

Service Service Service

Product Service Group CE Audio

Service Information

Already published Service Informations:

CORRECTION TO SERVICE MANUAL

Below are corrections to the circuit diagram & parts list:

COMBI BOARD

* Delete 2405 and 3456 (Not required)

3681	4822 116 52276	3k3 5% 0,5W
3682	4822 116 52276	3k3 5% 0,5W

CHANGES DURING PRODUCTION

MPEG BOARD

* From wk0134 onwards a new pt. 2 board is introduced to solve MP3 playback noise (see newsletter SNL2001.03.13) problem by adding:

3234	4822 050 21002	1k 5% 0,1W
3235	4822 050 21003	10k 5% 0,1W
7209	3198 010 42310	BC547BW

Note: 7209 base-emitter is shorted to function like a diode.

* From wk0147 onwards a new Servo IC7212 (software version 6) is introduced to improve CD playability. The new IC is recognized by printing mark "MPEG01BS06" and is available under service code: 9352 701 41518

* From wk0152 onwards the Video CD Processor IC 7201 is replaced by ES3800FL. Because of this replacement the following changes are made to:

- adapt supply voltage from 3,5V to 2,7V
- adapt audio output level to 550mV

2250	2020 552 94427	100pF 50V
2251	2020 552 94427	100pF 50V
2266	2020 552 94427	100pF 50V
2267	2020 552 94427	100pF 50V

3258	4822 051 30333	33k 5% 0,1W
3261	4822 051 30563	56k 5% 0,1W
3262	4822 051 30333	33k 5% 0,1W
3265	4822 051 30563	56k 5% 0,1W

3266	4822 051 30333	33k 5% 0,1W
3267	4822 051 30333	33k 5% 0,1W
3281	4822 051 30563	56k 5% 0,1W
3282	4822 051 30563	56k 5% 0,1W

7201	9322 178 33671	ES3880FL
7211	9322 178 32668	LF27CDT

* From wk0218 onwards a new pt. 4 board is introduced to solve picture jerking & cracking noise problem by adding:

2286	4822 122 33761	22pF 50V NPO 0603
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Note: The pt. 3 board is not published because it has minor track shifting to prevent short-circuit to MPEG shield casing.

New pt 4 board layouts & circuits are enclosed.

FRONT BOARD

* From production wk0152 onwards a mask 3 version of the Front microprocessor IC7401 is introduced due to deletion of the Cue/Review features.

The service code for the equivalent OTP versions read:		
7401	9965 000 10681	OTP version 25 for FW-V220
7401	9965 000 10680	OTP version 25 for FW-V320

It is very important that these OTPs are used only on sets without Cue/Review feature!

The mask ICs used in production can be recognized by their printing mark:

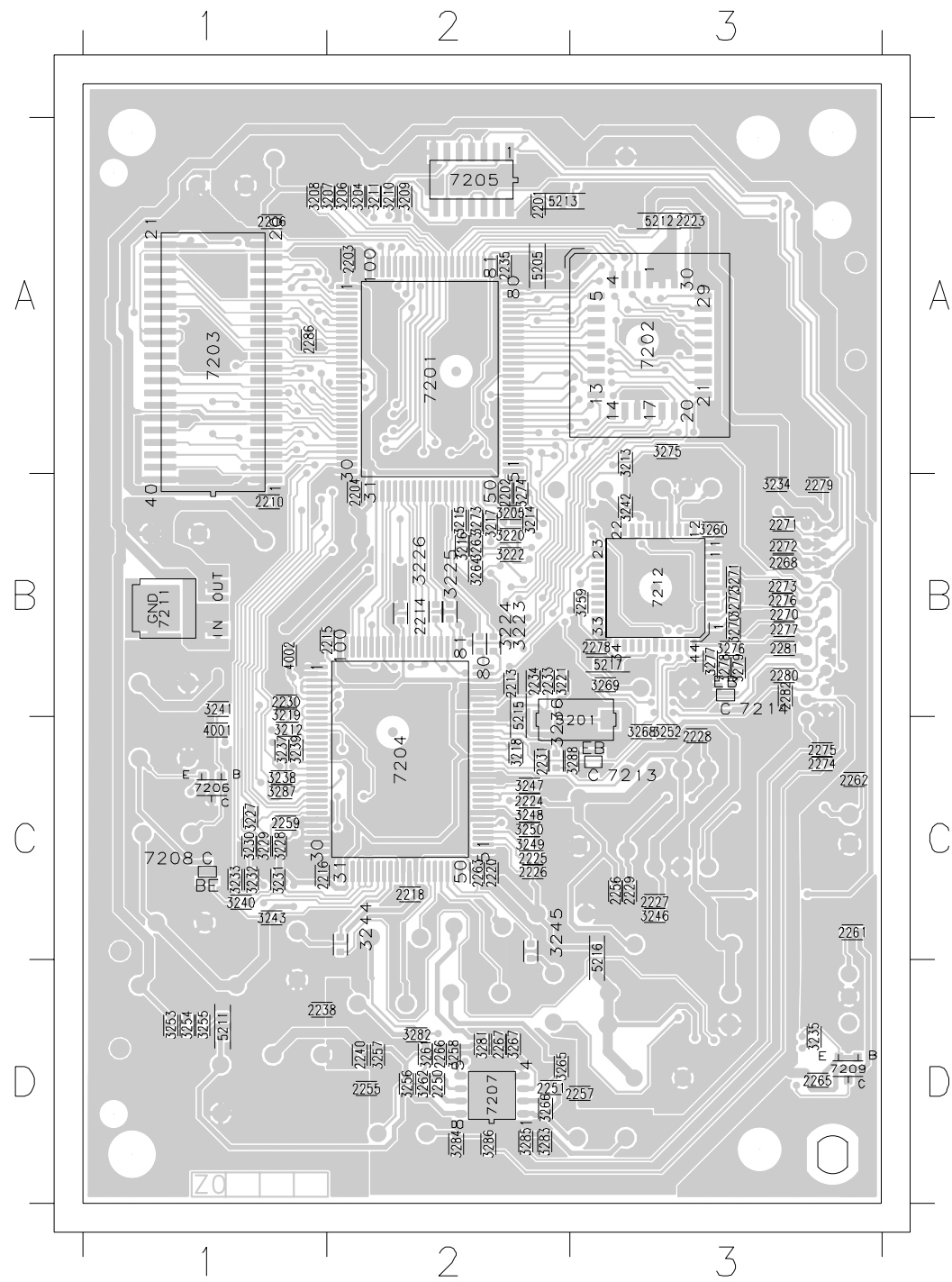
- V220S53051 for FW-V220 and
- V320S53061 for FW-V320

ETF BOARD

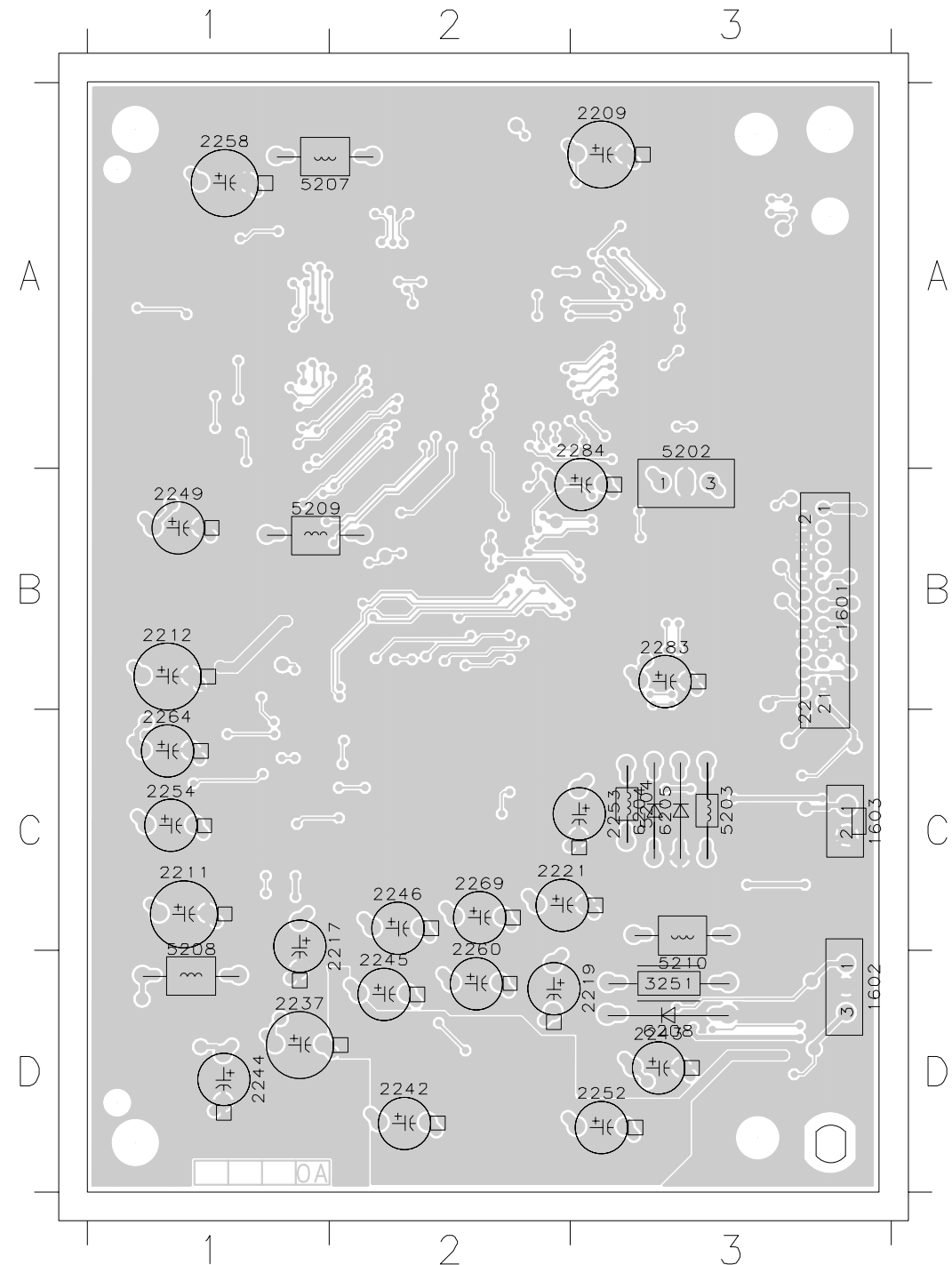
* From production wk0139 onwards the following changes are made to improve current handling & reliability:

7612	4822 130 11201	PMBT2907
7613	4822 130 11201	PMBT2907
7614	4822 130 11201	PMBT2907

MPEG-01B BOARD LAYOUT



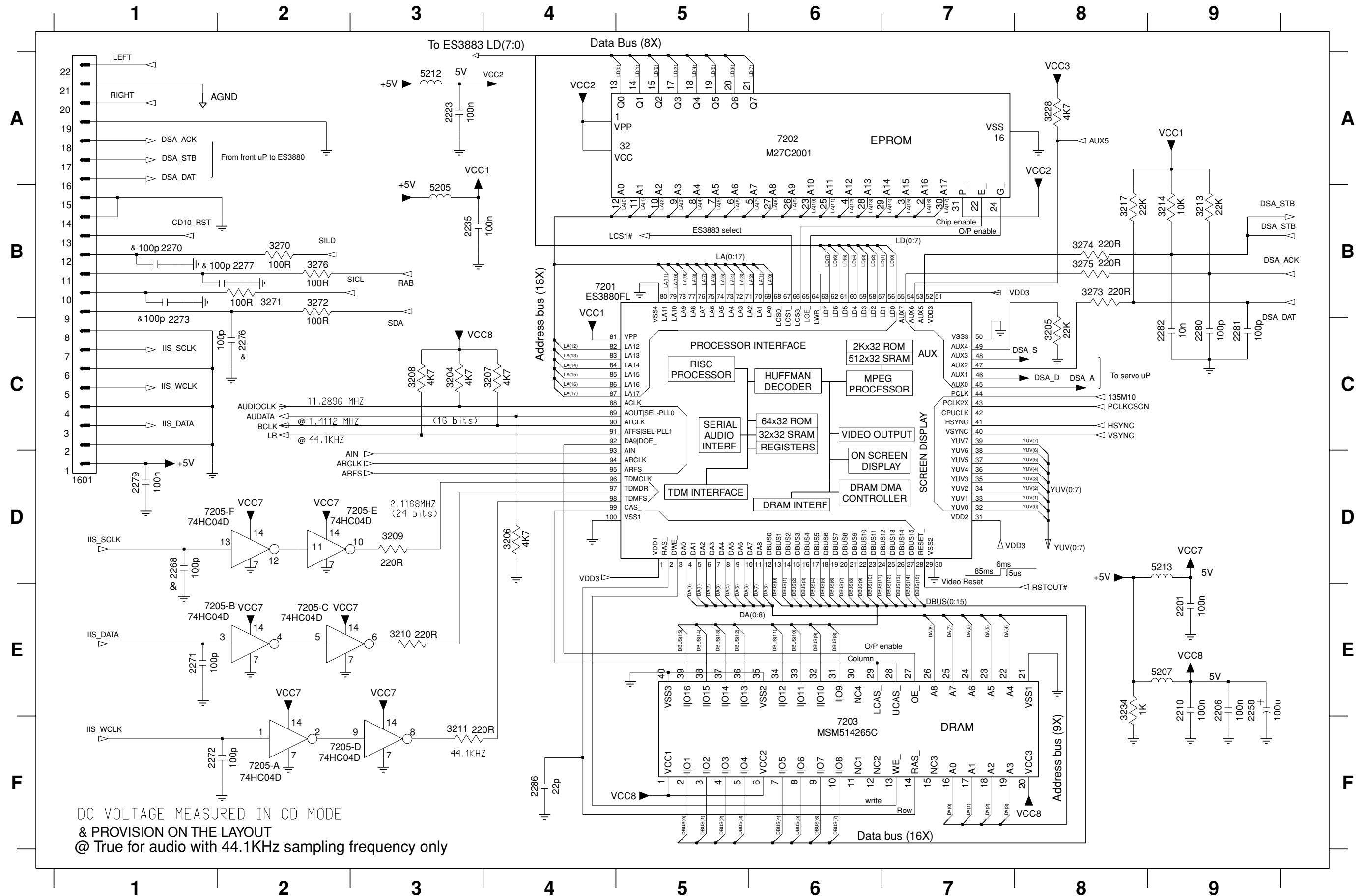
2201	A2	3210	A2	3270	B3
2202	B2	3211	A2	3271	B3
2203	A2	3212	C1	3272	B3
2204	B2	3213	A3	3273	B2
2206	A1	3214	B2	3274	B2
2210	B1	3215	B2	3275	A3
2213	B2	3216	B2	3276	B3
2214	B2	3217	B2	3277	B3
2215	B2	3218	C2	3278	B3
2216	C1	3219	B1	3279	B3
2218	C2	3220	B2	3281	D2
2220	C2	3221	B2	3282	D2
2223	A3	3222	B2	3283	D2
2224	C2	3223	B2	3284	D2
2225	C2	3224	B2	3285	D2
2226	C2	3225	B2	3286	D2
2227	C3	3226	B2	3287	C1
2228	C3	3227	C1	3288	C3
2229	C3	3228	C1	4001	C1
2230	B1	3229	C1	4002	B1
2231	C2	3230	C1	5201	C3
2233	B2	3231	C1	5205	A2
2234	B2	3232	C1	5211	D1
2235	A2	3233	C1	5212	A3
2238	D1	3234	B3	5213	A2
2240	D2	3235	D3	5215	B2
2250	D2	3236	C2	5216	C3
2251	D2	3237	C1	5217	B3
2255	D2	3238	C1	7201	A2
2256	C3	3239	C1	7202	A3
2257	D3	3240	C1	7203	A1
2259	C1	3241	B1	7204	C2
2261	C3	3242	B3	7205	A2
2262	C3	3243	C1	7206	C1
2263	C2	3244	C2	7207	D2
2265	D3	3245	C2	7208	C1
2266	D2	3246	C3	7209	D3
2267	D2	3247	C2	7211	B1
2268	B3	3248	C2	7212	B3
2270	B3	3249	C2	7213	C3
2271	B3	3250	C2	7214	B3
2272	B3	3251	C3		
2273	B3	3252	C3		
2274	C3	3253	D1		
2275	C3	3254	D1		
2276	B3	3255	D1		
2277	B3	3256	D2		
2278	B3	3257	D2		
2279	B3	3258	D2		
2280	B3	3259	B3		
2281	B3	3260	B3		
2282	B3	3261	D2		
2286	A1	3262	D2		
3204	A2	3263	B2		
3205	B2	3264	B2		
3206	A2	3265	D2		
3207	A2	3266	D2		
3208	A1	3267	D2		
3209	A2	3268	C3		
		3269	B3		



1601	B3
1602	D3
1603	C3
2209	A3
2211	C1
2212	B1
2217	C2
2219	D3
2221	C2
2237	D1
2242	D2
2243	D3
2244	D1
2245	D2
2246	C2
2249	B1
2252	D3
2253	C3
2254	C1
2258	A1
2260	C2
2264	C1
2269	C2
2283	B3
2284	A3
3251	D3
5202	A3
5203	C3
5204	C3
5207	A1
5208	C1
5209	B1
5210	D3
6204	C3
6205	C3
6208	D3

ES3880 CIRCUIT

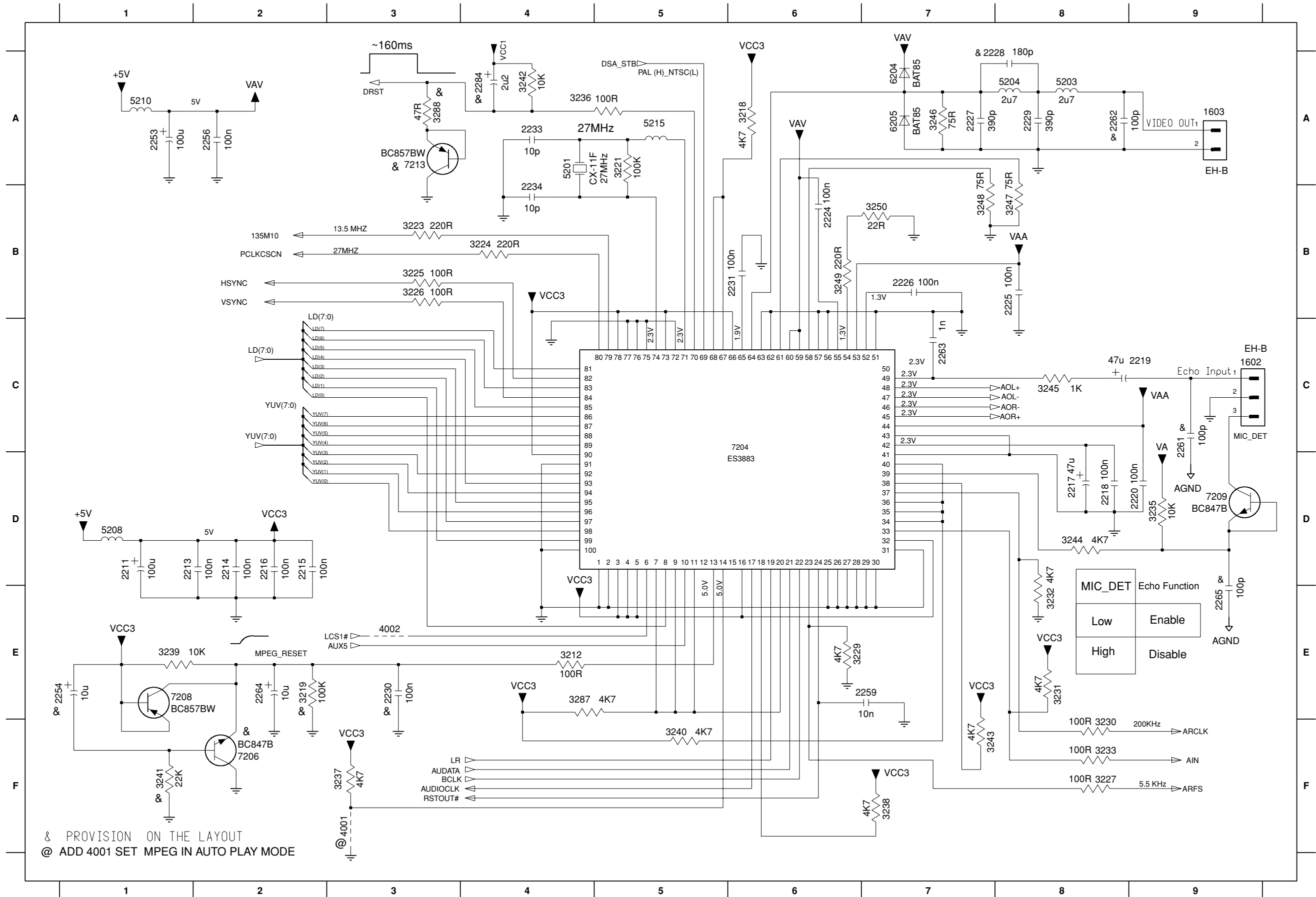
1601 D1	2210 E9	2258 E9	2271 E1	2276 C2	2280 C9	2286 F4	3206 D4	3209 D3	3213 B9	3228 A8	3271 B2	3274 B8	5205 B3	5213 D9	7203 F6	7205-C E2	7205-F D1
2201 E9	2223 A3	2268 D1	2272 F1	2277 B2	2281 C9	3204 C3	3207 C4	3210 E3	3214 B9	3234 E8	3272 B2	3275 B8	5207 E9	7201 B4	7205-A F2	7205-D F2	
2206 E9	2235 B3	2270 B1	2273 C1	2279 D1	2282 C9	3205 C8	3208 C3	3211 F3	3217 B8	3270 B2	3273 B8	3276 B2	5212 A3	7202 A6	7205-B E1	7205-E D2	



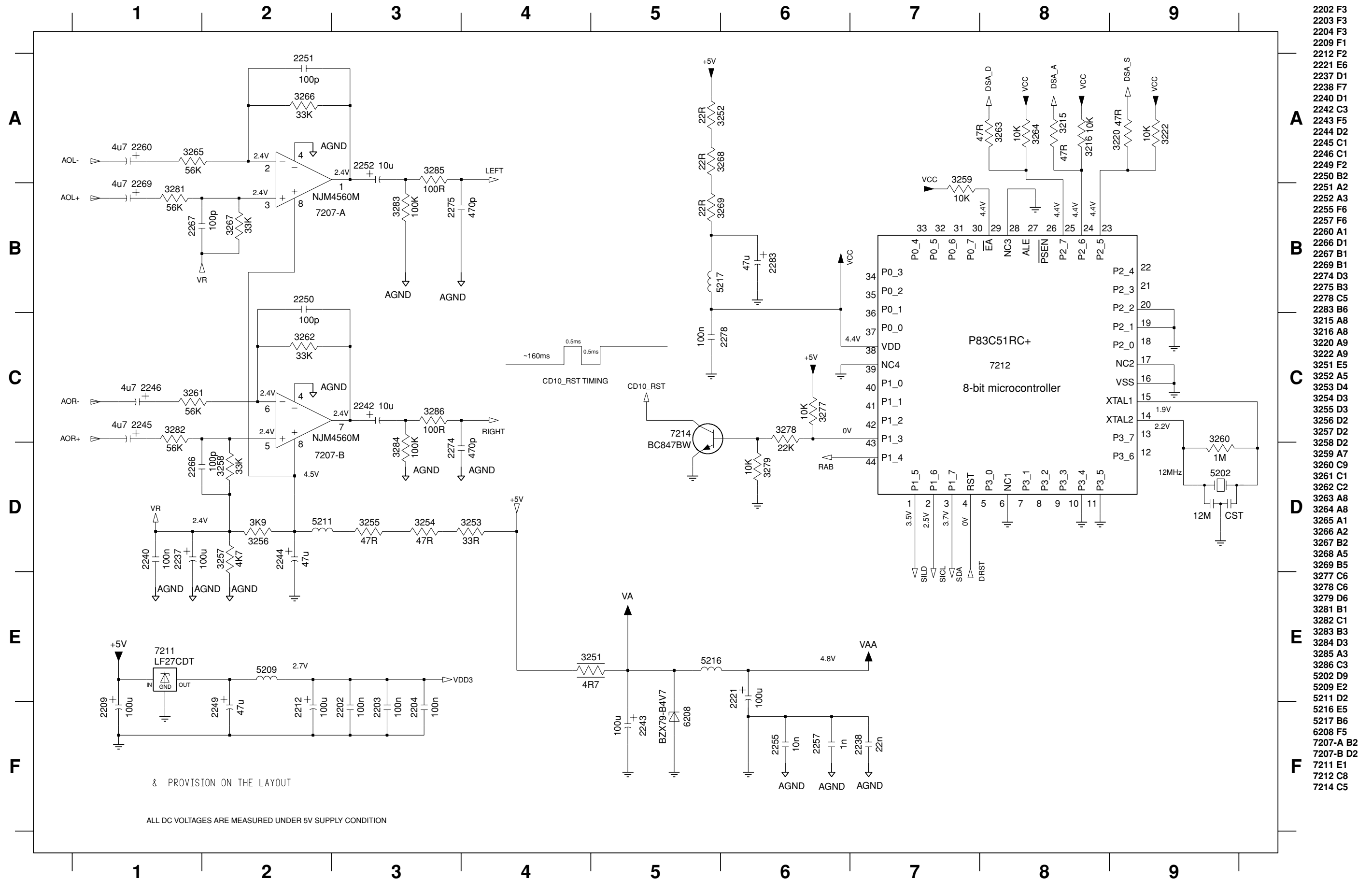
DC VOLTAGE MEASURED IN CD MODE
 & PROVISION ON THE LAYOUT
 @ True for audio with 44.1KHz sampling frequency only

ES3883FL CIRCUIT

1602 C9	2214 D2	2218 D8	2225 B8	2229 A8	2234 B4	2259 E7	2264 E2	3218 A6	3224 B4	3229 E6	3233 F8	3238 F7	3242 A4	3246 A7	3250 B7	4002 E3	5208 D1	6205 A7	7209 D9
1603 A9	2215 D2	2219 C9	2226 B7	2230 E3	2253 A1	2261 C9	2265 E9	3219 E2	3225 B3	3230 F8	3235 D9	3239 E1	3243 F7	3247 B8	3287 E4	5201 A4	5210 A1	7204 C6	7213 A3
2211 D1	2216 D2	2220 D9	2227 A7	2231 B6	2254 E1	2262 A8	2284 A4	3221 A5	3226 B3	3231 E8	3236 A4	3240 F5	3244 D8	3248 B7	3288 A3	5203 A8	5215 A5	7206 F2	
2213 D1	2217 D8	2224 B6	2228 A7	2233 A4	2256 A2	2263 C7	3212 E4	3223 B3	3227 F8	3232 E8	3237 F3	3241 F1	3245 C8	3249 B6	4001 F3	5204 A8	6204 A7	7208 E1	



AUDIO CIRCUIT



& PROVISION ON THE LAYOUT
 ALL DC VOLTAGES ARE MEASURED UNDER 5V SUPPLY CONDITION

- 2202 F3
- 2203 F3
- 2204 F3
- 2209 F1
- 2212 F2
- 2221 E6
- 2237 D1
- 2238 F7
- 2240 D1
- 2242 C3
- 2243 F5
- 2244 D2
- 2245 C1
- 2246 C1
- 2249 F2
- 2250 B2
- 2251 A2
- 2252 A3
- 2255 F6
- 2257 F6
- 2260 A1
- 2266 D1
- 2267 B1
- 2269 B1
- 2274 D3
- 2275 B3
- 2278 C5
- 2283 B6
- 3215 A8
- 3216 A8
- 3220 A9
- 3222 A9
- 3221 E5
- 3252 A5
- 3253 D4
- 3254 D3
- 3255 D3
- 3256 D2
- 3257 D2
- 3258 D2
- 3259 A7
- 3260 C9
- 3261 C1
- 3262 C2
- 3263 A8
- 3264 A8
- 3265 A1
- 3266 A2
- 3267 B2
- 3268 A5
- 3269 B5
- 3277 C6
- 3278 C6
- 3279 D6
- 3281 B1
- 3282 C1
- 3283 B3
- 3284 D3
- 3285 A3
- 3286 C3
- 5202 D9
- 5209 E2
- 5211 D2
- 5216 E5
- 5217 B6
- 6208 F5
- 7207-A B2
- 7207-B D2
- 7211 E1
- 7212 C8
- 7214 C5