

SERVICE MANUAL

CUSTOMER: VESTAX
MODEL : TYPHOON



SPECIFICATIONS

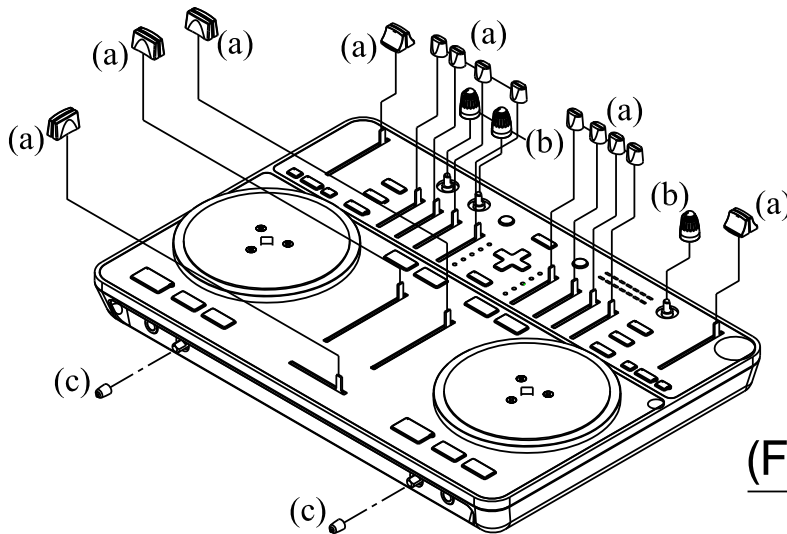
VOLTAGE	BUS Power 5V/500mA	H.P TEST	AC: 3KV / 10mA / 3 sec
SAFETY SPEC / CE	UL	USB COMPATIBILITY	Full-Speech Signal Quality

MEASUREMENT ITEM	SPECIFICATION	MEASUREMENT SIGNAL	REMARKS
OUTPUT LEVE	2dBV±0.3dBV	Master Output	0dB, 1kHz Sine Wave from MAC
	4.8dBV±0.5dBV	Headphone	0dB, 1kHz Sine Wave from MAC
S/N NOISE LEVEL	Less than -80dBV	Master Output	0dB, 1kHz Sine Wave from MAC
	Less than -80dBV	Headphone	0dB, 1kHz Sine Wave from MAC
THD + N	Less than 0.03%	Master Output	0dB, 1kHz Sine Wave from MAC
	Less than 0.03%	Headphone	0dB, 1kHz Sine Wave from MAC
CROSSTALK	Less than -85dBV	Master Output	0dB, 1kHz Sine Wave from MAC
	Less than -85dBV	Headphone	0dB, 1kHz Sine Wave from MAC

DISASSEMBLY PROCEDURES

1. REMOVAL OF KNOBS SLIDE AND VR KNOB (Fig. 1)

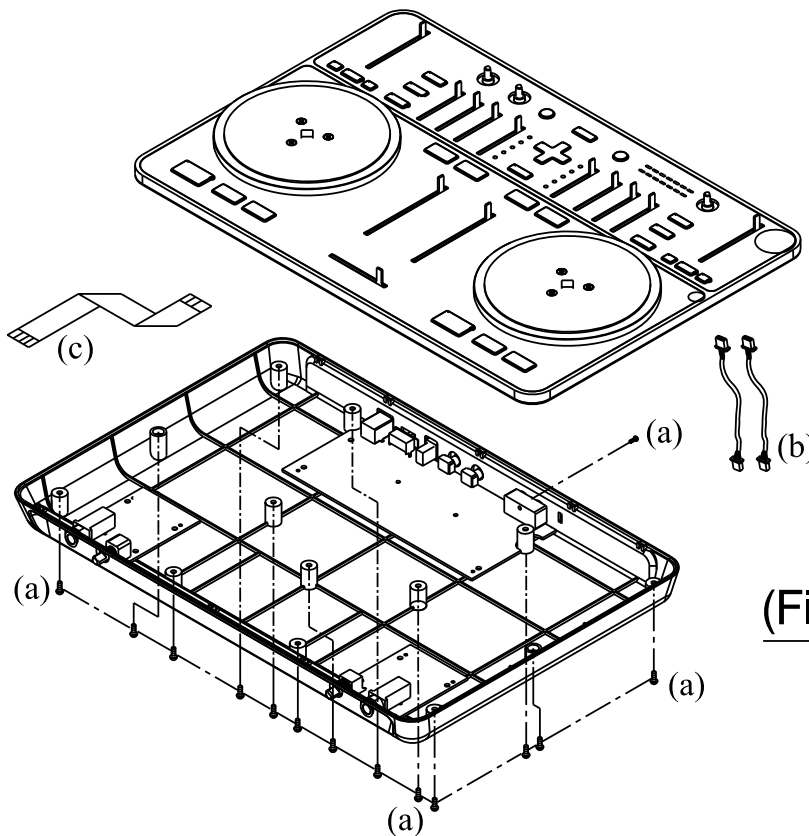
- (a) Remove 13 of slide knobs from Top Panel.
- (b) Remove 3 pcs of vr knobs (large) from Top Panel.
- (c) Remove 2 pcs of vr knobs (small) from Rear Panel.



(Fig. 1)

2. REMOVAL OF BOTTOM PLATE/TOP PANEL (Fig. 2)

- (a) Remove 14 pcs of screws at Bottom Plate
- (b) Take off 2 pcs of wire from Control PCB/Sound Card PCB.
- (c) Take off 1pc of flat wire from Control PCB/Sound Card PCB.

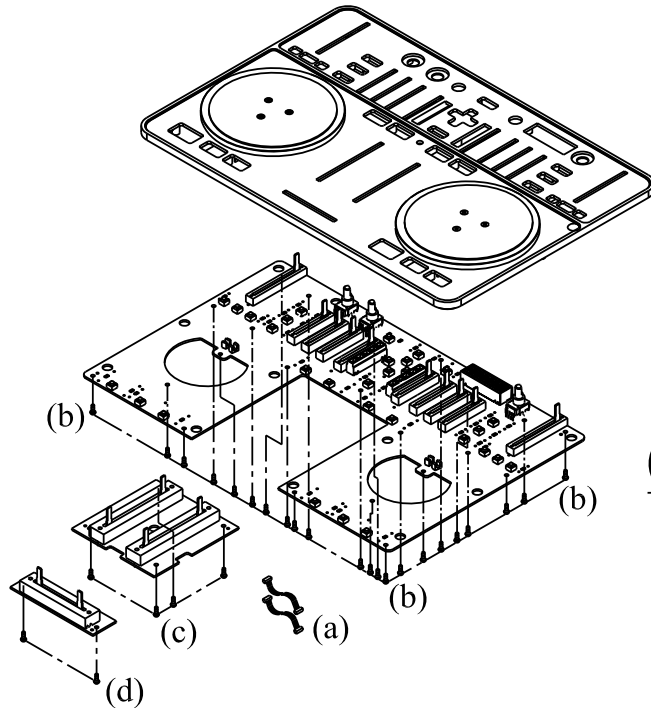


(Fig. 2)

DISASSEMBLY PROCEDURES

3. REMOVAL OF PCB FROM TOP PANEL (Fig. 3)

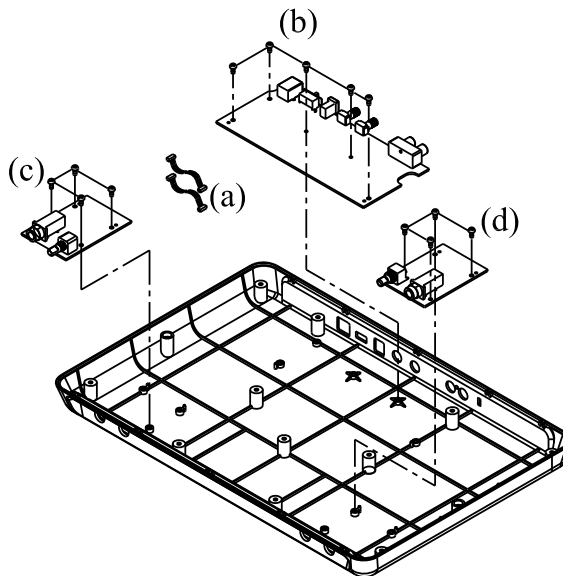
- (a) Remove 2 pcs of connector wire from L.Fader and C.Fader PCB.
- (b) Remove 22 pcs of screws from Control PCB.
- (c) Remove 4 pcs of screws from L.Fader PCB.
- (d) Remove 2 pcs of screws from C.Fader PCB.



(Fig. 3)

4. REMOVAL OF PCB FROM BOTTOM PLATE (Fig. 4)

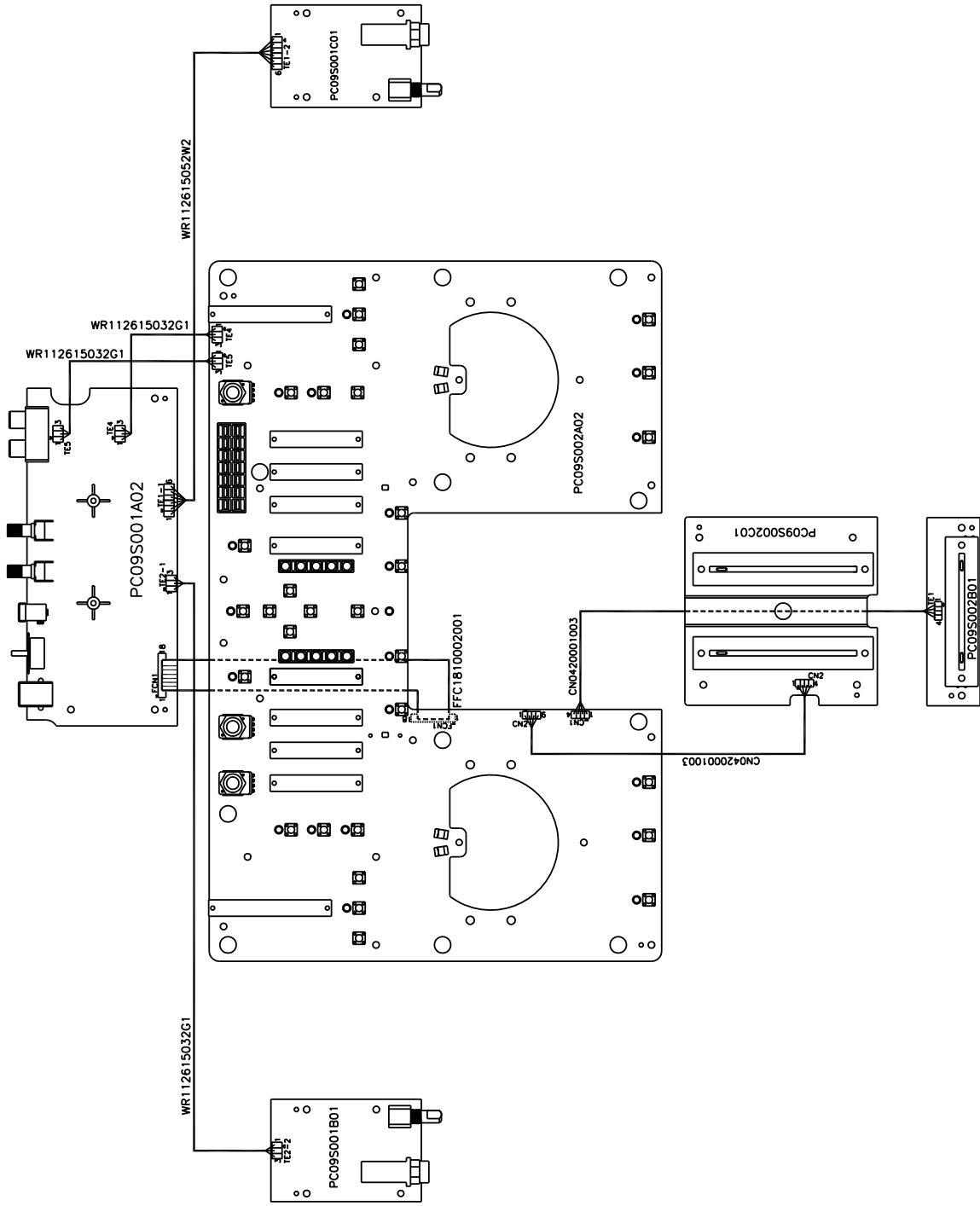
- (a) Take off 2 pcs of connector wire from Sound Card PCB.
- (b) Remove 5 pcs of screws from Sound Card PCB.
- (c) Remove 4 pcs of screws from Mic Jack PCB.
- (d) Remove 4 pcs of screws from Headphone PCB.



(Fig. 4)

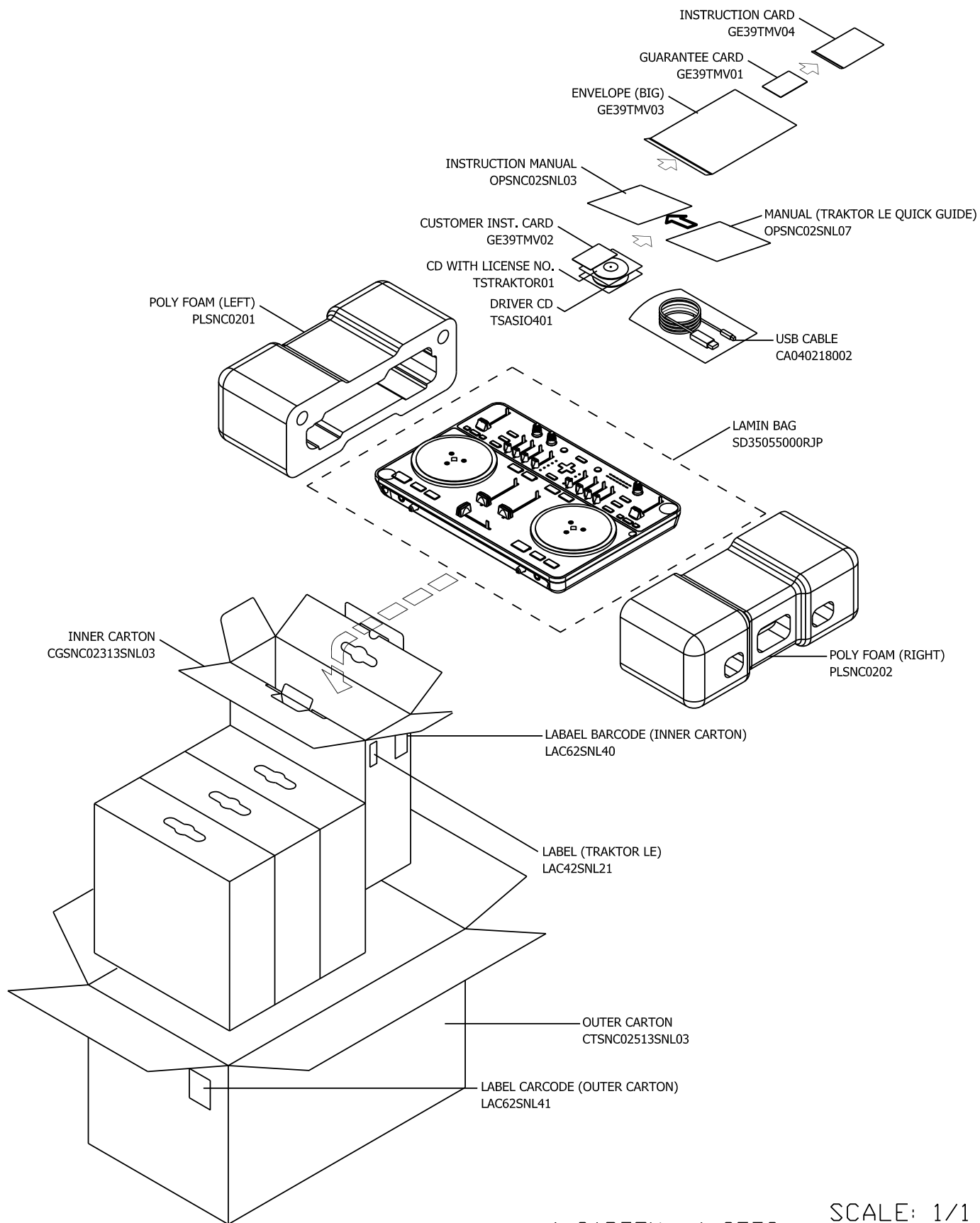
WIRING DIAGRAM

MODEL: TYPHOON



PACKING DIAGRAM

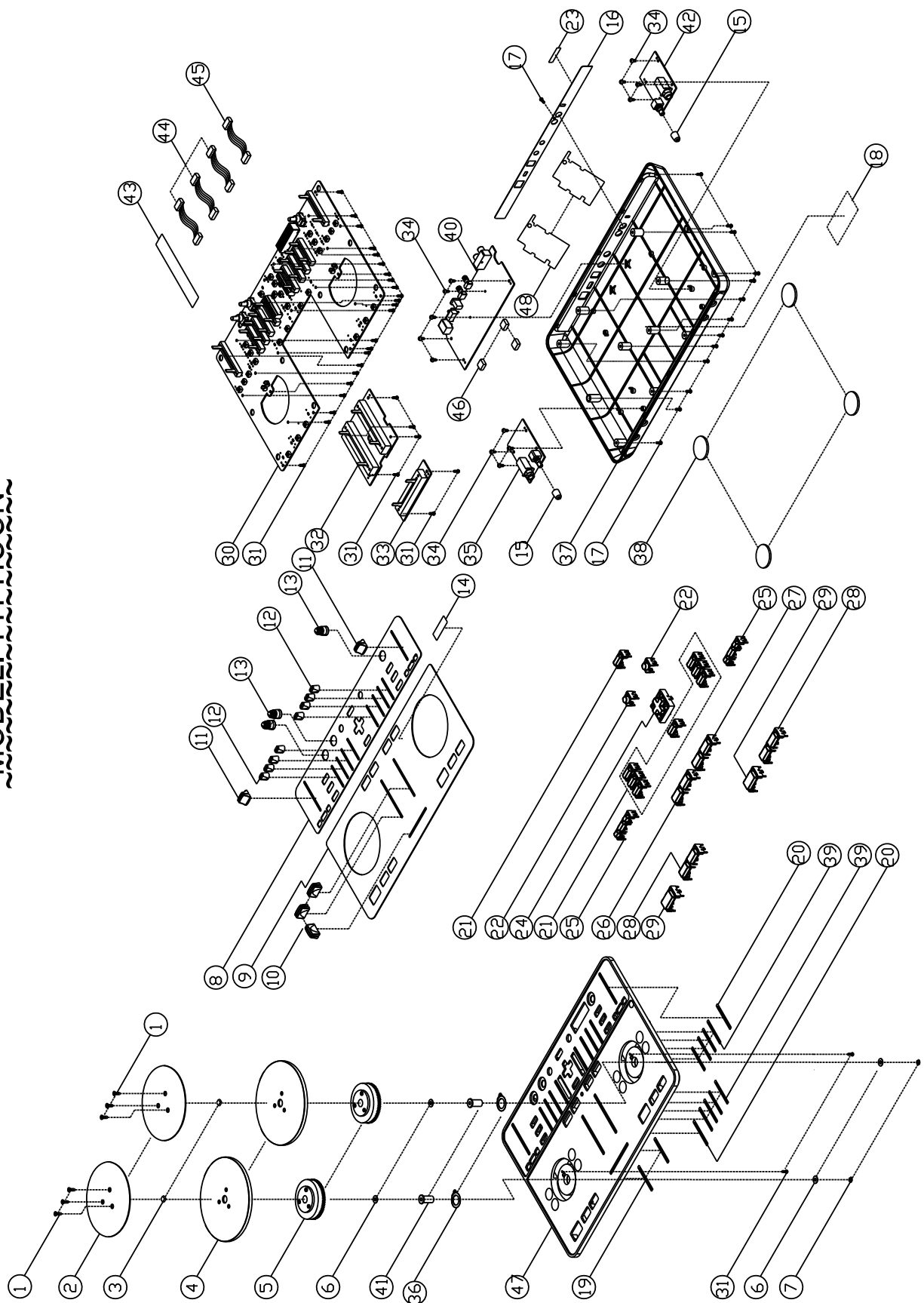
MODEL: TYPHOON



1 CARTON= 4 SETS

SCALE: 1/1

EXPLODED VIEW
MODEL: TYPHOON



No.	Materials	SPECS	Qty	Remark
....4	EC10616TS	E. CAP 10UF/16V (7MM)	9	EC209, 301, 302, 601, 602, 604, EC605, 608, 609
....4	EC10625TL	(LOW LEAKAGE) E. CAP 10UF/25V	1	EC801
....4	EC10625TS	E. CAP 10UF/25V	2	EC910, 913
....4	EC22725TS	Capacitor 220UF/25V-RoHS	1	EC802
....4	EC47550TS	E. CAP (SMALL) 4.7UF/50V	6	EC901~905, 907
....4	EC47625TS	E. CAPACITOR 47UF/25V 7MM	2	EC908, 911
....4	AA822383X	IC AIC1525CS (SOP8)	1	IC905
....4	AL2-51-0140	DIODE POWER SCHOTTKY MBRS140LT3 40V 1A	2	ZD903, 904
....4	AL2-61-7223	IC REG VOLTAGE NJU7223DL1-33 3.3V TO-252	2	IC902, 903
....4	AL2-71-0074	IC MC33079 QUAD-OP-AMP SOP-14 (TL074)	1	IC602
....4	AL2-75-4344	IC CONVERTER D/A CS4344 24BIT 192KHZ (12S) TSSOP10	2	IC301, 601
....4	CS101J5003NPO	CHIP CAPACITOR SMD 100P/50V ±5% 0603 NPO-RoHS	6	C401, 606, 607, 613, 614, 910
....4	CS102K5003X7R	CHIP CAP 1000PF/50V,X7R,+/-10%, SMD 0603	1	C402
....4	CS104K5003X7R	CHIP CAP 0.1UF/50V,X7R,+/-10%, SMD 0603	26	C210~212, 301, 302, 405, 410~417, C601, C602, 615, 616, 901~906, C913, 914
....4	CS270J5003COG	C.CAP 27PF/50V,COG,+/-5%,-55~+125°C,SMD 0603	2	C408, 409
....4	CS300J5003NPO	CHIP CAPACITOR 30PF, NPO, +/-5%, 50V	2	C403, 404
....4	CS332J5003X7R	C.CAP 3300PF/50V,X7R,+/-5%,SMD 0603	2	C604, 605
....4	CS472K5003X7R	chip Cap 4.7nF 50V 10% 0603 X7R	2	C406, 407
....4	DIEN1N4148WSM	DIODE FAST SWICTHING 1N4848W SOD-123	3	D801~803
....4	DISR26	SCHOTTKY BARRIER RECTIFIER SMD	4	ZD901, 905, 907, 908
....4	IC74AHC1G125GW	IC 74AHC1G125G SOT353	1	IC908
....4	IC74HCT00D	IC 74HCT00D QUAD 2 INPUT NAND GATE	1	IC907
....4	ICBA05FP	IC (BA05FP)	1	IC901
....4	ICG696L293T1UF	IC RESET	1	IC403
....4	ICMC34063ADR	IC MC34063ADR SOIC8 (ALTERNATIVE: AL2-61-3463)	1	IC904
....4	ICPCM1808PWR	IC PCM1808PWR	1	IC202
....4	ICTUSB3200	IC TUSB3200ACPAH TQFP	1	IC401
....4	ICYHFRS005	IC 24LC64TIMI+PROGRAM SOIC8	1	IC402
....5	IC24LC64TIMI	IC (64K SERIAL EEPROM) SOP 150MIL	1	
....4	RS000004F06	CHIP RES. 0 Ω 1% SMD 1206	5	R906, 910, 924, 951, ZD902
....4	RS000010J03	CHIP RES. 0 Ω 5% SMD 0603	4	R430, 432, 803, 804
....4	RS001010F03	CHIP RES. 10 Ω 1% SMD 0603	1	R431
....4	RS010K10F03	CHIP RES. 10K Ω 1% SMD 0603	4	R429, 805, 907, 950
....4	RS015010F03	CHIP RES. 150 Ω 1% SMD 0603	1	R437
....4	RS01K510F03	CHIP RES. 1.5K Ω 1% SMD 0603	1	R405
....4	RS04R704J06	CHIP RES. 4.7 OHM,1/4W,+/-5%,1206	1	R901
....4	RS0R2204F06	CHIP RES. 0.22 OHM,1/4W,+/-1%,1206	1	R911
....4	RS100K10F03	CHIP RES. 100K Ω 1% SMD 0603	4	R918~920, 923
....4	RS10118F03	CHIP RES. 100 OHM, 1/8W, ±1%, 0603	19	R217~220, 301~304, 411, 412, R434~436, 601~604, 620, 621
....4	RS10218F03	CHIP RES. 1K OHM,1/8W,±1%,0603	3	R622, 623, 913
....4	RS10K710F03	CHIP RES. 10.7K OHM,1/10W,±1%,0603	2	R610, 611
....4	RS180K10F03	CHIP RES. 180K OHM,1/10W,+/-1%,0603	1	R922
....4	RS27R410F03	CHIP RES. 27.4 Ω 1% SMD 0603	2	R406, 407
....4	RS33218F03	CHIP RES. 3.3K OHM,1/10W,±1%,0603	1	R912
....4	RS3K0910F03	CHIP RES. 3.09K Ω 1% SMD 0603	1	R401
....4	RS3K2410F03	CHIP RES. 3.24K Ω 1% SMD 0603	2	R606, 607
....4	RS47318F03	CHIP RES. 47K OHM,1/8W,+/-1%,0603	9	R612~619, 921
....4	RS4K9910F03	CHIP RES. 4.99K Ω 1% SMD 0603	2	R427, 428
....4	RS560K10F03	CHIP RES. 560K Ω 1% SMD 0603	2	R801, 802
....4	RS5K3618F03	CHIP RES 5.36K OHM , 1/8W, 1% 0603	2	R608, 609
....4	TR2SA1037ASM	TRANSISTOR 608 SMD	1	Q801
....4	TR2SD2114KSM	TRANSISTOR NPN 2SD2114K SOT-23 (SMD)	2	Q602, 603
....4	TRDTA124ESM	TRANSISTOR A124 (SMD)	1	Q802
....4	UH465516-351	INDUCTOR 7.0UH 70M OHM 1.0A SMD 4.6*1.6*5.5	1	L1
....4	UHPIC1207-221M	COIL SMD 220UH	1	L2
....4	UHPIH6D28-220M	INDUCTOR 22UH 1.2A SMD-ROHS	2	L4, 5
....4	EC33725TLE	E.CAPACITOR 330UF/25V 8X15MM (UHD1E331MPT)	1	EC909
....4	FCN2S1001801	CONNECTOR , 2 WAY CONTACT, 180°, 1.0MM, 18P	1	FCN1
....4	JK4690-DR30-04F	USB2.0 B-TYPE 90	1	JK901
....4	JKDJ-0702B-020	DC SOCKET 2.0MM	1	JK902

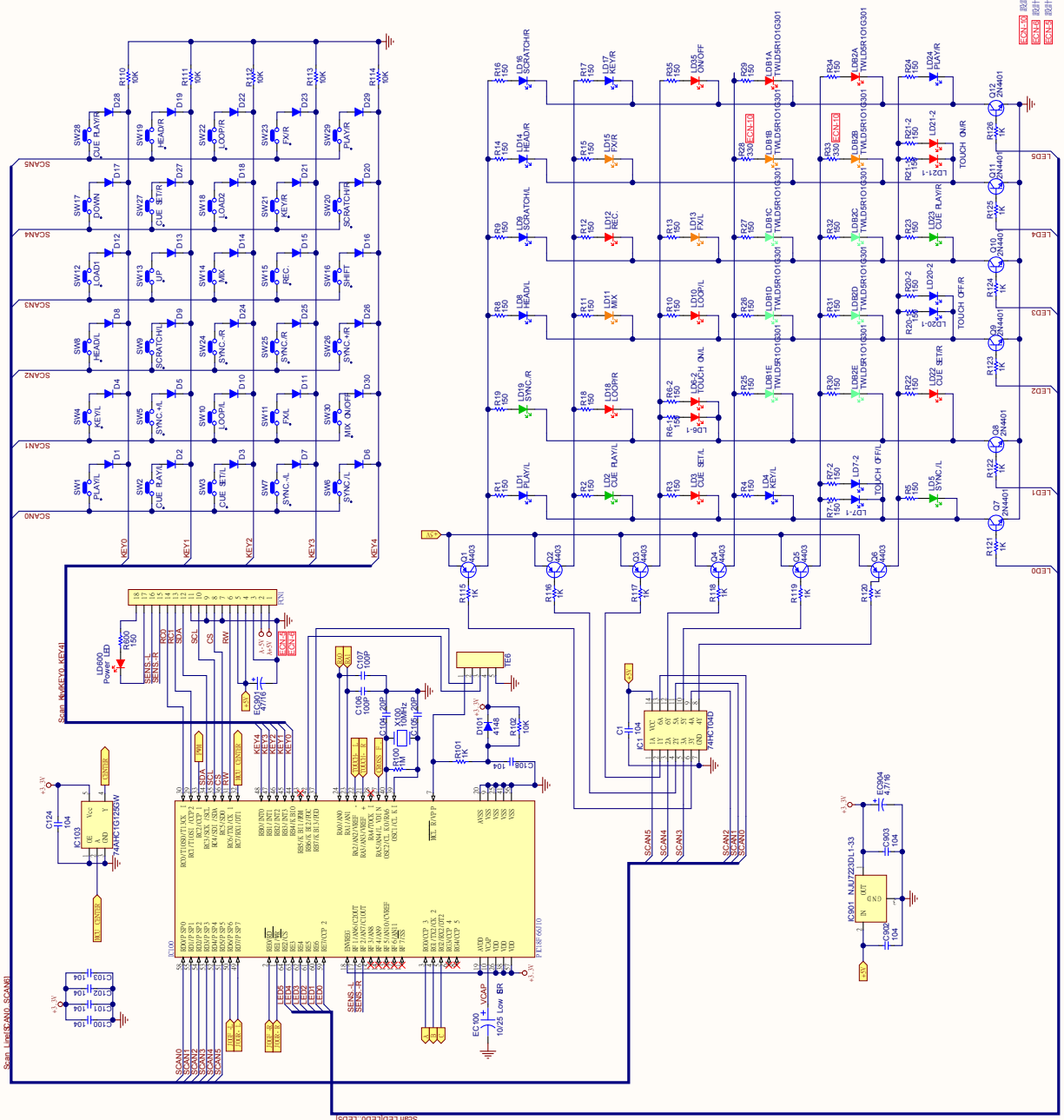
TYPHOON (BOM)

No.	Materials	SPECS	Qty	Remark
.1	CGSNC02313SNL03	INNER CARTON (TYPHOON)	1	
.1	CTSNC02513SNL03	OUTER CARTON (TYPHOON)	0.25	
.1	GE39TMV01	GUARANTEE CARD	1	
.1	GE39TMV02	CUSTOMER INSTRUCTION CARD	1	
.1	GE39TMV03	ENVELOPE (BIG)	1	
.1	GE39TMV04	ENVELOPE (SMALL)	1	
.1	LAC42SNL21	LABEL (TRAKTOR LE)	1	
.1	LAC42SNL32	LABEL (TRAKTOR LE ENABLED)	1	14
.1	LAC52SNL28	LABEL SAFETY (TYPHOON)	1	18
.1	MT510440102	FIXED METAL (WHEEL) W/PRINTING	2	2
.1	NP251SNL03	NAME PLATE (REAR)	1	16
.1	NP251SNL09	NAME PLATE (UP)	1	8
.1	NP251SNL10	NAME PLATE (DOWN)	1	9
.1	OPSN02SNL03	INSTRUCTION MANUAL (TYPHOON)	1	
.1	OPSN02SNL07	MANUAL (TRAKTOR LE QUICK GUIDE)	1	
.1	PLSNC0201	POLY FOAM (LEFT)	1	
.1	PLSNC0202	POLY FOAM (RIGHT)	1	
.1	PT5104401	FIXED PLASTIC (PLATTER)	2	4
.1	PT511061801	KNOB VR	3	13
.1	PT511062301	SLIDER KNOB(LARGE) W/SPRAYING	3	10
.1	PT511062401	SLIDER KNOB(PITCH) W/SPRAYING	2	11
.1	PT511062501	SLIDER KNOB(EQ) W/SPRAYING	8	12
.1	PT511062601	KNOB VR W/SPRAYING	2	15
.1	PT5110701	ROTATE KNOB	2	5
.1	PU007007003	CONDUCTIVE FOAM	2	3
.1	RN109111	E RING(9MM)	2	7
.1	SC0308FBNI	SCREW	6	1
.1	SC0310RBBI	SCREW	14	17
.1	SD35055000RJP	LAMIN BAG	1	
.1	TSASIO401	ASIO4 TYPHOON DRIVER CD	1	
.1	TSTRAKTOR01	CD (TRAKTOR LE) WITH LICENSE NUMBER	1	
.1	TWSNC02SNL11	TYPHOON (DM) USB CONTROLLER ASS'Y	1	
.2	CA040218002	USB CABLE (BLACK) + CORE	1	
.2	FFC1810002001	18P FLAT WIRE 200MM FFC	1	43
.2	LAC22SNL11	LABEL SERIAL NO	1	23
.2	LAC62SNL40	LABEL BARCODE (INNER CARTON)	1	
.2	LAC62SNL41	LABEL BARCODE (MASTER CARTON)	0.5	
.2	MT5101801	GROUNDING PLATE	2	36
.2	MT5105502	METAL SHAFT	2	41
.2	NM1106115	VELVET CARPET	2	20
.2	NM1106118	VELVET CARPET	2	19
.2	NM5106101	VELVET CARPET	8	39
.2	NP351SNL07	ALUMINIUM FOIL	2	48
.2	PT511060103	PLASTIC KNOB (PLAY) W/PRINTING	2	29
.2	PT5110602	PLASTIC KNOB(KEY)	2	25
.2	PT511060404	PLASTIC KNOB (HEADPHONE)(LEFT)	1	26
.2	PT511060405	PLASTIC KNOB (HEADPHONE)(RIGHT)	1	27
.2	PT511060406	PLASTIC KNOB (CUE/CUP)	2	28
.2	PT5110605	PLASTIC KNOB (+)	1	24
.2	PT5110606	PLASTIC KNOB(AUTO MIX)	8	21
.2	PT5110607	PLASTIC KNOB (REC)	2	22
.2	PT513020201	CABINET (SPRAYING)	1	47
...3	PT5130202	CABINET	1	
.2	PT5130301	BOTTOM BOARD	1	37
.2	PU007015005	CONDUCTIVE FOAM	3	46
.2	RU0730604	RUBBER FOOT	4	38
.2	SC0306PBBI	SCREW	13	34
.2	SC0308RBNI	SCREW	28	31
.2	TWPC09S00102	PCB ASS'Y (SOUND CARD)	1	
...3	PC09S001	PCB SOUND CARD (DOUBLE LAYER FR4 300*95MM)	1	
...3	TWPC09S001A02	PCB ASS'Y SOUND CARD	1	40

No.	Materials	SPECS	Qty	Remark
....4	RJ2008HP-11F15A	RCA JACK (2P)	1	JK601
....4	SWSSSF113NA1	SWITCH (ON/OFF) 3T	1	SW901
....4	TE10200602	6P CONNECTOR SOCKET 90°	1	TE11
....4	TE612000301	3P CONNETOR SOCKET	2	TE4, 5
....4	TE622000302	3P CONNECTOR SOCKET	1	TE21
....4	VRR50202009	VARIABLE RESISTOR 5K2B 20MM	2	VR101, 102
....4	XTM06000X3	CRYSTAL 6MHZ(49US)-ROHS	1	X401
..3	TWPC09S001B01	PCB ASS'Y MIC.JK	1	35
....4	EC10550TS	E. CAPACITOR 1UF/50V(7MM)	1	EC702
....4	EC10616TS	E. CAP 10UF/16V (7MM)	1	EC704
....4	EC10716TS	E. CAP (SMALL) 100UF/16V	3	EC705~707
....4	EC47450TS	E. CAP (SMALL) 0.47UF/50V	1	EC701
....4	CS100J5003NPO	C. CAP. SMD 10 PF 50V 5% 0603 NPO	1	C703
....4	CS102K5003X7R	CHIP CAP 1000PF/50V,X7R,+/-10%, SMD 0603	1	C701
....4	CS104K1603X7R	CHIP CAP 0.1UF ±10% 16V 0603	1	C704
....4	CS470J5003NPO	CHIP CAP.47PF ,SMD0603,+/-5 %, 50V, NPO	1	C702
....4	ICNJM2100M	IC (NJM2100M)	1	IC701
....4	RS01K510F03	CHIP RES. 1.5K Ω 1% SMD 0603	2	R708, 709
....4	RS04K710F03	CHIP RES. 4.7K Ω 1% SMD 0603	1	R704
....4	RS05K610F03	CHIP RES. 5.6K Ω 1% SMD 0603	1	R702
....4	RS10518F03	RESISTOR 1M 1% SMD 0603 -ROHS	1	R705
....4	RS220K10F03	CHIP RES. 220K Ω 1% SMD 0603	1	R701
....4	RS22318F03	CHIP RES.22K OHM,1/8W,±1%,0603	1	R703
....4	RS47318F03	CHIP RES. 47K OHM,1/8W,+/-1%,0603	2	R706, 707
....4	JY6314-02-030	EARPHONEBASE W/NUT	1	JK701
....4	TE622000302	3P CONNECTOR SOCKET	1	TE22
....4	VRR50303007	VARIABLE RESISTOR 50KA-ROHS	1	VR701
..3	TWPC09S001C01	PCB ASS'Y HEADPHONE JK	1	42
....4	EC10616TS	E. CAP 10UF/16V (7MM)	2	EC303, 304
....4	EC10716TS	E. CAP (SMALL) 100UF/16V	2	EC305, 306
....4	CS101J5003NPO	CHIP CAPACITOR SMD 100P/50V ±5% 0603 NPO-RoHS	2	C307, 308
....4	CS104K5003X7R	CHIP CAP 0.1UF/50V,X7R,+/-10%, SMD 0603	1	C309
....4	ICNJM4556AM	IC (NJM4556AM)	1	IC302
....4	RS003310F03	CHIP RES. 33 Ω 1% SMD 0603	2	R317, 318
....4	RS01K510F03	CHIP RES. 1.5K Ω 1% SMD 0603	2	R311, 312
....4	RS100K10F03	CHIP RES. 100K Ω 1% SMD 0603	2	R305, 306
....4	RS10218F03	CHIP RES. 1K OHM,1/8W,±1%,0603	2	R319, 320
....4	RS6K6518F03	CHIP RES 6.65K OHM , 1/8W, 1% 0603	2	R313, 314
....4	TR2SD2114KSM	TRANSISTOR NPN 2SD2114K SOT-23 (SMD)	2	Q301, 302
....4	JY6314-02-030	EARPHONEBASE W/NUT	1	JK301
....4	TE10200602	6P CONNECTOR SOCKET 90°	1	TE12
....4	VRR50301502	VARIABLE RESISTOR ROTARY 50KA*2 15MM	1	VR301
..2	TWPC09S00202	PCB ASS'Y (CONTROL)	1	
..3	PC09S002	PCB CONTROL)DOUBLE LAYER FR4 350*230MM)	1	
..3	TWPC09S002A02	PCB ASS'Y CONTROL	1	30
....4	SWEVQ11L05R	TACT SWITCH (5MM) ROUND TERMINAL	30	SW1~30
....4	AL2-51-4401	TRANS NPN 2N4401 40V 1A SOT-23	6	Q7~12
....4	AL2-51-4403	TRANSISTOR PNP 2N4403 40V 800MA SOT-23	6	Q1~6
....4	AL2-61-7223	IC REG VOLTAGE NJU7223DL1-33 3.3V TO-252	1	IC901
....4	AL2-72-0339	IC LM339 ANALOG COMP SOP-14	4	IC601~604
....4	CS101J5003NPO	CHIP CAPACITOR SMD 100P/50V ±5% 0603 NPO-RoHS	4	C305, 306, 311, 312
....4	CS102K5003X7R	CHIP CAP 1000PF/50V,X7R,+/-10%, SMD 0603	4	C303, 304, 309, 310
....4	CS103K5003X7R	C.CAP 0.010UF 50V X7R,±10% SMD 0603	4	C301, 302, 307, 308
....4	CS104K5003X7R	CHIP CAP 0.1UF/50V,X7R,+/-10%, SMD 0603	38	C1, 100~103, 108, 112~124, 130, C145, 600~609, 801~805, 902,
....4	CS200J5003NPO	C. CAP. SMD 20 pF 50V 5% 0603 NPO	2	C104, 105
....4	DI1SS302SM	DIODE 1SS302 SC-70	2	D803, 804
....4	DI1SS352SM	DIODE 1SS352 HE1A	2	D801, 802
....4	DIEN1N4148WSM	DIODE FAST SWICTHING 1N4848W SOD-123	35	D1~30, 101, 600~603
....4	FCN2R1001801	FFC connector dual side conn 90° 1.0mm 18P	1	FCN1
....4	IC74AHC1G125GW	IC 74AHC1G125G SOT353	1	IC103
....4	IC74HCT04D	IC 74HCT04D SO14	1	IC1
....4	ICBA4558F	IC (4558) SMD	1	IC600

No.	Materials	SPECS	Qty	Remark
....4	ICLM358M	IC LM358M DUAL OPA SOP-8	1	IC801
....4	ICTC4051BFN	IC TC4051BFN SOP16	2	IC101, 102
....4	ICTC7W14F	IC	2	IC301, 302
....4	ICYH98S02	IC WITH PROGRAME	1	IC100
.....5	ICPIC18F66J10	IC (PIC18F66J10-I/PT)	1	
....4	RS006810F03	CHIP RES. 68 Ω 1% SMD 0603	2	R623, 624
....4	RS010K10F03	CHIP RES. 10K Ω 1% SMD 0603	10	R102, 110~114, 307, 308, 315, 316
....4	RS015010F03	CHIP RES. 150 Ω 1% SMD 0603	38	R1~5, 8~19, 22~27, 29~32, 34, 35, R600, 61, 62, 71, 72, 201, 202, 211, R212
....4	RS01K510F03	CHIP RES. 1.5K Ω 1% SMD 0603	2	R801, 802
....4	RS01K810F03	CHIP RES. 1.8K Ω 1% SMD 0603	2	R621, 622
....4	RS022K10F03	CHIP RES. 22K Ω 1% SMD 0603	4	R305, 306, 313, 314
....4	RS033010F03	CHIP RES. 330 Ω 1% SMD 0603	8	R28, 33, 303, 304, 311, 312, 628, 629
....4	RS039010F03	CHIP RES. 390 Ω 1% SMD 0603	2	R609, 610
....4	RS043K10F03	CHIP RES. 43K Ω 1% SMD 0803	2	R601, 602
....4	RS051010F03	CHIP RES. 510 Ω 1% SMD 0603	2	R613, 614
....4	RS056010F03	CHIP RES. 560 Ω 1% SMD 0603	6	R301, 302, 309, 310, 611, 612
....4	RS062010F03	CHIP RES. 620 Ω 1% SMD 0603	2	R615, 616
....4	RS068010F03	CHIP RES. 680 Ω 1% SMD 0603	2	R607, 608
....4	RS068K10F03	CHIP RES 68K OHM 1% 1/10W 0603	1	R627
....4	RS082010F03	CHIP RES. 820 Ω 1% SMD 0603	2	R617, 618
....4	RS100K10F03	CHIP RES. 100K Ω 1% SMD 0603	2	R603, 604
....4	RS10118F03	CHIP RES. 100 OHM, 1/8W, ±1%, 0603	4	R625, 626, 807, 808
....4	RS10218F03	CHIP RES. 1K OHM, 1/8W, ±1%, 0603	17	R101, 115~126, 605, 606, 619, 620
....4	RS10518F03	RESISTOR 1M 1% SMD 0603 -ROHS	5	R100, 803~806
....4	TR2SC2412KSM	TRANSISTOR 536 SMD	4	Q301~304
....4	TRBC857B	TRANSISTOR BC857B	5	Q600~604
....4	XTM10000X6	CRYSTAL 10MHZ - 49US SMD	1	X100
....4	CN0620001006	CONNECTOR WIRE 6P/2.0/100MM 180°	2	CN1, 2
....4	DIRPI-352	DIODE	4	S301~304
....4	EC10550TS	E. CAPACITOR 1UF/50V(7MM)	2	EC601, 602
....4	EC10625TLE	E.CAP LOW ESR 10UF/25V 5*11M	1	EC100
....4	EC47525TS	E.CAPACITOR 4.7UF/25V (7MM)	1	EC904
....4	EC47616TS	E. CAP (SMALL) 47UF/16V	1	EC901
....4	TE622000302	3P CONNECTOR SOCKET	2	TE4, 5
....4	TE812000411	4P HEADER SIL 2MM MALE SHRD	2	(CN1, 2)
....4	TWLD-005HLV04	LED RED ASS'Y (SNC02)	10	LD3, 71, 72, 10, 12, 18, LD201, 202, LD22, 35
.....5	BALE48201-5A	PLASTIC BOSS (LED) 1.5MM	1	
.....5	LD-005HLVC	LED RED (CUT LEAD)	1	
....4	TWLD-005K6CS01	LED BLUE ASS'Y (SNC02)	12	LD1, 4, 61, 62, 8, 9, 14, LD16, 17, LD211, 212, 24
.....5	BALE48201-5A	PLASTIC BOSS (LED) 1.5MM	1	
.....5	LD-005K6CSC	LED BLUE (CUT LEAD)	1	
....4	TWLD-305SYV04	LED (AMBER) ASS'Y (SNC02)	3	LD11, 13, 15
.....5	BALE48201-5A	PLASTIC BOSS (LED) 1.5MM	1	
.....5	LD-305SYVC	LED AMBER (CUT LEAD)	1	
....4	TWLD-511E4YG01	LED YELLOW/GREEN ASS'Y (SNC02)	4	LD2, 5, 19, 23
.....5	BALE48201-5A	PLASTIC BOSS (LED) 1.5MM	1	
.....5	LD-511E4YGC	LED YELLOW/GREEN (CUT LEAD)	1	
....4	TWLD5R101G301	LED BAR 5PCS ROUND HEAD LED	2	LDB1, 2
.....5	LD3G4HDA	LED YELLOW/GREEN f3 ROUND HEAD DIP	3	
.....5	LD3O4HWA	LED ORANGE DIFUSE ROUND HEAD DIP	1	
.....5	LDIFR324HDC	LED 3MM RED (CUT LEAD)	1	
.....5	PT5104405	LED PLASTIC FIX	1	
....4	TWLD7R201G4X201	LED BAR 7 SQUARE TYPE HORIZONTAL 2X	1	LDB601
.....5	LD2G74HDN	LED YELLOW/GREEN 7*4.95MM FLAT HEAD DIP	8	
.....5	LD2O74HWN	LED ORANGE DIFUSE FLAT HEAD DIP	2	
.....5	LD2R74HDN	LED RED 7*4.95MM FLAT HEAD DIP	4	
.....5	PT5104404	LED PLASTIC FIX 2X	1	
....4	TWLDIFR324HD-04	LED 3MM (RED) ASS'Y (SNC02)	1	LD600
.....5	BALE48201-5A	PLASTIC BOSS (LED) 1.5MM	1	

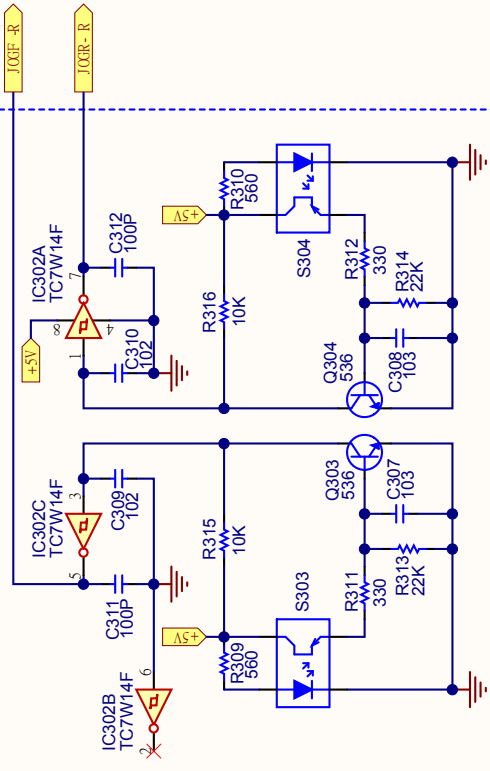
No.	Materials	SPECS	Qty	Remark
....5	LDIFR324HD	LED 3MM (RED)	1	
....4	VRR10301508	V.RESISTOR 10KB 22.5MM (DUAL UNIT)	1	VR600
....4	VRR50301504	VARIABLE RESISTOR 50K 2B 22.5MM SINGLE	2	VR6, 7
....4	VRS10303006	V.RESISTOR 10K 15MM	2	VR1, 8
....4	VRS10303007	V.RESISTOR SLIDE TYPE 10KB 30MM 15MM	6	VR2~4, 9~11
....4	VRS10304517	V.RESISTOR SLIDE TYPE 10KB 45MM 15MM	2	VR5, 12
...3	TWPC09S002B01	PCB ASS'Y C.FADER	1	33
....4	CS104K5003X7R	CHIP CAP 0.1UF/50V,X7R,+/-10%, SMD 0603	1	C109
....4	TE10200602	6P CONNECTOR SOCKET 90°	1	TE1
....4	VRS10304516	V.RESISTOR 10K 45MM 15MM	1	VR100
...3	TWPC09S002C01	PCB ASS'Y L.FADER	1	32
....4	CS104K5003X7R	CHIP CAP 0.1UF/50V,X7R,+/-10%, SMD 0603	2	C110, 111
....4	TE10200602	6P CONNECTOR SOCKET 90°	1	TE1
....4	VRS10306014	V.RESISTOR 10K 60MM 15MM	2	VR101, 102
..2	WR112615032G1	3P WIRE -ROHS	3	44
..2	WR112615052W2	6P WIRE 2.0MM 150MM DOUBLE MALE JACK	1	45
.1	WS117010505P	WASHER (TEFLON)	4	6
.1	MT5105501	METAL SHAFT	2	



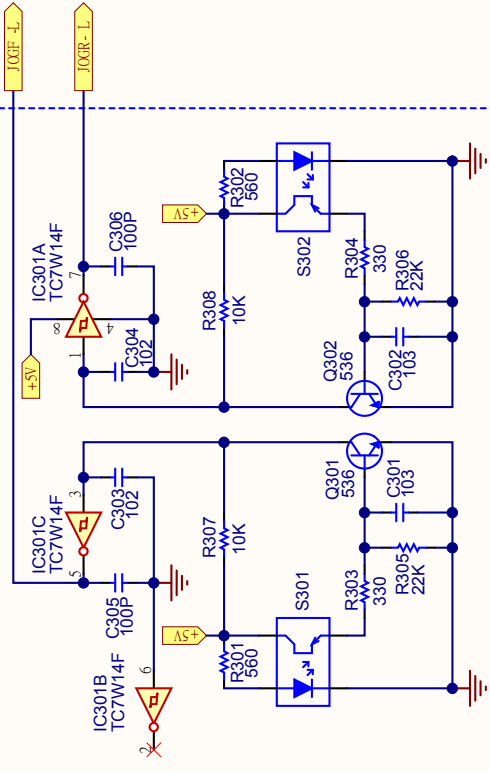
Title: TYPHOON Controller MCU	
Sheet: 5	Revision: 0
Date: 2007/07	Drawn by: [Name]
File Name: [Name]	Department: [Name]
Author: [Name]	Checker: [Name]
Designer: [Name]	Reviewer: [Name]
Validator: [Name]	Approver: [Name]

ECN18 設計變更-LED板型調整
 ECN19 設計變更-電源線路調整
 ECN25 設計變更-對應線路板PCD to D1改換5V

Jog Wheel Sensor of Right Side

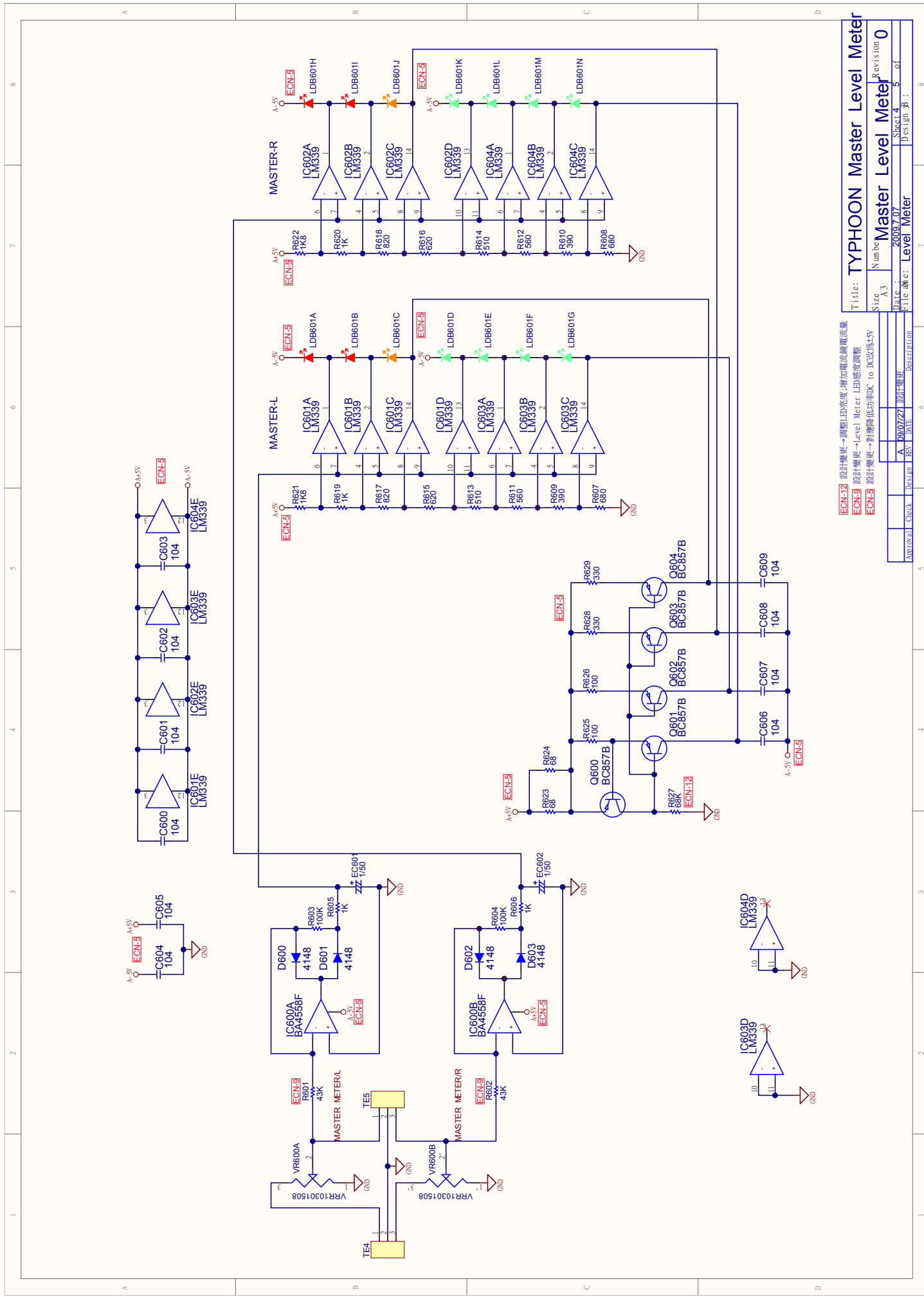


Jog Wheel Sensor of Left Side



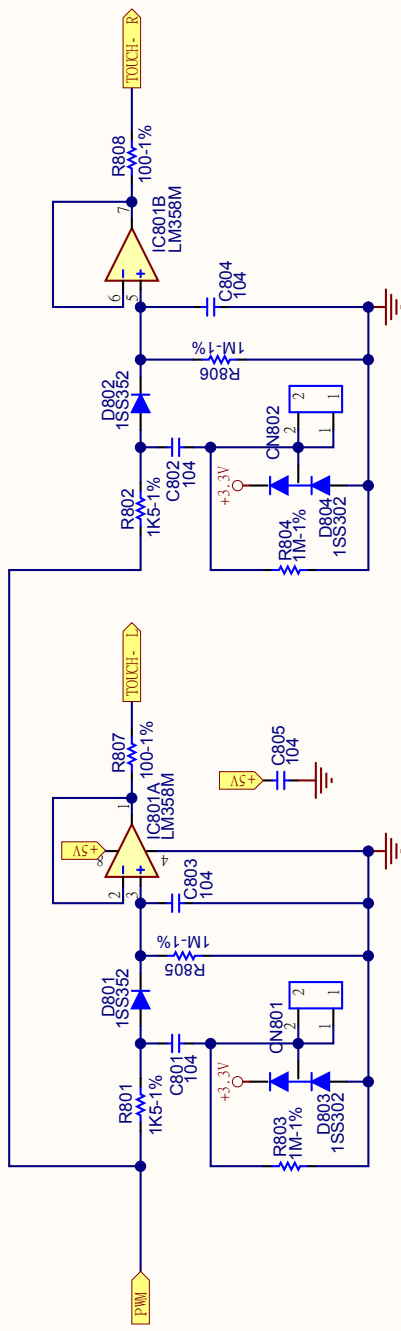
Title: TYPHOON Jog Wheel Sensor		Revision: 0
Size: A4	Number: 4	
Date: 2009.6.19	Sheet: 5	of 5
File name: Jog Wheel		Design: 8

Approval	Check	Design	REV	DATE	Description



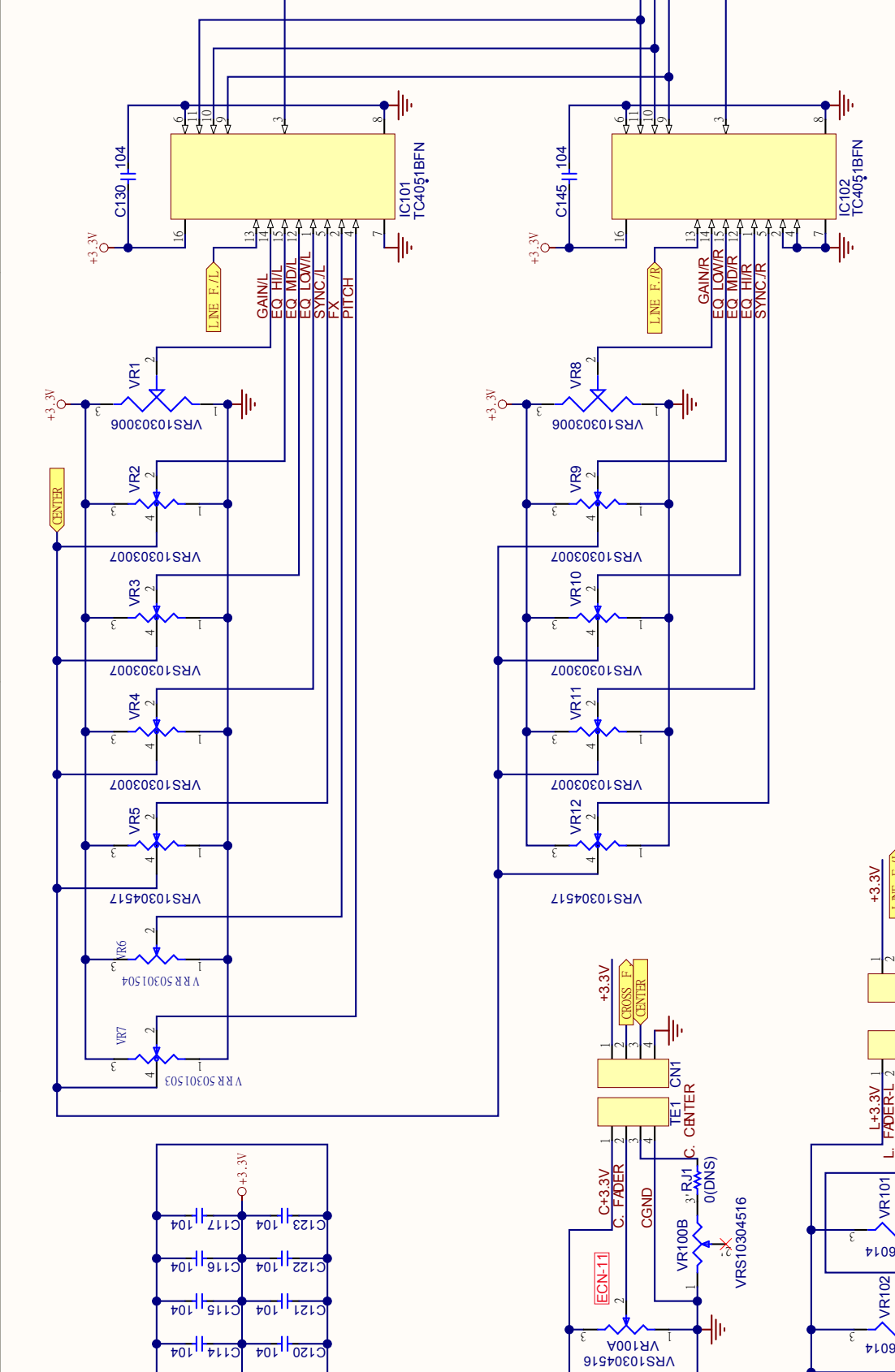
- EON-1 設計變更→調整LED亮度,增加電流線電流
- EON-2 設計變更→Level Meter LED感度調整
- EON-3 設計變更→對應降低功率DC to DC改為±5V

Approval	Check	Design	Rev	Description
			A	2009/07/27 設計變更
Title: TYPHOON Master Level Meter				
Size	A3	Number	Master Level Meter	Revision
Date	2009/7/07	Sheet	5	of
File name	Level Meter	Design #		



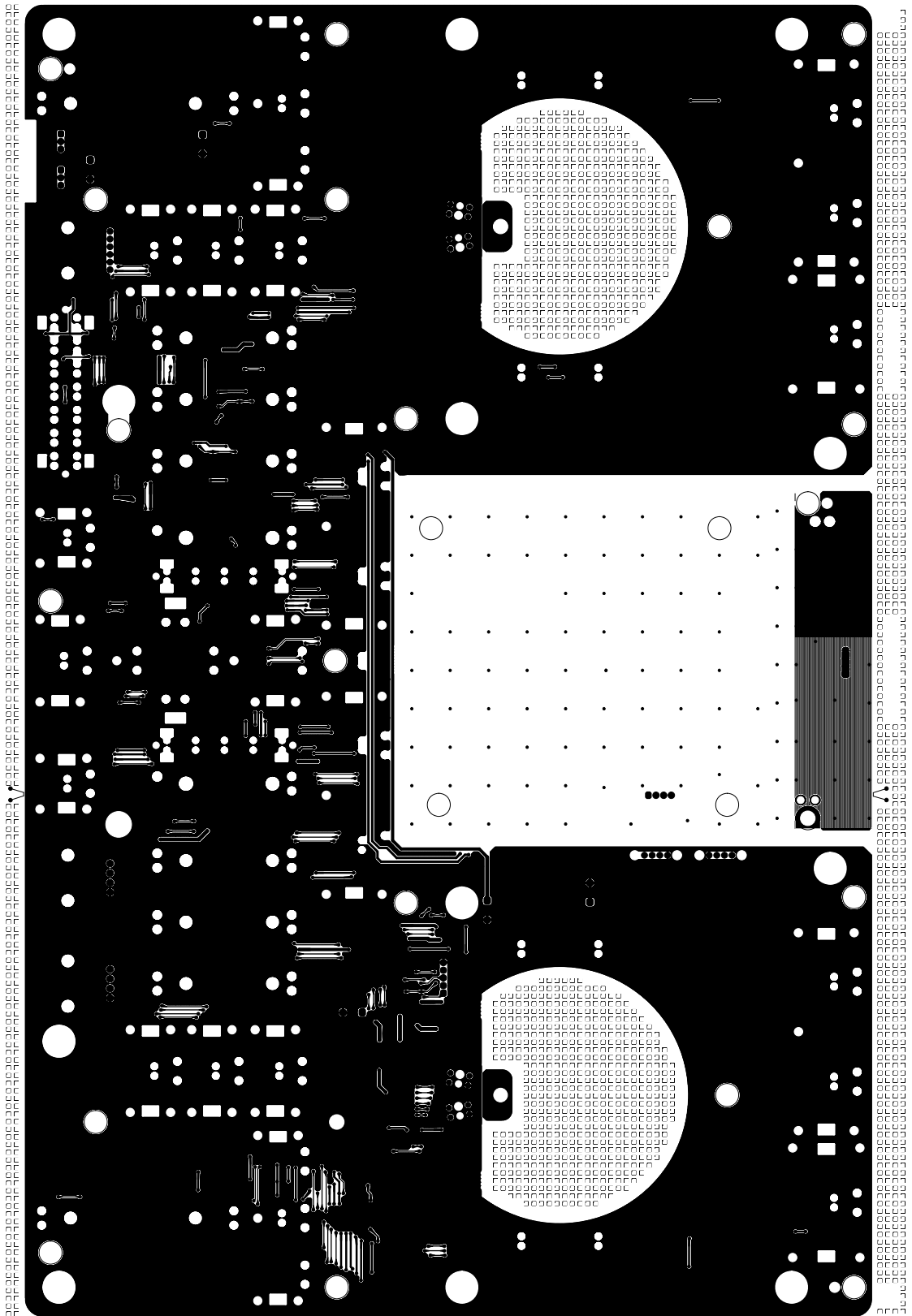
Title: TYPHOON Touch Sensor		Revision: 0
Size: A4	Number: Touch Sensor	Sheet: 3 of 5
Date: 2009.6.19	Design: 3	of 5
File name: Touch Sensor		

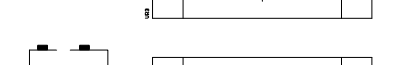
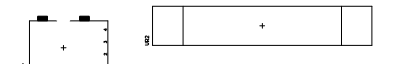
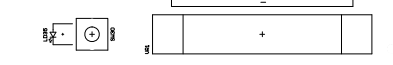
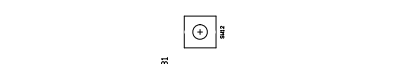
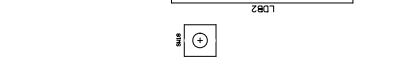
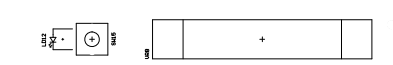
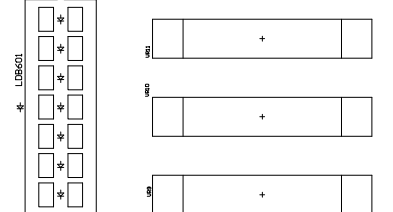
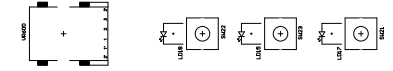
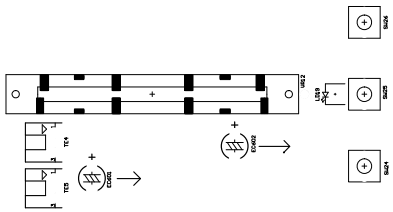
Approval	Check	Design	REV	DATE	Description



Title: TYPHOON VR		Revision: 0
Size: A4	Number: VR	Sheet 2 of 5
Date: 2009.6.19	Design: VR	Design: VR
File name: VR		
Approval: []	Check: []	Description: []
Design: A	REV: 09/07/27	DATE: []
Design: []	REV: []	DATE: []
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ECN-11 設計變更→改為Forward/Alpha相容

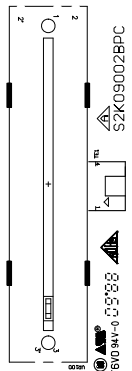
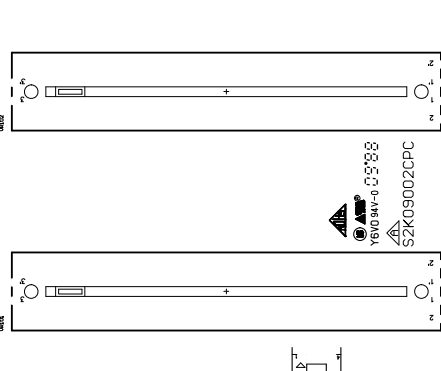






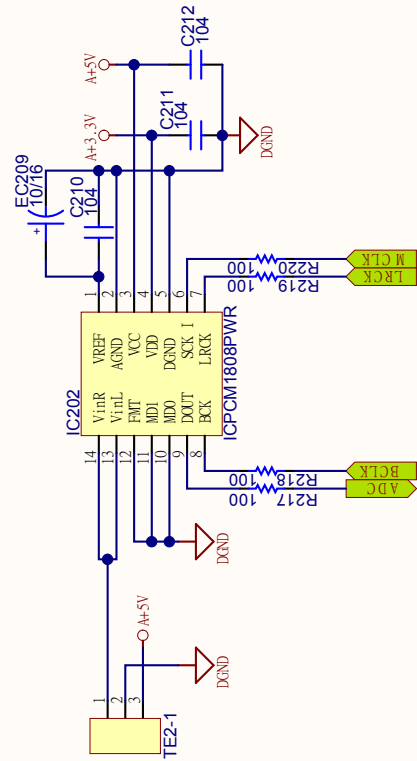
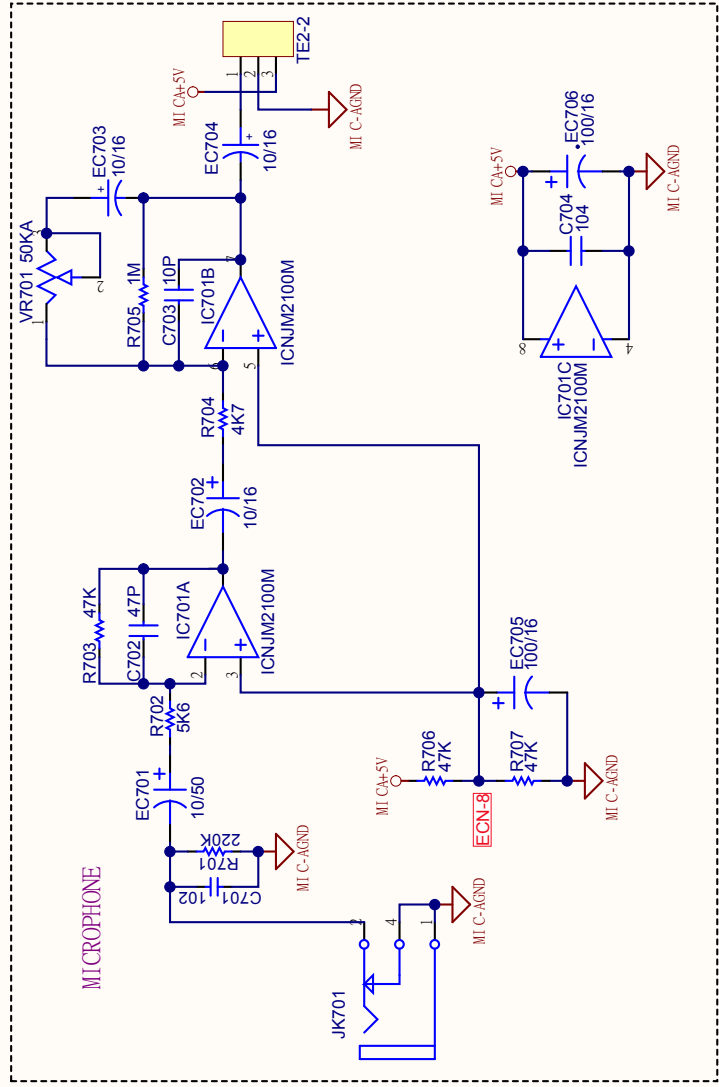


 SNC02 Controller PCB
 S2K09002APC
 2009-09-17



PC09S002

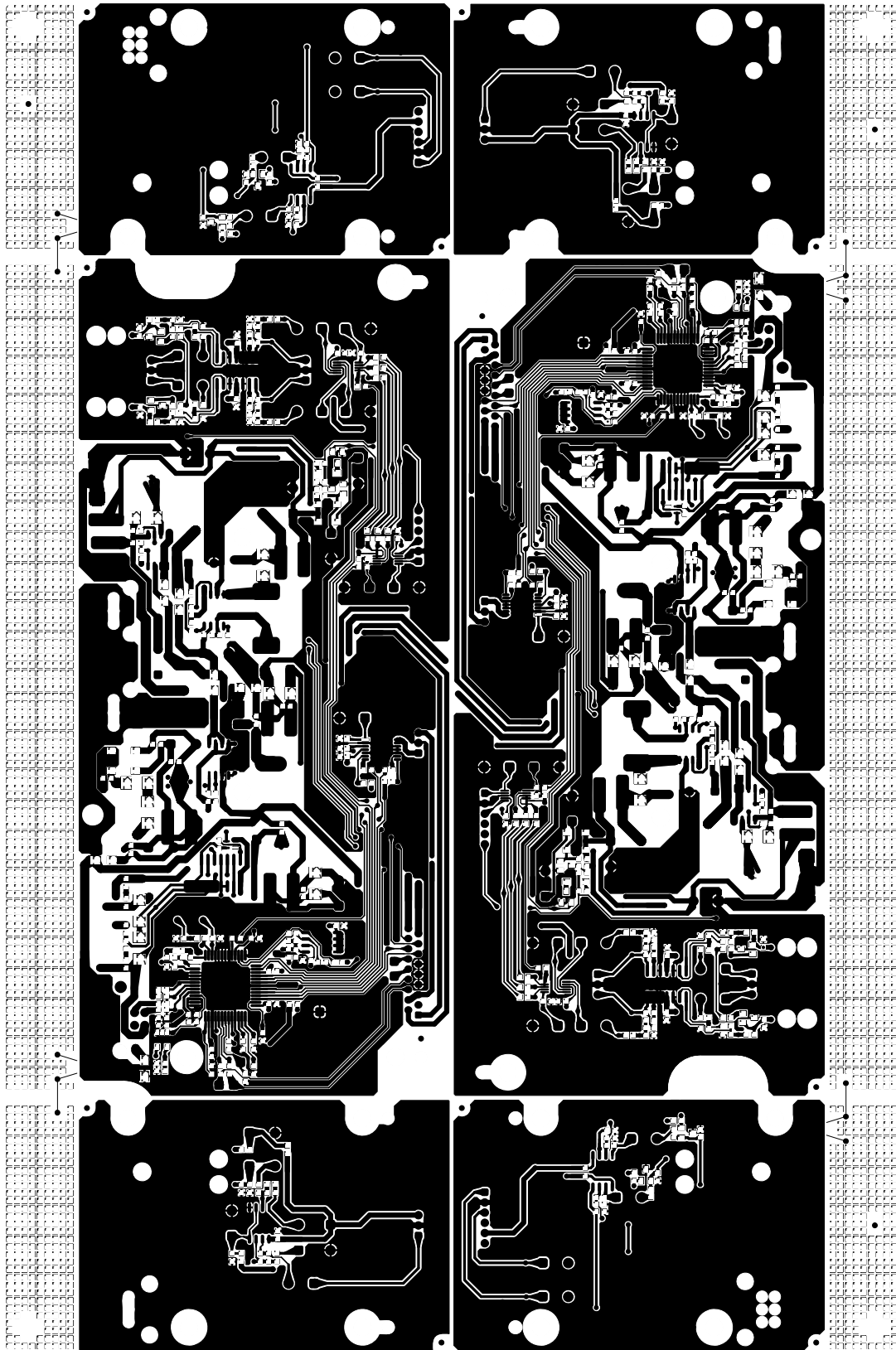
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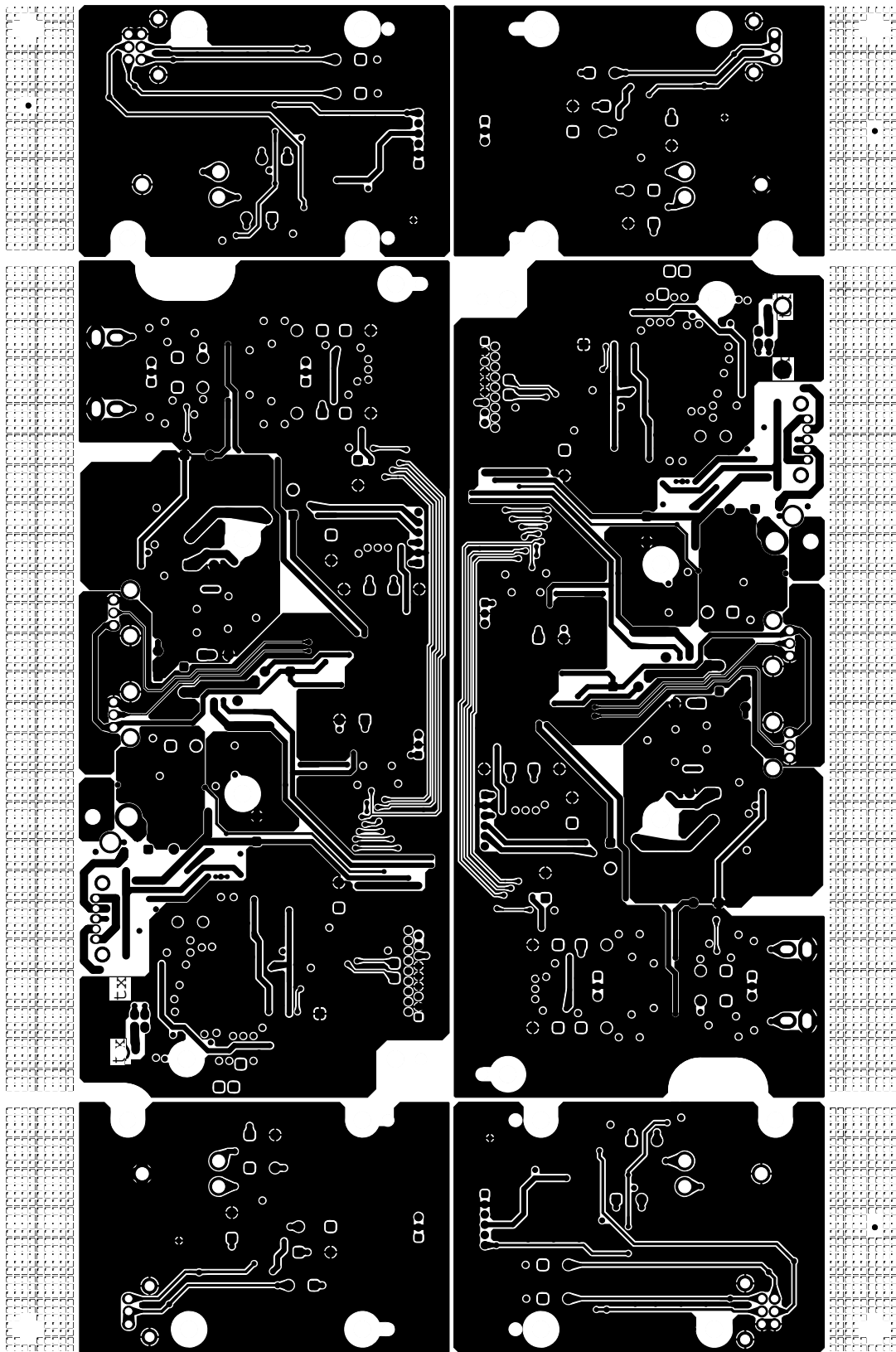


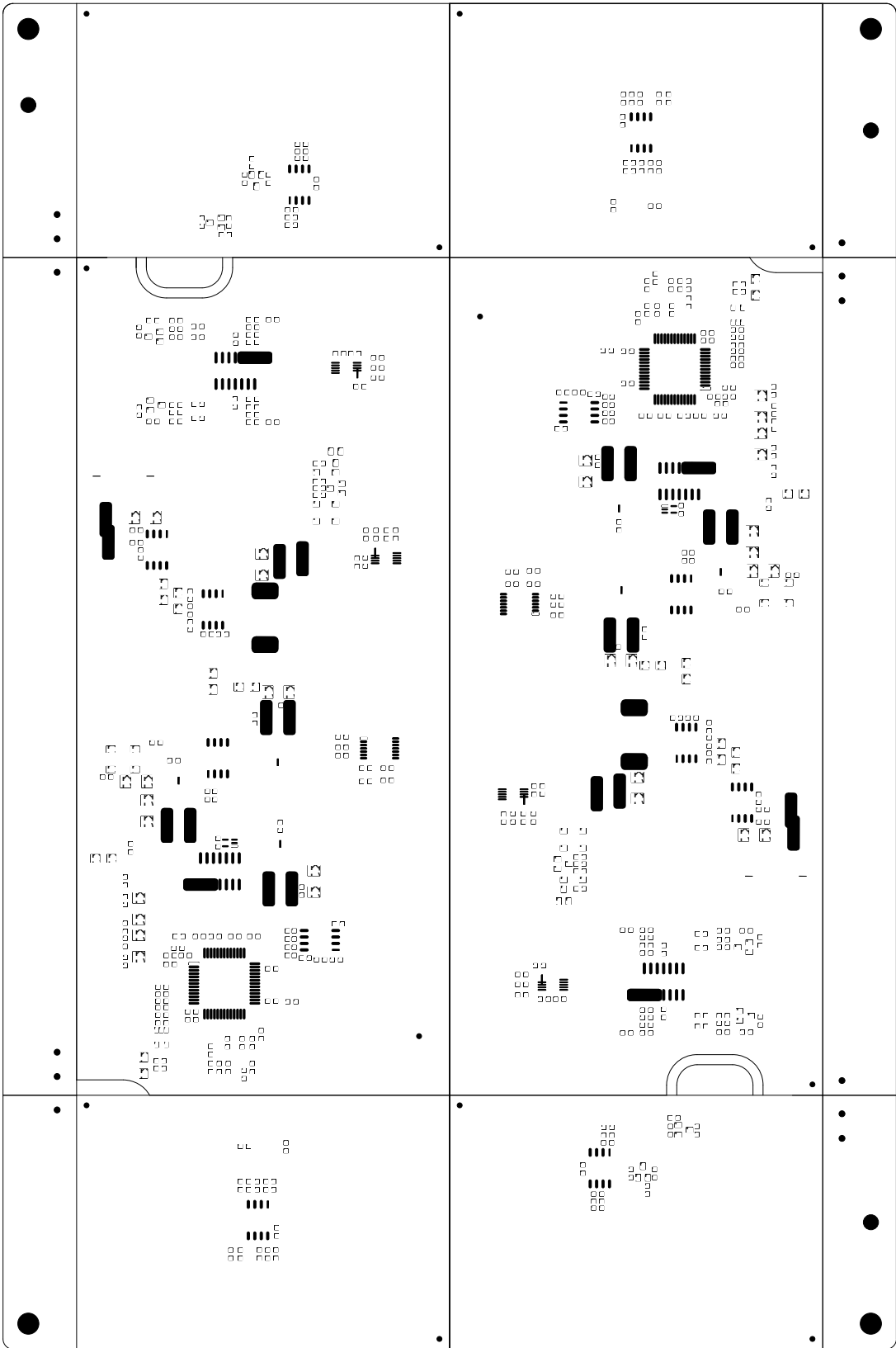
ECN-8 客戶變更→分壓電阻調整

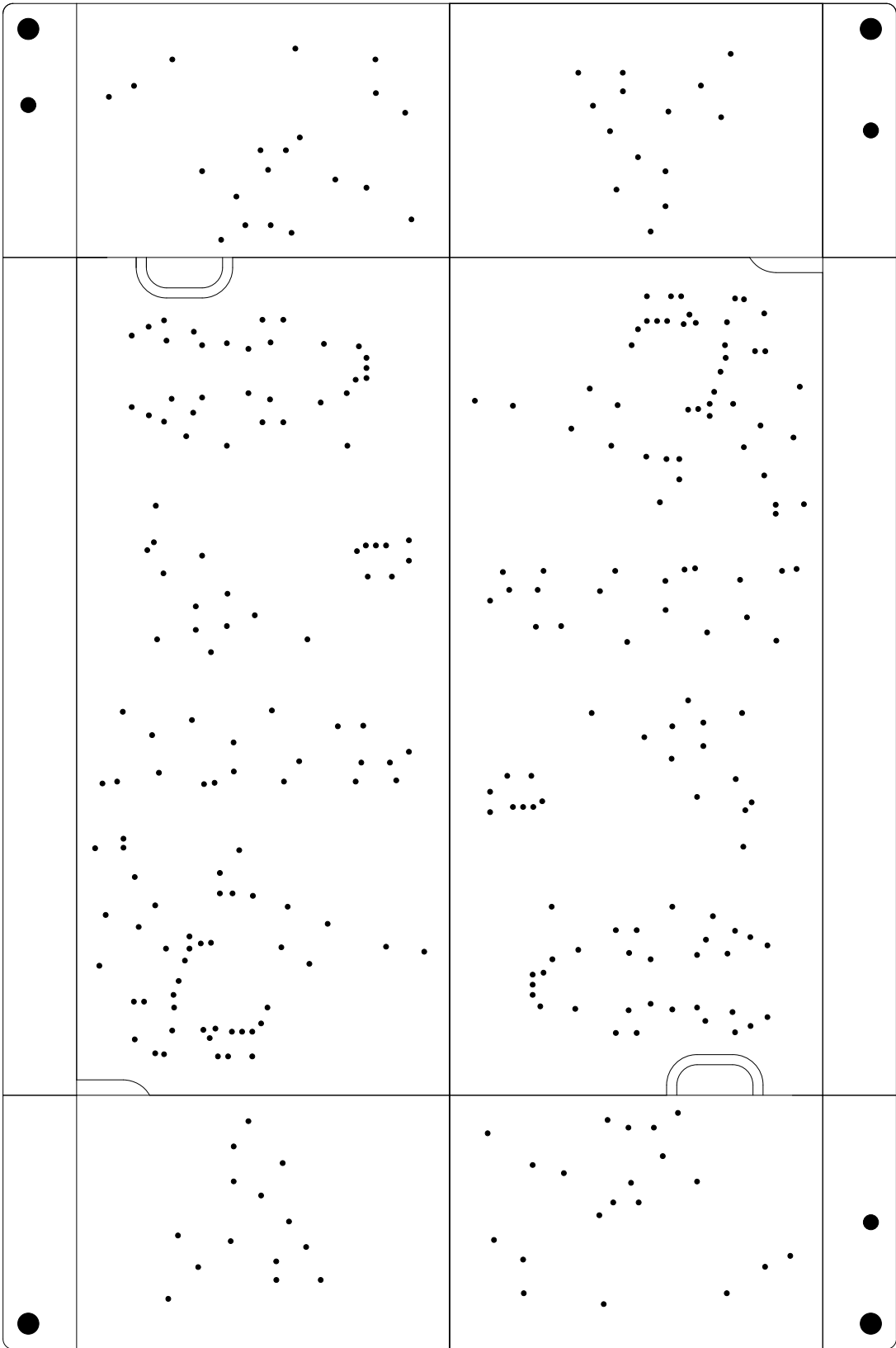
Title: TYPHOON Sound Card		Revision: 0
Size: A4	Number: Microphone	
Date: 2009.07.17	Sheet: 2	of 2
File Name: Sound Card	Design: B	

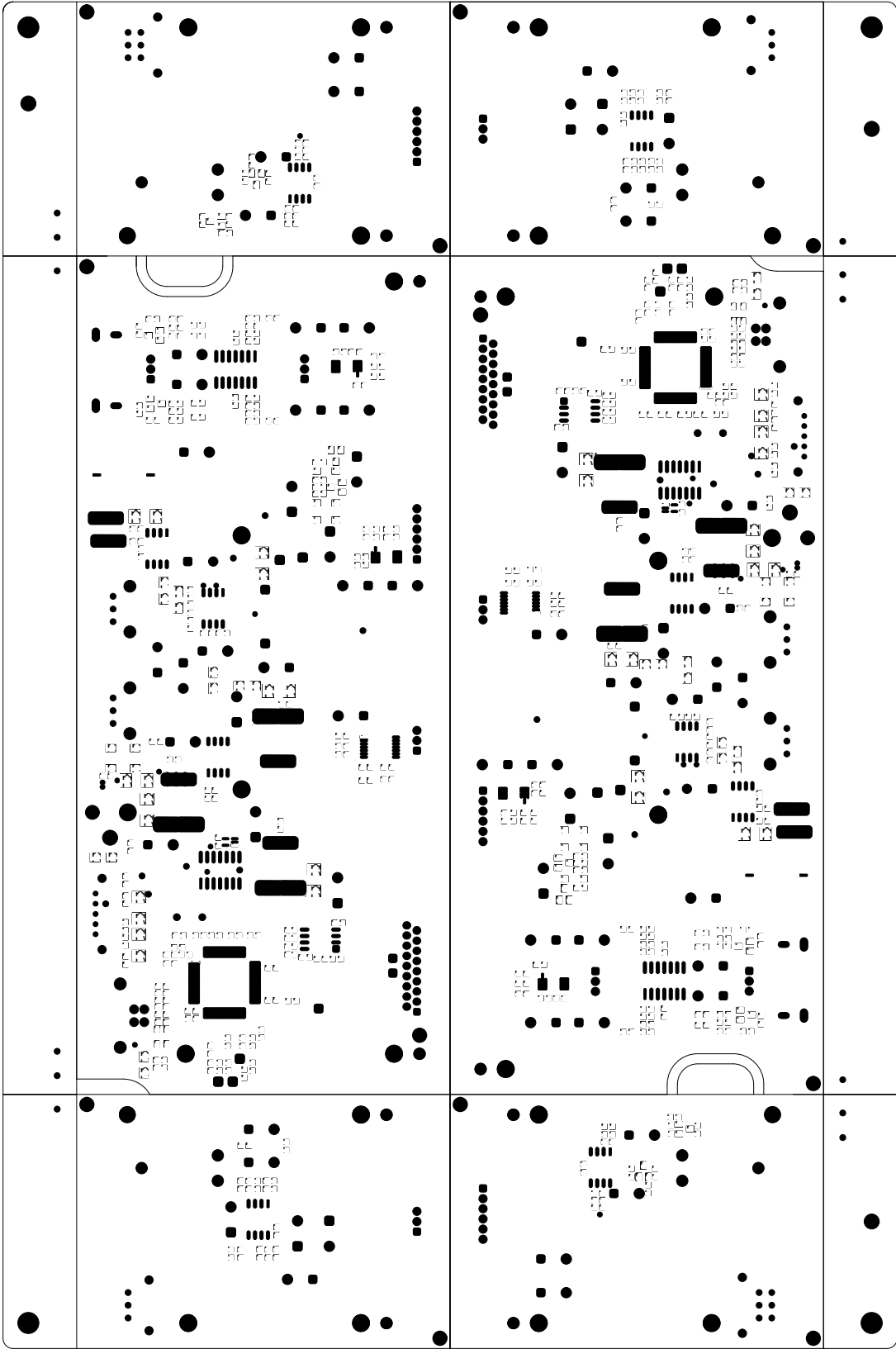
Approval	Check	Design	DATE	REV	DESCRIPTION
				A	09/07/27 客戶變更

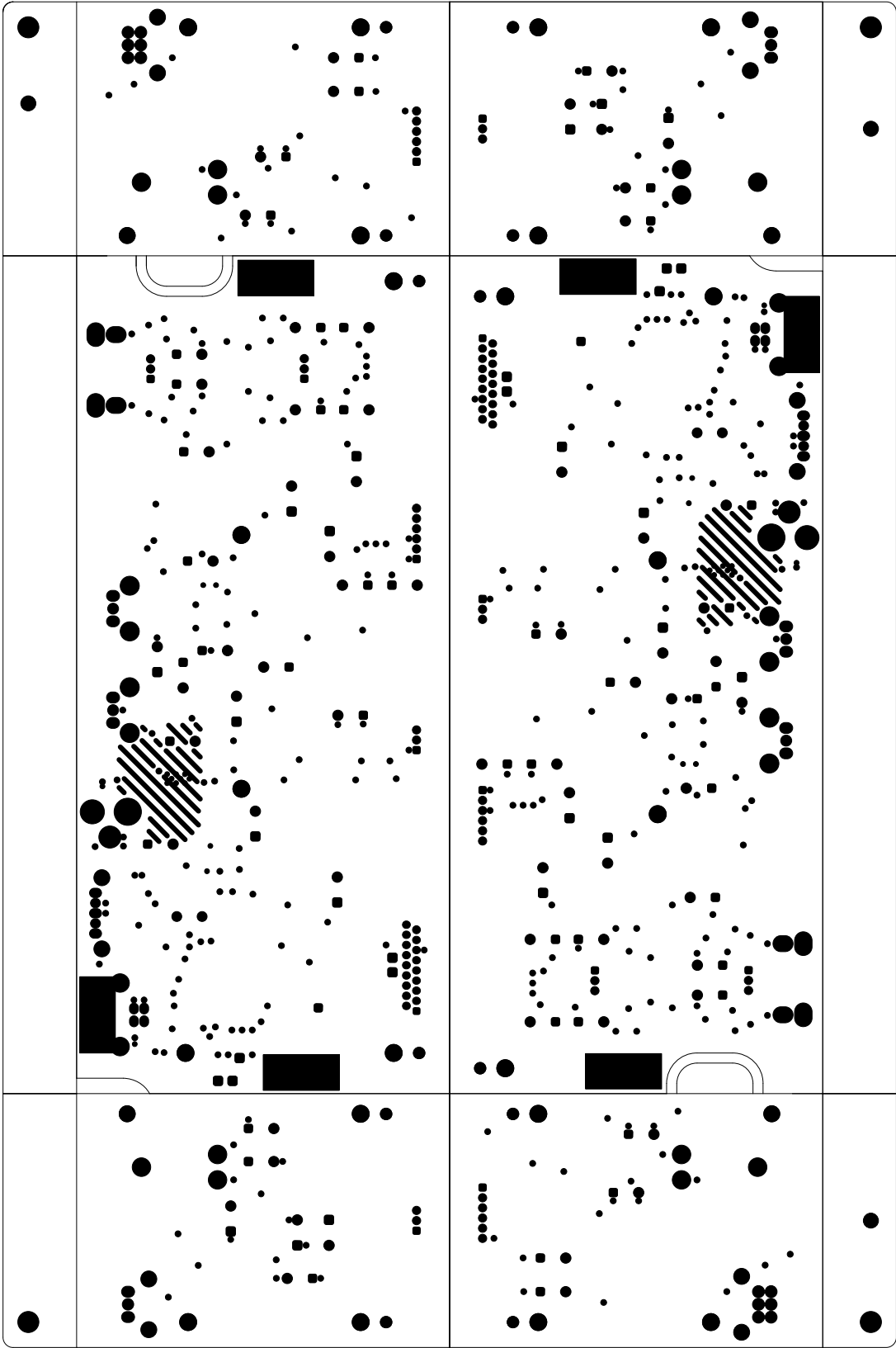


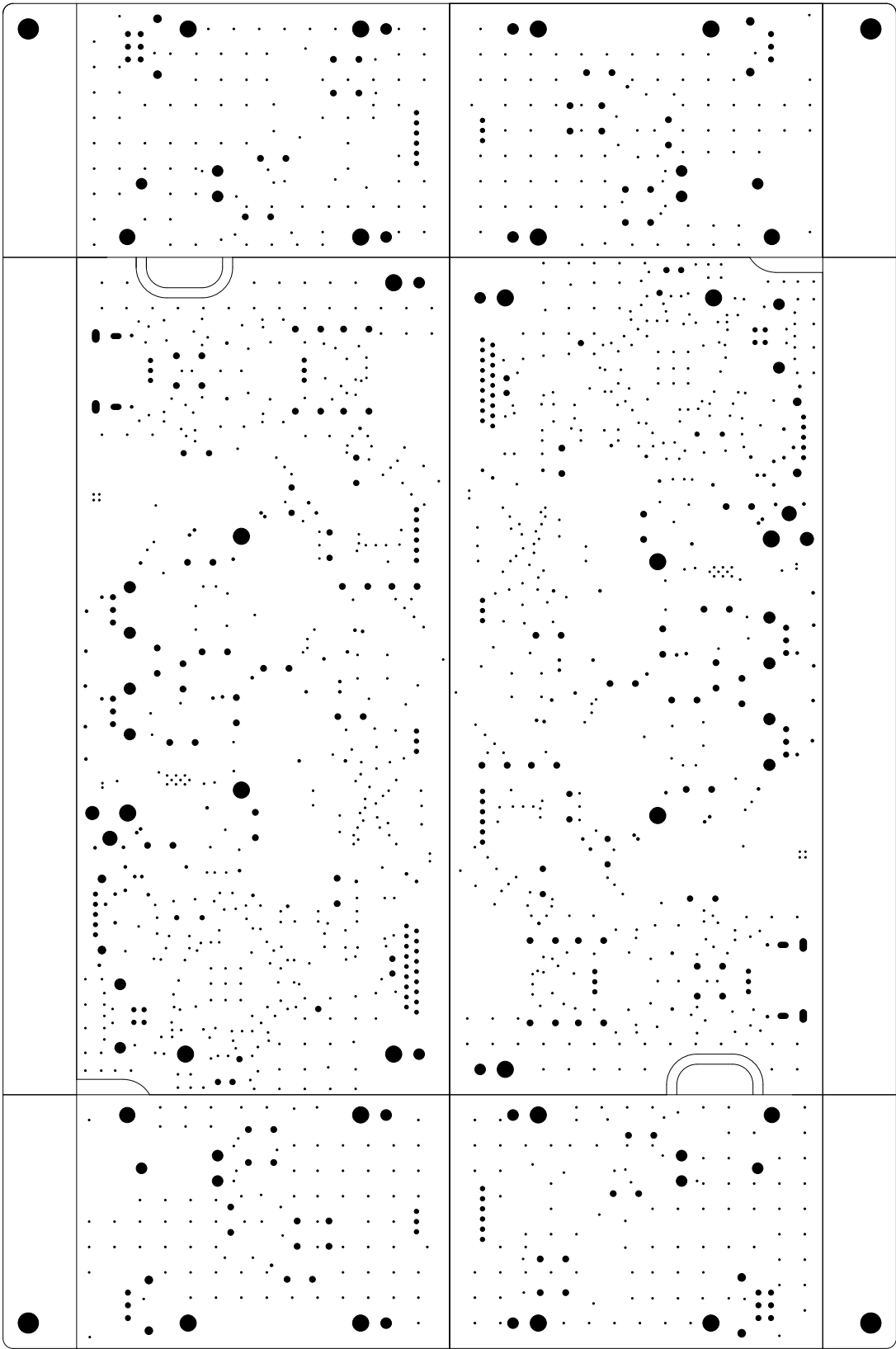












Symbol	Hit Count	Tool Size	Physical Length	Router Path Length	Plated	Hole Type
B	559	0.4mm (15.748mil)			PTH	Round
S	54	0.6mm (23.622mil)			PTH	Round
G	18	0.7mm (27.559mil)			PTH	Round
O	5	0.8mm (31.496mil)			NPTH	Round
E	30	0.8mm (31.496mil)			PTH	Round
K	15	1mm (39.37mil)			NPTH	Round
A	14	1mm (39.37mil)			PTH	Round
D	98	1.1mm (43.307mil)			NPTH	Round
L	6	1.5mm (59.055mil)			PTH	Round
C	13	2.1mm (82.677mil)			NPTH	Round
B	1	2.1mm (82.677mil)			PTH	Round
M	4	2.2mm (86.614mil)			NPTH	Round
F	1	2.6mm (102.362mil)			PTH	Round
H	1	2.8mm (110.236mil)			NPTH	Round
J	2	3mm (118.11mil)			PTH	Round
I	12	3.2mm (125.984mil)			NPTH	Round
N	4	4mm (157.48mil)			PTH	Round
P	2	1mm (39.37mil)	2mm (78.74mil)	1mm (39.37mil)	NPTH	Slot
Q	2	1.3mm (51.18mil)	2.9mm (96.429mil)	1.2mm (47.244mil)	NPTH	Slot
1801 Total						

Slot definitions : Router Path Length = Calculated from tool start centre position to tool end centre position.
Physical Length = Router Path Length + Tool Size = Slot length as defined in the PCB layout

