



SERVICE MANUAL

IQ² MIDI

MODEL NO.: IQ² MIDI

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1. GENERAL SECTION

PRODUCT	Digital MIXER
POWER SOURCE	AC 100 - 240V, 50/60Hz
POWER CONSUMPTION	12WATTS
DIMENSIONS	250mm (W) X 355mm (D) X 104.9mm (H)
WEIGHT	4.2kg

2. FEATURES

- 24 bit/96k Digital MIXER
- 8 Digital Effects, 3 Digital Effects for Crossfader
- Big LCD with Back light
- Send/Return Function
- 3 Kind of Channel Fader Curve Mode
- Channel and Cross Fader Start Function
- 3 Band EQ for Each Channel

3. INPUT/OUTPUT IMPEDANCE & SENSITIVITY: (EQ FLAT, MAXIMUM GAIN, FX OFF, LOAD=100K OHM)

INPUT IMPEDANCE AND REFERENCE LEVEL:

CD, AUX:	10K OHM /-14dBV +/-0.1dB (200mV)
LINE:	47K OHM /-14dBV +/-0.1dB (200mV)
PHONO:	47K OHM /-50dBV +/-0.1dB (3.16mV)
MIC:	10K OHM /-50dBV +/-0.1dB (3.16mV)
RETURN:	10K OHM /-14dBV +/-0.1dB (200mV)
MASTER THROUGH:	22K OHM /0dBV +/-0.1dB (1V)

OUTPUT IMPEDANCE AND LEVEL:

SEND:	1K OHM /-14dBV (200mV) +/-2dB
REC:	1K OHM /-10dBV (316mV) +/-2dB
MASTER UNBAL.:	300 OHM /0dB (1V) +/-2dB
MASTER BAL.(load=600 ohm):	600 OHM /+2.22dBm (1V) +/-2dBm
PHONES (load=32 ohm)	10 OHM /0dBV (1V) +2/-3dB

4. FREQUENCY RESPONSE: (EQ FLAT, MAXIMUM GAIN, FX OFF, MASTER OUTPUT, LOAD=100K OHM)

LINE, CD, AUX:	20 - 20K Hz +2/-3dB
PHONO:	20 - 20K Hz +2/-3dB (RIAA)
MIC:	20 - 20K Hz +2/-3dB
MASTER THROUGH:	20 - 20K Hz +2/-3dB

5. THD + N: (EQ FLAT, MAXIMUM GAIN, FX OFF, w/ 20kHz LPF, A-WEIGHTED, MASTER OUTPUT:1V LOAD=100K OHM)

LINE, CD, AUX:	LESS THAN 0.085% 20 - 20 KHz
PHONO:	LESS THAN 0.085% @ 1 KHz
MIC:	LESS THAN 0.085% @ 1 KHz
MASTER THROUGH:	LESS THAN 0.085%20 - 20 KHz

6. MAXIMUM INPUT: (1KHz, MASTER OUTPUT, THD=1%, EQ FLAT, FX OFF, GAIN AT 12 O'CLOCK)

LINE, CD, AUX:	MORE THAN +6dBV
PHONO:	MORE THAN -30dBV
MIC:	MORE THAN -30dBV

RETURN: MORE THAN +2dBV

7. MAXIMUM OUTPUT: (EQ FLAT, MAXIMUM GAIN, FX OFF, THD=1%, LOAD=100K OHM)

SEND: MORE THAN +3dBV (1.42V)
MASTER: MORE THAN +16dBV (6.31V)
REC: MORE THAN +8dBV (2.52V)
PHONES: MORE THAN +3dBV (1.42V) LOAD=32 OHM

8. S/N RATIO: (MAXIMUM GAIN, EQ FLAT, W/20KHz LPF, A-WEIGHTED, FX OFF, MASTER OUTPUT:1V)

LINE, CD, AUX: MORE THAN 85dB
PHONO: MORE THAN 85dB
MIC: MORE THAN 85dB

9. CROSSTALK: (MAXIMUM GAIN, EQ FLAT, FX OFF, W/20KHz LPF, A-WEIGHTED, MASTER OUTPUT:1V)

LINE, CD, AUX, PHONO: MORE THAN 63dB @1KHz BETWEEN L AND R CHANNEL
MORE THAN 85dB @1KHz BETWEEN CHANNELS

10. EQ

MIC: 12 +/-2dB, -12 +/-2dB AT 100Hz
12 +/-2dB, -12 +/-2dB AT 10 KHz
CHANNEL: 10 +/-2dB, BELOW -28dB AT 70Hz
10 +/-2dB, BELOW -35dB AT 1 KHz
10 +/-2dB, BELOW -28dB AT 13 KHz

11. CHANNEL BALANCE

Within 3dB FROM 0 TO -40dB

12. FADER KILL

MORE THAN 85dB AT 1KHz FOR CHANNEL FADER AND CROSSFADER (MASTER OUTPUT:1V)

13. MIC TALKOVER

-14 +/-2dB

14. USB SECTION: (EQ FLAT, FX OFF, w/ 20kHz LPF, MASTER OUTPUT, LOAD=100K OHM)

▶ **PLAYBACK: (SONY SOUND FORGE8.0)**

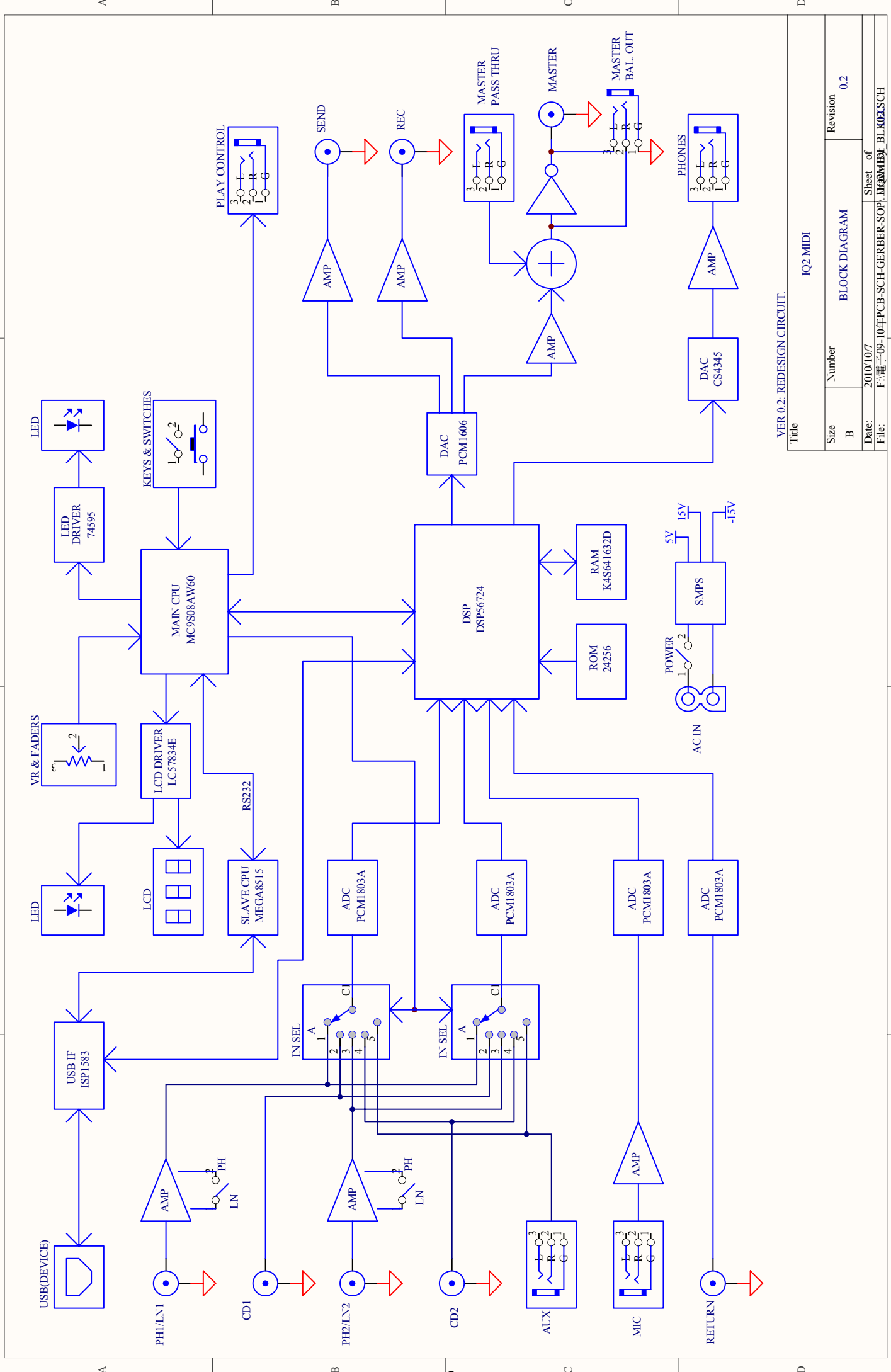
OUTPUT: 0dBV (1V) +/-2dB (TCD-782,96K/24Bit TRK.16, MAXIMUM GAIN.)
THD+N: LESS THAN 0.07% (TCD-782,96K/24Bit TRK.2, GAIN AT MASTER = 0dBV OUT, W/20KHz LPF, A-WEIGHTED)
FREQUENCY RESPONSE: 17 - 16KHz +/- 2dB (TCD-781 TRK.1 TO 4,16, GAIN AT MASTER =0dBV OUT)
S/N RATIO: MORE THAN 85dB (TCD-782,96K/24Bit TRK.2 TO 8, GAIN AT MASTER=0dBV OUT, A-WEIGHTED)
CH SEPARATION: MORE THAN 63dB AT 1KHz (TCD-782,96K/24Bit TRK.2 TO 9, 11, GAIN AT MASTER=0dBV OUT, A-WEIGHTED)

▶ **RECORDING AND PLAYBACK:(LINE 1KHz,-14dBV INPUT, GAIN MAXIMUM,SONY SOUND FORGE8.0)**

OUTPUT: 0dBV (1V) +/-2dB
THD+N: LESS THAN 0.07% (W/20KHz LPF, A-WEIGHTED)

15. ACCESSORIES

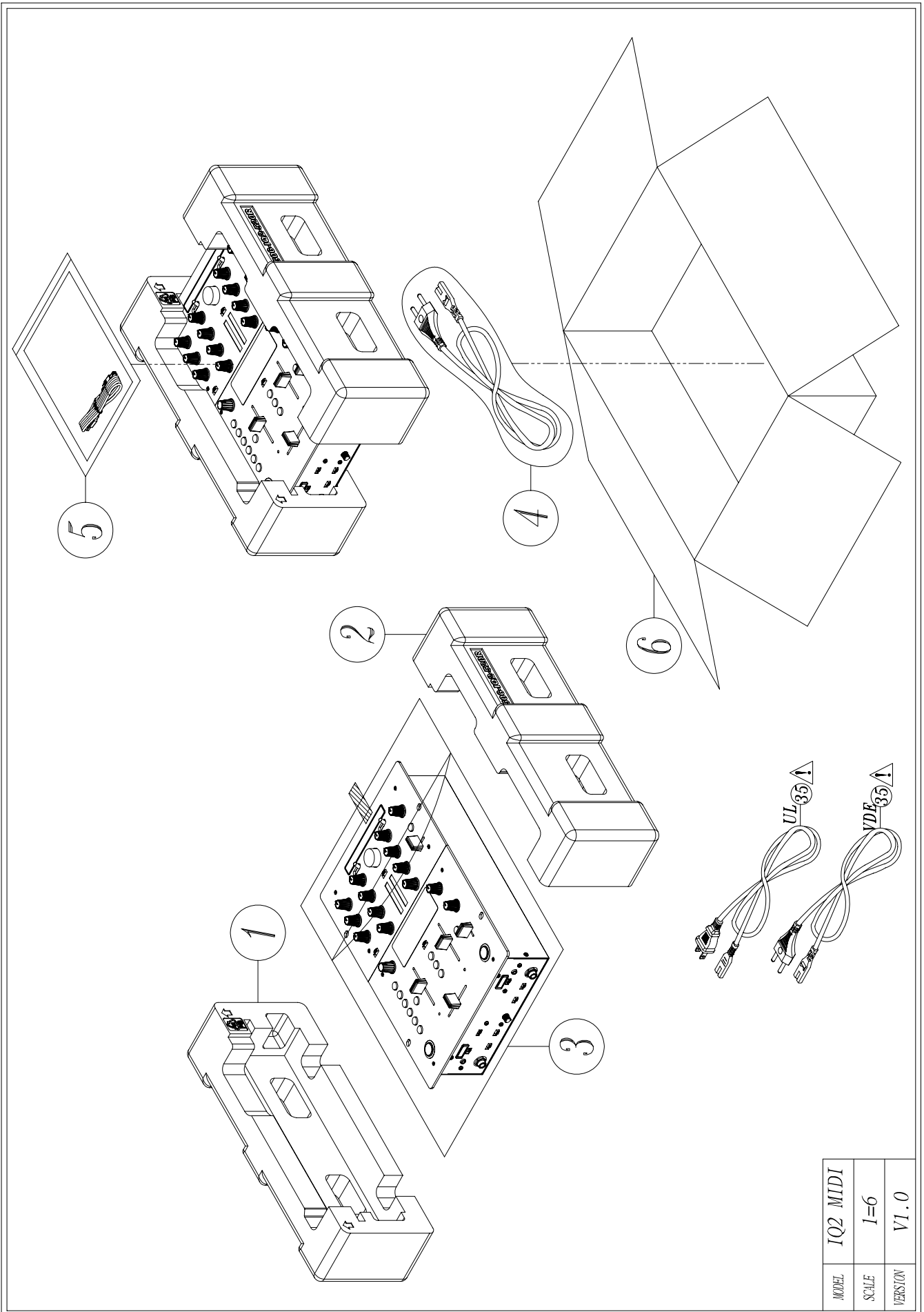
- AC POWER CORD
- USB CABLE



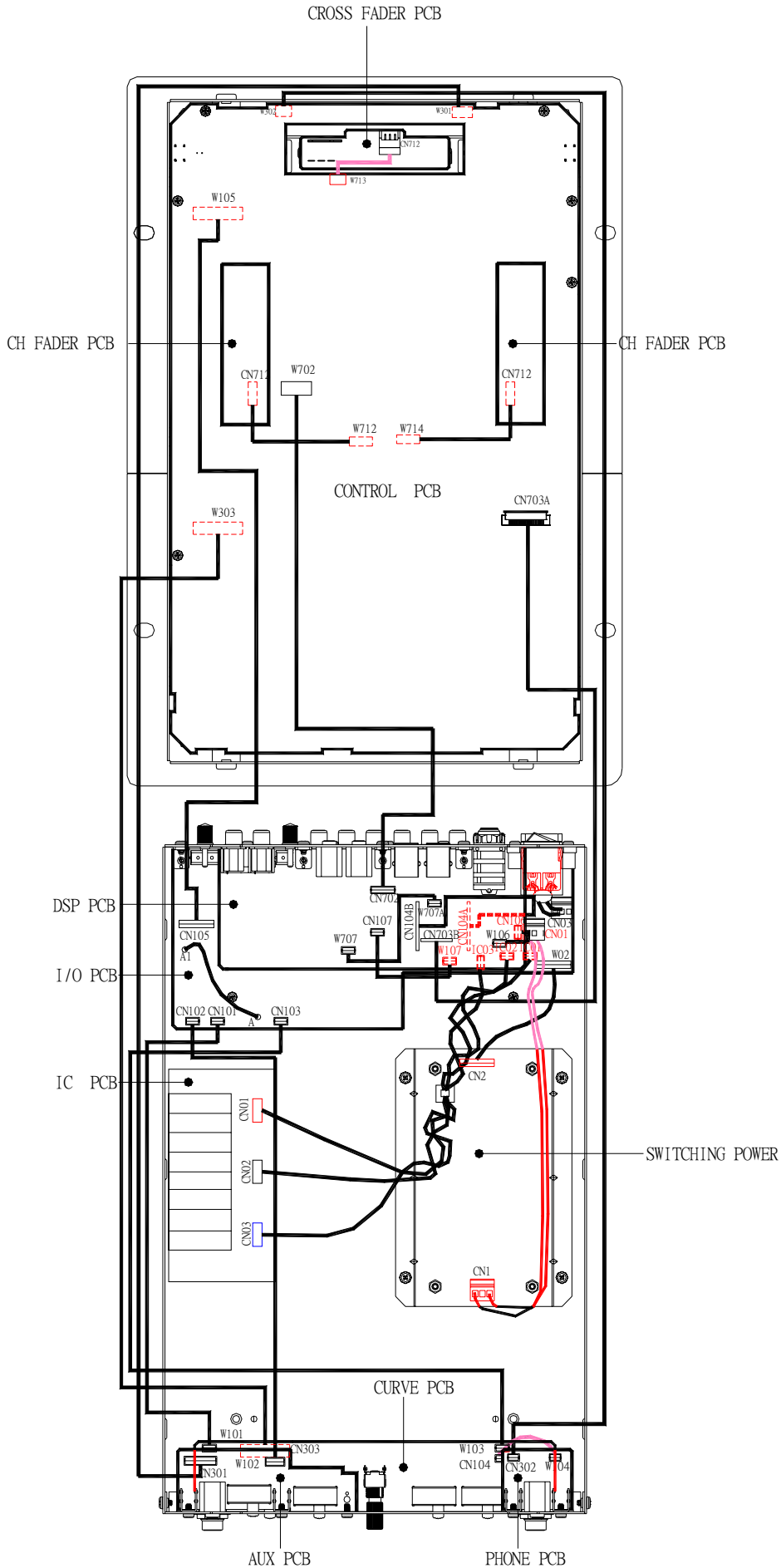
VER 0.2: REDESIGN CIRCUIT.

Title		IQ2 MIDI	
Size	Number	BLOCK DIAGRAM	Revision
B			0.2
Date:	Sheet of		
File:	F:\電子09-10年PCB-SCH-GERBER-SOP\160401\B\BLOCKSCH		

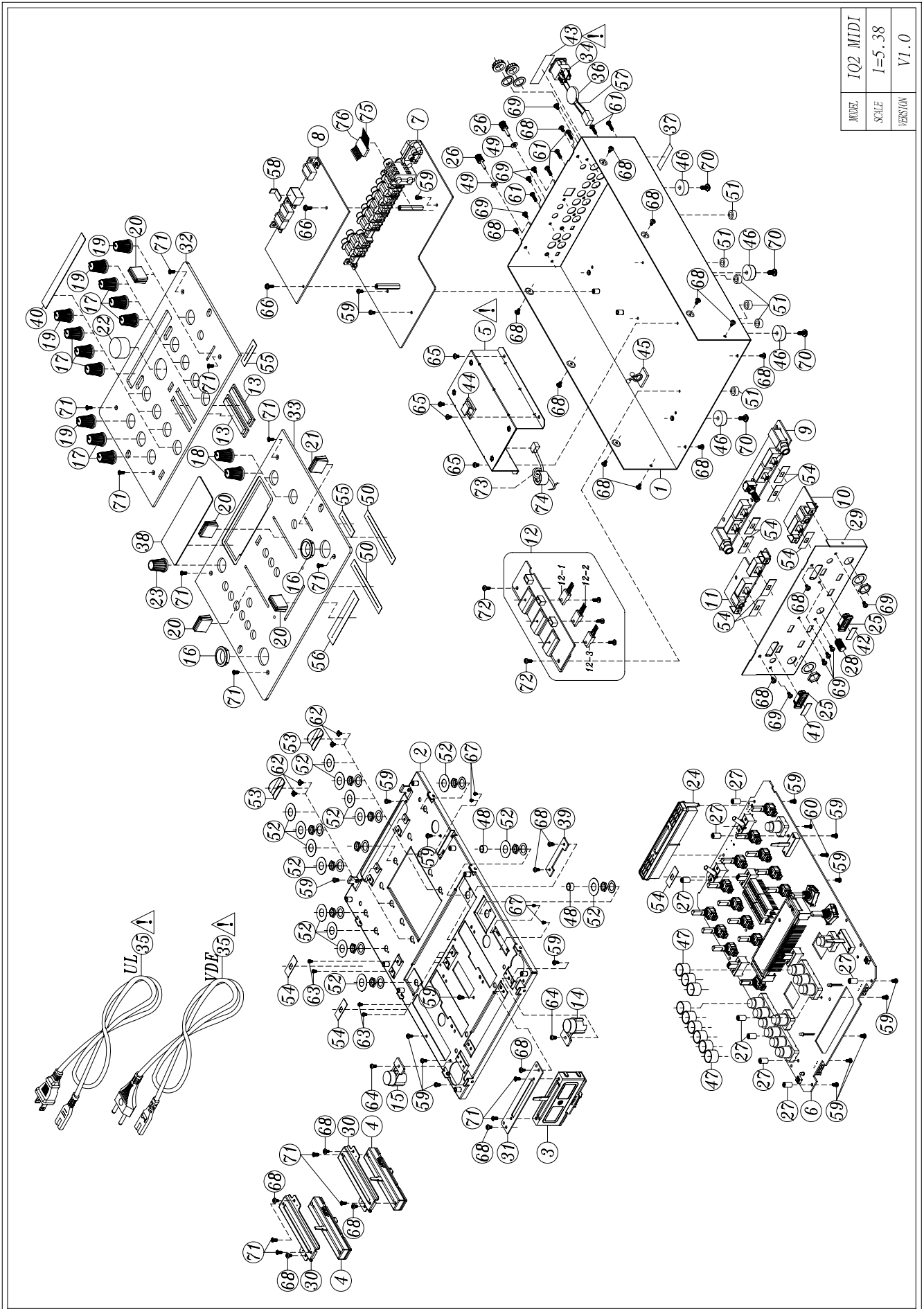
Packing View



Point to Point Wiring Diagram



Exploded View



Exploded View Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
1	BOTTOM BASE ASS'Y	703-IQ2M-1202D	1	
2	FRONT BOARD ASS'Y	703-IQ2M-1203A	1	
3	CROSS FADER PCB ASS'Y	704-TU3-7714	1	
4	CH FADER PCB ASS'Y	704-TU3-7715	2	
5	POWER & DIXED PLATE ASS'Y	704-TU3-7723	1	
6	CONTROL PCB ASS'Y	704-IQ2UM-9164	1	
7	IO PCB ASS'Y	704-IQ2UM-9166	1	
8	DSP PCB ASS'Y	704-IQ2UM-9167	1	
9	CURVE PCB ASS'Y	704-IQ2UM-9170	1	
10	PHONE PCB ASS'Y	704-IQ2UM-9171	1	
11	AUX PCB ASS'Y	704-IQ2UM-9172	1	
12	IC PCB ASS'Y	704-IQ2UM-9173	1	
12-1	IC(NJM-7812FA,TO-220F)	417-BJ1900L-231	1	
12-2	IC(BA033T,TO-220)	417-HV3500K-253	1	
12-3	IC (NJM 7912FA)	417-HMD3360KA-5085	1	
13	SINGLE LED DECORATION	100-RMX50-2207	2	
14	KNOB	100-IQ2A-2222	1	
15	KNOB	100-IQ2UA-2222	1	
16	KNOB FRAME	100-MX1400-2223	2	
17	VFS ROTATE KNOB(SEMICIRCLE)	100-RMX20A1-2521	8	
18	VFS ROTATE KNOB(SEMICIRCLE)	100-IQ2-2521	2	
19	VFS ROTATE KNOB(SEMICIRCLE)	100-IQ2USB-2521	4	
20	VFS PUSH KNOB	100-RMX20A1-2522	4	
21	VFS PUSH KNOB	100-IQ2-2522	1	
22	ROTATE KNOB	100-IQ2-2578	1	
23	VFS ROTATE KNOB(SEMICIRCLE)	100-IQ2-2599	1	
24	LED BASE	100-IQ2M-2689	1	
25	XF LED BASE	100-IQ2M-2690	2	
26	GROUND PIN	200-DJ100-231	2	
27	SLEEVE(φ 6*10.2L)	200-HPR1-331	8	
28	VR SHEATH	300-RMX20A1-1125	1	
29	BACK BOARD	300-IQ2M-1137C	1	
30	VR FIXED PLATE	300-RMX40-1148	2	
31	SLIDE VR FIXED PLATE	300-TU3-1587	1	
32	TOP FRONT PANEL	300-IQ2M-1623A	1	
33	BELOW FRONT PANEL	300-IQ2M-1624	1	
34	POWER SW(MR-22-N4BB-F2)	403-DJ1-107A	1	
35	AC POWER CORD(L=1900mm,VDE TYPE)	409-DJ2-070A	1	Germany
	AC POWER CORD(L=1900+50mm,LP-15A&SAA18R-B20A&LS-7)	409-DJ2-069A	1	America
36	AC SAFETY CAPACITOR(0.01uF/250V,M,BULK,Y5V)	413-S250-747	1	
37	LABEL(BARE,36*8mm,t=1.2mm)	501-DV300-1067		
38	DECORATION	501-MX1400-1649	1	
39	SEGREGATE SHEET(PC,52*12*1.5t)	501-IQ2-2146	1	
40	DECORATION	501-IQ2M-2234	1	
41	XF DECORATION	501-IQ2M-2235	1	

Exploded View Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
42	FX DECORATION	501-IQ2UM-2235	1	
43	RATING LABEL(30*8mm,t=0.08mm)	501-IQ2UMA-2316	1	
44	WIRE MOUNT(FW-2-3M,WHITE)	504-ST100-118	1	
45	MOUNTING PURSE LOCK(AB-7-3M,WHITE,20*13*22.8)	504-IQ2UM-263	1	
46	RUBBER FOOT(NBR,70°)	604-BEAT4-238	4	
47	ANTI-DAZZLING RING(φ 14.7*13.3*0.7t,BLACK)	604-HPR1-272	9	
48	SPACER SUPPORT(NYLON, φ 8.5mm,L=5mm)	605-IQ2-090	2	
49	WASHER(φ 8*3.2*1t,NI)	606-Q2221-122	2	
50	HIMILON	612-HDJ100-045	2	
51	PROTECTIONMAT	612-HMD5000-065	6	
52	CUSHION(φ 20*9.2*0.3t)	612-Q2422-101	15	
53	CUSHION(φ 28*4.8*0.5t)	612-Q2422-102	2	
54	CUSHION(26*10mm,t=0.5mm)	612-Q2422-103	10	
55	CUSHION(35*10*0.4t)	612-SA12-129	2	
56	CUSHION(75*15*0.3t)	612-AKS4-186	1	
57	3N2P 3.96 CONNECTOR WIRE(L=60mm,UL1617#22)	404-DJM404-2956	1	
58	SPONGE(20*6*1t)	612-F300-358	1	
59	SCREW(3*5 P=0.5)	602-B300-041	19	
60	SCREW(SAE1018,PTP,M2.6*L8)	602-SL24F-099	2	
61	SCREW(SAE1018,PTP,M3*10)	602-MK7-131	6	
62	SCREW(SAE1018,WJMP,φ 2.6*L4*P0.45,CAP φ 6.5)	602-MK7-134A	4	
63	SCREW(SAE1018,JMP,φ 2.6*L3*P0.45)	602-KM500-155A	4	
64	SCREW(M3*P0.6*8L)	602-HM500-156	2	
65	SCREW(SAE1018,BTB,φ 3*L4)	602-HP1010K-177	4	
66	SCREW(SAE1018,ISOB,φ 3*L8*P0.5)	602-HP1010K-178	2	
67	SCREW(M2.0*2.6)	602-KM280A-199	4	
68	SCREW(SAE1018,BTB,φ 3*L5)	602-QMX2BPM-322	22	
69	SCREW(SAE1018,ISOP,M3*5L*P0.5)	602-MP3-324	9	
70	SCREW(SAE1018,STB,φ 4*L8*P0.7)	602-BEAT4-440	4	
71	SCREW(CTF,3*7)	602-AKS4-496A	14	
72	SCREW(SAE1018,STB,φ 3*L7*P0.5)	602-STB3007-619	2	
73	3N2P 3.96 CONNECTOR WIRE(L=390mm,UL1617#22,+/-)	404-IQ2UM-3401	1	SWITCHING POWER CN1 TO I/O PCB CN03
74	CORE(BRI28*13*16)	415-PROTT1-118	1	
75	16P 1.0 FFC CABLE(L=120mm,0.035*0.7mm+/-)	406-IQ2UM-1143	1	I/O PCB CN104A TO DSP PCB CN104B
76	CORE(A5FS23.8*6.3*12.5-1.1)	415-600CM-345	1	

Control PCB Ass'y Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
	CONTROL PCB ASS'Y	704-IQ2UM-9164	1	
	SLEEVE(ϕ 6*10.2L)	200-HPR1-331	8	
	FIXED PLATE FOR BACKLIGHT(0.5t)	300-SMX701-844	2	
SW302,SW313	TACT SW(H=5mm,TAPING)	403-DCM270X-101A	2	
SW301,SW303,SW305,SW306,SW307,SW308,SW309,SW310,SW311,SW312,SW325,SW326	TSSW-RED LED	403-HPR1-184A	12	
SW314	SLIDE SW(SR1712F,SR1712F-0109-20F0A-N)	403-IQ2-336	1	
SW315	SW(SR1712F-0104-20F0A-N9-N,SR1712F)	403-IQ2-339	1	
SW322,SW323	LEVER SW(LBR23M-20KB,L=20)	403-IQ2UM-362	2	
SW320,SW321	SW(SKA-23-12,L=12)	403-QD3-141A	2	
SW324	SLIDE SW(SKA-12-12,3PIN)	403-QMX1-063A	1	
SW304	ENCODER(RE111F-41B3-235F-20P,L=23.5)	403-SX2-265	1	
CN01	2P SOCKET(CKM2001WR-2P 90°WHITE)	404-DJ3000-847A	1	
TO BACKLIGHT	2P2.0 CONNECTOR WIRE(L=75mm,AWM1007 AWG26)	404-DJ5000-1769	1	
W105	7P 2.0 CONNECTOR WIRE(L=350mm,UL2468#26,+/-)	404-IQ2UM-3391	1	
W303	7P 2.0 CONNECTOR WIRE(L=170mm,UL2468#26,BLUE,+/-)	404-IQ2UM-3392	1	
W301	4P 2.0 CONNECTOR WIRE(L=80mm,UL2468#26,+/-)	404-IQ2UM-3394	1	
W702	4P 2.0 CONNECTOR WIRE(L=250mm,UL2468#26,+/-)	404-IQ2UM-3395	1	
W302	3P 2.0 CONNECTOR WIRE(UL2468#26,L=80mm)	404-M207-2987	1	
W713	3P 2.5 CONNECTOR WIRE(L=100mm,UL2468#26*3C,BLACK&WHITE)	404-TU3-2925	1	
W712,W714	3P 2.5 CONNECTOR WIRE(L=90mm,UL2468#26*3C,BLACK&WHITE)	404-TU3-2926	2	
CN703A	10P 1.0 FFC CABLE(L=260mm,0.035*0.7mm,+/-)	406-IQ2UM-1142	1	
D307,D308	LED (6224-10ID-A,RED)	410-CD6000-122	2	
D391,D391A,D392,D392A	LED(YELLOW GREEN,LTL-1CHJGDNN, ϕ 3.1)	410-DJ5000-252	4	
D304,D305	LED(LTL1CHJEDNN,RED)	410-DJ5000-253	2	
D01,D02,D03,D04	LED BAR(RED,LTA-10102KR,25.27*5.08)	410-IQ2-347	4	
D379	BACKLIGHT	410-SDJ11-343	1	
LCD301	LCD(USS-H459ENV-7F,98*32.5,6HR)	410-TU3-348	1	
R351	CARBON FILM RESISTOR(22 OHM,1W,J,T-73)	412-HV3363K-350	1	
C301,C303,C310	ELEC. CAPACITOR(100uF/10V,M,105 °C ,TAPING 5*7,MINI)(Cd,Pb,Hg,Cr)	413-HMA2200-5017	3	
L301	INDUCTOR(10uH T-26mm)	415-MPG100-047	1	
VR303	SLIDE VR(20K(2B),RF15111G4101-HF,L=25)	418-IQ2UM-549	1	
VR301,VR309,VR310,VR311,VR312	ROTARY VR(RD901F-40-20F-B20K-00D 20K(B) F L=20)	418-PDJ1-488	5	
VR304,VR305,VR306,VR307,VR308,VR313,VR314,VR315	VR(RD901F-40-20F-B20K-0CD)	418-SDJ2-439	8	
VR302	SLIDE VR(20KB,RF15111K4102-20K<2B><HF3>)	418-U2SA-523	1	
X301	CRYSTAL(HC-49S,4MHz,20PF)	427-9700-119	1	
D01,D02,D03,D04	LED HOLDER(LED-7,H=7mm,WHITE)	504-CDN34A-042	16	
D392A,D391,D392,D391A	LED HOLDER(LED-2F,6.0*5.0/1.2,NYLON66)	504-IQ2UM-264	4	
D307,D308	LED HOLDER (LED3-17-B,H=17mm,BLACK)	504-NT2000-066	2	
	SCREW(3*5 P=0.5)	602-B300-041	8	

Control PCB Ass'y Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
	SILICONE FOR COVER(SILICONE, ϕ 14.7,H=4.1,t=0.7,BLACK)	604-HDJ9700-237	9	
	KNOB	604-IQ2A-465	3	
	3 KEY KNOB	604-IQ2A-466	1	
	6 KEY KNOB	604-IQ2A-467	1	
	EVA WASHER(36*15*2.5mm)	612-RB2030-267	1	
CN703A	10P FFC CONNECTOR(SMD)	404-CDMIX2-1142	1	
	CONTROL PCB(BARE)	405-IQ2MIDI-2478	1	
D303,D303A,D316,D316A,D319,D319A,D322,D322A	CHIP LED(LTST-C190KGKT, GREEN)	410-CD900-249	8	
D318,D320,D321,D302,D309,D312,D313,D314,D315,D317	CHIP LED(RED,LTST-C190KRKT)	410-HDJ9700-214	10	
D310,D311,D323,D324	CHIP LED(BLUE,LTST-C190TBKT)	410-HDJ9700-216	4	
D380,D381,D382	CHIP LED(WHITE,LTW-M670ZVS-M/M5,3*2)	410-SP2U-364	3	
R331,R332,R333,R334	CHIP RESISTOR(2.7K OHM,1/10W,V,J,TP,50V)	412-007USB-677	4	
R370,R371,R372,R373,R374,R375,R376,R377,R378,R379,R380,R381,R382,R383,R384,R362,R363,R363A,R376A,R379A,R382A,R369	CHIP RESISTOR(270 OHM,1/10W,0603,J,TP,50V)	412-007USB-698	22	
R428	CHIP RESISTOR(22K OHM,1/10W,0603,J,TP,50V)	412-007USB-704	1	
R412,R413,R414,R415,R416,R417,R418,R419,R420,R421,R422,R423,R424,R411,R385,R386,R387,R388,R389,R390,R391,R392,R393,R394,R395,R396,R397,R398,R399,R400,R401,R402,R403,R404,R405,R406,R407,R408,R409,R410	CHIP RESISTOR(680 OHM,1/10W,J,TP,50V)	412-900-1060	40	
R367,R305,R306,R307,R308,R309,R310,R311,R313,R433,R361,R366,R314,R368,R429,R430,R431,R432,R316,R317,R318,R319,R320	CHIP RESISTOR(220 OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-521	23	
R312	CHIP RESISTOR(47K OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-532	1	
R302,R303,R321,R343,R344,R345,R346,R347,R348,R349,R350,R352	CHIP RESISTOR(10K OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-534	12	
R323,R322,R324,R325,R326,R327,R328,R329,R330,R425,R426,R427	CHIP RESISTOR(1K OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-540	12	
R315,R364,R441,R441A,R442,R442A	CHIP RESISTOR(470 OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-545	6	
R301	CHIP RESISTOR(1M OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-546	1	
R365	CHIP RESISTOR(560 OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-549	1	
R304	CHIP RESISTOR(0 OHM,1/10W,0603,J,TP,50V)	412-CDVD2001-552	1	
C314	CHIP CAPACITOR((680pF/50V,J,0603 TYPE,NPO)	413-007USB-785	1	
C306,C307	CHIP CAPACITOR(22pF/50V,J,0603 TYPE,NPO)	413-CR701-5161	2	

DSP PCB Ass'y Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
	DSP PCB ASS'Y	704-IQ2UM-9167	1	
	BRACKET(L TYPE)	300-HDJ7000-472	3	
JP702	8P FFC CONNECTOR(180°,52808-0870)	404-900-2075	1	
CN107	2P SOCKET(B2B-PH-K-S,P=2mm,,180 DEGREE)	404-HP1010K-257	1	
W106	3P 2.0 CONNECTOR WIRE(L=170mm,UL2547#28,+/+)	404-IQ2UM-3393	1	
W707 TO W707A	2P 2.5 CONNECTOR WIRE(L=75mm,UL1533#28,+/+)	404-IQ2UM-3396	1	
CN702	4P SOCKET(CKM2001WV-4P 180°WHITE)	404-KM300-123A	1	
C54	ELEC. CAPACITOR(10uF/16V,M,105°C,TAPING 4*7)(Cd,Pb,Hg,Cr)	413-DV300-5155	1	
C28	E.C.(4.7uF/25V,MINI)	413-SMX701-712	1	
C714,C715	ELEC. CAPACITOR(10uF/25V,M,105°C,TAPING 4*7,MINI)(Cd,Pb,Hg,Cr)	413-SPPW3-235	2	
W106	EMI CORE(RI 14*8*10)	415-390-277	1	
IC8	IC(74HC125N DIP)	417-SZ480-800	1	
JK701	USB JACK(USB-B(F),90°,DIP)	420-007USB-150	1	
JK702,JK703,JK110	HEADPHONE JACK(ϕ 3.5,2K6A/-3537*01-030)	420-HDJ7100-063	3	
SV2	2*3P STRIP PIN HEADER(SMD,H=6mm,90°)	424-SDJ2-142	1	
X7	QUARTZ CRYSTAL(XTAL 16MHz,32PF CYLINDER TYPE)	427-CDN88-072	1	
X702	CRYSTAL(CSA-309,24.576MHz,3*9)	427-IQ2UM-133	1	
X5	CRYSTAL(HC-49S,22.5792MHz)	427-IQ2UM-135	1	
X8	QUARTZ CRYSTAL(CSA-309,12MHz,3*9)	427-KMD3500-047	1	
	CABLE TIE	504-S100-004	2	
	SCREW(3*5 P=0.5)	602-B300-041	3	
CN104B	16P FFC CONNECTOR(180°,52808-1670)	404-900-2077	1	
CN703B	10P FFC CONNECTOR(SMD)	404-CDMIX2-1142	1	
	DSP PCB(BARE,FR4,110*151*1.6t)	405-IQ2MIDI-2480A	1	
R21,R20,R25,R23,R26,R28, R29,R30,R36,R37,R38,R39, R46,R47,R48,R51,R52,R54, R57,R61	CHIP RESISTOR((47 OHM,1/10W,0603M,J,TP ,50V)	412-007USB-697	20	
R5	CHIP RESISTOR(12K OHM,1/10W,0603,J,TP ,50V)	412-007USB-702	1	
R751,R752,R753,R754,R75 5,R756,R757,R758,R759,R7 60,R761,R762,R763,R764,R 765,R766,R769,R770,R771, R772,R773,R774,R775,R77 6	CHIP RESISTOR(330HM,1/10W,J,TP 0603,50V)	412-007USB-782	24	
R712,R781	CHIP RESISTOR(330OHM,1/10W,J,TP 0603,50V)	412-900-983	2	
R63,R64,R65,R66,R67,R68,R739	CHIP RESISTOR(220 OHM,1/10W,0603 ,J,TP 50V)	412-CDVD2001-521	7	
R740,R741	CHIP RESISTOR(4.7K OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-523	2	
R2,R3,R4,R12,R14,R15,R17 ,R18,R62,R724,R725,R727, R732,R730,R734,R735,R73 8,R767,R777,R779,R743,R7 11	CHIP RESISTOR(10K OHM,1/10W,0603,J,TP ,50V)	412-CDVD2001-534	22	
R19	CHIP RESISTOR(100K OHM,1/10W,0603 ,J,TP ,50V)	412-CDVD2001-537	1	
R13	CHIP RESISTOR(1K OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-540	1	
R780	CHIP RESISTOR(470 OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-545	1	
R7,R744	CHIP RESISTOR(1M OHM,1/10W,0603,J,TP ,50V)	412-CDVD2001-546	2	
R6	CHIP RESISTOR(1.5K OHM,1/10W,0603 ,J,TP ,50V)	412-CDVD2001-550	1	

I/O PCB Ass'y Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
	IO PCB ASS'Y	704-IQ2UM-9166	1	
	BRACKET(L TYPE)	300-HDJ7000-472	1	
JK103,JK104,JK105,JK106	GROUND PLATE	300-QFX19-811	4	
SW101,SW201	SLIDE SW(SSSF122NA1-HF,6PIN)	403-QMX1-060	2	
CN03	2P SOCKET(P=3.96mm,180 DEGREES)	404-BEAT6-1597	1	
CN01	2P SOCKET(CKM3961WV-3P,180°RED)	404-BEAT6-1597A	1	
JK01	AC SOCKET(SO-222)	404-DJ2-021	1	
CN105	7P SOCKET(CKM2001WV-7P 180°WHITE)	404-HD1500-685A	1	
CN106,CN101	3P SOCKET(CKM2001WV-3P,180°WHTIE)	404-HP1010K-259A	2	
IC01	3P 2.5 CONNECTOR WIRE(L=190mm,UL1007#26,RED,+,+)	404-IQ2UM-3398	1	
IC02	3P 2.5 CONNECTOR WIRE(L=250mm,UL1007#26,-BLUE,+,+)	404-IQ2UM-3399	1	
IC03	3P 2.5 CONNECTOR WIRE(L=190mm,UL1007#26,+,+)	404-IQ2UM-3400	1	
W107	2P 2.0 CONNECTOR WIRE(L=70mm,UL1533#28)	404-IQ2UM-3447	1	
CN103	3P SOCKET(CKM2001-WV-3P 180° BLUE)	404-Q2221-684A	1	
CN102	3P SOCKET(CKM2001-WV-3P,180° RED)	404-Q2221-688A	1	
W02	7P 2.5CONNECTOR WIRE(L=80mm,UL2468#26*7C,BLACK&WHITE)	404-TU3-2922	1	
A TO A1	1P LEAD WIRE(L=70mm,AWM1007,AWG22,BLACK)	406-MX200-1110	1	
ZD01	ZENER DIODE(MTZJ5.6-B,1/2W,T-77)	414-HT8033-032	1	
L804,L805	CHOKE COIL(14*6mm,100MHZ,750ohm)	415-205-279	2	
L802,L803	INDUCTOR(10uH,AL0204ST-100K-S-A,TAPING)	415-HMD5000-097	2	
L801	INDUCTOR(10uH T-26mm)	415-MPG100-047	1	
IC118	IC(NJM4556AD,DIP-8)	417-3113-018	1	
IC104,IC105	IC(LC78211,DIP-30)	417-QFX19-629	2	
JK103,JK104,JK105,JK106	4P RCA JACK(RJ-1073-09-0300A)(Cd,Pb)	420-QMX1-094	4	
JK107	MINI POWER JACK(LJB0669B-12)	420-TU3-290	1	
	SPACER SUPPORT(H-32-N66,WHITE,H=32, § 3)	504-MU11-203	2	
	SCREW(3*5 P=0.5)	602-B300-041	1	
	SCREW(M3*P0.5*L8)	602-HP1010K-178	2	
	HEAT-SHRINKABLE TUBE	605-HDJ201F-050	0	
	SPONGE	612-IQ2UM-378	1	
CN104A	16P FFC CONNECTOR(180°,52808-1670)	404-900-2077	1	
R105,R106	CHIP RESISTOR(30KOHM,1/10W,J,TP 0603,50V)	412-007USB-672	2	
R141,R142,R207,R208,R209,R210,R153,R154,R155,R156,R169,R170,R171,R172,R133,R134,R137,R138	CHIP RESISTOR(5.1K OHM,1/10W,0603,J,TP ,50V)	412-007USB-673	18	
R187,R188	CHIP RESISTOR(56KOHM,1/10W,J,TP 0603,50V)	412-007USB-674	2	
R235,R236,R05,R06,R07,R08,R09,R10,R11,R12,R13,R14	CHIP RESISTOR(2.7K OHM,1/10W,V,J,TP,50V)	412-007USB-677	12	
R215,R179,R180	CHIP RESISTOR(15K OHM,1/10W,0603,J,TP ,50V)	412-007USB-687	3	
R01	CHIP RESISTOR(2.2K OHM,1/10W,0603,J,TP ,50V)	412-007USB-693	1	
R801,R802,R803,R804	CHIP RESISTOR((47 OHM,1/10W,0603M,J,TP ,50V)	412-007USB-697	4	
R143,R144,R135,R136,R139,R140	CHIP RESISTOR(5.6K OHM,1/10W,0603,J,TP ,50V)	412-007USB-701	6	
R101,R102	CHIP RESISTOR(12K OHM,1/10W,0603,J,TP ,50V)	412-007USB-702	2	

I/O PCB Ass'y Part List

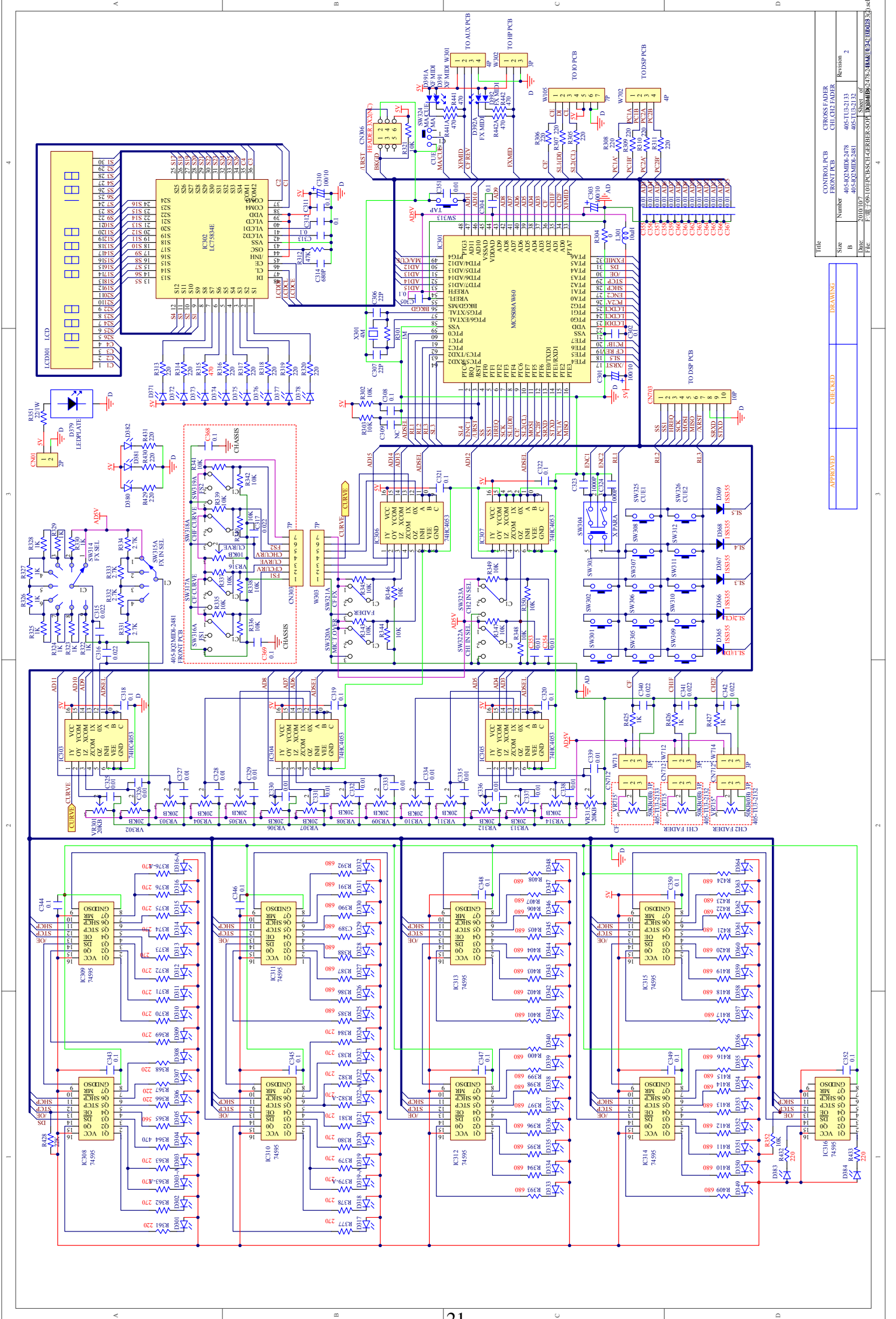
REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
R02,R115,R116,R127,R128, R189,R190,R191,R192,R19 3,R194,R195,R196,R219,R2 20,R221,R222	CHIP RESISTOR(22K OHM,1/10W,0603,J,TP ,50V)	412-007USB-704	17	
R159,R160	CHIP RESISTOR((33K OHM,1/10W,0603,J,TP ,50V)	412-007USB-705	2	
R15,R16,R17,R18,R19,R21 4,R213	CHIP RESISTOR(10 OHM,1/10W,J,TP 0603,50V)	412-810-966	7	
R163,R164,R175,R176	CHIP RESISTOR(820OHM,1/10W,J,TP 0603,50V)	412-900-1010	4	
R223,R224,R151,R152,R16 7,R168,R157,R158	CHIP RESISTOR(11KOHM,1/10W,J,TP 0603,50V)	412-900-1012	8	
R165,R166,R177,R178	CHIP RESISTOR(180OHM,1/10W,F,TP 0603,50V)	412-900-1014	4	
R113,R114,R125,R126	CHIP RESISTOR(270KOHM,1/10W,F,TP 0603,50V)	412-900-974	4	
R225,R226	CHIP RESISTOR(51KOHM,1/10W,J,TP 0603,50V)	412-900-977	2	
R197,R198,R199,R200	CHIP RESISTOR(220 OHM,1/10W,0603 ,J,TP 50V)	412-CDVD2001-521	4	
R185,R186	CHIP RESISTOR(4.7K OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-523	2	
R23,R24,R107,R108,R119, R120,R131,R211,R212	CHIP RESISTOR(100 OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-530	9	
R110,R121,R122,R109	CHIP RESISTOR(47K OHM,1/10W,0603,J,TP ,50V)	412-CDVD2001-532	4	
R217,R218,R183,R184,R20 5,R206	CHIP RESISTOR(10K OHM,1/10W,0603,J,TP ,50V)	412-CDVD2001-534	6	
R237,R238,R21,R04,R117, R118,R129,R130,R161,R16 2,R173,R174,R227,R228,R2 29,R230,R231,R232,R20	CHIP RESISTOR(100K OHM,1/10W,0603 ,J,TP ,50V)	412-CDVD2001-537	19	
R233,R234,R03,R103,R104	CHIP RESISTOR(1K OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-540	5	
R111,R112,R123,R124	CHIP RESISTOR(470 OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-545	4	
R147,R148,R149,R150	CHIP RESISTOR(0 OHM,1/10W, 0603,J,TP,50V)	412-CDVD2001-552	4	
R181,R182	CHIP RESISTOR(82K OHM 1/16W, 0603,J,TP)	412-CR701-5222	2	
R22	CHIP RESISTOR(39 OHM,1/10W,0603,J,TP ,50V)	412-DCM280-755	1	
R201,R202,R203,R204	CHIP RESISTOR(82 OHM,1/10W,J,TP 0603,50V)	412-ID-1297	4	
C207,C208	CHIP CAPACITOR(47pF/50V,J,0603 TYPE,NPO)	413-007USB-784	2	
C229,C230	CHIP CAPACITOR((680pF/50V,J,0603 TYPE,NPO)	413-007USB-785	2	
C145,C146,C205,C206,C22 1,C222,C239,C240,C241,C2 42,C247,C248	CHIP CAPACITOR(470pF/50V,J,0603 TYPE,NPO)	413-007USB-786	12	
C101,C102,C115,C116,C133,C134	CHIP CAPACITOR(220pF/50V,0603,TYPE NPO)	413-007USB-787	6	
C231,C232,C255,C256	CHIP CAPACITOR(39pF/50V,J,NPO,0603)	413-390-987	4	
C243,C244,C267,C268	CHIP CAPACITOR(33pF/50V,J,0603 TYPE,NPO)	413-900-926	4	
C273,C274	CHIP CAPACITOR(56pF/50V,J,0603 TYPE,NPO)	413-900-929	2	
C213,C214	S.C. CHIP CAP(390pF,5%,50V,NPO,TAPING,0603)	413-CR701-5175	2	
C109,C110,C111,C112,C12 5,C126,C127,C128,C129,C1 30,C143,C144,C183,C184,C 209,C210,C163,C164,C173, C174,C105,C106	CHIP CAPACITOR(100pF/50V,J,0603 TYPE,NPO)	413-DCM280-767	22	
C257,C258	CHIP CAPACITOR(1500pF/50V,K,0603 TYPE,X7R)	413-DCM280-769	2	

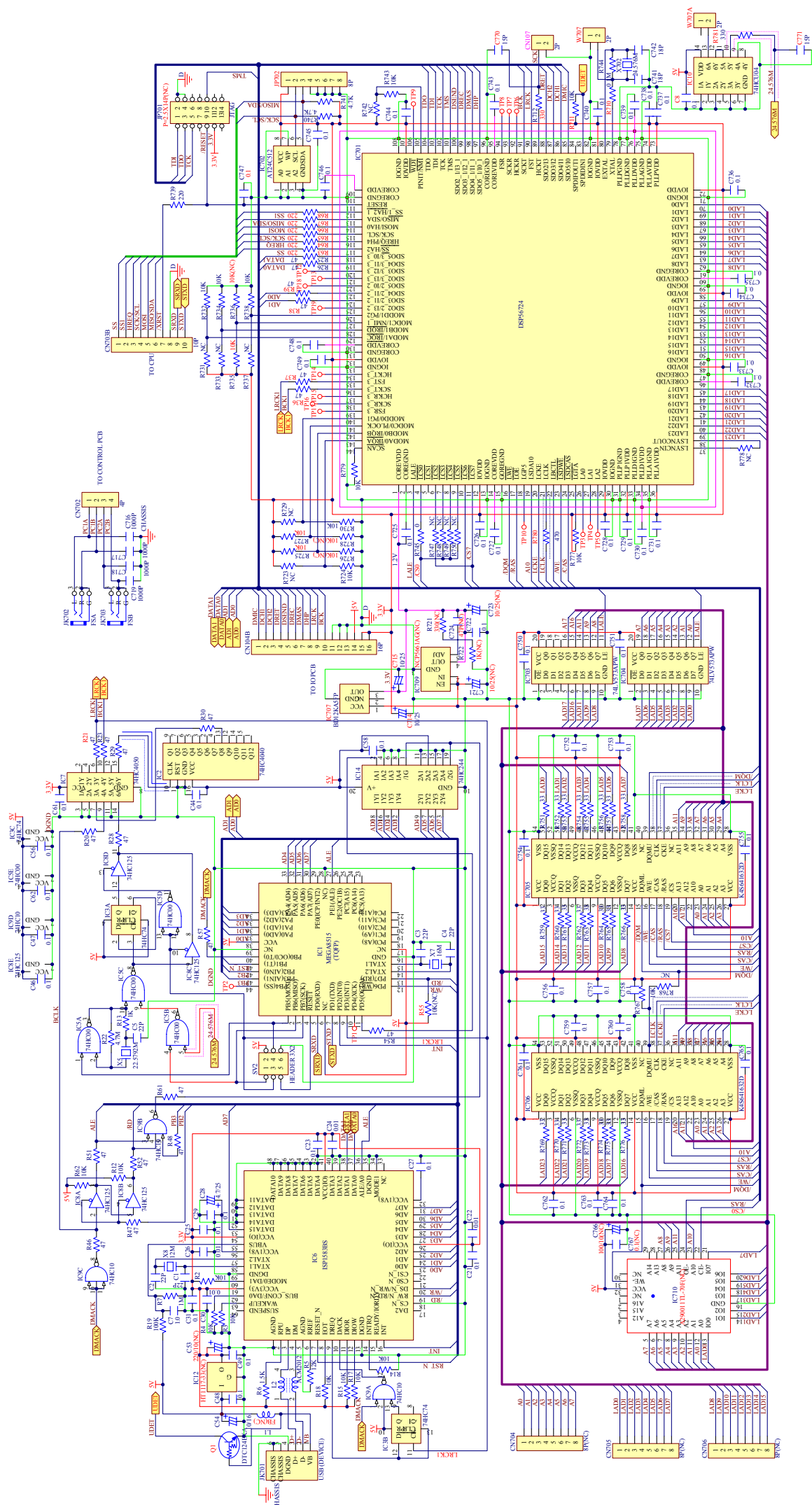
I/O PCB Ass'y Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
C13,C14,C12,C15,C16,C17,C18,C279,C280,C07,C24,C107,C108,C123,C124,C141,C142,C147,C148,C149,C150,C155,C157,C159,C165,C167,C169,C175,C177,C179,C185,C187,C189,C193,C201,C202,C217,C218,C224,C225,C226,C233,C234,C251,C265,C266,C271,C272,C801	CHIP CAPACITOR(0.1uF/50V,Z,0603 TYPE,Y5V)	413-DCM280-773	49	
C152	CHIP CAPACITOR(0.01uF/50V,J,0603 TYPE,NPO)	413-DCM280-889	1	
C197,C198	CHIP CAPACITANCE(560pF/50V,J,NPO,0603 TYPE)	413-TU3-1104	2	
D301,D302,D303	SWITCHING DIODE(ISS355,TE-17,100mA,90V,UMD2)	414-CD1000-075	3	
Q13	TRANSISTOR(TR DTC124EKAT146 SMT3)	416-CDN88-044	1	
Q01	TRANSISTOR(2SC2712-GR,2-3F1A)	416-CTB200-166	1	
Q14	TRANSISTOR(DTA124EKA-T146,SMT3)	416-CTB200-178	1	
Q15,Q16,Q03,Q04,Q05,Q06,Q07,Q08,Q09,Q10,Q11,Q12	TRANSISTOR(2SC4695,SOT23,NPN)	416-DAIA-273	12	
Q02	CHIP TRANSISTOR(DTA124TKAT146)	416-HDJ9700-210	1	
IC801	IC(TC74HCU04AFN "TOSHIBA",SOP14)	417-DJ150-419	1	
IC04	IC(BD4745G-TR,SMP5)	417-HDJ2000-503	1	
IC106,IC107,IC108,IC109	IC(PCM1803ADB,SSOP-20)	417-IQ2UM-940	4	
IC114	IC(AT24C512,DIP-8)	417-IQ2UM-945	1	
IC113	IC(PCM1606E/2K,SSOP-20 TI)	417-PDJ2-821	1	
IC101,IC102,IC103,IC115,IC116,IC117,IC119,IC120	IC(NJM-4580M-TE2,SOP-8)	417-ST150-599	8	
	IO PCB(BARE)	405-IQ2MIDI-2479	1	
C06,C05	ELEC. CAPACITOR (47UF/16V M BULK L=7mm)	413-007USB-828	2	
C117,C118,C135,C136	POLYESTER CAPACITOR(0.012uF/50V,J,TAPING)	413-3113-060	4	
C09,C113,C114,C131,C132	E/C(47uF/16V,M,105°C ,TAPING,5*7,SS)(Cd,Pb,Hg,Cr)	413-CDVD2001-265	5	
C01,C02	ELEC. CAPACITOR(220uF/25V,M, 105°C ,TAPING 8*12)(Cd,Pb,Hg,Cr)	413-DV300-292	2	
C160,C170,C180,C190,C192	ELEC. CAPACITOR(100uF/10V,M,105°C ,TAPING 5*7,MINI)(Cd,Pb,Hg,Cr)	413-HMA2200-5017	5	
C215,C216,C199,C200	POLYESTER CAPACITOR(0.0015uF/50V,J,TAPING)	413-HT7016-219	4	
C275,C276,C277,C278,C151	ELEC. CAPACITOR(4.7uF/50V,M,105°C ,TAPING 4*7,MINI)	413-HT801K-191	5	
C08	ELEC. CAPACITOR(220uF/10V,M,105°C ,TAPING 6.3*7,MINI)	413-HT801K-192	1	
C250,C235,C236,C237,C238,C245,C246,C252,C259,C260	ELEC. CAPACITOR(100uF/16V,M,105°C ,TAPING 6.3*7,MINI)	413-HT801K-193	10	
C119,C120,C137,C138	POLYESTER CAPACITOR(0.0033uF/100V,J,TAPING)	413-KT300-103	4	
C03,C04	ELEC. CAPACITOR(220uF/16V,M,105°C ,TAPING 6.3*7,MINI)(Cd,Pb,Hg,Cr)	413-RMX30-883	2	
C153,C154,C161,C162,C171,C172,C181,C182	ELEC. CAPACITOR(1uF/50V,M,105°C ,TAPING 4*7,MINI)	413-SPPW3-234	8	
C121,C122,C139,C140,C156,C158,C166,C168,C176,C178,C186,C188,C191,C195,C196,C203,C204,C211,C212,C219,C220,C223,C227,C228,C249,C253,C254	ELEC. CAPACITOR(10uF/25V,M,105°C ,TAPING 4*7,MINI)(Cd,Pb,Hg,Cr)	413-SPPW3-235	27	

Aux & IC & Cross Fader & Ch Fader PCB Ass'y Part List

REF NO.	DESCRIPTION	PART NO.	Q'TY	REMARK
	AUX PCB ASS'Y	704-IQ2UM-9172	1	
	PIN	300-K1000-1521	2	
SW331,SW332	TACT SW(SKT-12H03-G7-NS L=7MM)	403-IQ2UM-358	2	
CN301	4P SOCKET(CKM2001WR-4P,90°WHITE)	404-DCM270E3-878A	1	
W102	3P 2.0 CONNECTOR WIRE(L=440mm,UL2547#28,RED,+,-)	404-IQ2UM-3382	1	
W102	EMI CORE(RI 14*8*10)	415-390-277	1	
JK102	HEADPHONE JACK(ϕ 3.5,2K6A/-3537*01-030)	420-HDJ7100-063	1	
	CABLE TIE	504-S100-004	2	
C301,C302	CHIP CAPACITOR(470pF/50V,J,0603 TYPE,NPO)	413-007USB-786	2	
C303	CHIP CAPACITOR(0.1uF/50V,Z,0603 TYPE,Y5V)	413-DCM280-773	1	
C11	CERAMIC CAPACITOR(0.1uF/50V,Z,TAPING,Y5V)	413-3113-035	1	
L301,L302	BEAD(RH03506BT-B-N,TAPING RT)	415-DCM370E3-134	2	
	AUX PCB(EC207,T=1.6mm,182*100mm)	405-IQ2MIDI-2482	1	
	IC PCB ASS'Y	704-IQ2UM-9173	1	
CN01	3P SOCKET(CKM2501-WV-3P,180° RED)	404-HT8015-328A	1	
CN03	3P SOCKET(P=2.5mm,BLUE)	404-HT8015-329	1	
CN02	3P SOCKET(CKM2501WV-3P.180° WHITE)	404-HV3500K-623A	1	
	IC PCB(140*121.5*1.6t)	405-MACH2-1880	1	
CN01	IC(NJM7812FA 3PIN TO-220F)	417-BJ1900L-231	1	
CN03	IC NJM 7912FA	417-HMD3360KA-5085	1	
CN02	IC(BA033T/FP)	417-HV3500K-253	1	
	HEAT SINK(AL)	425-QFX-110	1	
	IC ISOLATION(T=0.3mm PC)	501-M2-1984	1	
	CANOE CLIPS(MB-1S)	504-HF6011-5011	2	
	SCREW(3*L8)	602-HP1010K-175	3	
	CROSS FADER PCB ASS'Y	704-TU3-7714	1	
CN712	3P SOCKET(CKM2501WR-3P 90°WHITE)	404-KMD3500-609A	1	
	CROSS FADER PCB	405-TU3-2133	1	
VR713	SLIDE VR(50K(0B))	418-TU3-481	1	
	CH FADER PCB ASS'Y	704-TU3-7715	2	
CN712	3P SOCKET(CKM2501WR-3P 90°WHITE)	404-KMD3500-609A	1	
	CH FADER PCB	405-TU3-2132	1	
VR715	SLIDE VR(50KB*2)	418-RMX40DSP-267	1	





File	DSP.PCB
Size	406.02(MB)
AD	001039
Rev	1
Doc	UNIT:OPB(DSP)SCH:PCB:DS96724.PCB
Rev	1
Doc	UNIT:OPB(DSP)SCH:PCB:DS96724.PCB

APPROVED: _____

CHECKED: _____

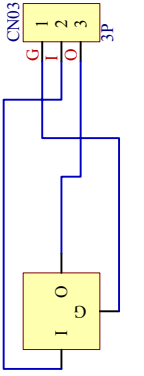
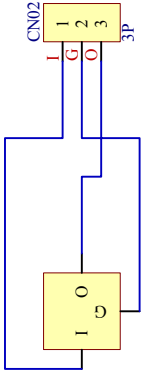
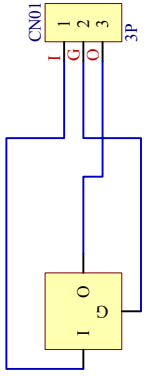
DRAWING: _____

A

B

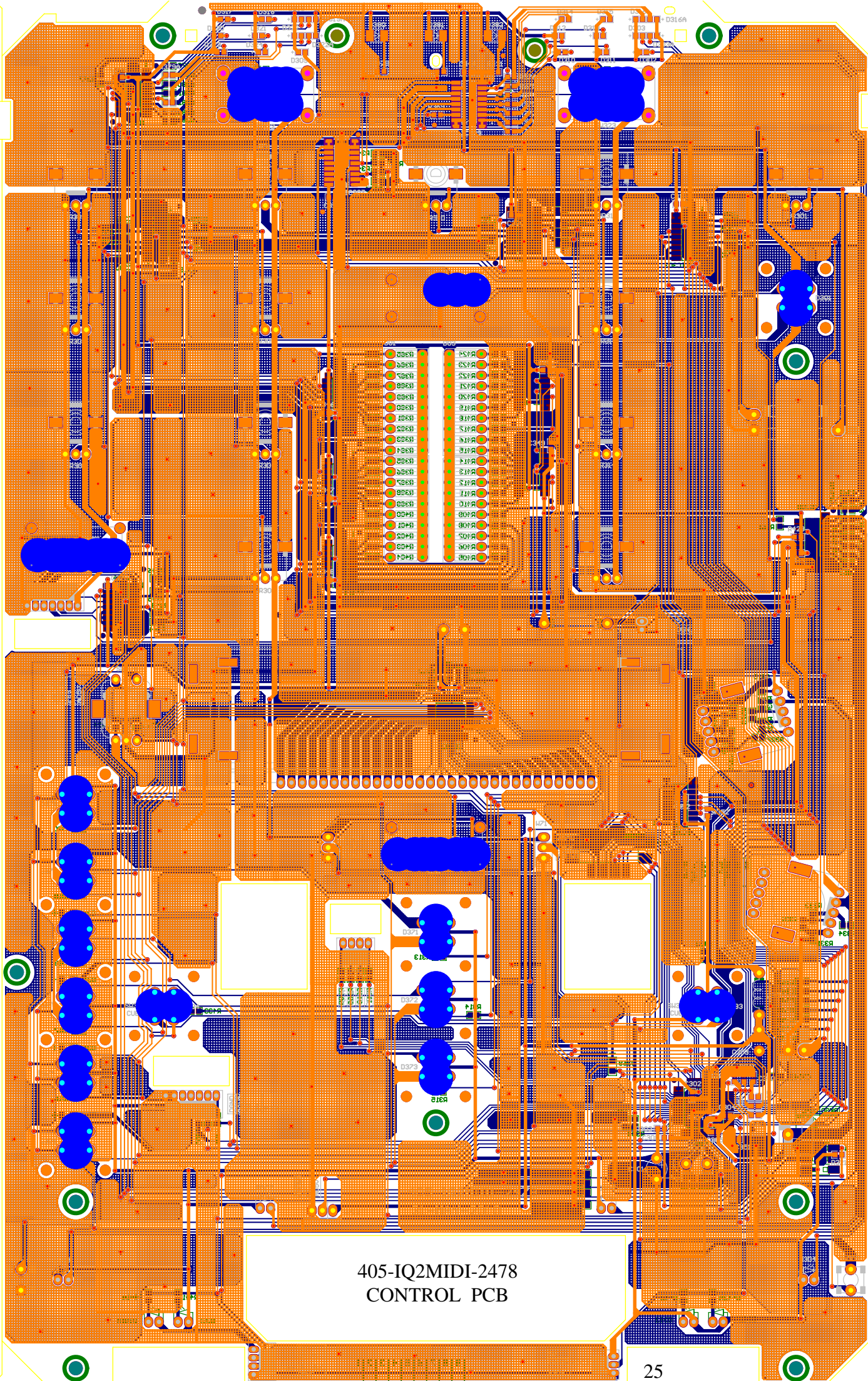
C

D



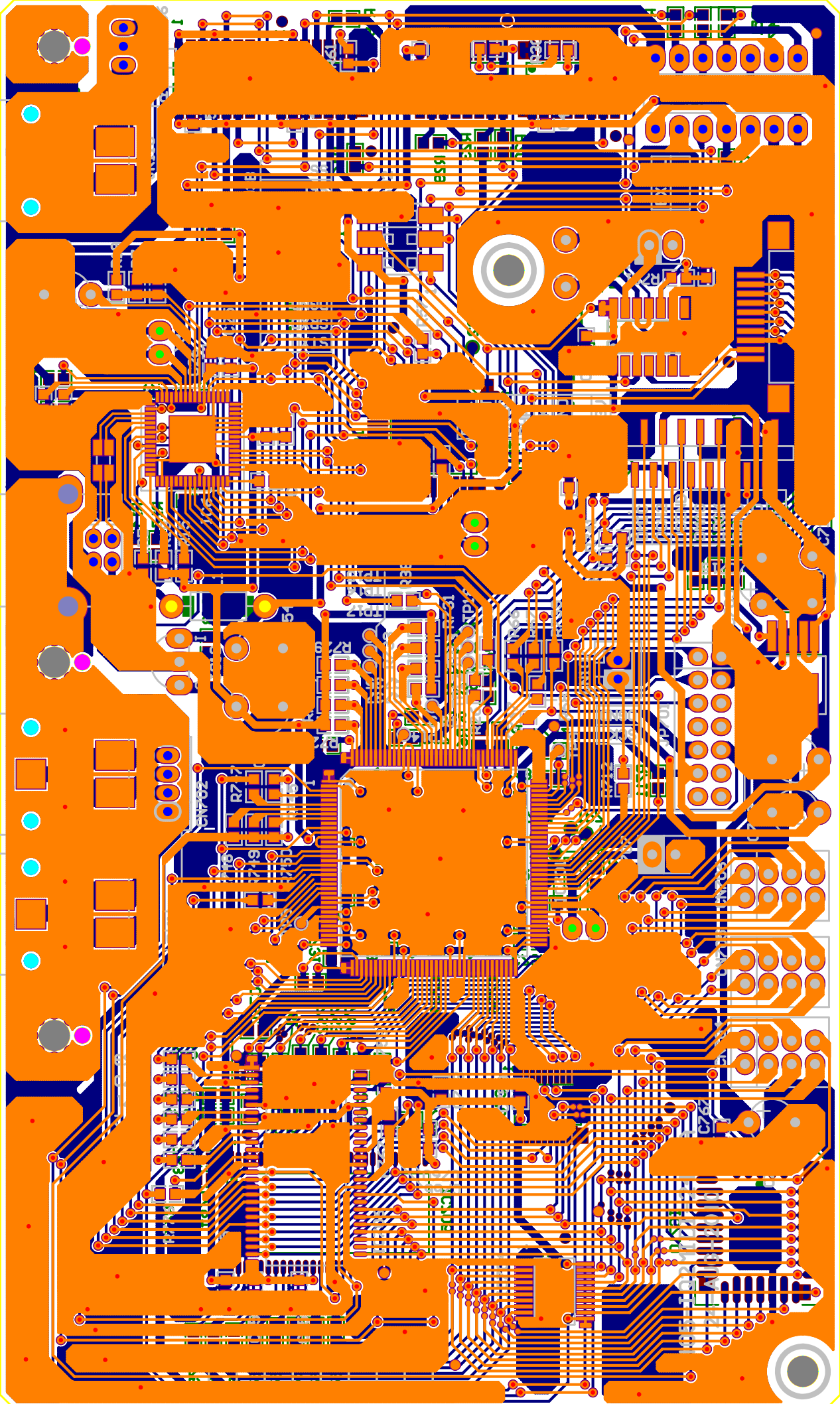
APPROVED	CHECKED	DRAWING

Title		
IC PCB		
Size	Number	Revision
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Date:	2010/10/7	Sheet of
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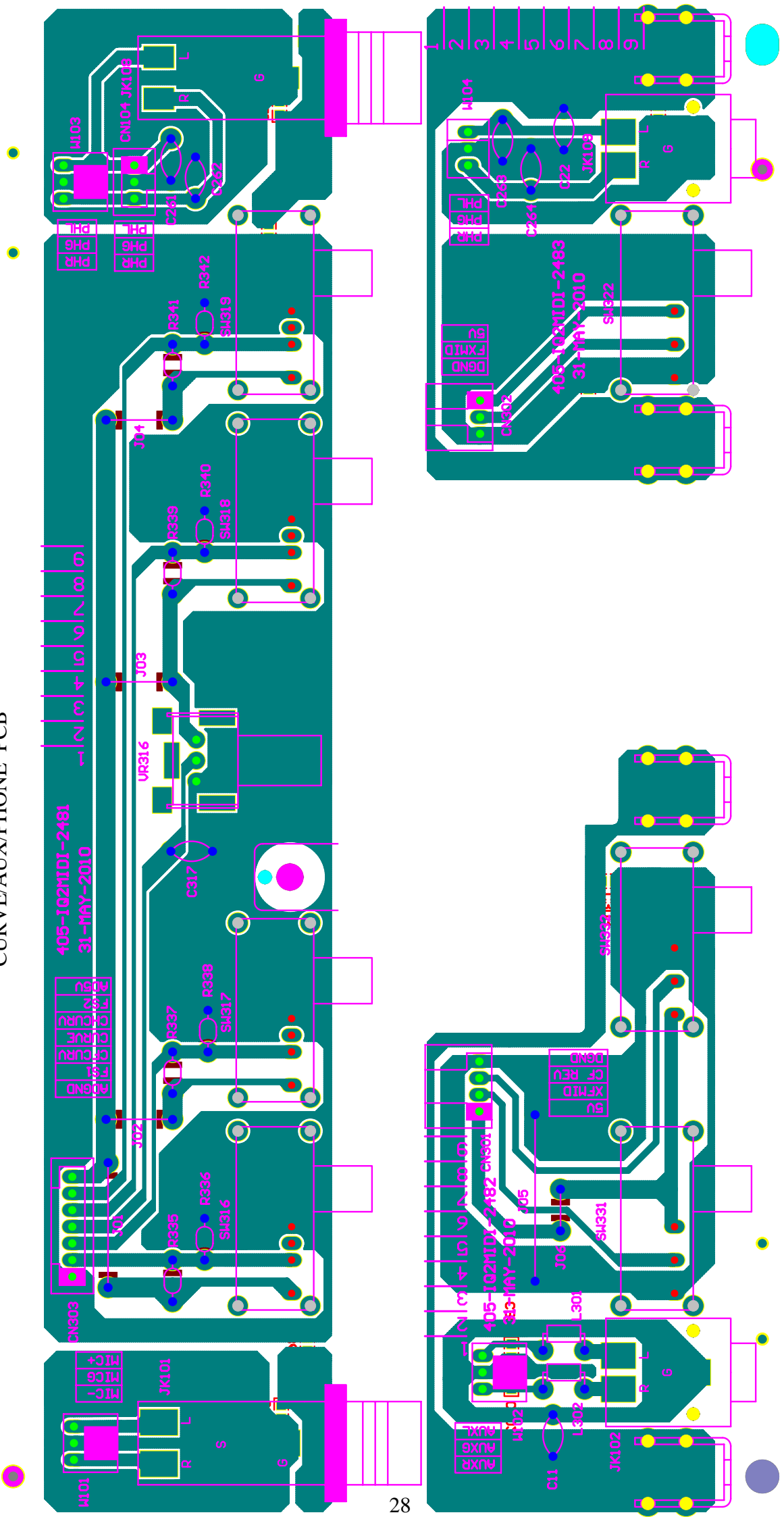


405-IQ2MIDI-2478
CONTROL PCB

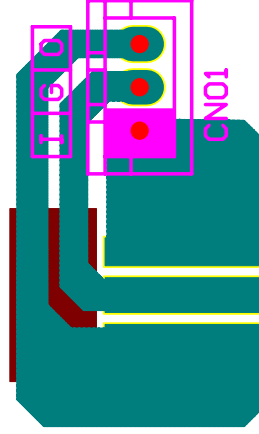
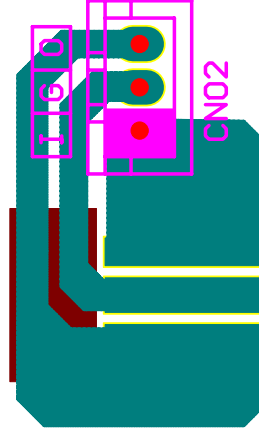
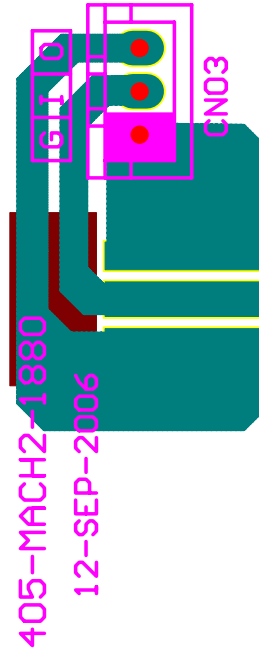
405-IQ2MIDI-2480A
DSP PCB



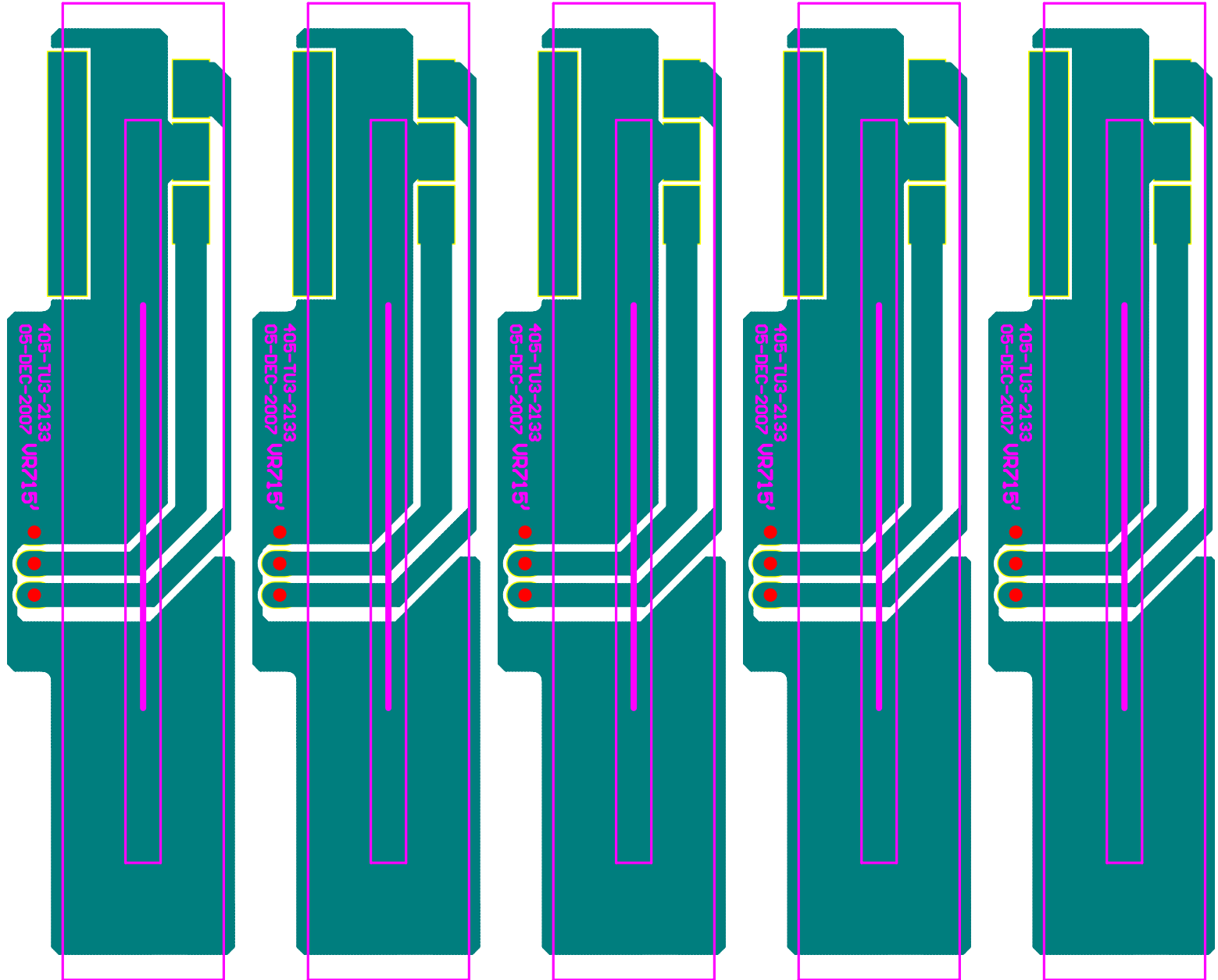
405-IQ2MIDI-2481/2482/2483
 CURVE/AUX/PHONE PCB



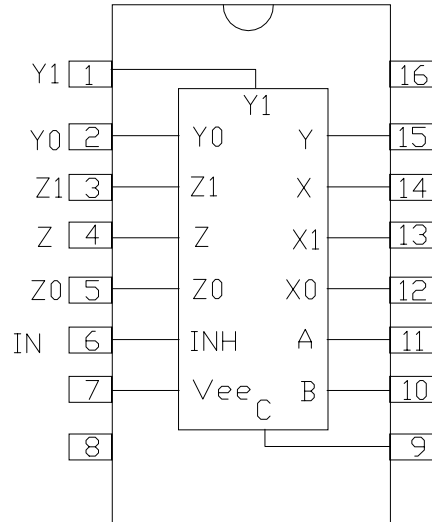
405-MACH2-1880
IC PCB



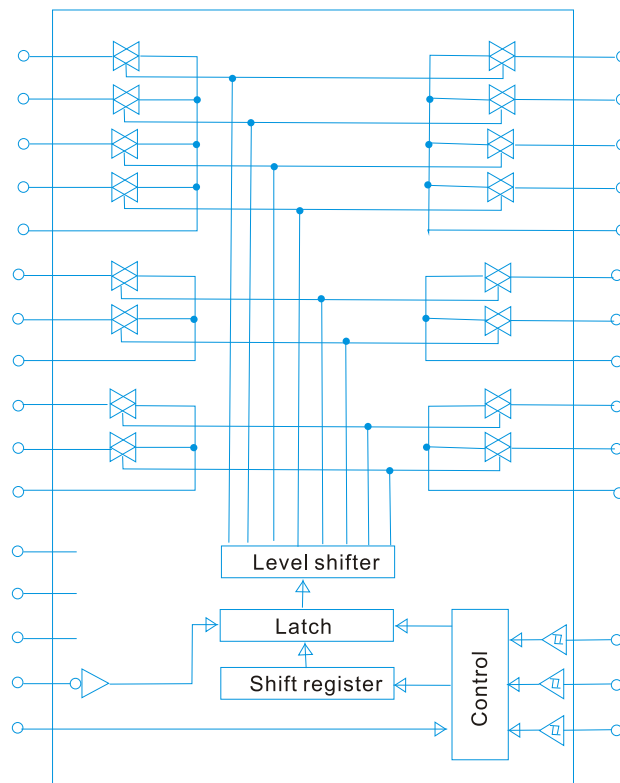
405-TU3-2133 □
CROSS FADER PCB



417-SA12-485
74HC4053D

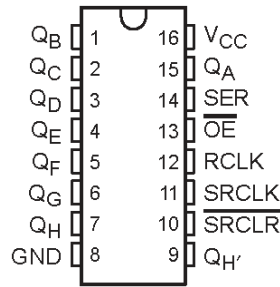


417-QFX19-629
LC78211

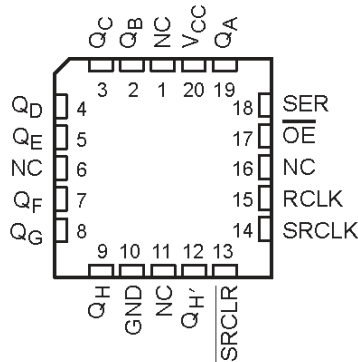


417-HDJ9800-643 IC(74AHC595DR,SOP-16)

SN54AHC595 . . . J OR W PACKAGE
 SN74AHC595 . . . D, DB, N, NS, OR PW PACKAGE
 (TOP VIEW)



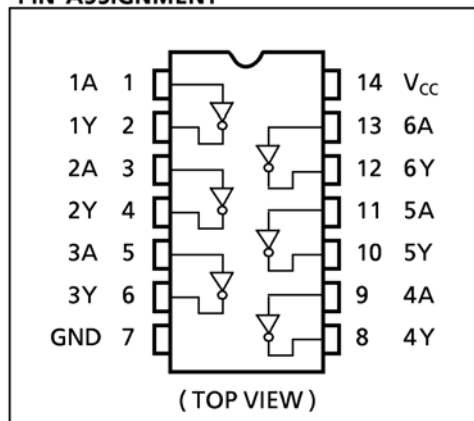
SN54AHC595 . . . FK PACKAGE
 (TOP VIEW)



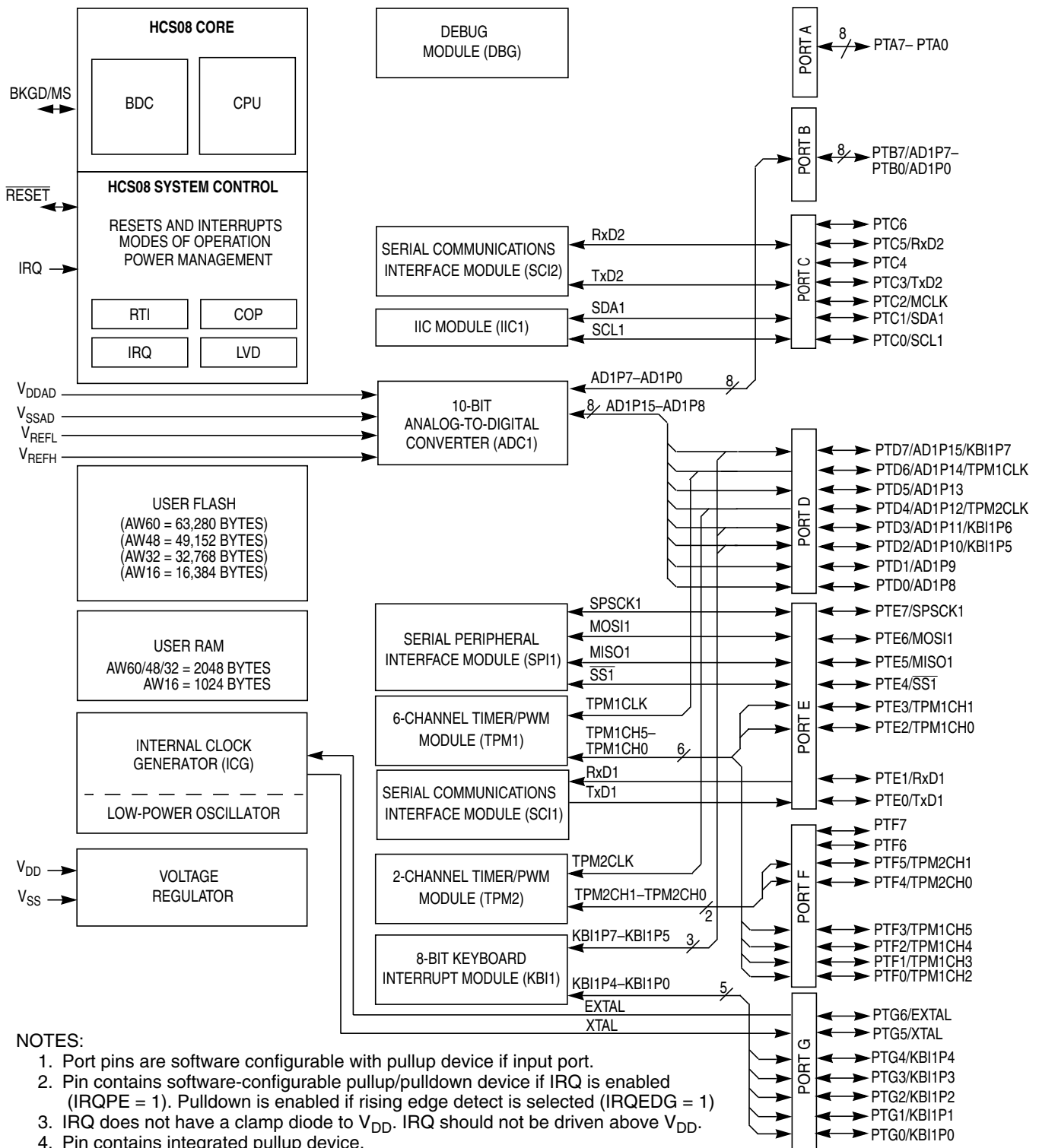
NC - No internal connection

417-DJ150-419
 IC(TC74HCU04AFN/TC74HCU04FAN)

PIN ASSIGNMENT



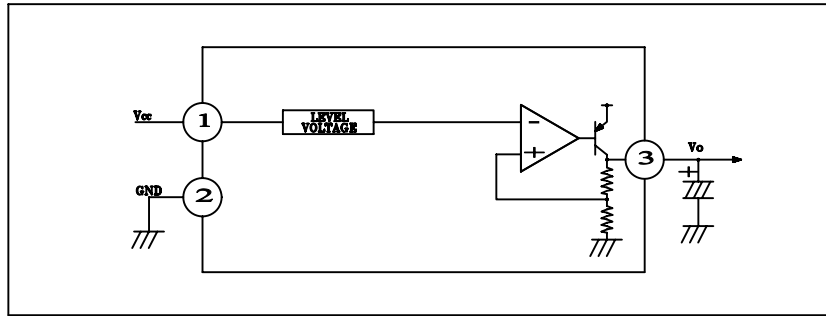
417-SDJ2-818
IC(MC9508AW60)



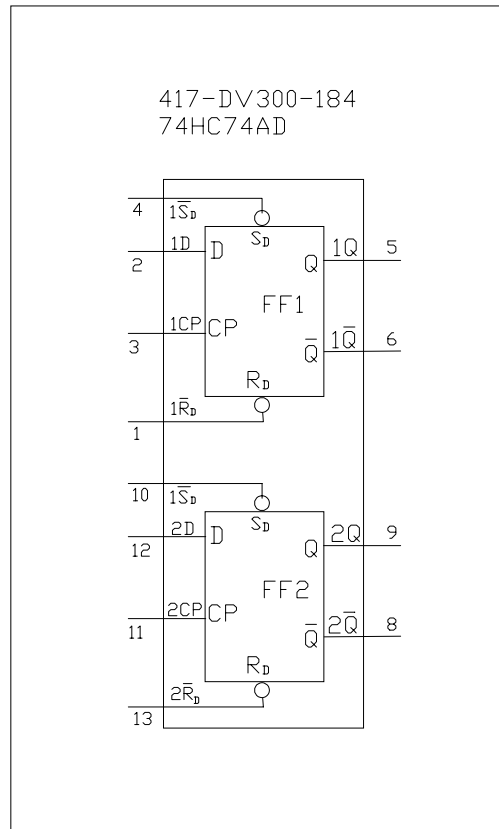
NOTES:

1. Port pins are software configurable with pullup device if input port.
2. Pin contains software-configurable pullup/pulldown device if IRQ is enabled (IRQPE = 1). Pulldown is enabled if rising edge detect is selected (IRQEDG = 1)
3. IRQ does not have a clamp diode to V_{DD} . IRQ should not be driven above V_{DD} .
4. Pin contains integrated pullup device.
5. Pins PTD7, PTD3, PTD2, and PTG4 contain both pullup and pulldown devices. Pulldown enabled when KBI is enabled (KBIPEn = 1) and rising edge is selected (KBEDGn = 1).

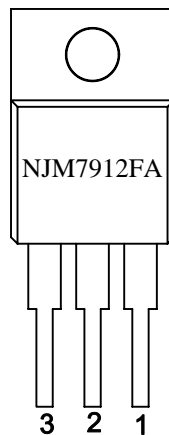
417-HV3500K-253
BA033T



417-DV300-184
74HC74AD

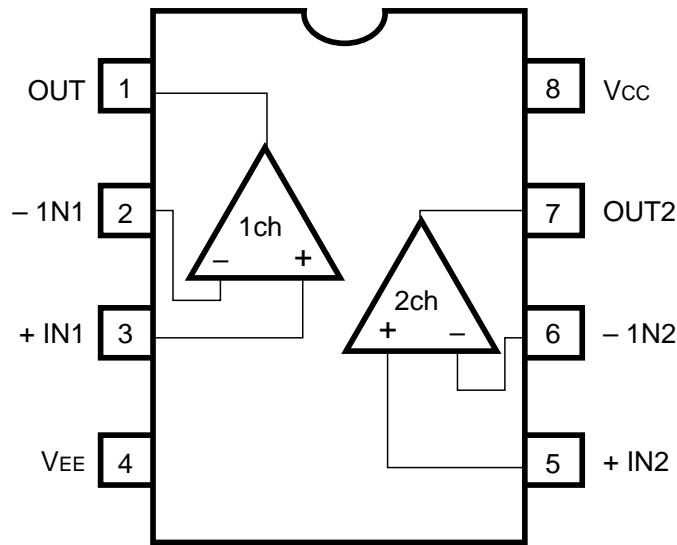


417-HMD3360KA-5085

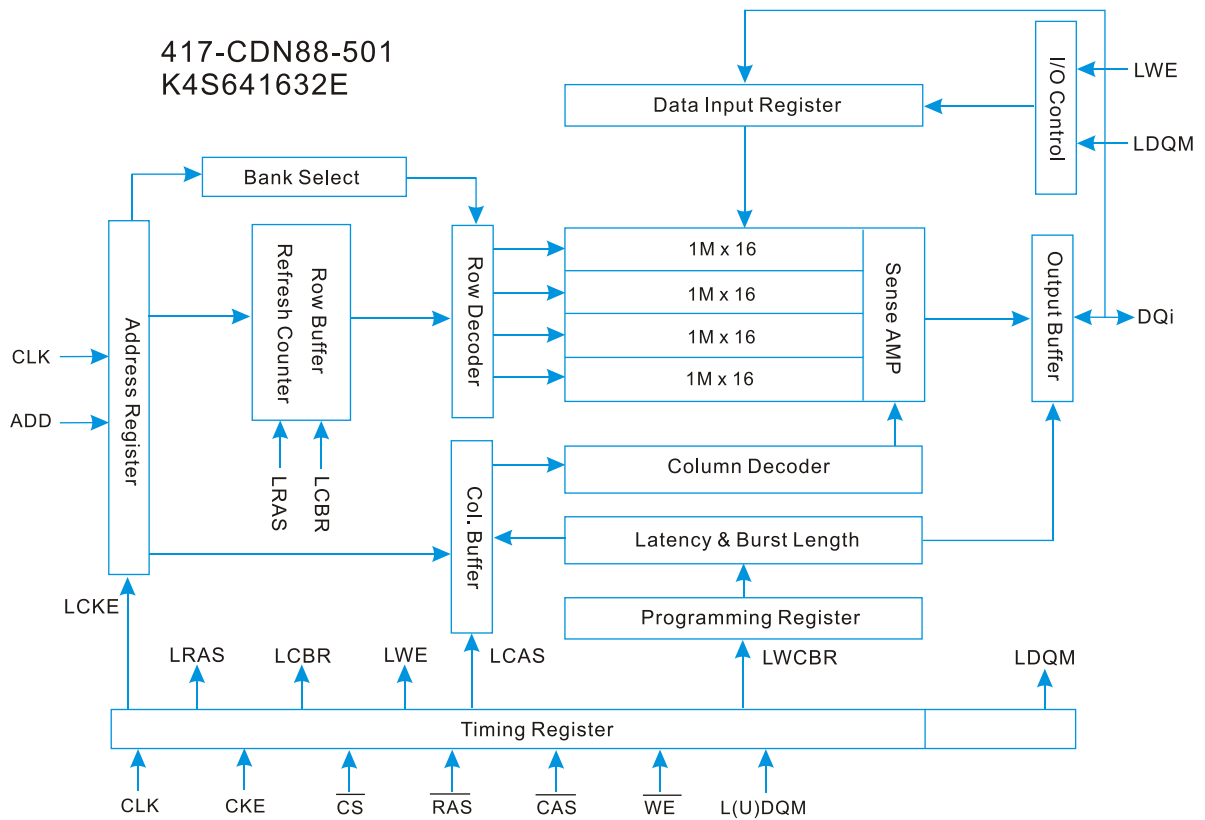


- 1. OUTPUT
- 2. COMMON
- 3. INPUT

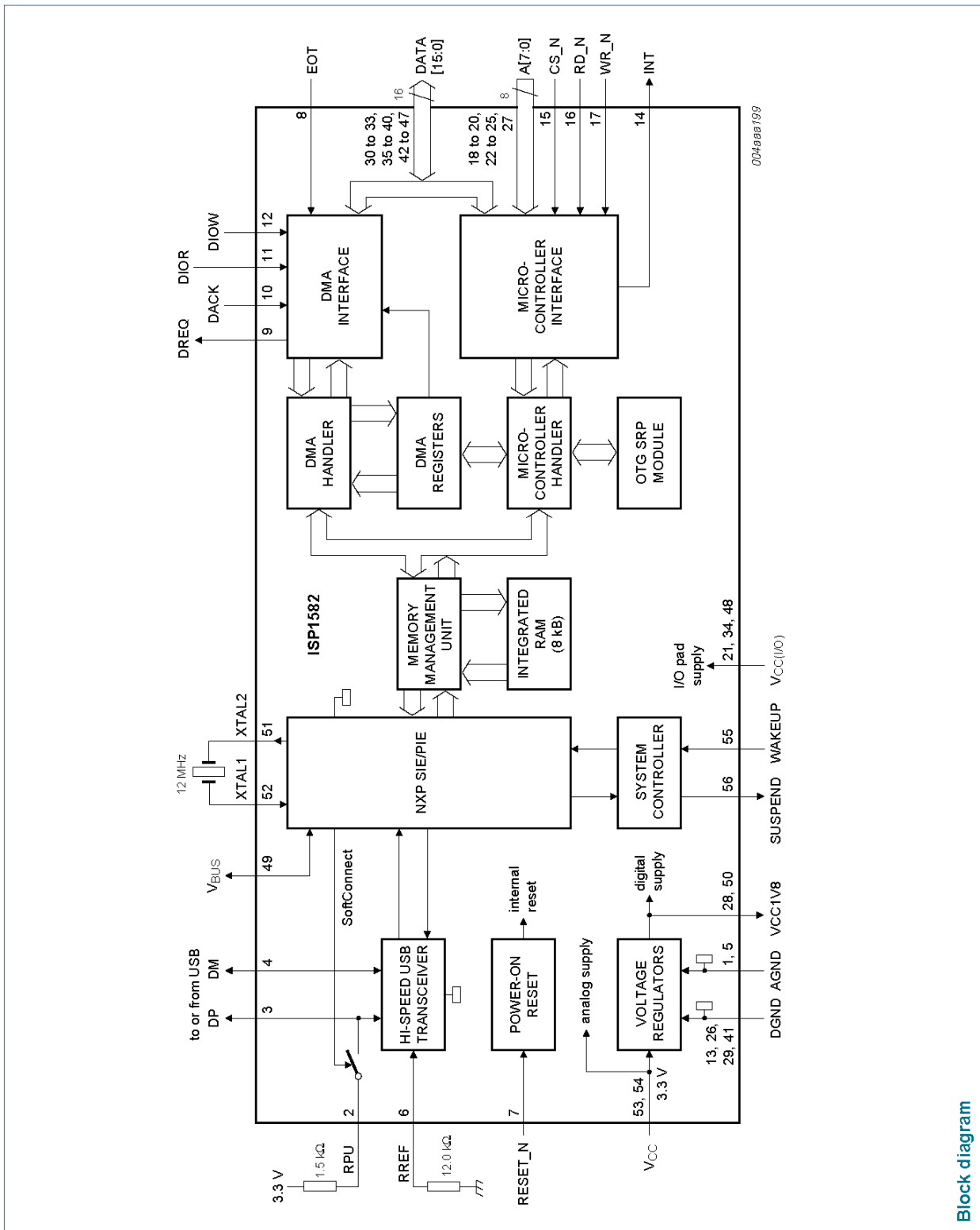
417-ST150-599
IC(NJM-4580M-TE2,SOP-8)



417-CDN88-501
K4S641632E



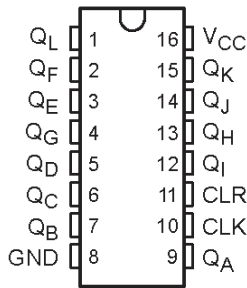
Block diagram



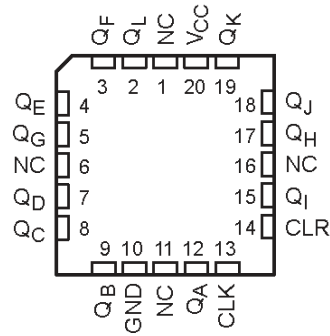
Block diagram

417-IQ2UM-968 IC(SN74HC4040DR)

SN54HC4040 . . . J OR W PACKAGE
SN74HC4040 . . . D, DB, N, NS, OR PW PACKAGE
(TOP VIEW)



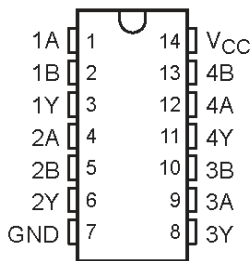
SN54HC4040 . . . FK PACKAGE
(TOP VIEW)



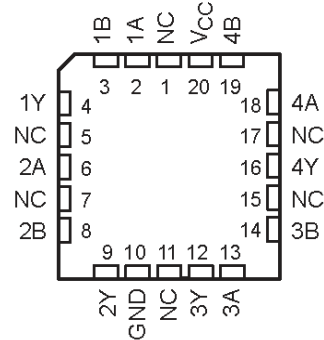
NC - No internal connection

417-IQ2UM-969 IC(SN74HC00DR)

SN54HC00 . . . J OR W PACKAGE
SN74HC00 . . . D, DB, N, NS, OR PW PACKAGE
(TOP VIEW)



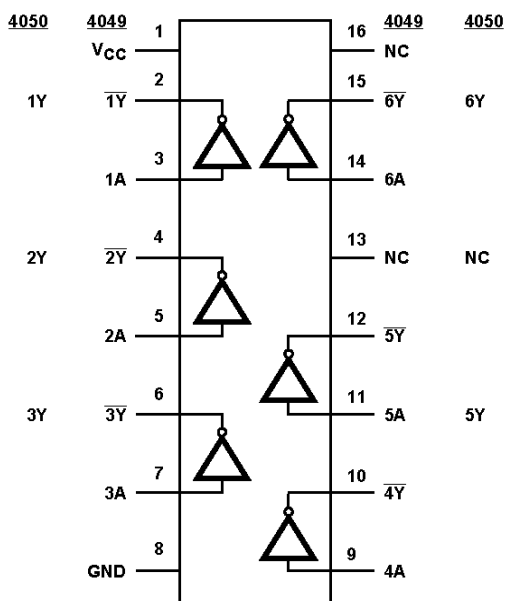
SN54HC00 . . . FK PACKAGE
(TOP VIEW)



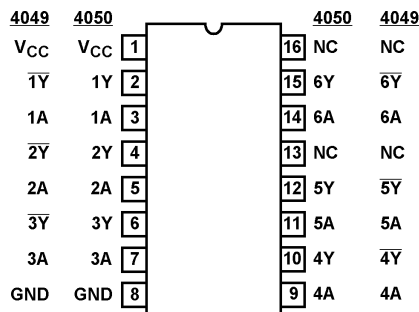
NC - No internal connection

417-IQ2UM-970 IC(CD74HC4050M96)

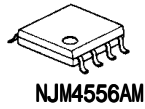
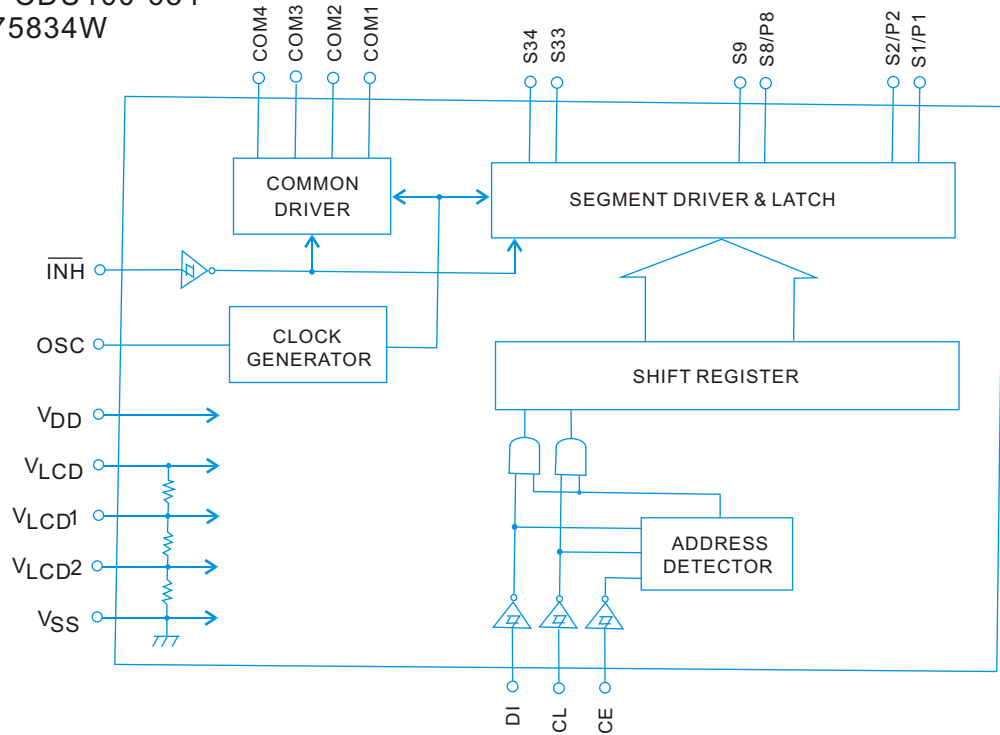
Functional Diagram



CD54HC4049, CD54HC4050
(CERDIP)
CD74HC4049, CD74HC4050
(PDIP, SOIC, SOP, TSSOP)
TOP VIEW

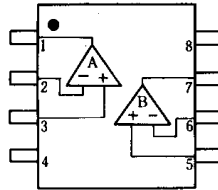


417-CDU100-684
LC75834W

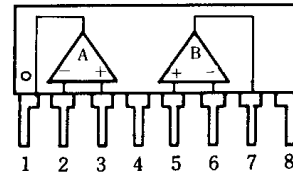


417-3113-018
NJM-4556AD

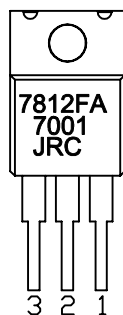
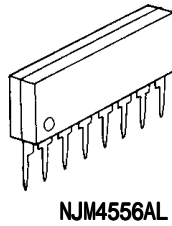
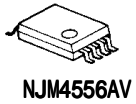
D, M, Vタイプ
(Top View)



Lタイプ



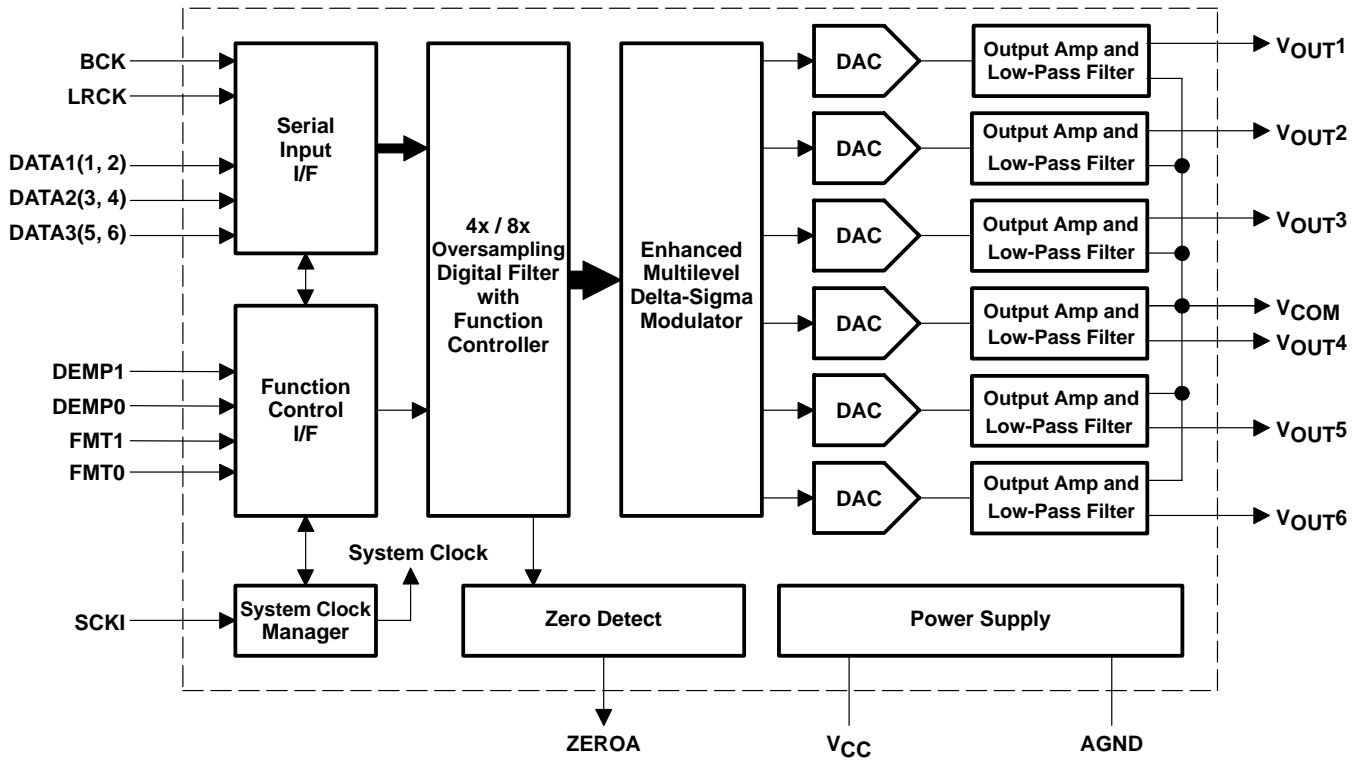
- ピン配置
1. A OUTPUT
 2. A-INPUT
 3. A+INPUT
 4. V-
 5. B+INPUT
 6. B-INPUT
 7. B OUTPUT
 8. V+



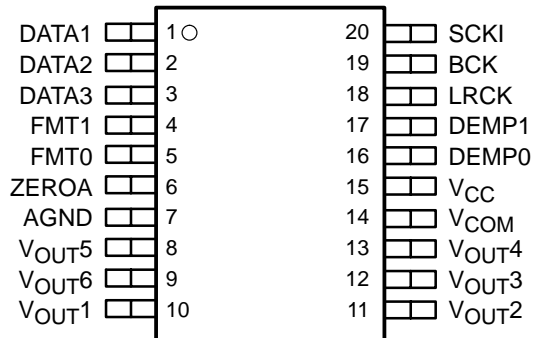
417-BJ1900L-231
NJM7812FA

1. OUTPUT
2. COMMON
3. INPUT

417-PDJ2-821
 IC(PCM1606E/2K,SSOP-20 TI)

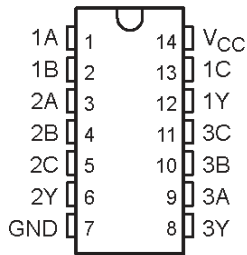


PCM1606
 (TOP VIEW)

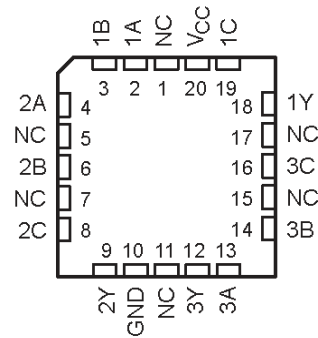


417-IQ2UM-971 IC(SN74HC10DR)

SN54HC10 ... J OR W PACKAGE
SN74HC10 ... D, DB, N, NS, OR PW PACKAGE
(TOP VIEW)



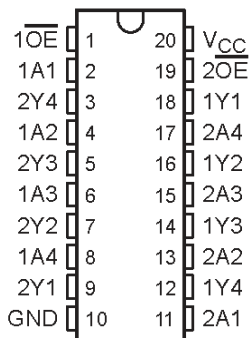
SN54HC10 ... FK PACKAGE
(TOP VIEW)



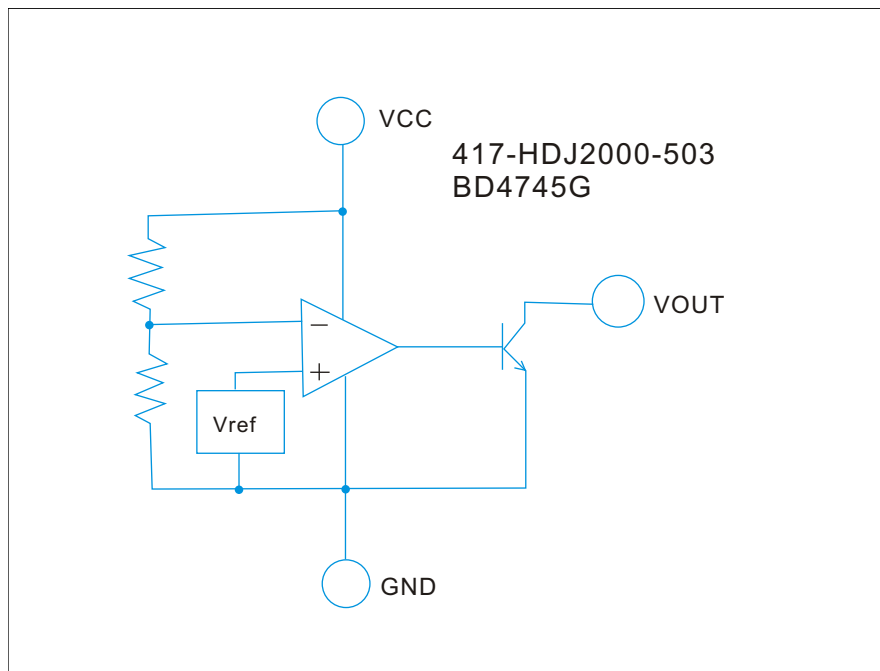
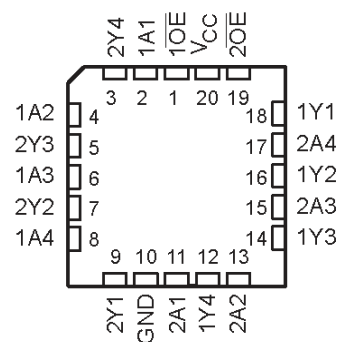
NC - No internal connection

417-IQ2UM-972 IC(SN74HC244PWR)

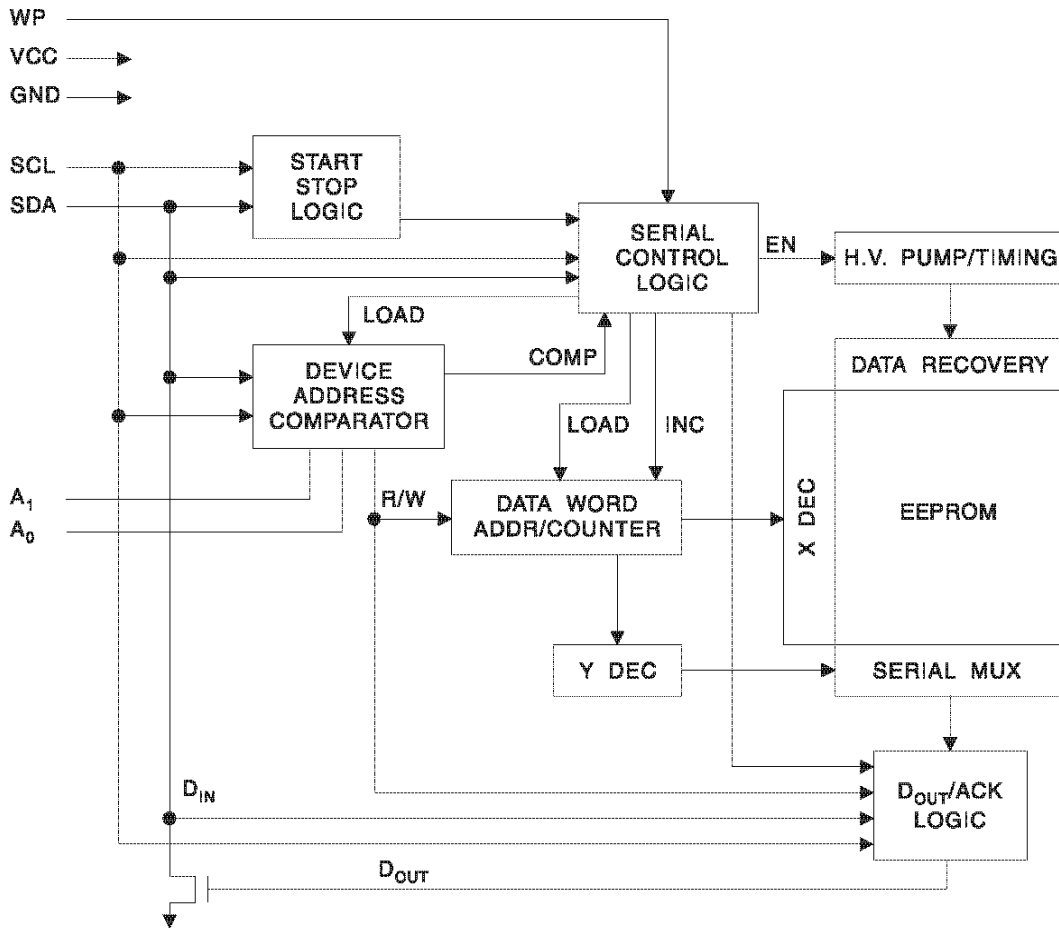
SN54HC244 ... J OR W PACKAGE
SN74HC244 ... DB, DW, N, NS, OR PW PACKAGE
(TOP VIEW)



SN54HC244 ... FK PACKAGE
(TOP VIEW)



417-IQ2UM-978 IC(AT24C512B)



417-IQ2UM-941 IC(DSP56724,LQFP-44)

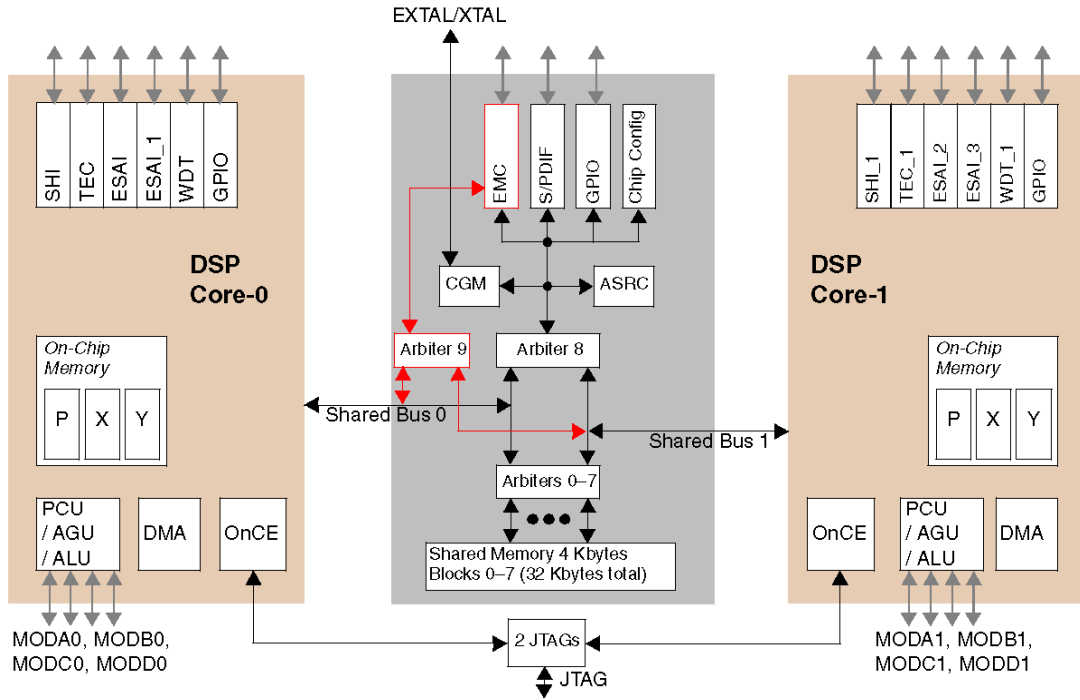


Figure 1. DSP56724 Block Diagram

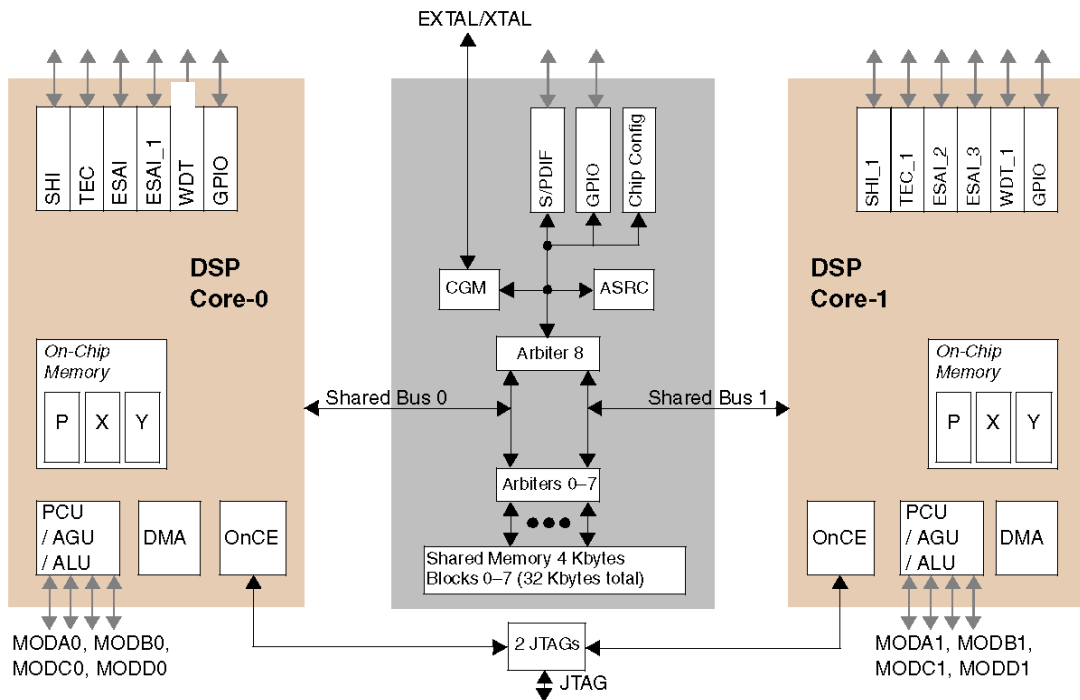
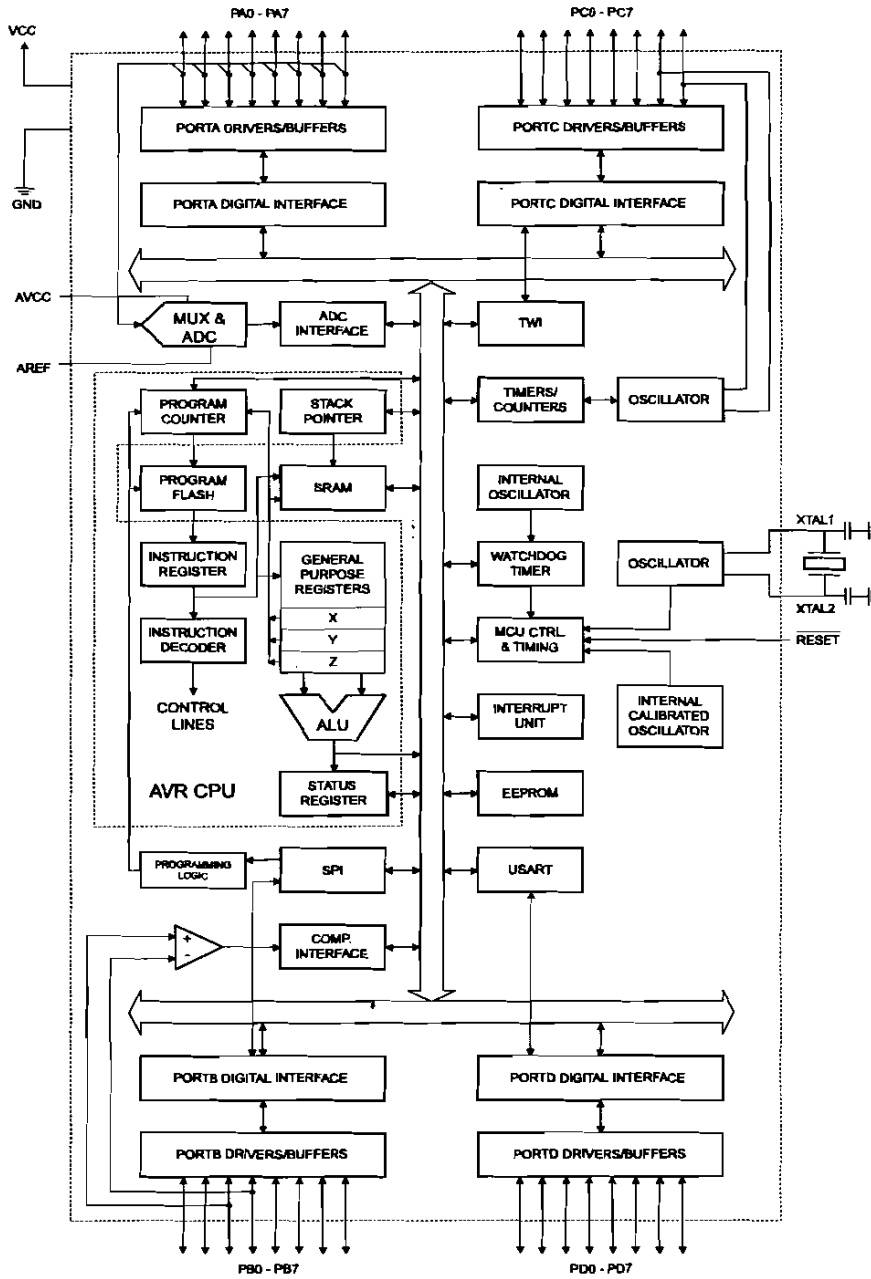


Figure 2. DSP56725 Block Diagram

IC Block Diagram

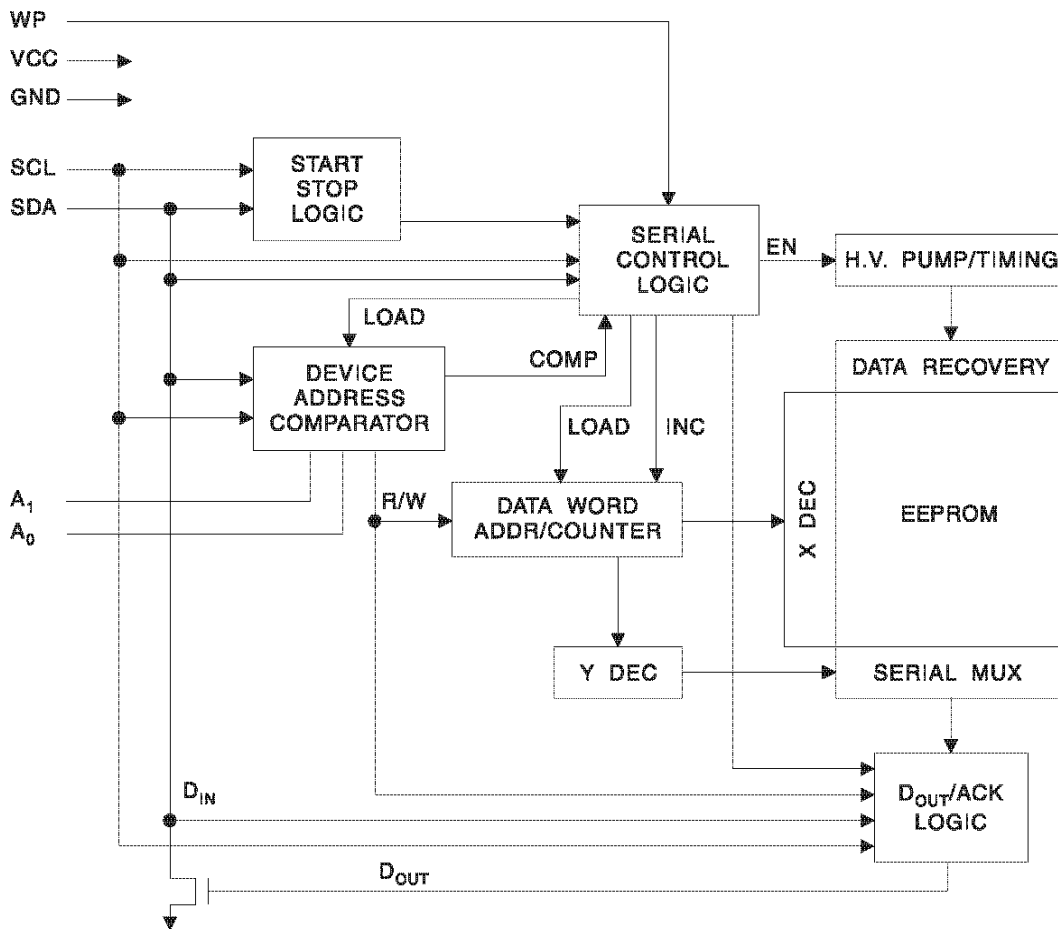
417-IQ2UM-973 IC(MEGA8515,TQFP/MLF-44PIN)

Block Diagram



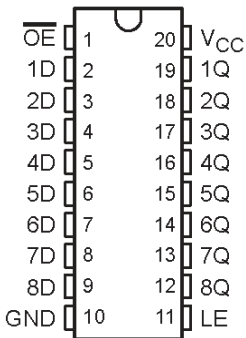
IC Block Diagram

417-IQ2UM-945 IC(AT24C512,DIP-8)

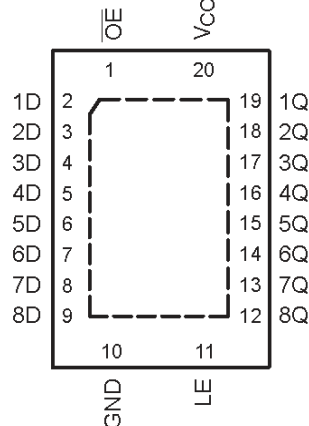


417-IQ2UM-942 IC(SN74LV573APW,TSSOP-20)

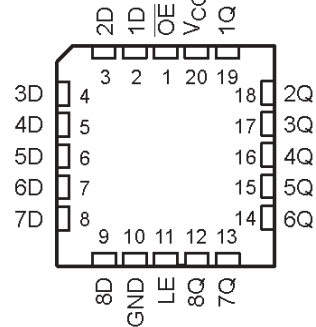
SN54LV573A ... J OR W PACKAGE
SN74LV573A ... DB, DGV, DW, NS,
OR PW PACKAGE
(TOP VIEW)



SN74LV573A ... RGY PACKAGE
(TOP VIEW)



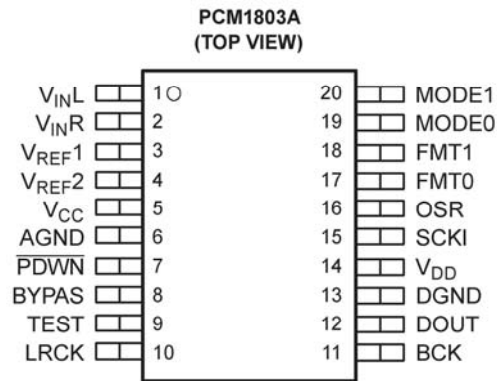
SN54LV573A ... FK PACKAGE
(TOP VIEW)



IC Block Diagram

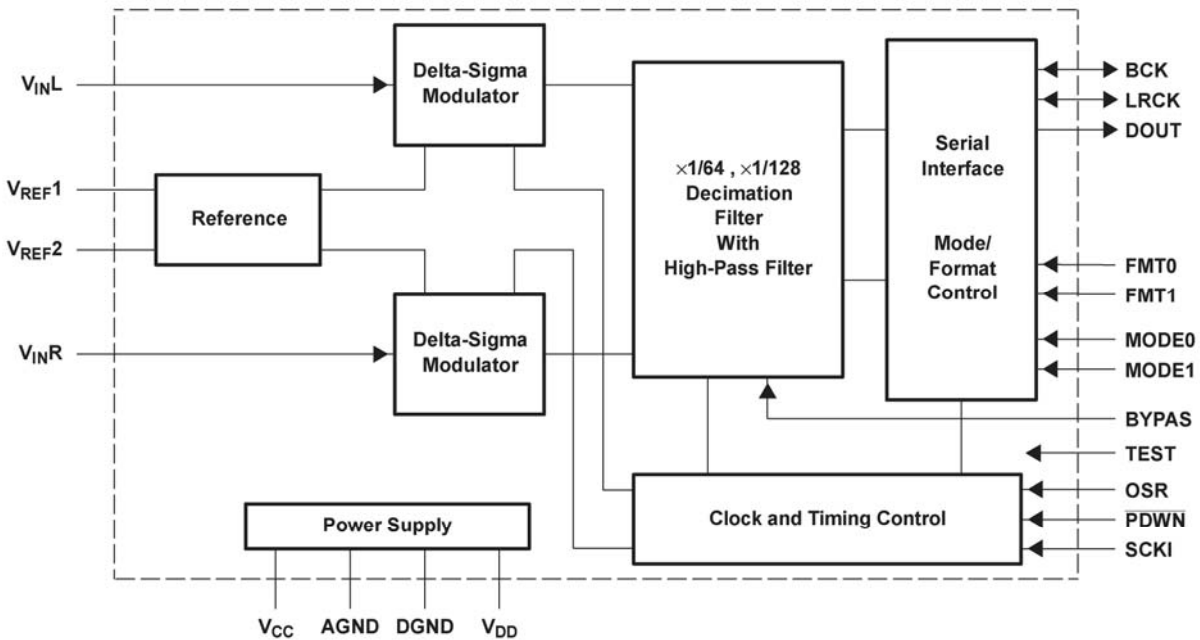
417-IQ2UM-940 IC(PCM1803ADB,SSOP-20)

PIN ASSIGNMENTS



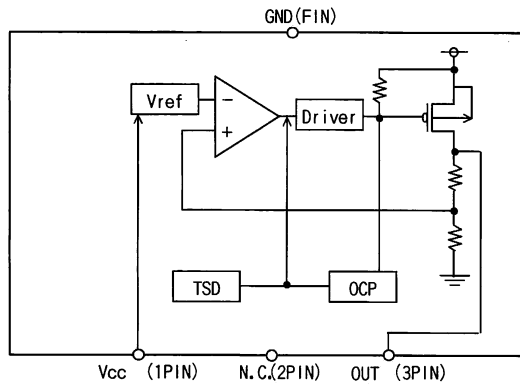
P0009-03

BLOCK DIAGRAM



417-IQ2UM-1004 IC(BD12KA5FP,TO252-3)

OBLOCK DIAGRAM



OPIN NO. , PIN NAME

Pin Number	Pin Name
1	Vcc
2	N.C.
3	OUT
FIN	GND

74HC/HCT125

417-SZ480-800 □
IC(74HC125N)

PIN DESCRIPTION

PIN NO.	SYMBOL	NAME AND FUNCTION
1, 4, 10, 13	$\overline{1OE}$ to $\overline{4OE}$	outputs enable inputs (active LOW)
2, 5, 9, 12	1A to 4A	data inputs
3, 6, 8, 11	1Y to 4Y	data outputs
7	GND	ground (0 V)
14	V _{CC}	positive supply voltage

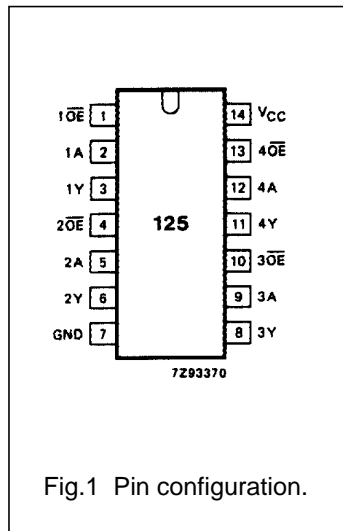


Fig.1 Pin configuration.

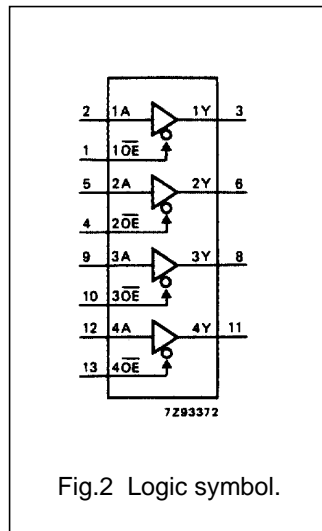


Fig.2 Logic symbol.

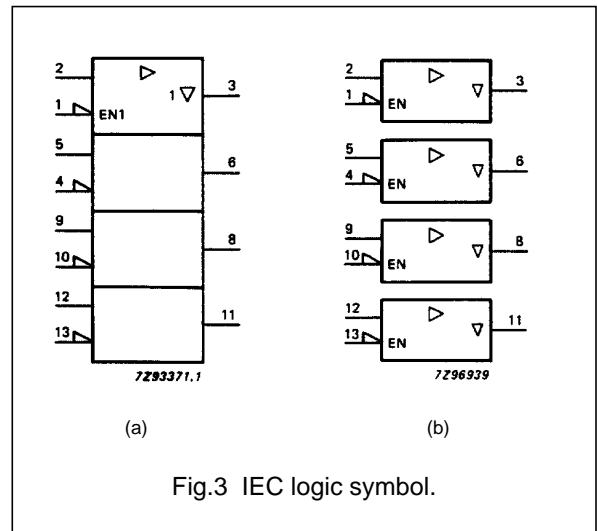


Fig.3 IEC logic symbol.

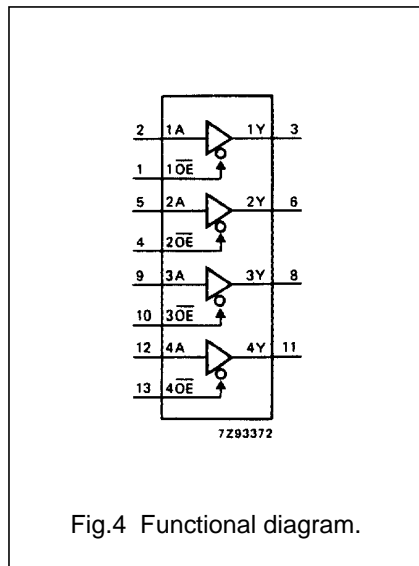


Fig.4 Functional diagram.

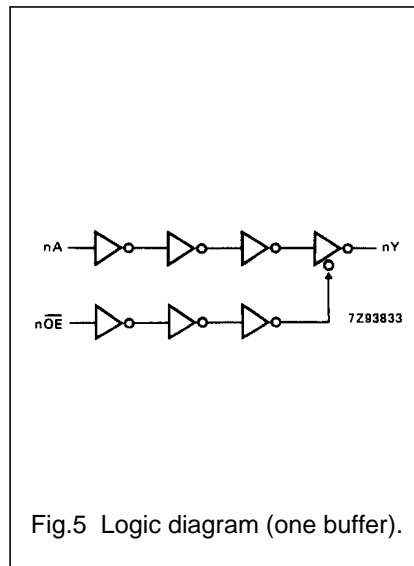


Fig.5 Logic diagram (one buffer).

FUNCTION TABLE

INPUTS		OUTPUT
$n\overline{OE}$	nA	nY
L	L	L
L	H	H
H	X	Z

Note

1. H = HIGH voltage level
L = LOW voltage level
X = don't care
Z = high impedance OFF-state

Trouble Shooting

<i>SYMPTOM</i>	<i>POSSIBLE CAUSE</i>	<i>CORRECTION ACTION</i>
1. Power LED is not bright	1. Board and iron rack in short connection. 2. The power fails	1. Re-lock the screw to avoid the short connection 2. Without +5V power
2. The power fails to switch on	1. The transformer is broken 2. Poor power plug connection	1. Change the transformer 2. Re-assemble
3. FADER is not function	FADER VR is broken	Change VR
4.No sound	Regulator is not well	Change regulator Re-assemble Re-plug