

☐ Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.:	201-C06		
Project Code:	91.71602.001			Page	1 of 22
Model Name:	7254E (DELL E550mmw)				

**0. Introduction** ..... 3

**1. Electrical Characteristics** ..... 3

    1.1 Power Supply ..... 3

    1.2 Signal Interface ..... 3

    1.3 Scan Range ..... 3

    1.4 Video Performance ..... 4

    1.5 Timings ..... 4

    1.6 Audio Performance ..... 4

**2. Environment & Reliability** ..... 5

**3. CRT Characteristics** ..... 6

**4. Front of Screen** ..... 6

    4.1 Geometry ..... 6

    4.2 Sharpness Crispness ..... 7

    4.3 Light Quality ..... 7

    4.4 Image Stability ..... 7

**5. User Controls** ..... 8

    5.1 Basic ..... 8

    5.2 Advanced ..... 8

**6. Mechanical Characteristics** ..... 9

    6.1 Dimension ..... 9

    6.2 Weight ..... 9

    6.3 Plastic ..... 9

    6.4 Carton ..... 9

**7. Pallet & shipment** ..... 10

    7.1 Dimension ..... 10

    7.2 Shipping Container ..... 10

    7.3 Air Transportation Container ..... 11

Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.:	201-C06		
Project Code:	91.71602.001			Page	2 of 22
Model Name:	7254E (DELL E550mmw)				

**8. Certification** ..... 11

**9. Appendix Table** ..... 13

    Table 1 - DDC Table ..... 13

    Table 2 - CRT Blemish & Scratch Spec ..... 17

    Table 3 - Geometry Fig. .... 18

        Fig.1 Linearity Measurements ..... 18

        Fig.2 General Pincushion Measurements ..... 19

        Fig.3 Trapezoid Measurements ..... 20

        Fig.4 Picture Distortion & Phase Measurements ..... 21





    Table 4 - Audio Performance. .... 22

☐ Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 3 of 22
Model Name: 7254E (DELL E550mmw)		

## 0. Introduction :

The subject model is designed for a value line 15" color monitor. It has the following figures :

-  0.28mm dot pitch CRT, 65MHz video bandwidth ,1024x768 max resolution.
-  Low radiation MPRII standard,
-  ISO 14000 certificate green design. (Refer Table 4)
-  Optional items : Audio

## 1. Electrical Characteristics

1.1 POWER SUPPLY	Condition	Spec	OK	N.A	Remark
Voltage	Universal input full range	90~264VAC /47~63Hz	√		
Input Current	90 ~ 264VAC	2.0 Arms	√		
Power consumption	On	≤ 75 W max(w/o Audio)	√		LED : Green
		≤ 90 W max(with Audio)			
Input Voltage Transients		280 volts for 10 seconds @40°C	√		
DPMS	Standby	≤ 60 W(w/o Audio)	√		LED : Green
	Suspend	≤ 5 W(w/o Audio)	√		LED : Amber Blink
	Off	≤ 5 W(w/o Audio)	√		LED : Amber Blink
Inrush Current	220 VAC/50Hz	40 Amp peak	√		cold-start
Leakage Current	264 VAC/50Hz	< 3.5mA	√		
Hi-Pot	1.1500VAC, 1 sec	w/o damage	√		(in-line test)
	2. Ground test : 30A, 1sec	< 0.1 ohm			(in-lab test)
Power cord	Length : 1800 mm	Color : Flint Gray	√		KC-003
1.2 SIGNAL INTERFACE	Condition	Spec	OK	N.A	Remark
Pin assignment		5V on Pin 9	√		
Video input	Level / Impedance	700mV / 75 Ohm	√		
Sync input	Level	TTL-Positive/Negative	√		
	Impedance	50 Ohm on H-sync cable	√		
Signal Cable	D-Sub	1800mm +/- 20mm	√		
	BNC			√	
	Color	Flint Gray	√		
1.3 SCAN RANGE		Spec	OK	N.A	Remark
Horizontal		30 ~ 54 KHz	√		
Vertical		50~ 120 Hz	√		

Product System (PS)

Subject: Engineering Specification

Part No.: 91.71602.132

Rev.: 0

Doc. No. 201-C06

Project Code: 91.71602.001

Page 4 of 22

Model Name: 7254E (DELL E550mmw)

1.4 VIDEO PERFORMANCE	Condition	Spec	OK	N.A	Remark
Dot Rate		65 MHz	√		
Max. Resolution		1024 x 768	√		
Rise time/Fall time		10 ns	√		
Video Ringing		15% max	√		
Sag		5% max	√		
DDC Version		DDC1/2B	√		
EDID		Ver 1 ,Rev 2	√		see Table 1
<b>1.5 TIMINGS</b>					
	Preset mode No. : 8	User mode No. : 12			
Preset	Resolution	Fh (KHz) / Fv (Hz)	OK	N.A	Remark
VGA400	640x400	31.47KHz/70Hz	√		Timing113
VGA480	640x480	31.47KHz/59.94Hz	√		Timing114
VESA480	640x480	37.86KHz/72.81Hz		√	
6448A	640X480	37.5KHz/75Hz	√		Timing303
6448B	640X480	43.269KHz/85Hz	√		Timing224
SVGA2	800x600	37.88KHz/60.32Hz	√		Timing118
SVGA3	800x600	48.09KHz/72.12Hz		√	
SVGA4	800x600	46.88KHz/75Hz	√		Timing305
SVGA5	800x600	53.67KHz/85Hz	√		Timing225
Apple 16"	832x624	49.71KHz/74.533Hz		√	
UVGA1	1024x768	48.36KHz/60Hz	√		Timing120
UVGA7	1024x768	60.023KHz/75.029Hz		√	
Super MAC 19	1024x768	60.24KHz/75Hz		√	
UVGA8	1024x768	68.68KHz/85Hz		√	
WS2	1280x1024	64.317KHz/60.392Hz		√	
WS8	1280x1024	91.15KHz/85Hz		√	
<b>1.6 Audio Performance</b>				√	option; see table 5

Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 5 of 22
Model Name: 7254E (DELL E550mmw)		

## 2.Environment & Reliability

	Condition	Spec	O K	N.A	Remark
Operation Temp./Humidity		+5 ~ +40°C / 10~80% R.H.	√		Non-condensing
Non- Operation Temp./Humi.	storage	0~ +60°C / 5~90% R.H.	√		Non-condensing
	shipping	-40~ +60°C / 5~95% R.H.			
Altitude	Operating condition	0~3048m (10,000ft)	√		Without packing
	Non-operating condition	0~12,192m (40,000ft)	√		With packing
Vibration					
1)Sine Wave Vibration	Package, Non-Operating	5 ~ 26.6Hz /0.6g 26.6 ~ 50Hz /0.016'' 50~500Hz/ 2.0g (104 Minutes/Axis for x, y, z)	√		
2)Random Vibration	Package, Non-Operating	5 ~ 100Hz, 0 dB/Oct. 0.015g <sup>2</sup> /Hz 100 ~ 200Hz, -6 dB/Oct., ----- 200Hz, ----- , 0.0038g <sup>2</sup> /Hz	√		
	Non-package, Non-Operating	20Hz~2000/ 0.0185g <sup>2</sup> /Hz	√		
Drop (With packing)	Package, Non-Operating	14.5kg - 76cm Height 1 corner, 3 edges, 6 faces.	√		
Electrostatic Discharge	IEC801-2 standard	Contact:8KV, Air:15KV	√		0.5~8KV tip table no blanking
Acoustical Noise		≤ 40 dB/A	√		
Power Line Transient	IEC801-4,IEC1000-4-4	Coupling clamp 0 ~ 4KV	√		
	IEC1000-4-5 (Surge)	Common:2KV,Differential:1KV	√		
	IEC1000-4-12 (100KHz ringwave)	Common:3KV,Differential:1KV		√	
MTBF Demonstration	90% confidence level	≥ 60,000 Hrs	√		Excluding the CRT
MTBF Prediction	MIL-217F	≥ 80,000 Hrs	√		Excluding the CRT
CRT Life	78% degradation	> 10000 Hrs	√		

☐ Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 6 of 22
Model Name: 7254E (DELL E550mmw)		

**3.CRT Characteristics**

		Spec	OK	N.A	Remark
CRT Vender		PHILIPS	√		
Technology		FST	√		
Coating		ASAG	√		
Dot pitch		0.28mm	√		
Phosphor		P22	√		
Light transmittance		57%	√		
Viewable size		13.86"	√		
Deflection angle		90 deg	√		
Blemishes and scratches		1 trio missing ,as approval sheet	√		see table 2

**4.Front of Screen**

4.1 GEOMETRY	Condition	Spec	OK	N.A	Remark
Magnetic Environment	Northern Hemisphere	H = 0 ± 0.05 V = +0.45 ± 0.05	√		
	Southern Hemisphere	H = 0 ± 0.05 V = -0.45 ± 0.05	√		
	Equatorial	H = 0 ± 0.05 V = 0 ± 0.05	√		
Size	Hor.	270 ± 4 mm	√		
	Ver.	202 ± 4 mm	√		
Centering	Hor. & Ver.	A-B , C-D < 4 mm	√		See table 3
Geometric Distortion	Line straightness to bezel	≤ 2.0 mm to the bezel all sides	√		See table 4 for TCO99
	Short segments < 100mm	≤ 1 mm	√		“
	Long segment 100-200mm	1% of Line segment length	√		
	Hor./Ver. Trapezoid	≤ 2 mm	√		
	Tilt	≤ 0.5 degree	√		
	Orthogonal	< 1.5 mm	√		
Linearity	Hor. & Ver.	≤ 10 %	√		(Xmax-Xmin)/Xmean*100 Xmean=(Xmax+Xmin)/2

☐ Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 7 of 22
Model Name: 7254E (DELL E550mmw)		

4.2 SHARPNESS CRISPNESS	Condition	Spec	OK	N.A	Remark
Focus	Reverse character(white background and black characters)	“e, m” at cut-off and 800 x 600 resolution	√		The distance of watch is 30cm from eyes to screen
Mis-convergence		$A \leq 0.3\text{mm}$ , $B \leq 0.35\text{mm}$	√		
Moire	Over 18Ft-L	no visible moire	√		
Swing		not permitted	√		”
Jitter	DIN 66234 T2	$\leq 0.1\text{mm}$	√		”
4.3 LIGHT QUALITY	Condition	Spec	OK	N.A	Remark
White Balance	Full white center (Brit. cut-off & Cont. max.)	$x = 0.281 \pm 0.015$ $y = 0.311 \pm 0.015$	√		@ VGA480 640x480 31KHz/60Hz
Purity W,R,G,B	X max-X min & Y max-Y min	$< 0.015$	√		”
Color Tracking	Brightness cut off	$x, y$ (nominal) $\pm 0.025$	√		”
Min Luminance, Full scan	Full white pattern	$> 29\text{Ft-L}$ min.	√		”
Min Luminance, 20% till	3” Block	$> 40\text{Ft-L}$ min.	√		”
Brightness Uniformity	Full white pattern	$\geq 75\%$ (center to any point)	√		”
Raster light O/P	Bright./Cont. Max.	$0.5 \sim 1.5\text{Ft-L}$	√		”
Contrast ratio	Max/Min	5:1	√		”
4.4 IMAGE STABILITY	Condition	Spec	OK	N.A	Remark
H/V regulation	Short Term	$< 0.5\text{mm}$	√		
	Long Term	$<   2\text{mm}  $	√		
Flicker		No flicker	√		
Ringing		No visible DY Hor. Video ringing	√		

Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 8 of 22
Model Name: 7254E (DELL E550mmw)		

**5. User Controls**

5.1 BASIC	Function	Spec	OK	N.A	Remark
	Power Switch		√		
	Contrast		√		
	Brightness		√		
	H Size		√		
	H Position		√		
	V Size		√		
	V Position		√		
	Barrel/Pincushion		√		
	Parallelogram			√	
	Trapezoid		√		
	I-Key			√	
5.2 ADVANCED	Function	Spec	OK	N.A	Remark
	OSD position			√	
	Color Gain			√	
	Corner			√	
	Pin-balance			√	
	Tilt		√		
	Color Temp. C1~C5	9300K,6500K,5500K,7100K,11500K		√	
	Manual Degauss			√	
	Recall		√		press "SELECT +" & "ADJUST-"
	Languages	5 languages		√	
	Mis-Convergence adj.			√	
	Moire adj.			√	
	D-sub/BNC switch			√	



Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 9 of 22
Model Name: 7254E (DELL E550mmw)		

## 6. Mechanical Characteristics

6.1 DIMENSION		Spec	OK	N.A	Remark
Bezel opening		283 x 211.5 mm	√		
Monitor w/o Stand	L x W x H mm	396 x 367 x 328 mm	√		
Monitor w Stand	L x W x H mm	396 x 367 x 386 mm	√		
Carton Box (outside)	L x W x H mm	492 x 458 x 460 mm	√		
Tilt and Swivel range		Tilt : -4.8/+12.5 degree Swivel:- 45/ +45 degrees	√		
6.2 WEIGHT		Spec	OK	N.A	Remark
Monitor (Net)		12.5 kg	√		
Monitor w packaging(Gross)		14.5 kg	√		
6.3 PLASTIC		Spec	OK	N.A	Remark
Flammability		UL 94-V0	√		
Heat deflection To	ABS	65 °C	√		
UV stability	ABS	Delta E< 1.4 after 300Hr Xted test	√		MRR2 Model
Resin		MPR2 : ABS	√		
Texture		RE-6625	√		
Color		Light Gray	√		
6.4 CARTON		Spec	OK	N.A	Remark
Color		Kraft	√		
Material		A B Flute	√		
Compression strength		530 KGF	√		
Burst Strength		19.4 KGF/cm2	√		
Stacked quantity		4 Layers	√		

Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 10 of 22
Model Name: 7254E (DELL E550mmw)		

**7. Pallet & Shipment**

**7.1 Dimension**

Transport Type		Pallet A	Pallet B	Pallet C
Shipping Pallet Dimension(mm)	Length	1374	916	X
	Width	984	984	X
	Height	130	130	X
Air Transport Pallet Dimension(mm)	Length	1150	1713	X
	Width	990	990	X
	Height	130	130	X

**7.2 Shipping Container**

Stowing Type		Quantity of products (sets) (Every container)	Quantity of Products (sets) (Every Pallet)	Quantity of pallet (sets) (Every Container)
With pallet	20'	220	Pallet A: 24	Pallet A: 12
			Pallet B: 16	Pallet B: 12
	40'	480	Pallet A: 24	Pallet A: 5
			Pallet B: 16	Pallet B: 5
Without pallet	20'		X	X
			X	X
	40'		X	X
			X	X

Product System (PS)

Subject: Engineering Specification	Part No.: 91.71602.132	Rev.: 0
Project Code: 91.71602.001	Doc. No. 201-C06	Page 11 of 22
Model Name: 7254E (DELL E550mmw)		

### 7.3 Air Transport Container

Container Type	Quantity of products (sets) (Every container)	Quantity of Products (sets) (Every Pallet)	Quantity of pallet (sets) (Every Container)
Container 3048 * 2286 * 2438	150	Pallet A: 30	Pallet A: 3
		Pallet B: 20	Pallet B: 3

### 8. Certification

	Condition	Spec	OK	N.A	Remark
Environment	Green design	API Doc. 715-C49	√		ISO14000 Requirement
	Blue Angel	German Standard		√	
	E-2000	Switzerland		√	
	NUTEK	Swedish Standard		√	
	EPA	USA Standard	√		
	EN61000-3-2 Harmonics			√	
	TCO92/95			√	
	TCO99			√	
PC-Monitor	Microsoft Windows	PC98/99	√		
	DPMS	VESA	√		
	DDC 1/2B	Version 2.0	√		
	USB	External		√	option
Safety	UL (USA)	UL 1950 3 <sup>rd</sup> edition	√		
	CSA (Canada)	C22.2 No. 950-M89	√		
	DNSF	EN60950	√		
	IEC950	+A1+A2+A3+A4	√		
	EN60950	+A1+A2+A3+A4	√		
	73/23/EEC		√		

Product System (PS)

Subject: Engineering Specification

Part No.: 91.71602.132

Rev.: 0

Doc. No. 201-C06

Project Code: 91.71602.001

Page 12 of 22

Model Name: 7254E (DELL E550mmw)

	CB (Nordics)		√	
	TUV/GS	EN60950	√	
	CCIB (China)			√
	EIAJ/JEIDA (Japan)			√
	NOM (Mexico)		√	
	IAA (Korea)			√
EMC	CE Mark	89/336/EEC	√	
	FCC (USA)	Class B	√	
	EN55022	Class B	√	
	CISPR 22	Class B	√	
	VCCI (Japan)	Class B	√	
	BCIQ (Taiwan)		√	
	C-Tick (Australia)	AS3548	√	
	RRL (Korean)			√
X- Ray Requirement	DHHS (21 CFR)	USA X- Ray Standard	√	
	DNHW			√
	PTB	German X- Ray standard	√	
	MPRII		√	
	MPRIII			√
Ergonomics	ZH1/618	German ergonomic	√	
	ISO9241-3 -7 & 8		√	

☐ Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.	201-C06		
Project Code:	91.71602.001			Page	13 of 22
Model Name:	7254E (DELL E550mmw)				

**9. Appendix Table**

**Table 1 - DDC Table**

Address	Data	Description
00	00	Header
01	FF	
02	FF	
03	FF	
04	FF	
05	FF	
06	FF	
07	00	
08	10	ID Manufacturer Name = DEL
09	AC	(EISA 3 character ID)
0A	F1	ID Product Code = A2F1
0B	A2	(Vender Assigned code)
0C	*	ID Serial Number (varies)
0D	*	Incrementing Base 36 (Dell's format)
0E	*	ASCII format, LSB first
0F	*	
10	*	Actual week of manufacture (0-53)
11	*	Actual year of manufacture (year - 1990)
12	01	EDID version = 1
13	02	Revision = 2
14	08	Video Input Define
15	1B	Max. H. Image Size (270 mm)
16	14	Max. V. Image Size (202 mm)
17	*	(gamma*100) - 100 (see Note)
18	EA	DPMS
19	*	Red Green Bits Rx1Rx0Ry1Ry0Gx1Gx0Gy1Gy0
1A	*	Blue White Bits Bx1Bx0By1By0Wx1Wx0Wy1Wy0
1B	*	Red x bit9-2
1C	*	Red y bit9-2
1D	*	Green x bit9-2 (see Note)
1E	*	Green y bits9-2
1F	*	Blue x bit9-2
20	*	Blue y bit9-2
21	*	White x bit9-2 (White x=0.281)
22	*	White y bit9-2 (White y=0.311)

Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.:	201-C06		
Project Code:	91.71602.001			Page	14 of 22
Model Name:	7254E (DELL E550mmw)				

Address	Data	Description
23	A5	Established Timing I
24	48	Established Timing II (preset modes)
25	00	Established Timing III
26	01	#1 Standard Timing Identification
27	01	
28	45	#2
29	59	800*600 @ 85Hz
2A	01	#3
2B	01	
2C	31	#4
2D	59	640*480 @ 85Hz
2E	01	#5
2F	01	
30	01	#6
31	01	
32	01	#7
33	01	
34	01	#8
35	01	
36	F9	Detailed Timing Description # 1
37	15	pixel clock = 56.25 MHz
38	20	H active = 800
39	F8	H blanking = 248
3A	30	H front porch = 32
3B	58	H back porch = 152
3C	1F	H sync pulse = 64
3D	20	H border = 0
3E	20	H size = 270 mm
3F	40	V active = 600
40	13	V blanking = 31
41	00	V front porch = 1
42	0E	V back porch = 27
43	CA	V sync pulse = 3
44	10	V border = 0
45	00	V size = 202 mm
46	00	
47	1E	H/V = +/+

Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.:	201-C06		
Project Code:	91.71602.001			Page	15 of 22
Model Name:	7254E (DELL E550mmw)				

Address	Data	Description
48	00	Detailed Timing Description # 2
49	00	Monitor serial number
4A	00	
4B	FF	
4C	00	
4D	*	<b>DELL monitor serial number format</b>
4E	*	<b>As it appears on the back of the unit</b>
4F	*	
50	*	
51	*	
52	*	
53	*	
54	*	
55	*	
56	*	
57	*	
58	*	
59	0A	
5A	00	Detailed Timing Description # 3
5B	00	Monitor's name = DELL E550
5C	00	
5D	FC	
5E	00	
5F	44	D
60	45	E
61	4C	L
62	4C	L
63	20	
64	45	E
65	35	5
66	35	5
67	30	0
68	0A	
69	20	
6A	20	
6B	20	

Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.:	201-C06		
Project Code:	91.71602.001			Page	16 of 22
Model Name:	7254E (DELL E550mmw)				

Address	Data	Description	
6C	00	Detailed Timing Description #4 Monitor range limit	
6D	00		
6E	00		
6F	FD		
70	00		
71	32		Vs min = 50 Hz
72	78		Vs max = 120 Hz
73	1E		Hs min = 30 kHz
74	36		Hs max = 54 kHz
75	FF		
76	00		
77	0A		
78	20		
79	20		
7A	20		
7B	20		
7C	20		
7D	20		
7E	00	Extension Flag	
7F	*	Check sum	

**Note**

CRT Vender	Philips
17h	BB

CRT Vender	Philips
19h	A2
1Ah	AE
1Bh	9E
1Ch	59
1Dh	4E
1Eh	99
1Fh	27
20h	10
21h	47
22h	4F



□ Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.:	201-C06		
Project Code:	91.71602.001			Page	17 of 22
Model Name:	7254E (DELL E550mmw)				

**Table 2 - CRT Blemish & Scratch Spec**

The following criteria is applied to blemishes.

Blemishes		Allowable No. of Blemishes			Allowable Minimum Separation		
		Zone A	Zone B	Total (Zones A & B )	Zone A		
					Zone A	Zone B	
A	1 trio	1	1	1	---	---	
B	(1)	0	0	0	---	---	
C	(2)	0	2	2	---	50	
	(3)	1	2	2	---	20	
D	1 dot	Green	3	2	8	50	20
		Red	4	3			
		Blue	4	3			

- (1) 3 or more consecutive same color phosphor dots.
- (2) 2 consecutive same color phosphor dots.
- (3) 2 consecutive different color phosphor dots.

☐ Product System (PS)

Subject: Engineering Specification

Part No.: 91.71602.132

Rev.: 0

Doc. No. 201-C06

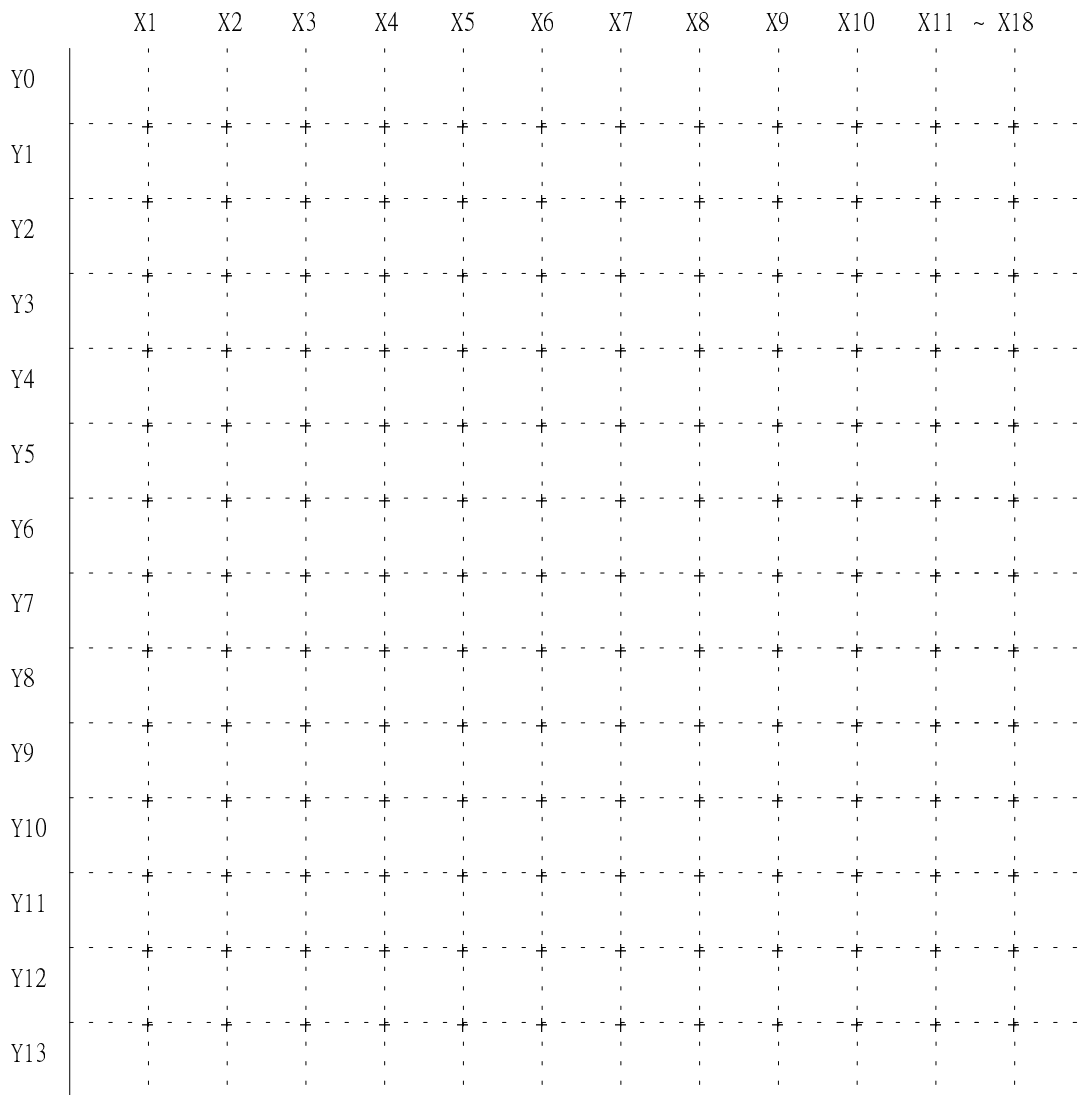
Project Code: 91.71602.001

Page 18 of 22

Model Name: 7254E (DELL E550mmw)

**Table 3 - Geometry Fig.**

**Fig.1 Linearity Measurements**



$$\frac{X_{max} - X_{min}}{X_{mean}}$$

$$X \text{ 100\% } < 10\%$$

$$\frac{X_{max} + X_{min}}{2}$$

$$X_{mean} = \frac{X_{max} + X_{min}}{2}$$

$$\frac{Y_{max} - Y_{min}}{Y_{mean}}$$

$$Y \text{ 100\% } < 10\%$$

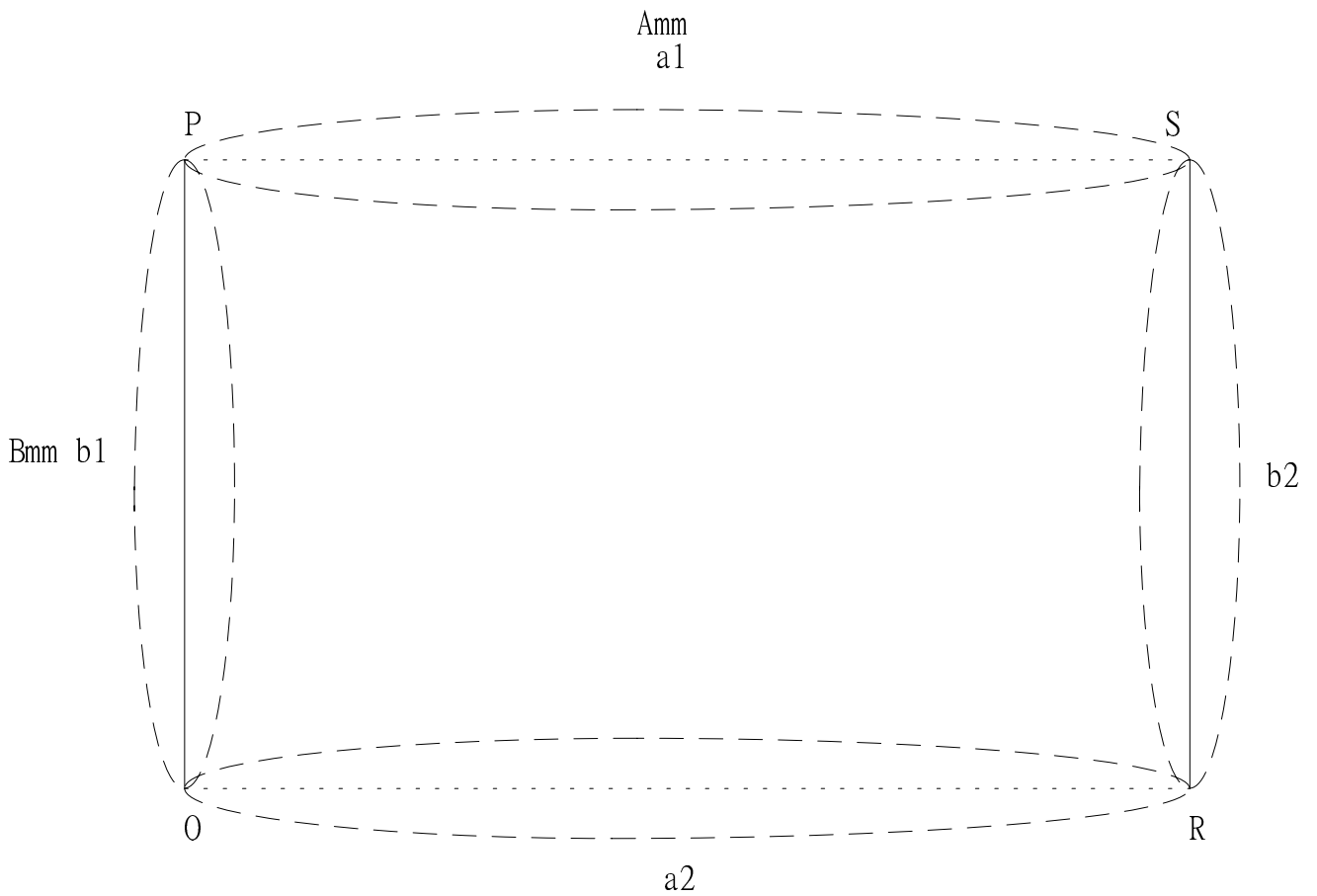
$$\frac{Y_{max} + Y_{min}}{2}$$

$$Y_{mean} = \frac{Y_{max} + Y_{min}}{2}$$

☐ Product System (PS)

Subject:	Engineering Specification	Part No.:	91.71602.132	Rev.:	0
		Doc. No.:	201-C06		
Project Code:	91.71602.001			Page	19 of 22
Model Name:	7254E (DELL E550mmw)				

**Fig.2 General Pincushion Measurements**



A, B represented as display area width and height

Top/Bottom Pincushion =  $(a_1 \text{ or } a_2)$

Side Pincushion =  $(b_1 \text{ or } b_2)$

Substituted A by  $(PS + QR)/2$

B by  $(PQ + RS)/2$

☐ Product System (PS)

Subject: Engineering Specification

Part No.: 91.71602.132

Rev.: 0

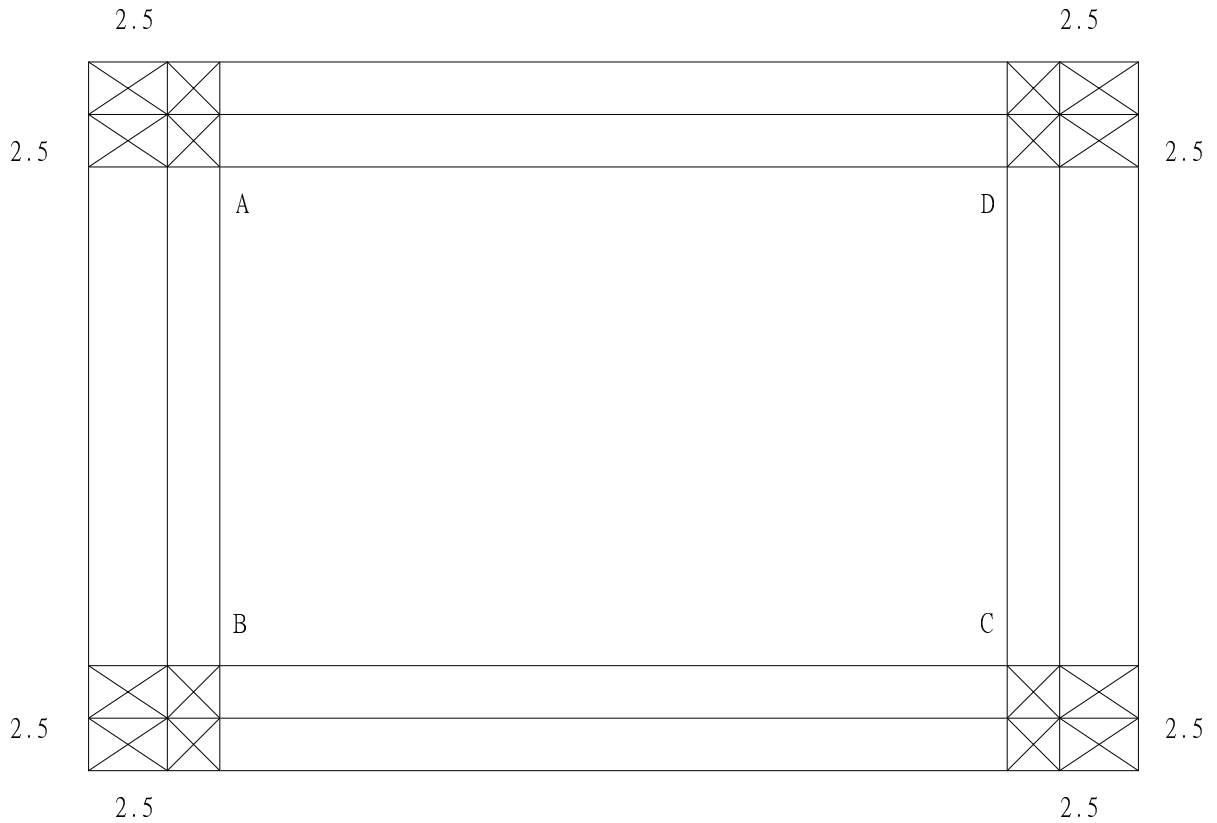
Doc. No. 201-C06

Project Code: 91.71602.001

Page 20 of 22

Model Name: 7254E (DELL E550mmw)

**Fig.3 Trapezoid Measurements**



\* Each of the 4 corners of picture shall fall within the relevant area (F) illustrated up (hatched)

\* ABCD is the picture outlines.

□ Product System (PS)

Subject: Engineering Specification

Part No.: 91.71602.132

Rev.: 0

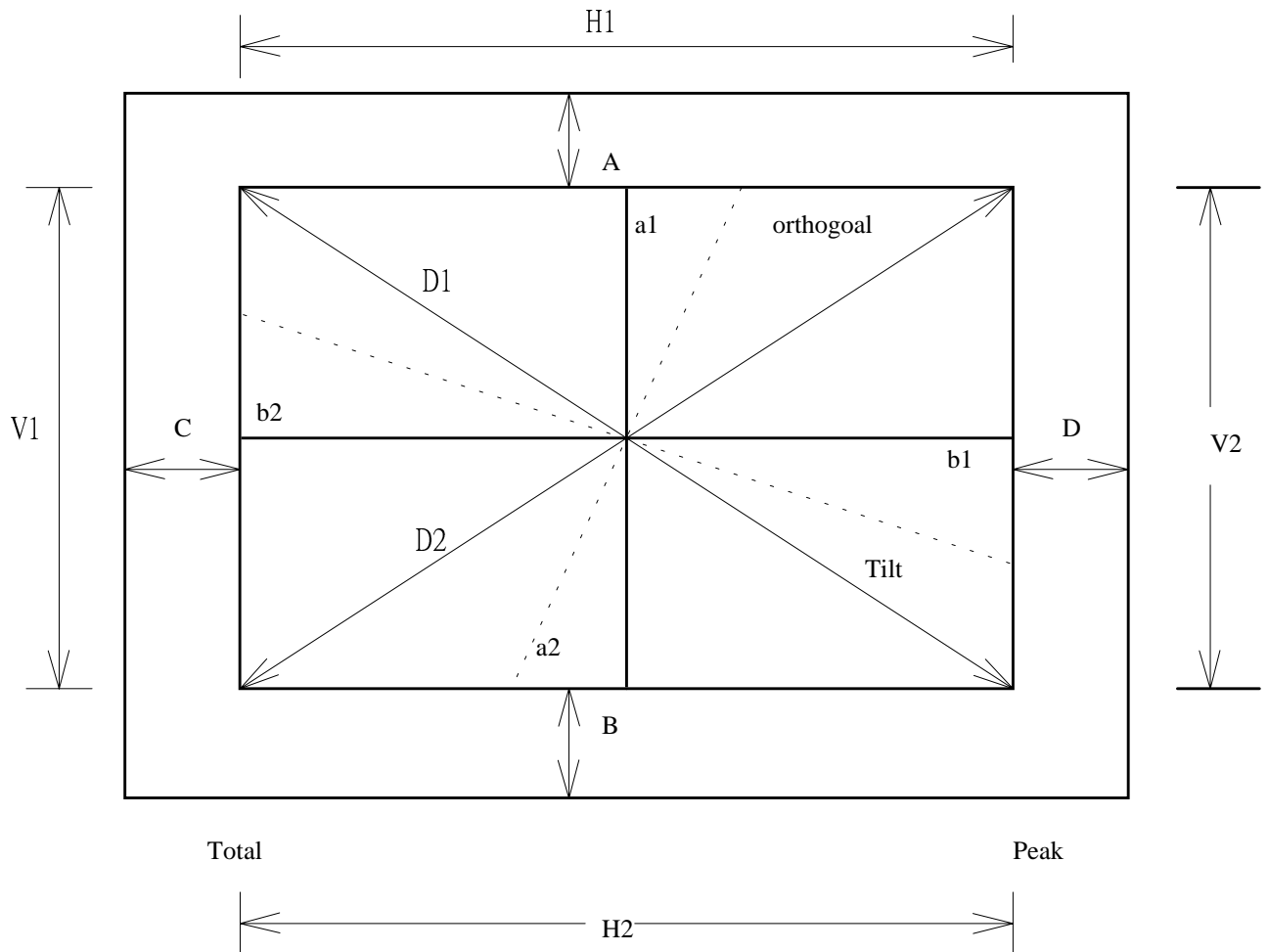
Doc. No. 201-C06

Project Code: 91.71602.001

Page 21 of 22

Model Name: 7254E (DELL E550mmw)

**Fig.4 Picture Distortion & Phase Measurements**



$$\frac{|H1 - H2|}{0.5(H1 + H2)} \leq 0.02$$

$$\frac{|V1 - V2|}{0.5(V1 + V2)} \leq 0.02$$

$$\frac{|D1 - D2|}{0.5(D1 + D2)} \leq 0.03$$

☐ Product System (PS)

Subject: Engineering Specification

Part No.: 91.71602.132

Rev.: 0

Doc. No. 201-C06

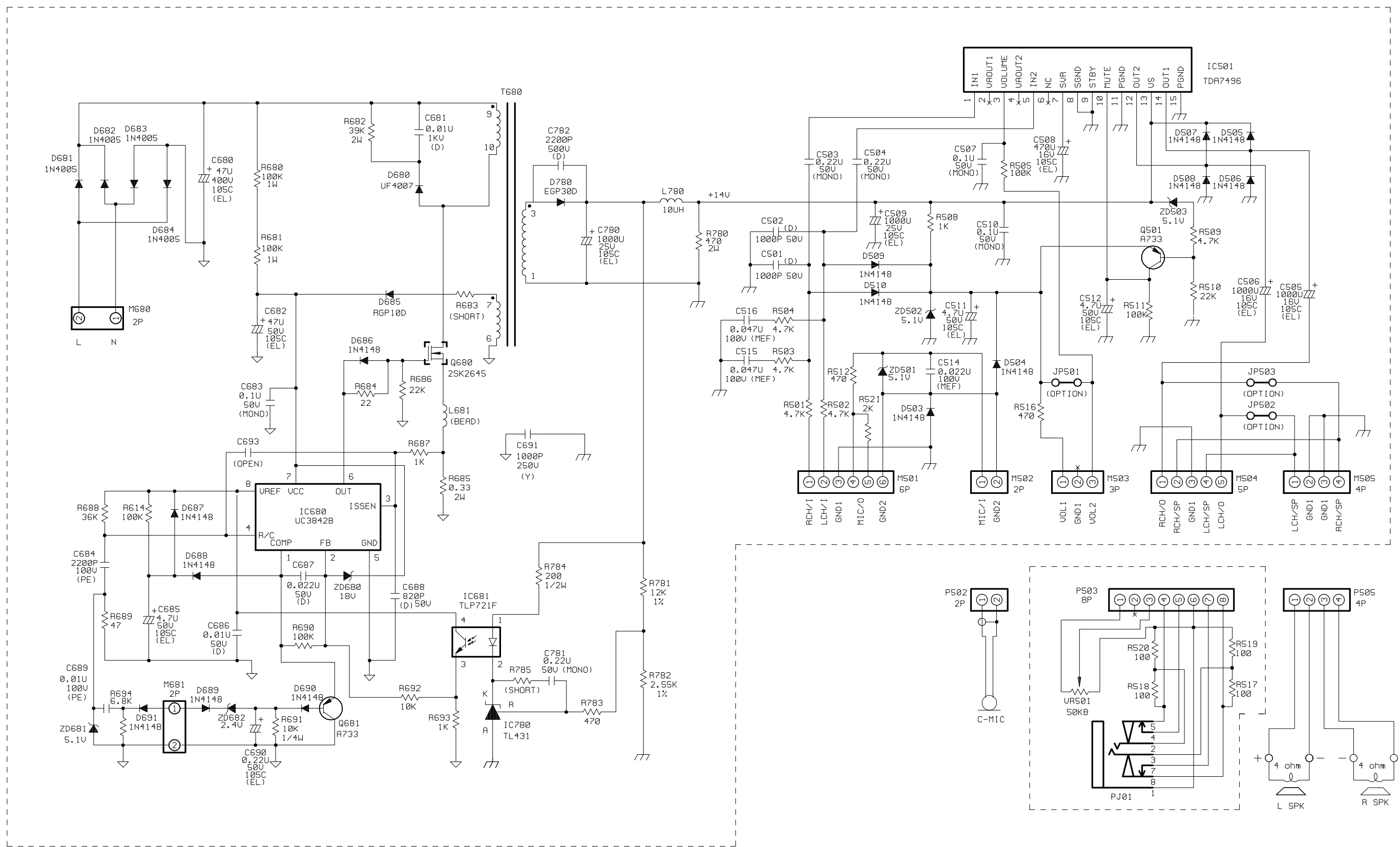
Project Code: 91.71602.001

Page 22 of 22

Model Name: 7254E (DELL E550mmw)

**Table 4 : Audio Performance**

<b>A. Audio Amplifier</b>	<b>Condition</b>	<b>Spec</b>	<b>OK</b>	<b>N.A</b>	<b>Remark</b>
Input Signal Voltage	Max.	2Vpp	√		
Sensitivity	Volume Max.	200mVrms +/- 40%	√		
Max. output power	1KHz, 10% THD	2Wrms/ch	√		
Input Impedance		>4.7KΩ	√		
Channel Separation		>40dB	√		
THD	1W O/P	<1%	√		
S/N Ratio		>40dB	√		
R/L Channel Balance		<3dB	√		
<b>B. Speaker Driver</b>	<b>Condition</b>	<b>Spec</b>	<b>OK</b>	<b>N.A</b>	<b>Remark</b>
Nominal Impedance		4Ω	√		
Maximum Input Power		2W/ch	√		
Frequency Response		200~20KHz	√		
Mean Sound Pressure Level		83 +/- 3dB	√		
Size		2"	√		
Magnetic Shield		Required	√		
<b>C. Microphone</b>	<b>Condition</b>	<b>Spec</b>	<b>OK</b>	<b>N.A</b>	<b>Remark</b>
Sensitivity	0dB=1V/ u bar , 1Khz Vcc=4.5V , RL=1KΩ	-60 +/- 3dB	√		
Directivity		Omni-directional	√		
Frequency Response		100Hz~12KHz	√		
<b>D. Audio Control</b>	<b>Condition</b>	<b>Spec</b>	<b>OK</b>	<b>N.A</b>	<b>Remark</b>
Volume Control		Analog		√	
Headphone Jack		10mW/32Ω		√	



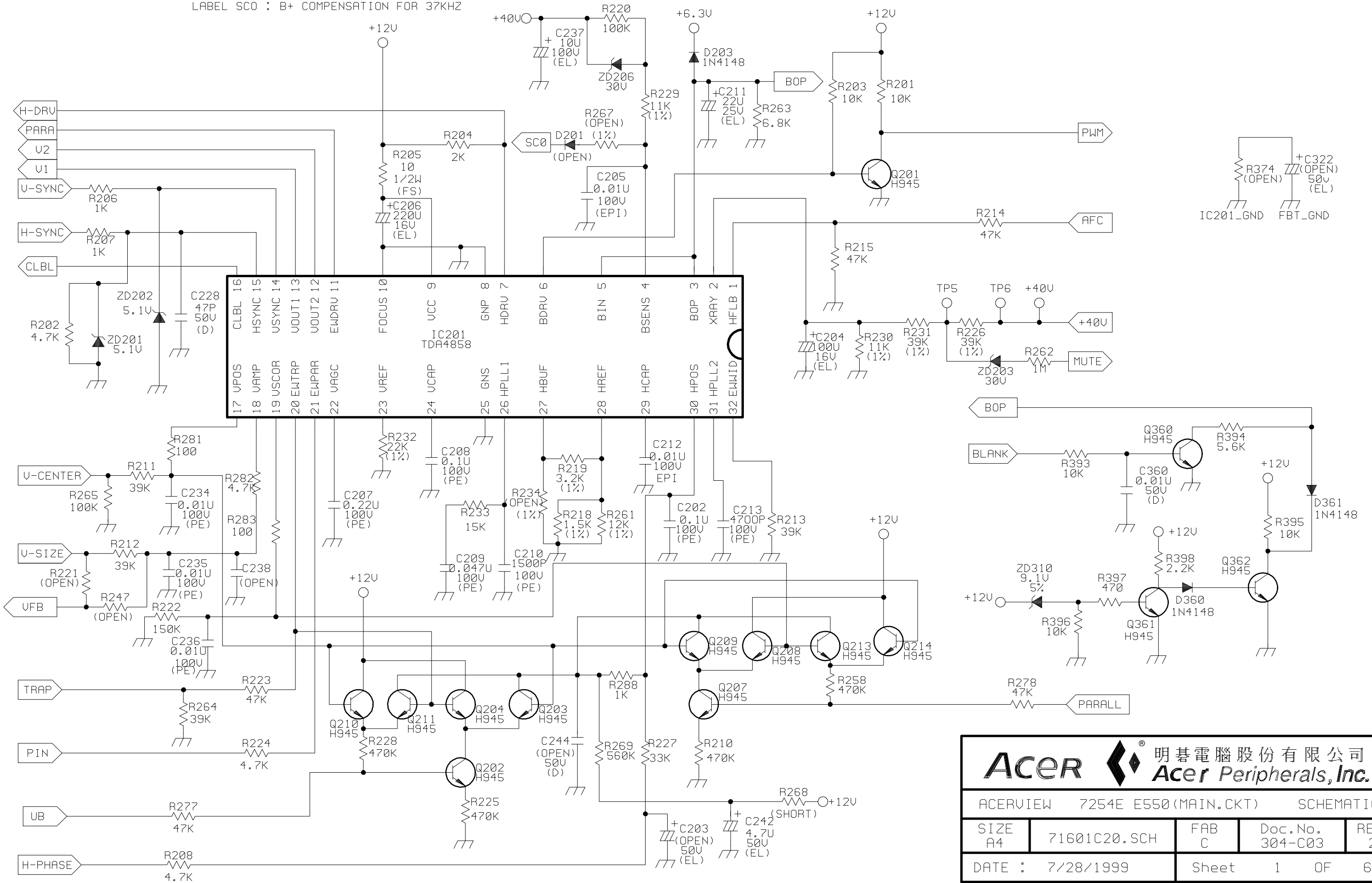
NOTES: 1. Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm  
 2. All resistors are 1/8 watt, 5% except where otherwise indicated  
 3.  $\nabla$   $\rightarrow$   $\pm$  Represents PCB common ground.

**ACER** 明基電腦股份有限公司  
**Acer Peripherals, Inc.**

ACERVIEW 7254E E550MM(AUDIO,CKT) SCHEMATICS

SIZE A3	71603A20.SCH	FAB A	Doc. No. 304-C05	REV. 0
DATE : 8/3/1999	Sheet 1	OF 1		
Project Code. 91.71602.037				
Prepared By	Reviewed By	Approved By		
CHRIS PENG 8/4/99	SJ YANG 8/4/99	JESSE LIN 8/4/99		

LABEL SCO : B+ COMPENSATION FOR 37KHZ



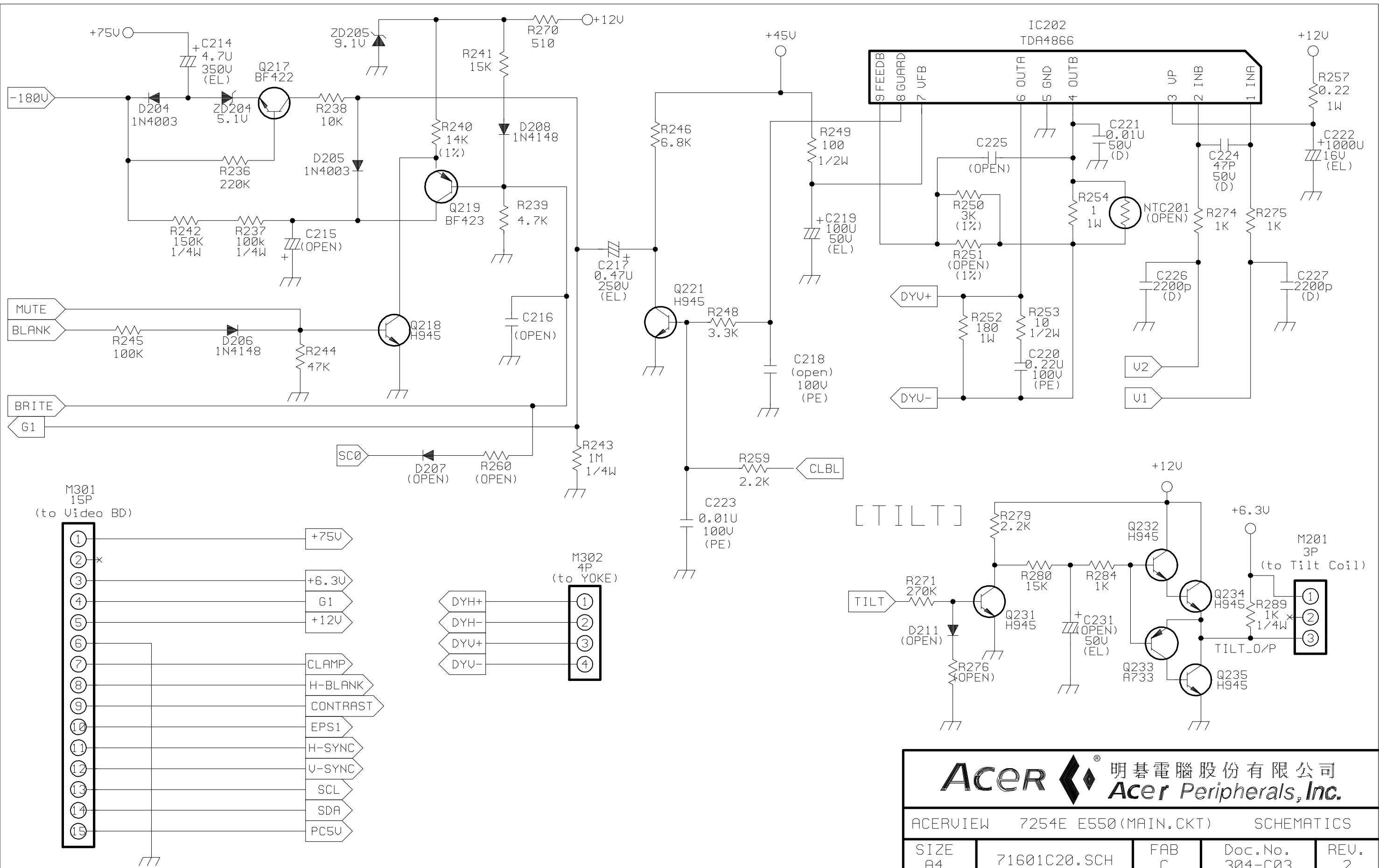
NOTES: 1. Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm  
 2. All resistors are 1/8 watt, 5% except where otherwise indicated  
 3.  $\nabla$   $\nabla$   $\nabla$  Represents PCB common ground.

**ACER** 明碁電腦股份有限公司  
**Acer Peripherals, Inc.**

ACERVIEW 7254E E550 (MAIN.CKT) SCHEMATICS

SIZE A4	71601C20.SCH	FAB C	Doc.No. 304-C03	REV. 2
DATE : 7/28/1999		Sheet 1 OF 6		
Project Code.		91.71602.037		
Prepared By CHRIS PENG 7/28/99	Reviewed By JOEY CHENG 7/28/99	Approved By SY YANG 7/28/99		

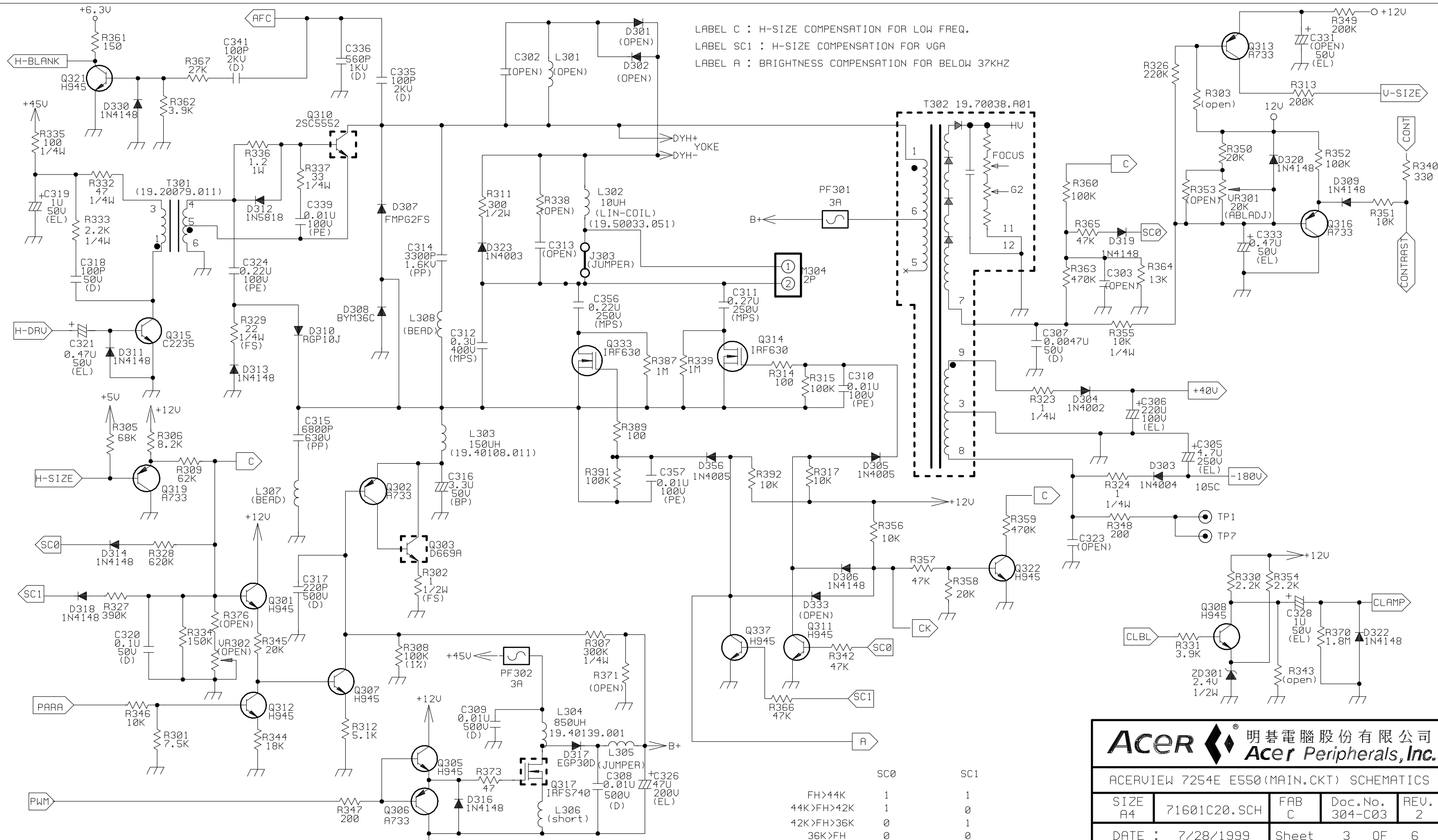




NOTES: 1. Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm  
 2. All resistors are 1/8 watt, 5% except where otherwise indicated  
 3.  $\text{---}\text{---}\text{---}$   $\text{---}\text{---}\text{---}$   $\text{---}\text{---}\text{---}$  Represents PCB common ground.

**ACER** 明基電腦股份有限公司  
**Acer Peripherals, Inc.**

ACERVIEW 7254E E550 (MAIN.CKT)		SCHEMATICS		
SIZE A4	71601C20.SCH	FAB C	Doc.No. 304-C03	REV. 2
DATE : 7/28/1999		Sheet	2	OF 6
Project Code.		91.71602.037		
Prepared By		Reviewed By		Approved By
CHRIS PENG 7/28/99		JOEY CHENG 7/28/99		SY YANG 7/28/99



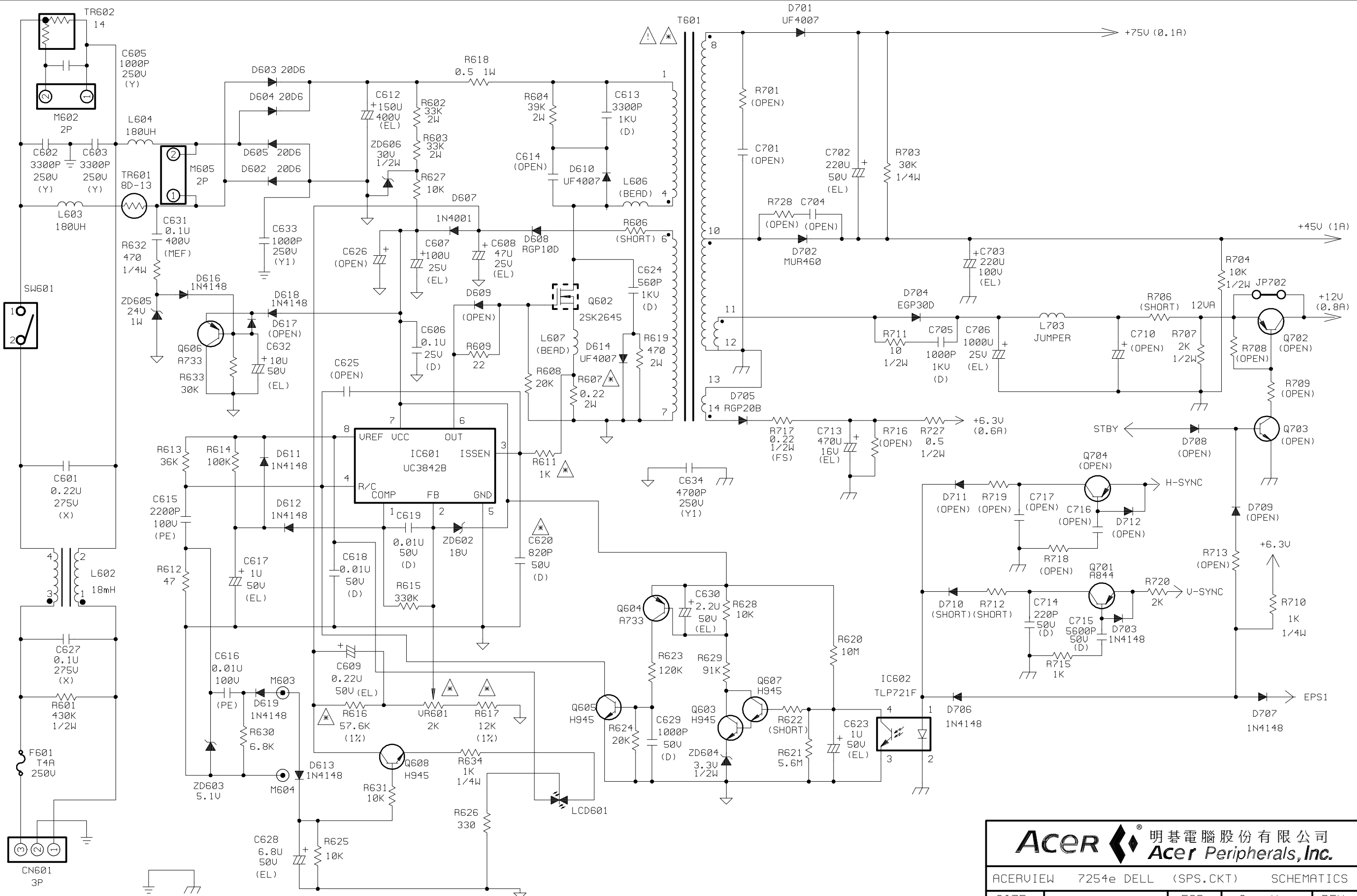
NOTES: 1. Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm  
 2. All resistors are 1/8 watt, 5% except where otherwise indicated  
 3.  $\nabla$   $\nabla$   $\nabla$  Represents PCB common ground. 4. ( ) means H.U cap=3000p

	SC0	SC1
FH>44K	1	1
44K>FH>42K	1	0
42K>FH>36K	0	1
36K>FH	0	0

**ACER** 明基電腦股份有限公司  
**Acer Peripherals, Inc.**

ACERVIEW 7254E E550 (MAIN.CKT) SCHEMATICS

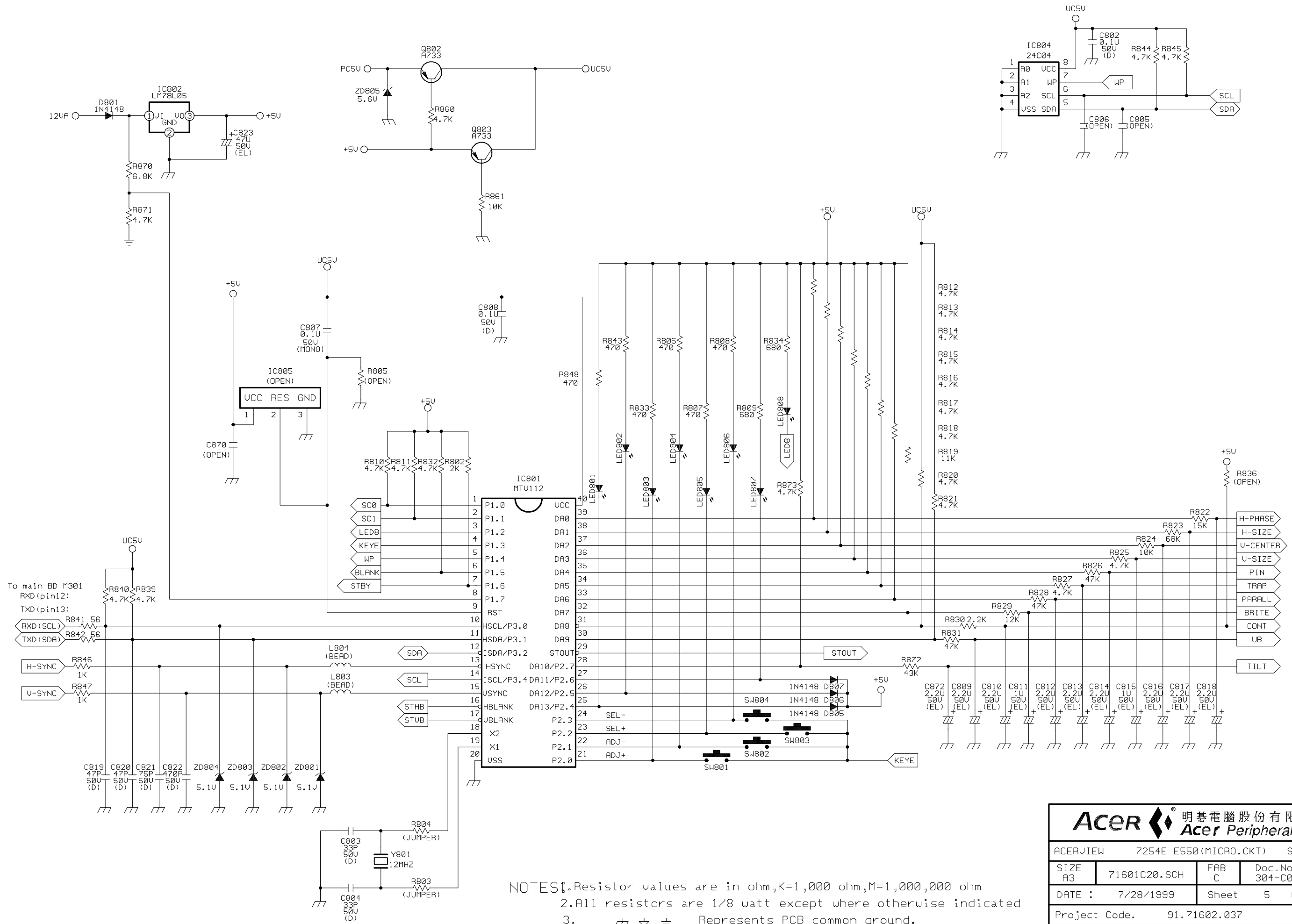
SIZE A4	71601C20.SCH	FAB C	Doc.No. 304-C03	REV. 2
DATE : 7/28/1999		Sheet 3 OF 6		
Project Code. 91.71602.037				
Prepared By CHRIS PENG 7/28/99	Reviewed By JOEY CHENG 7/28/99	Approved By SY YANG 7/28/99		



⚠ : The components identified by the mark ⚠ in the schematic are important X-Radiation and Safety Parts. Should replacement is required, replace only with the same type and rating originally used. CRT, T302(FBT), R226, R231, R230, IC201, C314, C315, T601.

⚡ : The components identified by the mark ⚡ in the schematic are important safety parts. If replacement is required, refer to service manual to re-adjust and/or re-checked the B+ and High Voltage to reach the specified value. T601, UR601, R617, R616, R607, R611, C620, T302(FBT), R220, R216, C205

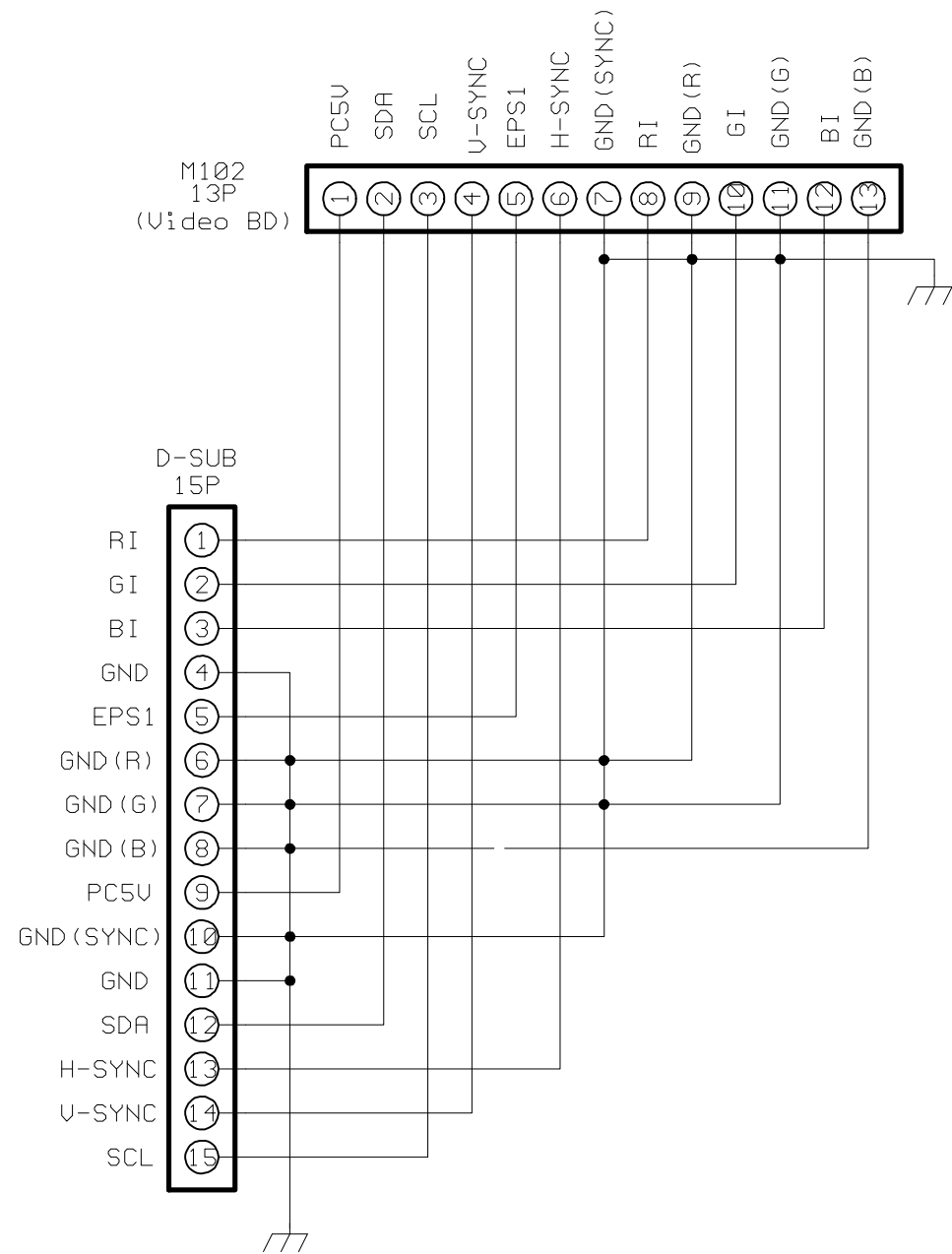
明基電腦股份有限公司 <b>Acer Peripherals, Inc.</b>				
ACERVIEW 7254e DELL (SPS.CKT) SCHEMATICS				
SIZE A3	71601C20.SCH	FAB C	Doc.No. 304-C03	REV. 2
DATE :	7/28/1999	Sheet	4	OF 6
Project Code.		91.71602.037		
Prepared By	Reviewed By	Approved By		
CHRIS PENG 7/28/99	JOEY CHENG 7/28/99	SY YANG 7/28/99		



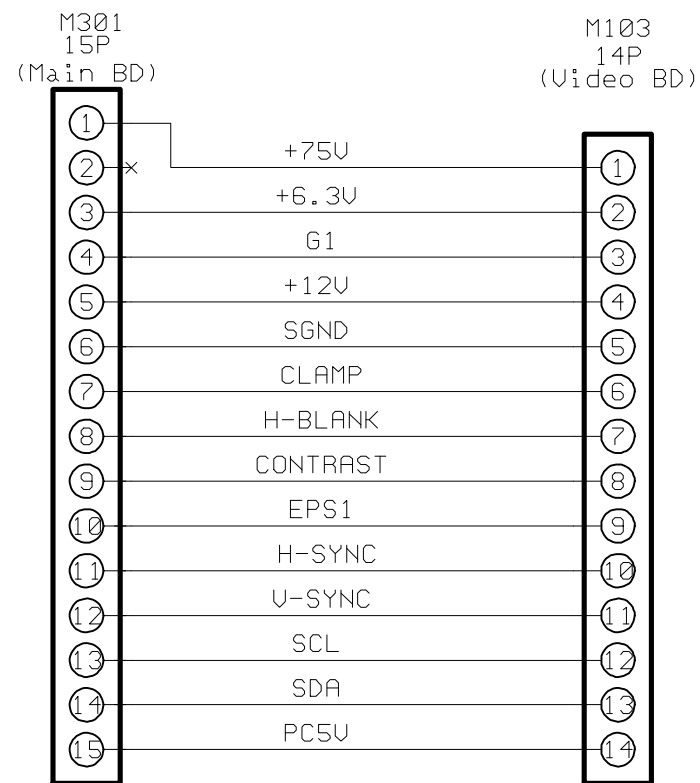
NOTES:  
 1. Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm  
 2. All resistors are 1/8 watt except where otherwise indicated  
 3.  $\text{---} \text{---} \text{---}$   $\text{---} \text{---} \text{---}$   $\text{---} \text{---} \text{---}$  Represents PCB common ground.

<b>ACER</b> 明基電腦股份有限公司 Acer Peripherals				
ACERVIEW 7254E E550 (MICRO.CKT)		SCHEMATIC		
SIZE A3	71601C20.SCH	FAB C	Doc. No. 304-C03	REV 2
DATE : 7/28/1999	Sheet 5	OF 6		
Project Code. 91.71602.037				
Prepared By	Reviewed By	Approved By		
CHRIS PENG 7/28/99	JOEY CHENG 7/28/99	SY YANG 7/28/99		

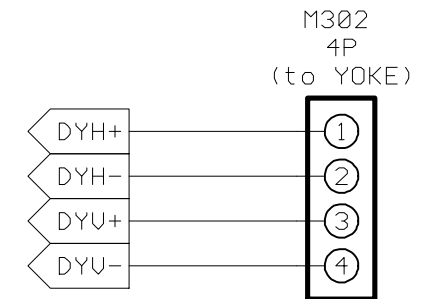
[Wire From D-SUB to Video BD]



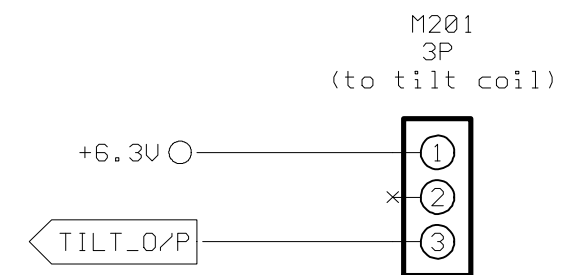
[Wire From Main BD to Video BD]



[Wire From Main BD to Yoke]



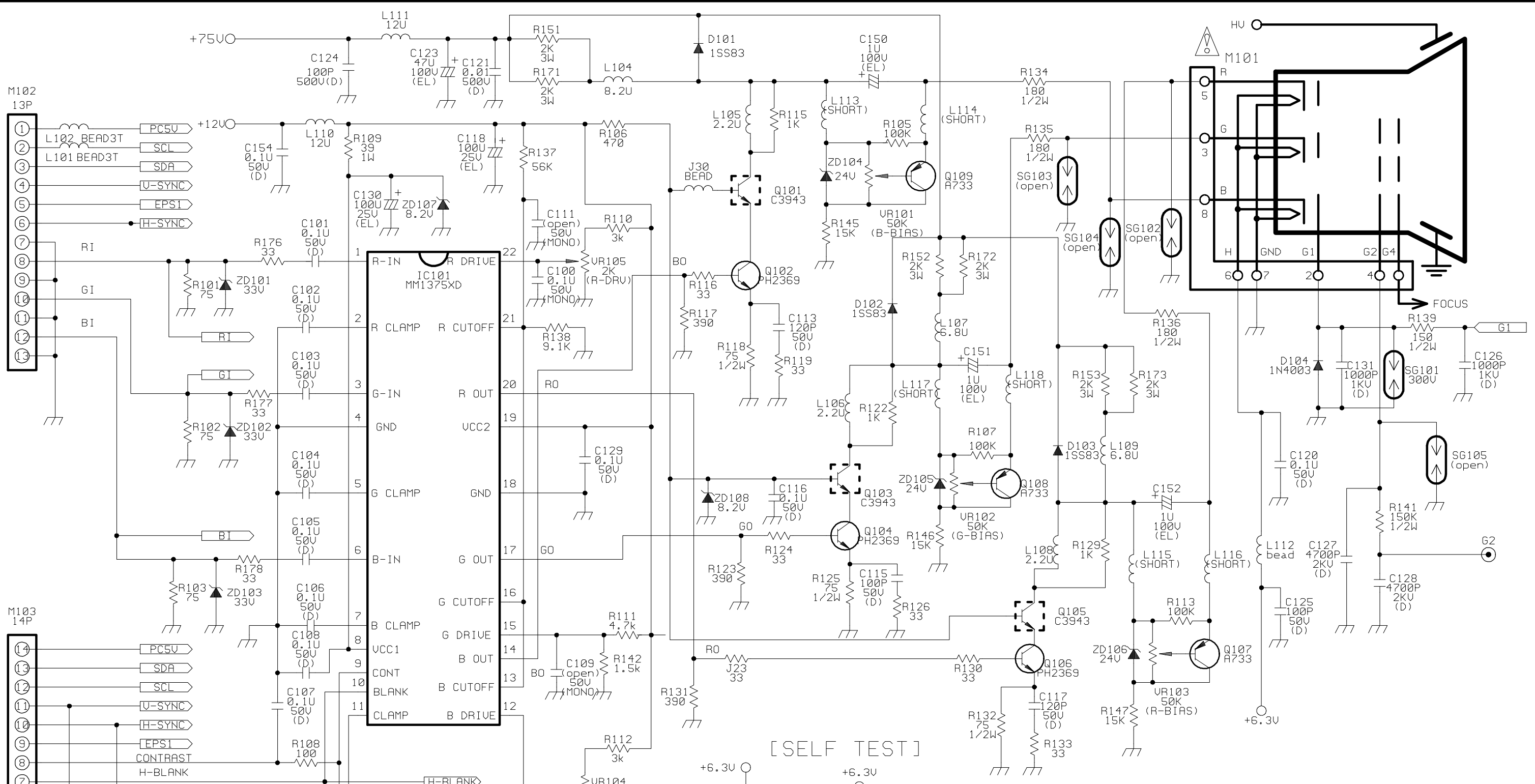
[Wire From Main BD to Tilt Coil]




- NOTES:
1. Resistor values are in ohm, K=1,000 ohm, M=1,000,000 ohm
  2. All resistors are 1/8 watt, 5% except where otherwise indicated
  3.  $\text{---} \downarrow \pm$  Represents PCB common ground.

**ACER** 明碁電腦股份有限公司  
Acer Peripherals, Inc.

ACERVIEW 7254E E550(Wire)		SCHEMATICS		
SIZE A4	71601C20.SCH	FAB C	Doc.No. 304-C03	REV. 2
DATE : 7/28/1999		Sheet 6 OF 6		
Project Code.		91.71602.037		
Prepared By CHRIS PENG 7/28/99		Reviewed By JOEY CHENG 7/28/99		Approved By SY YANG 7/28/99



The components identified by the mark of  in the schematic are important X-Radiation and Safety Parts. Should replacement is required, replace only with the same type and rating originally used.

**ACER** 明基電腦股份有限公司  
Acer Peripherals, Inc.

ACERVIEW 7254E E550(VIDEO.CKT) SCHEMATICS

SIZE A4	71602B20.SCH	FAB B	Doc.No. 304-C04	REV. 1
DATE : 6/29/1999		Sheet 1 OF 1		
Project Code. 91.71602.037				
Prepared By	Reviewed By	Approved By		
CHRIS PENG 6/29/99	JOEY CHENG 6/29/99	SJ YANG 6/29/99		