00/02/05
7109	4822 130 60373	BC857B /00/02/05
7110	4822 130 60373	BC857B /00/02/05

Note : Only the parts mentioned in this list are normal service spare parts.

**BRIEF INTRODUCTION OF THE AV BOARD**

The AV Board consists of the following features :

- A. VIDEO OUTPUT
  - CVBS
  - S-Video
  - YUV
  - Scart RGB (For Europe Model)
  - Progressive Scan
  
- B. AUDIO OUTPUT
  - Stereo / 6 Channel
  - Coaxial / Optical

# AV BOARD

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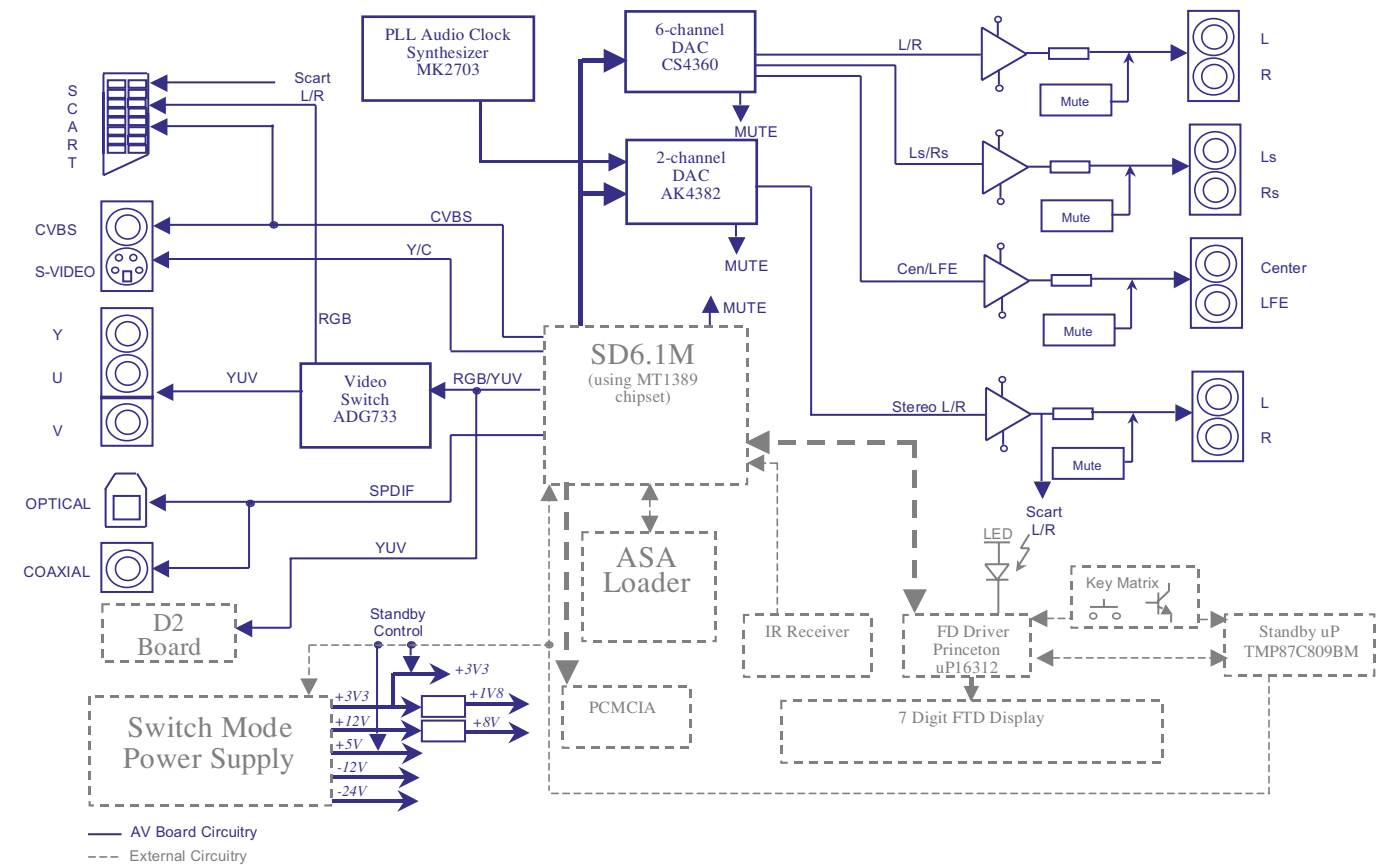
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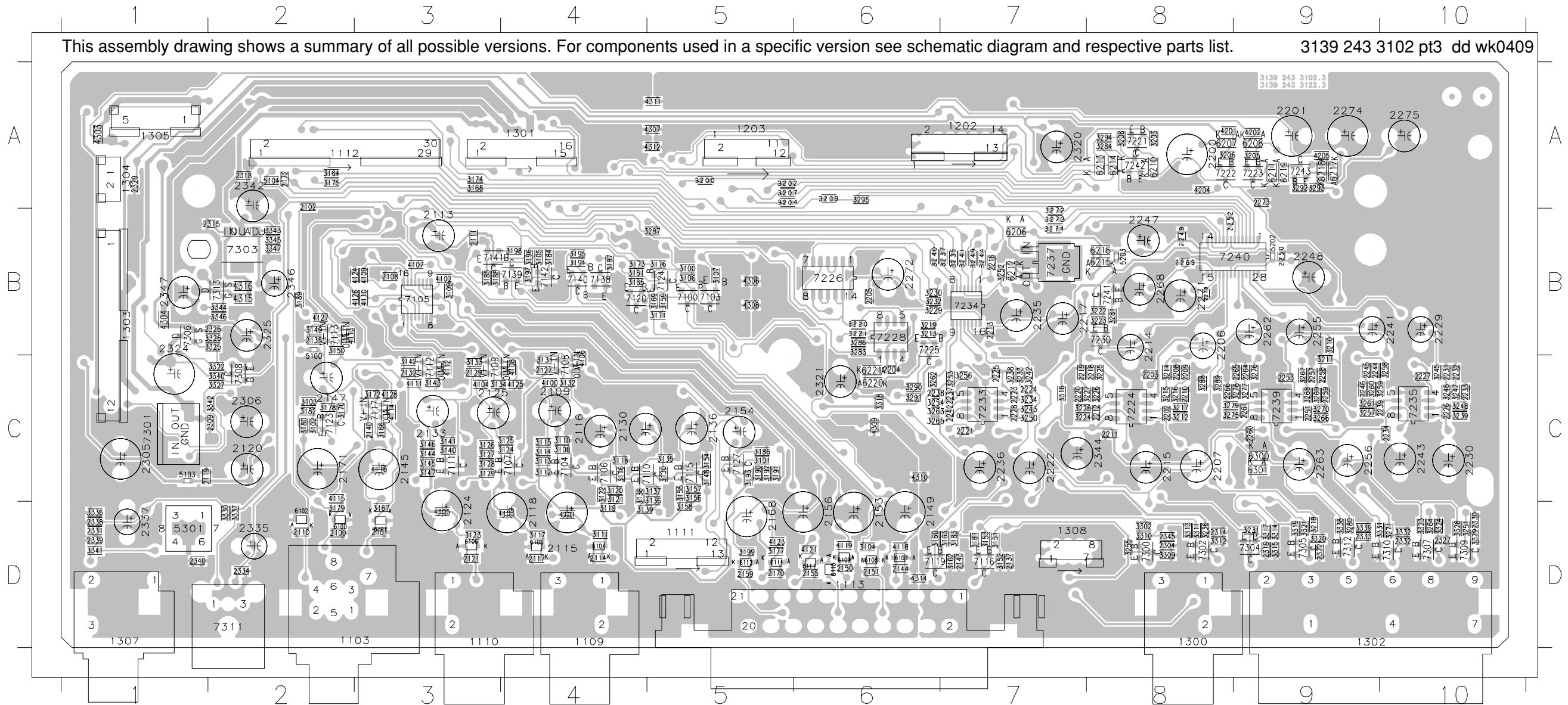
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**AV BOARD - BLOCK DIAGRAM**



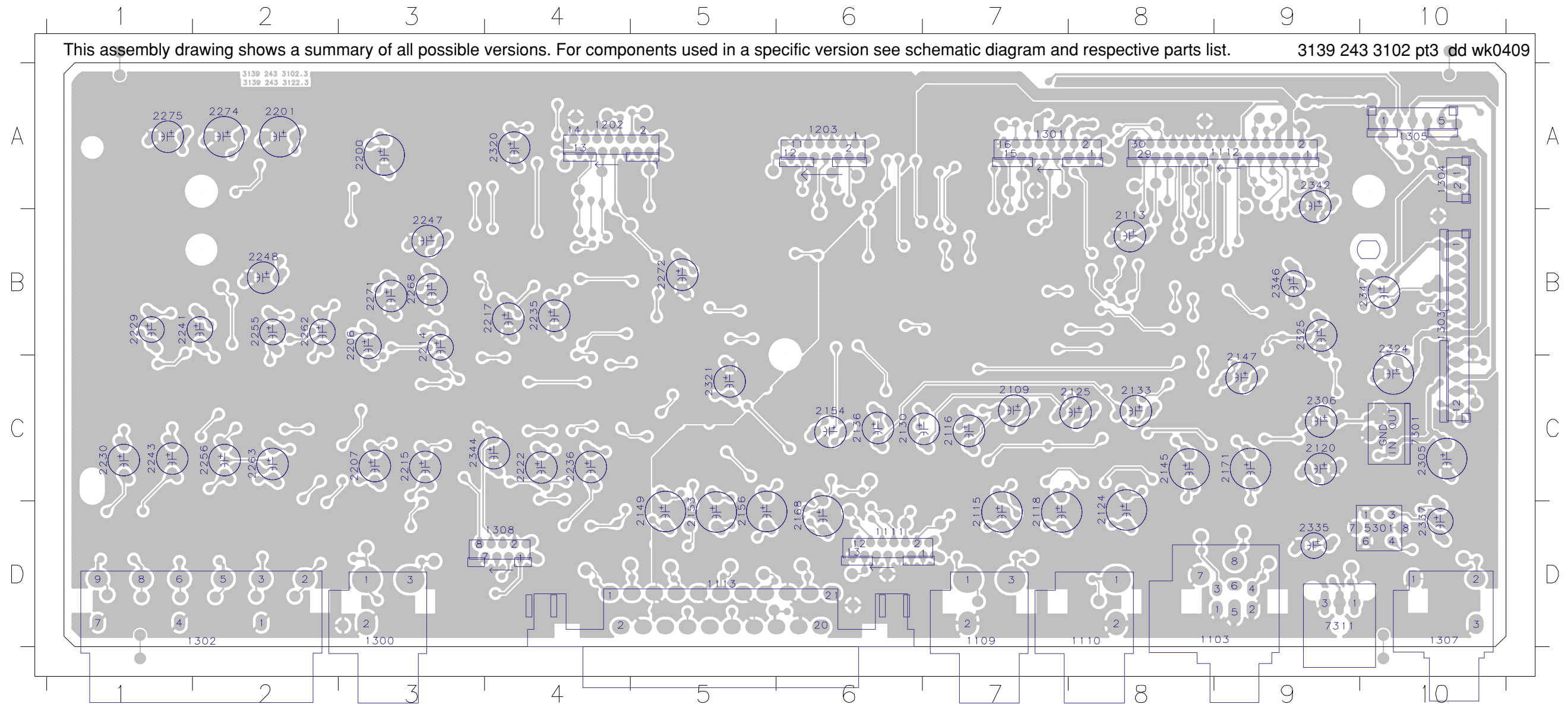
### AV BOARD - TOP VIEW LAYOUT

1103 D2	2121 D3	2203 C8	2234 C10	2268 B8	2338 D1	3123 D3	3154 C5	3185 B3	3217 C8	3248 C10	3279 C8	3324 D10	4110 B3	4316 B2	6218 A9	7221 A8
1109 D4	2124 D3	2204 C6	2235 B7	2269 B8	2339 D1	3124 C4	3155 C5	3186 C5	3218 D9	3249 B7	3280 D9	3325 B2	4111 C3	4317 B2	6219 A9	7222 A8
1110 D3	2125 C3	2205 B6	2236 C7	2270 B8	2340 D1	3125 C4	3156 C5	3187 B4	3219 B6	3250 C7	3281 B8	3326 B2	4112 C3	4318 B2	6220 C6	7223 A9
1111 D5	2127 C4	2206 B8	2237 C7	2271 B8	2342 A2	3126 C3	3157 C5	3188 B3	3220 B6	3251 D10	3283 B6	3327 C2	4113 B2	4319 A2	6221 C6	7224 C8
1112 A2	2129 C3	2207 C8	2238 C6	2272 B6	2344 C8	3127 C3	3158 D5	3189 B2	3221 B6	3252 B7	3284 A8	3328 D10	4114 C3	4320 B9	6222 C9	7225 B6
1113 D6	2130 C4	2208 C8	2239 C10	2273 A9	2345 D8	3128 C3	3159 B5	3190 C5	3222 B8	3253 C7	3286 B6	3329 D10	4115 C2	4321 B8	6223 C9	7226 B6
1202 A7	2132 C3	2209 C8	2241 B10	2274 A9	2346 B2	3129 C3	3160 D6	3191 C5	3223 B8	3254 C6	3287 B5	3330 D2	4116 C3	4322 D1	6224 D1	7227 B6
1203 A5	2133 C3	2210 C8	2242 C7	2275 A10	2347 B1	3130 C5	3161 B4	3192 C5	3224 C7	3255 D8	3288 C8	3331 D9	4118 D6	4323 D2	6225 D2	7228 B8
1300 D8	2135 B2	2211 C8	2243 C10	2304 D8	3100 B5	3131 C4	3162 D7	3193 C5	3225 C8	3256 C7	3289 C8	3332 D10	4119 D6	4324 D3	6226 D3	7229 C7
1301 A4	2136 C5	2212 C8	2244 C9	2305 C1	3101 C5	3132 C4	3163 D7	3194 B4	3226 C8	3257 C9	3290 C6	3333 D10	4121 D6	4325 D4	6227 D2	7230 B7
1302 D9	2137 D7	2213 B7	2245 C9	2306 C2	3102 C2	3133 C3	3164 A2	3195 B4	3227 C7	3258 C10	3291 C6	3334 D2	4123 D5	4326 D4	6228 D4	7231 C10
1303 B1	2140 C3	2214 B8	2246 C9	2309 C2	3103 C2	3134 C3	3165 B4	3196 B4	3228 C7	3259 C10	3292 A9	3335 D9	4124 B3	4327 D4	6229 D4	7232 B7
1304 A1	2143 D7	2215 C8	2247 B8	2314 D8	3104 D6	3135 C5	3166 C3	3197 B4	3229 B6	3260 C9	3293 A9	3336 D10	4125 C4	4328 C4	6230 C4	7233 C9
1305 A1	2144 D6	2216 B7	2248 B8	2315 B2	3105 B4	3136 C5	3167 D3	3198 B4	3230 B6	3261 C9	3294 A8	3337 D2	4126 B3	4329 D6	6231 C3	7234 B9
1307 D1	2145 C3	2217 B7	2249 B8	2318 A2	3106 B5	3137 C5	3168 A3	3199 D5	3231 D9	3262 C6	3295 A6	3338 D1	4127 B2	4330 D6	6232 D6	7235 B8
1308 D7	2147 C2	2218 C8	2250 B9	2319 D9	3107 B5	3138 C4	3169 B5	3200 A5	3232 B6	3263 C6	3302 D8	3339 D9	4128 C3	4331 D6	6233 D6	7236 A8
2100 D2	2149 D6	2219 C7	2251 C9	2320 A7	3108 C4	3139 D4	3170 C2	3202 A5	3233 C7	3264 D10	3309 D8	3340 B2	4201 A8	4332 D6	6234 D6	7237 A9
2101 D3	2150 D6	2220 C7	2252 B8	2321 C6	3109 B3	3140 C3	3171 B5	3203 A8	3234 C7	3265 C6	3310 D8	3341 D2	4202 A9	4333 A9	6235 D6	7238 D8
2102 A2	2151 D6	2221 C7	2253 C9	2322 D9	3110 C4	3141 C3	3172 C3	3204 A5	3235 B7	3266 C9	3311 D8	3342 C1	4204 A8	4334 B2	6236 D5	7239 C1
2108 B3	2153 D6	2222 C7	2255 B9	2324 B1	3111 D4	3142 C3	3173 B4	3205 A9	3236 D8	3267 C9	3312 D8	3343 B2	4205 A9	4335 A9	6237 D5	7240 D8
2109 C4	2154 C5	2223 C7	2256 C9	2325 B2	3112 C4	3143 C3	3174 A3	3206 A8	3237 B7	3268 C9	3313 D8	3344 B2	4206 A9	4336 A1	6238 B7	7241 B2
2110 D2	2155 D6	2224 C7	2257 C9	2326 B2	3113 C4	3144 C3	3175 A2	3207 A5	3238 C7	3269 C9	3314 D9	3345 D4	4304 B1	4337 A8	6239 D6	7242 D9
2111 B3	2156 D6	2225 C7	2258 C9	2327 D10	3114 C4	3145 C3	3176 B5	3208 A8	3239 C10	3270 C9	3315 D9	3346 B2	4306 B5	4338 A9	6240 A9	7243 D9
2113 B3	2159 D5	2226 C10	2259 C9	2329 A1	3115 C4	3146 C3	3177 D5	3209 A6	3240 B6	3271 D10	3316 C7	3347 B2	4307 A5	4339 A8	6241 A8	7244 B1
2114 D4	2168 D5	2227 C10	2260 C9	2330 D10	3116 C4	3147 C3	3178 C2	3210 B9	3241 B7	3272 B7	3317 D9	3348 B5	4308 B5	4340 A9	6242 A9	7245 D10
2115 D4	2170 D5	2228 C7	2261 C9	2331 D1	3117 D4	3148 C5	3179 D2	3211 C9	3242 C7	3273 B7	3318 C6	3349 C6	4309 C6	4341 D4	6243 B7	7246 C2
2116 C4	2171 C2	2229 B10	2262 B9	2332 D10	3118 C4	3149 B2	3180 C2	3212 C8	3243 C7	3274 B7	3319 D9	3350 D3	4310 C6	4342 A8	6244 A8	7247 D10
2117 D4	2172 A2	2230 C10	2263 C9	2333 D9	3119 D4	3150 B2	3181 D7	3213 B6	3244 B7	3275 C8	3320 D9	3351 C4	4311 A5	4343 A8	6245 B8	7248 B4
2118 D4	2200 A8	2231 C10	2264 C9	2334 D2	3120 C4	3151 D7	3182 C2	3214 C8	3245 C10	3276 C9	3321 D9	3352 B3	4312 A5	4344 A8	6246 B8	7249 D2
2119 C1	2201 A9	2232 C10	2265 C9	2335 D2	3121 C4	3152 D7	3183 D7	3215 C8	3246 C10	3277 C9	3322 C2	3353 D10	4313 D6	4345 D6	6247 B8	7250 D9
2120 C2	2202 C8	2233 C10	2266 C8	2337 D1	3122 C4	3153 D7	3184 B4	3216 C8	3247 C10	3278 C9	3323 D10	3354 B3	4314 B2	4346 B2	6248 A9	7251 B2

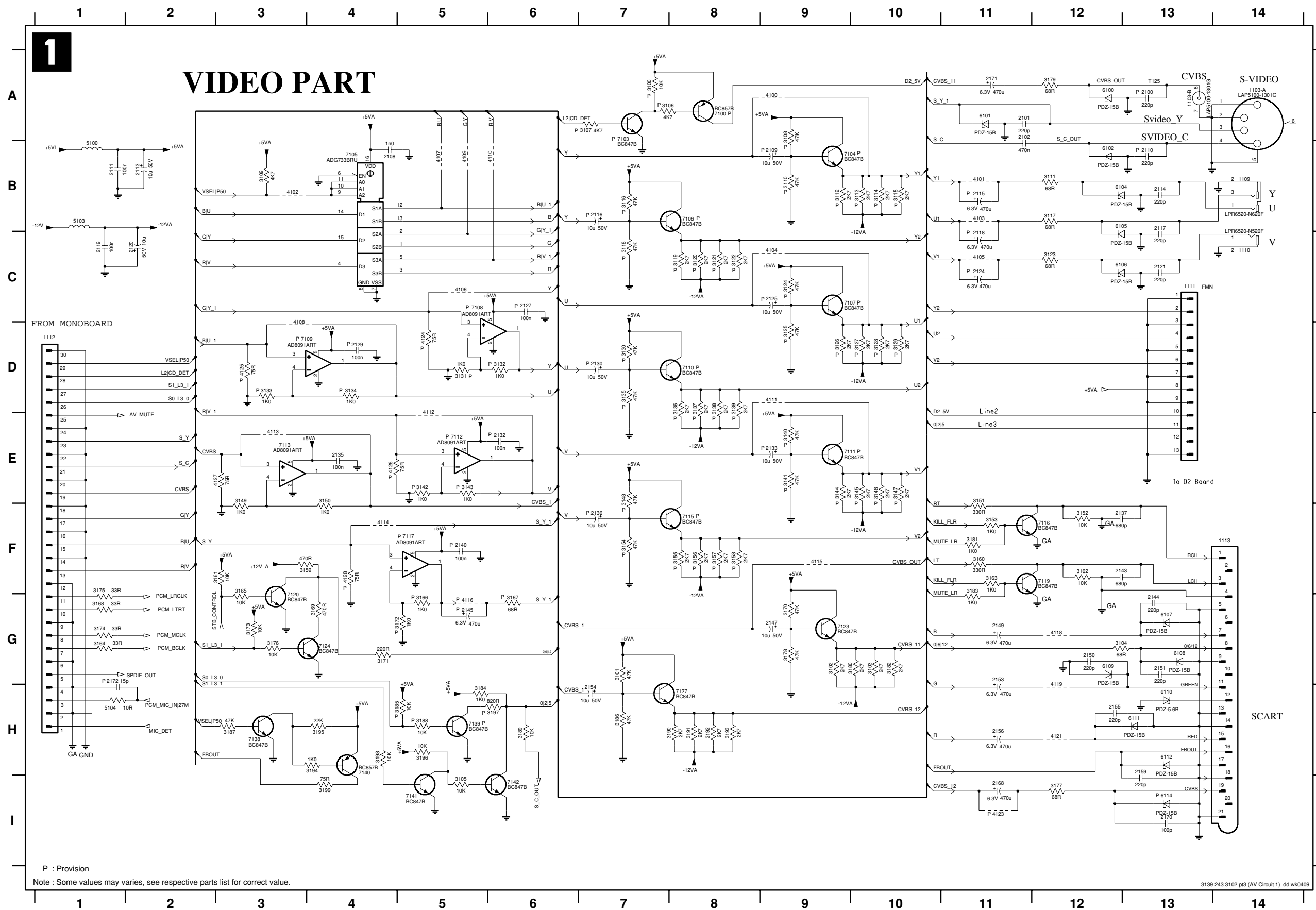


# AV BOARD - BOTTOM VIEW LAYOUT

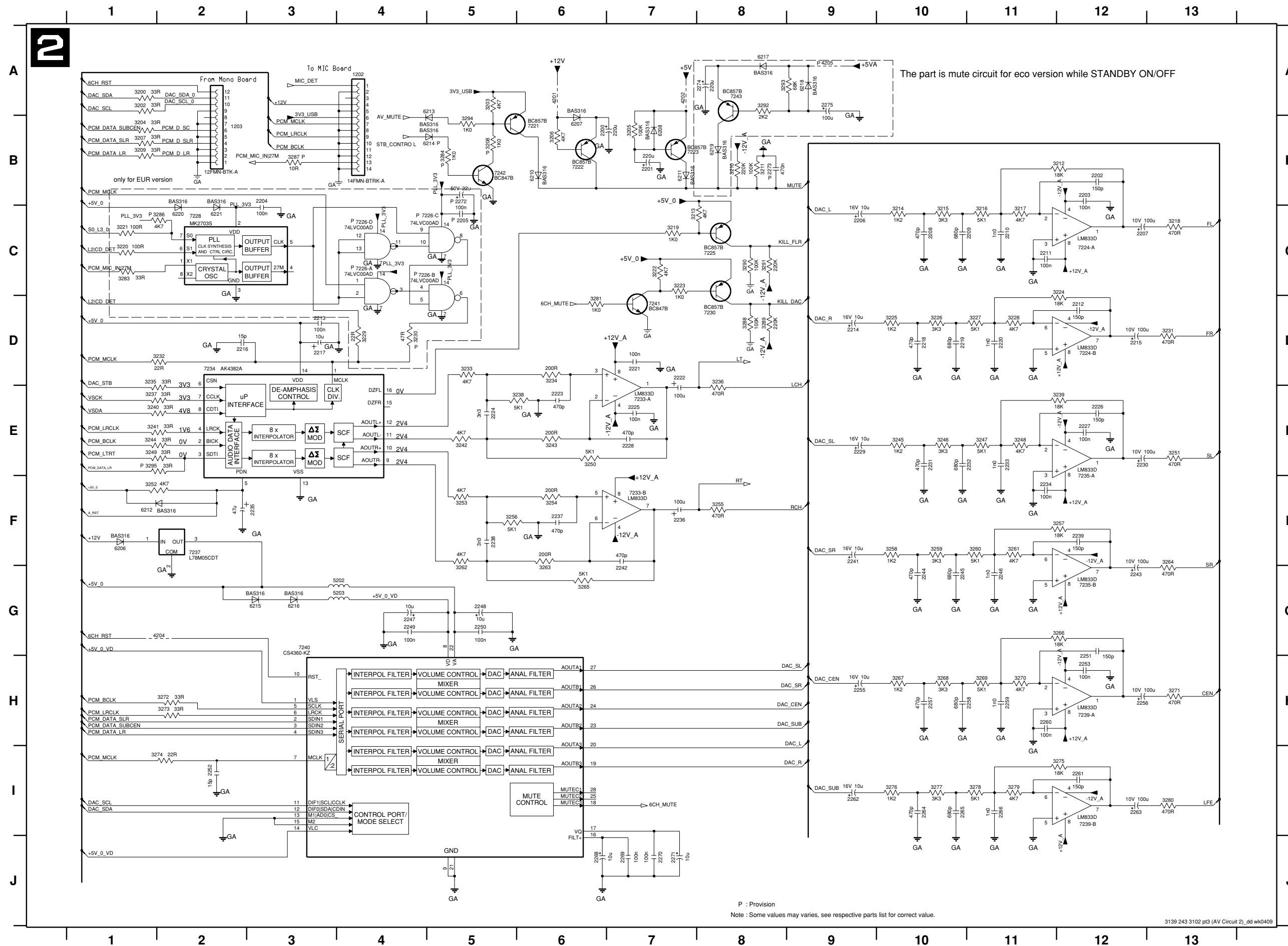
1103 D8	1113 D5	1302 D2	1308 D4	2118 D7	2133 C8	2153 D5	2200 A3	2215 C3	2235 B4	2248 B2	2268 B3	2305 C10	2325 B9	2346 B9
1109 D7	1202 A4	1303 B10	2109 C7	2120 C9	2136 C6	2154 C6	2201 A2	2217 B4	2236 C4	2255 B2	2271 B3	2306 C9	2335 D9	2347 B10
1110 D8	1203 A6	1304 A10	2113 B8	2124 D8	2145 C8	2156 D5	2206 B3	2222 C4	2241 B1	2256 C2	2272 B5	2320 A4	2337 D10	5301 D10
1111 D6	1300 D3	1305 A10	2115 D7	2125 C8	2147 C9	2168 D6	2207 C3	2229 B1	2243 C1	2262 B2	2274 A2	2321 C5	2342 A9	7301 C10
1112 A9	1301 A7	1307 D10	2116 C7	2130 C6	2149 D5	2171 C9	2214 B3	2230 C1	2247 B3	2263 C2	2275 A1	2324 B10	2344 C3	7311 D9



# AV BOARD - CIRCUIT DIAGRAM (PART 1)



# AV BOARD - CIRCUIT DIAGRAM (PART 2)

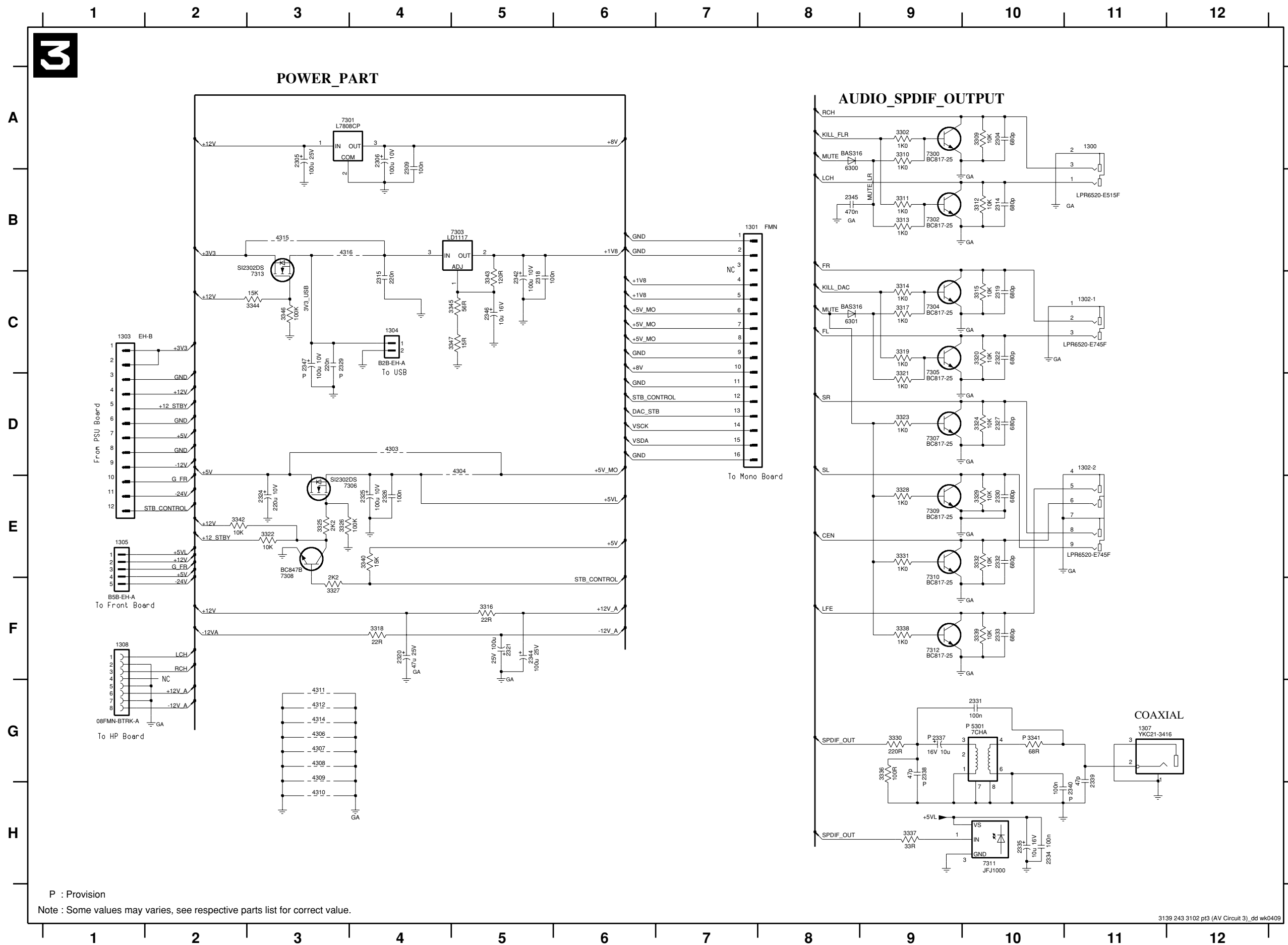


- 1202 A4
- 1203 B2
- 2200 B6
- 2201 B7
- 2202 B12
- 2203 B12
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- 2207 C12
- 2208 C10
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- 2265 I10
- 2266 I11
- 2268 J6
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- 3251 E13
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- 3253 F5
- 3254 F6
- 3255 F8
- 3256 F5
- 3257 F12
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- 3260 F11
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- 3294 B5
- 3295 E1
- 4201 A6
- 4202 A7
- 4204 G2
- 4205 A9
- 5202 G4
- 5203 G4
- 6206 F1
- 6207 B6
- 6208 B7
- 6210 B6
- 6211 B7
- 6212 F1
- 6213 A5
- 6214 B5
- 6215 G3
- 6216 G3
- 6217 A8
- 6218 A9
- 6219 B8
- 6220 C2
- 6221 C2
- 7221 B2
- 7222 B6
- 7223 B7
- 7224-A C12
- 7224-B D12
- 7225 C8
- 7226-A C4
- 7226-B C4
- 7226-C C4
- 7226-D C4
- 7228 C2
- 7230 D8
- 7233-A E7
- 7234 D2
- 7235-A F12
- 7235-B G12
- 7237 F2
- 7239-A H12
- 7239-B H12
- 7240 G3
- 7241 D7
- 7242 B5
- 7243 A8

P : Provision  
 Note : Some values may varies, see respective parts list for correct value.



AV BOARD - CIRCUIT DIAGRAM (PART 3)



- 1300 A11
- 1301 B7
- 1302-1 C11
- 1302-2 D11
- 1303 C1
- 1304 C4
- 1305 E1
- 1307 G11
- 1308 F1
- 2304 A10
- 2305 A3
- 2306 A4
- 2309 A4
- 2314 B10
- 2315 C4
- 2318 C5
- 2319 C10
- 2320 F4
- 2321 F5
- 2322 C10
- 2324 E3
- 2325 E4
- 2326 E4
- 2327 D10
- 2329 C3
- 2330 E10
- 2331 G10
- 2332 E10
- 2333 F10
- 2334 H10
- 2335 H10
- 2337 G9
- 2338 G9
- 2339 G11
- 2340 H11
- 2342 C5
- 2344 F5
- 2345 B8
- 2346 C5
- 2347 C3
- 3302 A9
- 3309 A10
- 3310 A9
- 3311 B9
- 3312 B10
- 3313 B9
- 3314 C9
- 3315 C10
- 3316 F5
- 3317 C9
- 3318 F4
- 3319 C9
- 3320 C10
- 3321 D9
- 3322 E3
- 3323 D9
- 3324 D10
- 3325 E3
- 3326 E3
- 3327 F3
- 3328 E9
- 3329 E10
- 3330 G9
- 3331 E9
- 3332 E10
- 3336 G9
- 3337 H9
- 3338 F9
- 3339 F10
- 3340 E4
- 3341 G10
- 3342 E2
- 3343 C5
- 3344 C3
- 3345 C5
- 3346 C3
- 3347 C5
- 4303 D4
- 4304 D5
- 4306 G3
- 4307 G3
- 4308 G3
- 4309 G3
- 4310 H3
- 4311 G3
- 4312 G3
- 4314 G3
- 4315 B3
- 4316 B3
- 5301 G10
- 6300 A8
- 6301 C8
- 7300 A9
- 7301 A3
- 7302 B9
- 7303 B5
- 7304 C9
- 7305 D9
- 7306 E4
- 7307 D9
- 7308 E3
- 7309 E9
- 7310 F9
- 7311 H10
- 7312 F9
- 7313 C3

ELECTRICAL PARTS LIST - AV BOARD

MISCELLANEOUS

Table with columns: Part No, Description, Date. Rows include EMC Spring, Socket 2P (S-Video/CVBS), Socket Cinch 2P (Y/Pb), Socket Cinch 1P (Pr), Flex Connector 30P, Socket Scart 21P, Flex Connector 12P, Socket Cinch 2P (Stereo L/R), Flex Connector 16P, Socket Cinch 6P (Front L/R, Center, Subwoofer, Rear L/R), Socket Cinch 1P (Coaxial).

CAPACITORS

Table with columns: Part No, Description, Date. Rows include 220pF 5% 50V, 470nF 10V, 1nF 10% 50V, 100nF +80/-20% 50V, 10uF 20% 63V, 220pF 5% 50V, 100nF +80/-20% 50V, 10uF 20% 63V, 220pF 5% 50V, 100nF +80/-20% 50V, 680pF 10% 50V, 470uF 20% 6.3V, 220pF 5% 50V, 470uF 20% 6.3V, 100pF 5% 50V, 470uF 20% 6.3V, 220uF 20% 16V, 220uF 20% 16V, 150pF 5% 50V, 100nF +80/-20% 50V, 100nF +80/-20% 50V, 10uF 20% 16V, 100uF 20% 10V, 100nF +80/-20% 50V, 470pF 5% 50V, 680pF 25V, 1nF 10% 50V, 220uF 20% 16V, 470uF 20% 6.3V, 100pF 5% 50V, 470uF 20% 6.3V, 220uF 20% 16V, 150pF 5% 50V, 100nF +80/-20% 50V, 100nF +80/-20% 50V, 10uF 20% 16V, 100uF 20% 10V, 470pF 5% 50V, 680pF 25V, 1nF 10% 50V.

Table with columns: Part No, Description, Date. Rows include 2211 2238 586 59812 100nF +80/-20% 50V, 2212 4822 122 33753 150pF 5% 50V, 2213 2238 586 59812 100nF +80/-20% 50V, 2214 4822 124 11947 10uF 20% 16V, 2215 4822 124 41584 100uF 20% 10V, 2216 4822 122 33752 15pF 5% 50V, 2217 4822 124 40248 10uF 20% 63V, 2218 4822 126 13881 470pF 5% 50V, 2219 3198 016 36810 680pF 25V, 2220 5322 126 11578 1nF 10% 50V, 2221 2238 586 59812 100nF +80/-20% 50V, 2222 4822 124 41584 100uF 20% 10V, 2223 4822 126 14241 330pF 50V, 2224 5322 126 11579 3.3nF 10% 63V, 2225 2238 586 59812 100nF +80/-20% 50V, 2226 4822 122 33753 150pF 5% 50V, 2227 2238 586 59812 100nF +80/-20% 50V, 2228 4822 126 14241 330pF 50V, 2229 4822 124 11947 10uF 20% 16V, 2230 4822 124 41584 100uF 20% 10V, 2231 4822 126 13881 470pF 5% 50V, 2232 3198 016 36810 680pF 25V, 2233 5322 126 11578 1nF 10% 50V, 2234 2238 586 59812 100nF +80/-20% 50V, 2235 4822 124 40433 47uF 20% 25V, 2236 4822 124 41584 100uF 20% 10V, 2237 4822 126 14241 330pF 50V, 2238 5322 126 11579 3.3nF 10% 63V, 2239 4822 122 33753 150pF 5% 50V, 2241 4822 124 11947 10uF 20% 16V, 2242 4822 126 14241 330pF 50V, 2243 4822 124 41584 100uF 20% 10V, 2244 4822 126 13881 470pF 5% 50V, 2245 3198 016 36810 680pF 25V, 2246 5322 126 11578 1nF 10% 50V, 2247 4822 124 40248 10uF 20% 63V, 2248 4822 124 40248 10uF 20% 63V, 2249 2238 586 59812 100nF +80/-20% 50V, 2250 2238 586 59812 100nF +80/-20% 50V, 2251 4822 122 33753 150pF 5% 50V, 2252 4822 122 33752 15pF 5% 50V, 2253 2238 586 59812 100nF +80/-20% 50V, 2255 4822 124 11947 10uF 20% 16V, 2256 4822 124 41584 100uF 20% 10V, 2257 4822 126 13881 470pF 5% 50V, 2258 3198 016 36810 680pF 25V, 2259 5322 126 11578 1nF 10% 50V, 2260 2238 586 59812 100nF +80/-20% 50V, 2261 4822 122 33753 150pF 5% 50V, 2262 4822 124 11947 10uF 20% 16V, 2263 4822 124 41584 100uF 20% 10V.

ELECTRICAL PARTS LIST - AV BOARD

Table with columns: Part No, Description, Date. Rows include 470pF 5% 50V, 680pF 25V, 1nF 10% 50V, 10uF 20% 63V, 100nF +80/-20% 50V, 100nF +80/-20% 50V, 10uF 20% 63V, 220uF 20% 16V, 100uF 20% 10V, 680pF 25V, 100uF 20% 25V, 100uF 20% 10V, 100nF +80/-20% 50V, 680pF 25V, 220nF +80-20% 16V, 100nF +80/-20% 50V, 680pF 25V, 47uF 20% 25V, 100uF 20% 25V, 680pF 25V, 220uF 20% 16V, 100uF 20% 10V, 100nF +80/-20% 50V, 680pF 25V, 680pF 25V, 100nF +80/-20% 50V, 680pF 25V, 680pF 25V, 100nF +80/-20% 50V, 680pF 25V, 680pF 25V, 100nF +80/-20% 50V, 680pF 25V, 47uF 20% 25V, 100uF 20% 10V, 100uF 20% 10V, 470pF 5% 50V, 100uF 20% 25V, 470nF 10V, 10uF 20% 63V.

RESISTORS

Table with columns: Part No, Description, Date. Rows include 47k 1% 0,063W, 2k7 5% 0,062W, 2k7 5% 0,062W, 68R 5% 0,063W, 10k 5% 0,062W, 4k7 5% 0,062W, 10k 5% 0,062W, 0R Jumper 0603, 0R Jumper 0603, 0R Jumper 0603, 1k 5% 0,062W, 1k 5% 0,062W, 330R 5% 0,062W, 10k 5% 0,062W, 1k 5% 0,062W.

Table with columns: Part No, Description, Date. Rows include 470R 5% 0,062W, 330R 5% 0,062W, 10k 5% 0,062W, 10k 5% 0,062W, 1k 5% 0,062W, 33R 5% 0,062W, 10k 5% 0,062W, 33R 5% 0,062W, 470R 5% 0,062W, 47k 1% 0,063W, 220R 5% 0,062W, 10k 5% 0,062W, 33R 5% 0,062W, 33R 5% 0,062W, 10k 5% 0,062W, 68R 5% 0,063W, 47k 1% 0,063W, 68R 5% 0,063W, 2k7 5% 0,062W, 1k 5% 0,062W, 2k7 5% 0,062W, 1k 5% 0,062W, 1k 5% 0,062W, 47k 1% 0,063W, 47k 1% 0,063W, 10k 5% 0,062W, 2k7 5% 0,062W, 2k7 5% 0,062W, 2k7 5% 0,062W, 1k 5% 0,062W, 22k 5% 0,062W, 10k 5% 0,062W, 10k 5% 0,062W, 75R 5% 0,062W, 33R 5% 0,062W, 33R 5% 0,062W, 4k7 5% 0,062W, 33R 5% 0,062W, 33R 5% 0,062W, 100k 1% 0,62W, 4k7 5% 0,062W, 33R 5% 0,062W, 33R 5% 0,062W, 220k 1%, 100k 1% 0,62W, 18k 5% 0,062W, 4k7 5% 0,062W, 1k2 1% 1/16W, 3k3 5% 0,062W, RST SM 0603 5k1 PM5, 4k7 5% 0,062W.



**ELECTRICAL PARTS LIST - AV BOARD**

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## TRANSISTORS &amp; INTEGRATED CIRCUITS

7241	5322 130 60159	BC847B	
7242	5322 130 60159	BC847B	
7243	4822 130 60373	BC857B	/00/02/05
7300	4822 130 42804	BC817-25	
7301	5322 209 86283	IC L7808CP	
7302	4822 130 42804	BC817-25	
7303	9322 182 95668	IC SM LD1117S	
7304	4822 130 42804	BC817-25	
7305	4822 130 42804	BC817-25	
7306	9322 178 05685	FET POW SI2302DS	
7307	4822 130 42804	BC817-25	
7308	5322 130 60159	BC847B	/00/02/05
7309	4822 130 42804	BC817-25	
7310	4822 130 42804	BC817-25	
7311	9322 175 41687	SOC FIB OPT JFJ1000	
7312	4822 130 42804	BC817-25	
7313	9322 178 05685	FET POW SI2302DS	/00/02/05

Note : Only the parts mentioned in this list are normal service spare parts.

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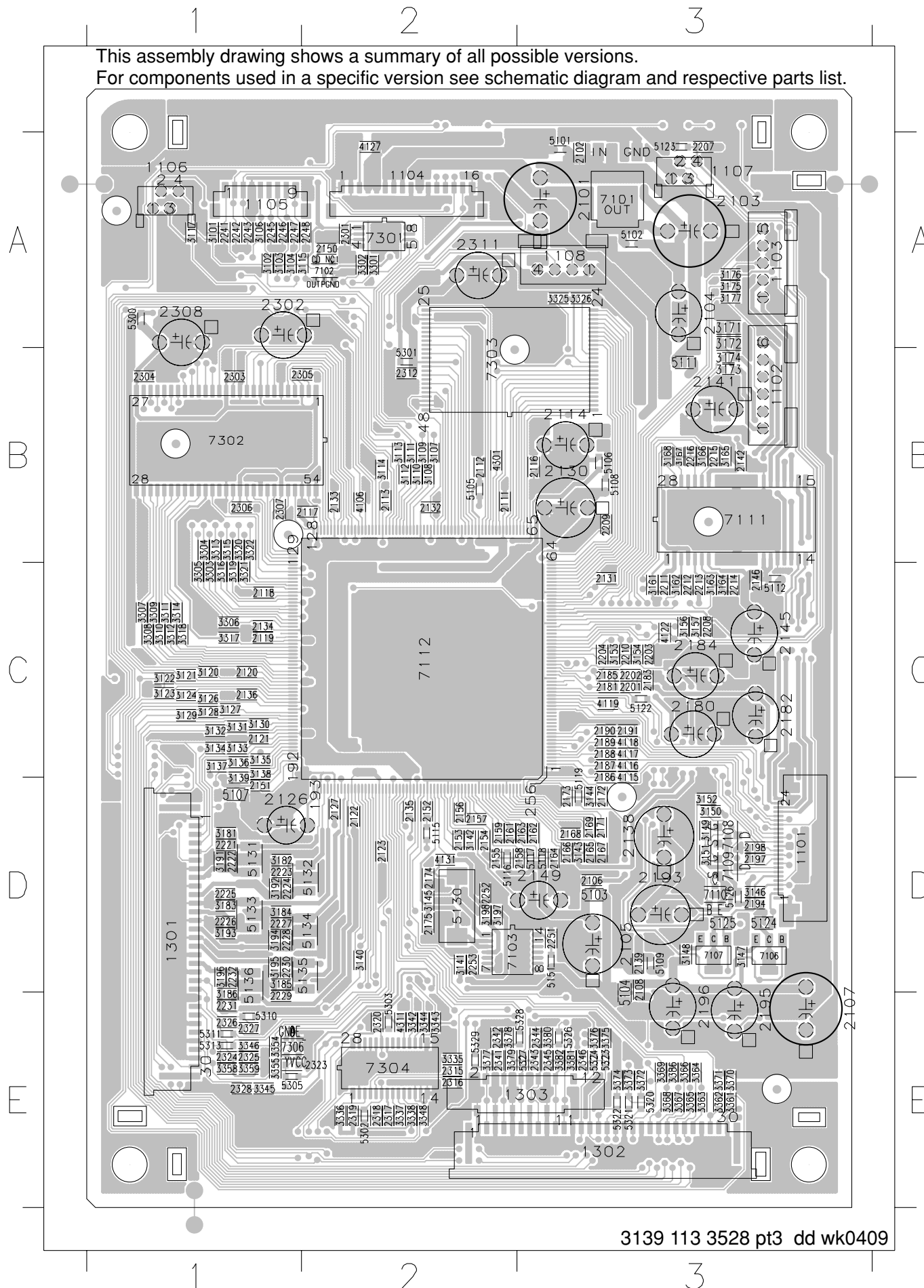
# MODULE SD6.1 PL 6CH

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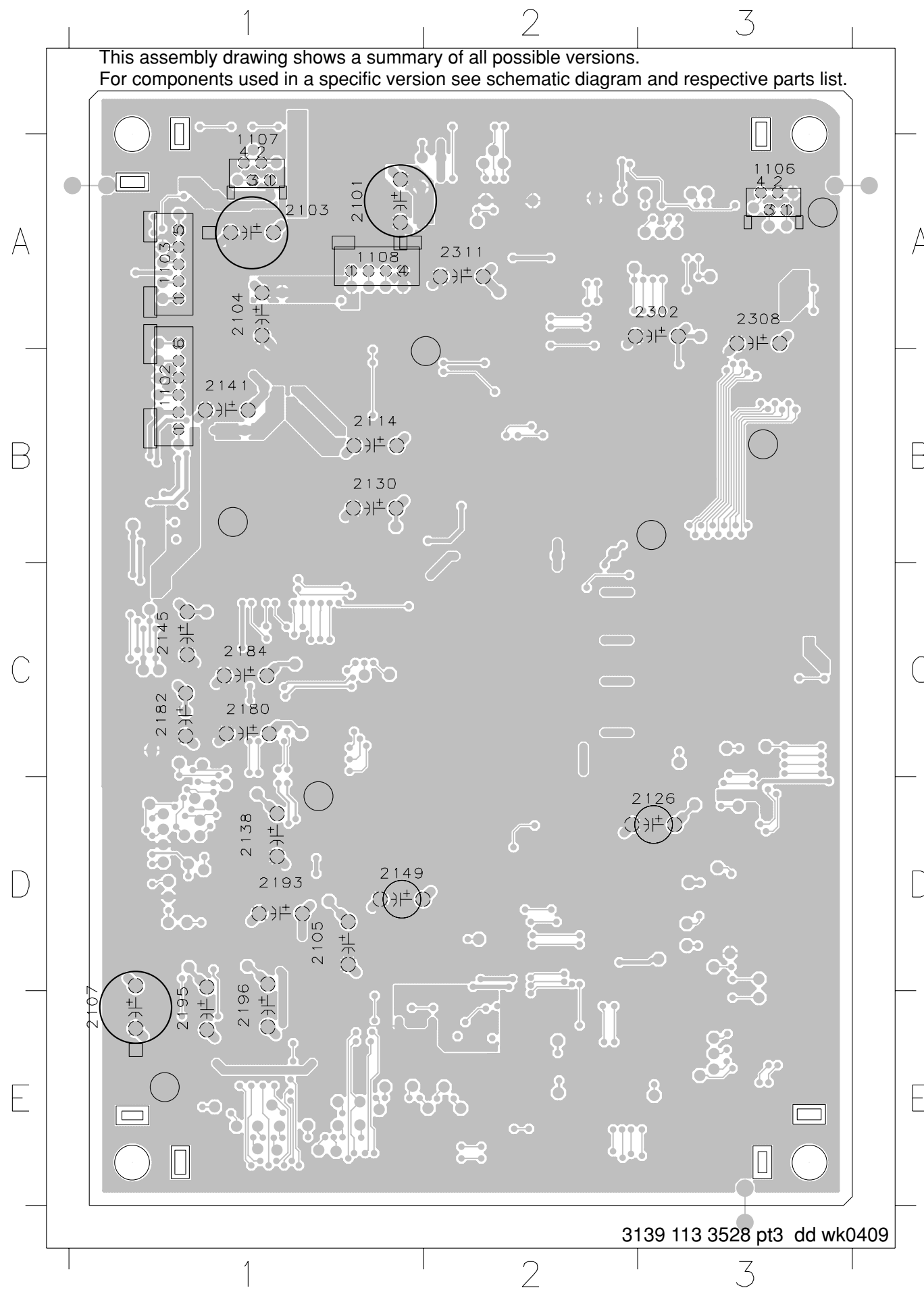
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SD6.1 PL 6CH BOARD - TOP VIEW LAYOUT



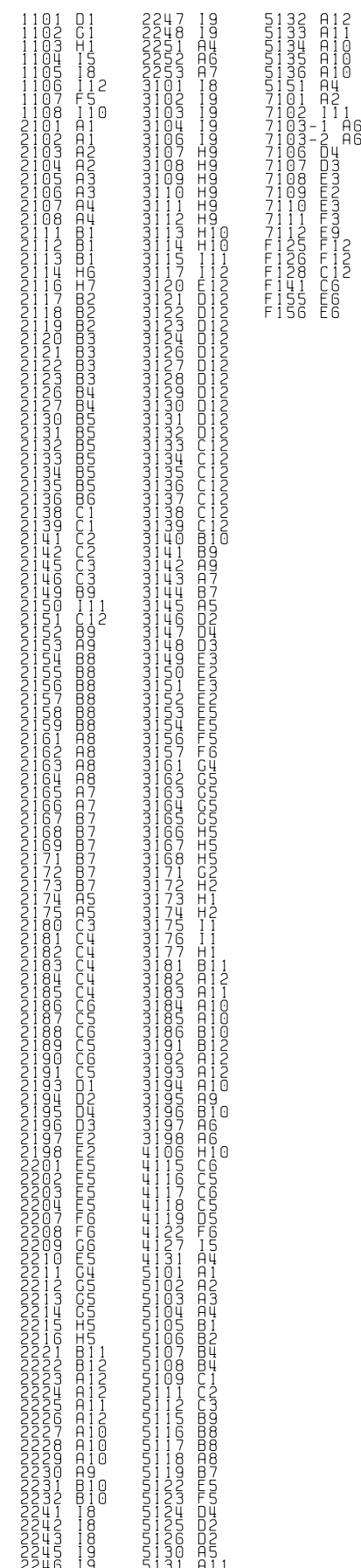
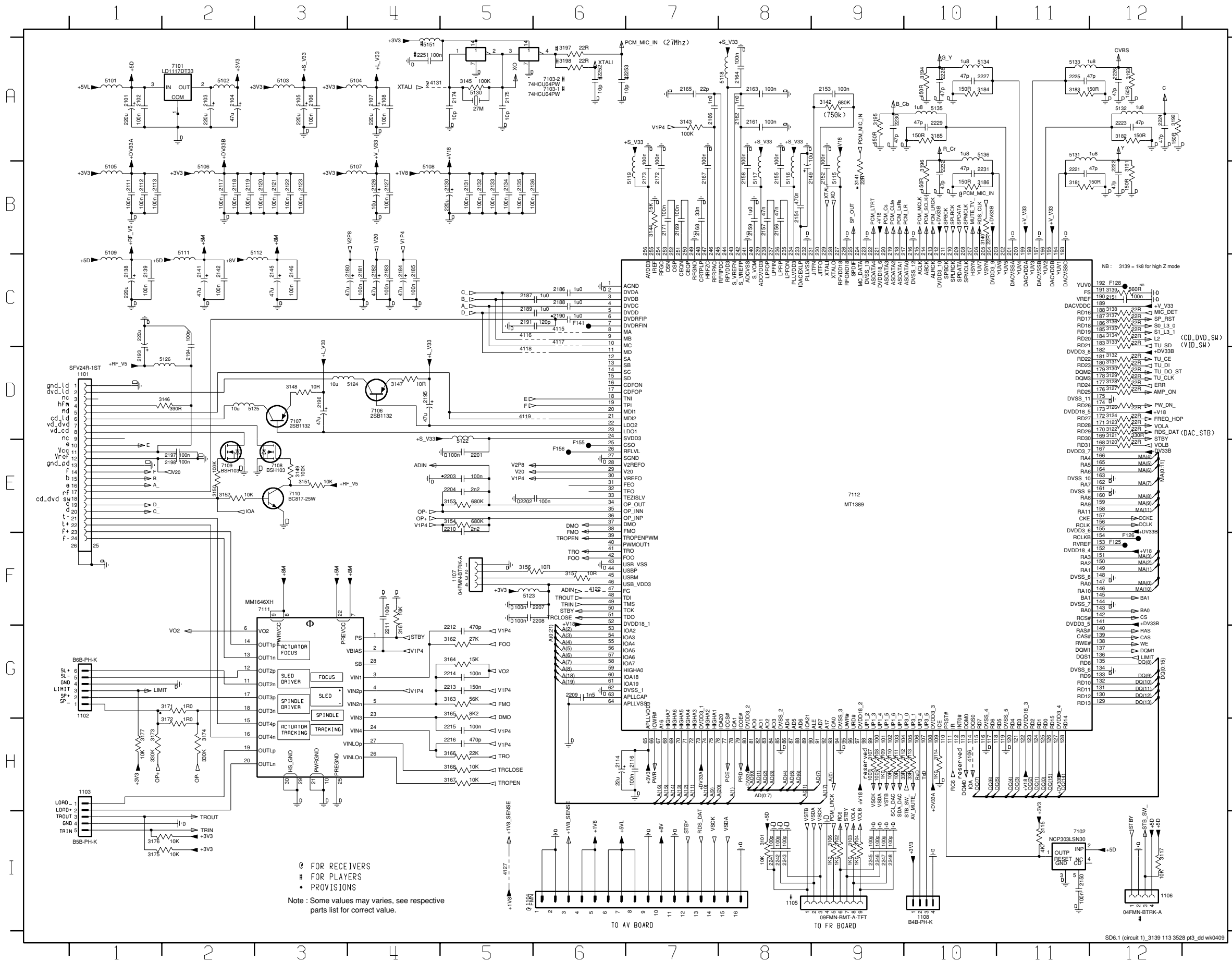
1101 D3	2171 D3	2308 A1	3151 D3	3345 E1	5134 D2
1102 B3	2172 D3	2311 A2	3152 D3	3346 E1	5135 D2
1103 A3	2173 D3	2312 B2	3153 C3	3348 E2	5136 D1
1104 A2	2174 D2	2315 E2	3154 C3	3354 E1	5151 D3
1105 A1	2175 D2	2316 E2	3156 C3	3355 E1	5300 A1
1106 A1	2180 C3	2317 E2	3157 C3	3358 E1	5301 B2
1107 A3	2181 C3	2318 E2	3161 C3	3359 E1	5302 E2
1108 A3	2182 C3	2319 E2	3162 C3	3361 E3	5303 E2
1301 D1	2183 C3	2320 E2	3163 C3	3362 E3	5305 E1
1302 E3	2184 C3	2323 E1	3164 C3	3363 E3	5310 E1
1303 E3	2185 C3	2324 E1	3165 B3	3364 E3	5311 E1
2101 A3	2186 C3	2325 E1	3166 B3	3365 E3	5313 E1
2102 A3	2187 C3	2326 E1	3167 B3	3366 E3	5320 E3
2103 A3	2188 C3	2327 E1	3168 B3	3367 E3	5321 E3
2104 A3	2189 C3	2328 E1	3171 A3	3368 E3	5322 E3
2105 D3	2190 C3	2341 E2	3172 A3	3369 E3	5323 E3
2106 D3	2191 C3	2342 E2	3173 B3	3370 E3	5324 E3
2107 E3	2193 D3	2343 E3	3174 B3	3371 E3	5326 E3
2108 D3	2194 D3	2344 E3	3175 A3	3372 E3	5327 E3
2111 B2	2195 E3	2345 E3	3176 A3	3373 E3	5328 E3
2112 B2	2196 E3	2346 E3	3177 A3	3374 E3	5329 E2
2113 B2	2197 D3	3101 A1	3181 D1	3375 E3	7101 A3
2114 B3	2198 D3	3102 A1	3182 D1	3376 E3	7102 A2
2116 B3	2201 C3	3103 A1	3183 D1	3377 E2	7103 D2
2117 B2	2202 C3	3104 A1	3184 D1	3378 E2	7106 D3
2118 C1	2203 C3	3106 A1	3185 D1	3379 E2	7107 D3
2119 C1	2204 C3	3107 B2	3186 E1	3380 E3	7108 D3
2120 C1	2207 A3	3108 B2	3191 D1	3381 E3	7109 D3
2121 C1	2208 C3	3109 B2	3192 D1	3382 E3	7110 D3
2122 D2	2209 B3	3110 B2	3193 D1	3386 E3	7111 B3
2123 D2	2210 C3	3111 B2	3194 D1	4106 B2	7112 C2
2126 D1	2211 C3	3112 B2	3195 D1	4115 C3	7301 A2
2127 D2	2212 C3	3113 B2	3196 D1	4116 C3	7302 B1
2130 B3	2213 C3	3114 B2	3197 D2	4117 C3	7303 B2
2131 C3	2214 C3	3115 A2	3198 D2	4118 C3	7304 E2
2132 B2	2215 B3	3117 A1	3301 A2	4119 C3	7306 E1
2133 B2	2216 B3	3120 C1	3302 A2	4122 C3	
2134 C1	2221 D1	3121 C1	3303 C1	4127 A2	
2135 D2	2222 D1	3122 C1	3304 B1	4131 D2	
2136 C1	2223 D1	3123 C1	3305 C1	4301 B2	
2138 D3	2224 D1	3124 C1	3306 C1	4311 E2	
2139 D3	2225 D1	3126 C1	3307 C1	5101 A3	
2141 B3	2226 D1	3127 C1	3308 C1	5102 A3	
2142 B3	2227 D1	3128 C1	3309 C1	5103 D3	
2145 C3	2228 D1	3129 C1	3310 C1	5104 E3	
2146 C3	2229 E1	3130 C1	3311 C1	5105 B2	
2149 D3	2230 D1	3131 C1	3312 C1	5106 B3	
2150 A2	2231 E1	3132 C1	3313 B1	5107 D1	
2151 D1	2232 D1	3133 C1	3314 C1	5108 B3	
2152 D2	2241 A1	3134 C1	3315 B1	5109 D3	
2153 D2	2242 A1	3135 C1	3316 C1	5111 B3	
2154 D2	2243 A1	3136 C1	3317 C1	5112 C3	
2155 D2	2245 A1	3137 C1	3318 C1	5115 D2	
2156 D2	2246 A1	3138 C1	3319 C1	5116 D2	
2157 D2	2247 A1	3139 D1	3320 B1	5117 D3	
2158 D3	2248 A2	3140 D2	3321 C1	5118 D3	
2159 D2	2251 D3	3141 D2	3322 B1	5119 D3	
2161 D2	2252 D2	3142 D2	3325 A3	5122 C3	
2162 D3	2253 D2	3143 D3	3326 A3	5123 A3	
2163 D3	2301 A2	3144 D3	3335 E2	5124 D3	
2164 D3	2302 A1	3145 D2	3336 E2	5125 D3	
2165 D3	2303 B1	3146 D3	3337 E2	5126 D3	
2166 D3	2304 B1	3147 D3	3338 E2	5130 D2	
2167 D3	2305 B2	3148 D3	3342 E2	5131 D1	
2168 D3	2306 B1	3149 D3	3343 E2	5132 D2	
2169 D3	2307 B1	3150 D3	3344 E2	5133 D1	

SD6.1 PL 6CH BOARD - BOTTOM VIEW LAYOUT



- 1102 B1
- 1103 A1
- 1106 A3
- 1107 A1
- 1108 A1
- 2101 A1
- 2103 A1
- 2104 A1
- 2105 D1
- 2107 E1
- 2114 B1
- 2126 D3
- 2130 B1
- 2138 D1
- 2141 B1
- 2145 C1
- 2149 D1
- 2180 C1
- 2182 C1
- 2184 C1
- 2193 D1
- 2195 E1
- 2196 E1
- 2302 A3
- 2308 A3
- 2311 A2

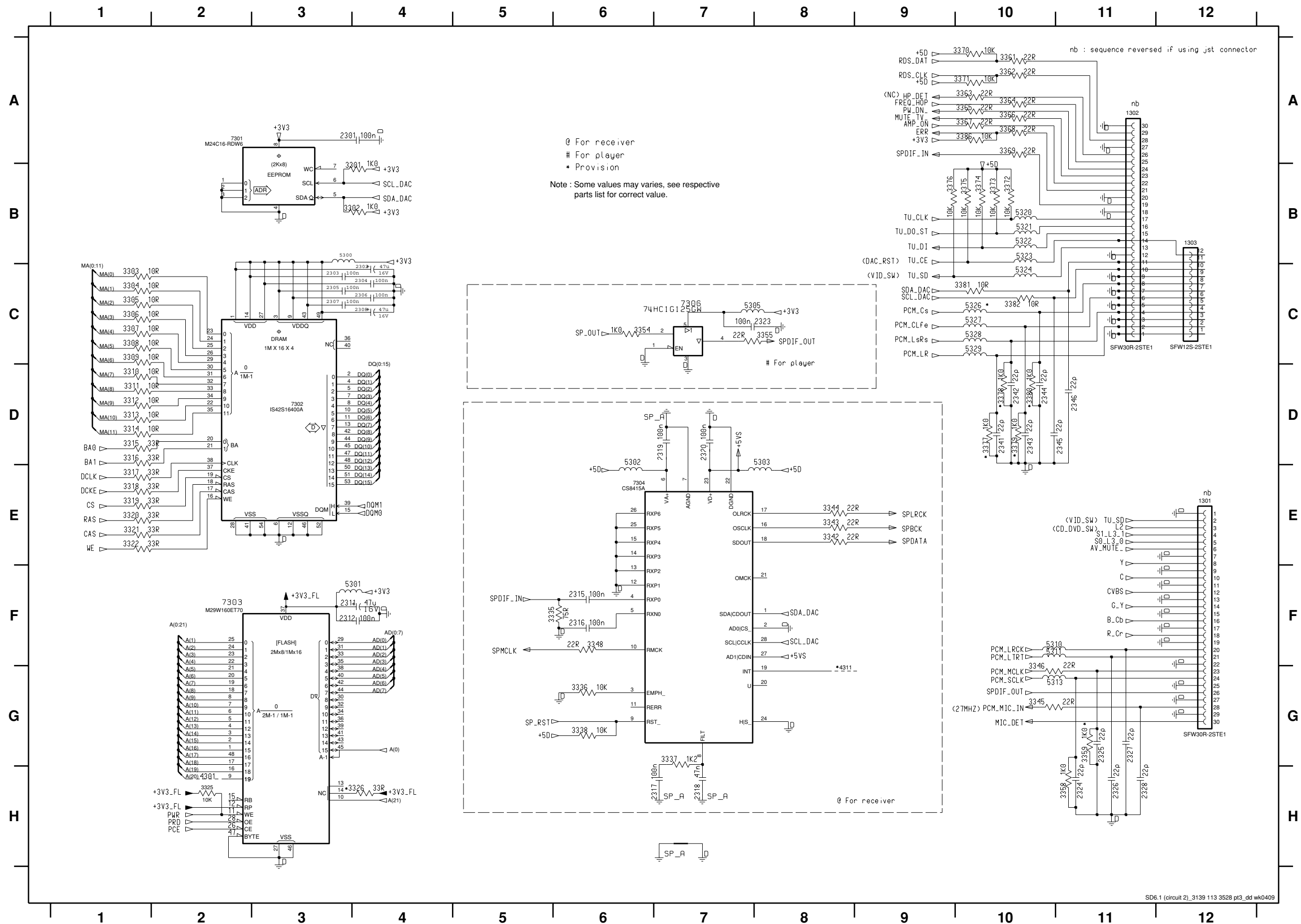
# SD6.1 PL 6CH BOARD - CIRCUIT DIAGRAM (PART 1)



SD6.1 (circuit 1)\_3139 113 3528 pi3\_dd wk4049

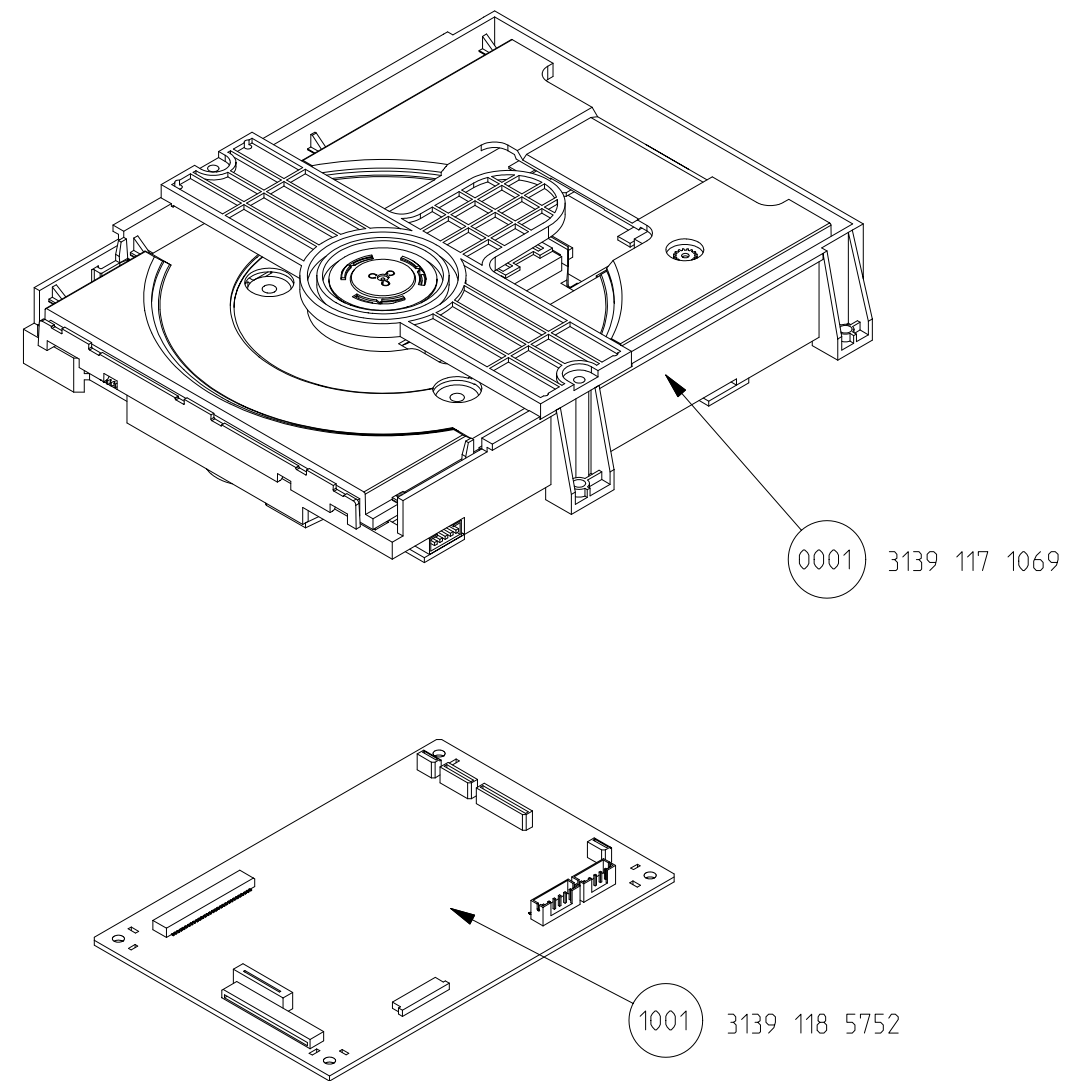


# SD6.1 PL 6CH BOARD - CIRCUIT DIAGRAM (PART 2)



1301 E12	5322 B10
1302 A11	5323 B10
1303 B12	5324 C10
2301 A3	5326 C10
2302 C4	5327 C10
2303 C3	5328 C10
2304 C4	5329 C10
2305 C3	7301 A2
2306 C4	7302 D3
2307 C3	7303 F2
2308 C4	7304 E6
2311 F3	7306 C7
2312 F3	
2315 F6	
2316 F6	
2317 H6	
2318 H7	
2319 D7	
2320 D7	
2323 C8	
2324 H11	
2325 G11	
2326 H11	
2327 G11	
2328 H11	
2341 D10	
2342 D10	
2343 D10	
2344 D10	
2345 D11	
3301 B4	
3302 B3	
3303 C1	
3304 C1	
3305 C1	
3306 C1	
3307 C1	
3308 C1	
3309 C1	
3310 D1	
3311 D1	
3312 D1	
3313 D1	
3314 D1	
3315 D1	
3316 D1	
3317 E1	
3318 E1	
3319 E1	
3320 E1	
3321 E1	
3322 E1	
3325 H2	
3326 H4	
3335 F6	
3336 G6	
3337 G7	
3338 G6	
3342 E8	
3343 E8	
3344 E8	
3345 G10	
3346 G10	
3348 F6	
3354 C6	
3355 C8	
3358 H11	
3359 G11	
3361 A10	
3362 A10	
3363 A10	
3364 A10	
3365 A10	
3366 A10	
3367 A10	
3368 A10	
3369 A10	
3370 A10	
3371 A10	
3372 B10	
3373 B10	
3374 B10	
3375 B10	
3376 B9	
3377 D10	
3378 D10	
3379 D10	
3380 D10	
3381 C10	
3382 C10	
3386 A10	
4301 H2	
4311 G8	
5300 B3	
5301 F4	
5302 D6	
5303 D8	
5305 C7	
5310 F10	
5311 F10	
5313 G10	
5320 B10	
5321 B10	

## EXPLODED VIEW - MODULE SD6.1 PL 6CH



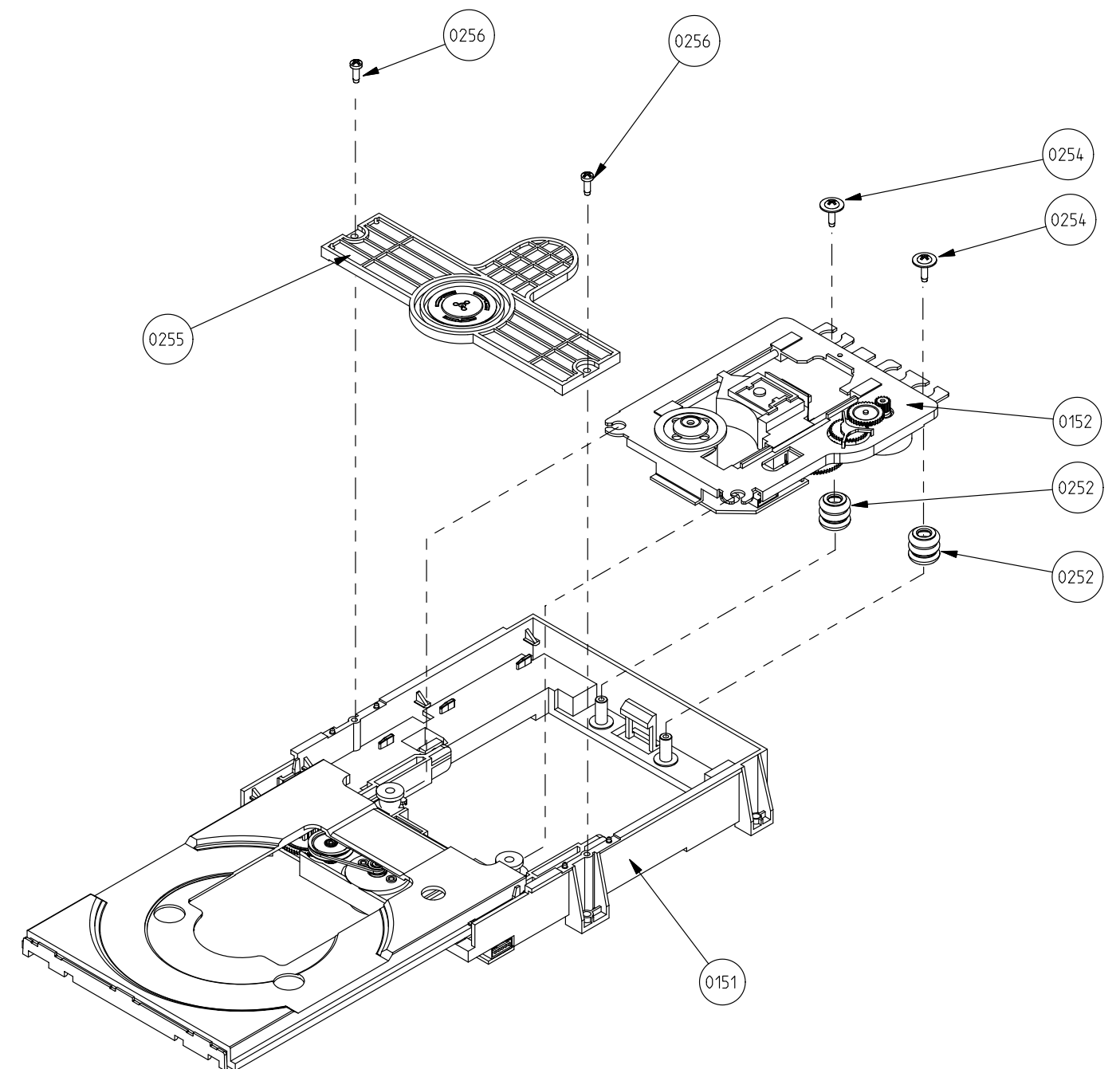
Module SD6.1 PL 6CH\_3139 117 10631\_dd wk0409

**MODULE SD6.1 PL 6CH PARTS LIST**

0001	3139 117 10691	Module DVD Loader ASA+DV34 PL
1001	3139 118 57521	PCBAS SD6.1 PL 6CH
1101	3139 111 04021	FFC Foil 24P/220 AD 0.5MMP FLD

Note : Only the parts mentioned in this list are normal service spare parts.

## EXPLODED VIEW - MODULE DVD LOADER ASA+DV34 PL



Module DVD Loader ASA+DV34 PL\_3139 117 10691\_dd wk0409



## ELECTRICAL PARTS LIST - SD6.1 PL 6CH BOARD

## RESISTORS

3181	2322 704 61501	RST SM 0603 RC22H 150R PM1
3182	2322 704 61501	RST SM 0603 RC22H 150R PM1
3183	2322 704 61501	RST SM 0603 RC22H 150R PM1
3184	2322 704 61501	RST SM 0603 RC22H 150R PM1
3185	2322 704 61501	RST SM 0603 RC22H 150R PM1
3186	2322 704 61501	RST SM 0603 RC22H 150R PM1
3191	2322 704 61501	RST SM 0603 RC22H 150R PM1
3192	2322 704 61501	RST SM 0603 RC22H 150R PM1
3193	2322 704 61501	RST SM 0603 RC22H 150R PM1
3194	2322 704 61501	RST SM 0603 RC22H 150R PM1
3195	2322 704 61501	RST SM 0603 RC22H 150R PM1
3196	2322 704 61501	RST SM 0603 RC22H 150R PM1
3197	4822 117 12139	22R 5% 0,062W
3198	4822 117 12139	22R 5% 0,062W
3301	4822 051 30102	1k 5% 0,062W
3302	4822 051 30102	1k 5% 0,062W
3303	4822 051 30109	10R 5% 0,062W
3304	4822 051 30109	10R 5% 0,062W
3305	4822 051 30109	10R 5% 0,062W
3306	4822 051 30109	10R 5% 0,062W
3307	4822 051 30109	10R 5% 0,062W
3308	4822 051 30109	10R 5% 0,062W
3309	4822 051 30109	10R 5% 0,062W
3310	4822 051 30109	10R 5% 0,062W
3311	4822 051 30109	10R 5% 0,062W
3312	4822 051 30109	10R 5% 0,062W
3313	4822 051 30109	10R 5% 0,062W
3314	4822 051 30109	10R 5% 0,062W
3315	4822 051 30339	33R 5% 0,062W
3316	4822 051 30339	33R 5% 0,062W
3317	4822 051 30339	33R 5% 0,062W
3318	4822 051 30339	33R 5% 0,062W
3319	4822 051 30339	33R 5% 0,062W
3320	4822 051 30339	33R 5% 0,062W
3321	4822 051 30339	33R 5% 0,062W
3322	4822 051 30339	33R 5% 0,062W
3325	4822 051 30103	10k 5% 0,062W
3326	4822 051 30339	33R 5% 0,062W
3345	4822 117 12139	22R 5% 0,062W
3346	4822 117 12139	22R 5% 0,062W
3354	4822 051 30102	1k 5% 0,062W
3355	4822 117 12139	22R 5% 0,062W
3358	4822 051 30102	1k 5% 0,062W
3381	4822 051 30109	10R 5% 0,062W
3382	4822 051 30109	10R 5% 0,062W
3386	4822 051 30103	10k 5% 0,062W
4106	4822 051 30008	OR Jumper 0603
4115	4822 051 30008	OR Jumper 0603
4116	4822 051 30008	OR Jumper 0603
4117	4822 051 30008	OR Jumper 0603
4118	4822 051 30008	OR Jumper 0603
4119	4822 051 30008	OR Jumper 0603

## COILS &amp; FILTERS

4122	4822 051 30008	OR Jumper 0603
4127	4822 051 30008	OR Jumper 0603
4301	4822 051 30008	OR Jumper 0603
5101	2422 549 45618	IND FXD 0603 EMI 100MHz 60R
5102	2422 549 45618	IND FXD 0603 EMI 100MHz 60R
5103	4822 157 71206	FXD IND 0805 100MHz 600R
5104	4822 157 71206	FXD IND 0805 100MHz 600R
5105	2422 549 43062	FXD IND 0603 100MHz 600R
5106	2422 549 43062	FXD IND 0603 100MHz 600R
5107	4822 157 71206	FXD IND 0805 100MHz 600R
5108	2422 549 45618	IND FXD 0603 EMI 100MHz 60R
5109	2422 549 43062	FXD IND 0603 100MHz 600R
5111	4822 157 71206	FXD IND 0805 100MHz 600R
5112	2422 549 45618	IND FXD 0603 EMI 100MHz 60R
5115	2422 549 43062	FXD IND 0603 100MHz 600R
5116	2422 549 43062	FXD IND 0603 100MHz 600R
5117	2422 549 43062	FXD IND 0603 100MHz 600R
5118	2422 549 43062	FXD IND 0603 100MHz 600R
5119	2422 549 43062	FXD IND 0603 100MHz 600R
5122	2422 549 43062	FXD IND 0603 100MHz 600R
5123	2422 549 45618	IND FXD 0603 EMI 100MHz 60R
5124	3198 018 31090	FXD IND SM 0805 10U PM10
5125	3198 018 31090	FXD IND SM 0805 10U PM10
5126	2422 549 43062	FXD IND 0603 100MHz 600R
5130	2422 543 01393	RES XTL SM27MHz 10PCX8045
5131	3198 018 41880	FXD IND SM 1210 1U8 PM5
5132	3198 018 41880	FXD IND SM 1210 1U8 PM5
5133	3198 018 41880	FXD IND SM 1210 1U8 PM5
5134	3198 018 41880	FXD IND SM 1210 1U8 PM5
5135	3198 018 41880	FXD IND SM 1210 1U8 PM5
5136	3198 018 41880	FXD IND SM 1210 1U8 PM5
5151	2422 549 43062	FXD IND 0603 100MHz 600R
5300	2422 549 43062	FXD IND 0603 100MHz 600R
5301	2422 549 43062	FXD IND 0603 100MHz 600R
5305	2422 549 43062	FXD IND 0603 100MHz 600R
5310	2422 549 43062	FXD IND 0603 100MHz 600R
5311	2422 549 43062	FXD IND 0603 100MHz 600R
5313	2422 549 43062	FXD IND 0603 100MHz 600R
5323	2422 549 43062	FXD IND 0603 100MHz 600R
5326	2422 549 43062	FXD IND 0603 100MHz 600R
5327	2422 549 43062	FXD IND 0603 100MHz 600R
5328	2422 549 43062	FXD IND 0603 100MHz 600R
5329	2422 549 43062	FXD IND 0603 100MHz 600R

## TRANSISTORS &amp; INTEGRATED CIRCUITS

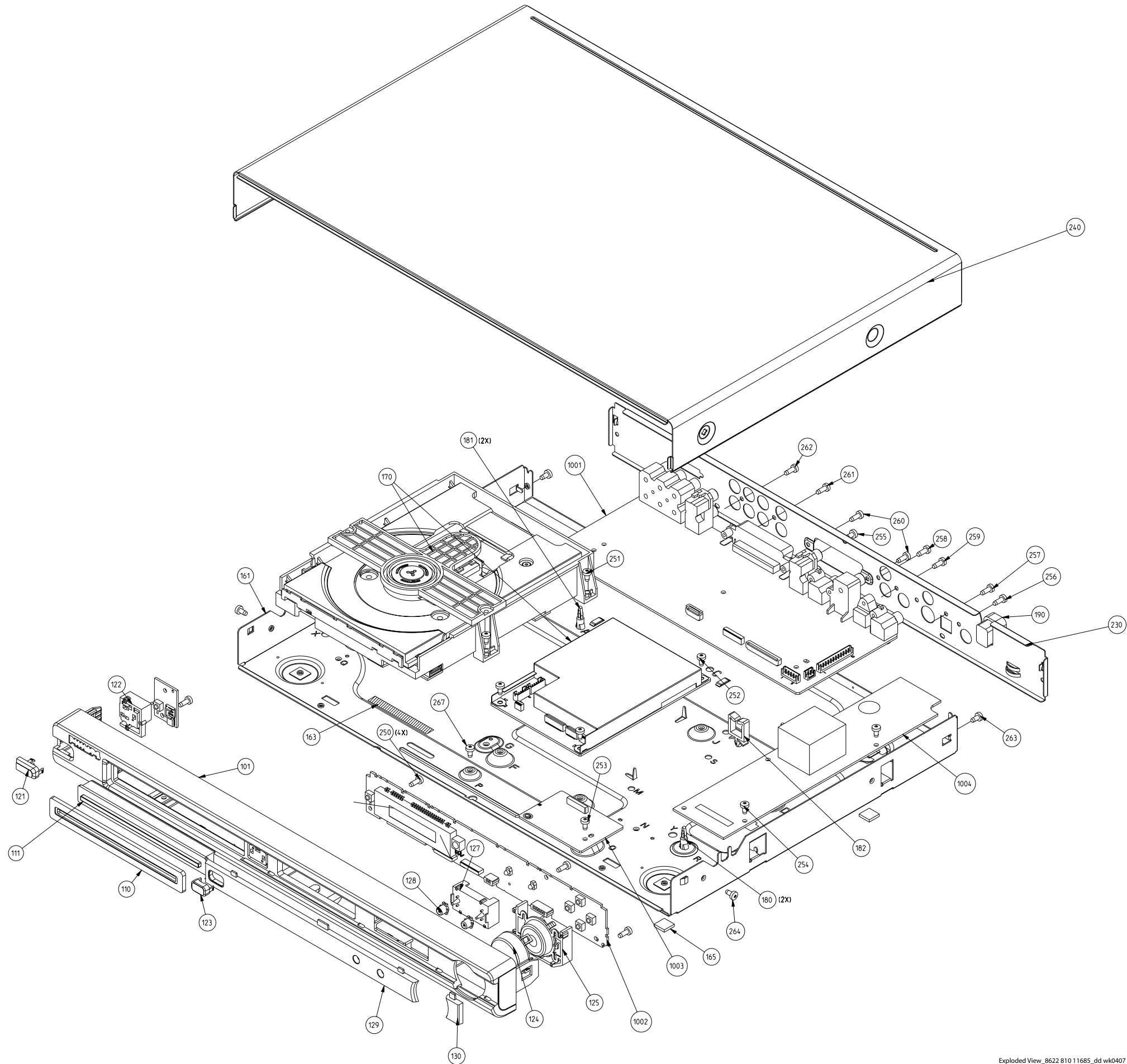
7101	4822 209 17398	IC SM LD1117DT33
7102	9322 165 15685	IC SM NCP303LSN30
7103	9351 875 80118	IC SM 74HCU04PW
7106	4822 130 11565	2SB1132
7107	4822 130 11565	2SB1132

## ELECTRICAL PARTS LIST - SD6.1 PL 6CH BOARD

7108	9340 547 13215	FET SIG SM BSH103
7109	9340 547 13215	FET SIG SM BSH103
7110	9340 219 30115	BC817-25W
7111	9322 201 94668	IC SM MM1646XH
7112	9322 203 35671	IC SM MT1389E
7301	9322 189 04668	IC SM M24C16-RDW6
7302	9322 199 38671	IC SM IS42S16400A-7T
7303	3139 110 53711	FLASH + EMBEDDED SW
7306	9352 456 90115	IC SM 74HC1G125GW

Note : Only the parts mentioned in this list are normal service spare parts.

**SET MECHANICAL EXPLODED VIEW**



**MECHANICAL & ACCESSORIES PARTS LIST - MAIN UNIT****SCREW LISTS - MAIN UNIT**

0101	3139 244 04651	Cabinet Front
0105	3139 247 51831	Badge Philips Assy Silver
0110	3139 247 58371	Tray Front
0111	3139 244 05001	Tray Strip
0121	3139 247 58481	Button Standby Top
0122	3139 244 03411	Button Standby Bottom
0123	3139 247 58461	Button Open/Close
0124	3139 247 58442	Button Cluster Top
0125	3139 247 58451	Button Cluster Bottom
0127	3139 244 04621	Guide Light
0128	3139 244 04611	Ring Light
0129	3139 244 04601	Window Centre
0130	3139 247 58621	Window Side
0165	3139 243 10080	Cushion Foot
0180	3139 240 40061	Spacer - 8mm
0181	3139 240 40061	Spacer - 8mm
0190	4822 532 60948	Bush
0333	3139 248 72031	Remote Control
0336	2422 070 98231	△ Mains Cord /00/02
0336	3103 140 25882	△ Mains Cord /05
0336	4822 321 11139	△ Mains Cord /69
0336	2422 070 98233	△ Mains Cord /75
0338	2422 076 00304	Cable Cinch 1M5 YE/RD/WH /69/75
0342	2422 076 00445	△ Cable SCART 1M1 21P BK /00/02/05
1004	3139 248 72061	Module PSU DVD HE 2004 MIT
1101	3139 241 00541	FFC Foil 30P/120/30P AD 1MMP
1102	3139 111 02421	FFC Foil 16P/220/16P AD 1MMP
1103	3139 241 00511	FFC Foil 12P/080/12P AD 1MMP
1104	3139 241 00531	FFC Foil 04P/400/04P AD 1MMP /69/75
1105	3139 241 00521	FFC Foil 09P/140/09P AD 1MMP
1106	3139 241 00551	FFC Foil 16P/100/16P AD 1MMP /00/02/05

250	D3 x 8
251	M3 x 6
252	M3 x 4
253	M3 x 4
254	M3 x 4
255	M3 x 4
256	D3 x 8
257	D3 x 8
258	D3 x 8
259	D3 x 8
260	D3 x 8 /00/02/05
261	D3 x 8
262	D3 x 8
263	M3 x 6
264	M3 x 6
267	M3 x 4

Note : Only the parts mentioned in this list are normal service spare parts.

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# PSU BOARD

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## *(For Information only)*

It is not recommended for component repair on this board but to replace the board when it becomes defective.

Therefore no service parts list is published in this chapter.

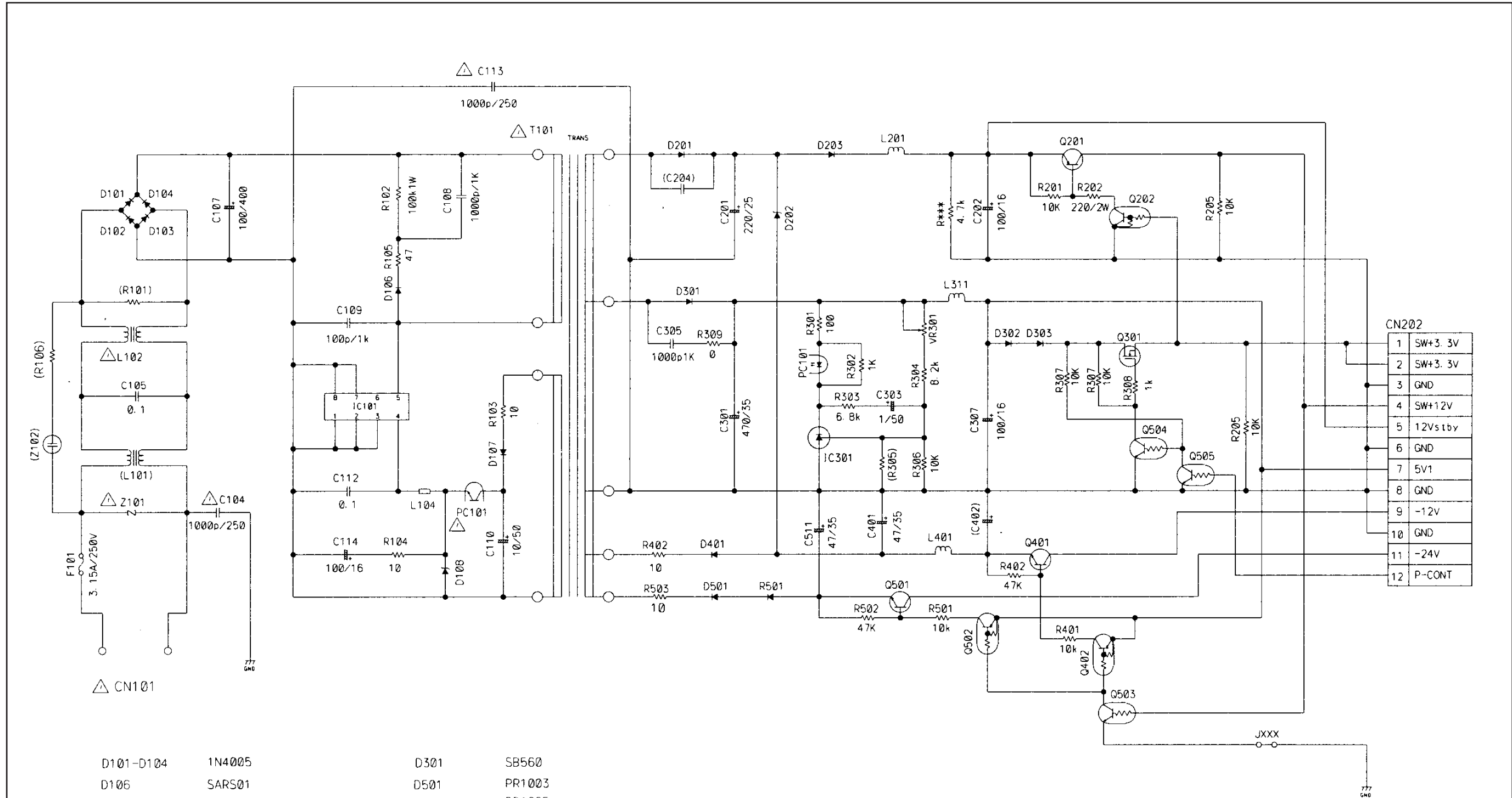
The only service part available for replacement is:

Module PSU DVD HE 2004 MIT ..... 3139 248 72061

### TABLE OF CONTENTS

Circuit Diagram ..... 10-2

PSU BOARD - CIRCUIT DIAGRAM



CN202	
1	SW+3.3V
2	SW+3.3V
3	GND
4	SW+12V
5	12Vstby
6	GND
7	5V1
8	GND
9	-12V
10	GND
11	-24V
12	P-CONT

D101-D104	1N4005	D301	SB560
D106	SARS01	D501	PR1003
D107	AU02Z, PR1003, FR1003	D501	PR1005
D108	MTZJ7 5 or MA4075	Q201	2SB1592
IC101	MIP2E4DMY	Q401	2SD1768
PC101	PC123, PS2561	Q501	2PC1815, 2SC1815
		Q402, Q502	DTA114
		Q202, Q503	DTC114
		Q504, Q505	DTC114
		IC301	TL431
D201	D2L20U		
D202	MTZJ36 or MA4360		
D203	1N4005		



**REVISION LIST**

**Version 1.0 (3139 785 30650)**

- \* Initial Release DVP720SA/00/02/05/69/75

**Version 1.1 (3139 785 30651)**

- \* Page 5-3 : ECO Board - Electrical parts list adapted
- \* Chapter 10 : Additional of Chapter 10 (PSU Board - For Information only)